ADEMCO microtech

galaxy

8/18/60/128/500/504/512

Programming Manual

Contents

Section 1: Quick Setup

To quickly set up the Galaxy control panel for programming follow these simple steps:

1. Connect a 1k Ω (1%) resistor across each of the zones on the panel and RIO (if connected).
2. Ensure that the tamper return loop — the terminal marked as **T** on the PCB — is a complete loop. **NOTE:** This is factory set as a completed loop with a 0 V return.
3. Connect a keypad to the **AB LINE** terminals on the control panel. The Galaxy 500, 504 and 512 have four **AB LINE** terminals. Connect the terminals as follows:

Control Panel	Keypad
B	B
A	A
+	+
-	-

Table 1. Terminal Connections

4. Connect a 680 Ω End Of Line (EOL) resistor across the **A** and **B** terminals of the keypad.
5. Ensure that the keypad is fitted to the wall (see **Installation Manual, Keypad Installation Procedure, Section 4**).
6. Connect the battery before replacing the control panel lid.
7. Connect the mains wiring to the control panel. **Do not** switch the mains ON.
8. Replace the control panel lid and secure the fastening screw.
9. Switch on the mains voltage (230 Va.c. / 50 Hz).
10. The following sequence of events occur:
    - the keypad buzzer and control panel horn (if fitted) activate momentarily,
    - flashing ✶✶✶✶✶✶✶✶✶✶✶✶✶✶✶✶ is displayed on the keypad,
    - the sounders stop and the keypad displays become blank,
    - the green power LED lights,
    - the default banner is displayed on the keypad.

```
GALAXY <Panel Type> <Panel Version>
00:00 SUN 01 JAN
```

11. The system is now ready to be programmed. Refer to **Section 2: System Operation** for programming details.

Section 2: System Operation

Menu Options

General

The Galaxy provides various menu options for modifying the functional performance of the system.

There are two menu structures:

1. **Full Menu** — only accessed by default by the Manager code on the Galaxy 60, 128, 500, 504 and 512 control panels and by the engineer.

2. **Quick Menu** — a selection of options from the full menu. The quick menu is the default menu access for all user codes (level three and above) as well as the Manager code on the Galaxy 8 and 18 control panels.

The Full Menu

The full menu has a hierarchy of four structures contained within it. Each structure is accessible by an increased level of user code.

The Quick Menu

The quick menu offers level three and above users a selection of up to 10 options, numbered 0 – 9. The options available from the quick menu can be modified to the user's requirement via option **59 = QUICK MENU**.

Quick Menu	Full Menu					
	Level 3	Level 4	Level 5	Level 6	Engineer	Engineer
0 = Omit Zones	10 = Setting	20 = Display	30 = Test	40 = Modify	50 = Engineer 1	60 = Engineer 2
1 = Forced Set	11 = Omit Zones	21 = Display Zones	31 = Walk Test	41 = Time/Date	51 = Parameters	61 = Diagnostics
2 = Chime	12 = Timed Set	22 = Display Log	32 = Outputs	42 = Codes	52 = Program Zones	62 = Full Test
3 = Display Zones	13 = Part Set	23 = System		43 = Summer	53 = Program Outputs	63 = Options
4 = Display Log	14 = Forced Set	24 = Print		44 = Trace	54 = Links	64 = Assemble Zone
5 = Print	15 = Chime	25 = Access Doors		45 = Timer Control	55 = Soak	65 = Timers
6 = Walk Test	16 = Instant Set			46 = Group Omit	56 = Communication	66 = Pre-Check
7 = Time/Date	17 = Instant Part			47 = Remote Access	57 = System Print	67 = Remote Reset
8 = Codes	18 = Home Set			48 = Eng. Access	58 = Keypad	68 = Menu Access
9 = Summer	19 = All Set			49 = Timelock	59 = Quick Menu	

Table 2. Quick and Full Menu Options Reference

Menu Access

Only valid codes (level 3 and above) can access the Galaxy menu options. Access to the user options is assigned by the engineer (refer to options **42 = CODES** and **68 = MENU ACCESS**). Users cannot view or access options for which they are not authorised; this includes options in the Quick Menu.

NOTE: Menu options **51 – 67 (ENGINEER 1** and **ENGINEER 2)** can be assigned additional access to user level 3 – 6, by the engineer.

There are two methods of selecting menu options:

1. Direct Access:

Code + ent + option number + ent.

2. Menu Driven Access:

Code + ent + A (to select menu level) + ent;
A key (to select menu option) + ent.

Direct Access

Entering a valid menu option number while in the menu immediately moves to that option. For example, pressing **52** when the keypad is displaying **22 = DISPLAY LOG** moves directly to option **52 = PROGRAM ZONES**; Pressing **8** while accessing the **PROGRAM ZONES** option moves directly to **8 = Group**. The option number entered must be valid for the level of the menu structure that is currently being accessed.

Menu Driven Access

Menu driven access allows the engineer (and users) to enter the menu and, by using the **A** and **B** keys, navigate through the available options. The options are accessed by pressing the **ent** key.

Keypad Menu Timeout

Once the user menu has been accessed (irrespective of user level), if there are no keypresses for two minutes, then the keypad timeout occurs; the system returns to the banner text.

NOTE: This feature does not apply when the system is in the **Walk Test** option. If no zones are tested or no keypresses occur for 20 minutes when **Walk Test** is selected, then the keypad timeout occurs. In Menu **Option 66 (Pre-check**) there is also a 20 minute timeout after the last zone has been activated.

Engineer Mode

To program the Galaxy, the system must be in engineering mode. This allows access to the engineer menu options **50 = ENGINEER 1** and **60 = ENGINEER 2**.

Accessing Engineer Mode (Galaxy 8, 18, 60, 128, 500 & 504)

To access engineer mode, enter the engineer code twice.

Engineer Code + ent + Engineer Code + ent

The default engineer code is **112233**.

The first entry of the code activates a tamper alarm. The second entry of the code cancels this alarm and puts the system into engineer mode; **10 = SETTING, [ENT] TO SELECT** is displayed on the keypad. While engineer mode is accessed, all tampers are disabled, however, all constantly alert zone types — **PA** zone types, **24 Hour**, **Security**, **Fire** & **Mask** — remain active.

On accessing engineering mode, any group that is set becomes inaccessible to the engineer. The set groups cannot be assigned to zones, outputs and any other functions permitting group allocation.

NOTE: The Galaxy 60, 128, 500 and 504 can be assigned manager authorised engineer access by adding a **#** to the engineer code. Engineer access is then gained as described in the following paragraphs.

Accessing Engineer Mode (Galaxy 512 default)

User Authorised Access

The default engineer code (**112233)** on the Galaxy 512 is allocated a **#**. With the **#** assigned, the engineer code operation is as follows:

1. Enable Engineer Access:

User Code + ent + 48 + ent + 1 + ent + esc + esc

2. Access Engineer Mode

Engineer Code + ent

Entry to the engineer mode is authorised by a user with access to menu option **48 = ENGINEER ACCESS**. The user selects this option and presses key **1** to enable engineer access. The engineer code must then be entered within five minutes of the option being enabled. A single entry of the engineer code directly accesses the mode, without activating an engineer tamper alarm. If the code is not entered within the five minute period, the engineer code is invalid and has no effect. Once the engineer mode has been accessed, there is no time limit on the period that the engineer can remain in the mode.

On accessing engineering mode, any group that is set becomes inaccessible to the engineer. The set groups cannot be assigned to zones, outputs and any other functions permitting group allocation.

Galaxy 512 only

The system cannot be set by any user codes while engineer mode is accessed.

Disabling User Authorisation of Engineer Access

The remote code (**User 200 on G60, User 250 on G128, User 500 on G500 and User 999 on G504 and G512**) can remove the **#** from the engineer code. If the **#** is removed access to engineer mode is gained in the same manner as the Galaxy 8, 18, 60, 128, 500 and 504; the engineer code must be entered twice to gain menu access.

NOTE: The engineer code or remote code can assign the **#** to the engineer PIN. Only the remote code can remove it.

Exiting from Engineer Mode

To exit from engineer mode and return to the normal banner enter, carry out the following operation:

1. Return to the engineer banner,

2. Enter the engineer code,

3. Press the esc key.

The Galaxy carries out the following checks:

1. That there are no module or zone tampers. If there are any module or zone tampers the escape procedure is aborted.

2. That it is communicating with all of the attached modules.
If any modules are reported as missing from the system, the Galaxy prompts the engineer to remove each of the missing modules by pressing the ✳ key. If the engineer does not remove the missing modules, the escape procedure is aborted.

3. That all of the access doors (controlled by the on-line MAX) are closed. If any of the access doors are open, then the exit procedure is halted until all of the doors are closed.

4. That there are no power failures on the galaxy system, such as AC fail, fuse fail or battery fail

Aborting the Exit Engineer Mode Procedure

If the **esc** key is pressed at any point while engineer mode is being exited, before the normal banner is displayed, the exit procedure is aborted and the system returns to the engineer banner.

Multi User Access

The Galaxy 60, 128, 500, 504 and 512 allow multi-user access. A maximum of 4, 8, 8, 16 and 16 users respectively can simultaneously carry out tasks on the system.

The Galaxy 8 and 18 only permit single-user access.

Section 3: Setting Options

Setting the System

Full Setting

Enter: **USER CODE + A**

If groups are enabled and the user code has been assigned group choice then the keypad displays the set status of the available groups:

R = Ready
F = Faulted (group is unset and at least one zone is open
S (flashing) = selected for setting
S (steady) = already set
L = Lockout

```
SET    A12345678
Groups RRSRSSSS
```

Pressing the keys for the groups toggles the **R (**Ready**)** to an **S (**set flashing).

```
SET     A12345678
Groups   SSRUR---
```

Once the required groups have been selected press the **ent** key to begin the setting procedure.

If groups are not enabled or the user does not have group choice, entering the user code followed by the **A** key immediately starts the setting procedure.

```
TIMED          060
■■■■■■■■□□□□□□□□
```

The keypad displays the exit time countdown. At the end of the exit time, or when the setting procedure is terminated by a **FINAL** or **PUSH-SET** zone closing, the **ENTRY/EXIT HORN** outputs and keypad buzzers become silent for four seconds, then emit two long tones to confirm that the system is set. The message **SYSTEM IS SET** appears briefly before the keypad display clears (if all groups are set). Otherwise, it is the customer banner that is displayed.

Part Setting

Enter: **CODE + B**

```
PART SET       060
■■■■■■■■□□□□□□□□
```

This is identical to the **Full Setting** procedure, except the keypad display indicates that the system is being **Part Set**. Only the zones which have the **Part** attribute enabled (refer to option **52.5 = PROGRAM ZONE.Part**), are included.

Cancelling the Setting

The full and part setting routines can be aborted by pressing the **esc** key (on the keypad used to begin setting) before the system sets.

Unsetting the System

During the unsetting procedure, initiated by the opening of **FINAL** or **ENTRY** zone on a set group, the system is unset by entering the user code followed by the **A** key.

- If the user does not have group choice, all of the groups assigned to the code are instantly unset.
- If the user has group choice only the group that the **FINAL** or **ENTRY** zone is assigned to is unset; all of the other groups remain set. The system displays the set status of the remaining groups and prompts for the required groups to be unset. To unset the required groups press the relevant number keys — the **S** or **P** (Set or Part Set) changes to flashing **U** — and then press the **ent** key.

Engineer Unsetting (G8, 18, 60, 128, 500 and 504)

The engineer can only unset a system that was set using the engineer code. The engineer code cannot be used to unset a system that was set by a user code.

NOTE: The Galaxy 512 cannot be set while the system is in engineer mode.

Keyswitch Setting Options

Zones programmed as **KEYSWITCH** can be used to full set, part set and unset the system. Refer to option **52 = PROGRAM ZONE**.

Setting the System with a Keyswitch

The **KEYSWITCH** starts the setting procedure of each of the groups assigned to zone. At the end of the exit time, or when the setting procedure is terminated by a **FINAL** or **PUSH-SET** zone closing, the **ENTRY/ EXIT HORN** outputs and keypad buzzers become silent for four seconds, then emit two long tones to confirm that the system is set.

NOTE: If the **KEYSWITCH** has its **Part** attribute enabled (refer to option **52 = PROGRAM ZONE**) then the **KEYSWITCH** part sets the system.

Unsetting the System with a Keyswitch

Activating the **KEYSWITCH** when the group that it is assigned to is set instantly unsets the group. All other groups which have been "starred" to the **KEYSWITCH** are not affected and remain set.

Card Setting Options

Setting with Proximity Cards/Tags/Fobs

The Proximity user cards can be used to set and unset the system. This is done by assigning a MAX user card (or fob) with one of the setting options (refer to option **42.1.8 = CODES.User Codes.MAX Function**). When the card is held against a MAX module or keyprox for three seconds, the MAX function is activated. For example, if the MAX function assigned is **13 = Part Set**, then activating the card held function results in the system being part set.

Unsetting with the Proximity Cards

If any of the groups assigned to the MicroMAX or keyprox are set, then swiping the MicroMAX or keyprox module with a card unsets the groups.

NOTE: TheMicroMAX or keyprox module must have common groups to the proximity card user to allow the card held function to be activated.

Cancelling and Resetting Alarms

Following each alarm activation, the alarm must be cancelled and the Galaxy reset. The alarm is cancelled by entry of any valid user code (level 2 and above) assigned to the group that has alarmed or by presentation of a valid proximity card to a reader or keyprox. The alarm sounders, Bell and Strobe outputs are silenced and the keypad displays information on the zones that have been activated during the alarm.

If the user code entered is not of a sufficient level to reset the Galaxy, the keypad displays the message **CALL MANAGER RESET REQUIRED** or **CALL ENGINEER RESET REQUIRED** depending on the type of alarm and level of reset required.

The Galaxy is reset by entering a valid user code assigned to the group that has alarmed, with the appropriate reset level for the type of alarm that has activated — **System**, **Tamper** or **PA** (refer to option **51.6 = PARAMETERS.System Reset**, **51.7 = PARAMETERS.Tamper Reset** and **51.22 = PARAMETERS.PA Reset**). The keypad displays information on the zones that have been activated during the alarm.

NOTE: If a tamper alarm has activated (zone or module) then the system cannot be reset until the tamper condition is restored.

Galaxy 8, 18, 60, 128, 500 and 504

On the next setting of the Galaxy, if any of the zones that were opened during the previous alarm have not closed since the alarm activation, then the system is prevented from setting. The addresses of the open zones are displayed on the keypad; there is no sounder activation. Closing the zones permits the setting procedure to start.

NOTE: This is not the same as open zones being indicated on the keypad; these are accompanied by rapid tones on the **Entry/Exit Horn**.

Setting Features

The Galaxy control panels provide a range of features to assist the user in the setting and unsetting of the system, minimising the possibility of error when carrying out these procedures.

Show Set Status

When **Show Status** is enabled (refer to option **58.6 = KEYPAD.Show Status**), pressing the ✳ and # keys simultaneously when the normal banner is displayed indicates the group set status.

F = Fault

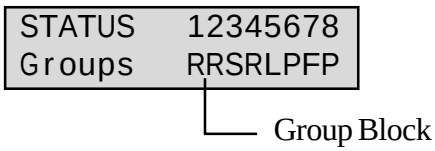
R = Ready

S = Set

P = Part Set

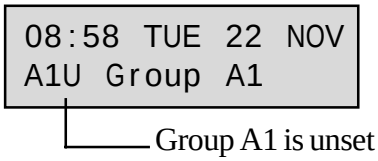
L = Locked Out

– = Group not assigned to keypad



NOTE: The **Show Status** indicates the set conditions of groups when the system is set (keypad blank) or unset (normal banner). **Show Status** does not operate while engineer mode is accessed.

Pressing the ✳ and # keys again toggles the display to show the status of the groups individually. To move between each groups, press the ✳ and **A** or the ✳ and **B** keys simultaneously.



Pressing the ✳ and # keys again returns the keypad to the banner display.

Galaxy 500, 504 and 512

The Galaxy 500, 504 and 512 have more than 8 groups; these are displayed on the keypad in blocks of eight groups. Press ✳ and **A** or ✳ and **B** keys to display each of the group blocks.

Exit Time

Once the setting routine starts, outputs programmed as **Entry/Exit Horn** emit a continuous tone. The keypad used to set the system indicates the time, in seconds, remaining before the system sets.

Exit Time Reset

If any zones are open when setting starts or are opened during the setting routine, the sounder begins to pulse rapidly; zones types other than **Final**, **Exit**, **Entry** or **Push-Set** (and **Secure Final** or **Part Final** when acting as a **Final**), indicate on the setting keypad the number of zones open. The **A** or **B** keys can be used to view the open zone types and addresses. Closing the zones resets and restarts the exit time.

Omitted Zones

If zones are omitted when the system starts setting, this is indicated on the keypad. The keypad indicates how many zones are omitted.

Expiry Warning

During the last 25% of the programmed exit time outputs programmed as **Entry/Exit Horn** begin to pulse, indicating that time is running short.

System Set Indication

At the end of the exit time the **Entry/Exit Horns** become silent for four seconds. This allows the door to be locked and secured and gives the detectors time to settle before the system finally sets. Two long tones are emitted to confirm that the system has set. If all groups are set the keypad briefly displays the message **SYSTEM IS SET** before going blank. If any group remain unset the display returns to the banner.

Group Logic Setting Restriction

If **Setting Logic** has been assigned to a group (refer to **63.1.2 = OPTIONS.Groups.Setting Logic**), the set status of the groups must satisfy the conditions defined in the option to permit the group to set. If the **Setting Logic** conditions are not satisfied, then the group cannot set. If multiple groups are being set simultaneously, but one group is restricted due to the programmed **Setting Logic**, the remainder of the groups set. The restricted group does not set; there is no warning or indication given.

If the programmed **Setting Logic** results in none of the selected groups being allowed to set, a warning message is displayed on the keypad. This message does not appear if at least one group sets.

```
2 Groups not set
[<],[>] to view
```

Entry Time

The system begins the unsetting routine whenever a **Final** or **Entry** zone activates. The **Entry/Exit Horns** pulse slowly indicating that the entry time countdown has started. The user must go directly to the keypad, using the agreed entry route, and unset the system before the entry time expires. When 75% of the entry time has elapsed the **Entry/Exit horns** pulse rapidly, indicating that time is running short.

Timeout (Slow Entry)

If the entry time expires before a valid code is entered to unset the group, a full alarm occurs. This is recorded in the event log as a **Timeout** against the group which was in the process of being unset.

Straying from the Entry Route

If, during the entry routine, the user strays from the agreed entry route and activates a zone in a protected area, a full alarm occurs.

Abort Time

Should the user exceed the entry time or stray from the entry route a full alarm occurs. However the activation of the intruder output or telecom module can be delayed to allow time for the user to abort the remote signalling.

The **Abort Time** parameter can also be programmed so that an **Intruder** alarm is activated immediately the entry time expires or a zone is activated, but entry of any valid code cancels the alarm and deactivates the **Intruder** outputs without the need for a system reset.

Abort Setting Message

Zones that are open or opened during the exit period are indicated to the user by a rapid audible tone from the entry/exit horns. The keypad displays the open zones and then prompts the user to abort the setting by pressing the ESC key. This message is designed to prevent users from re-entering the building, closing the open zones, allowing the system to set and trapping the user in the building.

Fail to Set – Galaxy 60, 128, 500, 504 & 512

An output type **(Option 53-Program output 40, Fail Set)** is available that activates if a full set has not occurred after a programmed period of time (determined by **Option 51-Parameter 35, Fail to Set**) from the start of the setting procedure.

Power Failure While System is Set

When power is restored to the system, following a complete mains (a.c.) and standby battery (d.c.) power failure, the system attempts to return to the set status — full or part — prior to the power failure. The system begins the setting procedure. If there are no zones open that prevent the system from setting, at the end of the programmed exit time, the appropriate groups and parts are set.

Section 4: Menu Options 11-19

Option 11 – Omit Zones (Quick Menu Option 0)

Code + ent + 11 + ent + A or B to select zone + # +
A or B to select zone + # + ...
ent (to set) or esc (to select another option)

This option allows zones to be temporarily removed (omitted) from the system. Once a zone has been omitted it does not generate an alarm condition (including tamper). The omitted zones are reinstated automatically when the system is unset or manually when the zone omit option is disabled.

On selecting the **Omit Zones** option, the first zone that has the omit attribute enabled is displayed (refer to option **52 = PROGRAM ZONE**). If there are no omittable zones, then the message **NO ENTRIES** is displayed.

Press the **A** or **B** keys to view other omittable zones. Press the **#** key to toggle the omit status of the required zone. The display indicates the new omit status.

NOTE: A zone is omitted from the system as soon as it is selected.

This process is continued until all the required zones have been omitted:

- pressing the **ent** key starts the timed setting routine. The number of zones omitted from the system are displayed during the exit time countdown;
- pressing the **esc** key returns to the **11 = OMIT ZONES** without starting the setting routine.

On returning to the banner (normal or engineer) the keypad displays the message **ZONES OMITTED**. Omitted zones remain omitted for one set period only or until they are manually reinstated to the system.

Galaxy 60, 128, 500, 504 & 512

Outputs programmed as **Zone Omit** (mode programmed as reflex) are activated as soon as the zone is omitted and remains active until the zone is reinstated. If the output mode is programmed as latch, then the **Zone Omit** outputs activate when the system is set and remain active until the system is unset — reinstating the omitted zones.

Galaxy 512

Code + ent + 11 + ent + A or B to select zone + # + ent (to set) or esc (to select another option)

The **Omit Zones** option allows a single eligible zone to be omitted from the system. Once a zone has been omitted from the system, it is not possible to view other zones that have the omit attribute enabled until the omitted zone is reinstated (either automatically or manually).

There are five zone types which vary from the standard **Omit Zones** operation:

- **Vibration Zones** — if the omitted zone is a **Vibration** zone, then all zones (in all groups) programmed as this type are block omitted. The **Vibration** zones remain omitted until they are manually reinstated. Unsetting the system does not reinstate **Vibration** zones (vibration zones are also available on the G504).
- **ATM1/2/3/4 Zones —** a single **ATM** zone type can be omitted for the duration of the period entered in the **ATM Timeout** parameter (option **51.39**). The **ATM Delay** parameter (option **51.38**) determines the delay before **ATM** zones are omitted following the entry of one of the ten **ATM Codes** (User 188 – 197). Entry of a code allows the user to omit one of the **ATM** zone types. Once omitted, the initiating keypad indicates the number of minutes remaining until the selected **ATM** zones are reintroduced to the system. A warning is given ten and five minutes before the zones are reinstated. The omit time may be extended indefinitely by reentering an **ATM Code**. Outputs programmed as **ATM1/2/3/4** active when the respective **ATM** zone type is omitted, and remain active until the zone type is reinstated.

Refer to option **52 = PROGRAM ZONES** for details on the operation of **Vibration** and **ATM** zone types.

Manually Reintroducing Omitted Zones to the System

Selecting the **OMIT ZONES** option; using the **A** or **B** keys, select the omitted zone to be reinstated. Press the **#** key toggle the omit status of the required zone. The display indicates the new omit status.

Normal Setting with Omitted Zones

Initiate the full or part setting routine. The system starts to set; the display indicates that zones have been omitted. The zone remains omitted until the system is unset (with the exception of **Vibration** and **ATM** zones.

Option 12 – Timed Set

This option, when entered, starts the setting routine. The **Entry/Exit Horns** emit the expiry warning during using the programmed exit time (0-300 seconds). The system sets at the end of the exit time or earlier if a **Final Zone** is opened and closed, key **0** is pressed — if programmed as a terminator — or if a push-set terminator is operated. The option displays the time remaining until the system sets or the number of open zones preventing the system from setting. Opening a zone during the exit routine resets the exit timer. Pressing the **esc** key prior to the system setting aborts the setting routine.

NOTE: The factory default setting allows the timed setting routine to be initiated by entering a valid level three (or above) user code and pressing the **A** key. The **A** key can be reprogrammed by the engineer to perform another function, or to start the setting routine without a code being entered.

Option 13 – Part Set

This option operates exactly as the **Timed Set** option with the exception that only those zones that have the part attribute enabled (refer to option **52 = PROGRAM ZONES**) are set. All zones have the part attribute enabled by default. Therefore selecting **PART SET** from the factory will set all zones. The part attribute of the zones must be disabled if they are not to be included in the part set.

NOTE: The factory default setting allows the part setting routine to be initiated by entering a valid level three (or above) user code and pressing the **B** key. The **B** key can be reprogrammed by the engineer to perform another function, or to start the part setting routine without a code being entered.

Option 14 – Forced Set (Quick Menu Option 1)

Forced Set **allows a timed set of the system when there are zones** that are open at the point of selecting the option. The open zones must have the omit attribute enabled (refer to option **52 = PROGRAM ZONES**). This option is only available if the **Forced** parameter (option **51.26**) is enabled; otherwise, the selection is invalid and the keypad displays the message **Option not available**.

When the **Forced Set** option is entered, the keypad displays the number of zones that have been omitted (manually by option **11 = OMIT ZONES** and automatically by the **Forced Set**) and the setting routine begins. If there are any open zones that do not have the omit attribute enabled, the keypad displays the number of open zones that are not omittable and prompts the user to view them. The non-omittable zones must be closed before the setting routine can continue.

Option 15 – Chime (Quick Menu Option 2)

The Chime option allows the user to switch the chime facility on and off. Any zones that have the chime attribute enabled (refer to option **52 = PROGRAM ZONES**) momentarily operate **Entry/Exit Horns** when opened; two long tones are emitted.

Option 16 – Instant Set

Selecting this option immediately sets all zones. No sounder or exit time is involved.

NOTE: The zones must be closed to allow the system to set. If any zones are open, then the exit time reset feature (detailed previously) is activated.

Option 17 – Instant Part

Selecting this option immediately sets all zones that have the part attribute enabled. No sounder or exit time is involved.

NOTE: The zones must be closed to allow the system to part set. If any zones are open, then the exit time reset feature (detailed previously) is activated.

Option 18 – Home Set

The **Home Set** option either fully sets or part sets the system. The system is:

- fully set if the exit time is manually terminated via a **Final** or **Push-Set** zone operation;
- part set if the exit time is allowed to expire.

Option 19 – All Set (Galaxy 18, 60, 128, 500, 504 & 512)

All Set allows a timed set of groups assigned to the user code without offering the choice of which groups are to be set. No group choice is offered. The groups that are set when this option is selected is determined by the keypad group restriction (refer to option **58.7 = KEYPADS.Groups**):

- If there is no keypad group restriction then all of the groups assigned to the user are set — as long as there is at least one common group assigned to the keypad.
- If there is a group restriction on the setting keypad, then only the groups that are common to both the user and the keypad on which the menu option is selected are set. For example, a user assigned groups 1, 2, 3, and 4 selecting the **All Set** option on a keypad assigned groups 2 and 3 will only set groups 2 and 3.

Section 5: Display Options

Option 21 – Display Zones (Quick Menu Option 3)

Selecting and entering the **Display Zones** option shows the first zone on the system. Other zones may be viewed by pressing the **A** and **B** keys or by entering the zone number directly.

The top line displays:

- the address;
- the zone function alternating with the status — open, closed, high resistance, low resistance, tamper short or tamper open circuit;
- the group assigned — if the group mode is enabled. Only the zones assigned to the user's group are displayed.

The bottom line shows:

- the zone descriptor;
- by pressing the **#** key the bottom line changes to show the circuit resistance in Ohms, if using a hardwired RIO and the RIO (not zone) voltage, pressing the **#** key returns the bottom line to the zone descriptor.

A printout of all the zones is available from this option by pressing the ✳ key; pressing the **esc** key aborts the printout.

NOTE: A serial printer must be connected to the Galaxy panel via a printer interface module or an RS232 interface module.

Option 22 – Display Log (Quick Menu Option 4)

The Galaxy event log is viewed using this menu option. The number of events that each of the Galaxy panels can store are as follows:

- Galaxy 8 - 250 events
- Galaxy 18 - 500 events
- Galaxy 60 - 500 events
- Galaxy 128 - 500 events
- Galaxy 500 - 1000 events
- Galaxy 504 - 1000 events
- Galaxy 512 - 1000 events

If group mode is enabled (refer to option 63 = **OPTIONS**) and the user code has group choice (refer to option **42 = CODES**), then the available groups are displayed for selection. Press the number of the groups to be displayed, the **N** below the selected group changes to a flashing **Y**. When all the required groups are selected press the **ent** key to access the log; only the events in the selected groups are displayed.

Once the event log is accessed, the most recent event is displayed. The **B** key steps backwards in time through the log, while the **A** key moves forward in time. Holding down either key quickly steps through the dates until the required date is found. When a selected date is on display the events of that day and previous days can be viewed by repeatedly pressing the **B** key; events on subsequent days are viewed by repeatedly pressing the **A** key.

The event log is wrapped round from beginning to end. The message **START** or **END** (depending on whether the **A** key or the **B** key is being pressed) is briefly displayed when the wraparound is passed through.

The following information is detailed in the event log:

- time - time that event occurred;
- date - day and date that event occurred;
- event - information about the type of event that occurred. Certain events are displayed with a + (positive — indicating that the event started or was activated) or – (negative — indicating that the event ended or was terminated) symbol;
- user - alternates between the name and number of the user who initiated the event. If the event is one that is not associated with a user code, for example, an alarm activation or a Final zone closing, then no user information is displayed.

Pressing the # key while viewing the log can reveal additional information about certain event types:

- User events reveal the keypad, user level and user group involved in the event;
- Alarm events reveal the zone descriptor, if programmed.
- Walk tested RF zones reveal the measured signal strength of each RF device.

NOTES:

1. Where two identical events occur within 1 second, only one is logged.

2. Only the first occurrences of high resistance and low resistance events on each day are logged. Subsequent activations are ignored until midnight of the same day. This is to prevent the log from being filled with high and low resistance activations from a faulty zone.

The event log can be printed while accessing the **Display Log** option. Pressing the ✳ key while displaying an event starts the printout from the displayed event and goes back to the first event. The **esc** key aborts the print out.

NOTE: A serial printer must be connected to the Galaxy panel via a printer interface module or an RS232 interface module.

Option 23 – System (Galaxy 18, 60, 128, 500, 504 & 512)

This option provides a quick overview of the system configuration; two lines of information are displayed at a time - the **A** and **B** keys are used to scroll through the entire list:

- Groups — use the **A** and **B** keys to scroll through groups **A1–8**, **B1–8**, **C1–8** and **D1–8**
- Group status — **U** = Unset, **S** = Set, **P** = Part set and **L** = Locked-out for each of the groups displayed;

NOTE: Enabling the **Show Status** option (refer to option **58 = KEYPADS**) allows the group set status to be displayed from the normal banner (when the system is set or unset) by pressing the ✳ and # keys simultaneously.

- Type — Galaxy 8, 18, 60, 128, 500, 504 or 512;
- Version — version of software in Galaxy panel;
- RIOs fitted — includes the on-board RIOs;
- Codes used — includes the manager, engineer and remote codes;
- Keypads fitted — 1–16 (Galaxy 8, 18, 60 & 128), 1–32 (Galaxy 500, 504 & 512);
- Comms modules — 1-4 (Telecom, RS232, ISDN, Ethernet)
- Printer — 0–1 (Printer Interface Module);
- Max Modules — gives the number of Max modules on the system
- Panel location — up to 16 characters of text entered in **System Text** parameter (option **51.15.1**).

Option 24 – Print (Quick Menu Option 5)

NOTE: A serial printer must be connected to the Galaxy panel via a printer interface module or an RS232 interface module.

This option allows one of the four listed options to be printed. Only information corresponding to the groups assigned to the user is printed.

1. Codes – user number and name, level and groups assigned;

NOTE: only the manager can print out the user PINS; the **Print Codes** parameter (option **51.23**) must be enabled (default is disabled).

2. Zones – address, function, group (if group mode is enabled), status, descriptor (if assigned), status of the chime, omit and part attributes, the RIO voltage and the zone resistance in Ohms;

3. Log – all events in the log, starting with the most recent and working backwards;

4. All – codes, zones and log details respectively.

The required option is selected by pressing the appropriate key **1**-**4**. The printing begins immediately and can be absorbed by pressing **esc**.

Option 25 – Access Doors

NOTE: If the MAX mode has not been enabled (refer to option **63.2 = OPTIONS.MAX)** the message **No Entries** is displayed on entering this option.

Accessing this option when the MAX mode is enabled and there are MAX modules connected to the system displays the address and descriptor details of the first MAX module on the system. Press the **A** and **B** keys to view details of the other MAX modules on the system.

If there are no MAX modules attached to the system the message **None Detected** is displayed.

The MAX/MicroMAX log size mirrors the panel event log size. For example, the Galaxy 60 has a MAX/MicroMAX log size of 300 events, and the Galaxy 500 has a MAX/MicroMAX log size of 500 events. Full details of the MAX log sizes for each panel type are given in **Galaxy Installation Manual, Appendix C, Panel Comparisons (part number II1-0027).**

MAX/MicroMAX events are transmitted using Contact ID, SIA and Alarm Monitoring formats. MAX/MicroMAX events transmitted are listed in the table that follows:

Event	Description	SIA Code	CID Code	Trigger	Mod No	User ID
Access Granted	Valid card presented and validated	DG	421	MAX TAGS	Yes	Yes
Invalid Card	Card presented has not been programmed onto system	DD	422	MAX TAGS	Yes	No
Card Rejected	Valid card presented, but rejected for some reason	DK	422	MAX TAGS	Yes	Yes

Table 3. Max/MicroMAX Events

Access Log Print and Store Option

The Access Doors (MAX/MicroMAX Log) is printed on-line and stored in the event memory.

The Access Door Log print displays in the format of the Event Log and allows information to be accessed. The format is as follows:

HH:MM_XXXXXXXXXX_USR_NNN_UUUUUU_MYY_—_ (39 character display)

HH:MM = time in hour:minutes (5 characters). The date will be printed only at the beginning of every day, that is midnight.
XXXXXXXXXX = access message (10 character) Valid, Invalid Vard, Reject Card
USR = User (3 characters)
NNN = User number to which MAX card is assigned (3 characters)
UUUUUU = User descriptor (6 characters)
M = MAX reader address (1 character)
YY = MAX physical address-M10, M24 etc (3 characters)
- (dash) = unused character slot
_ (underscore) = this represents a space and is not printed or displayed in the access log.

For example: A valid card read at MicroMAX 30 from the card held by user 020, name Albert, at 13:48 would be:-
13:48 Valid USR 020 Albert M30 –

Access Door MicroMAX LED Status

When the access doors option is entered in engineering mode the MAX address can be displayed by pressing the # key. This feature includes displaying the MicroMAX address using the MicroMAX LED format. This is shown in the following Figure graphically for both a MAX and a MicroMAX address as 26.

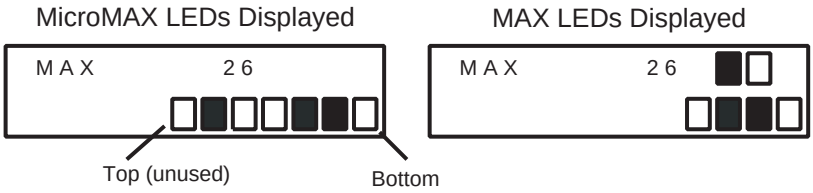


Figure 1. LED Status

The line numbers are represented by the top row in MAX and blocks 2nd and 3rd from the top in the MicroMAX and the address numbers are represented by the bottom row of blocks in the MAX and the four bottom blocks in the MicroMAX. The top LED on the MicroMAX is always off in this mode.

The combinations are shown in the following **Figure**:-

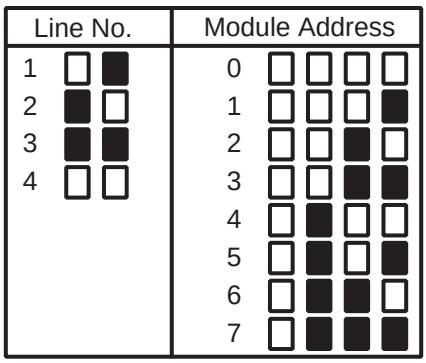


Figure2. Line Number/Module Address

Address

The first digit of the two digit number refers to the line that the module is connected to (line 1 on Galaxy 18 & 60, lines 1-2 on Galaxy 128, and lines 1–4 on the Galaxy 500, 504 & 512); the second digit is the physical address number of the MAX module. For example, a MAX module displaying as **25** indicates that the module is on line 2 and is addressed as **5**.

Pressing the # key gives a graphic representation of the MAX address in a binary format. The top two boxes on the top row indicate the line address; the bottom four boxes indicate the physical address.

Descriptor

The descriptor is a maximum of 16 characters entered in the **MAX Parameters** option (**63.2.3**)

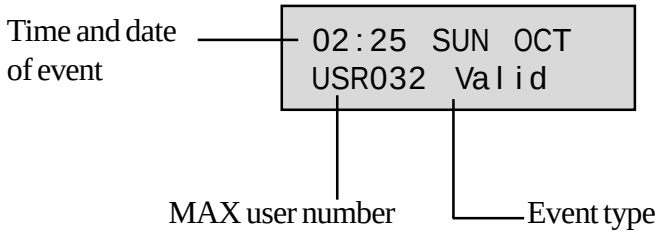
Engineer Mode

On accessing the **Access Doors** option in engineering mode, each on-line MAX module displays its address by lighting the appropriate LEDs. To help the engineer identify each of the MAX modules, the keypad displays a graphic representation of the MAX module address. By matching the □ (LED off) and ■ (LED on) image to the LEDs on the MAX, the engineer can identify each MAX module on the system.

MAX Log

To display the events in the MAX log, use the **A** or **B** keys to select the required MAX address then press the **ent** key. The first event that occurred on the selected MAX is displayed along with details of the time, date and MAX number.

To view the log press the **A** key to move forward in time through the events or the **B** key to move backwards. Press the **esc** key to return to the MAX address display. To view the log of another MAX, use the **A** or **B** key to select the required address. To escape form the **Access Doors** option press the **esc** key.



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Section 6: Test Options

Option 31 – Walk Test (Quick Menu Option 6)

The **Walk Test** option offers two methods of testing zones.

1. Test All Zones: This option initiates a walk test that includes all zones that have the omit attribute enabled (refer to option **52 = PROGRAM ZONES**). When selected, the walk test starts immediately. The message **NO ENTRIES** is displayed if all zones are non-omittable when selecting All Zones. Non-omittable zones are not included in this test and remain active throughout the test.

2. Selected Zones: This test option allows the user to select any zones, irrespective of function type, for walk testing. As many zones as necessary may be added to the list before starting the test. On entering this option the details of the first zone are displayed. Each zone required for test can be selected using the A or B keys or by entering the zone number. Press the # to toggle the test status of each zone in the Walk Test: the test status of the zone changes to TEST if it is included in the test and # = TEST if it is not. When all the required zones have been selected, press the ent key to start the walk test.

Press the ✳ key to include all zones in the Selected Zones walk test, without having to individually select the zones. Once all zones are selected, the # key can be used to remove selected zones from the test.

NOTE: PA, PA Silent, PA Delay, PA Silent Delay and **Fire** are not included in the test when the ✳ key is used to include all zones.

The response times of the zone circuits are reduced to 60 msecs for the duration of the walk test to facilitate the detection of loose connections or damaged wiring.

Once the walk test has started, opening a zone (or a zone that is open at the start of the test) activates outputs programmed as **Entry/Exit Horn**. If a single zone is open, the keypad displays the address and function of the zone. If multiple zones are open, then the keypad indicates how many zones are open; the open zones can be viewed by pressing the **A** or **B** keys.

NOTE: The **Walk Test** option does not display the status of the zones. If an open zone is included in the walk test, the **Entry/Exit Horn** will activate as soon as the test is started and remains active until the zone is closed.

While the walk test is active the message **WALK TEST ACTIVE / ESC to abort** is displayed; press the **#** key to view all zones that have been walk tested so far. To return to the walk test press the # key again.

NOTE: RF zones will also record the signal strength in reduced gain mode.

Ending the Walk Test

To terminate the walk test, press the **esc** key. The test will terminate automatically if no zones are activated for 20 minutes.

The results of the test can be viewed by accessing the event log (refer to option **22 = DISPLAY LOG**). The start of the walk test is indicated by the display **WALK TEST +**; each zone that was tested is recorded (the activation of each zone is recorded only once during the test — even if it was opened several times); the end of the test is indicated by **WALK TEST –**.

Option 32 – Outputs

Outputs are tested by function: for example, when **01 = BELLS** is selected, then all outputs programmed as **Bells** are activated. Refer to option **53 = PROGRAM OUTPUT** for a full description of each output function.

On selecting the **Outputs** option, output function type **01 = BELLS** is offered for selection. Press the **A** or **B** keys to move to the required output function type. Alternatively, the function type number can be entered directly, for example entering **13** selects **SECURITY**. To test the selected output function press the **ent** key. The **ent** key can be used to toggle the function **ON** and **OFF** as required. To escape from the **Outputs** option, press the **esc** key.

Users

User codes only have access to **01 = BELLS** and **02 = STROBE** of the **Output** option. Only the engineer has access to all the output types.

Section 7: Modify Options

Option 41 – Time/Date (Quick Menu Option 7)

Galaxy 8, 18, 60, 128, 500 & 504

The **Time/Date** option can be accessed and modified by manager level 6 codes, the engineer and the remote code.

Galaxy 512

The **Time/Date** option can be accessed by users, the engineer and the remote code, however, users can only view the current time and date. Only the engineer and the remote code can modify the time and date. If any groups are locked (refer to option **49 = Datelock**), then the time and date cannot be modified.

Modifying the Time and Date

The **Time/Date** option allows the system time and date to be modified. On entering this option the display prompts for selection **A = TIME B = DATE**. Press the **A** key to select the time option; this allows a new time to be entered. The time must be a valid four digit number — in the 24 hour format (hh:mm). The entry, if valid, will be accepted immediately and the display is returned to the selection screen. Press the **B** key to select the date option; this allows a new date to be entered. The date must be a valid six digit number - in the day, month and year format (dd/mm/yy). The date entry, if valid, will be accepted immediately and the display is returned to the selection screen.

NOTE: The time and date can be modified when groups are set.

Adjusting the Clock Speed

Variations in the accuracy of the clock speed can be compensated by pressing the **#** key while the **A = TIME B = DATE** selection screen in the **Time/Date** menu is displayed. The keypads prompts for the **Adjustment/ Week**, in seconds, to be entered; the range is 0 – 120 seconds. If the clock requires to gain time, enter the required number of seconds. If the clock requires to lose time, enter the required number of seconds and press the ✳ key; the ✳ retards the clock speed.

Option 42 – Codes (Quick Menu Option 8)

The **Codes** option is used to assign, modify and delete the codes that allow users to operate and access the system. The **Codes** option is divided into three sub-menus:

1. User Codes — sub-divided into up to 10 menus (depending on panel used and whether the group and MAX mode options are enabled) that determine all of the access information for users who are requiring PINs. This option also assigns MAX details to user numbers;

2. PIN Warning — (**Galaxy 128, 500, 504 & 512)** determines the warning period given to users prior to the programmed **PIN Change** date (refer to option **51.42 = PARAMETER.PIN Change**);

3. MAX Users (V3 and earlier) — this option is only available if the MAX mode is enabled. The option is subdivided into two menus that assign the MAX card to users who do not have a PIN assigned.

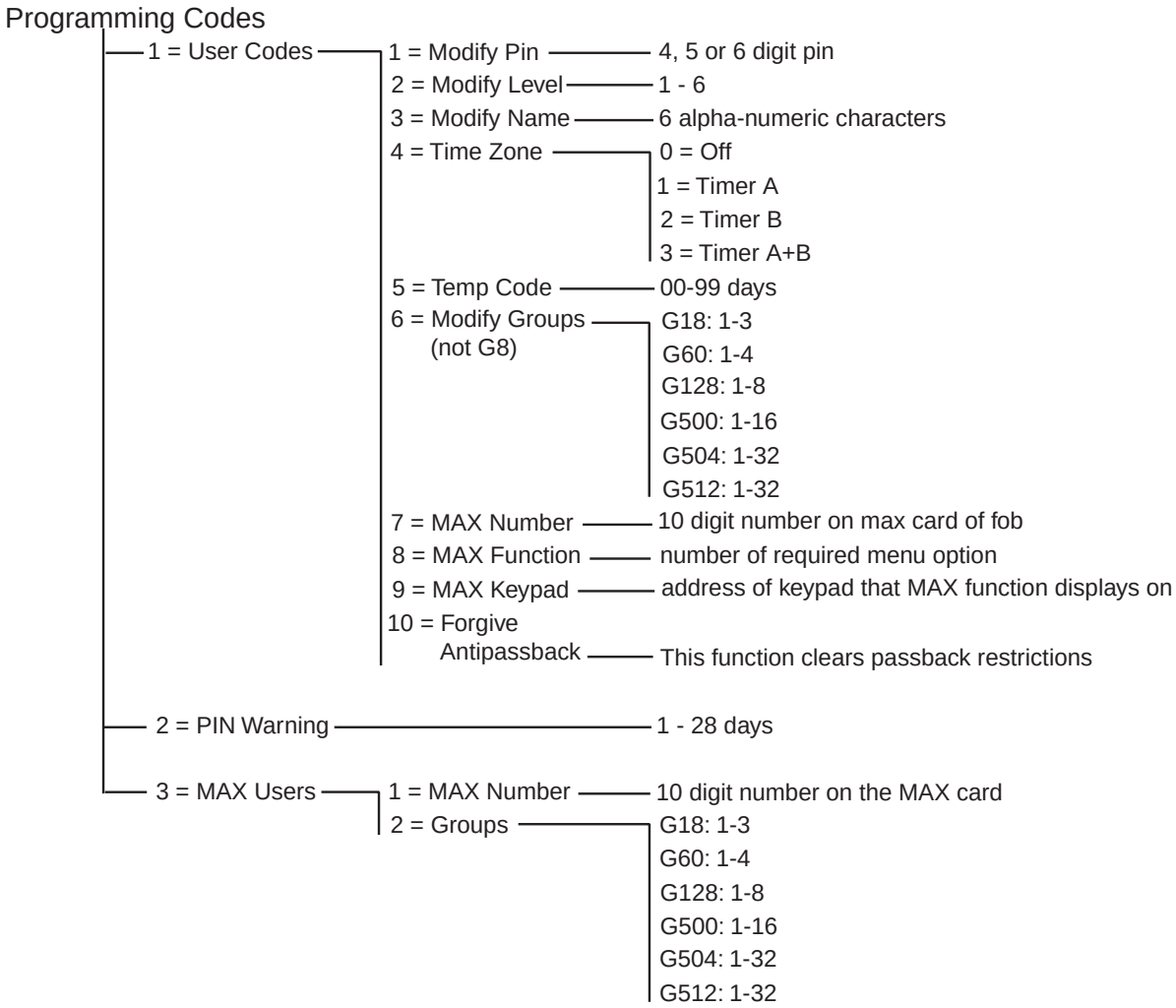


Figure 3. Programming Codes

Default Codes

The Galaxy system provides three default codes: Manager, Engineer and Remote User. Refer to the following Table:

Galaxy	No. of Codes	Manager		Engineer		Remote	
		Default PIN	User No.	Default PIN	User No.	Default PIN	User No.
8	50	1234	48	112233	49	543210	50
18	100	1234	98	112233	99	543210	100
60	200	1234	198	112233	199	543210	200
128	250	1234	248	112233	249	543210	250
500	500	1234	498	112233	499	543210	500
504	999	1234	997	112233	998	543210	999
512	999	1234	997	#112233	998	543210	999

Table 4. Default Codes

Engineer Code

- The engineer code can only modify the engineer PIN; all other engineer **User Code** options are fixed;
- The engineer code cannot assign, modify or delete manager or user codes;
- On accessing engineering mode, any group that is set becomes inaccessible to the engineer. The set groups cannot be assigned to zones, outputs and any other functions permitting group allocation;

NOTE: If the Galaxy 8 is set, then the engineer cannot gain access to engineer mode.

- While engineer mode is accessed, all tampers are disabled, however, all constantly alert zone types — **PA** zone types, **24 Hour**, **Security**, **Fire** — remain active.
- The engineer banner is shown on all keypads while engineer mode is being accessed; the message **ENGINEER MODE** is displayed;

(Galaxy 8, 18, 60, 128, 500 & 504)

The first entry of the engineer code activates a tamper alarm. The second entry of the code cancels this alarm and accesses engineer mode.

NOTE: This dual code entry is only valid if the engineer does not have a # assigned against a PIN number.

Galaxy 60, 128, 500, 504 & 512

The Galaxy 512 engineer code is allocated a **#** is fixed by default. With the **#** assigned, entry to the engineer mode **must be** authorised by a valid user (refer to option **48 = ENGINEER ACCESS**). The engineer code must then be entered within five minutes of the option being enabled. A single entry of the engineer code directly accesses engineer mode, without activating an engineer tamper alarm; **ENGINEER MODE** is displayed on the keypad. If the engineer code is not entered within the five minute period, the code is invalid and an **Access Denied** message is displayed on the keypad. Once the engineer mode has been accessed, there is no time limit on the period that the engineer can remain in the mode.

NOTE: Dual entry of the engineer code in a system requiring user authorisation does not give access to engineer mode.

Escaping from Engineer Mode

To terminate the engineer mode the engineer code is entered and the **esc** key pressed. The Galaxy begins the exit engineer mode procedure by checking the integrity and security of the system:

- **CHECKING FOR TAMPERS** — if a Smart PSU is connected to the system, the panel calculates that the standby battery connected to it is capable of operating the system for the required period (as entered in the **Standby Battery** parameter — refer to option **51.37**). The system then verifies that there are no tamper conditions present on the panel, the modules or the zones.
- **SYSTEM MODULES** — if there are no tamper conditions the Galaxy checks the number of modules connected to the system:
- If no modules have been added or removed, **" NO MODULES ADDED, ESC TO CONTINUE"** is displayed. Pressing **esc** returns the system to the normal banner.
- If modules have been removed they are reported as missing; the engineer is prompted to view the missing modules and to remove them from the system by pressing the ✳; a warning is given before the module is removed. Press the **ent** key to confirm the removal of the module. Once all missing modules are removed, the Galaxy reports the previous and current number of modules connected to the system, before returning to the normal banner.
- If modules have been added, the Galaxy reports the previous and current number of modules connected to the system, before returning to the normal banner.

If the **esc** key is pressed at any time during the exit engineer mode procedure, the procedure is aborted and the Galaxy returns to the engineer mode. This return may take several seconds to complete.

Galaxy 512

The engineer is prevented from exiting from engineer mode if a **PA** zone is open.

Manager Code

The manager is authorised to:

- program the **User Code** options of each of the user codes;
- allocate other codes to the manager level (6);
- modify the manager PIN — the manager PIN cannot be deleted — and assign the MAX features to the code.

NOTE: Galaxy 18, 60, 128, 500 & 504 — the manager PIN can be reset to the default code (1234) by the engineer and remote code using the **Reset Mgr** (**Manager**) parameter (refer to option **51.21**). The manager code defaults to group choice when groups are enabled. The manager is able to toggle the group choice option on and off (using the ✳ key) as required.

Galaxy 8 & 18

The manager code defaults to accessing the quick menu (option 0 – 9). Refer to option **59 = Quick Menu**. To access the full menu, assign a ✳ to the manager in the **Modify Level** option.

Galaxy 60, 128, 500, 504 & 512

The manager code defaults to accessing the full menu (option 11 – 68). To access the quick menu (options 0 – 9), remove the ✳ assigned to the manager in the **Modify Level** option.

Control Panel	User Codes
G8	50
G18	100
G60	200
G128	250
G500	500
G504	999
G512	999

Table 5. Control Panel/Codes

Programming Codes

1 = User Codes

Enter the **Codes** option; **1=User Codes** is displayed. Press the **ent** key; details of the first user (**User 001**) are displayed. Each of the users can be displayed using the **A** and **B** keys, or a specific user can be selected by entering the required user number, for example 023, 069. When the required code is displayed, press the **ent** key to select the user codes modification options; **1=Modify PIN** is displayed. The available modification options can be viewed by pressing the **A** or **B** keys; press the **ent** key to select the required option. The options are detailed in the following paragraphs:

1 = Modify PIN

The PIN identifies each user to the Galaxy panel and permits the user to operate the system. The **Modify PIN** option allows a PIN to be assigned to the user or an existing PIN to be modified. The PIN must be a four, five or six digit number that is unique to the system. If a duplicate PIN is assigned, the message **INVALID SELECTION** is displayed; the PIN is not assigned to the user. As each digits is entered it appears on the lower line of the display. Pressing the ✳ key erases the last digit displayed; continued pressing of the ✳ key will erase all of the digits. When the correct PIN has been assigned press the **ent** key to accept the programming and, if a MAX No. is assigned the display will prompt: **delete max no. A = YES, B = NO** and return to the previous menu level. When a PIN has been assigned to a user number, a solid box (■) is displayed on the top line of the user number details screen.

Deleting a PIN

Existing PIN entries can be completely erased by using the ✳ key instead of a digit entry. When there is no PIN assigned to a user number a hollow square (□) is displayed on the top line of the user number details screen.

Assigning Dual Codes

To program a user code as a **Dual Code** press the **#** key while the **Modify PIN** option is selected. The # displays at the start of the assigned user PIN (**#1314**). When a PIN has been assigned as a dual code two solid boxes (■ ■) are displayed on the top line of the user number details screen.

NOTE: The Master manager code can not be assigned as dual.

Dual Codes Operation (Galaxy 60, 128, 500, 504 & 512)

Entry of a single dual code can not gain access to the menu, set or unset the system. The message **NO ACCESS – ADDITIONAL CODE** is displayed. A second dual code must be entered within 60 seconds of the first dual code to access the menu, set or unset the system. Dual codes can be different levels, the highest level entered is granted access to the system — whether it is entered first or second.

A single entry of a dual code - without a second dual code entry within 60 seconds - is recorded in the event log as an **Illegal Code**; all outputs programmed as **Illegal Code** are activated. **2 = Modify Level**

Dual Focus (V4 and above)

If a MAX number for the same user has a # assigned the dual function only works between the PIN and the MAX card of the same user.

2=Modify Level

Each user is assigned an access level which determines the menu options available to the user. The programmable levels are from 0 - 6; 7 is assigned to the engineer level — this is fixed and cannot be assigned to user codes; 8 is assigned to the remote code. This is fixed and cannot be assigned to the engineer or user codes, keypad (E) only.

On selecting this option, enter the level to be assigned to the user and press the **ent** key to accept the programming and return to the previous menu level.

Level		Access Availability
0†	Guard	Entered into event memory – no other option
1†	Cleaner	Can only set the system
2	Caretaker	Can only set and unset the system
3	Users	Menu options 11 - 19
4	Users	Menu options 11 - 29
5	Users	Menu options 11 - 39
6‡	Manager	Menu options 11 - 49
7‡	Engineer	Menu options 11 - 68
8‡	Remote	Menu options 11 - 68

† No access to menu functions
‡ The manager, engineer and remote codes (the last three codes on the system) have fixed levels which cannot be reprogrammed.

Table 6. User Access Levels

Duress Code (Galaxy 18, 60, 128, 500, 504 & 512)

If the **#** key is pressed while the **Modify Level** option is accessed, then the current user code is assigned as a **Duress Code**. Entry of a **Duress Code** at any time activates any output programmed as **Duress** (refer to option **53 = OUTPUTS**). There is no limit to the number of codes that can be assigned as **Duress Codes**.

Quick Menu

All of the user codes default to the quick menu. This menu is made up of a selection of ten options (0 – 9) from the full menu options 11 – 68. Access to the quick menu is controlled by the user code level. Any user can be upgraded from the quick menu to the full menu by assigning a ✳ to the user while the **Modify Level** option is accessed. Therefore a user with level ✳**5** would have access to the full menu from options 11 – 39. No code can access both menus.

The engineer can reprogram the options contained in the quick menu (refer to option **59 = QUICK MENU**).

NOTE: The manager code defaults to the quick menu on the Galaxy 8 and 18 but defaults to the full menu on the Galaxy 60, 128, 500, 504 & 512.

Galaxy 60, 128, 500, 504 & 512

The engineer can determine the menu option access level (refer to option **68 = MENU ACCESS**); this allows users to access menu options that their code levels are not, by default, authorised to access.

NOTE: Users can only allocate codes up to the level that they have been assigned. A level 4 user cannot assign a user code as level 5.

3 = Modify Name

This option allows a name to be assigned to the user (maximum six characters). Each of the user codes default to the name **USER**. The engineer (**ENG**) and manager (**MGR**) are fixed and cannot be reprogrammed. On selecting the **Modify Name** option, a section of the alpha-numeric characters that can be assigned to the user name is displayed on the bottom line of the keypad; the cursor flashes on the letter **L**. Press the ✳ key to erase the characters of the default or previous name. When the previous name has been erased, use the **A** or **B** keys to move the cursor to the first character of the name and press the **ent** key; the selected character appears on the top line. Continue this process until the name is completed.

The **#** key toggles between upper and lower case characters and the system library. The alpha-numeric characters and library words can be selected by entering the character or word reference number (refer to **Appendix B — Library**) or by pressing the **A** or **B** keys.

NOTE: The Galaxy 8 does not have a library.

When the user name is completed, press the **esc** key to accept the programming and return to the previous menu level.

4 = Time Zone (Galaxy 18, 60, 128, 500, 504 & 512)

The **Time Zone** option allows the user access to be restricted to operate only within the periods programmed in **Timer A** and/or **Timer B** (refer to option **65 = TIMERS**).

On selecting this option enter the number (0 – 3) of the **Time Zone** to be assigned to the user and press the **ent** key to accept the selection and return to the previous menu level.

Selection	Timer	Codes Restriction
0	OFF (Default)	Codes and cards are always operational.
1	Timer A	Codes and cards are inoperative between the Timer A ON and OFF time.
2	Timer B	Codes and cards are inoperative between the Timer B ON and OFF time.
3	Timer A+B	Codes and cards are inoperative between the Timer A and B ON and OFF time.

Table 7. Time Zone Restrictions for Users

Codes or cards if programmed do not operate during the assigned time zone (**ON** to **OFF**). The times assigned to **Timer A** and **Timer B** can be viewed using option **45.3 = TIMER CONTROL.View**.

If a user that has been assigned to **1=Timer A**, **2=Timer B** or **3=Timer A+B** attempts access outwith the assigned times, then an **Illegal Code** event is recorded in the log and any outputs programmed as **Illegal Code** are activated.

Galaxy 128, 500 & 504

The **Autoset** feature (refer to option **65.3 = TIMERS.Autoset**) uses **Timer B** to provide the **ON** and **OFF** times for automatically setting and unsetting the system. A user allocated **Time Zone** option **2 = Timer B** or **3 = Timer A+B** cannot unset the system during the autoset period.

5 = Temporary Codes (Galaxy 128, 500, 504 & 512)

Temporary Codes allows a PIN to be temporarily allocated to a user. On selecting this option, enter the number of days (0 – 99) that the code is to remain active. The default setting of **0** indicates that the code is permanent. A temporary code expires and is removed from the codes list at midnight after the assigned number of days. A code that has been assigned as a **Temporary Code** is indicated on the user code display by a ^ between the user number and the user name, for example **001^USER**.

NOTE: The manager, engineer, or remote codes cannot be assigned as **Temporary Codes**.

PIN Change (Galaxy 128, 500, 504 & 512)

If a user is assigned the **PIN Change** feature in the **Temporary Code** option, the user must assign a new PIN after a predetermined period — refer to option **51.42 = PARAMETERS.PIN Change** — otherwise the user PIN expires and is no longer operational.

To program a user code to prompt for a PIN change select the **Temporary Code** and press the ✳ key instead of entering a number of days for a temporary code; press the **ent** key to accept the programming and return to the previous menu level. A code that has been assigned as a PIN Change code is indicated on the used code display with a ✳ between the user number and the user name, for example **001✳USER**. The Manager, Engineer, or Remote codes cannot be assigned as **PIN Change Codes**.

If the value entered in the **PIN Change** parameter is **0** then the code is assigned as a permanent PIN — a warning message is briefly displayed to indicate that a **Pin Change** will not be requested. However, if **PIN Change** is within the range 1 – 12, then the number entered is number of months after which the code must be changed, otherwise it expires.

NOTE: The PIN expires on the first day of the following month.

A notification (1 – 28 days) that the PIN requires to be changed can be assigned using the **PIN Warning** option (refer to option **42.2)**; this prompts the user to assign a new code whenever the expiring code is entered - except when the system is unsetting - for the number of days in the **PIN Warning** before the day the PIN expires. The new PIN **must** be six digits and **must** be different from any current PIN including the user's existing one. The new PIN must be re-entered and, if confirmed, the user is returned to the banner. If the **esc** key is pressed or the new PIN entered is invalid, the user may continue to use the panel as normal; the next entry of the PIN will prompt for the PIN change.

NOTE: If the user has not assigned a new PIN by the end of the **PIN Warning** period, then the code is erased on the next unsetting of the system.

6 = Modify Group (Galaxy 18, 60, 128, 500, 504 & 512)

This option determines the system groups that the user has access to and operational control over. The **Modify Groups** option is only available when the group mode is enabled (Galaxy 500, 504 & 512).

The Galaxy 500, 504 and 512 have more than 8 groups; these are displayed on the keypad in blocks of eight groups. Press **A** or **B** keys to display each of the group blocks.

Press keys 1 – 8 to assign the relevant groups in each block to the user.

Code has been enabled (refer to option **63.1 = OPTIONS.Groups**); the system defaults to groups disabled.

On selecting the **Modify Groups** option, the groups currently allocated to the user are displayed. All user default to group 1. Pressing the group number toggles the group assigned to the user; pressing **2** and **3** assign groups 2 and 3 to the user; pressing **1** (when group 1 is already assigned) removes group 1 from the user code. To assign group choice to the user, press the ✳ key. When the required groups have been assigned to the user, press the **ent** key to accept the programming and return to the previous menu level.

Galaxy 500, 504 & 512

The Galaxy 500, 504 and 512 have more than 8 groups; these are displayed on the keypad in blocks of eight groups. Press the **A** or **B** key to display each of the group blocks.

Press keys 1 – 8 to assign the relevant groups in each block to the user.

Group Block	Physical Groups
A1-8	1-8
B1-8	9-16
C1-8	17-24
D1-8	25-32

Table 8. Groups

Group Options

Single Group A user can be assigned to any single group. In this case the user can only access, set and unset the single group.

Multiple Groups Users can be allocated to more than one group in which case access and operation is collective; the user cannot choose to operate on a single or combination of the assigned groups.

Group Choice Users can be allocated more than one group but also have the choice of which of the allocated groups to view , set or unset. Pressing the ✳ key while assigning groups to the user assigns the group choice feature.

NOTES

1. The manager, engineer and remote codes have fixed access to all system groups; this cannot be reprogrammed

2. The manager, engineer and remote codes are assigned group choice by default. The manager can have the group choice feature removed; the engineer and remote codes have fixed group choice.

3. Users authorised to access Option **42 = CODES**, can only assign the groups that have been assigned to their user code; A user who does not have access to group 4, cannot assign group 4 to another user code.

7 = MAX Number

The MAX Number contains one of the following:

- the 10 digit number etched onto the MicroMAX card/fob/tag
- a number generated by the RF RIO identifying an RF Keyfob button
- the decrypted code of cards/tags self learned into the system for use with the keyprox.

These numbers identify the card/tag/fob to the system and references it to the userit has been assigned to.

Each MAX Number defaults to **0000000000** (ten zero's):

To enter the required number:

1. press and hold the **B** key until the zeros are deleted;

2. enter the unique 10 digit number laser etched onto the MAX/MicroMAX card/Fob tag **or**

enter the unique RF keyfob button identifier generated by the RF RIO (refer to RF RIO programming instructions II1-0076 for details) **or**

press the **A** and **1** keys simultaneously of the KeyProx and present the card/fob to the KeyProx reader within 5 seconds. The decrypted number in the card will be self learned onto the Galaxy panel and displayed on the KeyProx.

3. press the **ent** key to save the programming and return to the previous menu level.

NOTE: A MAX number can be assigned to a user code that does not have a PIN allocated to it. All other options assigned to this user are valid for the card/fob/tag button programmed.

8 = MAX Function

The card/fob/tag/button can be assigned a single menu option. The user must be authorised to access the menu option assigned to the MAX - either by the user level assigned or menu option **68 = Menu Access**.

The default option is **Not Used**. A new option is assigned by pressing the **A** or **B** key until the required option is displayed or by entering the option number directly and then pressing the **ent** to accept the selection.

9 = MAX Keypad

The menu option assigned to the MAX card can be limited to operate on a single keypad. On selecting this option the display shows ✳✳, indicating that a keypad has not been specified. To specify a keypad, press the **#** key. The address of the first keypad on the system is displayed. Use the **A** or **B** key to select the required keypad and press the **ent** key to accept the selection.

NOTE: The address of the keypad that is currently being used is indicated by a black square flashing over the first digit of the keypad address.

"Card-Held" Operation

The programmed MAX function is activated when either,

- the card/fob /tag is held continuously in front of the MAX/MicroMAX/KeyProx reder for 3 seconds **or**
- the programmed RF keyfob button is pressed. It should be noted that if button 1 of the RF keyfob is programmed as a setting function, button 2 will automatically become the unset action, as long as button 2 has been programmed for MAX operation on the RF RIO.

If using a MAX/MicroMAX or KeyProx the reader or KeyProx must be assigned a common group to the user. The keypad specified in option **9 = MAX Keypad** displays the assigned MAX function.

Assigning Dual Functions to MAX Numbers (V4 and above)

If a card has a # assigned to the number, then any card-held function will only work in conjunction with the PIN from the same user, provided that the PIN has a # assigned also. The Dual Focus function will work in either order, but if the card is presented first, it will simply enable the PIN to gain access to the normal menu (see option **42 = Codes** for programming).

If a user's card number is assigned a *, then the card becomes Dual access. This means that it will not open

the door on its own; it needs another PIN or card as well. If the PIN belonging to the same user has a # assigned, then that PIN must be entered first before access will be granted to that card.

If the PIN has no # assigned, then the card will work only in conjunction with any other Dual Access card that shares one or more groups (see option **42 = Codes** for programming).

10 = Forgive Antipassback (V4 and above)

This function if selected clears all antipassback restrictions for the selected user.

2 = PIN Warning (Galaxy 128, 500, 504 & 512)

This option determines the number of days notification before the **PIN Change** expiry date (refer to option **51.42 = PARAMETERS.PIN Change**) that the user is prompted to assign new code on entry of the expiring PIN. The default period is **28** days, with a programmable range of **1 – 28**. If the user does not assign a new code by the end of the **PIN Warning** period, then the code is erased on the next unsetting of the system.

NOTE: The **PIN Warning** ends on the last day of the month, the PIN expires on the first day of the following month.

3 = MAX Users

Note: This option does not apply to V4 and above software.

This option is used to assign additional MAX users to the system without allocating PINs; MAX users are only authorised to operate the Access Control functions of the MAX modules.

Enter the Codes option and select **3=MAX Users**. Press the ent key; the first MAX user number (User 501) is displayed. Each of the users can be displayed using the A and B keys, or a specific user can be selected by entering the required user number, for example 223, 469. When the required code is displayed, press the ent key; the **1 = MAX Number** option is displayed.

1 = MAX Number

The MAX number assigned to the MAX user identifies the MAX card to the system and references it to the MAX user.

Each **MAX Number** defaults to **0000000000** (ten zero's):

1. press and hold the **B** key until the zeros are deleted;
2. enter the unique 10 digit number laser etched onto the MAX card;
3. press the ent key to save the programming and return to the previous menu level.

When a MAX number has been assigned to a MAX user number, a solid box (■) is displayed on the top line of the MAX user number details screen.

2 = Groups

This option assigns group access to the MAX user. The MAX user must be assigned a group that is common to the MAX module to permit the access control functions to operate. If the MAX user does not have access to the group assigned to the module, then the access control functions are denied. The Modify Groups option is only available when the group mode has been enabled (refer to option **63.1 = OPTIONS.Groups**); the system defaults to groups disabled.

On selecting the **Modify Groups** option, the groups currently allocated to the user are displayed. All user default to group 1. Pressing the group number toggles the group assigned to the user; pressing 2 and 3 assign

groups 2 and 3 to the user; pressing 1 (when group 1 is already assigned) removes group 1 from the user code; press the ent key to accept the programming and return to the previous menu level.

Galaxy 500, 504 & 512

The Galaxy 500, 504 and 512 have more than 8 groups; these are displayed on the keypad in blocks of eight groups. Press **A** or **B** keys to display each of the group blocks**.**

Press keys 1 – 8 to assign the relevant groups in each block to the user.

Option 43 – Summer (Quick Menu Option 9)

The Daylight Savings Time is in accordance with European standards. The Daylight Savings time is described as follows:

On the first day of each year, the British Summer Time (BST) **Start** date is set to the last Sunday in March and the **End** date is set to the last Sunday in October.

The operation of the **Summer** option is as follows: at 01:00 hours (GMT) on the **Start** date, the system clock advances to 02:00 hours (DST); at 02:00 hours (DST) on the **End** date, the system clock goes back to 01:00 hours (GMT).

NOTE: The time always changes with reference to GMT. For example, Italy, which is +1 hour would be:
Last Sunday in March - 02.00 to 03.00
Last Sunday in October – 03.00 to 02.00

The **Start** and **End** dates can be reprogrammed by authorised user codes. Press the **A** key to modify the **Start** date or the **B** key select the **End** date; the new date must be a valid four digit number - in the day/month format (dd/mm).

Galaxy 512

The **Summer** option can only be modified by the engineer or remote codes.

Option 44 – Trace (Galaxy 18, 60, 128, 500, 504 & 512)

This option provides a record of the most recent alarm activation. The **Trace** option records the details of the setting and unsetting of the system immediately before and after the alarm activation and the first five events occurring during the alarm activation. This information is maintained in the trace until the next alarm activation. On entering the option pressing the **A** and **B** keys steps through each of the seven trace entries.

Pressing the # key while viewing the **Trace** option displays additional information about certain events — user events reveal the keypad, user level and current group; alarm events reveal the zone descriptor if programmed.

The currently display trace can be printed out by pressing the ✳ key; pressing the **esc** key aborts the printout.

NOTE: A serial printer must be connected to the Galaxy panel via a printer interface module or an RS232 interface module.

Group Mode

If group mode is enabled (refer to option **63 = OPTIONS**), there is a separate trace for the most recent alarm activation in each of the groups. On selecting the **Trace** option, a user with group choice (refer to option **42 = CODES**) can view the trace of the assigning groups; press the number of the group to be displayed — the **N** below the selected group changes to a **Y** — and then press the **ent** key.

If more than one group is selected, or the user does not have group choice, then the trace for the group with the most recent alarm activation is displayed.

Option 45 – Timer Control (Galaxy 18, 60, 128, 500, 504 & 512)

1 = View

This option allows the programmed times in each of the Timers to be viewed:

1. Timer A;

2. Timer B;

3. Autoset (Galaxy 18, 60, 128, 500, 504 & 512);

4. Lockout (Galaxy 512).

Use the **A** and **B** keys to scroll through each of the programmed times.

NOTE: The programmed times cannot be modified using this option.

All of the programmed timers - **Timer A**, **Timer B**, **Autoset** and **Timelock** - can be printed out using option **57.11 = SYSTEM PRINT.Timers**.

2 = Holidays

This function allows up to ten holiday periods to be allocated. A **Start** and **End** date is entered for each holiday period using the **1 = Modify Dates** option, and the groups that are affected by the programmed holiday periods are assigned using the **2 = Assign Groups** function. The operation of all timers for the assigned groups is suspended during these dates; the last operation of the **Timers** before the start date remains in operation until the first operation after the **end** date. For example, a code which has been allocated the **Timer A period** in the **CODES** option (**42.1.4.1**) will be inoperative during the programmed holiday period if the **Timer A** is in the **On** time when the holidays starts.

1 = Modify Dates

On selecting this option, the **Start** and **End** dates for holiday period **1** are displayed; an arrow (>) points to the **Start** date. If no dates have been entered for this period, then the display shows ✳✳/✳✳. To program the **Start** date, press the **ent** key; the date display changes to **>DD/MM<**; enter a valid four digit number and press the **ent** key to accept the selection; the year is not required, only the day and months (dd/mm).

Press the # key to move to the **end** date and follow the procedure for programming the **Start** date. The **#** key toggles between the **Start** and **End** dates for each holiday; the arrow (>) indicates which date is currently selected.

To remove a programmed date, press the ✳ key. The date display returns to ✳✳/✳✳.

Use the **A** or **B** key to move between the different holiday periods or enter the number of the holiday period (**1 – 10**) to be programmed.

Galaxy 60, 128, 500 & 504

The holiday periods can be programmed by a valid user.

Galaxy 512

The holiday periods can only be programmed by the engineer. Users can access this option, however, they can only view the programmed holiday dates.

2 = Assign Groups

This function determines which of the groups are affected by the programmed holiday periods.

On selecting the **Assign Groups** option, the groups currently assigned to the programmed holiday periods are indicated by a **Y** below the group; an **N** is displayed below the unassigned groups. All groups default to Y. Pressing the group number toggles the group status. When the required groups have been assigned to the holidays, press the **ent** key to accept the programming and return to the previous menu level.

Galaxy 512

The Galaxy 500, 504 and 512 have more than 8 groups; these are displayed on the keypad in blocks of eight groups. Press **A** or **B** keys to display each of the group blocks.

Press keys 1 – 8 to assign the relevant groups in each block to the user.

3 = Timers (Galaxy 18, 60, 128, 500 & 504)

This option allows **Timer A** and **Timer B** to be switched on and off as required. If a **Timer** is set to off, the operation of the **Timer** is suspended; this option cannot be used to alter the programmed times. Both timers default to **0 = Off**. To switch the timers on, select the required timer and change the setting to **1 =On**.

The Timer Status can also be altered through menu option 65.1 by the engineer only.

Galaxy 512

This option is not available on the Galaxy 512.

4 = Early Open (Galaxy 512)

If the **Early Open** option (**45.4.2**) is enabled, the **Lockout OFF** time (refer to option **65 = TIMERS**) for the following day is brought forward by the number of minutes (0 – 240) programmed in parameter **44 = Early Open**. This allows the system to be manually unset earlier than normal.

1 = Early Times

This function displays the time that the system can be manually unset on the following day; this time is the **Lockout OFF Time** minus the **Early Open** period and is displayed in the 24 hour format.

If groups have been enabled, the early opening time for each of the groups enabled for early opening in the **Early Open** option can be viewed by pressing the **A** or **B** keys

This function only displays the early time if the **Early Open** option is enabled; if this option is disabled or if no groups have been enabled, the message **NO ENTRIES** is displayed.

2 = Early Open

Level 6 Users and Engineer when Groups are Disabled

If groups have not been enabled on the system, the programming of the **Early Open** option is identical for Level 6 users and the engineer; the option permits early opening to be disabled or enabled:

0 = **Disabled** (default) — early opening not permitted;

1 = **Enabled** — early opening permitted.

Select the required status and press the **ent** key to accept the programming and return to the previous menu.

Engineer Mode with Groups Enabled

If groups have been enabled (option **63 = OPTIONS + early open permitted**), then the groups can be individually enabled to permit early opening.

On selecting the option, the early opening status of the groups is displayed; early opening enabled is indicated by a **Y** below the group; an **N** is displayed below the groups that are not programmed to open early. All groups default to **N**.

NOTE: Only the engineer can enable early opening for individual groups, but global enable must be done first.

5 = Late Work

The **Late Work** option — if programmed as **1 = ON** — authorises an **Autoset Extension** in advance of the prewarning period (refer to option **65.3 = TIMERS.Autoset**);

NOTE: Additional extensions can be authorised by entry of a valid code during the subsequent autoset prewarning periods.

6 = Weekend Work (Galaxy 504 & 512)

The **Weekend Work** option allows a valid user code to authorise the system to unset at the weekend. If the **Weekend Day** is programmed other than **0 = OFF** (default), on the next occurrence of the programmed **Weekend Day**, the **Timers** adopt the times they have on the assigned **Pattern day**. For example, this allows a Sunday to use the Autoset and Lockout Timers of a Monday.

NOTE: Parameter **41 = Weekend Work** must be enabled (default is **Disabled**) to allow the **Pattern Day** option to be programmed by the engineer and the **Weekend Day** to be selected by the user.

On selecting this option, **1 = Program Days** is displayed. Press the **ent** key; **1 = Weekend Day** is displayed. Press **ent** to select this option, or the **A** or **B** keys to move between the available options.

1 = Weekend Day

On selecting this option the programmed **Weekend Day** is displayed; the default is **0 = OFF**. Use the **A** or **B** keys to select the required day or days and press the **ent** key to accept the programming and return to the previous menu level:

0 = OFF

1 = SAT

2 = SUN

3 = BOTH (Saturday and Sunday)

The selected **Weekend Day** remains active for one occurrence only. The **Weekend Day** returns to the default of **OFF** immediately following the assigned day. The **Weekend Day** must be allocated each time the function is required.

2 = Pattern Day

The **Pattern Day** can only be allocated by the engineer. This option determines the programmed timers that are effective when the **Weekend Day** option is selected by the user; the timers of the selected **Pattern Day** are adopted by the days selected for weekend work.

On selecting this option the programmed **Pattern Day** is displayed; the default is **1 = MON**. Use the **A** or **B** keys to select the required day or days and press the **ent** key to accept the programming and return to the previous menu level:

1 = MON

2 = TUE

3 = WED

4 = THU

5 = FRI

Option 46 – Group Omit (Galaxy 18, 60, 128, 500 & 504)

This option allows a level 6 user code to block omit all the omittable zones in a group or multiple groups. All zones in the required groups that have the omit attribute enabled (refer to option **52.4 = PROGRAM ZONES.Omit**) are omitted when this option is selected. Groups can be omitted and reinstated without setting and unsetting the system.

On selecting the **Group Omit** Option the groups assigned to the user code and keypad are displayed as well as the omit status of each group (**Y** below the group indicates that it is omitted, **N** indicates that it is not omitted). To omit a group, press the required key. The letter beneath the group number changes from **N** to **Y**. To reinstate the group press the key to toggle from **Y** to **N**.

NOTE: The zones in the selected groups are omitted from the system as soon as the group is selected.

On returning to the banner (normal or engineer) the keypad displays the message **ZONES OMITTED**. Omitted zones remain omitted for one set period only or until they are manually reinstated to the system.

Galaxy 60, 128, 500 & 504

Outputs programmed as **Zone Omit** (mode programmed as reflex) are activated as soon as the zone is omitted and remains active until the zone is reinstated. If the output mode is programmed as latch, then the **Zone Omit** outputs activate when the system is set and remain active until the system is unset — reinstating the omitted zones.

Option 47 – Remote Access

1. Service

This option enables level six users to control the access mode of the Galaxy Gold remote servicing software. There are several options available for increased flexibility and security.

NOTE: This option is only available when the **Manager Authorise** option has been enabled (refer to option **56.1.12 = COMMUNICATIONS. Telecom.Remote Access**). If the option is not enabled, the keypad displays **NO ACCESS - OPTION DISABLED**.

0 = Telecoms

0 = Direct Access

On selecting this option, a 40 minute access period is enabled on the Galaxy panel; Galaxy Gold software can directly access the system during this period. Once access to the panel has been gained, it can maintained indefinitely; there is no maximum duration. On terminating the Galaxy Gold connection to the panel, the access period remains valid for an additional 15 minutes.

1 – 5 = Call Back 1 – 5

A maximum of five numbers can be preprogrammed by the engineer (refer to option **56.1.12 = COMMUNICATIONS.Telecom.Remote Access**). On selecting one of the numbers (1 – 5) followed by the **ent** key, the Galaxy panel dials out to the preprogrammed telephone number associated with the **Call Back** number.

If the number selected does not have a preprogrammed telephone number, the system prompts for **1** to be entered. Enter the required telephone number and press the **ent** key; the panel then dials out to the telephone number entered.

NOTE: The PC that the panel is dialling to **must** have Galaxy Gold running in the **Waiting for Call-Back** mode. Refer to the **Galaxy Gold User Guide (IU1-057).**

1 = ISDN

0 = Direct Access (see Telecoms description)

1 – 5 = Call Back 1 – 5 (see Telecoms description) except menu option is 56.2.09

2 = ETHERNET

0 = Direct Access (see Telecoms description)

1 = Call back IP

On selecting this option the IP address programmed in option 56.4.3.2 ETHERNET HGR AUTHORISE will be called.

2. Send Alarms

Option not available

3. Call Galaxy

Option not available

Option 48 – Engineer Access (Galaxy 512 only)

The engineer code is assigned a **#** in the PIN by default. This prevents the engineer from accessing engineer mode unless authorised to do so by a valid code. To gain access to the engineer menu a level 6 user must enter their code, and enable the **Engineer Access** option. This provides a five minute period during which a single entry of the engineer code provides access to engineering mode without causing a tamper alarm. Once the engineer mode has been accessed, there is no time limit on the access period.

If the **Engineer Mode** option has not been enabled, or the code is not entered within the five minute period, then the Engineer code is invalid and has no effect.

If the PIN is programmed without the #, the **Engineer Access** option does not require to be enabled to allow the engineer to gain access to engineer mode. The engineer code requires to be entered twice. The first entry activates a tamper alarm which is cancelled by the second entry.

NOTES:

1. **V1.18 or below:** Only the remote code can remove the # from the engineer code. Both the engineer and remote codes can assign the # to the code.

2. Dual entry of the engineer code in a system requiring user authorisation does not give access to engineer mode.

Option 49 – Datelock (Galaxy 512)

The **Datelock** option allows the system to be set and prevented from unsetting until the date and time specified by the user. This option can only be accessed by level 6 user codes with access to all groups. The **Datelock** menu option can only be accessed if parameter **40 — Datelock** has been enabled.

NOTE: This option can only be selected by level 6 users. The level access **Datelock** cannot be modified using menu option **68 — Menu Access**.

On selecting this option the user is prompted to enter the **Date** (day, month and year) and the **Time** (hours and minutes) when the panel will be unlocked. The date and time entered must be valid and also be some time in the future - 31/02/96 will be rejected as an invalid date.

The system then prompts for another code (level 3 or above) to be entered to confirm the **Date** and **Time** entered by the level 6 user code. To confirm the time and date press the **A** key (**A = YES**). To reject the programming press the **B** key (**B = NO**). If the **esc** key is pressed or a keypad timeout occurs, the **Datelock** is cancelled.

Once the second user has confirmed the **Date** and **Time**, the system immediately starts to set. If menu option **66.4 = PRE-CHECK.Forced Check** is enabled all of the zones on the system must be verified as being operational by opening and closing each zone. This also activates the **Vibtest** output to pre-check the operation of all **Vibration** zones before the system sets. Once set, all codes are locked out until the programmed **Datelock** date and time. The system can not be unset manually.

During the **Datelock** period, all outputs programmed as **Lockout** are active. Once the programmed **Datelock** expires the codes are re-enabled. The system can only be unset by entering any two valid codes.

During the **Datelock** period, the system rearms indefinitely. On rearming, any zone that is currently open or has alarmed twice is omitted whether or not it is omittable.

In the event of an alarm occurring, if the **Datelock** parameter is set to **2**, entry of two valid codes with access to all groups will unset the system before the programmed **Datelock** period has expired.

NOTE: After a warm start, the system removes any outstanding **Datelock** period to provide a means of cancelling it.

Section 8: Engineer 1

Option 51 – Parameters

This option allows the engineer to modify the system functions. Options can be selected using the **A** or **B** keys or by entering the two digit parameter number and pressing the **ent** key. The selected options can then be programmed by using the **A** key to increase or the **B** key to decrease the values assigned to the parameter; pressing the **ent** key accepts the new value and returns to the previous menu level. Any parameters that differ from this procedure are indicated in the following paragraphs. The parameters also prompt the engineer on which keys to press.

For example, press:

- **1** then **6** parameter **16 = Soak Time** selected;
- **ent** currently soak time is displayed along with the programmable range **07 (1–14) days**;
- **08** value of the required soak time, the display shows the new value **08 (1–14) days**;
- **ent** accept the programming and return to **16 = Soak Time** displayed.

NOTE: Default settings must be changed before programming in Menu Option 55 – Soak.

Assigning Parameters to Groups

Several of the parameters allow separate values to be assigned to the groups on the system. If groups have been enabled, the relevant parameters prompt for a group to be selected; when selected, the value is assigned to the group parameter using the procedure outlined in the previous example.

The parameters that permit group selection are indicated in the following paragraphs.

Parameter		Groups	Galaxy 8	Galaxy 18	Galaxy 60	Galaxy 128	Galaxy 500	Galaxy 504	Galaxy 512
01	Bell Time	✓	✓	✓	✓	✓	✓	✓	✓
02	Bell Delay	✓	✓	✓	✓	✓	✓	✓	✓
03	Abort Time	✓	✓	✓	✓	✓	✓	✓	✓
04	Exit Time	✓	✓	✓	✓	✓	✓	✓	✓
05	Entry Time	✓	✓	✓	✓	✓	✓	✓	✓
06	System Reset	✓	✓	✓	✓	✓	✓	✓	✓
07	Tamper Reset	✓	✓	✓	✓	✓	✓	✓	✓
08	No. Re-arms	✓	✓	✓	✓	✓	✓	✓	not available
09	Omit All	✓	✓	✓	✓	✓	✓	✓	not available
10	Key '0'	not available	✓	✓	✓	✓	✓	✓	✓
11	Local Part	✓	✓	✓	✓	✓	✓	✓	✓
12	Banner	not available	✓	✓	✓	✓	✓	✓	✓
13	PA Delay	✓	✓	✓	✓	✓	✓	✓	✓
14	KEY/SW Level	not available	✓	✓	✓	✓	✓	✓	✓
15	System Text	not available	✓	✓	✓	✓	✓	✓	✓
16	Soak Time	not available	✓	✓	✓	✓	✓	✓	✓
17	Restart	not available	✓	✓	✓	✓	✓	✓	✓
18	Stop Set	not available	✓	✓	✓	✓	✓	✓	✓
19	Part Alarm	✓	✓	✓	✓	✓	✓	✓	✓
20	Power Delay	✓	✓	✓	✓	✓	✓	✓	✓
21	Reset Mgr.	not available	✓	✓	✓	✓	✓	✓	✓
22	PA reset	✓	not available	✓	✓	✓	✓	✓	✓
23	Print Codes	not available	not available	✓	✓	✓	✓	✓	✓
24	Exit Alarm	✓	not available	✓	✓	✓	✓	✓	✓
25	Global Copy	not available	not available	✓	✓	✓	✓	✓	✓
26	Forced	not available	not available	✓	✓	✓	✓	✓	not available
27	cct Debounce	not available	not available	✓	✓	✓	✓	✓	not available
28	Online print	not available	not available	✓	✓	✓	✓	✓	✓
29	Online level	not available	not available	✓	✓	✓	✓	✓	✓
30	Video	✓	not available	✓	✓	✓	✓	✓	✓
31	Delay Alarm	✓	not available	✓	✓	✓	✓	✓	✓
32	Show Alarms	not available	not available	✓	✓	✓	✓	✓	✓
33	Secure Code	not available	not available	not available	not available	✓	not available	✓	✓
34	Comfort Time	not available	not available	not available	✓	✓	✓	✓	not available
35	Fail To Set	✓	not available	not available	✓	✓	✓	✓	✓
36	Battery Size	not available	not available	not available	✓	✓	✓	✓	✓
37	Standby Time	not available	not available	not available	✓	✓	✓	✓	✓
38	ATM Delay	not available	not available	not available	not available	not available	not available	not available	✓
39	ATM Timeout	not available	not available	not available	not available	not available	not available	not available	✓
40	Datelock	not available	not available	not available	not available	not available	not available	not available	✓
41	Weekend Work	not available	not available	not available	not available	not available	✓	✓	✓
42	PIN Change	not available	not available	not available	not available	✓	✓	✓	✓
43	Timer Access	not available	not available	not available	not available	✓	✓	✓	✓
44	Early Open	not available	not available	not available	not available	not available	not available	not available	✓
45	High Security	not available	not available	not available	✓	✓	✓	✓	not available
46	Zone Resistance	not available	not available	✓	✓	✓	✓	✓	
47	Set Confirm	not available	not available	not available	not available	not available	not available	not available	not available
48	No. of Alarms	not available	not available	✓	✓	✓	✓	✓	✓
49	Confirm Time	not available	✓	✓	✓	✓	✓	✓	✓
50	RF Bat Delay	not available	not available	✓	✓	✓	✓	✓	✓
51	RF Jam Delay	not available	not available	✓	✓	✓	✓	✓	✓
52	RF Stop Set	not available	not available	✓	✓	✓	✓	✓	✓
53	RF Stop Mode	not available	not available	✓	✓	✓	✓	✓	✓
54	Keypad Access	not available	✓	✓	✓	✓	✓	✓	✓
55	Confirm	not available	✓	✓	✓	✓	✓	✓	✓
56	Force Restore	not available	✓	✓	✓	✓	✓	✓	✓

Table 9. System Parameters

01 = Bell Time

The duration of the **Bells** output activation is programmable within the range **0–30** minutes; the default is **20**. Assigning a value of **00** minutes sets the **Bell Time** to infinity.

This parameter can be assigned a different value for each group.

The Entry/Exit Horn is subject to the Bell Time parameter in both the set and unset conditions.

02 = Bell Delay

The delayed activation of the bell is programmable within the range **0–20** minutes; the default is **0**. The **Bell Delay** is overridden by a telecom failure (either a **Comms Fail** on the Galaxy Telecom Module or by the activation of a **Line Fail** zone used to monitor a digicom); an alarm condition in either of these conditions results in instant bells activation.

This parameter can be assigned a different value for each group.

03 = Abort Time

The abort time is programmable within the range **0-300** seconds. The **Abort Time** delays the activation of **Intruder** outputs during the unsetting of the system.

The abort time is initiated:

- whenever a zone that is not on the entry route (**Final, Entry** and **Exit** zones) is activated — a user strays from the entry route;
- a valid code is not entered before the entry time expires.

There are two modes of operation for the abort:

1. Standard abort (required in the UK for DD243 compliance).
2. Star ✱ abort.

Standard Abort Operation

If the programmed **Abort Time** is allowed to expire, the **Intruder** outputs remain active (latched on) until a code authorised to reset the system is entered (refer to parameter **06 = System Reset**).

This parameter can be assigned a different value for each group.

The operation of the Abort feature is described as follows and indicates under what conditions the Abort output will be activated.

Note: to comply with the NACOSS standards NACP 10, the Star Abort operation **must not** be programmed. To comply with DD243:2002, the abort time must be programmed for 001 secs.

- For entry route deviation, the signalling of an intruder alarm is delayed.
- If a valid code is entered before the entry time expires:
  (1) The intruder is not signaled.
  (2) The system does not require a system reset.
- If a valid code is **not** entered before the entry time expires or an entry timeout condition occurs:
  (1) The intruder is signaled at the end of the entry time.
  (2) The Abort timer starts on expiry of the entry time.
- If a valid code is entered within the programmed abort time:
  (1) If an abort output/channel is allocated to the alarmed group:
    a) The Abort signal is sent.
    b) The intruder condition is not restored.
    c) Intruder restore is not signalled.

(2) If there is **no** abort output allocated to the alarmed group:
   a) The intruder condition is restored.
   b) Intruder restore is signalled

- The system requires a system reset. The panel cannot be set until this occurs.

Note: If reduced resets (51.55.3) is enabled, the alarm will be reset by the user code, if the alarm is unconfirmed.

- If the Abort time is programmed for 000 seconds, then there is no time restriction on when the entry of a valid code will signal the Abort.

Note: 000 seconds equals infinite.

Star ✱ Abort Operation

- For entry route deviation, the signalling of an Intruder alarm is immediate, or
- For entry timeout conditions, the signalling of an Intruder alarm is immediate:
  (1) The Abort timer starts on signalling of the Intruder.
  (2) If a valid code is entered within the programmed abort time:
     a) The intruder condition is restored.
     b) Intruder restore is signalled.
     c) The system does not require a system reset.
  (3) If a valid code is not entered until the programmed abort time expires:
     a) The Abort output/channel is not activated.
     b) The Intruder condition is not restored.
     c) Intruder restore is not signalled
     d) The system does require a system reset.
  (4) If the abort time is programmed for *000 seconds, then there is no time restriction on when the entry of a valid code will signal the abort.

04 = Exit Time

This parameter determines the time allowed to leave the premises via the exit route before the system sets. The **Exit Time** is programmable within the range **0–300** seconds; the default is **120** seconds.

Infinite Exit Time

Assigning a value of 000 seconds sets the **Exit Time** to infinity; an Exit terminator activation (**Final** or **Push-set** zone) is required to complete the setting of the system. The infinite **Exit Time** is normally used with a **Push-set** zone to terminate the setting and an **Entry** zone to start the unsetting procedure.

NOTE: If the system is programmed to **Autoset**, an **Exit Time** of **000** causes the system to instantly set — there is no requirement for a **Push-Set** zone to be activated.

Setting Multiple Groups

This parameter can be assigned a different value for each group. If more than one is group is being set, the longest exit time is adopted for all setting groups.

05 = Entry Time

This parameter determines the entry time allowed to users when unsetting the system. The **Entry Time** is programmable within the range **0–300** seconds; the default is **120**. Assigning a value of 000 seconds sets the **Entry Time** to infinity.

This parameter can be assigned a different value for each group.

NOTES:

1. A **Final** zone assigned a ✳ when programming the function will double the programmed **Entry Time** for the group it is allocated to.
2. There are no groups in the Galaxy 8

06 = System Reset

This option allows the engineer or the remote code to determine the code level that can reset the system following a PA tamper. The default level is **6** — manager; the programmable range is:

- **0–5** for the user
- **6** for the manager
- **7** for the engineer

This parameter can be assigned a different value for each group.

NOTE: 1. There are no groups in the Galaxy 8.
2. This option is affected by reduced resets, menu option 51.55.3.

The panel only requests Engineer Level Reset if Intruder, PA or Tamper alarms have been signalled, via the Telecom Module and appropriate level reset is set to 7. If no signal is transmitted, the reset will automatically reduced to level 6. This feature is only active when the DTMF signalling format is selected.

07 = Tamper Reset

This option allows the engineer or the remote code to determine the code level that can reset the system following a tamper. The default level is **7** — manager; the programmable range is:

- **0–5** for the user
- **6** for the manager
- **7** for the engineer

This parameter can be assigned a different value for each group.

NOTE: 1. There are no groups in the Galaxy 8.
2. This option is affected by reduced resets, menu option (51.55.3)

The panel only requests Engineer Level Reset if Intruder, PA or Tamper alarms have been signalled, via the Telecom Module and appropriate level reset is set to 7. If no signal is transmitted, the reset will automatically reduced to level 6. This feature is only active when the DTMF signalling format is selected.

08 = No. Re-Arms (Galaxy 8, 18, 60, 128, 500, & 504)

The system re-arms following a module tamper at the end of the bell time, irrespective of whether the module tamper remains active or has been restored, assuming there are no other conditions that prevent the rearm from occurring. The tamper condition remains active until a tamper reset is carried out. Any outputs programmed as **Tamper** or **MAX Tamp** follow the output mode programming (Latch, Reflex, Pulse) beyond the bell time.

The **No. Re-arms** parameter determines the number of alarm activations that are followed by an automatic re-arming system. The default setting is **9** (no re-arms) with a programmable range of **0 – 9**, where **9** is continuous re-arm. If the option is enabled, then the system re-arms at the end of the programmed confirm time - only if all zones are closed or are open and can be omitted.

Zones that are open at the end of the bell time must be omittable (**Omit** attribute enabled); the re-arm will omit these zones. The complete zone circuit, including the tamper facility, is omitted. Refer to menu option **52 = PROGRAM ZONES** for details on enabling the zone omit attribute.

NOTE: If an open zone is not omittable, then the system will not re-arm, unless parameter **09 = Omit All** is set to 2.

09 = Omit All (Galaxy 8, 18, 60, 128, 500, & 504)

The re-arm option omits zones that are open at the end of the bell time.

0 = **Disabled** (default)

1 = Omit All When set to 1 (enabled), omits any omittable zones that have been activated during the alarm condition. The complete zone circuit including tamper is omitted.

2 = **Omits any zones** whether omittable or not

Refer to menu option **52 = PROGRAM ZONES** for details on enabling the zone omit attribute.

Galaxy 512

This option is not available.

10 = Key "0"

Key **0** on the keypad can be assigned to operate as a **Push-set** zone function; this will terminate the timed setting procedure. When the option is set to **1 (**enabled), pressing key **0** during the exit time completes the setting of the system. The default is **0** (disabled).

NOTE: Key **0** must be pressed only on the keypad used to start the setting procedure.

11 = Local Part

When the **Local Part** parameter is set to **0** (disabled - default setting) the **Intruder** outputs are disabled when the system is part set; the programmed bell delay is overridden. This is normally used to prevent the communicator from dialling the Alarm Receiving Centre.

If the **Local Part** parameter is set to **1** (enabled) the **Intruder** outputs activate if an alarm condition occurs when the system is part set.

Option **2** (**SIA part off**) is identical to option **1** with the exception that when the alarm format of the telecom module is set to **SIA** then the part setting and unsetting of the system is not signalled to the ARC.

This parameter can be assigned a different value for each group.

12 = Banner

This option can be used to customise both the top and bottom lines of the banner display. Press **1** to select the top line or **2** to select the bottom line; the display is written using the alpha-numeric assembly method:

- ✳ erases characters;
- **#** selects upper case, lower case or library;
- **A B** selects alphabet character/words;
- **000–500** selects alphabet character or words;

- **ent** positions selected characters/words;
- **esc** accepts the programming and returns to the previous level; exits from the option.

The banner is displayed whenever any group on the system is unset.

13 = PA Delay

This parameter determines the delay between the activation of a **PA Delay** or **PA Delay Silent** zone and the alarm sounding and signalling a PA via the communicator. The **PA Delay** is programmable within the range **1–60** seconds; the default is **60**.

This parameter can be assigned a different value for each group.

14 = Key/SW Level

This parameter assigns a code level to zones programmed as **Keyswitch**. The **Keyswitch** zone can be used to reset system, tamper and PA alarms - depending on the reset level assigned to each of these parameters. The default level is **6** - manager; the programmable range is:

- **0–7** for the engineer
- **0–8** for the remote code

15 = System Text

This parameter allows two text strings to be assigned to the system: press **1** to select the **System ID** or **2** to select the **Panel Location**.

1. **System ID** — 8 character identification of system;
2. **Panel Location** — 16 character message of where control is fitted.

The text is written using the alpha-numeric assembly method:

- ✳ erases characters;
- # selects upper case, lower case or library;
- **A B** selects alphabet character/words;
- **000–500** selects alphabet character or words;
- **ent** positions selected characters/words;
- **esc** accepts the programming and returns to the previous level; exits from the option.

16 = Soak Time

This parameter determines the number of days that zones can be soak tested for; the programmable range is **1 – 14** days; the default is **7**.

17 = Restart

This parameter re-configures the system without the need to remove and reconnect the power. The system displays a **WARNING!!! ent=RESET SYSTEM**, press the **ent** key to reconfigure the system. The keypad display becomes blank for a few seconds, then displays the message **Configuring Please Wait**. When configuration is complete the banner returns to the normal display (day mode). The **Restart** option configures any modules that have been added to the system but gives an alarm if there are any tampers open or if any modules are reported as missing.

NOTE: This parameter exits engineer mode.

18 = Stop Set

This parameter, when set to **1** (enabled), prevents the system from setting if there is a line fail or a mains fail condition at the time of starting the setting procedure. If the condition is the result of an open **Line Fail** or **AC Fail** zone, then the system can not be set until the zone is closed or omitted. The **Stop Set** parameter is set to **0** (disabled) by default.

NOTE: Battery Low will also prevent the system from setting.

19 = Part Alarm

When the **Part Alarm** parameter is set to **1** (enabled — default setting) the **Bells** and **Strobe** outputs activate if an alarm condition occurs when the system is part set.

When the **Part Alarm** parameter is set to **0** (disabled) the **Bells** and **Strobe** outputs are disabled when the system is part set.

NOTES:

1. The **Horn, Entry/Exit** and **Intruder** outputs are not affected by this parameter.
2. There are no groups in the Galaxy 8

This parameter can be assigned a different value for each group.

20 = Power Delay (Galaxy 18, 60, 128, 500, 504 & 512)

This parameter determines the delay between the activation of **AC Fail** outputs following a mains failure to allow the power to return before signalling the fault. The **Power Delay** is programmable within the range **0–50** minutes; the default is **10**.

This parameter can be assigned a different value for each group.

NOTE: This option is not available on the Galaxy 8. It is set at 10 minutes.

21 = Reset MGR (Galaxy 18, 60, 128, 500, 504 & 512)

This parameter should only be used if the Master Manager code is lost or must be replaced. On selecting the **Reset MGR** parameter, a warning message is displayed: **WARNING!!! ENT=Code Change**; press the **ent** key to erase current code and reset it to the default of **1234**.

Galaxy 504 & 512

The manager code (**User 997**) can only be reset by the remote code (**User 500**).

22 = PA Reset (Galaxy 18, 60, 128, 500, 504 & 512)

This option allows the engineer or the remote code to determine the code level that can reset the system following a PA activation. The default level is **6** — manager; the programmable range is:

- **0–5** for the user
- **6** for the manager
- **7** for the engineer

This parameter can be assigned a different value for each group.

The panel only requests Engineer Level Reset if Intruder, PA or Tamper alarms have been signalled, via the Telecom Module and appropriate level reset is set to 7. If no signal is transmitted, the reset will automatically be reduced to level 6. This feature is only active when the DTMF signalling format is selected.

23 = Print Codes (Galaxy 18, 60, 128, 500, 504 & 512)

The **Print Codes** option, when set to **1** (enabled), allows the manager to print a list of the PINS for each of the users. The option defaults to **0** (disabled).

24 = Exit Alarm (Galaxy 18, 60, 128, 500, 504 & 512)

If the **Exit Alarm** parameter is set to **1** (enabled), any zone other than **Final**, **Exit**, **Entry** or **Push-Set** (or **Secure Final** or **Part Final** when acting as a **Final**) that is opened during the exit time causes a full alarm condition to be activated. The default is **0** (disabled).

NOTE: This option must be used only when specified.

This parameter can be assigned a different value for each group.

Galaxy 512

If the **Exit Alarm** parameter is enabled, any zone that is open when the Autoset begins (at the end of the pre-warning period) causes an immediate full alarm condition to be activated.

If the **Exit Alarm** parameter is disabled, any zone open when the Autoset begins (at the end of the pre-warning period) results in an "urgent" bleeping from the **Entry/Exit Horns**. If the open zones are not closed by the end the time assigned in parameter **35 = Fail To Set**, a full alarm is activated along with any outputs programmed as **Fail-Set**.

25 = Global Copy (Galaxy 18, 60, 128, 500, 504 & 512)

The **Global Copy** parameter changes all zones within the selected range to the function of the first zone in the range. On selection of the parameter, a warning message is displayed indicating that the zone functions will be altered — **WARNING!!! ENT=ZONE CHANGES**: press the **ent** key to continue or the **esc** key to abort the programming. The address and function of the first zone on the system are displayed:

- **Copy Start:** Use the **A** or **B** key to select the first zone in the range to be copied and press the **ent** key. The function of this zone will be copied to all subsequent zones in the range;
- **Copy End:** Use the **A** key to move to the last zone in the range to be copied.
- Press the **ent** key to copy the zone function to the selected range.

26 = Forced (Galaxy 18, 60, 128, 500 & 504)

The **Forced** parameter enables or disables Menu option **14 = FORCED SET**. If the parameter is set to **1** (enabled) the user can force the system to set, automatically omitting any omittable zones that are open at the time of setting. If the parameter is set to **0** (disabled), option **14 = FORCED SET** is not available to the user; the message **Option not available** is displayed. The parameter defaults to **0** (disabled).

NOTE: It is recommended that **Final**, **Entry** and **Push-Set** zones have the omit attribute disabled.

27 = CCT Debounce (Galaxy 8, 18, 60, 128, 500 & 504)

The **cct Debounce** parameter determines the response time of the zones (how long they must remain open before registering as changing state). The **cct Debounce** is programmable within the range **20–1000** milliseconds (**0.02–1** second); the default is 300 msecs. All entries are rounded up to the nearest 20 msecs.

28 = Online Print (Galaxy 18, 60, 128, 500, 504 & 512)

This parameter is used to select the print mode required when connecting a serial printer to the Galaxy panel; there are two options:

0 = disabled (default): system only prints specific details at the user's request. The printer can be connected and disconnected at any time as required;

1 = enabled: this option switches the printer to **on-line** mode and requires that a printer be continuously connected to the system. Events are printed as and when they occur. The events printed are controlled by parameter **29 = Online Level**.

NOTE: If **Online Print** is enabled, the event log and other options will not be printed at the user's request. The parameter must be disabled to permit all other print options to operate.

29 = Online Level (Galaxy 18, 60, 128, 500, 504 & 512)

The **On-line Level** parameter determines the level of events that are printed when parameter **28 = Online Print** is enabled:

0 (default) - basic print (setting, unsetting, alarms);

1 - full print excluding MAX events (setting, unsetting, alarms, modifications, technical details)

2 - full print including MAX events.

3 - MAX events only.

4 - Basic Print plus MAX events.

NOTE: If **Online Level** is set to **1** (exclude MAX events), then all MAX events in the log **are not** included in the printout; if **2** (include MAX events) is selected, then the MAX events in the log **are** included in the print.

30 = Video (Galaxy 18, 60, 128, 500, 504 & 512)

This parameter determines the number of activations that must occur on any of the zones programmed as **Video**, in a single set period, before a full alarm occurs; there is no time limit on the period between activations. The **Video** parameter is programmable within the range **1–9** activations; the default is **2**. The Galaxy 8 is fixed at **2** activations. The **Video** zones activation counter is reset when the system is unset.

NOTE: The activations of the **Video** zones are cumulative - the counter is incremented each time any **Video** zone in the group is activated.

This parameter can be assigned a different value for each group.

31 = Delay Alarm (Galaxy 18, 60, 128, 500, 504 & 512)

This parameter determines the delay between the activation of an **Intruder Delay** zone and the alarm sounding or a **Log Delay** zone being recorded as opening in the event log. The **Delay Alarm** is programmable within the range **0–3000** seconds; the default is **60**.

If a second **Intruder Delay** zone opens followed by the first zone closing, the **Delay Alarm** time continues to count from the activation of the first zone. The **Delay Alarm** timer is reset only when all delay type zones return to the closed state.

This parameter can be assigned a different value for each group.

32 = Show Alarms (Galaxy 18, 60, 128, 500, 504 & 512)

If the **Show Alarms** parameter is enabled, the first alarm activation is immediately displayed on all the keypads when an alarm condition occurs. Normally alarm messages are not displayed until the alarm is cancelled by entry of a valid code.

0 = disabled (default) - alarms displayed only on valid code entry;

1 = enabled - instant display of first alarm activation.

NOTE: This parameter will only function when at least one group is not set

33 = Secure Code (Galaxy 60, 128, 500, 504 & 512)

Once this parameter has been selected, the engineer code is randomly changed each day at 08:00 hours. The service engineer must be informed of the "code of the day" by head office. The random code that is generated is dependent on the local engineer code, therefore each area, company, branch or even system can have a unique secure code.

Either the engineer or remote user code can select the **Secure Code** parameter. On selecting this parameter the current engineer code must be entered to confirm the selection. Only the remote user code (or a cold start - erasing all programming details) can cancel it.

Select **1** to enable **Secure Code**, or **0** to disable the parameter; the default is **0** (disabled).

34 = Comfort Time (Galaxy 60, 128, 500 & 504)

The **Comfort Time** parameter permits a period of time to be allocated when the values assigned to the entry and abort time parameters and the number of wrong code attempts are doubled; the programmable range is **0–14** days; the default is **0**. This allows new or unfamiliar users to become accustomed to the system without causing false alarm activations. At the end of the **Comfort Time** the system returns all the affected parameters to the programmed values.

NOTE: The Galaxy 8 and 18 are set to 0 days (no comfort time)

35 = Fail to Set (Galaxy 60, 128, 500, 504 & 512)

This parameter determines the period of time that a zone must remain open, following the start of the setting procedure, before the **Fail Set** outputs activate. The programmable range is **0–999** seconds; the default is **360** .

NOTE: The **Fail To Set** countdown time begins as soon as the setting procedure is started.

This parameter can be assigned a different value for each group.

36 = Battery Size (Galaxy 60, 128, 500, 504 & 512)

Enter the size of the standby battery on the Smart PSU that is connected to the Galaxy panel. The programmable range is **0–99**Ah; the default is **0**.

NOTE: The **Battery Size (**in Ahr's**)** should only be entered if a Smart PSU is being used to supply power to the Galaxy panel.

37 = Standby Time (Galaxy 60, 128, 500, 504 & 512)

Enter the value (in hours) that the system is required to run on standby battery if there is a mains fail. The programmable range is **0–99** hours; the default is **0**.

NOTE: The **Standby Time** should only be entered if a Smart PSU is being used to supply power to the Galaxy panel.

The Smart PSU calculates the battery run time from the programmed **Battery Size** (parameter **36**) and the load current. If the programmed **Standby Time** exceeds the calculated battery run time, a **STANDBY TIME LOW** message is displayed on the keypad on attempting to exit engineer mode. Exiting engineer mode is prevented until a **Standby Time** that is less than the calculated battery time is entered or a larger battery is installed in the system and the new battery size is entered in the **Battery Size** parameter.

38 = ATM Delay (Galaxy 512)

This parameter determines the period of time before the selected **ATM** zone type is omitted following the entry of one of the **ATM** codes (**User 188–197**). The programmable range is **0–30** minutes; the default **ATM Delay** is **5**.

39 = ATM Timeout (Galaxy 512)

This parameter determines the period of time that the selected **ATM** zone type is omitted following the entry of one of the **ATM** codes (**Users 188–197**). The programmable range is **1–90** minutes; the default **ATM Timeout** is **30**.

40 = Datelock (Galaxy 512)

This parameter is used to enable or disable menu option **49 = DATELOCK;** the parameter can be set to one of the three following options:

0 = **Disabled** (default setting): the **Datelock** menu option is not available to the user; the message **Option not available** is displayed.

1 = **Enabled**: the **Datelock** prevents the system from being manually unset until the **Lockout** time has expired (refer to option **65 = TIMERS**);

2 = **Dual Unlock**: following an alarm activation, two level 2 (or above) codes, assigned to all groups, can unset the system before the **Lockout** time expires.

41 = Weekend Work (Galaxy 500, 504 & 512)

This parameter is used to enable or disable menu option **45.6 = TIMER CONTROL.Weekend Work**. If the parameter is set to **1**, the engineer can assign a **Pattern Day** and the user can authorise **Weekend Working**. If the parameter is set to **0** (disabled — default setting), the message **Option not available** is displayed on selecting the **Weekend Work** menu option.

42 = PIN Change (Galaxy 128, 500, 504 & 512)

This parameter defines the expiry period of user codes allocated the **PIN Change** attribute (refer to option **42 = CODES**). The **PIN Change** parameter is programmable within the range **0–12** months; the default is **0**. The user PIN must be changed before the assigned **PIN Change** month ends. On entering the expiring user code a warning that the code is due to expire and a prompt to assign a new code is given to the user. The period of this warning message is determined by the **PIN Warning** option (refer to menu option **42.2 = CODES. PIN Warning**).

The default value is **0** - this means that although codes have been allocated the expiry attribute, they do not expire.

43 = Timer Access

Option not available.

44 = Early Open (Galaxy 512)

This parameter determines the number of minutes before the **Lockout OFF** time that the system can be manually unset when the **Early Open** option (refer to menu option **45 = TIMERS**) is switched on. The **Early Open** parameter is programmable within the range **0–240** minutes; the default is **0**.

45 = High Security (Galaxy 60, 128, 500, & 504)

This option allows RIO zones to be monitored for Constant Voltage Tampers. A constant voltage tamper is activated if a zone detector is replaced by a constant voltage source, for example, battery. This feature is automatic for the Galaxy 512 and is selectable as an option for the Galaxy 18, 60, 128, 500 and 504. Only RIO zones are affected by this feature. The hardware on the Galaxy 8, 18 and 60 does not support this feature for on-board zones.

The High Security feature is disabled by default in the RIO, so must be turned on by the panel for this feature to be activated. The feature can be turned on from the panel via Parameter 45 (High Security). The default value for this parameter is disabled. If enabled, all RIOs on the system are affected.

This feature is only supported by RIOs rev 1.2 and above and Smart PSUs rev 0.7 and above.

46 = Zone resistance (Galaxy 18, 60, 128, 500, 504 & 512)

RIOs rev 1.2 and Smart PSUs rev 0.7 and above allow the zones to be programmed, with different resistance ranges for zone status activation. This feature allows selection of End Of Line or Double Balanced zone resistance types. The on-board zones can also be modified using this feature.

The "EOL/Dbl. Bal." resistance types are selectable from this option. The default value is Double Balanced.

The Table that follows shows the resistance windows for each type:

Zone Status	Double Balanced Range	EOL Range
Tamper S/C	0 - 800	0 - 800
Low Resistance	800 - 900	800 - 900
Normal	900 - 1200	900 - 1200
High Resistance	1200 - 1300	1200- 1300
Alarm	1300 - 12000	1300 - α
Tamper O/C	12000 - α	-

Table 10. Zone Resistance

47 = Set Confirm

Option not available

48 = Maximum Number of Alarms (Galaxy 60, 128, 500, 504 & 512)

This option allows the user to program the maximum number of alarms, per group, which may be transmitted to an Alarm Receiving Centre in any set period. The selectable values are **0**-**10** where **0** is unlimited.

Fire and PA alarms are not restricted by this parameter.

This feature only affects Contact ID, SIA and Microtech communication formats.

49 = Confirm Time

This option is the maximum time between two separate zones for a confirmed alarm to be generated up to a maximum of **99** minutes with a default of **30** minutes.

50 = RF Bat Delay

This option allows a warning to be given at the Galaxy panel if an RF low battery is detected. An additional option is given at the panel that allows a delay up to a maximum of **100** hours (default) before a signal of **RF BAT LOW** is sent to the ARC.

51 = RF Jam Delay

This option allows the RF RIO to send an RF jam signal to the Galaxy panel if it detects interference for 30 seconds. If the interference is continuously present for 5 minutes (default), the signal is transmitted to central station. The programmable range is 0 - 30 minutes.

52 = RF Stop Set

If this option is enabled, the setting is prevented if all supervised devices have not signalled to the receiver in the stop set period prior to setting. This is selectable from **0 - 250** minutes. The default is **20** minutes.

53 = RF Stop Mode

This option controls if and how an RF fault prevents the panel from being set. There are three options:

0 = Disabled: An RF fault will not prevent setting

1 = Warning: If there is a failure the user will get a warning but can continue to set.

2 = Auto Check: If there is a failure the system cannot be set until the zone(s) have been activated.

54 = Keypad Access

This option allows the keypad to unset the system. There are two options:

1 = Always

2 = Except Entry: Except when entry time is running. This ensures that users are unsetting using a fob or MAX tag (portable device)

55 = Confirm

This option controls how confirmed alarms are generated. It controls the operation of confirm outputs plus the signalling of confirmed alarms. There are three options:

1 = Operation: This option controls when confirmed alarms can be triggered. An entry timeout alarm will never contribute to a confirmed alarm. Here are three options:

- **1 = Before Entry (UK)**. Confirmed alarms can be triggered before starting entry time only.
- **2 = Except entry**. Confirmed alarms can be triggered any time except during the entry delay period.
- **3 = Always (EU)**. Confirmed alarms are always enabled.

2 = Entry Timeout: This option controls whether exit type zones can cause confirmed alarms, after an entry timeout.

- **0 = Disable Exits**. Exit type zones will only cause unconfirmed intruder alarms. They will not contribute to the two activations required for a confirmed alarm.
- **1 = Enable Exits**. After the expiry of the entry delay, activation of an exit type zone will be identical to an intruder zone.

3 = Reduce Reset: This option allows user reset following an unconfirmed alarm.

- **0 = Off**. Full system reset is required for any intruder alarm.
- **1 = On Unconfirmed**. The system can be reset by user, if the alarm is unconfirmed. If the alarm is classed as unconfirmed, a full system reset will be required.

56 = Force Restore

This option dictates when intruder restore signals are transmitted.

1 = Unset/Unconfirm: On unset or at the end of the confirmed time if the alarm is not confirmed.

2 = System Reset: Sent when the system is fully reset.

Option 52 – Program Zones

This option is used by the engineer to modify the programming of the zones on the system. The option also allows the attributes of the zone to be changed. The programmable options are shown in the Table that follows:

Attributes		Description
1	Function	assign zone type
2	Descriptor	16 character (max.) alpha-numeric description
3	Chime	enabled = momentarily chime effect if zone opened while unset
4	Omit	enabled = zone can be omitted
5	Part	enabled = zone included in part setting of system
6	Resp. Time	Modify zone debounce
7	Custom SIA	Select SIA event
8	Group	assign zone to a single group on the system
Note:	Groups only appear if the Group option is enabled (refer to option 63.1 = OPTIONS.Groups).	

Table 11. Zone Attributes

Selecting Zones

On entering the option, the first zone on the system is displayed; the zone address, function and group assigned are displayed on the top line, the descriptor is displayed on the bottom line. Pressing the # key toggles the descriptor to reveal the status of the chime, omit and part attributes. If the attribute is enabled, the initial attribute letter is displayed, if it is disabled, a dash (–) is shown. For example, chime, part and omit enabled display as **COP**, if omit is disabled the display would be **C – P**.

From the display of the first zone, any zone on the system can be displayed by pressing the **A** or **B** keys or by entering the address of a specific zone.

NOTE: For direct zone address selection the Galaxy 8, 18 and 60 only require the last two digits of the zone address to be entered; the Galaxy 128,500, 504 and 512 require a four digit address to be entered.

The zone is selected for programming by pressing the **ent** key; the first zone programming attribute **1=Function** is displayed.

Attributes

The attributes can be stepped through by pressing the **A** or **B** keys or directly selected by pressing the attribute number (**1–8**). Once the required attribute is on display, press the **ent** key to gain access for modification.

Once the attribute has been assigned press the **ent** key to save the programming and return to the attribute selection level.

Pressing the **esc** key at any time when assigning attributes **1** and **3–8** to a zone aborts the programming and returns to the attribute selection level. Pressing the **esc** key when assigning a descriptor to a zone saves the assigned alphanumeric text and returns to the attribute selection level.

1 = Function

Entering the **Function** attribute displays the address and the current function of the selected zone along with the zone function reference number. The zone functions can be stepped through, forwards or backwards, using the **A** and **B** keys. Alternatively a zone function can be directly selected by entering the zone function reference number, for example, entering the **19** displays zone function **19 = FIRE**.

Once the required zone function is displayed, it is assigned to the zone by pressing the **ent** key.

2 = Descriptor

Each zone can be assigned with an alpha-numeric descriptor of up to 16 characters. This descriptor is assembled from the character set and/or library options. On selecting the **Descriptor** attribute, the currently assigned descriptor (blank by default) is displayed on the top line - an underscore shows where the next character will be positioned, and a selection of the alphabet is shown on the bottom line - the cursor flashes on the letter **L**.

Press the ✳ key to erase the characters already assigned to the descriptor.

The **A** or **B** keys can be used to move the alphabet left or right until the required character is positioned underneath the flashing cursor. When the required character is in position press the **ent** key to copy the character to the descriptor in the top line. Repeat this procedure to assemble the required zone descriptor.

Text Case and Library

On entering the **Descriptor** attribute the alpha-numeric characters are all presented in upper case. Pressing the **#** key toggles the characters to lower case.

Pressing the # key when the lower case alphanumeric characters are displayed toggles to the library words. The words can be viewed using the **A** or **B** keys or directly selected using the reference number - refer to **Appendix A - Library**. When the required word is displayed, press the **ent** key to copy it to the descriptor.

NOTE: Library words are a maximum of 12 characters and upper case only.

3 = Chime

If the **Chime** attribute is set to **1** (enabled) the zone will chime momentarily whenever it is opened while the system is unset. The **Chime** attribute defaults to **0** (disabled) for all zone functions.

The **A** or **B** keys can be used to toggle the status of the **Chime** attribute — pressing **1** or **0** will also select the required status; press the **ent** key to accept the programming.

NOTE: The **Chime** option (full menu option **15**, quick menu option **2**) must be enabled if the zones are to chime when opened.

4 = Omit

If the **Omit** attribute is set to **1** (enabled) the zone can be omitted from the system by using one of the omit functions (**11 = OMIT ZONES**, **14 = FORCED SET**, **46 = GROUP OMIT**). The **Omit** attribute defaults to **0** (disabled) for all zone functions.

The **A** or **B** keys can be used to toggle the status of the **Omit** attribute - pressing **1** or **0** will also select the required status; press the **ent** key to accept the programming.

Galaxy 512

Only one zone can be omitted at any one time on the Galaxy 512. The only exception to this is the **Vibration** zone function; selecting a single **Vibration** zone automatically omits all **Vibration** zones on the system - irrespective of the group that each is assigned to.

5 = Part

If the **Part** attribute is set to **1** (enabled) the zone will be included in the setting procedure when one of the part setting options is used to set the system (**13 = PART SET**, **17 = INSTANT PART**). The **Part** attribute defaults to **1** (enabled) for all zone functions except zones programmed as **09 = Keyswitch**.

The **A** or **B** keys can be used to toggle the status of the **Part** attribute - pressing **1** or **0** will also select the required status; press the **ent** key to accept the programming.

6 = Resp. Time

This function is only applicable to zones on RIO rev 1.2 and Smart PSU rev 0.7 and above.

This option allows the user to select , either Fast (10ms), System (default value programmed in **51 – Parameters, Option 27)** or Slow (750ms), for each zone.

7 = Custom SIA

This option allows a different SIA mnemonic to be allocated to the selected zone. The default is the standard SIA mnemonic for the zone type selection. The default mnemonic can be reselected by pressing the ✳ key.

The Table that follows shows the list of available customisable mnemonics:

No	Event text	Description	Alarm	Closed	Omit	Unomit	Troub	Tr. Res	Test	Tamp
1	Default									
2	AT/R Power	AC Trouble, AC Restoral	AT	AR	BB	BU	BT	BJ	BX	TA
3	BA/R Burglary	Burglary Alarm, Burglary Restoral	BA	BR	BB	BU	BT	BJ	BX	TA
4	DG/D Access	Access Granted, Access Denied	DG	DD	BB	BU	DT	DJ	BX	TA
5	FA/R Fire	Fire Alarm, Fire Resoral	FA	FR	FB	FU	FT	FJ	FX	TA
6	GA/R Gas	Gas Alarm, Gas Restoral	GA	GR	GB	GU	GT	GJ	GX	TA
7	HA/R Holdup	Holdup Alarm, Holdup Resoral	HA	HR	HB	HU	HT	HJ	BX	TA
8	KA/R Heat	Heat Alarm, Heat Resoral	KA	KR	KB	KU	KT	KJ	BX	TA
9	LT/R Line Fail	Line Trouble, Line Restoral	LT	LR	BB	BU	BT	BJ	BX	TA
10	MA/R Medical	Medical Alarm, Medical Restoral	MA	MR	MB	MU	MT	MJ	BX	TA
11	PA/R Panic	Panic Alarm, Panic Restoral	PA	PR	PB	PU	PT	PJ	BX	TA
12	QA/R Assist	Emergency Alarm, Emergency Restoral	QA	QR	QB	QU	QT	QJ	BX	TA
13	RO/C Relay	Relay Open, Relay Closed	RO	RC	BB	BU	BT	BJ	BX	TA
14	SA/R Sprinklr	Sprinkler Alarm, Sprinkler Restoral	SA	SR	SB	SU	ST	SJ	BX	TA
15	TA/R Tamper	Tamper Alarm, Tamper Resoral	TA	TR	TB	TU	BT	BJ	TX	TA
16	WA/R Water	Water Alarm, Water Retoral	WA	WR	WB	WU	WT	WJ	BX	TA
17	YT/R Battery	Battery Alarm, Battery Restoral	YT	YR	BB	BU	BT	BJ	BX	TA
18	ZA/R Freezer	Freezer Alarm, Freezer Restoral	ZA	ZR	ZB	ZU	ZT	ZJ	BX	TA

Table 12. Customisable Mnemonics

8 = Group (Galaxy 18, 60, 128, 500, 504 & 512)

NOTE: The **Groups** attribute is only available if groups have been enabled on the system (refer to option **63 = OPTIONS**).

The **Group** attribute allows the zone to be assigned to a single group on the system. All zones default to **Group A1**.

On selecting the **Group** attribute, the group that the zone is currently assigned to is displayed. All zones default to group **A1**. Press the number of the group that the zone is to be reassigned to and press the **ent** key.

Galaxy 500, 504 & 512

The Galaxy 500, 504 and 512 panels have 16, 32 and 32 groups respectively; these are displayed on the keypad in blocks of eight groups, sub-divided into A, B, C and D:

Use the **A** or **B** key to select the required group (**A1–D8**). When the end of a block is reached, the next block of eight groups is displayed; use keys **1–8** to assign the relevant group in the current block to the zone; press the **ent** key to accept the selection.

Star (✳) Group Function

Certain zone functions have an additional **Group** attribute feature that allows the other groups to be affected by their operation. This feature is assigned by pressing the ✳ key when allocating the group to the zone.

On pressing the ✳ key the display indicates the group currently assigned to the zone and prompts for other groups to be added, for example **1✳ 1 – – – – – – –**, pressing **4** and **7** assigns **1 ✳1 – – 4 – – 7 –**.

Final, Secure Final, Part Final and Keyswitch Push Set Zones

If the star ✳ group feature is assigned a zone programmed as **Final**, **Secure Final**, **Part Final** or **Push Set**, then closing the zone when setting multiple groups terminates the setting procedure for all groups assigned to the zone.

Refer to the zone functions for further information on the operation of these zone functions.

Exit Zones

The star ✳ group feature can be assigned to a zone programmed as **Exit**. This allows an **Exit** zone to be activated in a group which is not currently being unset without activating an **Intruder** alarm condition.

Refer to the zone functions for further information on the operation of this zone function.

System Alarms

The Galaxy panels have tamper and alarm monitoring circuits which are not programmable. These circuits maintain the integrity of the system and all correspond to **Group A1**.

Zone	Alarm	Description
0001	CUBATT	Control unit battery low
0002	CUAC	Control unit AC fail
0003	LID TAMPER	Control unit lid tamper
0004	AUX TAMPER	Control unit tamper return

Table 13. Control Panel Alarms

Zone Function		Galaxy 8	Galaxy 18	Galaxy 60	Galaxy 128	Galaxy 500	Galaxy 504	Galaxy 512
01	Final	✓	✓	✓	✓	✓	✓	✓
02	Exit	✓	✓	✓	✓	✓	✓	✓
03	Intruder	✓	✓	✓	✓	✓	✓	✓
04	24 Hours	✓	✓	✓	✓	✓	✓	✓
05	Security	✓	✓	✓	✓	✓	✓	✓
06	Dual	✓	✓	✓	✓	✓	✓	✓
07	Entry	✓	✓	✓	✓	✓	✓	✓
08	Push Set	✓	✓	✓	✓	✓	✓	✓
09	Keyswitch	✓	✓	✓	✓	✓	✓	✓
10	Secure Final	✓	✓	✓	✓	✓	✓	✓
11	Part Final	✓	✓	✓	✓	✓	✓	✓
12	Part Entry	✓	✓	✓	✓	✓	✓	✓
13	PA	✓	✓	✓	✓	✓	✓	✓
14	PA Silent	✓	✓	✓	✓	✓	✓	✓
15	PA Delay	✓	✓	✓	✓	✓	✓	✓
16	PA Delay Silent	✓	✓	✓	✓	✓	✓	✓
17	Link	✓	✓	✓	✓	✓	✓	✓
18	Spare	✓	✓	✓	✓	✓	✓	✓
19	Fire	✓	✓	✓	✓	✓	✓	✓
20	Tamper	✓	✓	✓	✓	✓	✓	✓
21	Bell Tamper	✓	✓	✓	✓	✓	✓	✓
22	Beam Pair	✓	✓	✓	✓	✓	✓	✓
23	Battery Low	✓	✓	✓	✓	✓	✓	✓
24	Line Fail	✓	✓	✓	✓	✓	✓	✓
25	AC Fail	✓	✓	✓	✓	✓	✓	✓
26	Log	✓	✓	✓	✓	✓	✓	✓

Table 14A Available Zone Functions per Galaxy Panel

Zone Function		Galaxy 8	Galaxy 18	Galaxy 60	Galaxy 128	Galaxy 500	Galaxy 504	Galaxy 512
27	Remote Access	✓	✓	✓	✓	✓	✓	✓
28	Video	✓	✓	✓	✓	✓	✓	✓
29	Video Exit	✓	✓	✓	✓	✓	✓	✓
30	Intruder Delay	✓	✓	✓	✓	✓	✓	✓
31	Log Delay	✓	✓	✓	✓	✓	✓	✓
32	Set Log	✓	✓	✓	✓	✓	✓	✓
33	Custom-A	not available	✓	✓	✓	✓	✓	✓
34	Custom-B	not available	✓	✓	✓	✓	✓	✓
35	Exitguard		✓	✓	✓	✓	✓	✓
36	Mask		✓	✓	✓	✓	✓	✓
37	Urgent		✓	✓	✓	✓	✓	✓
38	PA Unset		✓	✓	✓	✓	✓	✓
39	Keyswitch Reset		✓	✓	✓	✓	✓	✓
40	Not Used							
41	Not Used							
42	Not Used							
43	Not Used							
44	Not Used							
45	Not Used							
46	Not Used							
47	Vibration		✓	✓	✓	✓	✓	✓
48	ATM-1							✓
49	ATM-2							✓
50	ATM-3							✓
51	ATM-4							✓
52	Alarm Extend		✓	✓	✓	✓	✓	✓

Table 14B. Available Zone Functions per Galaxy Panel (contd.)

01 Final

Zones programmed as **Final** initiate the unsetting procedure and terminate setting procedure; opening the **Final** zone when the system or group is set starts the entry timer; opening and then closing the **Final** zone during the exit procedure sets the system or assigned groups, providing all the zones are closed. The opening (+) and closing (–) of **Final** zones during the setting and unsetting procedures are recorded in the event log.

Pressing the ✳ key when programming a **Final** zone doubles the entry time of the group.

Opening a **Final** zone during the exit time is not reported on the keypad as an open zone; the **Entry/Exit Horns** bleep rapidly to indicate that the zone is open.

NOTE: The termination feature of a **Final** zone can be extended to terminate the setting of multiple groups by pressing the ✳ key when assigning a group to the zone. Refer to the **Star ✳ Group Function**.

02 Exit

Zones that protect the entry and exit routes are programmed as **Exit**. During the setting and unsetting procedures **Exit** zones have a non-alarm operation. If the **Exit** zone is activated while the system is set - without the unsetting of the group being initiated - an **Intruder** alarm condition is activated.

Opening an **Exit** zone during the exit time is not reported on the keypad as an open zone; the **Entry/Exit Horns** bleep rapidly to indicate that the zone is open.

NOTE: The **Exit** zone can be assigned to multiple groups by pressing the ✳ key when assigning a group to the zone. This allows an **Exit** zone to be activated in a group which is not currently being unset without activating an **Intruder** alarm. Refer to the **Star ✳ Group Function**.

03 Intruder

The **Intruder** function is inactive when the system is unset. When the system is set, activation of an **Intruder** zone causes a full alarm activation that requires to be reset with a code authorised for **System Reset** - refer to option **51.6 = PARAMETERS.System Reset** and option
51.55.3 = PARAMETERS.Confirm.Reduce Reset.

All zones (except zone 1001 and 1002 on the Galaxy 8, 18 & 60) are programmed as **Intruder** by default; this includes the zones on RIOs that are added to the system at a later date.

04 24 Hours

The **24 Hours** zone function is continuously operational. In the unset state, activation of the zone function generates a local alarm condition (the **Intruder** outputs are not activated). If the zone is activated while the system is set, the **24 Hours** function operates the same as an **Intruder** function and results in a full alarm condition. The **24 Hours** zone function requires a system reset following an activation in both the set and unset conditions.

05 Security

The operation of the **Security** zone function is identical to the **24 Hours** zone function, except a **Security** zone activation in the unset generates a local alarm (**Horn** outputs activated) that does not require a system reset; any valid code (level 2 or above) cancels the alarm and resets the system. An activation in the set state generates a full alarm that requires a system reset. The activation (+) and restoration (–) of **Security** zones is recorded in the event log.

06 Dual (Double Knock)

The operation of the **Dual** (Double Knock) function is identical to the **Intruder** function, with the exception that an alarm condition is activated only when there have been two activations from any **Dual** zones (assigned to the same group) within a 20 minute period while the system is set.

07 Entry

This function initiates the unsetting procedure in the same way as a **Final** zone. However, during the setting routine an **Entry** zone operates as an **Exit** zone type. This function is normally used in conjunction with a **Push Set** zone, which acts as the exit terminator for the setting procedure.

Pressing the ✳ key when programming an **Entry** zone doubles the entry time of the group.

Opening an **Entry** zone during the exit time is not reported on the keypad as an open zone; the **Entry/Exit Horns** bleep rapidly to indicate that the zone is open.

08 Push Set

This zone function is used to terminate the setting routine. The system sets when the **Push Set** zone, usually a push button, is activated. The **Entry/Exit Horn** stops immediately the button is pressed; the system sets after four seconds, allowing the doors to settle to the closed state. The **Push Set** zone remains inactive until the next setting routine.

NOTE: The **Push Set** zone can be either 1kΩ going to 2kΩ or 2kΩ to 1kΩ - refer to **Installation Manual (II1-0027), System Architecture** for wiring details. The first time that the **Push Set** is used to terminate the setting, the button will require to be pressed twice; the first press identifies the normal status of the button to the system.

Activating a **Push Set** zone during the exit time is not reported on the keypad as an open zone; the **Entry/ Exit Horns** bleep rapidly to indicate that the zone is open.

NOTE: The termination feature of a **Final** zone can be extended to terminate the setting of multiple groups by pressing the ✳ key when assigning a group to the zone. Refer to the **Star ✳ Group Function**.

09 Keyswitch

The **Keyswitch** function allows a zone to be used as an on/off switch for the system or assigned groups. Operating a **Keyswitch** zone when the system is unset starts the timed full setting routine, therefore the exit time is applicable. The system sets when the exit time expires or a **Final** or **Push Set** is activated.

NOTE: Assigning a # to the keyswitch zone function will cause the Instant setting routine to be activated. In this case the exit time is not applicable. If a Keyswitch Zone has its omit attribute enabled, activation of the Keyswitch will force set the assigned groups. Only zones with the omit attribute enabled will be omitted.

If the system is set, operating a **Keyswitch** immediately unsets the assigned groups; there is no entry time countdown.

The **Part** attribute of the **Keyswitch** function defaults to **0** (disabled); the standard **Keyswitch** function full sets the system. To part set the system using the **Keyswitch**, the **Part** attribute must be enabled.

NOTE: The operation of a **Keyswitch** zone can be extended to the setting and unsetting of multiple groups by pressing the ✳ key when assigning a group to the zone. Refer to the **Star ✳ Group Function**.

The standard programming of the **Keyswitch** function requires a momentary change from 1kΩ to 2kΩ to both set and unset the system. If the **Keyswitch** connected has a latching mechanism, press the ✳ key when assigning the function; the display indicates **09=✳KEYSWITCH** has been assigned. The ✳ **Keyswitch** operation is as follows: 1kΩ to 2kΩ sets the system; 2kΩ to 1kΩ unsets the system.

The **Keyswitch** function can also be programmed to reset alarms - refer to option **51.14 = PARAMETERS.Keyswitch Level**. If the **Keyswitch** is assigned a sufficient level to reset the alarm condition, the alarm is cancelled and immediately reset when the **Keyswitch** is used to unset the system following an alarm activation.

NOTE: The activated zones are not displayed on the keypad when a **Keyswitch** is used to reset the alarm.

10 Secure Final

This zone has dual functionality depending on whether the system is set or unset. When the system is setting, set or unsetting the operation is identical to the **Final** zone function. When the system is unset the operation is identical to the **Security** zone function.

Pressing the ✳ key when programming a **Secure Final** zone doubles the entry time of the group.

Opening a **Secure Final** zone during the exit time is not reported on the keypad as an open zone; the **Entry/ Exit Horns** bleep rapidly to indicate that the zone is open.

The termination feature of a **Secure Final** zone can be extended to terminate the setting of multiple groups by pressing the ✳ key when assigning a group to the zone. Refer to the **Star ✳ Group Function**.

11 Part Final

This zone has dual functionality depending on whether the system is full set or part set. When the system is full set the zone operation is identical to the **Final** zone function. When the system is part set the zone operation is identical to the **Intruder** zone function.

Pressing the ✳ key when programming a **Part Final** zone doubles the entry time of the group.

Opening a **Part Final** zone during the exit time is not reported on the keypad as an open zone; the **Entry/Exit Horns** bleep rapidly to indicate that the zone is open.

The termination feature of a **Part Final** zone can be extended to terminate the part setting of multiple groups by pressing the ✳ key when assigning a group to the zone. Refer to the **Star ✳ Group Function**.

12 Part Entry

This zone has dual functionality depending on whether the system is full set or part set. When the system is full set the zone operation is identical to the **Exit** zone function. When the system is part set the zone operation is identical to the **Entry** zone function.

Pressing the ✳ key when programming a **Part Entry** zone doubles the entry time of the group.

13 PA

The **PA** (Personal Attack) function is continuously operational. Activation of this zone type overrides the **Bell Delay** parameter and causes an instant full alarm condition that requires to be reset with a code authorised for **PA Reset** — refer to **Option 51 – PARAMETERS, 22 = PA Reset**; the **Intruder** outputs are not activated by **PA** zones.

NOTES

1. If a **PA** zone is open, it is indicated on the keypad whenever a valid code is entered. The group that the open **PA** is assigned to cannot be set until it is closed.
2. The tamper facility on the **PA** zone remains active while engineer mode is accessed.
3. **Galaxy 512 only** — engineer mode cannot be exited if a **PA** zone is open.

14 PA Silent

The **PA Silent** function is identical to the **PA** function, with the exception that there is no audible or visual indication of the activation; that is, no bells or strobes are activated. Only the **PA** output (normally channel 2 on the digital communicator) signals the alarm. The activation (+) and restoral (–) of **PA Silent** zones is recorded in the event log.

NOTES

1. At the time of setting, any **PA Silent** zones that are currently open are reported to the user.
2. The tamper facility on the **PA** zone remains active while engineer mode is accessed.
3. **Galaxy 128, 500, 504 & 512** — engineer mode cannot be exited if a **PA Silent** zone is open.

15 PA Delay

The **PA Delay** function is identical to the **PA** function, with the exception that the **PA** output activation can be delayed for up to 60 seconds; this is determined by option **51.13 = PARAMETER.PA Delay**. During the period of delay the **Entry/Exit Horns** activate to remind the user that the PA delay is counting down; entering a valid code or closing the **PA Delay** zone aborts the alarm.

NOTES

1. If a **PA Delay** zone is open, it is indicated on the keypad whenever a valid code is entered. The group that the open **PA Delay** is assigned to cannot be set until it is closed.
2. The tamper facility on the **PA** zone remains active while engineer mode is accessed.
3. **Galaxy 512 only** — engineer mode cannot be exited if a **PA Delay** zone is open.

16 PA Delay Silent

The **PA Delay Silent** function is identical to the **PA Delay** function, with the exception that there is no audible or visual indication of the activation; that is, no bells or strobes are activated. Only the **PA** output (normally channel 2 on the digital communicator) signals the alarm. The activation (+) and restoral (–) of **PA Delay Silent** zones are recorded in the event log.

NOTES

1. At the time of setting, any **PA Delay Silent** zones that are currently open are reported to the user.
2. The tamper facility on the **PA** zone remains active while engineer mode is accessed.
3. **Galaxy 512 only** — engineer mode cannot be exited if a **PA Delay Silent** zone is open.

17 Link

This zone type has no operational function; it is designed to be used as a source of a link - refer to option **54 = LINKS**. The activation (+) and de-activation (–) of **Link** zones is recorded in the event log.

NOTE: option **54 = LINKS** is not available on the Galaxy 8.

18 Spare

The **Spare** function allows any zones that are not being used to be ignored by the system; the resistance readings from the circuit - including the tamper conditions - do not activate an alarm condition.

NOTE: It is recommended that all unused zones are programmed as **Spare** and that a 1kΩ 1% resistor is connected across each of these zones.

19 Fire

The **Fire** function is continuously operational. When activated, a **FIRE** zone overrides the **Bell Delay** parameter and activates an instant alarm (**Bell**, **Strobe** and **Fire**). The keypad buzzer and control panel horn output, if fitted, emit an interrupted tone (one second on, 0.5 seconds OFF), easily distinguishable from all other alarm conditions. Any valid code entry cancels the **Fire** activation.

20 Tamper

The **Tamper** function is continuously operational. When a **Tamper** zone is activated (1kΩ to 2kΩ), a tamper alarm is generated; this requires to be reset by a code authorised for **Tamper Reset** - refer to option **51.7 = PARAMETERS.Tamper Reset**. If a tamper condition (open or short circuit) occurs, a tamper alarm is also generated.

21 Bell Tamper

This function is identical to the operation of the **Tamper** function but is dedicated to bells, sirens and other modules or output devices requiring tamper protection.

22 Beam Pair

This function is only operational when two consecutively addressed zones programmed as **Beam Pair** are open in the set condition; the activation is identical to the **Intruder** function. The system cannot set if a single **Beam Pair** is open.

NOTE: **Beam Pair** zones must be consecutively addressed; the first **Beam Pair** zone must have an even number address, the second **Beam Pair** must have the next address (an odd number). For example, valid **Beam Pair** addresses are **1036 & 1037**, **2018 & 2031** - in this case, RIO **202** has not been connected, therefore zone **2031** is the next address to **2018**.

23 Battery Low

This function is used to monitor the voltage output of a standby battery connected to a power supply. The activation (+) and de-activation (–) of **Battery Low** zones is recorded in the event log.

24 Line Fail

The **Line Fail** function is used to monitor the telephone line that a remote signalling device is connected to for communications failure.

When the system is in the unset state, the first activation of a **Line Fail** zone causes a local alarm and the message **TELECOM FAILURE** is displayed, subsequent **Line Fail** activations do not sound the local alarm; the only indication is the keypad display.

When the system is set, activation of the **Line Fail** zone overrides the **Bell Delay** parameter; on unsetting the system a local alarm is generated and the keypad gives an indication that **Line Fail** zone has activated. If an alarm condition occurs while the **Line Fail** is active, an instant full alarm is generated.

If the **Line Fail** zone is active at the point of setting, a warning message is displayed; the user can choose to continue or abort the setting procedure. It is also possible to prevent the system setting if the **Line Fail** is active by enabling the **Stop Set** parameter (option **51.18**).

25 AC Fail

This function is used to monitor a remote power supply. In the event of a power failure the AC **Fail** zone is activated; the activation (+) and de-activation (–) of the zone is recorded in the event log.

26 Log

This zone type has no operational function; it is designed to record the activation of a zone in both the set and unset state. The activation (+) and de-activation (–) of **Log** zones is recorded in the event log.

27 Remote Access

This function is used to disable remote servicing of the Galaxy panel. When the **Remote Access** zone is active the Galaxy Gold software is prevented from gaining access to the Galaxy panel.

28 Video

This function is identical to the **Intruder** function, with the exception that the cumulative number of activations from **Video** zones, before a full alarm is generated, is programmable. The number of activations required is determined by the **Video** parameter (option **51.30**); the range is **1–9** (Galaxy 8 is fixed at 2 activations). The activation count is incremented when any **Video** zone in the group activates; the count is reset to zero when the group is unset.

29 Video Exit

The **Video Exit** function is identical to the **Video** function, with the exception that the user can activate the zone during setting and unsetting without incrementing the **Video** activations count. The **Video** output is not activated during setting and unsetting.

30 Intruder Delay

The **Intruder Delay** function is identical to the **Intruder** function, with the exception that the full alarm activation can be delayed for up to 50 minutes (0–3000 seconds); this is determined by the **Delay Alarm** parameter (option **51.31**). The **Intruder Delay** zone must remain open for the period of the **Delay Alarm** parameter; while the zone is open the **Entry/Exit Horns** activate to remind the user that the **Delay Alarm** is counting down. Unsetting the system or closing the **Intruder Delay** zone aborts the alarm and resets the timer.

If a second **Intruder Delay** zone opens followed by the first zone closing, the **Delay Alarm** time continues to count from the activation of the first zone. The **Delay Alarm** timer is reset only when all delay type zones return to the closed state.

NOTE: On the Galaxy 8 the **Delay Alarm** parameter (option **51:31**) is set to 1 minute and can not be changed.

31 Log Delay

The **Log Delay** function operation is identical to the **Log** function, with the exception that the recording of the zone activation can be delayed for up to 50 minutes (0–3000 seconds); this is determined by the **Delay Alarm** parameter (option **51.31**). Closing the **Log Delay** zone resets the timer and aborts the recording of the event in the log.

32 Set Log

The **Set Log** function is identical to the **Log** function, with the exception that zone activations are only recorded in the event log during the set period.

33 Custom A

The **Custom A** function allows a zone to be assembled. The functionality of the zone; when it activates; the outputs activated; if it sets or unsets the systems; if it logs, are assigned using menu option **64 = ASSEMBLE ZONE**. Once the **Custom A** zone has been created, it can be assigned to as many zones as required.

34 Custom B

This function is identical in operation and assembly to **Custom A**.

35 = Exit Guard

The **Exitguard** function allows a zone to be used to omit other zones on the system. This is useful for permitting access via doors programmed as **24 Hours** or **Security**.

The **Exitguard** zone must be the source of a link (refer to option **54 = LINKS**); the destination of the **Exitguard** link is either a zone address or an output type.

When opened, the **Exitguard** omits the zone entered as the link destination; an alarm is not activated if the **Exitguard** zone is open while a zone that it is omitting is open. If the destination zone is opened while the **Exitguard** zone is closed, an alarm activation occurs; opening the **Exitguard** omits the zone and silences the output types assigned to the link destination. Closing the **Exitguard** zone while the destination zone is still open does not result in an alarm activation; closing the destination zone deactivates the link and returns the zone to its normal operation.

NOTE: The **Exitguard** function cannot be used as a link source to activate a link destination output.

Programming Example:

- Zone 1014 = An on/off keyswitch programmed as **Exitguard**.
- Zone 1015 = A door contact programmed as **Security**.
- Output type **Link A** = An output wired to a local horn and programmed as **Link A**.

NOTE: Exit Guard guard zones do not omit zones open when the exit guard zone is activated , even if they are subsequently closed.

Operation: The **Security** door contact (**1015**) can be omitted at any time by operating the **Exitguard** keyswitch (1014). If the door (1015) is opened without first being omitted, then the **Link A** horn activates and needs to be reset by operating the keyswitch (1014).

Link	Source	Destination
1	Zone = 1014	Zone = 1015
2	Zone = 1015	Output = Link A
3	Zone = 1014	Output = Link A

Table 15. Exit Guard Zones

36 Mask

The **Mask** function is designed to be used with detectors capable of reporting that their field of view has been blocked or masked. The **Mask** function is identical to the **Security** function, with the exception that the **Mask** output is activated instead of **Security**.

37 Urgent

The **Urgent** function is continuously operational; it is identical to the **Intruder** function, with the exception that it activates a full alarm condition (including the Intruder outputs) in any set or unset condition.

38 PA Unset

This **PA Unset** function is identical to the **PA Silent** function, with the exception that it is only operational when the system is unset; the function is inactive when the group is set.

39 Keyswitch Reset

The **Keyswitch Reset** function allows alarms to be cancelled and the system to rearm without unsetting the Galaxy. The level of reset authorisation is determined by the **Keyswitch Level** (option **51.14**). The level required to reset **Intruder**, **PA** and **Tamper** alarms is determined by the **System Reset**, **Tamper Reset** and **PA Reset** parameters (option **51.06**, **51.07** and **51.22**) respectively.

This function is designed to permit a remote signal, for example REDCare's Return Path Signalling feature, to reset the system following an alarm condition.

47 Vibration (Galaxy 504 & 512)

The **Vibration** function is continuously operational and is designed for use with vault sensors. **Vibration** zones can be block omitted using menu option **11 = Omit Zones**. If the zone selected to be omitted from the system is a **Vibration zone**, then all zones programmed with this function are omitted.

NOTES

1. All **Vibration** zones in all groups are omitted when any **Vibration** zone is omitted. The user code does not have to have access to all of the groups.
2. **Vibration** zones remain omitted until a single **Vibration** zone is manually reinstated. The unsetting of the system does not reinstate omitted **Vibration** zones.

48-51 ATM-1, ATM-2, ATM-3 & ATM-4 (Galaxy 512 only)

The Galaxy 512 has four **ATM** (Automatic Teller Machine) zone types. These zone functions are continuously operational and are designed for the special maintenance and restocking requirements of ATM's.

A single **ATM** zone type can be omitted for the duration of the period entered in the **ATM Timeout** parameter (option **51.39**). The **ATM Delay** parameter (option **51.38**) determines the delay before the selected **ATM** zones are omitted once selected by an ATM code (**User 188–197**). Each of the zones **ATM-1** to **ATM-4** zones activates a corresponding **ATM** output.

NOTE: The relevant **ATM** outputs are activated as soon as the **ATM** zone is selected, not when the **ATM Delay** expires.

On entering an ATM code, the system prompts for one of the **ATM** zone types to be selected; to select the **ATM** zone type to be omitted use the **A** or **B** key or enter the number of the **ATM** zone type. Once the zone is selected, the keypad indicates the **DELAY ACCESS** - the number of minutes remaining until the **ATM** zones are omitted. Once the zone is omitted, the initiating keypad indicates the **ACCESS TIMEOUT** - the number of minutes remaining until the selected ATM zones are reintroduced to the system. The **Entry/ Exit Horns** sound a warning ten and five minutes before the zones are reinstated.

The omitted **ATM** zone type can be reinstated at any time, or the omit period can be extended by the ATM user code. Enter the ATM code and press the **ent** key; the system prompts for **1 = RESET ACCESS** or **2 = ABORT ACCESS**. Press 1 to restart the **ATM Timeout** or **2** to reinstate the omitted **ATM's**.

NOTE: Only one ATM zone type may be omitted at any time.

52 Alarm Extend (G18, 60, 128, 500, 504 & 512)

The **Alarm Extend** function is identical to the **Urgent** function, with the exception that if the zone is open (and has not been previously omitted) at the end of the bell duration (refer to option **51.1 = PARAMETERS.Bell Time**) it immediately activates another full alarm condition. **Alarm Extend** zones can only be omitted by option **11 = OMIT ZONES**.

Option 53 – Program Outputs

This option is used by the engineer to modify the programming of the outputs on the system. The option also allows the attributes of the outputs to be changed. The programmable options are:

Attributes		Description
1	Output Function	assign output type
2	Output Mode	1 = Latch — requires valid code to reset 2 = Reflex — follows activation status of zones 3 = Pulse (001 – 3000 secs) — activates for programmed period
3	Output Polarity	0 = POS — 12 V going to 0 V in activation 1 = NEG — 0 V going to 12 V in activation
4	Output Groups	assign groups to the output.
Note: Groups only appear if the Group option is enabled (refer to option 63.1 = OPTIONS.Groups).		

Table 16. Output Attributes

Selecting Outputs

On entering the option, the first output on the system is displayed; the output address, function and mode are displayed on the top line, the polarity and assigned groups are displayed on the bottom line.

From the display of the first output, any output on the system can be displayed by pressing the **A** or **B** keys or by entering the address of a specific output.

NOTE: For direct output address selection the Galaxy 8, 18 and 60 only require the last two digits of the zone address to be entered; the Galaxy 128, 500, 504 and 512 require a four digit address to be entered.

The output is selected for programming by pressing the **ent** key; the first output programming attribute **1=Op Function** is displayed.

Keypad Outputs

The keypad outputs are fully programmable. The address of the keypad output is the keypad address prefixed with a star, for example the output for keypad 06 is ✳**06**. The function of keypad outputs default to **Entry/Exit Horn**.

The valid addresses of the keypads on each of the panels and the respective output addresses are indicated in the following table:

Panel	Line	Address	Output Address
8, 18 & 60	1	0 – 9 & A – F	* 00 – * 15 (Note 1)
128	S3	C, E	* 16 * 18 (Note 2)
	1	0 – 2, B, D & F	* 10 – * 12 (Note 3) * 15 * 17 * 19 (Note 2)
	2	0 – 6 & F	* 20 – * 26 & * 29
500, 504 & 512	S3	C, E	* 16 * 18 (Note 2)
	1	0 – 2, B, D & F	* 10 – * 12 (Note 3) * 15 * 17 * 19 (Note 2)
	2	0 – 6 & F	* 20 – * 26 & * 29
	3	0 – 6 & F	* 30 – * 36 & * 39
	4	0 – 6 & F	* 40 – * 46 & * 49

Table 17. Addresses of Valid Keypad Outputs

NOTE 1: **G8, 18 and 60**:- On Line 1, keypad addresses B, C, D and E are not available if the Ethernet, ISDN, RS232 or Telecom modules respectively are fitted.

NOTE 2: **G128, 500, 504 and 512**:- On Line S3, keypad addresses C and E are not available if the ISDN or Telecom modules are fitted.

NOTE 3: **G128, 500, 504 and 512**:- On Line 1, keypad addresses B, D and F are reserved for the Ethernet, RS232 module and engineer keypad respectively, but can be used for keypads if these modules are not connected.

Control Horn (✳99)

The control unit horn output - addressed as ✳**99 -** is fully programmable.

NOTE: The Galaxy 8 does not have an on-board horn output.

Attributes

The attributes can be stepped through by pressing the **A** or **B** keys or directly selected by pressing the attribute number (**1–4**). Once the required attribute is on display, press the **ent** key to gain access for modification.

Once the attribute has been assigned press the **ent** key to save the programming and return to the attribute selection level. Pressing the **esc** key at any time when assigning attributes aborts the programming and returns to the attribute selection level.

1 = Output Function

Entering the **Output Function** attribute displays the address and the current function of the selected output along with the output function reference number. The output functions can be stepped through, forwards or backwards, using the **A** and **B** keys. Alternatively, a function can be directly selected by entering the function reference number, for example, entering **16** displays output function **16 = FIRE**.

Once the required output function is displayed, it is assigned to the output by pressing the **ent** key.

2 = Output Mode

Each output function defaults to a specific, logical output mode. However, the output mode of each function can be modified to meet special requirements: when reprogrammed, the new mode applies to all outputs assigned to that function. The output modes are:

1 = Latch: the output remains active until a valid code is entered.

2 = Reflex: the output follows the activity of the triggering event, for example, the **Set** output follows the setting and unsetting of the group.

3 = Pulse: the output remains active for the programmed pulse time 1-3000 seconds (50 mins).

Programming the Output Mode

Select the required mode using the **A** or **B** keys or by selecting the number **1 – 3**. Once the required mode is on selected, press the **ent** key to accept the programming. If assigning the **Pulse** output mode, enter the pulse time (001 – 3000 seconds) and press the **ent** key.

3 = Output Polarity

The **Output Polarity** determines the normal operational state of the output. All outputs are referred to having positive (**0 = POS**) or negative (**1 = NEG**) polarity. An output programmed as positive polarity is 12 V in the normal condition and goes to 0 V when activated. A negative polarity output goes from the normal condition of 0 V to 12 V in the active state. All outputs except **SET (09)** default to positive output mode.

NOTE: The **Switch DC** output is a positive polarity output, however, the normal condition is 0 V, going to 12 V when activated. The output mode is normally **Pulse**.

4 = Output Groups (Galaxy 18, 60, 128, 500, 504 & 512)

NOTE: The **Groups** attribute is only available if groups have been enabled on the system (refer to option **63 = OPTIONS**).

The **Group** attribute allows the output to be assigned to the groups on the system; an output can be assigned to more than one group. All outputs default to all groups on the system.

On selecting the **Output Groups** attribute, the groups that the output is currently assigned to are displayed. Press the relevant number keys to toggle the status of the group and press the **ent** key; if the group number is displayed on the top line, then the group is assigned to the output; if a dash (–) appears in place of the group number, the group has been removed from the output.

Theoutput will activate if triggered by an event in any of the groups assigned to that output, unless output group status has been programmed.

Galaxy 500, 504 & 512

The Galaxy 500, 504 and 512 panels have 16, 32 and 32 groups respectively; these are displayed on the keypad in block of eight groups, sub-divided into A, B, C and D:

Group Block	Physical Groups
A1-8	1-8
B1-8	9-16
C1-8	17-24 (504 & 512 only)
D1-8	25-32 (504 & 512 only)

Table18. Output Groups

Use the **A** or **B** key to select the required group (**A1–D8**). When the end of a block is reached, the next block of eight groups is selected; press keys **1–8** to toggle the status of the relevant group in the current block to the output; press the **ent** key to accept the selection.

Group Status

This group attribute offers an additional feature that makes the operation of the output conditional on the set status of each of the system groups. An output assigned **Group Status** only activates if the set conditions of the programming are met, for example, an **Intruder** output used to trigger a communicator can be programmed to activate only if groups **2** and **4** are set and group **3** is unset.

```
Groups   12345678
STATUS  >-SUS----
```

To assign the **Group Status** conditions, press the ✳ key when selecting the groups: an arrow (>) is displayed on the bottom line as well as the current **Status**. Press the relevant number keys to toggle the status of the groups and press the **ent** key to accept the programming. The available group status conditions are:

S = Set — group must be set to allow output to activate;

U = Unset — group must be unset to allow output to activate;

– = Set or unset — output activation is independent of the group status.

Output Functions

The following table shows all the outputs and the zone functions and conditions that result in their activation.

Output Functions		Bells	Strobe	PA	Intruder	Tamper	24 Hrs	Reset	Switch DC	Set	Engineer	Spare	Ready	Security	AC Fail
Zone Function		01	02	03	04	05	06	07	08	09	10	11	12	13	14
01	Final	S	S	–	S	T	–	X	–	–	–	–	A	–	–
02	Exit	S	S	–	S	T	–	–	–	–	–	–	A	–	–
03	Intruder	S	S	–	S	T	–	–	–	–	–	–	A	–	–
04	24 Hours	S	S	–	S	T	A	–	–	–	–	–	A	–	–
05	Security	S	S	–	S	T	–	–	–	–	–	–	A	A	–
06	Dual	S	S	–	S	T	–	–	–	–	–	–	A	–	–
07	Entry	S	S	–	S	T	–	–	–	–	–	–	A	–	–
08	Push Set	–	–	–	–	T	–	X	–	–	–	–	–	–	–
09	Keyswitch	–	–	–	–	T	–	X	X	S	–	–	–	–	–
10	Secure Final	S	S	–	S	T	–	X	–	–	–	–	A	U	–
11	Part Final	S	S	–	S	T	–	X	–	–	–	–	A	–	–
12	Part Entry	S	S	–	S	T	–	–	–	–	–	–	A	–	–
13	PA	A	A	A	–	T	–	–	–	–	–	–	A	–	–
14	PA Silent	–	–	A	–	T	–	–	–	–	–	–	A	–	–
15	PA Delay	A	A	A	–	T	–	–	–	–	–	–	A	–	–
16	PA Delay Silent	–	–	A	–	T	–	–	–	–	–	–	A	–	–
17	Link	?	?	?	?	?T	?	?	?	?	?	?	?	?	?
18	Spare	–	–	–	–	T	–	–	–	–	–	–	–	–	–
19	Fire	A	A	–	–	T	–	–	–	–	–	–	–	–	–
20	Tamper	S	S	–	S	A	–	–	–	–	–	–	A	–	–
21	Bell Tamper	A	S	–	S	A	–	–	–	–	–	–	A	–	–
22	Beam Pair	S	S	–	S	T	–	–	–	–	–	–	A	–	–
23	Battery Low	–	–	–	–	T	–	–	–	–	–	–	–	–	–
24	Line Fail	–	–	–	–	T	–	–	–	–	–	–	–	–	–
25	AC Fail	–	–	–	–	T	–	–	–	–	–	–	–	–	A
26	Log	–	–	–	–	T	–	–	–	–	–	–	A	–	–
27	Remote Access	–	–	–	–	T	–	–	–	–	–	–	–	–	–
28	Video	S	S	–	S	T	–	–	–	–	–	–	A	–	–
29	Video Exit	S	S	–	S	T	–	–	–	–	–	–	A	–	–
30	Intruder Delay	S	S	–	S	T	–	–	–	–	–	–	A	–	–
31	Log Delay	–	–	–	–	T	–	–	–	–	–	–	–	–	–
32	Set Log	–	–	–	–	T	–	–	–	–	–	–	–	–	–
33	Custom-A	?	?	?	?	?T	?	?	?	?	?	?	?	?	?
34	Custom-B	?	?	?	?	?T	?	?	?	?	?	?	?	?	?
35	Exitguard	L	L	L	L	LT	L	L	L	L	L	L	L	L	L
36	Mask	S	S	–	S	T	–	–	–	–	–	–	A	–	–
37	Urgent	A	A	–	A	T	–	–	–	–	–	–	A	–	–
38	PA Unset	–	–	U	–	T	–	–	–	–	–	–	U	–	–
39	Keyswitch Reset	–	–	–	–	T	–	X	–	–	–	–	–	–	–
40–46	Not Used	–	–	–	–	–	–	–	–	–	–	–	–	–	–
47	Vibration	A	A	–	A	T	–	–	–	–	–	–	A	–	–
48	ATM-1	A	A	–	A	T	–	–	–	–	–	–	A	–	–
49	ATM-2	A	A	–	A	T	–	–	–	–	–	–	A	–	–
50	ATM-3	A	A	–	A	T	–	–	–	–	–	–	A	–	–
51	ATM-4	A	A	–	A	T	–	–	–	–	–	–	A	–	
52	Alarm Extend	A	A	–	A	T	–	–	–	–	–	–	A	–	–

Key:

S = Activates when system is set
P = Activates when system is Part Set
U = Unset
A = Activated in any condition
- = No effect
O= Activates when zone is omitted
? = Activation dependant on system programming
X = Activates during Exit Time
E = Activates during Entry Time
L = Switches output off if linked to destination output
T = Activates if zone resistance is <800Ω or >12000Ω

Table 19A. Output Activations per Zone

Output Functions		Batt Low	Fire	Horn	E/E Horn	Part Set	Confirm	Line Fail	Video	Comm Fail	Batt Test	Wrong CD	Alert	DLYD Fire	No Re-arm	Timer-A
Zone Function		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
01	Final	–	–	S	SXE	–	-	–	S	–	–	–	–	–	S	–
02	Exit	–	–	S	SXE	–	S	–	S	–	–	–	–	–	S	–
03	Intruder	–	–	S	SXE	–	S	–	S	–	–	–	–	–	S	–
04	24 Hours	–	–	S	A	–	–	–	S	–	–	–	–	–	S	–
05	Security	–	–	S	A	–	–	–	S	–	–	–	–	–	S	–
06	Dual	–	–	S	SXE	–	S	–	S	–	–	–	–	–	S	–
07	Entry	–	–	S	SXE	–	-	–	S	–	–	–	–	–	S	–
08	Push Set	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
09	Keyswitch	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–
10	Secure Final	–	–	A	A	X	S	–	S	–	–	–	–	–	S	–
11	Part Final	–	–	A	SXE	X	S	–	S	–	–	–	–	–	S	–
12	Part Entry	–	–	A	XE	–	S	–	S	–	–	–	–	–	S	–
13	PA	–	–	A	–	–	–	–	–	–	–	–	–	–	A	–
14	PA Silent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15	PA Delay	–	–	A	A	–	–	–	–	–	–	–	–	–	A	–
16	PA Delay Silent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
17	Link	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
18	Spare	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
19	Fire	–	A	A	A	–	–	–	V	–	–	–	–	A	A	–
20	Tamper	–	–	A	A	–	–	–	S	–	–	–	–	–	S	–
21	Bell Tamper	–	–	A	A	–	–	–	S	–	–	–	–	–	S	–
22	Beam Pair	–	–	S	SXE	–	–	–	S	–	–	–	–	–	S	–
23	Battery Low	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
24	Line Fail	–	–	–	U	–	–	A	–	–	–	–	–	–	–	–
25	AC Fail	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
26	Log	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
27	Remote Access	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
28	Video	–	–	S	SXE	–	S	–	S	–	–	–	–	–	S	–
29	Video Exit	–	–	S	SXE	–	S	–	S	–	–	–	–	–	S	–
30	Intruder Delay	–	–	S	SXE	–	–	–	S	–	–	–	–	–	S	–
31	Log Delay	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
32	Set Log	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
33	Custom-A	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
34	Custom-B	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
35	Exitguard	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
36	Mask	–	–	S	SXE	–	–	–	S	–	–	–	–	–	S	–
37	Urgent	–	–	A	A	–	–	–	–	–	–	–	–	–	A	–
38	PA Unset	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
39	Keyswitch Reset	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
40–46	Not Used	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
47	Vibration	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
48	ATM-1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
49	ATM-2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
50	ATM-3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
51	ATM-4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
52	Alarm Extend	A	A	–	A	T	–	–	–	–	–	–	–	A	–	–

Key:

S = Activates when system is set
P = Activates when system is Part Set
U = Unset
A = Activated in any condition
- = No effect
O= Activates when zone is omitted
? = Activation dependant on system programming
X = Activates during Exit Time
E = Activates during Entry Time
L = Switches output off if linked to destination output
T = Activates if zone resistance is <800Ω or >12000Ω

Table 19B. Output Activations per Zone (Cont'd)

Output Functions		Timer-B	Walk Test	Zone Omit	Warning	Custom A	Custom B	Test	Reset RQD	Mask	Valid cd	Fail Set	Duress	Illegal Code	Max Tamp	Abort	Unset
Zone Function		30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
01	Final	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
02	Exit	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
03	Intruder	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
04	24 Hours	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
05	Security	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
06	Dual	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
07	Entry	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
08	Push Set	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
09	Keyswitch	–	U	O	A	–	–	–	–	–	–	UX	–	–	–	–	U
10	Secure Final	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
11	Part Final	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
12	Part Entry	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
13	PA	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
14	PA Silent	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
15	PA Delay	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
16	PA Delay Silent	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
17	Link	?	U?	O?	?	?	?	?	?	?	?	?	?	?	–	?	?
18	Spare	–	–	–	A	–	–	–	–	–	–	–	–	–	?	–	–
19	Fire	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
20	Tamper	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
21	Bell Tamper	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
22	Beam Pair	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
23	Battery Low	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
24	Line Fail	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
25	AC Fail	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
26	Log	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
27	Remote Access	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
28	Video	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
29	Video Exit	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
30	Intruder Delay	–	U	O	A	–	–	–	S?	–	–	–	–	–	–	–	–
31	Log Delay	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
32	Set Log	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
33	Custom-A	?	?	O?	?	?	?	?	?	?	?	?	?	?	–	?	?
34	Custom-B	?	?	O?	?	?	?	?	?	?	?	?	?	?	?	?	?
35	Exitguard	L	L	LO	L	L	L	L	L	L	L	L	L	L	?	L	L
36	Mask	–	–	–	–	–	–	–	–	SPE	–	–	–	–	L	?	–
37	Urgent	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
38	PA Unset	–	U	O	A	–	–	–	U?	–	–	–	–	–	–	–	–
39	Keyswitch Reset	–	U	O	A	–	–	–	–	–	–	–	–	–	–	–	–
40–46	Not Used	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
47	Vibration	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
48	ATM-1	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
49	ATM-2	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
50	ATM-3	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
51	ATM-4	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–
52	Alarm Extend	–	U	O	A	–	–	–	A?	–	–	–	–	–	–	–	–

Key:

S = Activates when system is set
P = Activates when system is Part Set
U = Unset
A = Activated in any condition
- = No effect
O= Activates when zone is omitted
? = Activation dependant on system programming
X = Activates during Exit Time
E = Activates during Entry Time
L = Switches output off if linked to destination output
T = Activates if zone resistance is <800Ω or >12000Ω

Table 19C. Output Activations per Zone (Cont'd)

Output Functions		Set Late	U/S Early	Pre- Warn	Autoset	Not Used	Link A-O	RF Jam	RF Super	Not Used	Lockout	Vib Test	Atm 1-4
Zone Function		46	47	48	49	50	51-65	66	67	68-69	70	71	72-75
01	Final	–	–	?	–	–	?	–	–	–	–	–	–
02	Exit	–	–	?	–	–	?	–	–	–	–	–	–
03	Intruder	–	–	?	–	–	?	–	–	–	–	–	–
04	24 Hours	–	–	?	–	–	?	–	–	–	–	–	–
05	Security	–	–	?	–	–	?	–	–	–	–	–	–
06	Dual	–	–	?	–	–	?	–	–	–	–	–	–
07	Entry	–	–	?	–	–	?	–	–	–	–	–	–
08	Push Set	U?	S?	–	–	–	?	–	–	–	–	–	–
09	Keyswitch	–	–	?	–	–	?	–	–	–	–	–	–
10	Secure Final	–	–	?	–	–	?	–	–	–	–	–	–
11	Part Final	–	–	?	–	–	?	–	–	–	–	–	–
12	Part Entry	–	–	?	–	–	?	–	–	–	–	–	–
13	PA	–	–	?	–	–	?	–	–	–	–	–	–
14	PA Silent	–	–	?	–	–	?	–	–	–	–	–	–
15	PA Delay	–	–	?	–	–	?	–	–	–	–	–	–
16	PA Delay Silent	–	–	?	–	–	?	–	–	–	–	–	–
17	Link	?	?	?	?	?	?	?	?	?	?	?	?
18	Spare	–	–	?	–	–	?	–	–	–	–	–	–
19	Fire	–	–	?	–	–	?	–	–	–	–	–	–
20	Tamper	–	–	?	–	–	?	–	–	–	–	–	–
21	Bell Tamper	–	–	?	–	–	?	–	–	–	–	–	–
22	Beam Pair	–	–	?	–	–	?	–	–	–	–	–	–
23	Battery Low	–	–	?	–	–	?	–	–	–	–	–	–
24	Line Fail	–	–	?	–	–	?	–	–	–	–	–	–
25	AC Fail	–	–	?	–	–	?	–	–	–	–	–	–
26	Log	–	–	?	–	–	?	–	–	–	–	–	–
27	Remote Access	–	–	?	–	–	?	–	–	–	–	–	–
28	Video	–	–	?	–	–	?	–	–	–	–	–	–
29	Video Exit	–	–	?	–	–	?	–	–	–	–	–	–
30	Intruder Delay	–	–	?	–	–	?	–	–	–	–	–	–
31	Log Delay	–	–	?	–	–	?	–	–	–	–	–	–
32	Set Log	–	–	?	–	–	?	–	–	–	–	–	–
33	Custom-A	?	?	?	?	?	?	?	?	?	?	?	?
34	Custom-B	?	?	?	?	?	?	?	?	?	?	?	?
35	Exitguard	L	L	L	L	L	L	L	L	L	L	L	L
36	Mask	–	–	?	–	–	?	–	–	–	–	–	–
37	Urgent	–	–	?	–	–	?	–	–	–	–	–	–
38	PA Unset	–	–	?	–	–	?	–	–	–	–	–	–
39	Keyswitch Reset	–	–	?	–	–	?	–	–	–	–	–	–
40–46	Not Used	–	–	?	–	–	?	–	–	–	–	–	–
47	Vibration	–	–	?	–	–	?	–	–	–	–	A	–
48	ATM-1	–	–	?	–	–	?	–	–	–	–	–	O
49	ATM-2	–	–	?	–	–	?	–	–	–	–	–	O
50	ATM-3	–	–	?	–	–	?	–	–	–	–	–	O
51	ATM-4	–	–	?	–	–	?	–	–	–	–	–	O
52	Alarm Extent	–	–	?	–	–	?	–	–	–	–	–	–

Key:

S = Activates when system is set
P = Activates when system is Part Set
U = Unset
A = Activated in any condition
- = No effect
O= Activates when zone is omitted
? = Activation dependant on system programming
X = Activates during Exit Time
E = Activates during Entry Time
L = Switches output off if linked to destination output
T = Activates if zone resistance is <800Ω or >12000Ω

Table 19D. Output Activations per Zone (Cont'd)

01 Bells (Latch)

The **Bells** output is activated on a full alarm event when the system is set. This output is subject to the **Bell Time, Bell Delay** and **No. Rearm** parameters.

02 Strobe (Latch)

The **Strobe** output is activated on a full alarm event during the set state. This output is subject to the **Bell Delay**. This output is not subject to the **Rearm** parameter. It latches on and remains active until a valid code is entered.

03 PA (Latch)

The **PA** output is activated whenever any of the **PA** zone types activate. The output is not subject to the **Rearm** parameter; it latches on remains active until a valid code, with the appropriate **PA Reset** level, is entered.

04 Intruder (Latch)

The **Intruder** output is activated on a full alarm event during the set state. Dependent upon the programming of parameter 51.56 **Force Restore** the intruder output restore is either subject to the confirm time or entry of a valid code. Refer to the 51.56 **Force Restore** description for further details.

05 Tamper (Latch)

The **Tamper** output is activated whenever a circuit tamper or lid tamper occurs. The output is not subject to the **Rearm** parameter: it latches on and remains active until a valid code, with the appropriate **Tamper Reset** level, is entered.

The output is also activated on the first entry of the engineer code when accessing engineer mode.

NOTE: The **Tamper** output is not activated on the Galaxy 512 when engineer access is authorised by the user.

06 24 Hours

The **24 Hours** output is activated whenever a **24 Hour** zone is activated. The output is not subject to the **Rearm** parameter: it latches on and remains active until a valid code, with the appropriate **System Reset** level, is entered.

07 Reset (Latch)

The **Reset** output type is used as a control line output to latch, freeze and reset movement detector LEDs.

08 Switch DC (Pulse)

This **Switch DC** output is used to power detectors that require a momentary power interruption to reset them, for example, break glass or vibration detectors. This output reverses its polarity (changes from 0V to 12V) for the period of the **Pulse** output mode when the setting procedure has been initiated.

Note: When installing detectors that require to be powered from a **Switch DC** output, connect the positive lead of the detector to the 12V terminal of a power supply and the negative lead to **Switch DC** output terminal. **Do not** change the **Output Polarity** to **1=Neg**: it must remain as positive polarity.

09 Set (Reflex)

The **Set** output is activated when the assigned groups on the system are set. This output is a **Reflex** output and follows the set and unset status of the groups.

10 Engineer (Reflex)

The **Engineer** output is activated while the engineer mode is being accessed.

11 Spare (Latch)

The **Spare** output has function: it is used to designate outputs that are not being used on the system.

12 Ready (Reflex)

The **Ready** output is active when all zones in the system (group) are closed. This output activates in both the unset and set conditions.

13 Security (Latch)

The **Security** output is activated whenever a **Security** zone is activated. The output is not subject the **Re-arm** parameter: it latches on and remains active until a valid code (level 2 or above) is entered.

14 AC Fail (Reflex)

The **AC Fail** output indicates the status of the a.c. (mains) power supply. The output activates when the a.c. supply fails or an **AC Fail** zone is activated. The output is reset when the a.c. supply is restored or the **AC Fail** zone is closed. The activation is delayed subject to the time entered in the **20=Power Delay** parameter.

15 Battery Low (Reflex)

The **Battery Low** output activates whenever the control unit stand-by battery falls below 10.5V or a **Battery Low** zone is activated. The output is restored when the voltage rises above 10.5V or the **Battery Low** zone is closed.

16 Fire (Latch)

The **Fire** output is activated whenever a **Fire** zone is activated. The output is not subject to the **Rearm** parameter: it latches on and remains active until a valid code (level 2 or above) is entered.

17 Horn (Latch)

The **Horn** output is a general alarm output and is activated by most zone types in both the local and full alarm modes. For example, a **Fire** zone activation causes the **Horn** output to pulse on and off – on for 0.5 seconds, off for 0.1 seconds. The **Horn** output is subject to the **Bell Time, Bell Delay and No. Rearm** parameters.

18 E/E Horn (Latch)

The **Entry/Exit Horn** output has a dual function:

- in an alarm condition its function is identical to that of the **Horn** output;
- during the unsetting and setting of the system it is used to provide an indication on the status of the system. The indication states are as follows:

• General Alarm	-	ON 500 msecs. OFF 500 msecs.
• Clear to Exit	-	Continuous
• Exit interrupted	-	ON 100 msecs. OFF 100 msecs.
• 75% Exit Time	-	ON 200 msecs. OFF 200 msecs.
• Set	-	ON 600 msecs. OFF 600 msecs (twice)
• Normal Entry	-	ON 800 msecs. OFF 200 msecs.
• 75% Entry Time	-	ON 200 msecs. OFF 200 msecs.
• Fire	-	ON 500 msecs. OFF 100 msecs.
• Chime	-	ON 500 msecs. OFF 400 msecs (twice)

19 Part Set (Reflex)

The **Part Set** output is activated when the assigned groups on the system are part set. This output is a **Reflex** output and follows the part set and unset status of the groups.

20 Confirm (Pulse)

The **Confirm** output is activated when there have been activations on two separate zones: the second activation must occur immediately after the first activation. The zones do not have to be in the same group, however, both groups must be assigned to the **Confirm** output to allow activation. Cross-group confirmation is controlled by the **Communications** programming in menu **56.1, Telecoms.** If signalling is by DTMF format, cross-group confirmation can occur on groups that share the same confirm channel. In all other signalling formats, cross-group confirmation can occur on groups that share the same account number.

The output **Pulses** for the period defined in the **Output Mode** attribute. Up to four activations of the **Confirm** output can occur during any single set period of the group. The operation of the confirm outputs are affected by thr confirm parameter, menu 51.55.1 operation.

NOTE: The **Confirm** output is used to give positive identification that a genuine intruder alarm condition has occurred and to minimise the possibility of false alarm activations.

21 Line Fail (Reflex)

The **Line Fail** output is activated whenever a **Line Fail** zone is active or the telecom module detects and sustains a line failure for more than 30 seconds.

22 Video (Pulse)

The **Video** output is activated by the **Video** zone when the system is set. This output can be used to activate video recorder or video transmission systems.

23 Comm Fail (Latch)

The **Comm Fail** output is activated whenever there is a communication failure on the telecoms module telephone line. A fail to communicate event overrides the remaining **Bell Delay** period.

24 Batt Test

Not used on V1.45

25 Wrong CD

This output is activated whenever a wrong code alarm occurs.That is, when six wrong codes in succession are entered at the keypad. The output, by default pulses on for 90 seconds.

26 Alert (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Alert** output is activated when the control panel loses communication with one of the remote modules or keypads.

27 Fire Delay (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Fire Delay** output is activated whenever a **Fire** zone is activated. The activation of the output is delayed subject to the period determined by the **03=Abort Time** parameter. The **Fire Delay** output is not subject to the **Rearm** parameter: it latches on and remains active until a valid code (level 2 or above) is entered.

28 No Re-Arm (Latch)

The **No Rearm** output is activated on a full alarm event during the set state: it is subject to the **Bell Delay** parameter. The **No Rearm** output is identical to the output with the exception that it is not subject to the **No. Rearms** parameter.

29 Timer A (Reflex) (Galaxy 60, 128, 500, 504 & 512)

The **Timer-A** output is controlled by the **Timer-A** option (refer to option **65=Timers A/B**) and activates in accordance with the programmed on and off times assigned to the function.

30 Timer B (Reflex) (Galaxy 60, 128, 500, 504 & 512)

The **Timer-B** output is controlled by the **Timer-B** option (refer to option **65=Timers A/B**) and activates in accordance with the programmed on and off times assigned to the function.

NOTE: If the TIMER A or B outputs are programmed as LATCH mode, then they can only be reset by a user code with access to all of the groups assigned to the relevant timer.

31 Walk Test (Reflex) (Galaxy 60, 128, 500, 504 & 512)

The **Walk Test** output is activated when a zone included in the walk test is tested (refer to option **31=Walk Test**).

32 Zone Omit (Reflex) (Galaxy 18, 60, 128, 500, 504 & 512)

The **Zone Omit** ouput is activated as soon as a zone is omitted from the system by option **11=OMIT ZONES** or by option **54=LINKS**. If the **Output Mode** attribute is assigned as:

- **Reflex** (default) the output remains active until the zone is reinstated;
- **Latch** the output is reset on entry of a valid code.

33 Warning (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Warning** output is activated by the first occurrence of a high (1200-1300Ω) and low (800-900Ω) resistance reading on each of the system zones in a single 24 hour period: the activating zone is recorded in the log.

NOTE: The time period finishes at midnight, not 24 hours from first activation.

Subsequent high and low resistance readings from the same zone on the same day do not activate the output if it has been reset by a valid user code.

NOTE: If a low resistance reading is followed by a high resistance reading, the **Warning** output activates on the first occurrence of both activations.

34 Custom A (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Custom-A** output is activated whenever a **Custom-A** zone is activated.

35 Custom B (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Custom –B** output is activated whenever a **Custom-B** zone is activated.

36 Test (Pulse) (Galaxy 60, 128, 500, 504 & 512)

The **Test** output is activated at 12:00 hours each day for two seconds – the period of the **Pulse** can be altered. This output can be used to perform a daily test on a digicom connected to the system.

37 Rest RQD (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Reset RQD** output is activated when a system, tamper or PA alarm has occurred that requires to be reset by the engineer (level 7) code. Refer to option **51=PARAMETERS** for details modifying the code levels assigned to the **06=System Reset, 07=Tamper Reset** and **22=PA Reset** parameters.

38 Mask (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Mask** output is activated whenever a **Mask** zone is activated. The output is not subject to the **Rearm** parameter: it latches on and remains active until a valid group code (level 2 or above) is entered.

39 Valid Code (Reflex) (Galaxy 60, 128, 500, 504 & 512)

The **Valid Code** output is activated by the entry of any valid code. If the **Output Mode** assigned is **Reflex**, the output remains active while the user is accessing the menu and setting and unsetting the system. Once the menu is exited or the system sets or unsets, the output is restored.

40 Fail Set (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Fail Set** is activated if the system (or assigned groups) fails to set within the time assigned in parameter **35=Fail to Set –** refer to option **51=PARAMETERS**.

41 Duress (Latch)

The **Duress** function is activated on entry of a **Duress Code** (any valid code followed by two #'s, or a code assigned as a **Duress Code** using menu option **42 – Codes**). The output is not subject to the **Rearm** parameter: it latches on and remains active until a valid code (level 2 or above) is entered.

42 Illegal Code (Latch) (Galaxy 60, 128, 500, 504 & 512)

The **Illegal Code** is activated 60 seconds after an entry of a single **Dual Code** or a code which is entered outwith the **Timer A** and/or **Timer B** times assigned to it in menu option **42.1.4=CODES.User Codes.Time Zone.**

43 Max Tamp (Latch)

The MAX TAMP output is activated when a MAX or MicroMAX tamper is activated.

44 Abort (Latch)

The ABORT output is activated when a valid code is entered during the Abort period on system entry.

45 Unset

The **Unset** output is activated each time the system (or group) is unset. The default **output mode** attribute is programmed as pulse, for two seconds. This can be used to activate a buzzer to notify a user that the system has been unset, when using an RF fob.

46 Set Late (Latch) (Galaxy 128, 500, 504 & 512)

The **Set Late** output is activated if the system has not been set by the programmed **Monitor** time – refer to option **65.3.1=TIMERS.Autoset.Status**.

47 U/S Early (Latch) (Galaxy 128, 500, 504 & 512)

The **Unset Early** output is activated if the system has been unset before the programmed **Monitor** time – refer to option **65.3.1=TIMERS.Autoset.Status.**

48 Prewarn (Reflex) (Galaxy 128, 500, 504 & 512)

The **Prewarn** output is active during the programmed prewarning period of the autoset function. The mode is **Reflex**. The **Prewarn** emits a constant tome if the autosetting of the system can be extended. If an extension is not possible, the **Prewarn** output pulses.

49 Autoset (Reflex) (Galaxy 128, 500, 504 & 512)

The **Autoset** output is activated when the system has been set by the autoset function – refer to option **65.3=TIMERS.Autoset**. The default **Output Mode** attribute is programmed as Reflex, therefore the output remains active until the system unsets.

NOTE: The **Set** is also activated when the system autosets.

50 Not Used

51 – 65 Link A – O (Reflex)

Link output types have no inherent function: they are designed for use with option **54 = LINKS** to provide the engineer with a means of activating a specific output address.

Link outputs can be activated by any of the link option sources. The operation of the **Link** output is dependent on the **Output Mode** and **Groups** assigned to the output.The **Groups** assigned to the **Link** must have at least one group common to the link output, if that output is to be activated. This feature can be used to multiply the number of different link outputs available on the system.

Note: When a zone function is the source of a **Link** output type, then a point to point link is available and is as effective as direct wiring.

66 RF Jam (Latch)

The RF Jam output is activated whenever any of the RF RIO's configured onto the system detect a significant level of interference to cause radio jamming.

67 RF Super (Latch)

The RF Supervision output is activated whenever there is a supervision failure from any one of the supervised RF detectors configured onto the system. That is, when the system has received no signals (including periodic check-in signals) whatsoever, from a particular detector within the programmed supervision period.

68 – 69 Not Used

70 Lockout (Reflex) (Galaxy 512)

The **Lockout** output is active between the **ON** and **OFF** times assigned to the **Lockout Status** (option **65.3.6=TIMERS.Autoset.Lockout Status**). The **Lockout** output mode is **Reflex,** therefore it remains active until the lockout switches **OFF.**

71 Vibration Test (Pulse) (Galaxy 504 & 512)

The **Vibration Test** function is used to test zones programmed as **Vibration.** This output is used in conjunction with **Precheck** (menu option **66 – Pre-Check: - Mode: 4 – Forced Check**). The Vibration Test output sends a five second positive removed pulse to the vault sensors. Any sensor not activated by the test is reported by the pre-check function and prevents the system from setting.

72 – 75 ATM-1, ATM-2, ATM-3, ATM-4 (Reflex) (Galaxy 512)

The relevant **ATM** output is activated when the respective **ATM** zone type is selected for omission; the output **does not** wait until the **ATM Delay** period expires before it activates. This output is a **Reflex** output and follows omit status of the **ATM** zone types.

Option 54 – Links (Galaxy 18, 60, 128, 500, 504 & 512)

The **Links** offers a powerful method of interconnecting zones, output functions, codes, keypads, and MAX modules. The links table is constructed by creating a link between one of the source types and a valid destination type. Activating the source of a link activates the destination – this can be used to switch outputs on and off to omit zones, codes, keypads and MAX modules from the system.

The links function allows MAX/MicroMAX destinations to be assigned a (✳) star function. If the destination is programmed as MAX/MicroMAX and the (✳) star is allocated, the assigned MAX/MicroMAX door relay will open for the duration the link is active. During this period no MAX alarms are generated if the door contact timeout is exceeded. The on-board horns are deactivated and the green open LED will be illuminated throughout.

When the link is deactivated the MAX/MicroMAX horn sounds and the door relay remains open for the programmed relay duration period. - simulates an egress button activation.

The number of links that can be assigned on each of the Galaxy systems is:

- Galaxy 18 = **32**
- Galaxy 60 = **64**
- Galaxy 128 = **128**
- Galaxy 500 = **256**
- Galaxy 504 = **256**
- Galaxy 512 = **256**

Programming Links

On selecting the **Links** option, the details of **Link 01** are displayed. If no link has been assigned the screen displays **01 NOT USED.**

The details of each link can be displayed using the **A** and **B** keys, or a specific link can be selected by entering the required link number, for example **05, 29**. When the required link is displayed, press, the **ent** key to begin the programming procedure. The system prompts for the **Link Source** to be assigned. If groups are set then some sources and destinations will not be available for programming:

1. Press the # key to select the required link source from the available types (refer to **Table 20. Link Source**).
2. Press the **A** or **B** keys to select the actual link source (for example, the zone address or the user code number).
3. If the source is required to toggle the destination on and off, press the ✳ key. The source is prefixed by a ✳ on the display.

   NOTES:

   1. The link destination is activated by the first operation of the source and then deactivated by the second operation.
   2. Galaxy 18 does not have full use of links. It can only have an output type as its destination.
4. Press the **ent** key; the source of the link is assigned and the keypad prompts for the link destination to be allocated.
5. Press the # key to select the required link destination from the available types (refer to **Table 21. Link Destination**).
6. Press the **A** or **B** keys to select the actual link destination (for example, the zone address or the output type). To cancel a link program the source as not used.
7. Press the ent key.

8. If the link destination is **d). Output Type** and **Groups** have been enabled (refer to option **63=OPTIONS**) then each link must be allocated to at least one group (use the **A** or **B** key to move between the group blocks; press keys 1 – 8 to assign the relevant groups in each block) and press the **ent** key.

NOTE: The groups determine which of the assigned output type destinations the link activates.

9. The details of the assigned link are displayed.

NOTE: If the link is currently active, the source is separated from the destination by a **+** (plus) symbol. If the link is not active a **–** (negative) symbol is displayed.

10. Press the **A** or **B** key to move to the next link to be assigned and repeat steps 1 –9 or press the **ent** key to escape from the **LINKS** menu option.

Source Type	* Modifier	Example Display	Notes
a) Not used	-		The link is not operational
b) Zone Address	Off	1014	When the zone is opened the link is active. When the zone is closed the link is inactive.
	On	*1014	When the zone opens first time, the link is activated. When the zone opens a second time, the link is deactivated.
c) User Code	Off	*001	When the code is entered, the link is activated momentarily only. This option is only practical to trigger a destination event, for example, an output pulse.
	On	**001	When the code is entered first time, the link is activated. When the code is entered second time, the link is deactivated.
d) Output Address	Off	#1014	When the output is on, the link is active. When the output is off, the link is inactive.
	On	*#1014	When the output turns on first time, the link is activated. When the output turns on second time, the link deactivates.
e) MAX Address	Off	01	When the MAX is swiped with a card the link activates momentarily only. This option is only practical to trigger a destination event, for example, an output pulse.
	on	*01	When the MAX is swiped with a card, the link is activated. When the MAX is swiped a second time, the link deactivates.
f) Link Timer	Off	LT01	When the Link timer times out, the link activates momentarily only. This option is only practical to trigger a destination event, for example, an output pulse.
	On	*LT01	When the Link timer times out, the link is activated. When the Link timer times out a second time, the link is deactivated.

Table 20. Link Source

Destination Type	* Modifier	Notes
a) Not used	-	The link is not operational
b) Zone Address	-	When the link is active, the zone is omitted from the system
c) User Code*	-	When the link is active, the user's PIN and MAX card are not operational.
d) Output Type	-	When the link is active, all outputs programmed with the selected function are activated.
e) Output Address*	-	When the link is active, the specific output address is switched on. Please note that when using the output address as the destination, the deactivation of the link will switch the output off immediately, overriding any pulse time or latch mode of the output programming.
f) Keypad Address*	-	When the link is active, the buttons on the keypad will not operate.
g) MAX Address*	Off	When the link is active, the MAX reader will not read cards.
	On	When the link is active, the door lock relay for the reader will constantly be in the unlocked state. The door contact input will also be bypassed so that no alarm will occur.
h) Latch Timer**	-	When the link is **deactivated**, the Link Timer starts to count down from the Latch timer value. Each subsequent activation of the link will restart the timer count down to this value. When the timer reaches zero the Link timer activates and it can trigger another link. If the link is continuously activated within the timer period, the counter will never reach zero and the Link timer will be held off. The application for this would be a link that didn't activate so long as another event continues to happen with the time period.
i) Reflex Timer**	-	The Reflex timers operate identically to the Latch timer except that the timer cannot be restarted will it is running. A Reflex timer destination will still start a Link Timer running in the same way as a Latch timer destination. An application for this would be a delayed action link.

Table 21. Link destination

Note: * Destination type not available on the Galaxy 18 panel.
** There are 16 Link timers in the system. These Link timers are triggered by the Latch and Reflex timer destinations. Both the Latch and Reflex options operate the same set of Link timers. They just start the timers in different ways. A Latch timer can restart the Link timer while it is running. A Reflex timer cannot.

Option 55 – Soak

The **Soak** option allows selected zones to be put onto test for a period ranging from 1 – 14 days (refer to option **51.16=PARAMETERS.Soak Time**). Activations from a zone on the soak test do not cause alarms but are recorded in the event log and are reported to level 2 (and above) users on unsetting of the system. The zone remains on soak test until the selected number of days has passed without any alarm activation, the zones then resume normal operation – that it, activations result in alarms being generated.

The **Soak Time** is reset to the full number of days if there is an alarm activation on any of the selected zones.

NOTE: The **Soak Time** starts when the first zone is put onto soak test; subsequent additions are only tested for the period remaining in the **Soak Time**. Parameter 51.16, Soak Time must be programmed before activating any zones in to the soak test. The period remaining decreases by one day each day at 0900 hours.

Activation of an Exit or Video Exit zone during the Entry time does not reset the soak test and period.

Programming Soak Zones

On selecting the **Soak** option, the address and function of the first zone on the system is displayed. Move to the required zone by pressing the **A** or **B** keys or by entering the zone address. To place the zone on the soak test press the # key; the keypad indicates that the zone is now **ON TEST**. Select other zones to be put on soak test in the same way. Once all the zones have been selected, press the **esc** key; the keypad briefly displays the number of days remaining in the **Soak Time** parameter before escaping from the **Soak** operation.

Option 56 – Communications

The **Communications** option is used to program the Galaxy Communication peripherals. This option has four sub menus, one for each of the communication peripherals. Each of these has its own set of sub menus as detailed in the following pages.

1 = Telecoms

This section ses up the parameters for the PSTN Telecom module.

2 = RS232

This section sets up the parameters for the RS232 module to allow direct wire communication to a serial comm port on a PC.

3 = ISDN

This section sets up the parameters for the ISDN Telecom module

4 = Ethernet

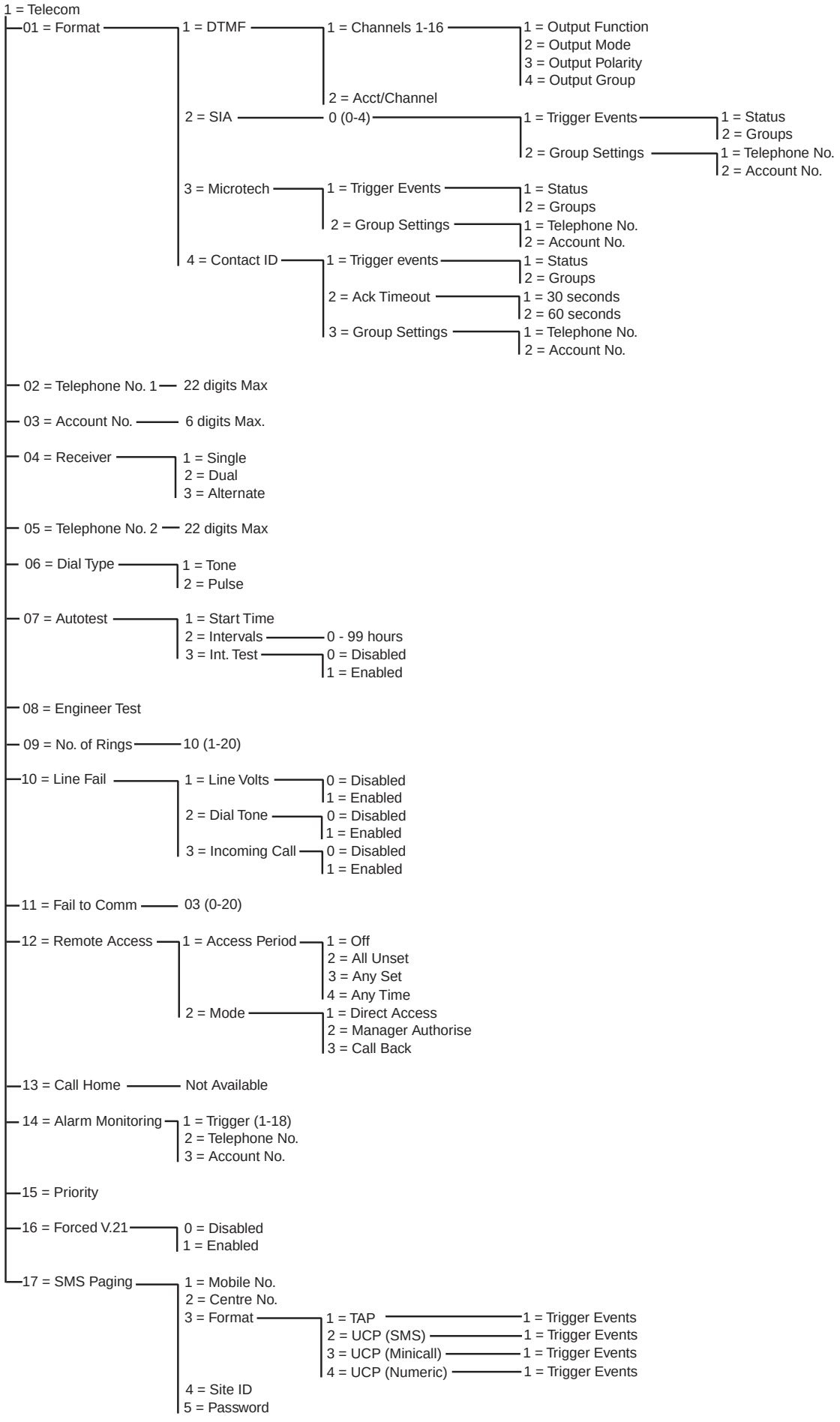
This section sets up the parameters for the Ethernet module to allow the Galaxy panel to communicate over a TCP/IP network.

The table below shows the list of signalling triggers that are available to each of the communication devices.

No	Trigger Event	No	Trigger Event
1	PA/Duress	10	Setting
2	Intruder	11	Reset/Cancel
3	24 Hours	12	Modules/Comms
4	Security	13	Elec Status
5	Custom Zones	14	Menu Access
6	Fire	15	Trouble
7	Set Fault	16	Log Zone
8	Omit	17	Max Tag
9	Tamper	18	Zone Restoral

Table 22 Trigger Events

Telecom Module



All Galaxy panels and PSUs meet the requirements of approval number **NS/G/23/J/100003** for general safety of apparatus connected to certain telecommunications systems.

The Telecom module allows two way communication via the telephone network. This can be used:

- as a digital communicator, transmitting alarm and event signals to ARCs, (Alarm Receiving Centres).
- transmit detailed alarm and event signals to receivers with SIA compatible software,
- transmit detailed alarm and event signals to remote PCs with Galaxy Alarm Monitoring software installed,
- to remotely service the Galaxy control panel via a PC with Galaxy Gold software installed.

For information on the installation and operation of the Telecom module refer to **TELECOM MODULE, Installation and Operation Instructions** (part number II1-0079).

NOTE: When using the Telecom module as a digital communicator to signal alarms and events to ARCs or to a PC with Alarm Monitoring software installed, the **Format**, **Telephone Number 1** and **Account Number** required to be programmed. Programming of the remaining options is either optional or not required.

Cross Group Confirmation

Confirmed alarm conditions will now work across multiple groups. Previously, a confirmed condition would only be created if both zones activated were in the same group. Confirmed outputs (and channels in DTMF format, **option 56.1.1.1**) will activate for alarms across groups as long as both groups concerned have been assigned to that output or channel. In the point ID signalling formats (SIA, Microtech and Contact ID), confirmed signals will be transmitted across groups that share the same account number. For example, in **option 56.1.1.2** (SIA), it is possible to select a different account number for each group on the system. Group 1 and group 2 can both be programmed with the same account number. If there is a single activation in group 1 then a single intruder activation in group 2, within the confirmed time window, a confirmed alarm signal will be transimitted for group 2.

01 Format

The communicator provides four signalling formats:

- DTMF
- SIA
- Microtech
- Contact ID

Once the format has been selected, the alarm and event triggers that the panel will transmit to the ARCs are programmed.

1 = DTMF (Dual Tone Multiple Frequency)

This is the most popular format and is accommodated by most Monitoring Stations.

NOTES

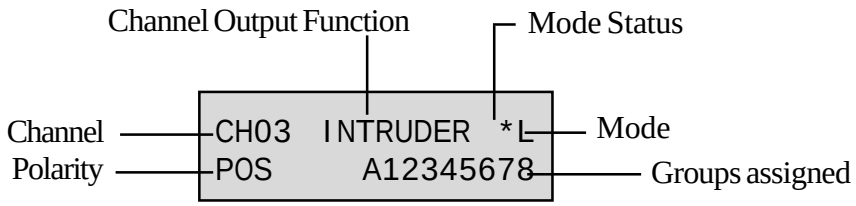
1. DTMF is fast format

2. A battery low condition occurring on the Galaxy panel is always to the ARC as a code 8 in the status channel. This may cause problems for some ARCs. If a channel is assigned as **Battery Low**, then both the channel and the code 8 in channel 9 is transmitted.

When DTMF format is selected, the operation of the Telecom module is similar to that of a hardwired 8 or 16 channel communicator. The Telecom module transmits as an eight channel communicator if channels 9 - 16 are programmed as **Spare**.

Programming Channels

On selecting **DTMF**, the keypad displays **1 = Channels 1 – 16**. All 16 channels can be individually programmed. To access the **Channels** option press the **ent** key; the programming details of the first channel are displayed. Select the required channel using the **A** and **B** keys or by entering the channel number directly and press the **ent** key.



Channels 1-16

Each channel can be programmed with the following attributes:

1 = Output function

2 = Output mode

3 = Polarity

4 = Groups

1 = Output Function

Any of the system output functions (see option **53 = Program Outputs**) can be assigned to each of the channels 1 – 16. Channel 3 defaults to output function **04 = INTRUDER**. All other channels default to **11=SPARE**. Select the required output function using the **A** and **B** keys or by entering the function number directly. Once the required function is displayed, press the **ent** key to assign the function to the selected channel. For example, a **PA** function programmed on channel 2 results in a **PA** code to be transmitted on channel 2 to the ARC when there is a **PA** alarm activation.

2 = Output Mode

Each output function defaults to a specific, logical output mode. However, the output mode of each function can be modified to meet special requirements: when reprogrammed, the new mode applies to all outputs assigned that function. The output modes are:

1 = Latch: the output remains active until a valid code is entered,

2 = Reflex: the output follows the activity of the triggering event, for example, the **Set** output follows the setting and unsetting of the group.

3 = Pulse: the output remains active for the programmed pulse time (1-3000 seconds).

Programming the Output Mode

Select the required mode using the **A** or **B** keys or by selecting the number **1 - 3**. Once the required mode is selected, press the **ent** key to accept the programming. If assigning the **Pulse** output mode, enter the pulse time (001 – 300 seconds) and press the **ent** key.

NOTE: The **Output Mode** status determines the operation of the channel restore. The status is modified by pressing the ✳ key when the channel details display on the keypad. The status options are:

✳ = Restore – channel sends restore code when reset
+ = Open/close - channel reports setting/unsetting

blank = Alarm only - channel signals alarm only (no restore signal transmitted)

3 = Output Polarity

The **Output Polarity** determines the normal operational state of the output.

0 = **POS** - channel activates when the output is triggered.

1 = **NEG** - channel activates when the output is reset.

4 = Output Groups (Galaxy 18, 60, 128, 500 & 512)

NOTE: The **Groups** attribute is only available if groups have been enabled on the system (refer to option **63 = OPTIONS**)

The **Group** attribute allows the channel to be assigned to the groups on the system; a channel can be assigned to more than one group. All channels default to all groups on the system.

On selecting the **Output Groups** attribute, the groups that the channel is currently assigned to are displayed. Press the relevant number keys to toggle the status of the group and press the **ent** key: if the group number is displayed on the top line, then the group is assigned to the channel; if a dash (–) appears in place of the group number, the group has been removed from the channel.

Galaxy 504 & 512

The Galaxy 504 and 512 have 32 groups; these are displayed on the keypad in blocks of eight groups, sub-divided into A, B, C and D.

Use the **A** or **B** key to select the required group (**A1–D8**). When the end of a block is reached, the next block of eight groups is selected, press keys **1-8** to toggle the status of the relevant group in the current block to the channel; press the **ent** key to accept the selection. **Group Status**

This group attribute offers an additional feature that makes the operation of the channel conditional on the set status of each of the system groups. A channel assigned **Group Status** only activates if the set conditions of the programming are met, for example, an **Intruder** channel can be programmed to activate only if groups **2** and **4** are set and group **3** is unset.

To assign the **Group Status** conditions, press the ✳ key when selecting the groups: an arrow (>) is displayed on the bottom line as well as the current **Status**. Press the relevant number keys to toggle the status of the groups and press the **ent** key to accept the programming. The available group status conditions are:

S = Set - group must be set to allow channel to activate;

U = Unset - group must be unset to allow channel to activate;

– = Set or unset - channel activation is independent of the group status.

Programming Individual Channel Account Numbers

When the account number is programmed using option **56.1.2 = OMMUNICATIONS.Telecoms. Account No.**, then all 16 channels are automatically programmed with the same number. The **Account/Channel** menu option allows each channel to be programmed with a separate account number if required. The account number can be up to a maximum of six digits, however a four digit account number is the standard.

NOTE: Changing the main account number overwrites all separate account numbers previously programmed for channels 1 – 16.

On selecting **DTMF**, the keypad displays **1 = Channels 1 - 16**. Press the **A** key; the **2 = Acct/Channel** option is displayed. All 16 channels can be individually programmed. To access the **Acct/Channel** option press the **ent** key; the first channel is displayed. Select the required channel using the **A** and **B** keys or by entering the channel number directly and press the **ent** key; the account number currently assigned to the channel is displayed. Press the ✳ key to delete each of the digits and then enter the new account number.

2 = SIA (Security Industries Association)

The SIA format is to level 4 and provides a protocol that transmits detailed information including zone descriptions to a PC loaded with suitable software or to a SIA compatible receiver. The SIA format is capable of transmitting over 130 different Galaxy events.

On selecting the SIA format, the keypad prompts for the required SIA level to be entered, there are five SIA levels available:

- 0 (default) - Basic event information with 4 digit account number.
- 1 - as level 0 plus 6 digit accounts
- 2 - as level 1 but with event modifiers
- 3 - as level 2 but with text descriptions
- 4 - as level 3 but allow control commands to be sent back to the panel

Trigger Events

When the SIA level has been selected press the **ent** key, the keypad displays the first trigger event and its **On/Off** status (see **Table 22** for a list of available triggers). These are the events and alarms that are transmitted to the ARC or PC. If the trigger status is set to **On**, an activation of the trigger event results in the transmission to the receiver of the event details. Step through the trigger events using the **A** and **B** keys.

1 = Status

To modify the trigger event select the required event using the **A** and **B** keys and press the **ent** key. To program the status to **On** press **1**, to set it to **Off** press **0**. Press the **ent** key to save the programming and return to the previous menu level.

Programming the SIA Format with Groups Enabled

If groups have been enabled on the system (refer to option **63 = OPTIONS**), then the SIA format menu alters slightly; an additional level is added.

1 = Trigger Events

On selecting the SIA level (0 - 4) the keypad displays **1 = Trigger Events**; press the **ent** key to display the first trigger event; the keypad shows the trigger, the trigger status and the groups assigned.

1 = Status

To modify the trigger event select the required event using the **A** and **B** keys and press the **ent** key. The **1 = Status** option is then displayed. If the status requires to be modified, press the **ent** key. To program the status to **On** press **1**, to set it to **Off** press **0**. Press the **ent** key to save the programming and return to the previous menu level.

2 = Groups

If groups have been enabled on the system (refer to option **63 = OPTIONS**), then groups can be assigned to the events. This means that the events have to occur in assigned groups before they are signalled. Press the **A** key, the keypad displays **2 = Group Events** and then press the **ent** key; the status of the groups assigned to the trigger is displayed. If the group has **Y** below it, then this event occurring in this group is signalled. If **N** is displayed, then the event is not signalled for that group. To toggle the status of a group, enter the group number. When all the groups have bee assigned press the **ent** key to save the programming and return to the previous menu level.

Galaxy 504 & 512

The Galaxy 504 and 512 have 32 groups; these are displayed on the keypad in blocks of eight groups, sub-divided into A, B, C and D. Use the **A** or **B** key to select the required group (**A1–D8**). When the end of a block is reached the next block of eight groups is selected, press keys **1–8** to toggle the status of the relevant group in the current block; press the **ent** key to accept the selection. **2 = Group Settings**

NOTE: This option is only displayed if the groups have been enabled (refer to option **63 = OPTIONS**).

The event triggers are signalled to the telephone number, with the account number, programmed in the menu options **56.1.2 = Telephone Number 1** and **56.1.3** = Account Number. However, each group can be programmed to transmit event details to a unique telephone number and assigned a separate account number. On selecting the **Group Settings** option the first system group is displayed. Select the required group using the **A** or **B** keys and press the **ent** key, **1 = Telephone Number** is displayed.

1 = Telephone Number

To assign a telephone number to the group press the **ent** key and enter the required number. The telephone number can be a maximum of 22 digits (including dial pause T and dial tone detect **#** characters); press the **ent** key to save the programming and return to the previous menu level.

2 = Account Number

To assign an account number to the group press the **ent** key and enter the required number. The account number can be a maximum of six digits; press the **ent** key to save the programming and return to the previous menu level.

3 = Microtech

Microtech format is a protocol that transmits detailed point identification information to a Personal Computer (PC) which has the Galaxy Alarm Monitoring software installed.

The menu structure and programming of the options are identical to the SIA format. Refer to **2 = SIA** for programming details.

4 = Contact ID

Contact ID format is a protocol which transmits point identification information to an Alarm Receiving Centre that is capable of receiving the Galaxy variant of contact ID.

The menu structure and programming of the options are identical to the SIA format. Refer to **2 = SIA** for programming details.

02 Telephone No. 1

Telephone number 1 **must** be entered. This is the main telephone number that the alarms are signalled to. Up to 22 digits may be entered, including control modifiers. The control modifiers are entered using the ✳ and **#** keys:

✳ Pause (for two seconds before dialling the next digit). Multiple entries can be made, for example, entering ✳✳✳ gives a six second pause.

Dial tone detect (wait for new dial tone). Each dial tone detect lasts for 15 seconds. Multiple entries can be made, for example, entering ## gives a 30 second dial tone detect. If a new dial tone is not detected in this time, then the dialling attempt is aborted. This is counted as a fail to communicate.

The **B** key is used to erase an existing telephone number. Each press deletes the last digit displayed.

03 Account No.

This is the site identifier. A unique account number must be entered, this can be up to a maximum of six digits although 4 digits is the standard.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

NOTE: Entering the account number into this menu option automatically copies the number to all triggers in the selected format (DTMF, SIA and Microtech). Any individual account numbers that have been programmed are overwritten.

04 Receiver

The transmission destination can be set to one of three modes:

1 = Single

Reports to the telephone number programmed in **Telephone Number 1.**

2 = Dual

Reports to both numbers programmed in **Telephone Number 1** and **Telephone Number 2**. The alarm must be transmitted to both numbers.

3 = Alternate

Reports to **Telephone Number 1** OR **Telephone Number 2**. Each number is tried in sequence until the alarm is successfully transmitted. The alarm is only transmitted to one number.

05 Telephone No. 2

A second telephone number is available to support **Dual** and **Alternate** dialling to a second destination receiver. The programming is identical to **Telephone Number 1**.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

06 Dial Type

The transmission mode can be selected from two types:

1. **Tone** (also known as "DTMF Dial") this is much quicker at dialling than the **Pulse** option.
2. **Pulse** (also known as "Rotary" or "Loop Disconnect") is universal, however, an increasing number of exchanges now provide the Tone (DTMF Dial) option.

NOTE: If unsure of the type of exchange that the panel is connected to, leave as **Pulse** dialling.

07 Autotest

An engineer test (code 9) can be automatically transmitted to the Monitoring Station at programmed intervals.

1 = Start Time

The engineer uses this option to enter the time that the first engineer test is transmitted. Subsequent engineer test transmissions are offset by the value assigned in the **Test Interval** option.

2 = Intervals

This option determines the period between engineer test transmissions following the **Start Time**, the programmable range is **0 – 99** hours.

NOTES

1. If the **Test Interval** is **0** (default) the **Autotest** is disabled — even if a **Start Time** has been assigned.
2. To disable **Autotest** enter **00:00** (default); no transmissions of test signals can be sent at midnight.

3 = Intelligent Test

This option stops the transmission of an engineer test if an alarm signal has already been sent during the test interval.

4 = Group Condition (Galaxy 504 & 512 only)

NOTE: This option is only displayed if the groups have been enabled (refer to option **63 = OPTIONS**).

The **Group Condition** determines the status that each group must satisfy before the **Autotest** is transmitted. This can be used to prevent an **Autotest** from being signalled when groups are set on the system. On selecting this option press the relevant number keys to toggle the status of the groups and press the **ent** key to accept the programming. The available group status conditions are:

S = Set - group must be set to allow autotest transmission;

U = Unset - group must be unset to allow autotest transmission;

– = Set or unset - autotest transmission is independent of the group status.

08 Engineer Test

An engineer test (code 9) can be sent to the Monitoring Station once the **Account Number** and the **Telephone Number 1** have been entered, to ensure that the station is receiving transmissions sent from the Telecom module.

On selecting this option a warning message is displayed on the keypad, **WARNING!!! ENT = SEND MESSAGE.** Press the **ent** key to send the engineer test. The current status of the 16 channels is transmitted along with the engineer test code.

The test attempts to transmit once for each selection of the option. If the test is not successfully transmitted, the communicator does not attempt to resend. An unsuccessful transmission **is not** counted as a **FAIL TO COMMUNICATE**.

09 No. of Rings

This option determines the number of rings before the Telecom module answers, the programmable range is 1 – 20, the default is 10.

10 Line Fail

The Telecom module continually monitors the telephone line that it is connected to. This option determines the line monitoring conditions that result in a **LINE FAIL** event being reported and recorded in the log. The three line monitoring capabilities are:

1 = Line Volts (default **Enabled**): A line fail occurs if the voltage on the telephone line falls below three volts.

2 = Dial Tone (default **Disabled**): A line fail occurs if the Telecom module cannot detect a dial tone on the telephone line.

3 = Incoming Call (default **Disabled**): A line fail occurs if the Telecom module attempts to transmit an alarm while there is an incoming call.

NOTE: Any combination of the above options may be enabled or disabled at any time.

When one of these conditions is detected, a **LINE FAIL** message is sent to the Galaxy and is stored in the event log. If the system is unset, the **TELECOM FAILURE** message appears on the keypad display and a local alarm is sounded - the keypad buzzers and on-board horn (if connected) are activated. If the system is set when a line fail condition occurs, the message **TELECOM FAILURE** will be displayed when the system is unset. This will be accompanied by a local alarm.

The local alarm is only activated for the first line condition of each unset period. Subsequent line fails are displayed as **TELECOM FAILURE** messages on the keypad for the duration of the condition and are recorded in the event log.

If an alarm occurs during a line fail condition, then the programmed bell delay for each of the groups is over-ridden (refer to option **51.02 = PARAMETERS.Bell Delay**).

11 Fail to Communicate

This option determines the number of unsuccessful communications attempts before the **COMM FAIL** message is recorded in the event log.

When an alarm condition or event is to be transmitted to the monitoring station, the Telecom module snatches the telephone line and dials the programmed telephone numbers. After a successful communication the LED lights for three seconds, the module then releases the telephone line and reconnects any serially connected equipment. This procedure is repeated for the second telephone number if the **Receiver** option has been programmed as **Dual**.

NOTE: The Telecom module communicator snatches and holds the line until a successful attempt has been made to the required telephone numbers or all the repeat attempts have been tried.

If the communication attempt is unsuccessful, the LED flashes rapidly for three seconds. The communicator then waits for a short period before redialling the number (or the second telephone number if the **Receiver** option has been programmed as **Dual** or **Alternate**). When the **Fail To Communicate** option is left at the default setting of **3,** if the first three dialling attempts are unsuccessful, the **COMM FAIL** message is recorded in the event log. If the next two attempts (five attempts in total) are unsuccessful, the communicator **cannot** make any more communication attempts for two hours (from the time of the first unsuccessful attempt). The alarms to be transmitted are erased from the buffer. This conforms with the repeat attempts procedure as detailed in the BABT requirements BS6789, 1985, Section 3-1, Paragraph 7.

NOTE: If the **Receiver** option is programmed as **Dual** and the **Format** is **DTMF**, then successful transmission **must** be made to both telephone numbers. Five unsuccessful attempts to a single telephone number prevents the communicator from transmitting any alarm events for two hours.

12 Remote Access

This option defines when and how Galaxy Gold remote servicing will operate. The options are described as follows.

1 = Access Period

This option determines the type of access that is available to the remote Galaxy Gold operator. There are four modes:

1 = Off

Galaxy Gold access to the Galaxy panel is disabled

2 = All Unset

Access only when all the groups are unset. If groups are not enabled access is available at any time.

3 = Any Set

No access if any of the groups are set. The system must be fully unset, whether groups are enabled or not.

4 = Any Time (default)

Access available at any time

2 = Mode

1 = Direct Access

This permits access at anytime. Once access is authorised, uploading, downloading and remote servicing can begin.

2 = Manager Authorise

There are two methods that an authorised user can use to enable access to the Galaxy via Galaxy Gold:

- **Timed Access:** Galaxy Gold **must** access the Galaxy within 40 minutes of this option being enabled by the manager. Once connected, there is no time limit on the access period. On terminating the connection, Galaxy Gold can reaccess the system within a 15 minute period of the termination.
- **Call Back:** the manager instructs the Galaxy to initiate a connection to a PC (with Galaxy Gold software loaded) by dialling one of the numbers programmed in the **Call Back** option.

3 = Call Back

Up to five telephone numbers can be programmed into this option. Galaxy Gold requests the Galaxy to call back to one of the numbers.

NOTES:

1. If **Manager Authorise** is selected as the **Remote Access Mode**, then the telecoms module can only make outgoing calls - it is disabled from answering all incoming calls. This allows another telephone, fax or answering machine to be connected to the line without interference from the telecom module when calling into the premises.

2. If **Call Back** is selected, then access to the Galaxy is denied **unless** the call back option in Galaxy Gold is used to initiate the connection.

13 Call Home

Not used

14 Alarm Monitoring

This option is used to allow alarms to be dialled to a PC with Alarm Monitoring software loaded as well as to an ARC using the DTMF or SIA formats.

The **Alarm Monitoring** option transmits alarm events information only when all of the alarms have been sent to the ARC (or all five of the communication attempts have been unsuccessfully made). If a new alarm event occurs while the system is transmitting in the **Alarm Monitoring** mode, the transmission is terminated and the alarms are sent to the ARC using the DTMF or SIA formats.

The menu structure and programming of the **Alarm Monitoring** options are identical to the SIA format. Refer to option **2 = SIA** for programming details.

15 Priority

Not used

16 Force V.21

This is used to slow the modem speed to 300 baud for use on lines with RedCARE device.

17 SMS

1=Mobile No.

This is a 22 digit telephone number and is the mobile phone number of the recipient of the message.

2=Centre No.

This is a 22 digit telephone number and is the phone number of the SMS centre. The default is different for each operator.

3=Format

The options for this menu are:

1=Tap

For remote entry devices

2=UCP (SMS)

For mobile phones

3=UCP (Minicall)

For alpha pagers

4=UCP (Numeric)

For numeric pagers

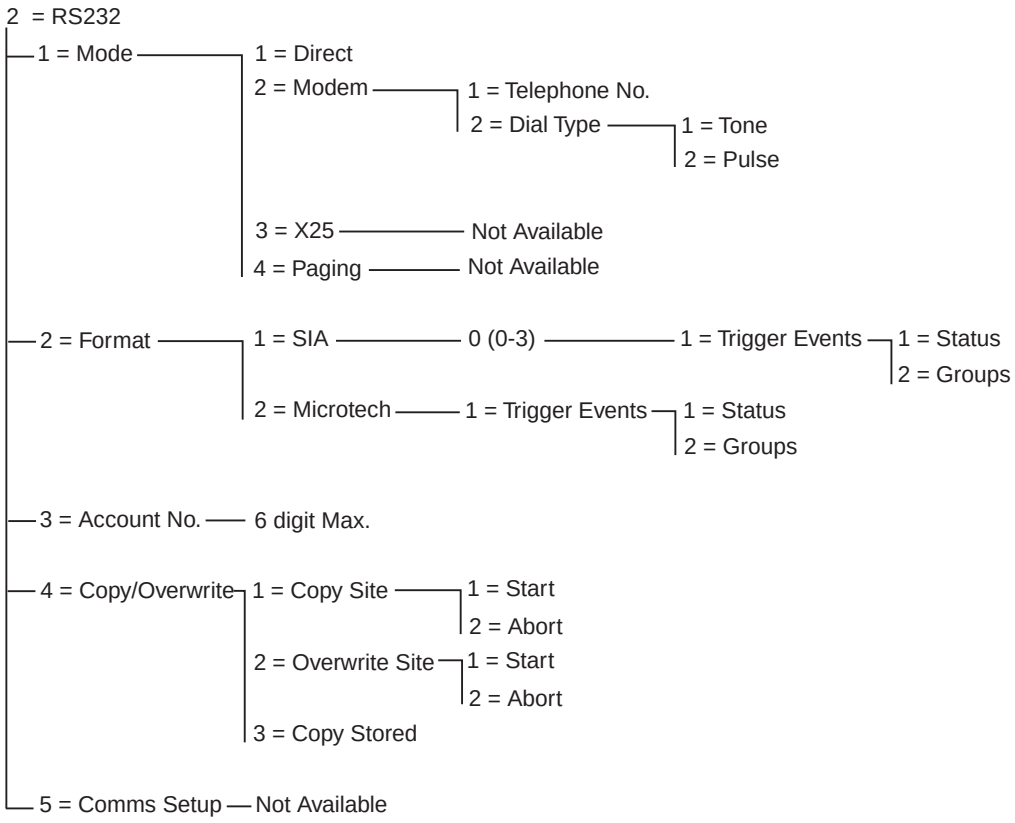
4=Site ID

This is a 16 character alphanumeric string and is used to identify the panel/site sending the message. If the format is UCP (Numeric), then the site ID is numeric only, and only the first four characters are sent out.

5=Password

This is a 16 character string and is an optional field required by some receivers.

RS232 Interface Module



The Galaxy RS232 Interface module also provides two way communication but with computer type peripherals. This can be used to:

- signal alarms and events to a single local PC with Galaxy Alarm Monitoring software installed,
- remotely service the Galaxy control panel via a PC with Galaxy Gold software installed,
- copy and store the programming details from a Galaxy control panel or a PC with Galaxy Gold software installed,
- Overwrite the stored programming details to a Galaxy panel or to a PC with Galaxy Gold software installed.

For information on the installation and operation of the RS232 Interface module refer to **Galaxy Installation Manual, Section 3 - Optional Modules and Facilities** (part number II1-0027) and the **RS232 Module Operating Instructions** (part number IO1-0054).

1 Mode

The **Mode** option is selected depending on the method of connection to the PC:

1 = Direct

This mode is selected if the Galaxy panel and PC are located in close proximity to one another and can interface via an RS232 cable.

2 = Modem

This mode is selected if the RS232 is communicating, via a modem and telephone line, with a remote PC. The telephone number of the remote PC must be entered in option **1 = Telephone Number** and the type of telephone exchange (**Pulse** or **Tone**) must be assigned in option **2 = Dial Type**.

2 Format

There are two formats available for the RS232 module:

1 = SIA

Refer to the Telecom menu for programming details

2 = Microtech

Refer to the Telecom menu for programming details

NOTE: The SIA and Microtech formats for the RS232 module are identical in structure and programming to the Telecom menu. The only difference is that when groups have been enabled there is no **Group Settings** option.

3 Account No.

This is the site identifier. A unique account number **must** be entered, this can be up to a maximum of six digits.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

4 Copy/Overwrite

1 = Copy Site

The **Copy Site** option copies the programming details stored on the Galaxy panel to the RS232 module. On selecting this option the keypad indicates if a panel program is already stored in the module memory. To copy the panel programming press **1**; the message **COPYING** is displayed; the green **COPY LED** (LED3) on the RS232 module flashes. When the entire program has been copied to the module, the message **COPY STORED** appears; the green **COPY LED** (LED3) remains on.

NOTE: The copying procedure can be aborted at any time by pressing key **2**.

2 = Overwrite Site

The **Overwrite Site** option copies the program stored on the RS232 module to the Galaxy panel, overwriting all current programming details. On selecting this option the keypad indicates that the Galaxy is **WAITING TO WRITE**. To overwrite the panel programming press **1**; the message **OVERWRITING** is displayed; the green **OVERWRITE LED** (LED4) on the RS232 module flashes. When the entire program has been copied to the Galaxy panel, the message **OVERWRITE DONE** appears; the green **OVERWRITE LED** (LED4) remains on.

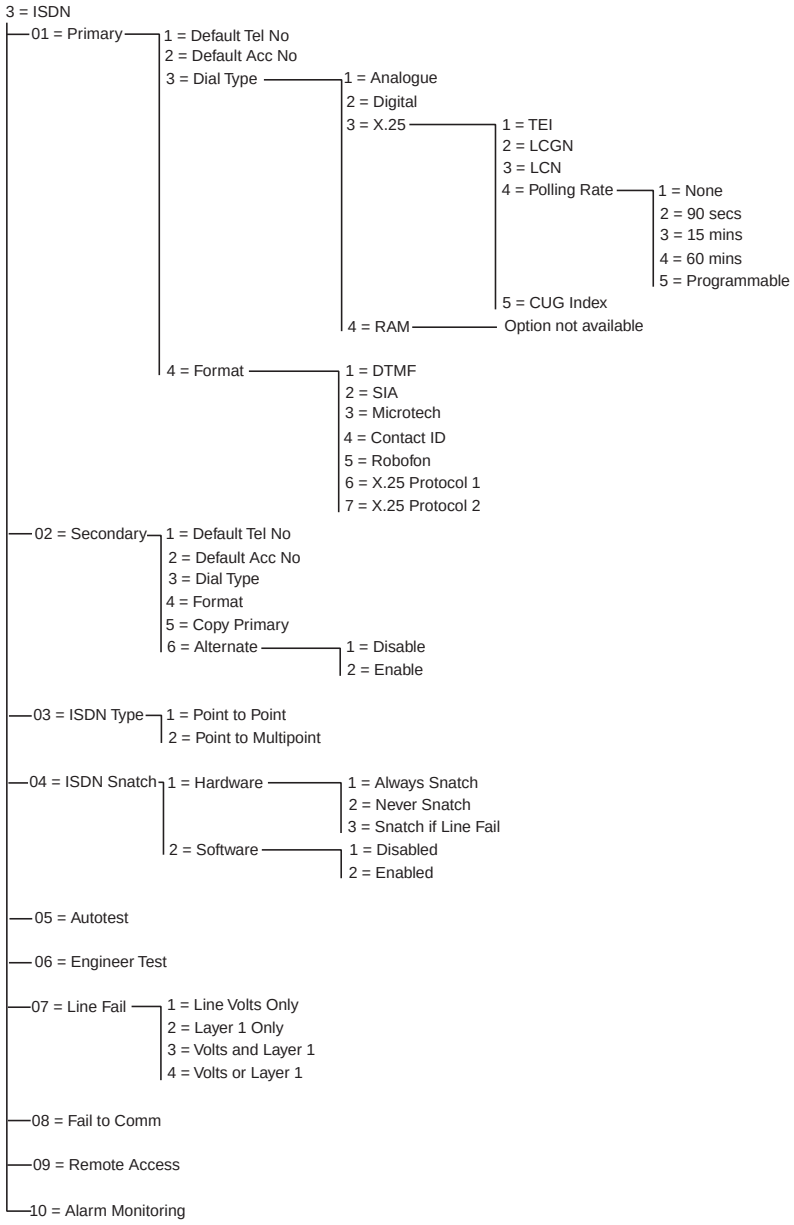
NOTE: The overwriting procedure can be aborted at any time by pressing key **2**.

3 = Copy Stored

If the RS232 has programming details stored in its memory, the **Copy Stored** option indicates: the date; the panel type (Galaxy 8, 18, 60, 500 or 512); and the version of software that was copied.

If there is no program in the RS232 module memory, the message **NO COPY STORED** is displayed.

ISDN Module



The Galaxy ISDN Module provides a similar function to the standard Telecom Module, but is used, instead, on sites fitted with ISDN telephone lines.

01 Primary

1 =Default Telephone Number

Telephone number 1 **must** be entered. This is the main telephone number that the alarms are signalled to. Up to 22 digits may be entered, including control modifiers. The control modifiers are entered using the ✳ and # keys:

✳ Pause (for two seconds before dialling the next digit). Multiple entries can be made, for example, entering ✳✳✳ gives a six second pause.

Dial tone detect (wait for new dial tone). Each dial tone detect lasts for 15 seconds. Multiple entries can be made, for example, entering ## gives a 30 second dial tone detect. If a new dial tone is not detected in this time, then the dialling attempt is aborted. This is counted as a fail to communicate.

The **B** key is used to erase an existing telephone number. Each press deletes the last digit displayed.

2 = Default Account Number

This is the site identifier. A unique account number must be entered, this can be up to a maximum of six digits although 4 digits is the standard.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

NOTE: Entering the account number into this menu option automatically copies the number to all triggers in the selected format (DTMF, SIA and Microtech). Any individual account numbers that have been programmed are overwritten.

3 = Dial Type

An ISDN line has four separate possibilities for a transmission:

- Analogue, voice mode to connect to a PSTN network or a voice call to an ISDN network
- Digital, data mode to connect to an ISDN network with 64K bit per second.
- FAX group 4, fax mode to transmit and receive a fax with 64K bit per second.
- X.25 to connect the ISDN Module using the D-channel to another ISDN user or an X.25 network.

1 = Analogue

Menu items for all the possible analogue protocols in the ISDN Module:

- SIA level 1, 2, 3
- Microtech
- CID
- Scancom (Robofon)

2 = Digital

The ISDN line is capable of transmitting alarm data in a digital format with a speed of 64K bit per second.

3 = X.25

The X.25 dialling type is capable of connecting the ISDN Module to a X.25 network. The ISDN Module uses the D-channel of the ISDN line to set up the connection. After set-up the connection will remain activated.

1 = TEI (Terminal Endpoint Identifier)

Since it is possible to connect several devices to one ISDN line, like X.25 ISDN Module but also X.25 pay systems for an ATM card, the local telecom provider uses the TEI to identify the devices. The local telecom provider issues the TEI number. The value can vary from 00 to 63.

2 = LCGN (Logical Channel Group Number)/ 3 = LCN (Logical Channel Number)

The X.25 data network uses the LCGN and LCN to identify the users that are connected. Normally the users are connected directly to the X.25 network. To allow a high number of users the LCN can vary from 000 to 255. The LCGN can multiply this number of users with 15. The LCGN can vary from 00 to 15. When using X.25 over ISDN the LCGN is set to 00 and the LCN is set to 001.

4 = Polling Rate

The polling is used to monitor the X.25 connection end to end. A poll is sent from the ISDN Module to the X.25 receiver. The receiver also monitors if the poll is received within the specified limit. The interval between the polls can be programmed using the polling rate. The

5 = CUG (Closed User Group)

Depending on the country of use and the local telecom provider the CUG index is used. The telecom provider can issue a closed number group to a certain monitoring station. The extra subscription for X.25 use over the ISDN line is often available in several packages depending on the use of the X.25 facility. An X.25 subscription for ATM card payment systems is more expensive than an X.25 subscription for an alarm system. To block access to a X.25 payment system when an X.25 alarm subscription is ordered, the CUG index must be entered. The value can vary from 0 to 9.

4 = Format

The communicator provides seven signalling formats:

- 1 = DTMF
- 2 = SIA
- 3 = Microtech
- 4 = Contact ID
- 5 = Robofon
- 6 = X.25 Protocol 1 (SIA based format compatible with the OA BX X.25 receiver)
- 7 = X.25 Protocol 2 (SIA based format compatible with the Alphatronics RC 4000 receiver)

Once the format has been selected, the alarm and event triggers that the panel will transmit to the ARCs are programmed.

Note: The DTMF, SIA, Microtech and Contact ID formats are identical in structure and programming to the Telecom Module menu.

02 Secondary

1 = Default Telephone Number

A second telephone number is available to support **Dual** and **Alternate** dialling to a second destination receiver. The programming is identical to **Telephone Number 1**.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

2 = Default Account Number

This is the site identifier. A unique account number must be entered, this can be up to a maximum of six digits although 4 digits is the standard.

The **B** key is used to erase an existing number. Each press deletes the last digit displayed.

NOTE: Entering the account number into this menu option automatically copies the number to all triggers in the selected format (DTMF, SIA and Microtech). Any individual account numbers that have been programmed are overwritten.

3 = Dial Type

Refer to **Primary** Dial Type (except X.25 should be option not available).

4 = Format

Refer to **Primary** Format.

5 = Copy Primary (1 to 2)

Copies Primary Program to Secondary Program.

6 = Alternate

If enabled, signalling is attempted alternately to primary and secondary numbers until successful transmission to either is achieved.

03 ISDN Type

Two types of ISDN lines are available on the EURO ISDN network:

1 = Point to Point

Only one device is allowed on the S0-BUS. The TEI value is fixed and must be programmed into the ISDN Module. Most telecom providers in Europe are using TEI value 0 for a Point-to-Point ISDN line. Since only one device is allowed the Imod will act differently when programmed to Point to Point. The hardware ISDN snatch relay is always activated before the Module starts a dialling sequence. After all the alarms are transmitted the relay will be deactivated and the customer PABX will be connected to the ISDN network again. During the dialling sequence it is not possible to use the PABX for an outside call. Upon an incoming call for the Module, the relay will be activated directly switching the PABX off the ISDN line, after which the Module will seize the line. To ensure correct functionality of the PABX and the Module always connect the PABX to ISDN out of the Module. X.25 in combination with a Point-to-Point ISDN line is not possible. The phone numbers that are available on a Point-to-Point line often only vary in the last 2 digits f.i.

123401 ~ 123409. To handle incoming calls for remote programming one phone number need to programmed into the Imod. This specific phone number cannot be used by the PABX because the Imod will seize the incoming call directly.

2 = Point to Multipoint

Up to 8 devices are allowed on the S0-BUS. The TEI value is not programmed into the ISDN Module but will be supplied automatically by the ISDN network and can vary from call to call. Since 8 devices are allowed also up to 8 different phone numbers are available per ISDN Point to Multipoint line. Telecom providers often supply 4 phone numbers standard and the other 4 phone numbers only when a more expensive subscription is ordered. These phone numbers are called MSN numbers, Multi Subscriber Number. In contrast to a PSTN line where a phone number is fixed to a certain pair of wires, all the MSN numbers are broadcasted over the ISDN S0-BUS. The device that is programmed with the same MSN number will respond to the call. Also every device that is not programmed with an MSN number must respond.

When X.25 is used in combination with a Point to Multipoint line both B-channels are still available for incoming and outgoing call.

04 ISDN Snatch

In order to ensure maximum security the ISDN Module must be able to make a call in every circumstance. The ISDN snatch is available in the software and the hardware.

1 = Hardware

The hardware snatch is performed over a relay. This relay can switch the other devices off when a tamper situation is detected by the Module. In order to switch the other devices off it is important that these other devices are connected to the ISDN **out** connection of the Module. Some ISDN devices are not willing to release a B-channel even when the network indicates that the B-channel must be released. When this is detected or a tamper causes interference on the S0-BUS communication the relay will be activated.

2 = Software

The software in the Module monitors every communication on the S0-BUS including those of other devices. The software snatch enables the possibility to clear a B-channel when both are occupied at that time. When both B-channels are occupied the Imod always clears the call that started first.

05 Autotest

An engineer test (code 9) can be automatically transmitted to the Monitoring Station at programmed intervals.

1 = Start Time

The engineer uses this option to enter the time that the first engineer test is transmitted. Subsequent engineer test transmissions are offset by the value assigned in the **Test Interval** option.

2 = Test Interval

This option determines the period between engineer test transmissions following the **Start Time**, the programmable range is 0 – 99 hours.

NOTES

1. If the **Test Interval** is **0** (default) the **Autotest** is disabled — even if a **Start Time** has been assigned.
2. To disable **Autotest** enter **00:00** (default); no transmissions of test signals can be sent at midnight.

3 = Group Condition (Galaxy 504 & 512 only)

NOTE: This option is only displayed if the groups have been enabled (refer to option **63 = OPTIONS**).

The **Group Condition** determines the status that each group must satisfy before the **Autotest** is transmitted. This can be used to prevent an **Autotest** from being signalled when groups are set on the system. On selecting this option press the relevant number keys to toggle the status of the groups and press the **ent** key to accept the programming. The available group status conditions are:

S = Set - group must be set to allow autotest transmission;

U = Unset - group must be unset to allow autotest transmission;

– = Set or unset - autotest transmission is independent of the group status.

06 Engineer Test

An engineer test (code 9) can be sent to the Monitoring Station once the **Account Number** and the **Telephone Number 1** have been entered, to ensure that the station is receiving transmissions sent from the Telecom module.

On selecting this option a warning message is displayed on the keypad. Press the **ent** key to send the engineer test. The current status of the 16 channels is transmitted along with the engineer test code.

The test attempts to transmit once for each selection of the option. If the test is not successfully transmitted, the communicator does not attempt to resend. An unsuccessful transmission **is not** counted as a **FAIL TO COMMUNICATE**.

07 Line Fail

Layer 1 only

Beside the DC monitoring of the ISDN line the ISDN Module can be programmed to use layer 1 check monitoring. The layer 1 option will activate the ISDN line every 40 seconds and monitor the activation respond from the ISDN network. This activation will remain for about 20 seconds. When X.25 is used the layer 1 check is not performed because the ISDN line is already activated continuously.

08 Fail to Comm

This option determines the number of unsuccessful communications attempts before the **COMM FAIL** message is recorded in the event log.

When an alarm condition or event is to be transmitted to the monitoring station, the Telecom module snatches the telephone line and dials the programmed telephone numbers. After a successful communication the LED lights for three seconds, the module

then releases the telephone line and reconnects any serially connected equipment. This procedure is repeated for the second telephone number if the **Receiver** option has been programmed as **Dual**.

NOTE: The Telecom module communicator snatches and holds the line until a successful attempt has been made to the required telephone numbers or all the repeat attempts have been tried.

If the communication attempt is unsuccessful, the LED flashes rapidly for three seconds. The communicator then waits for a short period before redialling the number (or the second telephone number if the **Receiver** option has been programmed as **Dual** or**Alternate**). When the **Fail To Communicate** option is left at the default setting of **3,** if the first three dialling attempts are unsuccessful, the **COMM FAIL** message is recorded in the event log. If the next two attempts (five attempts in total) are unsuccessful, the communicator **cannot** make any more communication attempts for two hours (from the time of the first unsuccessful attempt). The alarms to be transmitted are erased from the buffer. This conforms with the repeat attempts procedure as detailed in the BABT requirements BS6789, 1985, Section 3-1, Paragraph 7.

NOTE: If the **Receiver** option is programmed as **Dual** and the **Format** is **DTMF**, then successful transmission **must** be made to both telephone numbers. Five unsuccessful attempts to a single telephone number prevents the communicator from transmitting any alarm events for two hours.

09 Remote Access

This option defines when and how Galaxy Gold remote servicing will operate. The options are described as follows.

1 = Access Period

This option determines the type of access that is available to the remote Galaxy Gold operator. There are four modes:

1 = Off: Galaxy Gold access to the Galaxy panel is disabled

2 = All Unset: access only when all the groups are unset. If groups are not enabled access is available at any time.

3 = Any Set: no access if any of the groups are set. The system must be fully unset, whether groups are enabled or not.

4 = Any Time: (default) access available at any time

2 = Mode

1 = Direct

This permits access at anytime. Once access is authorised, uploading, downloading and remote servicing can begin.

2 = Manager Authorise

There are two methods that an authorised user can use to enable access to the Galaxy via Galaxy Gold:

- **Timed Access:** Galaxy Gold **must** access the Galaxy within 40 minutes of this option being enabled by the manager. Once connected, there is no time limit on the access period. On terminating the connection, Galaxy Gold can reaccess the system within a 15 minute period of the termination.
- **Call Back:** the manager instructs the Galaxy to initiate a connection to a PC (with Galaxy Gold software loaded) by dialling one of the numbers programmed in the **Call Back** option.

3 = Call Back

Up to five telephone numbers can be programmed into this option. Galaxy Gold requests the Galaxy to call back to one of the numbers.

NOTES:

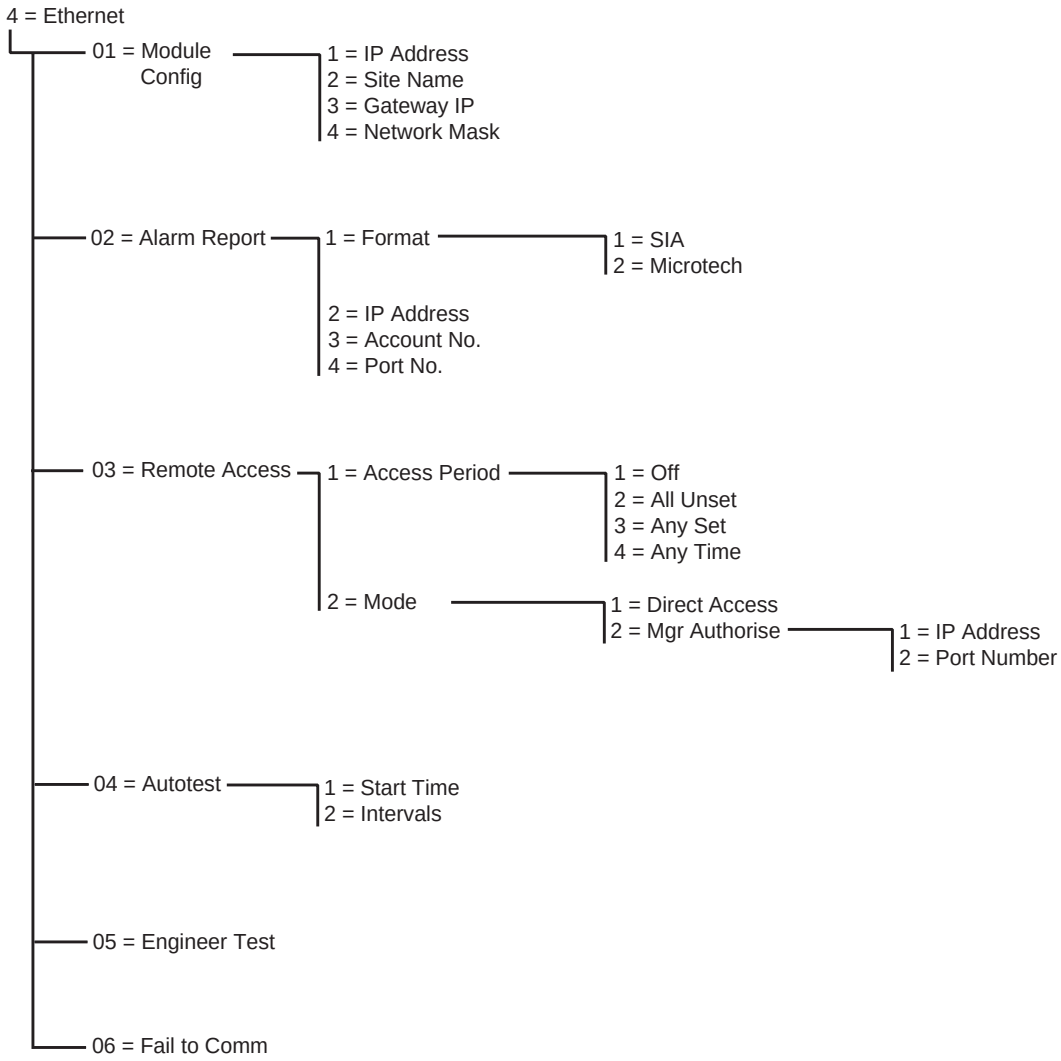
1. If **Manager Authorise** is selected as the **Remote Access Mode**, then the telecoms module can only make outgoing calls - it is disabled from answering all incoming calls. This allows another telephone, fax or answering machine to be connected to the line without interference from the telecom module when calling into the premises.

2. If **Call Back** is selected, then access to the Galaxy is denied **unless** the call back option in Galaxy Gold is used to initiate the connection.

10 Alarm Monitoring

This is identical to the **Microtech** format communications (**56.1.3**). This option is used to allow alarms to be dialled to a PC with Alarm Monitoring software loaded as well as to an ARC using the DTMF or SIA formats.

Ethernet Module



The Galaxy Ethernet Module is a communication device that provides a similar function to a Telecom module except that it allows communication over an existing TCP/IP compatible computer network. This can be a LAN (Local Area Network) or WAN (Wide Area Network).

01 Module Config

The following parameters 1-4 will be provided by the I.T. department of the installation site.

1 = IP Address

This is the Network Address of the Module. Blank by default.

2 = Site Name

This option is not used at the moment.Blank by default.

3 = Gateway IP

This is the Network Gateway Address. This should be set up when operating over a WAN.

4 = Network Mask

The network mask determines which part of an IP address describes the host number and which part describes the network number.

02 = Alarm Report

This controls the alarm signalling function of the Module.

1 = Format

This is the signalling format of the receiver and has the following two formats:

1 = SIA

The SIA format is identical in structure and programming to the **option 56.1.2,Telecom Module, SIA.** menu.

2 = Microtech

The Microtech format is identical in structure and programming to **56.1.3, Telecom Module, Microtech.**

2 = IP Address

This is the unique network address of the receiver and is assigned by the I.T. department.

3 = Account No.

This is the site identifier. A unique account number must be entered . This can be 4 digits (minimum) up to 6 digits (maximum).

4 = Port No.

his should only be changed if monitoring applications conflict with an existing application running on the monitoring PC. The port number on PC is used by the alarm company. If there are any problems receiving alarms, it may require a different port number which can be advised by the IT department while looking at the PC applications running. A different port number may also be required for reporting to another application than Alarm Monitoring. The default is 10002.

03 = Remote Access

This option defines when and how Galaxy Gold remote servicing will operate. The options are described as follows.

1 = Access Period

This option determines the type of access that is available to the remote Galaxy Gold operator. The data is shared with Telecom and ISDN. There are four modes:

1 = Off

Galaxy Gold access to the Galaxy panel is disabled

2 = All Unset

Access only when all the groups are unset. If groups are not enabled access is available at any time.

3 = Any Set

No access if any of the groups are set. The system must be fully unset, whether groups are enabled or not.

4 = Any Time (default)

Access available at any time

2 = Mode

1 = Direct Access

This permits access at anytime. Once access is authorised, uploading, downloading and remote servicing can begin.

2 = Manager Authorise

There are two methods that an authorised user can use to enable access to the Galaxy via Galaxy Gold:

1 = IP Address

This is the network address of Galaxy Gold PC and is provided by the IT department.

2 = Port Number

This is the port number on the PC with a default value is 10001. The port number is used by Galaxy Gold while awaiting call mode. If there are any problems it may require a different port which the IT department can advise while looking at PC applications which are running.

04 = Autotest

Refer to option **56.1.7, Telecom Module**, **Autotest.**

05 = Engineer Test

Refer to option **56.1.8, Telecom Module, Engineer Test**.

06 = Fail to Comm

Refer to option **56.1.11, Telecom Module, Fail to Comm.**

Option 57 – System Print

The **System Print** option allows the details of the system programming to be printed. The specific details of one or all of the menu options in the following table can be selected:

	Menu Option	Menu No.
01	System Data	23
02	Codes	42
03	Parameters	51
04	Zones	52
05	Outputs	53
06	Links	54
07	Communication	56
08	ISDN	56.3
09	Groups	63
10	Keypads	58
11	Timers	65
12	Event Log	22
13	All (items 1-11)	

Table 23. System Print Options

Selecting a Print Option

The required print option is selected by entering the option number 01 – 12 or by using the **A** and **B** keys and then pressing **ent**. When printing option **11 = EVENT LOG**, the system prompts for **Groups** to be selected; the print shows only those events logged for the groups selected. The print can be aborted at any time by pressing the **esc** key.

NOTE: A serial printer on line must be connected to communication line 1 of the Galaxy before the print option is selected. If the printer is off-line or is not connected, the **PRINTER off-line / ESC to abort** message is displayed. Press the **ESC** key and correct the problem.

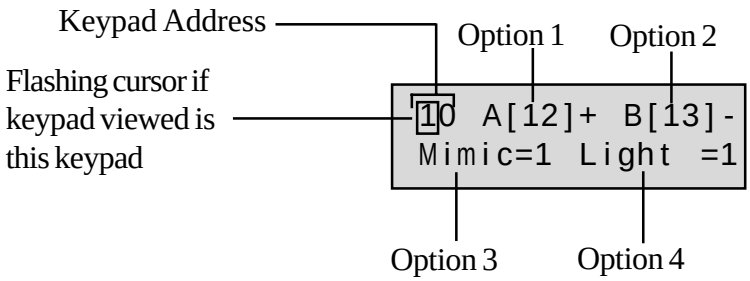
Printing Timers

Printing **10 = Timers** gives details of all the times that have been assigned in option **65 = TIMERS**; this includes the autoset time, the pre-warning period and lockout times.

Option 58 – Keypad

The keypads connected to the Galaxy control panel can be assigned individual attributes allowing each keypad to respond in a particular way.

On selecting the **Keypad** option the details of the first keypad connected to the system are displayed.



The required keypad is selected by entering the keypad address or by using the **A** and **B** keys and then pressing **ent;** the keypad displays **1=A-key**. Press the **A** and **B** keys to select the required option and press the **ent** key.

NOTE: When the address of the keypad currently being used is displayed, a black square flashes on and off over the first digit of the keypad address.

1 = A-key

Code Status

This option assigns a menu function to the **A** key. On selecting the option the keypad displays **1 = Code Status**, this determines the method of operation of the **A** key:

0 = OFF [ ] - A key disabled

1 = WITH CODE [+] - A key requires code to be entered prior to operation

2 = NO CODE [–]— A key is a single touch operation no code is required

Select the required **Code Status** and press the **ent** key.

NOTE: The **Code Status** assigned to the key is displayed when selecting the keypad address, for example **A[12]–** indicates that the **A** key does not require a user code.

Menu Option

To assign one of the menu options to the **A** key, press the **A** key to move to the **2 = Menu option** and press the **ent** key. The keypad displays the currently assigned menu option.

```
10 A-key Option
12=Timed Set
```

To assign a new menu function, enter the full menu option number 11 – 59 or press the **A** and **B** keys until the required menu option is displayed; press the **ent** key to accept the selection and return to the previous menu level.

2 = B-key

The programming of the **B** key is identical to that of the **A** key.

3 = Buzzer Mimic

This option determines whether the keypad buzzer mimics the function of the programmed keypad output (refer to option **53 = PROGRAM OUTPUTS**). The default function of the keypad output is **Entry/Exit Horn** and the default **Mimic** defaults to **On**, therefore the keypad buzzer operates as an **Entry/Exit Horn** at factory setting.

To disable the keypad buzzer from mimicking the output select **0 = Off**.

4 = Backlighting

This option determines when the keypad backlighting switches on and off.

0 = always off,

1 = always on (default),

2 = on when the system is unset;
off when the system is set;
switches on when the keys are pressed,

3 = on during setting and unsetting;
switches on when keys are pressed;
switches off after keypad timeout and when menu is exited,

4 = switches on when keys are pressed;
switches off after keypad timeout and when menu is exited.

5 = Keypad Mute

This option allows the bleep which normally accompanies a valid keypress to be disabled. This features improves security and reduces tampering with the keypad when it is located in a public place.

When the **Mute** option is set to **1 = On**, whenever the keypad banner is displayed the keypresses are silent, there are no ✳s displayed as each key is pressed and the keypad backlighting remains off. As soon as a valid code is entered the keypad returns to normal operation - the keys are accompanied by bleeps and the backlighting switched on. The **Mute** option defaults to disabled (**0 = Off**).

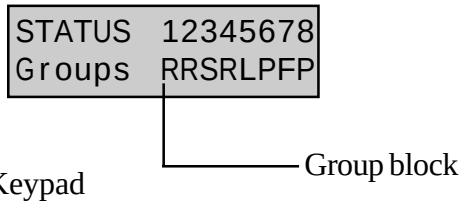
Keypad Disable

A keypad may be disabled by programming the address of the keypad as a link destination (refer to menu option **54 - Links**). When the source of the link is activated the keypad does not respond to any keypress, however, the LCD, keypad buzzer and any keypad output device acts as normal.

6 = Show Status

This option allows the keypad to display the set status of the groups. When **Show Status** is enabled, pressing the ✳ and # keys simultaneously when the normal banner is displayed indicates the group set status.

F = Fault
R = Ready
S = Set
P = Part Set
L = Locked Out
- = Group not assigned to Keypad



NOTE: The **Show Status** indicates the set conditions of groups when the system is set (keypad blank) or unset (normal banner). **Show Status** does not operate while engineer mode is accessed.

Pressing the ✳ and # keys again toggles the display to show the status of the groups individually. To move between each groups, press the ✳ and **A** or the ✳ and **B** keys simultaneously.

Pressing the ✳ and # keys again returns the keypad to the banner display.

Galaxy 504 & 512

The Galaxy 504 & 512 have 32 groups; these are displayed on the keypad in block of eight groups, sub-divided into A, B, C and D. Press the **A** or **B** key to display each of the group blocks.

7 = Keypad Groups

Each keypad can be assigned to selected groups; the keypad then responds only to user codes that have a group common to it and only displays alarm information on the groups assigned.

Entering a user code which is assigned to all groups, on a keypad which is only assigned to a single group, allows access to all of the user's groups. The user is not restricted by the groups that are assigned to the keypad as long as there is one group common to both. This means that a keypad assigned only to group 1, for example, can be used to set groups 1, 2, 3 and 4 by a code with all of these groups allocated.

Keypad Group Restriction

To restrict access only to groups that are common to both the user and the keypad, press the ✳ key when assigning groups to the keypad. This means that when a user with access to groups 1, 2 and 3 sets the system on a keypad assigned to groups 2, 3 and 4, only the common groups (groups 2 and 3) are set.

Assigning Keypad Groups

On selecting the **Keypad Groups** option, the groups currently allocated to the keypad are displayed (the default is all groups assigned). Pressing the group number toggles the group assigned to the keypad.

Galaxy 504 & 512

The Galaxy 504 & 512 have 32 groups; these are displayed on the keypad in block of eight groups, sub-divided into A, B, C and D. Use the **A** or **B** key to move between the group blocks; press keys **1 – 8** to assign the relevant groups in each block to the user.

When the required groups have been assigned to the user, press the **ent** key to accept the programming and return to the previous menu level.

Option 59 – Quick Menu

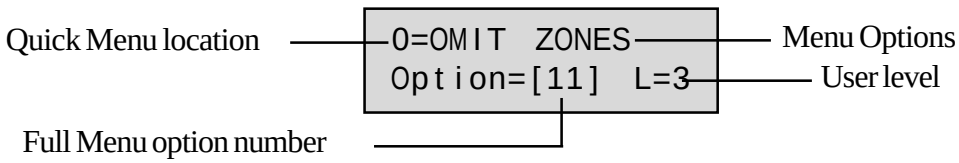
The Galaxy quick menu consists of up to ten menu options that are accessed by all level 3 (and above) user codes that do not have a ✳ assigned to their code level. This option allows the quick menu to be reprogrammed to any selection of the menu options. The **Quick Menu** defaults to a factory selection as shown in the following Table:

	Menu Option		User Level
0	Omit Zones	11	3
1	Forced Set	14	3
2	Chime	15	3
3	Display Zones	21	4
4	Display Log	22	4
5	Print	24	4
6	Walk Test	31	5
7	Time/Date	41	6
8	Codes	42	6
9	Summer	43	6

Table 24. Quick Menu Options

Modifying the Quick Menu

On selecting the **Quick Menu** option, the details of the first option assigned to the quick menu are displayed; this includes the quick menu location, the menu option assigned, the full menu option number and the current user level assigned to the option.



Select the quick menu number to be modified by entering the option number 0 – 9 or by using the **A** and **B** keys and then pressing **ent**. The display indicates the quick menu location and the full menu option number currently assigned.

To modify the quick menu, enter the full menu option number 11 – 59 or press the **A** and **B** keys until the required menu option is displayed; press the **ent** key to accept the selection and return to the previous menu level. To delete a quick menu option, press the ✳ key instead of a menu option number; ✳✳**=NOT USED** is displayed.

The system arranges the quick menu in order of lowest user level access required, therefore if quick menu number **0** is assigned a menu option which is of a higher access level than options **2**, **3** and **4**, the menu is rearranged and the display indicates that the option is now number **4**.

NOTE: Assigning duplicate quick menu options is denied. The message **DUPLICATE ENTRY** is displayed and the system prompts for a new option to be assigned.

Section 9: Engineer 2

Option 61 – Diagnostics

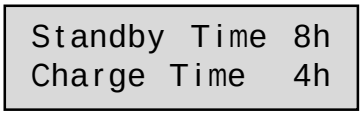
This option allows several diagnostic tests to be run on the system, providing valuable information on the operational status of the Galaxy and connected modules. The Galaxy polls each module 32 times every second and reports the successful communications during this period as a percentage. Typical figures are:

- 70% and above - satisfactory communication level
- 50 – 69% - module requires monitoring
- 49% and below - remedial action required

NOTE: The Galaxy gives greater priority to modules that are active, therefore this can affect the communication percentages on other modules on the system as they are being polled less frequently due to their zone inactivity.

The **Diagnostic** options are:

1. **MEMORY TEST -** This is an option used during development. It serves no purpose in the field.
2. **KEYPAD COMMS** - the communication level between the Galaxy panel and the keypads.
3. **RIO COMMS -** the voltage at each RIO as well as the communication level between the Galaxy panel and the RIO.
4. **PSU COMMS** - the voltage at each Smart Power Supply Unit and the communication level between the Galaxy panel and the SPSUs. It is identical to the **RIO COMMS** diagnostic with the exception that it also indicates the current output from the SPSU, fuse status and battery status.
   A number to the right of the current indicates a blown fuse:
   2 = Battery fuse (F2)
   3 = +12V Auxilliary fuse (F3)
   4 = +12V Auxilliary fuse (F4)
   A ✳ indication means Low Battery
   95% ✳2 13.6V 1.9A.
   Pressing the # key indicates how long the stand-by battery will power the load connected to the SPSU in the event of an a.c. mains failure as well as the battery recharge time.



5. **MAX COMMS** - the communication level between the Galaxy panel and the MAX or MicroMAX readers.

Option 62 – Full Test (Galaxy 18, 60, 128, 500, 504 & 512)

The **Full Test** option allows a single zone to be selected and tested under full set conditions. Activating the selected zone results in a full alarm condition, including remote signalling. Constantly active zones (**Security, 24 Hours**, **PA**, **Fire**) remain active throughout the **Full Test**; an activation generates the appropriate local or full alarm depending on the zone.

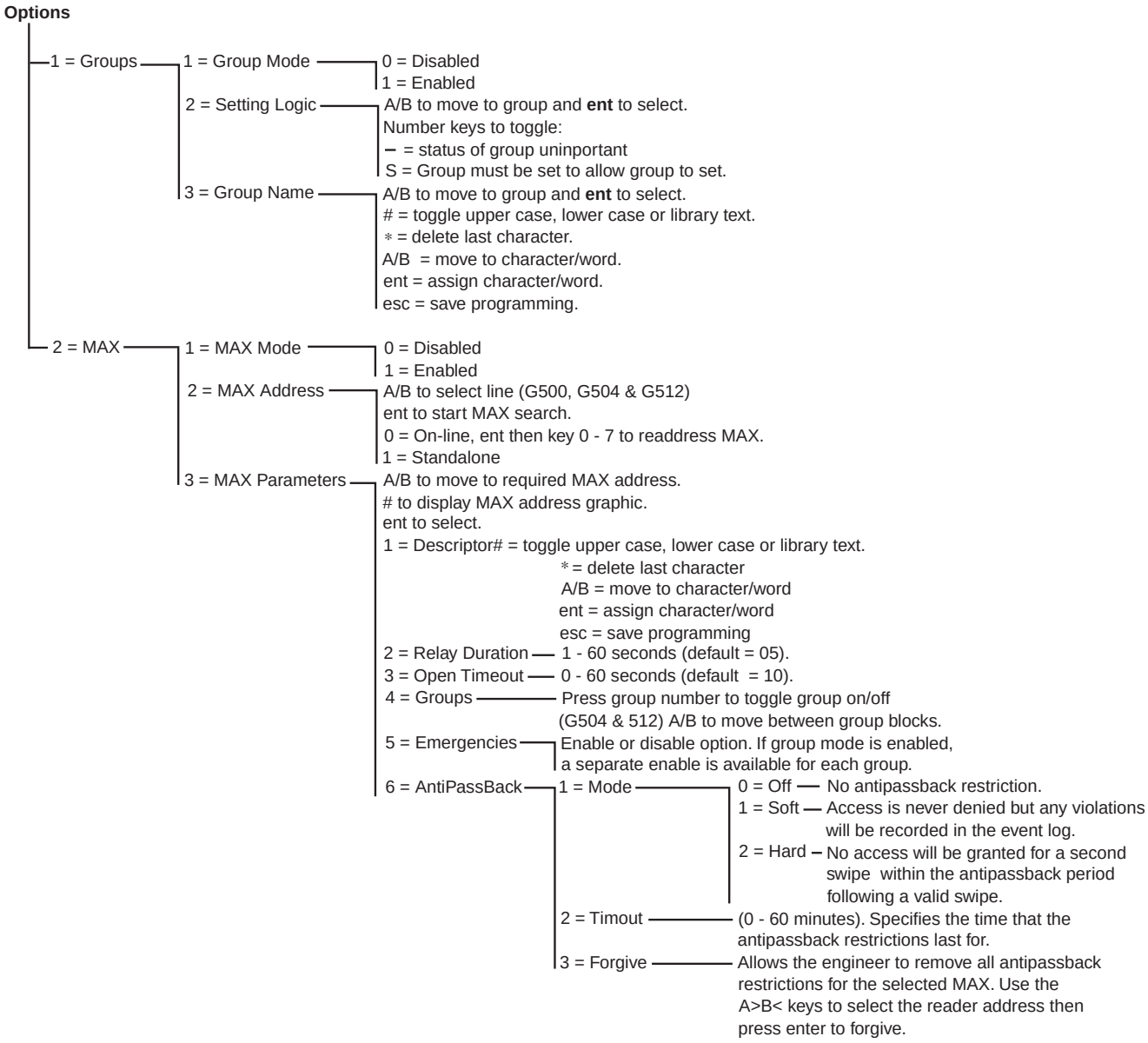
On selecting the **Full Test** option, the address and function of the first zone on the system is displayed. Move to the required zone by pressing the **A** or **B** keys or by entering the zone address. Press the **ent** key; the system begins the full setting procedure. Activating the zone results in a full alarm condition. To end the full test unset the system.

Option 63 – Options (Galaxy 18, 60, 128, 500, 504 & 512)

The **Options** function allows the Galaxy to be divided into group subsystems and also allows the MAX proximity access control readers to be integrated into the system.

Panel	Group	Max
G8	0	2
G18	3	3
G60	4	4
G128	8	8
G500	16	16
G504	32	32
G512	32	32

Table 25. Groups/Max Modules per Panel



1=Groups

On selecting **Options**, the keypad displays **1 = Groups**; press the **ent** key to select this function.

1 = Group Mode

This option is used to enable the **Groups** function (default is **0 = Disabled**). When enabled, the system options that are eligible for group programming are made available throughout the menu, otherwise they do not appear display as **Option not Available**.

Enabling Groups

On selecting **1 = Enabled**, press the **ent** key to accept the programming and return to the previous menu level.

Disabling Groups

The **Group Disabled** feature operates as follows:-

When disable groups is selected in menu option 63.1.1 two option are given:-

1. Reset Groups
2. Disabled

If option 1 - Reset Groups is selected the engineer is prompted to confirm the selection. If confirmed, by pressing the enter key, all group programming, for all the panel features, are reset to A1. When engineering mode is exited a warning message is displayed **(ATT!!! GRPS OFF, SYS. OP. IMPACT)** alerting the engineer that groups have been reset and there will be an impact on the operation of all functions not programmed as group A1. This warning message will be displayed until the ESC key is pressed by the engineer, acknowledging the warning.

Note : When group programming is re-enabled all previous group programming will not be restored.

If option 2 - Disabled is selected the engineer is prompted to confirm the selection. If confirmed, by pressing the enter key, all group programming, other than A1 will be disabled (zones, outputs, links, users). When engineering mode is exited a warning message is displayed **(ATT!!! GRPS OFF, SYS. OP. IMPACT)** alerting the engineer that groups have been disabled and there will be an impact on the operation of all areas not programmed as group A1. This warning message is displayed until the ESC key is pressed by the engineer, acknowledging the warning.

Note : If this option is selected, when group mode is re-enabled all previous group programming will be restored. However, while group mode is disabled, a zone not programmed to group A1 will not operate normally on the system. It is strongly recommended that, whenever possible, groups are always reset to A1 when disabling groups.

2 = Setting Logic

The **Setting Logic** option restricts a group from setting by determining which other groups must be set before it can set. For example, group 1 may be prohibited for setting unless groups 3, 7 are already set. The **Setting Logic** is individually defined for each group.

Programming Setting Logic

On selecting the **Setting Logic** option, group 1 is displayed. Use the **A** or **B** keys to move to the required group or directly select it by pressing the required group number; press the **ent** key to access the group. On selecting the group, the current **Setting Logic** details are displayed:

- **S** below a group means that it must be set to allow the selected group to set
- a dash (–) below the group indicates that the set status of this group is not important.

Toggle the status between **S** and – by pressing the number key. When the required setting logic pattern has been defined press the **ent** key to accept the programming and return to the previous menu level.

Galaxy 504 & 512

The Galaxy 504 & 512 have 32 groups; these are displayed on the keypad in block of eight groups, subdivided into A, B, C and D:

Group Block	Physical Groups
A1-8	1-8
B1-8	9-16
C1-8	17-24
D1-8	25-32

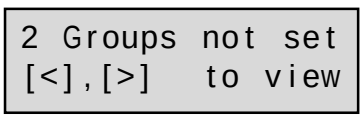
Table 26. Groups

Use the **A** or **B** key to move between the group blocks; press keys 1 – 8 to toggle the **Setting Logic** for the relevant groups in each block.

Setting Logic Operation

If **Setting Logic** has been assigned to a group, the set status of the groups must satisfy the conditions defined in the option to permit the group to set. If the **Setting Logic** conditions are not satisfied, then the group cannot set. If multiple groups are being set simultaneously, but one group is restricted due to the programmed **Setting Logic**, the remainder of the groups set. The restricted group does not set; there is no warning or indication given.

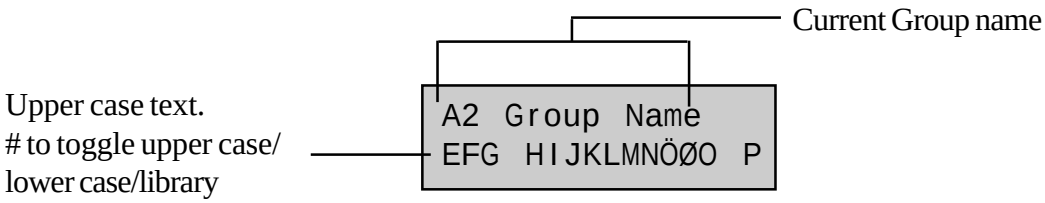
If the programmed **Setting Logic** results in none of the selected groups being allowed to set, a warning message is displayed on the keypad.



This message does not appear if at least one group sets.

3 = Group Name

This option is used to assign a name of up to 12 characters to each of the groups. This name is assembled from the character set and/or library options. On selecting the **Group Name** option, the name currently assigned to group 1 is displayed. All group names default to **Group X** (where **X** is the group number). Use the **A** or **B** keys to move to the required group or directly select it by pressing the required group number; press the **ent** key to access the group. On selecting the group, the following details are displayed:



The currently assigned name is displayed on the top line - an underscore shows where the next character will be positioned, and a selection of the alphabet is shown on the bottom line - the cursor flashes on the letter **L**.

Press the ✳ key to erase the characters already assigned to the name.

The **A** or **B** keys can be used to move the alphabet left or right until the required character is positioned underneath the flashing cursor. When the required character is in position press the **ent** key to copy the character to the descriptor in the top line. Repeat this procedure to assemble the required **Group Name**.

Text Case & Library

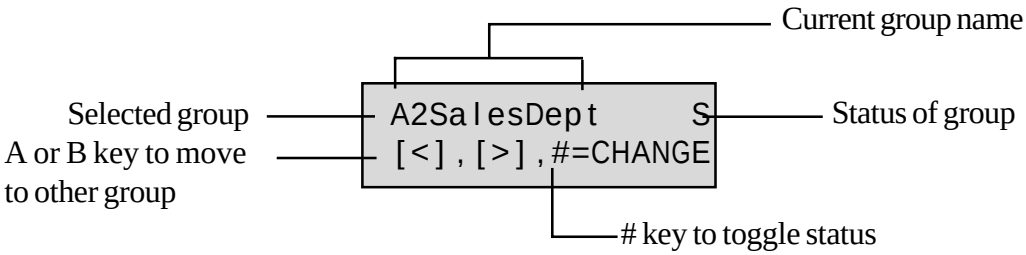
On entering the **Group Name** option the alpha-numeric characters are all presented in upper case. Pressing the **#** key toggles the characters to lower case.

Pressing the # key when the lower case alphanumeric characters are displayed toggles to the library words. The words can be viewed using the **A** or **B** keys or directly selected using the reference number - refer to **Appendix A - Library**. When the required word is displayed, press the **ent** key to copy it to the name.

NOTE: Library words are a maximum of 12 characters and upper case only.

Group Name Display

When viewing the groups assigned to an option, for example user code or outputs, simultaneously pressing the # and ✳ keys displays the groups individually. The keypad displays the group number, name and the status of the particular option being displayed. Press the # key to toggle the status of the group. To move to another group press the **A** or **B** keys or enter the number of the group directly.



Notes on Groups

1. All zones default to group 1.
2. All keypads, user codes and outputs default to all system groups assigned.
3. Remove unused groups from user codes, otherwise the unused groups will set and unset even though they are not programmed.
4. **Final, Keyswitch** and **Exit** can be programmed to function in regard to other groups during the setting and unsetting procedures (refer to option **52 = PROGRAM ZONES**).
5. Outputs can be assigned to any selection of groups. Output activation can be made dependent on the set or unset status of the assigned groups (refer to option **53 = PROGRAM OUTPUTS**).
6. After programming zones, codes, keypads and outputs into their various groups they remain programmed if the **Group Mode** function is disabled. Only Group 1 remains active.
7. The Galaxy 60, 128, 500, 504 and 512 control panels have multi-user software that allows several users to operate the system simultaneously.

2=MAX

This option is used to program the Galaxy MAX access control readers. The MAX can be fully integrated into the system, communicating on the AB lines and fully utilising the facilities of the Galaxy control panel. If the MAX is programmed as a standalone module, it is completely separate from the Galaxy; the panel does not monitor the module or share any of the facilities or options with it.

Programming the MAX

On selecting the **MAX** option, **1 = MAX Mode** is displayed; press the **ent** key to select this function.

1 = MAX Mode

This option is used to enable the **MAX** functions and allow the MAX modules to be programmed (default is **0 = Disabled**). When enabled, the options that are eligible for MAX programming are made available throughout the menu, otherwise they do not appear or appear as **Option not Available**.

NOTE: If the **MAX Mode** is disabled following programming of MAX readers, the readers remain operational, however, no further programming, including assigning next MAX cards and fobs, is possible until the mode is enabled.

2 = MAX Address

The address and the on-line or standalone status of the MAX Modules are assigned and modified using this option. On selecting **MAX Address** the Galaxy searches for the MAX with the highest address. The Galaxy 128 prompts for the AB line (1-2); the Galaxy 500, 504 and 512 prompt for the AB line (1-4) that is to be searched. Select the line and press the **ent** key. On locating the MAX, the keypad prompts for the **TYPE** of MAX to be assigned:

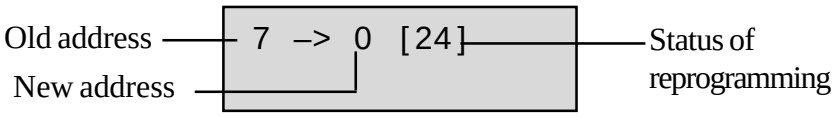
0 = On-Line The MAX is fully integrated with the Galaxy system and communicates via the AB line, sharing system resources and facilities

1 = Standalone The MAX operates as an entirely independent unit. The Galaxy does not monitor the MAX for alarms, tampers or power failure.

The MAX can then be readdressed. The keypad displays the current address of the MAX and the range of valid addresses. All MAX modules default to address **7**, it is recommended that when adding MAX modules, the first is redressed as **0**, the second as **1** and so on.

Enter the new MAX address and press the **ent** key; the Galaxy then reprograms the address of the MAX. The keypad indicates the old and new MAX addresses and the status of the reprogramming.

When the reprogramming is complete the MAX bleeps and the display returns to **2 = MAX Address**.



3 = MAX Parameters

This option defines the individual operational features of each of the MAX/MicroMAX modules. On selecting this option the address of the first MAX/MicroMAX on the system is displayed along with the descriptor currently assigned to it. While the MAX/MicroMAX address is displayed on the keypad, the address pattern on the MAX/MicroMAX module is indicated by the LEDs switching on. Pressing the # key displays a graphic on the keypad which corresponds to the LED pattern on the MAX/MicroMAX module.

The following figure shows the graphic display for both a MAX and a MicroMAX address as 26.

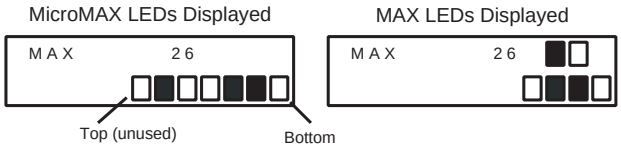


Figure 4. LED Status

The line numbers are represented by the top row in MAX and blocks 2nd and 3rd from the top in the MicroMAX and the address numbers are represented by the bottom row of blocks in the MAX and the four bottom blocks in the MicroMAX. The top LED on the MicroMAX is always off in this mode.

The combinations are shown in the following **Figure**:-

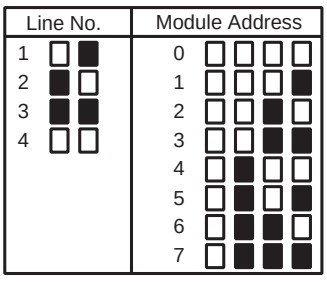


Figure 5. Line Number/Module Address

Select the required MAX/MicroMAX address using the **A** and **B** keys or by entering the MAX/MicroMAX address directly and pressing the **ent** key. The first MAX parameter, **1 = Description** is displayed. Use the **A** or **B** keys to move to the required parameter and press the **ent** key.

1 = Descriptor

This option is used to assign a name of up to 12 characters to each of the MAX modules. This name is assembled from the character set and/or library options. On selecting the **Descriptor** parameter the currently assigned name is displayed on the top line - an underscore shows where the next character will be positioned, and a selection of the alphabet is shown on the bottom line - the cursor flashes on the letter **L**.

Press the ✳ key to erase the characters already assigned to the name.

The **A** or **B** keys can be used to move the alphabet left or right until the required character is positioned underneath the flashing cursor. When the required character is in position press the **ent** key to copy the character to the descriptor in the top line. Repeat this procedure to assemble the required **Descriptor**.

Text Case & Library

On entering the **Descriptor** parameter the alpha-numeric characters are all presented in upper case. Pressing the # key toggles the characters to lower case.

Pressing the # key when the lower case alphanumeric characters are displayed toggles to the library words. The words can be viewed using the **A** or **B** keys or directly selected using the reference number - refer to **Appendix A - Library**. When the required word is displayed, press the **ent** key to copy it to the name.

Library words are a maximum of 12 characters and upper case only.

2 = Relay Duration

This is the period, following the user card swipe, that the MAX relay is activated allowing a door strike to be unlocked and the door to be opened without creating an alarm. The MAX relay de-activates as soon as the door contact opens or the **Open Timeout** occurs.

On entering the **Relay Duration** parameter, the current value is displayed; assign the required time within the range 01 – 60 seconds, the default time is 5 seconds. Press the **ent** key to save the programming and return to the previous menu level.

NOTE: Pressing the **A** key increases the time by one second increments, the **B** key decreases the time in one second decrements.

3 = Open Timeout

This is the period following the user card swipe that the door can remain open when gaining access. If the door remains open longer than the period assigned to the **Open Timeout**, then an alarm occurs.

NOTE: If the **Open Timeout** is programmed as **0** seconds, then the door can remain open indefinitely without resulting in an alarm being activated.

On entering the **Open Timeout** parameter, the current value is displayed; assign the required time within the range 00 – 60 seconds, the default time is 10 seconds. Press the **ent** key to save the programming and return to the previous menu level.

NOTE: Pressing the **A** key increases the time by one second increments, the **B** key decreases the time in one second decrements.

4 = Groups

1=MAX Groups

On selecting the MAX **Group** option, the group currently allocated to the MAX is displayed . Pressing the group number toggles the group assigned to the MAX.

Galaxy 504 & 512

The Galaxy 504 & 512 have 32 groups; these are displayed on the MAX in block of eight groups, sub-divided into A, B, C and D. Use the **A** or **B** key to move between the group blocks; press keys **1 – 8** to assign the relevant groups in each block to the MAX.

When the required groups have been assigned to the user, press the **ent** key to accept the programming and return to the previous menu level.

Group Name Display

When viewing the groups assigned to the MAX, simultaneously pressing the # and ✳ keys displays the groups individually. The keypad displays the number, name and the assigned status of each group on the particular MAX being displayed. Press the # key to toggle the status of the group. To move to another group press the **A** or **B** keys or enter the number of the group directly.

2=Group Restriction

Each MAX module can be assigned selected groups using the Group Restriction option. This group restriction affects the operation of the MAX and MicroMAX readers for both access and card held functions. A card can only be used at a reader if there are common groups between them. By default each reader is assigned to all groups on the system. Groups can be removed as required to restrict the operation of the MAX reader.

NOTE: Each MAX card can be assigned a single menu function (refer to option **42 = CODES**). Activating this function with a card that is assigned to all groups, on a MAX that is only assigned to a single group, results in the function operating on all of the card's groups. The MAX function is not restricted to the groups assigned to the MAX, it is restricted to the groups assigned to the card, as long as there is one group common to both. This means that a MAX assigned only to group 1, for example, can be used to activate the MAX function on groups 1, 2, 3 and 4 by a card with all of these groups allocated. The groups are assigned to the MAX card using option **42 = CODES**.

In access mode access will be granted if there are common groups between the card and the MAX reader and all the groups assigned to the card are unset. For the card held function, the groups affected by the function will be all the groups assigned to the card, so long as there is at least one common group between the card and the MAX.

Common Group Restriction

The group restrictions can be enhanced further by pressing the ✳ key when assigning group in Group Restriction. This limits the operation described in the paragraph above only to groups which are common to both the MAX and the card.

Refer to the following two tables for examples of how the readers respond to different situations with the Common Group Restriction on and off. The card held function used in the example is "Timed Set".

Scenario	No ✳	✳ On Groups Restriction
No common groups	No	No
All groups unset (All common groups)	Yes	Yes
One or more common group set	No	No
All common groups unset and one extra set group on card	No	Yes
All common groups unset and one extra set group on Max. No other groups on card	Yes	Yes

Table 27. Access Granted

	Action on card held	
Situation at time of card swipe	**No ✳**	**✳ On Group Restriction**
All groups unset	All groups on card start to set	All common groups start to set
All groups set	All groups on card are unset	All common groups are unset
Common groups unset and one or more groups on card set	Groups on card are unset	Common groups are set
One or more common groups set, other groups unset	All groups on card are unset	All common groups are unset

Table 28. Card Held Function Set up for Setting

Assigning Groups to Group Restriction

On selecting the **Groups** option, the groups currently allocated to the MAX are displayed . Pressing the group number toggles the group assigned to the MAX.

The Galaxy 504 & 512 have 32 groups; these are displayed on the MAX in block of eight groups, subdivided into A, B, C and D. Use the **A** or **B** key to move between the group blocks; press keys **1 – 8** to assign the relevant groups in each block to the MAX.

When the required groups have been assigned to the user, press the **ent** key to accept the programming and return to the previous menu level.

5 = Emergencies

This option allows each individual MAX/MicroMAX unit to be configured to respond to fire zones in a given set of groups. Upon the opening of a fire zone in one of the groups allocated to the MAX/MicroMAX, the MAX/MicroMAX will trigger the door strike and hold the door open until the system is reset. All the MAX/MicroMAX LEDs will light and the buzzer will sound. Closing the fire zone will have no effect - the MAX/MicroMAX units are treated as latched outputs and an appropriate level reset is required, at which point they are immediately reset.

A second group map is allocated to each MAX/MicroMAX in order to facilitate this function. This permits the existing door control features to be completely detached from the fire escape features.

The default setting for each MAX/MicroMAX is all groups selected. Therefore, a system, which is unchanged from the default will open all MAX/MicroMAX doors in response to any fire zone activation.

On selecting the **Emergencies** option select the groups you want allocated to the MAX/MicroMAX for escape purposes and accept the programming by pressing the enter key. When a fire zone is activated in any of the groups programmed, the door controlled by the MAX/MicroMAX will be opened.

6 = Anti PassBack

This option, when enabled, will prevent more than one use of any particular card at a particular reader within a given time period.

A forgiveness function is available to clear all or particular antipassback restrictions in force. A manager code can authorise a forgive function on a particular user in option **42.1 = Codes.User Codes.** An engineer code can authorise a forgive function on a particular reader.

1 = Mode

This option has three settings:

0 = Off	No anti passback restriction
1 = Soft	Access is never denied but any violations will be recorded in the event log
2 = Hard	No access will be granted for a second swipe within the anti passback period, following a valid swipe.

2 = Timeout (0-60 minutes)

This option specifies the time that the anti passback restriction lasts for.

3 = Forgive

This option allows the engineer to remove all anti passback restrictions for the selected MAX. Use the **A>B<** keys to select the reader address the press **enter** to forgive.

Option 64 – Assemble Zone (Galaxy 60, 128, 500, 504 & 512)

The **Assemble Zones** option allows two zone functions to be customised to the user's requirements; these are the **Custom-A** and **Custom-B** zones. Once a custom zone function has been assembled, it is assigned to zones using option **52 = PROGRAM ZONES**.

Programming a Custom Zone

The flexibility of this menu option allows for an extensive range of possibilities. It is therefore important that the engineer is fully aware of the system and has a clear picture of what is required of the new zone function.

The procedure for assembling a custom zone has four stages:

1. Outputs
2. Status
3. Setting
4. Log

1 = Outputs	Output Type:	Disabled Set Unset Set/Unset	A/B – select output type # – toggle between Disabled, Set, Unset & Set/Unset esc – save programming
2 = Status	1 = Unset	Disabled Alarm	# – toggle between Disabled and Alarm esc – save programming
	2 = Entry/Exit	Disabled Alarm	
	3 = Part Set	Disabled Alarm	
	4 = Full Set	Disabled Alarm	
3 = Setting	1 = Begin Set	Disabled Enabled	# – toggle between Disabled and Enabled esc – save programming
	2 = Begin Entry	Disabled Enabled	
	3 = Sets System	Disabled Enabled	
4 = Log	Disabled Entry Exit 24 Hours Alarms		# – toggle between Disabled, Entry/Exit, 24 Hours & Alarms esc – save programming

Table 29. Programming a custom Zone

1 = Outputs

Any of the available output types can be assigned to the custom zone. On selecting this attribute the **01=BELLS** output type is displayed along with it status; the default status is disabled. The status indicates the conditions under which the custom zone activates the output. To assign the output type status press the # key, this toggles between each of the status settings:

1. Disabled the output is not activated by the custom zone,

2 Set the output is activated by the custom zone only when the system is set,

3 Unset the output is activated by the custom zone only when the system is unset,

4. Set/Unset the output is activated by the custom zone when the system is both set and unset.

Select the output types to be assigned by pressing the **A** and **B** keys or by entering the number of the required output type and assign the required status. When all of the output types have been selected, press the **esc** key to return the previous menu level.

For a full list of output types refer to option **53 = Program Outputs.**

2 = Status

The **Status** attribute determines the system conditions that custom zone is operational in. The four **Status** attributes are:

1. Unset activates an alarm when the system is unset,

2. Entry/Exit activates an alarm when the system is setting and unsetting,

3. Part Set activates an alarm when the system is part set**,**

4. Full Set activates an alarm when the system is full set**.**

The default for each of the **Status** attributes is disabled. To enable the zone to activate an alarm, select the required **Status** attribute using the **A** or **B** keys and press the # key; the display indicates that a custom zone activation while the system is in the selected **Status** will create an **Alarm** condition and switch on the assigned outputs.

NOTE: The custom zone can be operational in all four **Status** conditions if required.

3 = Setting

The **Setting** attribute determines the function (if any) that the custom zone has in setting and unsetting the system.

1. Begin Set if enabled, the custom zone starts the setting procedure,

2. Begin Entry if enabled, the custom zone starts the unsetting procedure,

3. Sets System if enabled, the custom terminates the setting procedure.

The default for each of the **Setting** attributes is disabled. To enable the options, select the required **Setting** attribute using the **A** or **B** keys and press the # key; the display indicates that attribute is **ENABLED** for the custom zone.

NOTE: The custom zone can be assigned all three **Setting** attributes if required, however, it is recommended that either attribute **1** (**Begin Set**) or **3** (**Sets System**) is enabled, but not both.

4 = Log

This attribute determines which custom zone activations are logged. On selecting **Log** the current selection is displayed. To change the selection press the # key, this toggles between the **Log** options;

Disabled the custom zone activations are not logged,

Entry/Exit the custom zone activations only log during the setting and unsetting procedure,

24 Hours all custom zone activations log (both in the set and unset states)

Alarms the custom zone only logs when an activation results in an alarm condition.

NOTE: The opening (+) and closing (–) of custom zones are recorded in the event log.

Assemble Zone Example:

Assemble a zone that:

- activates **Bells** outputs when the system is set,
- activates **Link-A** outputs when the system is unset,
- generates an alarm condition when the system is part and full set,
- does not generate an alarm condition during the setting and unsetting procedure,
- acts as a terminator when the system is setting,
- logs all activation (in both set and unset states).

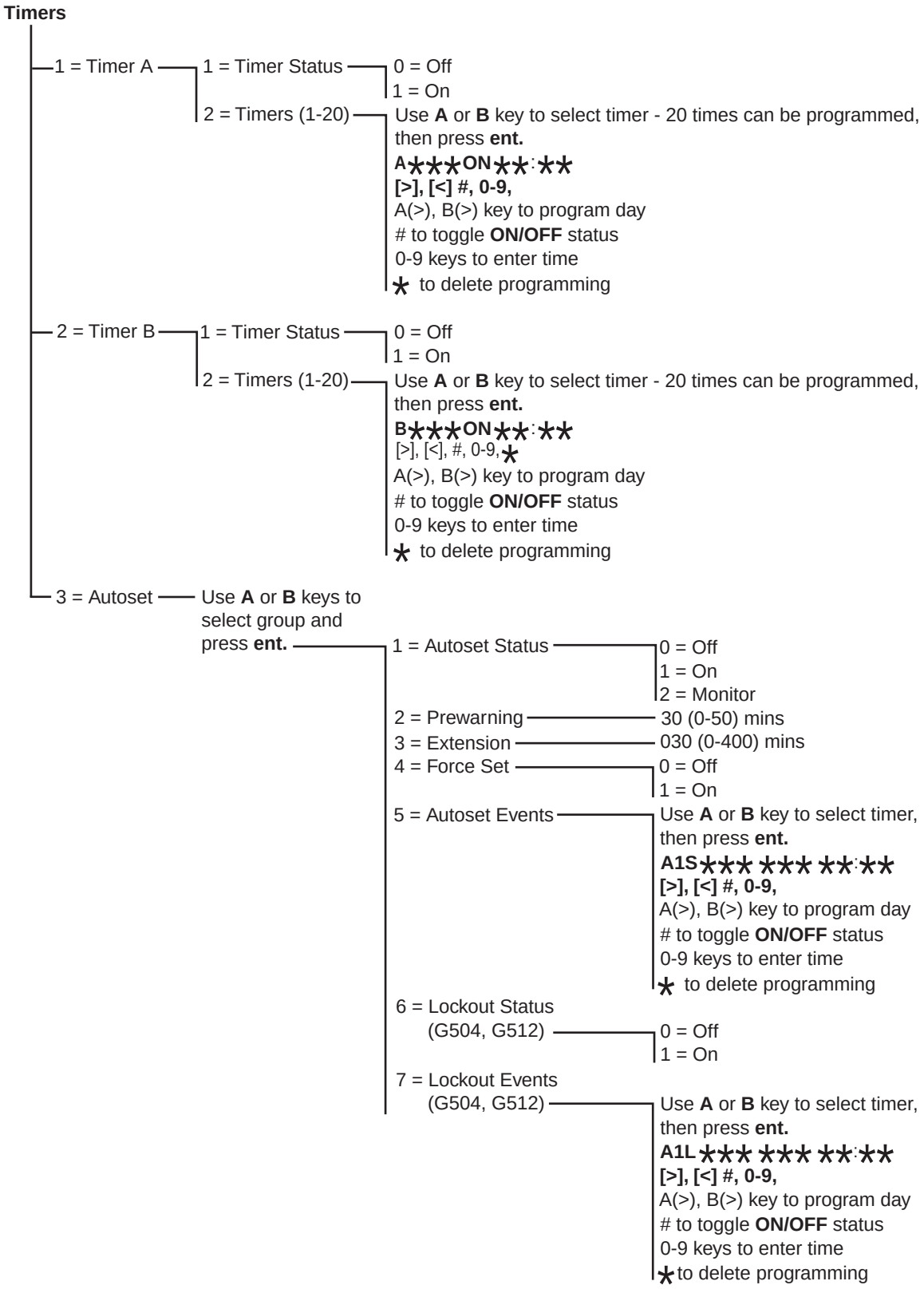
Programming:

(Assuming factory default settings)

1. Select option **64 = ASSEMBLE ZONES**; press the **ent** key,
2. Select custom zone (**1 = Custom-A**, **2 = Custom-B**); press the **ent** key,
3. **Outputs** is displayed. Press the **ent** key to select this option,
4. **Bells** is displayed. Press the # key. **Set** is displayed,
5. Enter **51**. **Link-A** is displayed. Press the # key. **Set** is displayed,
6. Press the # key. **Unset** is displayed,
7. Press the **esc** key. **Outputs** is displayed,
8. Press the **A** key. **Status** is displayed. Press the **ent** key to select this option,
9. **Unset Disabled** is displayed,
10. Press the **A** key. **Entry/ Exit Disabled** is displayed,
11. Press the **A** key. **Part Set Disabled** is displayed,
12. Press the # key. **Part Set Alarm** is displayed,
13. Press the **A** key. **Full Set Disabled** is displayed,
14. Press the # key. **Full Set Alarm** is displayed,
15. Press the **esc** key. **Status** is displayed,
16. Press the **A** key. **Setting** is displayed. Press the **ent** key to select this option,
17. **Begin Entry Disabled** is displayed,
18. Press the **A** key. **Sets System Disabled** is displayed,
19. Press the # key. **Sets System Enabled** is displayed,
20. Press the **esc** key. **Setting** is displayed,
21. Press the **A** key. **Log** is displayed. Press the **ent** key to select this option,
22. **Log Disabled** is displayed,
23. Press the # key. **Log Entry/Exit** is displayed,
24. Press the # key. **Log 24 Hours** is displayed,
25. Press the **esc** key tree times to return to the **64 = ASSEMBLE ZONES** display.

Option 65 – Timers (Galaxy 18, 60, 128, 500, 504 & 512)

The **Timers** menu are as follows:



Timer A and B

The Galaxy 18, 60, 128, 500, 504 and 512 control panels provide two timers that allow up to 20 times to be assigned over a seven day period; these can be combined in any order of **On** and **Off** times as required.

Programming Timers

1. Enter the **Timers** option; **1=TIMER A** is displayed. To modify or assign times go to **Step 5**.
2. Press the **ent** key to select **Timer A** or the **A** then **ent** keys to select **Timer B**; **1=TIMER STATUS** is displayed.
3. Press the **ent** key; the status of the selected timer is displayed (the default setting is **0=OFF**). To change the status press the **A** or **B** key or press key **1** to select **ON** or **2** to select **OFF**.
4. Press the **ent** key to accept the programming and return to the previous menu level. Press the **esc** key once to return to **1=TIMER A**, or twice to escape from the option.
5. To modify the times, press the **ent** key to select **Timer A** or the **A** then the **ent** keys to select **Timer B**; **1=TIMER STATUS** is displayed.
6. Press the **A** then **ent** key to select **2=TIMERS (1–20)**; the first two times assigned to the timer are displayed (the first time is on the top line, the second is on the bottom).

```
A   MON ON   19:30
    TUE OFF  07:30
```

7. Press the **A** key to step through each of the times until the required time is displayed on the top line of the display.
8. Press the **ent** key to select the time to be modified:
   - the ✳ key deletes the programmed time information;
   - the **A** or **B** keys change the programmed day;
   - the **#** key toggles whether the timer switches **ON** or **OFF**;
   - the number keys (**0–9**) assign the time (the time must be four digits in the 24 hour format);

```
A   MON ON   19:30
[<],[>],#,0-9,*
```

9. Press the **ent** key to accept the programming and return to the previous menu level.
10. Press the **esc** key three times to escape from the **Timers** option.

Once the times have been programmed and the **Timer Status** is set to **1=On**, the **Timer-A** or **Timer-B** outputs are activated at the programmed **On** times and deactivated at the **Off** times. User codes that they have been attributed to a **Time Zone A** or **B** are invalid between an **On** time and the next **Off** time for the appropriate timer.

NOTE: The **Timer Status** can be switched **On** and **Off** by users via option **45 = TIMER CONTROL**.

Autoset (Galaxy 18, 60, 128, 500, 504 & 512)

The **Autoset** option is available on the Galaxy 18, 60, 128, 500, 504 and 512 control panels only. The Galaxy 500 can be programmed to automatically set and unset each of the system groups individually at predetermined times.

NOTE: The Galaxy 512, as part of the high security requirements, can be programmed to automatically set only; it cannot be programmed to automatically unset.

Each group can be programmed with 20 **Autoset** times over a seven day period. These can be combined in any order of **On** and **Off** times as required - for example 20 **On** times may be allocated to a group, or six **Off** times and 14 **On** times; on the Galaxy 512 all of the times are fixed as **On** times.

When the system has been set by the **Autoset** function, outputs programmed as **Autoset** (refer to option **53 = PROGRAM OUTPUTS**) are activated; the **Set** outputs are also activated.

Exit Alarm (Galaxy 512 only)

Where **Exit Alarm** is enabled (refer to option **51 = PARAMETERS**) for a group, any zone open at autoset immediately activates a full alarm. If **Exit Alarm** is disabled (default) the **Entry/Exit Horns** pulse if zones are open. If the zones remain open, on expiry of the times programmed in **Fail To Set** parameter, the **Fail Set** outputs are activated along with a full alarm.

Programming Autoset

If groups are enabled (refer to option **63 = OPTIONS**) the keypads prompts for the group that the autoset time is to be allocated to. Press the **A** or **B** keys to step through the groups until the required number is displayed and press the **ent** key.

NOTE: The group can be directly selected by entering the group number. The Galaxy 504 and 512 has 32 groups; these are displayed in blocks of eight groups, sub-divided into A, B, C and D;

Group Block	Physical Groups
A1-8	1-8
B1-8	9-16
C1-8	17-24
D1-8	25-32

Table 30. Groups

Use the **A** or **B** key to select the required group (**A1–D8**). When the end of a block is reached, the next block of eight groups is displayed; use keys **1–8** to assign the relevant group in the current block to the zone; press the **ent** key to accept the selection.

There are five stages to programming the **Autoset** function:

1. Autoset Status

0 = Off (default)

1 = On

2 = Monitor - if selected, the setting and unsetting of the group is monitored:

- if not set manually before the **On** time, then the **Set Late** output is activated
- if unset before the **Off** time, then the **Unset Early** output is activated.

2. Prewarning

0 – 50 minutes (default 30 minutes):

This option determines the warning period given to users prior to the system autosetting. Outputs programmed as **Prewarning** activate during the prewarning period. The output normally emits a constant tone, however if an extension is not possible, then a pulsed tone is emitted and prewarn activates at the Autoset time. At the end of the prewarning period, the system begins the timed setting procedure.

NOTE: Pressing the **esc** key at any time during the **prewarning** resets and restarts the **prewarning** countdown. If more than one group is in the prewarning period, each group can be viewed by pressing ***** and > or ***** and <.

3. Extension

0 – 400 minutes (default 30 minutes):

An autoset **Extension** can be assigned to each group on the system - programmed with different values per group. Entering a user code during the **Prewarning** delays the autosetting by the period assigned to the **Extension**.

On the Galaxy 500 the **Extension** can be repeated as many times as requested.

NOTE: The **Late Working** option (refer to option **45 = TIMERS**) authorises an **Extension** in advance of the **Prewarning** period.

Late Set appears if the system is not set after prewarn time plus 300 seconds (longest possible exit delay)

An **Extension** cannot be granted once the timed setting procedure begins. An **Extension** cannot be granted beyond 23.00 hours on the Galaxy 512.

4. Force Set

0 = Off (default)

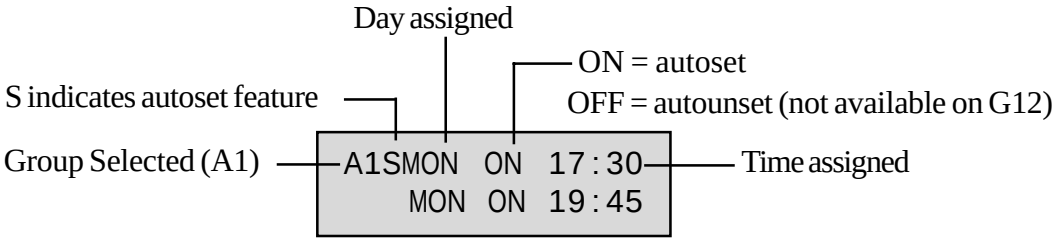
1 = On

As a factory preset, any zone that is open at the start of the setting procedure - except **Final**, **Exit**, **Entry**, or **Push Set**, (or **Secure Final** or **Part Final** when acting as a **Final**) - is omitted by the autoset routine whether or not it is omittable. If one of the above listed zones is open and is non-omittable, on expiry of the time programmed in the **Fail-to-Set** parameter the **Fail-to-Set** outputs are activated along with a full alarm.

5. Autoset Events

This option programs the times when the selected group is automatically switched **On** (Autoset) and **Off** (Autounset).

On selecting the option, the first two times assigned to the timer are displayed (the first time is on the top line, the second is on the bottom). If no autoset times have been assigned, the keypad displays stars (✳) on the top line. Press the **A** key to step through each of the times until the required time is shown on the top line of the display.



Press the **ent** key to select the time to be modified. The keypad displays:

```
A1LMON ON  17:30
[<],[>],#,0-9,*
```

- the ✳ key deletes the programmed time information;
- the **A** or **B** keys change the programmed day;
- the **#** key toggles whether the timer switch **ON** or **OFF**;
- the number keys (**0–9**) assign the time in the 24 hour format);

Press the **ent** key to accept the programming and return to the previous menu level.

Lockout (Galaxy 504 & 512)

Each group can be programmed with 20 **Lockout** times over a seven day period. These can be combined in any order of **On** and **Off** times as required.

If **Lockout** has been assigned to a group, the group is locked-out at the **Lockout On** time or when the group sets - whichever occurs first. Outputs programmed as **Lockout** are active while the system is locked out - this will not always correspond to the times assigned to the **Lockout** depending on whether the group sets prior to **Lockout On**. When a group is locked-out the setting status indicates that it cannot be unset by displaying an **L**.

```
GROUPS   12345678
         CLLUULLSL
```

During the **Lockout** period, the group can not be unset unless an alarm has been activated in the group. In the event of an alarm occurring during the **Lockout** period, any valid level 2 (or above) code assigned to the group in alarm may be used to unset and/or reset the group. If multiple locked-out groups are in an alarm condition entry of a single valid code (level 2 or above with access to the relevant groups) cancels the alarms and unsets the activated groups.

The group can only be manually unset once in each **Lockout Off** period. If no **Lockout** times are programmed, the group may be unset at any time.

Codes are not affected by **Lockout**, and can be used to gain access to the menus and to manually set the group.

Programming Lockout

There are two stages to programming the **Lockout function**. These are options **6 = Lockout Status** and **7 = Lockout Events** of the Autoset programming menu:

Lockout Status

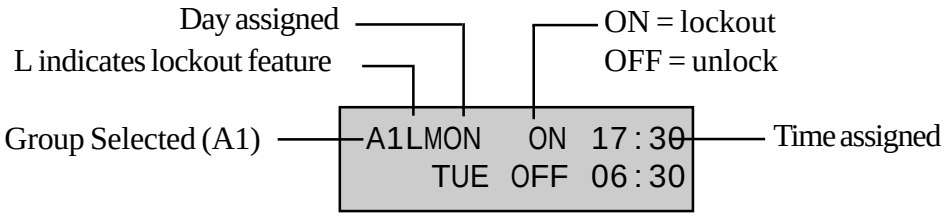
0 = Off (default)

1 = On

Lockout Events

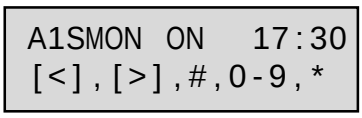
This option programs the **Off** (Unlock) and **On** (Lockout) times for the selected group.

On selecting the option, the first two times assigned to the timer are displayed (the first time is on the top line, the second is on the bottom). If no lockout times have been assigned, the keypad displays stars (✳) on the top line:



Press the **A** key to step through each of the times until the required time is shown on the top line of the display.

Press the **ent** key to select the time to be modified. The keypad displays:



- the ✳ key deletes the programmed time information;
- the **A** or **B** keys change the programmed day;
- the **#** key toggles whether the timer switch **ON** or **OFF**;
- the number keys (**0–9**) assign the time (in the 24 hour format);

Press the **ent** key to accept the programming and return to the previous menu level.

Option 66 – Pre-checks (Galaxy 60, 128, 500, 504 & 512)

The **Pre-Check** option provides added system security by alerting the user to zones that may not be operating correctly.

NOTE: Pre-check does not operate when the system is in the engineer mode.

Testing Zones

```
 16 CHECK ZONES
A=VIEW
```

The **Entry/Exit Horns** beep once when each zone is tested. As each zone is successfully tested, the keypad indicates the number that remain to be tested. When the last zone is successfully tested the **Entry/Exit Horn** sounds twice and the keypad displays **0 CHECK ZONES**; press the **ent** key to resume the system routine.

1 = Mode

The **Mode** determines the pre-check level that the selected zones are subjected to before the system can set. The **Mode** is selected from one of the following:

1. **Disabled** (default)**:** the pre-check option is disabled; even if zones are selected, they are not checked.
2. **Warning:** when the setting routine is started the user is informed of the number of selected pre-check zones that have not been activated since the system was unset; press the **A** or **B** keys to view the zones. Press the **ent** key to continue the setting routine. The zone that have not been activated do not have to be tested.
3. **Autocheck:** when the setting routine is started the user is informed of the number of selected pre-check zones that have not been activated since the system was unset and a warning is sounded; press the **A** or **B** keys to view the zones. These zones must be tested before setting can be resumed.
4. **Forced Check:** when the setting routine is started the keypad indicates the number of pre-check zones that are on the system; to view the pre-check zone addresses press the **A** or **B** keys. All of the pre-selected zones must be tested before setting can take place.

```
 0 CHECK ZONES
ENT=SET
```

2 = Select Zones

On selecting **2 = Select Zones**, the address and function of the first zone on the system is displayed. Move to the required zone by pressing the **A** or **B** keys or by entering the zone address. To toggle the status of the pre-check attribute of the zone press the **#** key; the keypad indicates that the zone is included in the pre-check by displaying **PRE-CHECK ZONE**. Select other zones to be pre-checked in the same way. Once all of the zones have been selected, press the **esc** key.

Option 67 – Remote Reset

The **Remote Reset** option allows a user to perform an engineer reset authorised by the Alarm Receiving Centre (ARC). In the event of an alarm that requires an engineer reset, the keypad displays a number, which, when quoted to the ARC is decoded and exchanged for a new number. When this new number is entered it resets the Galaxy panel. Entering the engineer code also resets the Galaxy panel.

NOTE: The alarm conditions that require to be reset remotely must have the appropriate **System Reset**, **Tamper Reset** or **PA Reset** parameters programmed for engineer reset (level **7**).

Each alarm activation generates a random number, therefore, the number required to reset the panel changes each activation. As ARCs have different decoding equipment, the appropriate reset system must be selected from the following **Remote Mode** options:

0 = OFF (default).

1 = SMS - Southern Monitoring Service (4 digits).

2 = Technistore (5 digits) - requires a four digit local modifier (000 - 255) to be assigned.

3 = Microtech (6 digits) - requires a four digit local modifier (0000 - 9999) to be assigned.

Note: The local modifier for the Technistore or Microtech reset modes must be assigned after discussion with the ARC.

Option 68 – Menu Access (Galaxy 60, 128, 500, 504 & 512)

The **Menu Access** option is used to assign access levels to each of the menu options. This allows code levels 3 – 6 to have access to menu options to which they would normally have insufficient access rights.

On selecting this option, **11 = OMIT ZONES** is displayed along with the current code levels assigned (**3456** default).

Use the **A** or **B** key to select the required menu option or enter the option number directly and press the **ent** key. The currently assigned levels appear displayed on the top line of the display. The level maps default to the standard access. To modify the levels, press the required number keys; this toggles the access level numbers on the bottom line of the display on and off.

Press the **ent** key to save the programming and return to the previous menu level. If the level is assigned to the option the number is displayed, if it has been removed a dash (–) is displayed.

For example, level 5 codes can be given access to menu 42 which would allow them to allocate codes.

Users can only allocate codes up to the level that they have been assigned. A level 4 user cannot assign a user code as level 5.

NOTE: The following menu access levels are fixed: option **48 = DATELOCK** level **6**, and option **68 = MENU ACCESS** engineer access (level 7 and 8).

Appendix A : Door Control - MAX (MX01)

Installation Instructions

The MAX box contains the following:

- MAX reader (P/N **MX01**),
- MAX facia label (P/N **21_1627**),
- 10-way connector block.

The MAX installation sequence is as follows:

1. Wiring the MAX
2. Mounting the MAX
3. Attaching the facia label

Wiring the MAX

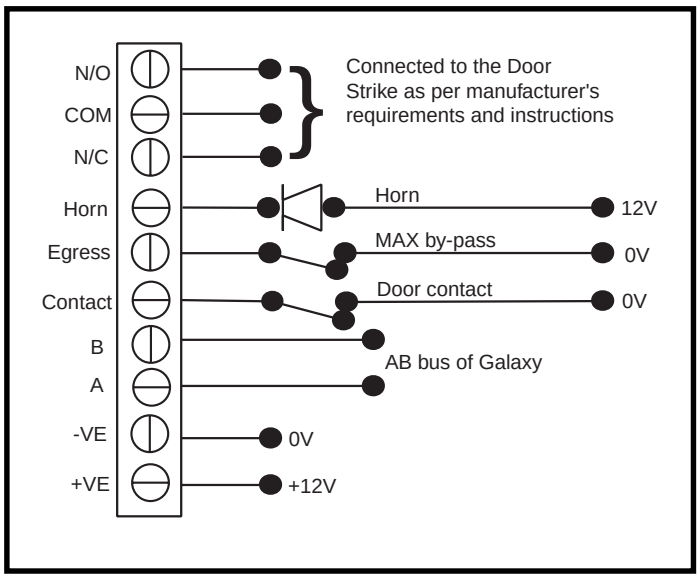


Figure A-1 MAX Wiring Details

1. Connect the A and B lines of the Galaxy communication bus to the **A** and **B** terminals. This configuration must be a daisy-chain (parallel) connection. If the MAX is the last module in the line, then the End of Line (EOL) resistor must be connected across the A and B terminals.
2. Connect the door strike in accordance with the manufacturer's recommendations, via the relay.
3. The **Horn** output is an open collector. This is connected to the output device via a relay.

   NOTE: With MAX software version 1.23 the horn output does not function when the reader is programmed as on-line operating mode.

4. The **Egress** switch is used to activate the door strike, allowing the door to be opened without activating the horn (the egress switch is normally open).
5. The **Contact** switch is used to connect the access door to an alarm contact, giving alarm indication when the door is opened without the door strike being activated (either by a MAX card or the egress switch).
6. Connect a 12 Vd.c. power supply to the MAX terminals marked **–VE** and **+VE**.

Mounting the MAX

Attach the wired-up 10-way connector block to the pins on the rear of the MAX reader.

Surface Mounting the MAX

1. If the wiring is not wall recessed, remove the appropriate knock-out (from the sides, top or bottom of the MAX).
2. Using the MAX reader as a template locate the two mounting screws in the required positions.

   NOTE: The MAX is positioned with the two LEDs at the top of the module.

3. Securely attach the module to the wall with two No.8 roundhead 2 inch screws.

Flush Mounting the MAX

1. Using the template on the lid of the MAX flush mounting kit box (P/N **MX02**), locate the position of the screws and mark and cut-out the recess area required.

   NOTE: Ensure that there is sufficient wall surface to securely fix the screws.

2. Fit the MAX reader into the flush mounting kit; push the reader in from the rear ensuring that the four retaining arms on the flush mounting kit click into place
3. Securely attach the module to the wall with two No.8 roundhead 1½ inch screws.

   NOTE: The MAX is positioned with the two LEDs at the top of the module.

Remove the backing from the facia label, line up the label images with the six LEDs and place it on the face of the MAX.

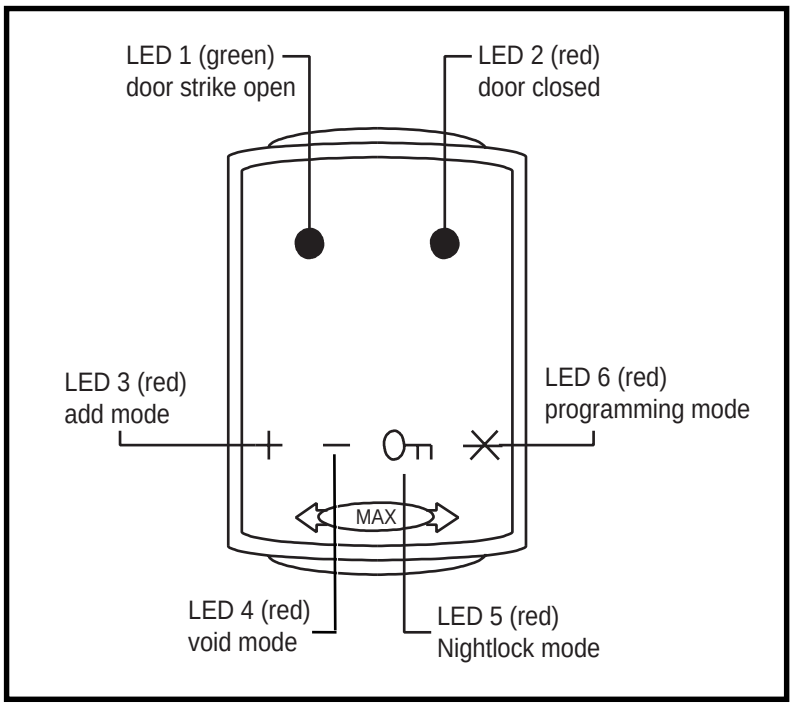


Figure A-2 MAX LED's

Configuring a MAX Reader into the System

MAX readers can only be configured into the Galaxy system from engineer mode.

NOTE: When adding a MAX reader to a Galaxy panel ensure that there are no more than eight MAX readers connected to the RS485 (**AB**) line.

Wire the MAX as per the instructions given with figure 5-1 then access engineer mode.
The MAX reader must be assigned as either an **On-Line** or a **Stand-Alone** module using option **63.2.2 = OPTIONS.MAX.MAX Address:**
0 = On-Line: The MAX is fully integrated with the Galaxy system and communicates via the AB line, sharing system resources and facilities.
1 = Standalone: The MAX operates as an entirely independent unit. The Galaxy does not monitor the MAX for alarms, tampers or power failure.

NOTE: Early versions of MAX readers cannot convert between the stand-alone and on-line operating modes:

- **MX01S (software V1.23)** is a dedicated stand-alone reader. This cannot be converted to on-line mode and must not be connected to the Galaxy AB line. The horn output is fully functional.

- **MX01 (software V1.23)** is programmed as an on-line reader. The horn output is non-functioning. The reader can be reprogrammed, via the Galaxy system, into stand-alone mode, however, once programmed as stand-alone it cannot be converted to on-line mode. In stand-alone mode the horn output is fully functional.

- **MX01 (software V1.32)** can be reprogrammed as stand-alone or on-line as often as required. In on-line mode, the horn output is non-functioning; in stand-alone mode the horn output is fully functional.

Configuring as a Stand-Alone MAX

1. Ensure that the MAX is connected to the Galaxy (**RS485 AB line**) and the MAX mode is enabled (option **63.2.1 = OPTIONS.MAX.MAX Mode**).
2. Select option **63.2.2 = OPTIONS.MAX.MAX Address** and press the **ent** key; the Galaxy searches for the MAX with the highest address (the new MAX reader). The Galaxy 500 and 512 prompt for the AB line (1 – 4) that is to be searched; select the line and press the **ent** key. On locating the MAX address, the keypad prompts for the **OPERATING MODE** of MAX to be assigned: select **1 = Standalone** and press the **ent** key. The MAX reader is readdressed as **32**.

   When the reprogramming is complete the MAX bleeps, LED 2 on the MAX switches on and the keypad display returns to **2 = MAX Address**.
3. **(MAX software versions 1.23 and 1.32)** Disconnect the **AB line** from the MAX reader. Ensure that all other modules (keypads, RIOs and on-line MAX readers) are still daisy-chained into the Galaxy panel. If the MAX reader is the last module on the **AB line**, remove the 680Ω end of line resistor and put it into the last module on the line.

   NOTE: The Galaxy cannot operate if the **AB line** is connected to stand-alone MAX readers with software V1.23 or V1.32.

4. The MAX reader is now programmed as a stand-alone module in sleep mode (LEDs 2 – 5 on) and can be programmed using the MAX cards (refer to Programming Stand-Alone MAX Readers).

Configuring as On-Line MAX

1. **Only if reprogramming an existing stand-alone MAX reader:**
   - Put the MAX reader into the sleep mode (present the **Void Master** card then swipe twice with the **Program Master** card — LEDs 2 – 5 switch on. Refer to the **MAX Installation and Operations Guide (L120)**.).
   - Remove the power from the MAX reader.
2. Connect the **AB line** of the MAX reader to the **AB line** from the control panel (ensuring that a daisy-chain connection is maintained and that the 680Ω resistor is located in the last module on the line). Connect 12 Vd.c. to the +**VE** and –**VE** terminal of the MAX reader.
3. Ensure that the MAX mode is enabled (option **63.2.1 = OPTIONS.MAX.MAX Mode**).
4. Select option **63.2.2 = OPTIONS.MAX.MAX Address** and press the **ent** key; the Galaxy searches for the MAX with the highest address (the new MAX reader). The Galaxy 500 and 512 prompt for the AB line (1 – 4) that is to be searched; select the line and press the **ent** key.

   Only if adding a new MAX reader: On locating the MAX address, the keypad prompts for the **OPERATING MODE** of MAX to be assigned: select **0 = On-Line** and press the **ent** key.

   NOTE: If reprogramming an existing stand-alone reader, the system automatically selects the **On-Line** operating mode

   The MAX can then be readdressed. The keypad displays the current address of the MAX and the range of valid addresses. Enter the new MAX address and press the **ent** key; the Galaxy then reprograms the address of the MAX. The keypad indicates the old and new MAX addresses and the status of the reprogramming.

   NOTE: All new MAX readers default to address **7**. It is recommended that when adding a reader, it is addressed as the lowest available number on the line.

When the reprogramming is complete the MAX bleeps, the LEDs on the MAX switch off and the keypad display returns to **2 = MAX Address**.

NOTE: If the Galaxy has been warm-started with the MAX connected and the reader is re-programmed with its existing address, then the LED does not switch off and engineering mode does not have to be exited to configure the MAX into the system.

5. Program the MAX Parameters. This option defines the operational features of the MAX reader.
   - **1 = Descriptor:** This option is used to assign a name of up to 12 characters to each of the MAX modules.
   - **2 = Open Timeout:** This is the period, following the user card swipe, that the MAX relay is activated allowing a door strike to be unlocked and the door to be opened without creating an alarm. The MAX relay de-activates as soon as the door is closed or the **Close Timeout** occurs.
   - **3 = Close Timeout:** This is the period following the user card swipe that the door can remain open when gaining access. If the door remains open longer than the period assigned to the **Close Timeout**, then an alarm occurs.
   - **4 = Groups:** Each MAX module can be assigned to selected groups; the MAX then responds only to cards that have a group common to it.

Keypad Group Restriction: To restrict the operation of the function only to groups that are common to both the card and the MAX, press the ✳ key when assigning groups to the MAX. This means that when a card with access to groups 1, 2 and 3 activates the MAX card function on a MAX module assigned to groups 2, 3 and 4, the function only operates on the common groups (groups 2 and 3).

6. Exit engineer mode — engineer code + **esc**: the keypad displays the message **1 MOD. ADDED — esc=CONTINUE**. LED 2 on the MAX reader switches on. Press the **esc** key; the keypad returns to the unset banner.

If this message is not displayed, the MAX reader is not communicating with the control panel and has not been configured into the system (LED 2 does not switch on).

NOTES:

1. The MAX reader **will not** operate until engineer mode is exited and the reader is configured into the system.
2. All MAX doors **must** be closed, otherwise engineer mode cannot be exited.

7. The on-line MAX reader is now configured into the system

Removing a MAX Reader from the System

Stand Alone Mode (Software V1.23 & V1.32)

The stand-alone MAX reader is not connected to the **AB line**, therefore it can be removed simply by disconnecting the power to the reader. There is no requirement to access engineer mode.

On-Line Mode

1. Access engineer mode.
2. Disconnect the MAX reader (**AB line** and power).
3. Exit engineer mode.

   The message **1 MOD. MISSING — [<],[>] to View** is displayed.
4. Press the **A** or **B** key.

   The message **MAX X — ✳=REMOVE MODULE** is displayed.
5. Press the ✳ key to acknowledge and accept that the MAX reader has been removed. The keypad returns to the unset banner.

Programming Instructions for On-Line Readers

Refer to **Section 6: System Operation**, menu option **63 = OPTIONS** for details on programming the **Open Timeout**, **Close Timeout** and **Group** parameters for the MAX reader.

NOTE: These programming instructions refer only to on-line MAX readers (modules that are connected to a host Galaxy panel via the RS485 data bus). For details on stand-alone MAX installation refer to the **MAX Installation and Operations Guide (L120)**.

For details on the programming of the MAX user cards and functions refer to **Section 6: System Operation**, menu option **42 = CODES**.

Operating Instructions (On-Line Modes)

The MAX must be presented with a valid user card to allow access. Opening the door while LED 2 is on activates an alarm; the buzzer sounds and LED 1 flashes until the door is closed.
Activating the egress switch allows the door to be opened without activating an alarm when no card has been presented to the MAX.

Gaining Access

1. Ensure that LED 2 is on and all other LEDs are off.
2. Swipe the MAX with a standard user or nightlock access user card. LED 2 switches off and LED 1 switches on for the programmed **Open Timeout**.
3. Open the door while the LED 1 is on and access the area.
4. Close the door; LED 1 switches off and LED 2 switches on. The door must be closed within the programmed **Close Timeout**; if the door remains open longer than this, an alarm is activated.

Nightlock Access (Stand-Alone Only)

Only cards programmed as nightlock access users can gain access when the MAX is nightlocked. The operation is identical to the standard user card.

NOTE: Access cannot be gained using a standard user card.

Card-Held Function

The MAX card can be assigned a single menu option (refer to option **42.2.8 = CODES.User Codes.MAX Function**). To activate the function assigned to the MAX card, hold the card in front of the reader for three seconds; all of the LEDs switch on. If a keypad has been assigned to the MAX function then it displays the details of this option. If no keypad is assigned, pressing a key on any of the keypads assigned to a common group to the user displays the card-held function.

Card-Held System Setting

If the MAX card is assigned one of the setting options (option 12, 13, 14 & 16 – 19), the card-held functions starts the setting procedure for the groups assigned to the card.

NOTE: If **Group Restriction** is assigned, then only the groups that are common to both the MAX reader and the MAX user are set.

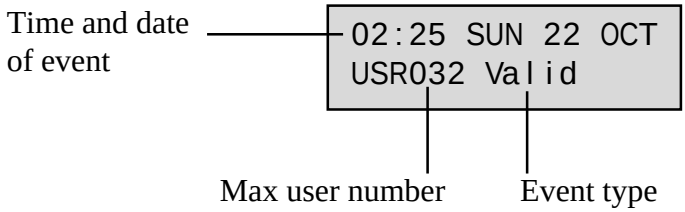
If all of the groups that are assigned to the MAX are set (either by the card-held function or by any other setting means) all of the LEDs switch off.
To unset the system using the MAX, swipe the reader with a valid MAX card. The MAX reader beeps and LED 2 switches on. All of the groups assigned to the MAX are instantly unset.

Max Log

The Galaxy system has a 100 event log for the recording the MAX activations. This log is shared by all readers on the system and operates on a first-in-first-out basis for overwriting events when the log is filled.

To display the events in the MAX log select option **25 = ACCESS DOORS**; use the **A** or **B** keys to select the required MAX address then press the **ent** key. The first event that occurred on the selected MAX is displayed along with details of the time, date and MAX number.

To view the log press the **A** key to move forward in time through the events or the **B** key to move backwards. Press the **esc** key to return to the MAX address display. To view the log of another MAX, use the **A** or **B** key to select the required address. To escape from the **Access Doors** option press the **esc** key.



Max Events Print-Out

The MAX events can be printed out as they occur to an on-line printer. To print the MAX events ensure that option **51.27 = PARAMETERS.On-Line Print** is enabled. Select option **51.28 = PARAMETERS.On-Line Level** and enter **2** to print out all system events including the MAX events or **3** to print out only the MAX events.

NOTE: A serial printer must be connected to line one of the Galaxy panel and the printer must remain on-line (ready to print) at all times.

Appendix B: Library

00	0	001	ABOVE	059	BY	117	DINING
01	1	002	ACCESS	060	CABINET	118	DIRECTOR
02	2	003	ACCOUNTANT	061	CAFE	119	DIRECTORS
03	3	004	ACCOUNTANTS	062	CALL	120	DISPATCH
04	4	005	ACCOUNTS	063	CANTEEN	121	DOG
05	5	006	ADMIN.	064	CAR	122	DOOR
06	6	007	ALARM	065	CARGO	123	DOUBLE
07	7	008	ALERT	066	CARPENTER	124	DOWNSTAIRS
08	8	009	ANIMAL	067	CARPET	125	DRAMA
09	9	010	ANNEXE	068	CASH	126	DRAWER
10	space	011	ARCH	069	CASHIER	127	DRAWING
11	Å	012	AREA	070	CEILING	128	DRINKS
12	Ä	013	ARENA	071	CELL	129	DRIVE
13	A	014	AROUND	072	CELLAR	130	DRUGS
14	Æ	015	ART	073	CENTRAL	131	EAST
15	B	016	ASSEMBLY	074	CENTRE	132	ECONOMICS
16	C	017	ASSISTANT	075	CHAIR	133	EDGE
17	D	018	AT	076	CHANGING	134	EIGHT
18	E	019	ATTACK	077	CHEMISTRY	135	EIGHTEEN
19	F	020	ATTIC	078	CHICKEN	136	EIGHTY
20	G	021	AUTOMATIC	079	CHURCH	137	ELECTRIC
21	space	022	AUXILIARY	080	CLASSROOM	138	ELECTRICIAN
22	H	023	BACK	081	CLEANER	139	ELECTRONICS
23	I	024	BAGGAGE	082	CLEANERS	140	EMERGENCY
24	J	025	BAKERY	083	CLEANING	141	END
25	K	026	BALCONY	084	CLERK	142	ENGINE
26	L	027	BALLROOM	085	CLERKS	143	ENGINEER
27	M	028	BANK	086	COAL	144	ENGINEERS
28	N	029	BANKING	087	COAT	145	ENGLISH
29	Ø	030	BAR	088	COIN	146	ENTRANCE
30	Ö	031	BARN	089	COLD	147	ENTRY
31	O	032	BASEMENT	090	COLLECTION	148	EQUIPMENT
32	space	033	BATH	091	COMMUNICATOR	149	ESCAPE
33	P	034	BATHROOM	092	COMPUTER	150	ESCALATOR
34	Q	035	BAY	093	CONFERENCE	151	EXIT
35	R	036	BEAM	094	CONTAINER	152	EXPORT
36	S	037	BEDROOM	095	CONTACT	153	EXTERNAL
37	T	038	BEHIND	096	CONSERVATORY	154	FACTORY
38	U	039	BELL	097	CORNER	155	FAILURE
39	Ü	040	BELOW	098	CORRIDOR	156	FAR
40	V	041	BENCH	099	COUNTER	157	FARM
41	W	042	BESIDE	100	COURT	158	FAX
42	X	043	BIOLOGY	101	COW	159	FEED
43	space	044	BIRD	102	CUPBOARD	160	FEMALE
44	Y	045	BLOCK	103	CURRENCY	161	FENCE
45	Z	046	BLUE	104	DAIRY	162	FIELD
46	.	047	BOARD	105	DARK-ROOM	163	FIFTEEN
47	,	048	BODY	106	DATA	164	FIFTY
48	/	049	BOILER	107	DAY	165	FLING
49	-	050	BOOTH	108	DEPARTURE	166	FIRE
50	+	051	BOTTOM	109	DEPUTY	167	FIRST
51	&	052	BOX	110	DEPT.	168	FIRST-AID
52	(	053	BOYS	111	DESIGN	169	FISH
53	)	054	BRANCH	112	DESK	170	FIVE
54	space	055	BROOM	113	DETECTOR	171	FLAT
		056	BROWN	114	DEVELOPMENT	172	FLOOR
		057	BUILDING	115	DEVICE	173	FOR
		058	BUNKER	116	DIARY		

174 FOREIGN
175 FORTY
176 FOUNTAIN
177 FOUR
178 FREEZER
179 FRENCH
180 FRIDGE
181 FROM
182 FRONT
183 GAMES
184 GARAGE
185 GARDEN
186 GATE
187 GENTS
188 GEOGRAPHY
189 GERMAN
190 GIRLS
191 GLASS
192 GOLD
193 GOODS
194 GREAT
195 GREEN
196 GROCERY
197 GROUND
198 GROUNDS
199 GROUNDSMAN
200 GROUP
201 GUARD
202 GUN
203 GYM
204 HALL
205 HAND
206 HANGER
207 HEAD
208 HEAT
209 HEATER
210 HIGH
211 HISTORY
212 HOME
213 HORSE
214 HOT
215 HOUSE
216 ICE
217 IN
218 INDUSTRIAL
219 INFANT
220 INFANTS
221 INFORMATION
222 INFRARED
223 INSIDE
224 INSTRUCTORS
225 INTERIOR
226 INTO
227 IRON
228 ISOLATION
229 IT
230 ITALIAN
231 JANITOR
232 JANITORS
233 JUDGE
234 JUNIOR
235 JUST
236 KEEP
237 KEYPAD
238 KITCHEN
239 LAB
240 LADIES
241 LANDING
242 LAST
243 LATIN
244 LAUNDRY
245 LAVATORY
246 LAWN
247 LEAST
248 LECTURE
249 LEFT
250 LEVEL
251 L.H.S.
252 LIBRARY
253 LIFT
254 LIGHT
255 LINE
256 LITTLE
257 LOADING
258 LOBBY
259 LOCK
260 LOFT
261 LORRY
262 LOUNGE
263 LOW
264 LUNCH
265 MACHINE
266 MAGNETIC
267 MAIN
268 MAJOR
269 MALE
270 MAN
271 MANAGER
272 MANAGERS
273 MASTER
274 MAT
275 MATHS
276 MEDICAL
277 MEN
278 MESS
279 METAL
280 METER
281 MEZZANINE
282 MICROWAVE
283 MIDDLE
284 MILK
285 MINOR
286 MOBILE
287 MODEL
288 MONITOR
289 MOULDING
290 MOVEMENT
291 NEAR
292 NEW
293 NEXT
294 NIGHT
295 NINE
296 NINETEEN
297 NINETY
298 NODE
299 NOISE
300 NURSE
301 NURSERY
302 NORTH
303 OF
304 OFFICE
305 OFFICER
306 OFFICERS
307 OFFICES
308 OIL
309 ON
310 ONE
311 OPEN
312 ORANGE
313 OUT
314 OUTER
315 OUTSIDE
316 OVAL
317 OVER
318 P.A. BUTTON
319 PACKING
320 PAINT
321 PANEL
322 PANIC
323 PANTRY
324 PARCEL
325 PARK
326 PARTITION
327 PASSIVE
328 PATH
329 PATIO
330 PEN
331 PENTHOUSE
332 PERIMETER
333 PERSONAL
334 PERSONNEL
335 PHONE
336 PHYSICS
337 PIG
338 PIR
339 PIR BY
340 PIR IN
341 PIR ON
342 PLACE
343 PLANT
344 PLAY
345 PLAZA
346 PLUMBER
347 PLUMBERS
348 POINT
349 POND
350 POOL
351 PORCH
352 POST
353 POWER
354 PRESSURE
355 PRIMARY
356 PRIME

357 PRINT
358 PROCESSING
359 PRODUCTION
360 PUBLIC
361 PURCHASING
362 PURPLE
363 QUALITY
364 QUANTITY
365 QUIET
366 QUICK
367 RANGE
368 READING
369 REAR
370 RECEPTION
371 RECORDS
372 RECTOR
373 RECTORS
374 RED
375 REED
376 REFECTORY
377 REMOTE
378 REPAIR
379 RESEARCH
380 REST
381 RESTAURANT
382 REVOLVING
383 RIGHT
384 R.H.S.
385 ROLLER
386 ROOF
387 ROOM
388 ROUND
389 RUN
390 SAFE
391 SALES
392 SCAN
393 SCANNER
394 SCANNERS
395 SCANNING
396 SCREEN
397 SEA
398 SECOND
399 SECURE
400 SECRETARIES
401 SECRETARY
402 SECTION
403 SECURITY
404 SENSOR
405 SEVEN
406 SEVENTEEN
407 SEVENTY
408 SHACK
409 SHAFT
410 SHED
411 SHEEP
412 SHOP
413 SHOWROOM
414 SHORT
415 SHOWER
416 SHUTTER
417 SIDE
418 SILENT
419 SILVER
420 SITE
421 SITTING
422 SIX
423 SIXTEEN
424 SIXTY
425 SLIDING
426 SMOKE
427 SOFTWARE
428 SOLITARY
429 SOUND
430 SOUTH
431 SPANISH
432 SPRAY
433 SPRING
434 SQUARE
435 SQUASH
436 STABLE
437 STADIUM
438 STAFF
439 STAIRS
440 STAIRWELL
441 STALLS
442 STAND
443 START
444 STATION
445 STOP
446 STORE
447 STORES
448 STROBE
449 STRONG
450 STUDY
451 SUITE
452 SUMMER
453 SUNDAY
454 SUPPLY
455 SURGERY
456 SWIMMING
457 SWITCH
458 SYSTEM
459 TABLE
460 TALL
461 TAMPER
462 TEA
463 TEACHER
464 TECHNICAL
465 TECHNICIAN
466 TELLER
467 TEN
468 TENNIS
469 TEST
470 THE
471 THEATRE
472 THEN
473 THIRTEEN
474 THIRTY
475 THREE
476 TICKET
477 TILL
478 TO
479 TOILET
480 TOOL
481 TOP
482 TRACK
483 TRACTOR
484 TRADE
485 TRAILER
486 TRAIN
487 TRAINING
488 TRANSPORT
489 TRAP
490 T.V.
491 TWELVE
492 TWENTY
493 TWIN
494 TWO
495 TYPE
496 TYPING
497 TYRE
498 ULTRASONIC
499 UNDER
500 UNIT
501 UP
502 UPPER
503 UPSTAIRS
504 USER
505 UTILITY
506 VAN
507 VARIABLE
508 VAULT
509 VENTILATOR
510 VISUAL
511 VOLTAGE
512 WAITING
513 WALK
514 WALL
515 WARD
516 WAREHOUSE
517 WASH
518 WATER
519 WAY
520 W.C.
521 WEAPON
522 WEEKEND
523 WEST
524 WINDOW
525 WINTER
526 WITH
527 WOOD
528 WOODWORK
529 WORK
530 WORKS
531 WORKSHOP
532 X-RAY
533 YARD
534 YEAR
535 YELLOW
536 ZERO
537 ZONE
538 ZOO

Appendix C: SIA and Contact ID Event Codes

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
A - AC Power						
AR	AC Restoral	AC FAIL-	AC Fail zone restored	ZONE	13.ELEC.ST	301
		CU-AC-	Control Unit AC restred	ZONE	13.ELEC.ST	301
		AC FAIL-	Module AC fail restored	MOD.	13.ELEC.ST	301
		STAND LOW-	Standby Battery Low	MOD	13.ELEC.ST	301
		CU FUSE-	Control Unit fuse rest.	MISC	9.TAMPER 13. ELEC.ST	300
AT	AC Trouble	AC FAIL+	AC Fail zone trouble	ZONE	13.ELEC.ST	301
		CU-AC+	Control Unit AC trouble	ZONE	13.ELEC.ST	301
		AC FAIL+	Module AC fail trouble	MOD.	13.ELEC.ST	301
		STAND LOW+	Standby Battery Low	MOD	13.ELEC ST	301
		CU FUSE+	Control Unit fuse trouble	MISC	9. Tamper 13.ELEC ST	300
B - Burglary						
BA	Burglary Alarm	EXIT+	Exit zone alarm	ZONE	2.INTRUDE	134
		INTRUDER+	Intruder zone alarm	ZONE	2.INTRUDE	130
		24 HOURS+	24 hour zone alarm	ZONE	3.24 HOURS	135
		SECURITY+	Security zone alarm	ZONE	4.SECURITY	135
		DUAL+	Dual zone alarm	ZONE	2.INTRUDE	130
		SEC FINAL+	Secure final zone alarm	ZONE	4.SECURITY	134
		PRT FINAL+	Part final zone alarm	ZONE	2.INTRUDE	134
		PRT ENTRY+	Part entry zone alarm	ZONE	2.INTRUDE	134
		BEAM PAIR+	Beam pair zone alarm	ZONE	2.INTRUDE	130
		VIDEO+	Video zone alarm	ZONE	2.INTRUDE	130
		VIDEO EXT+	Video exit zone alarm	ZONE	2.INTRUDE	130
		CUSTOM A+	Custom A zone alarm	ZONE	5.CUS ZON	130
		CUSTOM B+	Custom B zone alarm	ZONE	5.CUS ZON	130
		MASK+	Mask zone alarm	ZONE	4.SECURITY	135
		INT ALARM+	Intruder Delay alarm	ZONE	2.INTRUDE	130
		URGENT+	Urgent zone alarm	ZONE	3.24 HOURS	130
		VIBRATION+	Vibration zone alarm	ZONE	2.INTRUDE	133
		ATM-1+	ATM-1 zone alarm	ZONE	3.24 HOURS	133
		ATM-2+	ATM-2 zone alarm	ZONE	3.24 HOURS	133
		ATM-3+	ATM-3 zone alarm	ZONE	3.24 HOURS	133
		ATM-4+	ATM-4 zone alarm	ZONE	3.24 HOURS	133
		ALARM EXT+	Extend zone alarm	ZONE	3.24 HOURS	130
		T/O BURGL+	Entry timeout with zone	ZONE	2.INTRUDE	134
BB	Burg Bypass	OMITTED	Zone omitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
		GRP OMIT+	Group omitted	USER	8.OMIT	574
		OMIT VIBS	Omit Vibration zone	EVENT	8.OMIT	572
		OMIT-ATM1+	Omit ATM-1 zone	EVENT	8.OMIT	572
		OMIT-ATM2+	Omit ATM-2 zone	EVENT	8.OMIT	572
		OMIT-ATM3+	Omit ATM-3 zone	EVENT	8.OMIT	572
		OMIT-ATM4+	Omit ATM-4 zone	EVENT	8.OMIT	572
BC	Burg Cancel	KSW CANCL	Keyswitch Cancel	ZONE	11.RESET	406
		CANCEL	Cancel by user	USER	11.RESET	406

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
BJ	Burg Troub rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
		RF SUPER-	RF Supervision Failure	ZONE	15.TROUBL	381
BR	Burglary Rest	EXIT-	Exit zone type restored	ZONE	2.INTRUDE 18.ZN RESTO	134
		INTRUDER-	Intruder zone restored	ZONE	2.INTRUDE 18.ZN RESTO	130
		24 HOURS-	24 hour zone restored	ZONE	3.24 HOURS 18.ZN RESTO	135
		SECURITY-	Security zone restored	ZONE	4.SECURITY 18.ZN RESTO	135
		DUAL-	Dual zone restored	ZONE	2.INTRUDE 18.ZN RESTO	130
		SEC FINAL-	Secure final zone rest.	ZONE	4.SECURITY 18.ZN RESTO	134
		PRT FINAL-	Part final zone restored	ZONE	2.INTRUDE 18.ZN RESTO	134
		PRT ENTRY-	Part entry zone restored	ZONE	2.INTRUDE 18.ZN RESTO	134
		BEAM PAIR-	Beam pair zone rest.	ZONE	2.INTRUDE 18.ZN RESTO	130
		VIDEO-	Video zone restored	ZONE	2.INTRUDE 18.ZN RESTO	130
		VIDEO EXT-	Video exit zone rest.	ZONE	2.INTRUDE 18.ZN RESTO	130
		CUSTOM A-	Custom A zone rest.	ZONE	5.CUS ZON 18.ZN RESTO	130
		CUSTOM B-	Custom B zone rest.	ZONE	5.CUS ZON 18.ZN RESTO	130
		MASK-	Mask zone restored	ZONE	4.SECURITY 18.ZN RESTO	135
		INT ALARM-	Intruder Delay restored	ZONE	2.INTRUDE 18.ZN RESTO	130
		URGENT-	Urgent zone restored	ZONE	3.24 HOURS 18.ZN RESTO	130
		VIBRATION-	Vibration zone restored	ZONE	2.INTRUDE 18.ZN RESTO	133
		ATM-1-	ATM-1 zone restored	ZONE	3.24 HOURS 18.ZN RESTO	133
		ATM-2-	ATM-2 zone restored	ZONE	3.24 HOURS 18.ZN RESTO	133
		ATM-3-	ATM-3 zone restored	ZONE	3.24 HOURS 18.ZN RESTO	133
		ATM-4-	ATM-4 zone alarm	ZONE	3.24 HOURS 18.ZN RESTO	133
		ALARM EXT-	Alarm extend zone rest.	ZONE	3.24 HOURS 18.ZN RESTO	130
		T/0 BURGL-	Entry timeout restore	ZONE	2.INTRUDE 18.ZN RESTO	134
BT	Burg. Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
		RF SUPER+	RF Supervision Failure	ZONE	15.TROUBL	381
BU	Burg Unbypass	GRP OMIT-	Group unomitted	USER	8.OMIT	574
		OMIT-ATM1-	Unomit ATM-1 zone	EVENT	8.OMIT	572
		OMIT-ATM2-	Unomit ATM-2 zone	EVENT	8.OMIT	572
		OMIT-ATM3-	Unomit ATM-3 zone	EVENT	8.OMIT	572
		OMIT-ATM4-	Unomit ATM-4 zone	EVENT	8.OMIT	572
		FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
BV	Burg Confirm	CONFIRM	2 independant alarms	EVENT	2.INTRUDE	None
BX		EXIT	Exit zone tested	ZONE	NOT SENT	611
		INTRUDER	Intruder zone tested	ZONE	NOT SENT	611
		24 HOURS	24 hour zone tested	ZONE	NOT SENT	611
		SECURITY	Security zone tested	ZONE	NOT SENT	611
		DUAL	Dual zone tested	ZONE	NOT SENT	611
		ENTRY	Entry zone tested	ZONE	NOT SENT	611
		PUSH SET	Push set zone tested	ZONE	NOT SENT	611
		KEYSWITCH	Keyswitch zone tested	ZONE	NOT SENT	611
		SEC FINAL	Secure final zone test.	ZONE	NOT SENT	611
		PRT FINAL	Part final zone tested	ZONE	NOT SENT	611
		PRT ENTRY	Part entry zone tested	ZONE	NOT SENT	611
		PA	PA zone tested	ZONE	NOT SENT	611
		PA SILENT	PA silent zone tested	ZONE	NOT SENT	611
		PA DELAY	PA delay zone tested	ZONE	NOT SENT	611
		PA DEL/SL	PA delay sil zone tested	ZONE	NOT SENT	611
		LINK	Link zone tested	ZONE	NOT SENT	611
		SPARE	Spare zone tested	ZONE	NOT SENT	611
		TAMPER	Tamper zone tested	ZONE	NOT SENT	611
		BELL TAMP	Bell tamper zone tested	ZONE	NOT SENT	611
		BEAM PAIR	Beam pair zone tested	ZONE	NOT SENT	611
		BATT LOW	Battery Low zone tested	ZONE	NOT SENT	611
		LINE FAIL	Line fail zone tested	ZONE	NOT SENT	611
		AC FAIL	AC fail zone tested	ZONE	NOT SENT	611
		LOG	Log zone tested	ZONE	NOT SENT	611
		RM ACCESS	Rem acc zone tested	ZONE	NOT SENT	611
		VIDEO	Video zone tested	ZONE	NOT SENT	611
		VIDEO EXT	Video exit zone tested	ZONE	NOT SENT	611
		INT DELAY	Intrud delay zone tested	ZONE	NOT SENT	611
		SEC DELAY	Security del zone tested	ZONE	NOT SENT	611
		SET LOG	Set Log zone tested	ZONE	NOT SENT	611
		CUSTOM A	Custom A zone tested	ZONE	NOT SENT	611
		CUSTOM B	Custom B zone tested	ZONE	NOT SENT	611
		EXITGUARD	Exitguard zone tested	ZONE	NOT SENT	611
		MASK	Mask zone tested	ZONE	NOT SENT	611
		URGENT	Urgent zone tested	ZONE	NOT SENT	611
		PA UNSET	PA unset zone tested	ZONE	NOT SENT	611
		KSW RESET	Ksw. reset zone tested	ZONE	NOT SENT	611
VIBRATION			Vibration zone tested	ZONE	NOT SENT	611
		ATM-1	ATM-1 zone tested	ZONE	NOT SENT	611
		ATM-2	ATM-2 zone tested	ZONE	NOT SENT	611

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
		ATM-3	ATM-3 zone tested	ZONE	NOT SENT	611
		ATM-4	ATM-4 zone tested	ZONE	NOT SENT	611
		ALARM EXT	Alarm extend zone test.	ZONE	NOT SENT	611
		SOAK TEST	Soak test zone act	ZONE	NOT SENT	611
C - Closing						
CA	Closing Report	FULL SET	Automatic Set	EVENT	10.SETTING	401
CE	Closing Extend	EXTENSION	Auto arm exten. delay	USER	10.SETTING	464
		PREWARN	Auto arm prewarn delay	MISC	NEVER TR	464
CG	Close Area	PART SET	Part set by user	USER	10.SETTING	441
CI	Fail to Set	FAIL SET	Fail to Set	EVENT	7. SET FAULT	454
CJ	Late to Set	LATE SET	Late to Set	EVENT	10.SETTING	454
CL	Closing Report	FULL SET	Full set	USER	10.SETTING	401
		FULL SET	Set by keypad	EVENT	10.SETTING	401
		KSW SET	Keyswitch set	ZONE	10.SETTING	409
CP	Auto. Closing	REARM	Rearm after alarm	EVENT	10.SETTING	463
CR	Recent Close	RECEN.SET	Previous alarm was within 5 mins of set	EVENT		2.INTRUDER 459
CT	Late to Open	TIMEOUT	Entry timeout	EVENT	10.SETTING	None
D - Access						
DD	Acces Denied	Invalid Card	MAX tag unknown	MOD.	17.MAXTAG	421
DF	Door Forced	MAX ALARM	Door contact broken	MOD.	4.SECURITY	423
					17.MAXTAG	
DG	Acces Granted	LEGAL CD	Legal code entered	USER	16.LOG	462
		LEGAL CD	ATM code entered	USER	16.LOG	462
		Valid	MAX tag accepted	USER	17.MAXTAG	422
DK	Acces Lockout	ILL-CODE	Illegal code entry	USER	16.LOG	421
		Reject Card	Illegal MAX tag	USER	17.MAXTAG	421
DT	Door propped	DOOR PROP	MAX - Door left open	MOD.	4.SECURITY	426
E - System Trouble						
ER	Mod Removed	REMOVED	Module Removed	MOD	TAMPER	532
ET	RF NVM Fail	RF MEM!	RF NVM RAM Fail	MOD	TAMPER	333

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
F - Fire						
FA	Fire Alarm	FIRE+	Fire zone alarm	ZONE	6.FIRE	110
FB	Fire Bypass	OMITTED	Fire zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
FJ	Fire Troub rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
FR	Fire Restoral	FIRE-	Fire zone restored	ZONE	6.FIRE	110
					18.ZN RESTO	
FT	Fire Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
FU	Fire Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
FX	Fire Test	FIRE	Fire zone tested	ZONE	NOT SENT	None
		SOAK TEST	Soak test fire zone act	ZONE	NOT SENT	None
G - Gas (Custom SIA - See Note 2)						
GA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
GB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	Note 1
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	Note 1
GJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	Note 1
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	Note 1
GR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON	Note 1
					18.ZN RESTO	
GT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	Note 1
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	Note 1
GU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	Note 1
H - Holdup						
HA	Holdup Alarm	PA SILENT+	PA Silent zone alarm	ZONE	1.PA/DURE	122
		PA DEL/SL+	PA Delay Sil.zone alarm	ZONE	1.PA/DURE	122
		DURESS	Duress with code	USER	1.PA/DURE	121
		PA UNSET+	PA Unset zone alarm	ZONE	1.PA/DURE	122
HB	Holdup Bypass	OMITTED	Holdup zone omitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
HJ	Hold Troub rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
HR	Hold Restoral	PA SILENT-	PA Silent zone restored	ZONE	1.PA/DURE	122
					18.ZN RESTO	
		PA DEL/SL-	PA Delay Sil.zone rest.	ZONE	1.PA/DURE	122
					18.ZN RESTO	
		PA UNSET-	PA Unset zone restored	ZONE	1.PA/DURE	122
					18.ZN RESTO	
HT	Holdup Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
HU	Hold Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
J - Wrong code, Time changed						
JA	Code Tamper	WRONG CD	Wrong code alarm act.	MOD.	9.TAMPER	461
	Invalid Code	INVALID CD	Invalid Code entered	MOD.	ALWAYS TR	None
JT	Time changed	NEW T/D	Time/Date modified	USER	ALWAYS TR[3]	625
K - Heat (Custom SIA - See Note 2)						
KA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
KB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
KJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
KR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON	Note 1
					18.ZN RESTO	
KT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
KU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
L - Phone, Program						
LB	Program begin	ENGINEER+	Engineer mode entered	MISC	ALWAYS TR	627
LR	Line Restore	LINE FAIL-	Zone Tel line fail rest.	ZONE	12.MD/COM	351
		LINE FAIL-	Module Tel line fail rest.	MOD	12.MD/COM	351
LT	Line Trouble	LINE FAIL+	Zone Tel line fail trouble	ZONE	12.MD/COM	351
		LINE FAIL+	Mod Tel line fail trouble	MOD	12.MD/COM	351
LX	Local Prog end	ENGINEER-	Engineer mode exited	EVENT	ALWAYS TR	627
M - Medical (Custom SIA - See note 2)						
MA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
MB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
MJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
MR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON	Note 1
					18.ZN RESTO	
MT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
MU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
O - Opening						
OA	Open Report	UNSET	Automatic Unset	EVENT	10.SETTING	401
OG	Open Area	UNSET	Part Unset	USER	10.SETTING	401
		KSW UNSET	Keyswitch part unset	ZONE	10.SETTING	409
OK	Early Open	U/S EARLY	Unset Early	EVENT	10.SETTING	451
OP	Open Report	UNSET	Unset	USER	10.SETTING	401

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
		KSW UNSET	Keyswitch unset	ZONE	10.SETTING	409
OR	Disarm alarm	SYS RESET	All Burglar alarms reset	USER	11.RESET	313
		PA RESET	All PA alarms reset	USER	1.PA/DURE	465
		TAMP RST	All Tamper alarms reset	USER	9.TAMPER	313
		SYS RESET	Ksw reset Burglar alarm	EVENT	11.RESET	313
		PA RESET	Ksw reset PA alarms	EVENT	1.PA/DURE	465
		TAMP RESET	Ksw reset Tamp alarm	EVENT	9.TAMPER	313
P - Panic						
PA	Panic Alarm	PA+	PA zone alarm	ZONE	1.PA/DURE	120
		DELAY ALM+	PA Delay zone alarm	ZONE	1.PA/DURE	120
PB	Panic Bypass	OMITTED	PA zone omitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
PJ	Pan Troub rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
PR	Panic Restoral	PA-	PA zone restored	ZONE	1.PA/DURE 18.ZN RESTO	120
		DELAY ALM-	PA Delay zone restored	ZONE	1.PA/DURE 18.ZN RESTO	120
PT	Panic Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
PU	Panic Unbypas	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
Q - Assist (Custom SIA - see note 2)						
QA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
QB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
QJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
QR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON 18.ZN RESTO	Note 1
QT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
QU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
R - Remote,Log,Test						
RC	Relay closed	LINK-	Link zone closed	ZONE	16.LOG	150
		LOG-	Log zone closed	ZONE	16.LOG	150
		LOG DELAY-	Log delay zone closed	ZONE	16.LOG	150
		CUSTOM A-	Zone closed(Non alarm)	ZONE	16.LOG	150
		CUSTOM B-	Zone closed(Non alarm)	ZONE	16.LOG	150
		EXITGUARD-	Exitguard zone closed	ZONE	16.LOG	150

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
RD	Prog, denied	RMACCESS+	Zone denied rem. acc	ZONE	14.MEN AC	553
RO	Relay open	LINK+	Link zone opened	ZONE	16.LOG	150
		LOG+	Log zone opened	ZONE	16.LOG	150
		LOG DELAY+	Log delay zone opened	ZONE	16.LOG	150
		CUSTOM A+	Zone opend(Non alarm)	ZONE	16.LOG	150
		CUSTOM B+	Zone opend(Non alarm)	ZONE	16.LOG	150
		EXITGUARD+	Exitguard zone opened	ZONE	16.LOG	150
RP	Automatic test	AUTOTEST	Automatic test	EVENT	ALWAYS TR	602
RR	Power Up	MEMORY OK	Warm start of panel	EVENT	13.ELEC ST	305
RS	Prog, success	RM ACCESS-	Zone allowed rem acc	ZONE	14.MEN AC	553
		REM CALL	Remote call complete	MOD	14.MEN AC	412
RX	Manual test	ENG TEST	Engineer test	USER	ALWAYS TR	601

S - Sprinker (Custom SIA - see note 2)

SA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
SB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
SJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
SR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON	Note 1
ST	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
SU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573

T - Tamper,Test

TA	Tamper Alarm	TAMPER+	Tamper zone alarm	ZONE	9.TAMPER	137
		BELL TAMP+	Bell Tamper zone alarm	ZONE	9.TAMPER	137
		LID TAMP+	Lid Tamper alarm	ZONE	9.TAMPER	137
		AUX TAMP+	Auxilary Tamper alarm	ZONE	9.TAMPER	137
		TAMP S/C+	Tamper short circuit	ZONE	9.TAMPER	383
		TAMP O/C+	Tamper open circuit	ZONE	9.TAMPER	383
		TAMPER+	Module Tamper	MOD	9.TAMPER	145
		MISSING+	Missing module alarm	MOD	9.TAMPER	145
		CV TAMP+	Voltage tamper on zone	ZONE	9.TAMPER	383
		MAX TAMP+	MAX Module Tamper	MOD.	9.TAMPER	145
		ADDED	Module Added	MOD.	9.TAMPER	531
		ENG TAMP+	Engineering Tamper	MISC	9.TAMPER	None
TE	Test End	WALK TEST-	Walk test finished	USER	14.MEN AC	607

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
TR	Tamper Restor	TAMPER-	Tamper zone restored	ZONE	9.TAMPER	137
					18.ZN RESTO	
		BELL TAMP-	Bell Tamper zone rest.	ZONE	9.TAMPER	137
					18.ZN RESTO	
		LID TAMP-	Lid Tamper restored	ZONE	9.TAMPER	137
					18.ZN RESTO	
		AUX TAMP-	Auxilary Tamper rest.	ZONE	9.TAMPER	137
					18.ZN RESTO	
		TAMP S/C-	Tamper s/circuit rest.	ZONE	9.TAMPER	383
					18.ZN RESTO	
		TAMP O/C-	Tamper o/circuit rest.	ZONE	9.TAMPER	383
					18.ZN RESTO	
		TAMPER-	Module Tamper rest.	MOD	9.TAMPER	145
					18.ZN RESTO	
		MISSING-	Missing module rest.	MOD	9.TAMPER	145
					18.ZN RESTO	
		CV TAMP-	Voltage tamper rest.	ZONE	9.TAMPER	383
					18.ZN RESTO	
		MAX TAMP-	MAX Module Tamp rest	MOD.	9.TAMPER	145
					18.ZN RESTO	
		ENG TAMP-	Engineer Tamper	MISC	9.TAMPER	None
					18.ZN RESTO	
TS	Test Start	WALK TEST+	Walk test started	USER	14.MEN AC	607
W - Water(Custom SIA - see note 2)						
WA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
WB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
WJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
WR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON	Note 1
					18.ZN RESTO	
WT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
WU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573
X - RF						
XQ	RF Jam	RF JAM+	RF Signal Jammed	MOD	15.TROUBLE	344
XT	RF Batt Low	RF BATLOW+	RF Battery Low	ZONE	13.ELEC ST	384
					15.TROUBLE	
XH	RF Jam Restore	RF JAM-	RF Jam Restore	MOD	15.TROUBLE	344
XR	RF Batt Lo Rst	RF BATLOW-	RF Battery Low Restore	ZONE	13.ELEC ST	384
					15.TROUBLE	

Ev	SIA Event Description	Galaxy Log Event	Galaxy Log Event Description	Ev Type	Trigger	Contact ID Event
YC	Comms Fail	internal to tel	Tel module lost RS485	EVENT	ALWAYS TR	350
YF	Panel Cold Start	MEM RESET	Power Up Panel	MISC	13.ELEC ST	None
YK	Comm Restoral	internal to tel	Tel module rest. RS485	EVENT	ALWAYS TR	350
YR	Sys Batt Rest.	BATT LOW-	Battery Low restored	ZONE	13.ELEC ST	302
		CU BATT-	Control unit batt restore	ZONE	13.ELEC ST	302
		BATT LOW-	Mod Battery Low rest	MOD	13.ELEC ST	302
		BATT FUSE-	Battery Fuse restored	MOD	13.ELEC ST	302
YT	Sys Batt Troub	BATT LOW+	Battery Low	ZONE	13.ELEC ST	302
		CU BATT+	Control unit Battery Low	ZONE	13.ELEC ST	302
		BATT LOW+	Module Battery Low	MOD	13.ELEC ST	302
		BATT FUSE+	Battery Fuse blown	MOD	13.ELEC ST	302
Z - Freezer (Custom SIA - see note 2)						
ZA	Alarm	Note 1	zone in alarm	ZONE	5.CUS ZON	Note 1
ZB	Bypass	OMITTED	zone ommitted	ZONE	8.OMIT	573
		FORCEOMT+	Force omit after rearm	ZONE	8.OMIT	573
ZJ	Trouble Rest	LOW RES-	Restor zone resistance	ZONE	15.TROUBL	380
		HIGH RES-	Restor zone resistance	ZONE	15.TROUBL	380
ZR	Alarm Restore	Note 1	zone restored	ZONE	5.CUS ZON 18.ZN RESTO	Note 1
ZT	Trouble	LOW RES+	Low resistance on zone	ZONE	15.TROUBL	380
		HIGH RES+	High resistance on zone	ZONE	15.TROUBL	380
ZU	Unbypass	FORCE OMT-	Unomitted after rearm	ZONE	8.OMIT	573

Note 1 : Dependant upon zone type selected

Note 2: Custom SIA event allow existing zone types to be modified in order to send specific SIA events from the panel. This allows more specific SIA information to be transmitted. The zones used to programme the custom SIA events will continue to function as per the zone description

Note 3 : Not sent for Dutch Variants

Appendix D: Event Log Messages

KEYPAD TEXT	DESCRIPTION
0001 + CU-BATT	Control Unit Standby Battery Low has occurred (battery voltage below 10.5 Vd.c.).
0001 - CU-BATT	Control Unit Standby Battery Low has finished (battery voltage now above 10.5 Vd.c.).
0002 + CU-AC	Control Unit Mains (a.c.) Power Fail has occurred.
0002 - CU-AC	Control Unit Mains (a.c.) Power Fail has finished.
0003 + LID TAMP	Lid Tamper on control unit has occurred.
0003 - LID TAMP	Lid Tamper on control unit has finished.
0004 + AUX TAMP	Auxiliary Tamper on control unit has occurred.
0004 - AUX TAMP	Auxiliary Tamper on control unit has finished.
ABORT SET+	Setting process aborted
+ AC FAIL	AC Fail zone activated (opened) or an AC Fail on 3 A Smart Power Supply Unit.
– AC FAIL	AC Fail zone de-activated (closed) or an AC Fail on 3 A Smart Power Supply Unit has stopped.
ALARM EXT	Alarm extend zone activated.
ADDED	Engineer has Added a module to the system.
ATM-1	ATM-1 zone activated.
ATM-2	ATM-2 zone activated.
ATM-3	ATM-3 zone activated.
ATM-4	ATM-4 zone activated.
AUTOTEST	Automatic Test of the system via the Telecom Module.
AUTOTIMER +	Autoset timer activated.
AUTOTIMER –	Autoset timer de-activated.
+ BATT LOW	Battery Low activated on 3 A Smart Power Supply Unit.
– BATT LOW	Battery Low de-activated on 3 A Smart Power Supply Unit.
BEAM PAIR	Beam Pair zones activated (opened).
BEGIN SET+	Setting process started
+ BELL TAMP	Bell Tamper zone activated (opened).
– BELL TAMP	Bell Tamper zone de-activated (closed).
CANCEL	Alarm activation Cancelled by a valid user Code (system or Group(s) still Set).
COMM FAIL	Communication Failure has occurred on a Telecom Module.
COPY SITE	Remote Copy of the Site (system) has occurred via Galaxy Gold or the RS232 Module.
CUSTOM-A	Custom-A zone activated (opened).
CUSTOM-B	Custom-B zone activated (opened).
CU-FUSE +	Control Unit Fuse removed (Galaxy 8 only).
CU-FUSE –	Control Unit Fuse replaced (Galaxy 8 only).
DELAY ALM	PA Delay Alarm zone activated after PA Delay timeout.
DL/SL ALM	PA Delayed Silent zone activated after PA Delay timeout.
DUAL	Dual (Double Knock) zone activated (opened).

KEYPAD TEXT	DESCRIPTION
DURESS	Duress code has been entered.
ENG ASSEM	Engineering Assemble Zone menu (Menu Option 64) has been accessed.
ENG CHECK	Engineering Pre-Check menu (Menu Option 66) has been accessed.
ENG DIAG	Engineering Diagnostics menu (Menu Option 61) has been accessed.
ENG DIGI	Engineering Digicom (Communications) (Menu Option 56) has been accessed.
ENG GROUP	Engineering Groups (Menu Option 63) has been accessed.
ENG KPAD	Engineering Keypad (Menu Option 58) has been accessed.
ENG LINKS	Engineering Links (Menu Option 54) has been accessed.
ENG O/PS	Engineering Outputs (Menu Option 53) has been accessed.
ENG PARAM	Engineering Parameters (Menu Option 51) has been accessed.
ENG PRINT	Engineering Print (Menu Option 57) has been accessed.
ENG QUICK	Engineering Quick Menu (Menu Option 59) has been accessed.
ENG SOAK	Engineering Soak Test (Menu Option 55) has been accessed
ENG TMRS	Engineering Timers A/B (Menu Option 65) has been accessed.
ENG ZONES	Engineering Zones (Menu Option 52) has been accessed.
ENG TAMP	Tamper when entering Engineer Mode.
ENG TEST	Engineer Test of the system via the Telecom Module.
ENGINEER +	Entering Engineer mode.
ENGINEER –	Leaving Engineer mode.
+ ENTRY	Entry zone activated (opened) during Setting/Unsetting procedure or when Set.
– ENTRY	Entry zone de-activated (closed) during Setting/Unsetting procedure or when Set.
EXTENSION	System or Group(s) are in the Autoset Extension period.
+ EXIT	Exit zone activated (opened) during the Unsetting procedure or when Set.
– EXIT	Exit zone de-activated (closed) during the Unsetting procedure or when Set.
EXITGUARD	ExitGuard zone activated (opened).
FAIL SET	Fail to set event.
+ FINAL	Final zone activated (opened) during Setting/Unsetting procedure or when Set.
– FINAL	Final zone de-activated (closed) during Setting/Unsetting procedure or when Set.
FIRE	Fire zone activated (opened).
FORCE OMT	Force Omit of a zone (Menu Option 14).
FULL SET	Full Set (Menu Option 12) of the system or Group(s).
FULL TEST	Full Test (Menu Option 62) has occurred.
GRP OMIT +	Group Omit has occurred (Group(s) has been omitted).
GRP OMIT –	Group Omit has finished (Group(s) has been un-omitted).
HIGH RES +	Zone changing to High Resistance (1200 to 1300 Ohm) Engineer Log only.
HIGH RES –	Zone changing from High Resistance to Normal Closed (1300 to 1200 Ohm) Eng. Log only

KEYPAD TEXT	DESCRIPTION
INST SET+	Instant set of system or group
INTRUDER	Intruder zone activated (opened).
INT DELAY	Intruder Delay zone activated (opened).
INT ALARM	Intruder Alarm from an Intruder Delay zone after the Delay Alarm time.
KEYSWITCH	Keyswitch zone activated (opened).
KSW CANCL	Keyswitch Cancels alarm activation (system or Group(s) still Set).
KSW P/SET	Keyswitch part sets the system or Group(s).
KSW SET	Keyswitch Full Sets the system or Group(s).
KSW UNSET	Keyswitch Unsets the system or Group(s).
KSW RESET	Keyswitch Resets the system or Group(s).
LATE SET	Late Set of the system or Group(s).
LEGAL CD	Legal Code entered (This a Level 0 Code or a valid user Code after an engineer's Code when the system or Group(s) is Set).
LINE FAIL +	Telecom Module Line Fail has occurred or a telephone Line Fail zone activated (opened).
LINE FAIL –	Telecom Module Line Fail has finished or a telephone Line Fail zone de-activated (closed).
+ LINK	Link zone activated (opened).
– LINK	Link zone de-activated (closed).
LOCKTIMER +	Lockout timer activated.
LOCKTIMER –	Lockout timer de-activated.
+ LOG	Log zone activated (opened).
– LOG	Log zone de-activated (closed).
LOG DELAY	Log Delay zone has been activated (opened) for longer than the Delay Alarm time.
+ LOW RES	Zone changing to low resistance (900 to 800 Ohm).
– LOW RES	Zone changing from Low Resistance to Normal Closed (800 to 900 Ohm).
+ MASK	Mask zone activated (opened).
– MASK	Mask zone de-activated (closed).
MAX ALARM	MAX alarm — door forced.
MEM RESET	Memory Reset (Restart) to factory default settings (Cold Start).
MEMORY OK	Memory Reset (Restart) with programming details saved (Warm start).
MISSING +	Module Missing its AB (RS485) communications.
MISSING –	Module that was Missing now has its AB (RS485) communications re-established.
MOD CODES	Modify Codes menu (Menu Option 42) has been accessed.
MOD REM	Galaxy Gold menu (Menu Option 47) has been accessed.
MOD SUMMR	Modify Summer menu (Menu Option 43) has been accessed.
MOD T/D	Modify Time/Date menu (Menu Option 42) has been accessed.
MOD TMRS	Modify Timers Control menu (Menu Option 45) has been accessed.

KEYPAD TEXT	DESCRIPTION
NEW T/D	New Time/Date after modification.
OMIT ATM-1	Omit all ATM-1 zones.
OMIT ATM-2	Omit all ATM-2 zones.
OMIT ATM-3	Omit all ATM-3 zones.
OMIT ATM-4	Omit all ATM-4 zones.
OMIT VIBS	Mass omit of vibration zones.
OMIT ZONE	Omit Zones menu (Menu Option 0 (in the Quick Menu) or Menu Option 11 (in the Full Menu)) has been accessed.
OMITTED	Zone has been omitted.
OVWR SITE	Remote Overwrite of the Site (system) has occurred via Galaxy Gold or the RS232 Module.
PA	PA zone activated (opened).
PA DEL/SL	PA Delayed Silent zone activated (opened).
PA DELAY	PA Delayed zone activated (opened).
PA UNSET	PA Unset zone activated while group in unset condition.
PA RESET	PA Reset has occurred.
PA SILENT	PA Silent zone activated (opened).
PART SET	Part Set of system or Group(s).
PREWARN	System or Group(s) in the Autoset Prewarning period.
PRINT OC	Print On Command.
PRINT OL	Print On Line, the automatic printing of the Event Log. Not to be confused with the printer on-line message from a printer.
+ PRT ENTRY	Part Entry zone activated (opened).
– PRT ENTRY	Part Entry zone de-activated (closed).
+ PRT FINAL	Part Final zone activated (opened).
– PRT FINAL	Part Final zone de-activated (closed).
PUSH SET	Push Set (Exit Terminator) zone activated (opened).
REARM	Rearm of system has occurred.
REM CALL +	Remote device connected.
REM CALL –	Remote device disconnected.
REM COPY	Remote Copy of site details via SIA has occurred.
REM OVRWR	Remote Overwrite via SIA has occurred.
REMOVED	Engineer has Removed a module from the system.
RM ACCESS	Remote Access zone activated (opened).
+ SEC FINAL	Secure Final zone activated (opened).
– SEC FINAL	Secure Final zone de-activated (closed).
SET LOG	Set Log zone activated (opened) when the system or Group(s) is Set.

KEYPAD TEXT	DESCRIPTION
+ SECURITY	Security zone activated (opened).
– SECURITY	Security zone de-activated (closed).
SOAK TEST	Zone under Soak Test (Menu Option 55) activated when the system or group(s) is Set.
STANDLOW	Standby time for the battery is Low.
SYS RESET	System Reset has occurred event.
+ TAMP O/C	Zone changing to Tamper Open Circuit (greater than 12,000 Ohm).
– TAMP O/C	Zone changing from Tamper Open Circuit to Normal Closed (1200 to 900 Ohm).
TAMP RST	Tamper Reset of the system has occurred.
+ TAMP S/C	Zone changing to Tamper Short Circuit (less than 800 Ohm).
– TAMP S/C	Zone changing from Tamper Short Circuit (less than 800 Ohm). to Normal Closed (900 to 1200 Ohm).
+ TAMPER	Tamper on a module activated (opened). A module is either a keypad, Galaxy RIO, Telecom Module or RS232 Module.
– TAMPER	Tamper on a module de-activated (closed). A module is either a keypad, Galaxy RIO, Telecom Module or RS232 Module.
TEST O/P	Test Outputs menu (Menu Option 32) has been accessed.
TIMEOUT	Timeout alarm after the Entry Time has expired.
TIMER A +	Timer A activated (on).
TIMER A –	Timer A de-activated (off).
TIMER B +	Timer B activated (on).
TIMER B –	Timer B de-activated (off).
T/O-BURGL	Timeout alarm after the Entry Time has expired (same as TIMEOUT but used as a SIA event).
UNSET	Unset of the system or Group(s).
URGENT	Urgent zone activated.
U/S EARLY	Unset Early of the system or Group(s).
VIBRATION	Vibration zone activated.
VIDEO	Video zone activated (opened).
VID EXIT	Video Exit zone activated (opened).
WALK TEST +	Walk Test has occurred.
WALK TEST –	Walk Test has finished.
WRONG CD	Wrong Code alarm activation (6 consecutive wrong codes). This Requires a system reset.
24 HOURS	24 Hours zone activated (opened).

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