

Galaxy 2-20 Quick-start Guide

NOTE: It is strongly recommended that any personnel installing a Galaxy 2 Series panel undertake appropriate training as supplied by Honeywell Security. This training is supplied free of charge and can be arranged by contacting Honeywell Security on:

Tel: +44 (0) 1355 354 000
Email: sales@ademco.co.uk

Setup

In order to get the system up and running, mount the panel and connect and address all peripherals as described below, **before** finally powering the system.

Peripheral Wiring

The following peripherals can be connected to the panel:

- Mk7 LCD Keypad/Keyprox x 4
- RIO/PSU x 1
- RF Portal x 2.

NOTE: The system must be wired in a daisy-chain configuration. Spur and star configurations must not be used. The recommended cable used to connect the RS485 (AB) line is twisted pair screened cable (Belden 8723 equivalent). However, for cable runs of less than 100m in normal environments, standard 4-core cable can be used.

Panel	Peripheral
AUX+	+
AUX-	-
A	A
B	B

RS485 Peripheral Wiring

Peripheral Addressing

The address on most peripherals is set by either jumpers or a rotary switch. These must be set **before** the system is powered up. See the instructions with the peripheral for details.

The following table identifies the available peripheral addresses:

Peripheral	Address
Mk7 Keypad/Keyprox	0, 1, 2, 3
RIO	2
PSU	2
RF Portal	4, 5

Peripheral Addresses

A full technical installation manual will be given to each installer at the training session. Additional manuals can be purchased from your distributor.

Mains Supply Wiring

This product is not suitable for installation, maintenance or connection by the user. A competent, qualified engineer, with for example NSI approval, must carry out installation and maintenance.

Warning: A means of isolation from the mains supply must be provided within two metres of the control panel. Where live and neutral supplies can be identified, a fused spur with a 3A fuse must be fitted on the live circuit. Where live and neutral circuits cannot be readily identified, 3A fuses must be fitted to both circuits.

Connect the wires to the mains terminal block in the panel as follows:

- Blue (neutral) – connect to terminal N
- Green/Yellow (earth) – connect to terminal E
- Brown (live) – connect to terminal L

First Boot-up

After all the peripherals have been wired and addressed, apply power to the system. The keypads will configure and show the default banner display.

```
Galaxy 20 V1.0
09:00 SAT 01 JAN
```

Default User Codes

Default User Code: **1234**
Default Engineer Code: **112233**

Menu Access Operation/Navigation

Only valid codes can access the Galaxy Series 2 menu options. Type the code then press **ent** to access the menu. Data entry is via the 0-9 function keys and the * and # on the keypad.

The **A** and **<B** keys are cursor or scroll keys and are used to scroll through options in menus.

The **ent** key is used to enter a PIN code and to accept screen information.

The **esc** key is used to cancel or exit from the current operation.

NOTE: Users cannot view or access options for which they are not authorised.

How to get in and out of Engineer Mode

Entry to Engineer Mode is authorised by a user in menu option **48 = Level 3 Access**. Following this, the engineer will have 5 minutes in which to enter his code. When the engineer code is entered three things happen:

- All system tampers become isolated.
- The engineer is given access to the full menu.
- The banner message is changed to indicate Engineer Mode.

To bring the system back out of Engineer Mode and reinstate all the tampers, from the banner, the engineer enters his code, but then presses the **esc** key rather than the **ent** key. A 30-minute window is activated to allow the engineer back into engineer mode without re-authorisation by a user.

How to Set and Unset

To **Full Set** the system, the user types their code then presses the **A** key.

To **Part** or **Night Set** the system, the user types their code then presses the **B** key. The user now has a choice of pressing **1** to **Part Set** or **2** to **Night Set**.

To **Unset** the system, the user types their code then presses **ent**. Alternatively, presenting a valid tag at a prox reader or pressing the 'Off' key on a wireless keyfob can also unset the system.

How to Cancel an Alarm, Tamper or Fault

Alarms, tampers and fault conditions can be cancelled by entering a user code at a keypad. When the code is entered, the conditions activated will be displayed. The scroll keys (**A>** and **<B**) can be used to view all the events. Alarm conditions can also be cancelled by pressing the 'Off' button on a wireless keyfob or by presenting a valid tag at a proximity reader. However, a code will need to be entered at a keypad in order to see and restore the alarms.

How to Restore an Alarm

Alarms, tampers and fault conditions will be restored provided:

- The cause has cleared and
- A user with sufficient authority has viewed the condition on a keypad (any user if technistore).

If a user is unable to restore an alarm, then a manager or engineer will have to be called.

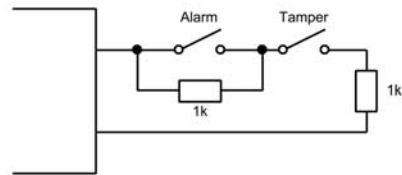
Zone Address Format

Galaxy zones are given addresses rather than zone numbers. This is because the zones are grouped into blocks of 8 called 'RIOs'. On board the panel there are 2 RIOs. The first RIO (0) has only 4 zones (addressed 1001 to 1004) and the second RIO (1) has 8 zones (addressed 1011 to 1018). As can be seen, the right hand digit is the individual zone number and the second digit is the RIO address, which can be 0 to 5, including all the expanders. Each zone can also be given a text descriptor. By default, it is blank.

All individual zone programming is done in menu **52**.

Zone Wiring

The default zone configuration is 1k double-balanced as shown below:



Any unused hardwire zones should always have a 1k resistor wired across the zone terminals to terminate them.

The configuration for the zones and the resistance values used can be reprogrammed from menu option **51.46 = Parameters. Zone Resistance**. The cable run on each zone should be no more than 100 m.

Output Address Format

Galaxy outputs are addressed in the same way as the zones. However, there are only 4 outputs on each RIO. The on-board outputs are all on RIO 0 and have the addresses 1001 to 1004. RIO 1 on-board does not have programmable outputs.

All individual output programming is done in menu **53**.

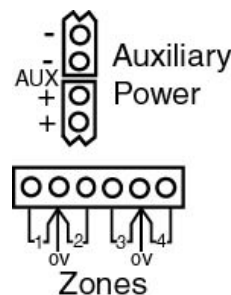
Output Wiring

The on-board outputs are all open-collector switched negative. The load that is to be controlled by an output should be connected between +12 V and the output terminal.

Note: Output 1002 is set up by default as a 16-ohm speaker driver. This means that the output gives an AC audio signal. This is not suitable for driving a normal sounder, relay, LED, etc. However, the mode can be changed in menu **51.15** if a normal output mode is needed.

Power Wiring

Auxiliary power can be drawn from the AUX+ terminals shown. The 'common' terminals on the zones are 0 volts.



Communications

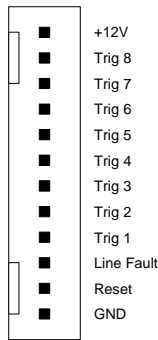
Built-in Comms

The Galaxy 2 Series has a built-in telephone dialler. The incoming telephone line should be wired to the 'Line In A B' terminals. The alarm panel should always be the first device on the phone line. Additional extensions should be connected to the serial terminals marked 'A B' next to the phone symbol. This will allow the panel to snatch the line when it needs to dial out.

All comms programming is done in menu **56.1**.

External Stand-alone Dialler

An additional external dialler can be connected to the Galaxy 2 Series by way of the Trigger header. The connection comprises a cable that plugs on to the 12-way header in the centre of the main PCB. The other end of the cable connects to the terminal board which contains screw terminals for each core.. The pins of the 12-way header have the following functions:



The +12 V supply can supply a maximum of 100 mA but this reduces the total capacity of the panel's PSU by the same amount.

The function of the trigger outputs can be programmed in menu **53**, under the output addresses 0001 to 0008.

Dual-path Signalling

When more than one comms device is fitted to the panel, one can be programmed as the main comms device and the other can be programmed as the backup/fail-safe that will only signal if the main device fails (line fault). This is controlled by menu **56.6**. Each device can be given a hardware priority. Setting the priority to 0 means that device will never signal. Setting it to 1 means that it will always signal. Setting it to 2 means that it will only signal if the main device fails.

Menu Summary

All the functions of the panel are accessible via the menu. The top level of the menu is summarised below:

10 = Setting	20 = Display	30 = Test
11 = Omit Zones	21 = Zone Status	31 = Walk Test
12 = Timed Set	22 = View Log	32 = Output Test
13 = Part Set	23 = System Version	
14 = Night Set	24 = Print	
15 = Chime		

40 = Modify	50 = Engineer 1	60 = Engineer 2
41 = Time/Date	51 = Parameters	61 = Diagnostics
42 = Users	52 = Zones	62 = Full Test
44 = Mobile Nos.	53 = Outputs	63 = Options
47 = Remote Access	56 = Comms	
48 = Level 3 Access	57 = System Print	

Each of these headings has its own sub options that can be accessed using the **ent**, **esc** and scroll keys.

Text programming

Certain options allow text to be entered. In these options, text is entered in the similar way to text messaging on mobile phones, by repeated presses of the number keys to select the appropriate letters. The keys have the following functions in text programming mode:

Key	Output
1	& - 1 @ ' () . , # * +
2	A B C Ä Å Æ 2 a b c ä å æ
3	D E F 3 d e f
4	G H I 4 g h i
5	J K L 6 j k l
6	M N O Ö ø 6 m n o ö
7	P Q R 7 p q r s
8	T U V 8 t u v
9	W X Y 9 w x y z
0	[space] 0
esc	Cancel the edit without saving changes
ent	Save string entry and exit
*	Deletes character to left of cursor
#	Deletes character at the cursor

Code Tamperers

When enabled (see menu option **51.14 = Parameters. Lockouts**), and 10 wrong codes are entered in succession, the device is locked. The lockout lasts for 2 minutes. After a further 10 wrong code entries, a tamper is logged and a signal is given. The device is again locked out for 2 minutes.

Note: Wireless keyfobs and tags can still operate.

Conversely, if a wrong tag is presented to a prox or an invalid wireless fob is activated for the same number of attempts, the prox and receiver devices are locked out, but the keypads still operate.

If a combination of devices are used to enter 10 wrong codes, then all those devices are locked out for 2 minutes.

