# Avanti

Security control panels

- 8 fully programmable Zones + PA and Tamper
- External lighting facility to control up to 2000 watts of external security lighting
- 3 part set programs
- Service timer (selectable)
- Chime on any Zone
- Entry/Exit timers programmable in one second increments (0-99 secs)
- 6 Communicator outputs (RS panels)
- 7 codes Engineer-Manager-Holiday-4 User codes (individual duress on RS)
- Up to 4 remote keypads

# K-600HW engineer manual

# Introduction

**Avanti** is a flexible range of fully featured security control panels suitable for domestic and light commercial applications designed to meet the installation requirements of EN50131-1-6.

**Avanti** is supplied with on-board keypad or remote end station; either option allows you to fit up to 4 additional backlit RKP's.

With 8 fully programmable zones plus PA and tamper, doorbell, quick set, fire and the ability to control security lighting via a Drive Module the **Avanti** provides you with a cost-effective solution for most applications. **RS** versions provide 6 digital ports for use with a wire on communicator.

# EMC:

Emissions EN50081-1: 1992 Immunity EN50130-4: 1995 Low Voltage Directive (LVD) 73/23/EEC

# **1** Installation

# 1.1 System Design

Before commencing installation it is important to familiarise yourself with these instructions. Care should be taken when planning the system that the control panel is sited close to a convenient mains supply and is not visible from the outside of the property. If you are using the **Avanti ES** then the end station may be located in a cupboard in the hall or under the stairs. The remote keypads should be located so that the user can access them easily during entry and exit.

# 1.2 Fixing

First disconnect the AC and internal speaker wiring, releasing the PCB from the case. Offer the case to the wall, mark, drill and plug for three hole fixing using a suitable bit. Where required remove trunking cut outs and drill wall for

cable entry.

Screw in top fixing (No8 x  $2_2^1$ /screw) and leave protruding  $1_2''$ , mount the box utilising the keyhole, align and secure using 2 off No8 x  $2_2^1$ /screws.

Refit the PCB and reconnect the speaker and AC wires.

# 1.3 Pre-installation test

Observing the correct polarity, Connect the battery to the terminals marked Batt  $\,+\,$  -

The panel will now go into alarm condition. Entering the user code (**0123**) will silence the system. The Tamper and Power LED's will be lit with Day & Zone flashing. To reset the panel re-enter the user code and the Day & Power LED's will become steady (**DAY** mode). Upon completion of initial test, disconnect the battery.

# 1.4 Wiring

Wire each of the zones in turn making sure to connect tampers in **series** then continue to wire PA, internal and external sounder and strobe and any additional remote keypads. Finally on **RS** models connect any communicating devices.

# 1.5 RKPs

Up to 4 RKP's may be wired in parallel with the tamper being wired in **series** using a single 6-core cable to a maximum of 100 metres.

# 1.6 Utility Outputs

A unique feature of the **Avanti** is the ability to operate security lighting. To utilise this value-added feature a Lighting Drive Module (**LDM**) is required (available separately).

To install floodlights the LDM is wired into the RKP terminals and lighting is operated through Channels A & B. Depressing the **A** or **B** keys on the control panel will switch up to 1000 watts per channel (total available 2000 watts).

If you choose to install a PIR then this can be wired into any unused zone which when activated will switch the lighting on for a period of 15 seconds.

# 1.7 Mains Connection

This equipment should be installed by a suitably qualified electrician and must be wired with cable rated at least 1 Amp, 230 volts AC. Ensure that a suitable disconnect device such as a fused spur or removable fuse is fitted to the mains supply.

## 1.8 Test & Commission.

After the wiring has been completed re-connect the battery to the terminals marked Batt + -The panel will now go into alarm condition, enter user code (**0123**) to silence, the Tamper and Power will be lit and Day & Zone LED's flashing.

To reset the panel re-enter the user code and the Day & Power LED's will be steady (**DAY** mode).

Re-fit the lower cover and the system should now be tested to ensure correct operation.

# 2 Descriptions

## 2.1 Zones

**Avanti** panels come supplied with service links fitted to the zone terminals to simulate a closed circuit. As each zone is connected these links should be removed. All zones are fully programmable.

#### **Zone Functions per Program:**

**Immediate** – This function would be used when the zone is not part of an entry/exit route. When the system is **SET** activation of an immediate zone will cause a full alarm condition.

**Timed** – A timed zone would be used to protect an entry/exit route. Opening the door or triggering the sensor in this type of zone when the system is **SET** will start the entry timer.

**Time Inhibited** – A time inhibited zone operates as an immediate zone unless a timed zone has been operated and a timer started. Such a zone would be utilised to allow passage between the entry/exit door and the control panel when there are detectors present.

**Fire** – If you choose to utilise a zone as a fire zone then no other devices may be wired into this zone. Therefore a zone cannot be both fire and intruder.

**Doorbell** –this feature can be programmed into any zone. A doorbell will not operate whilst the entry/exit timers have started, when the system is in full alarm condition or whilst in programming mode.

### **Exit Modes per Program:**

**Timed Exit** – a timed program will **SET** once the exit timer has expired.

**Final Door Set** – a final door program will **SET** 5 seconds after the final door has been opened and closed.

**Immediate/Silent Set** – an immediate program will **SET** the system immediately and silently.

#### 2.2 Tamper

**Avanti** panels come supplied with a service link fitted to the Tamper terminals; this should be removed as the tamper circuit is wired.

Tamper circuits must be wired in series.

If a Tamper occurs whilst the system is in **DAY** mode then only the **internal** sounders will be activated. If a Tamper occurs whilst the system is **SET** then both the **internal** and **external** sounders will be activated. (If you are using an **RS Panel** fitted with a communicator then a signal will also be sent to an Alarm Receiving Centre (ARC).

# 2.3 PA

Remove the service link and wire in **series** any number of PA buttons to the PA terminals. Activation of the **PA** will cause the system to go into a full alarm condition whether in **DAY** mode or **SET**. (If you are using an **RS Panel** fitted with a communicator then a signal will also be sent)

# 2.4 Bell output & Strobe

Connect the wires from the bell to the terminals **D** (bell positive) and **B** (bell negative).

The bell tamper should be wired to the **T A** terminals and the service link removed.

Wire the strobe to the terminals marked **strobe** observing the correct polarity.

When fitting a combined sounder/strobe unit follow manufactures instructions.

- T -Ve tamper return
- **A** -Ve supply (0V)
- B -Ve sounder trigger
- **D** +Ve supply (12V)

# 2.5 Internal sounder

A maximum of two 16 ohm extension speakers may be wired in **parallel** to the terminals marked The volume of both the internal sounder and entry/exit timers can be adjusted by a pre-set located on the PCB.

# 2.6 Set +

This output becomes 12V positive on **SET** and is removed on commencement of the entry timer.

# 2.7 13V Supply

This terminal provides a 13.8V output to power detectors and shock sensors etc. Total current available is 350 mA.

#### 2.8 PTS

The **PTS** terminals can be programmed to be either **PUSH TO SET (PTS)** or **KEYSWITCH** operation.

**PTS** – operation of an exit terminate button when exiting the property will cause the timer to expire immediately and the system will become **SET**.

**Keyswitch** – this enables the system to be **SET** and **UNSET** with the use of a keyswitch. If the panel needs to be reset then a user code must be entered.

# 2.9 Battery

To ensure continuing protection in the event of mains power failure a suitable rechargeable battery with a capacity to support the system for a period of 12 hours must be fitted.





**NOTE**: Calculations made for **Avanti Compact** with onboard keypad using a **neon** sounder, assuming 1 complete alarm cycle of 20 minutes.

# **3** Operation

# 3.1 Programs

The **Avanti** provides the facility for up to 3 programs that can be selected by entering the **A**, **B** or \* keys after entering the user code when setting the system. The \* program is used for Full Set. If no program is selected when setting the system the **Avanti** will default to Program \*.

When setting up the programs the function of each zone can be changed i.e.: - Immediate, Timed, Time Inhibited or Exit mode.

# 3.2 Operating

## Setting the System

To set the system a user code (4 digits) must be entered and a program selected (**A**,**B** or \* [**Full Set**]). If no program is selected within 5 seconds then the **Avanti** will default to Program \* (**Full Set**).

The exit timer will begin and a series of bleeps will sound.

# Unsetting the System

To **UNSET** the system a user code must be entered, this will return the panel to **DAY** mode. If the external siren is sounding then entering the user code will silence the sounder. All that is required to reset the system is to enter a user code.

## Fault during setting

If the system is unable to **SET** then the internal sounders will make a different bleeping sound. The fault on the system will be indicated by the relevant zone/PA/tamper LED being lit.

# **Omitting Zones**

To omit a zone a user code must be entered followed by **Z** and then the **zone number**(s) to be omitted. The zone(s) chosen to be omitted will be indicated by the relevant zone LED being toggled off. A program should then be selected. If a program is not selected then the panel will default to Program **\***.

## **Quick Set**

# 3.3 Access Codes

Avanti has the following access codes:

Engineer Access Code – car	nnot be used to <b>SET</b> or
1x Manager Access code	4x User Access codes.
1x Engineer Access code.	1x Holiday Access code

**UNSET** the panel, it can only be used to configure the system and view the Event Log. Therefore it can only be used from within **DAY** mode.

**Manager Access Code** – is used to **SET** and **UNSET** the system. It also has the ability to change all other access codes except for the engineers. The Manager is also able to view the Event Log, test the system and programme Chime for any zone.

**Holiday Access Code** – the purpose of this code is to allow access to the property whilst the manager is absent. The Holiday Access Code is programmed by the Manager and is only valid until the Manager **UNSETS** the system. At this point the Holiday Access Code becomes invalid and is no longer accepted by the control panel.

**User Access Code** – allows the User to **SET** and **UNSET** the system. Any User can also program Chime.

Additionally **RS Panels** have individual duress codes for the Users, Holiday and Manager.

Duress is only accessible in **SET**. Entering a user code followed by the first digit within 1 to 1.5 seconds will activate a silent **PA.** i.e.: - **0 1 2 3 0** 

# 3.4 Keypad tamper

When the control panel is in **SET**, the Keypad tamper will be activated after 20 invalid key presses. A full alarm condition will then be created. (If you are using an **RS Panel** fitted with a communicator then a signal will also be sent.)

## 3.5 Entry Exit timers

The entry and exit timers have been factory set for 30 seconds. If you require more or less time then these timers can be programmed independently via the keypad in increments of 1 second from immediate to 99 seconds.

## 3.6 On Board PA

Simultaneously depressing key's **4** and **8** will activate a **PA** thus creating a full alarm condition. This feature can be used when the system is in **DAY** mode or **SET**. (If you are using an **RS Panel** fitted with a communicator then a signal will also be sent.)

# 3.7 Service timer

The **Avanti** has provision for a service timer, which once selected is fixed at **900** closings. When expired the tamper LED will flash intermittently. The expiration of the service timer will **not** disable the control panel.

# 3.8 Non Volatile Memory (NVM)

The NVM circuit stores and protects the access codes and system configuration information. To clear there are two methods. i.e.: -

**Method 1** From engineering mode pressing \* twice within 2 seconds will cause the panel to revert to factory defaults whilst **retaining** the engineers access code.

**Method 2** Remove power and remove link/wires between **T** and **A**. Link **Set**+ to **T** with lid tamper closed and power up the panel. The **Avanti** will retain all information but will **clear** the engineer and manager access codes.

# 3.9 Confirmed alarms (RS models only)

To reduce the level of false alarms the **Avanti** will only send a confirmed signal to an Alarm Receiving Centre (ARC) when **2 or more** zones have been activated sequentially.

# 3.10 Double knock

The **Avanti** range of panels can be programmed for double knock. When a zone is activated a 10 minute timer will begin, if during this time the same or another zone is activated a full alarm condition will be caused. A zone active for 10 seconds will also cause an alarm condition.

# 3.11 Bell follow

**Bell Follow Off** – If the system is activated then once the bell has expired the strobe will continue to flash until the system is reset.

**Bell Follow On** – If an alarm condition is caused then the strobe will cease to flash at the same time as the bell stops sounding.

# 4 Engineer Programming

Once the engineers access code (**9999**) has been entered from within **DAY** mode, the Day LED will be extinguished, and all 8 Zone LED's will flash to prompt for the selection of the menu setting to be changed.

The following is a list of configurable menus available within the engineers menu.

- Press **1** to Set up the Programs.
- Press 2 to Set up Zone Attributes.
- Press **3** to Set up the Exit timer.
- Press **4** to Set up the Entry timer.
- Press **5** to Set up Bell Active time.
- Press 6 to Set up Bell Delay time.
- Press 7 to Set up Access codes.
- Press 8 to Set up the Service Timer.
- Press **9** to Enter the Test Menu.
- Press **0** to Set up the System Flags.
- Press **Z** to Exit back to DAY mode.
- Press \* twice within 2 sec's for Factory Reset.
- Press f to View the Event Log.

#### FACTORY DEFAULTS

1 User code	1 <b>0123</b>
2 User code	2 not used
3 User code	3 not used
4 User code	4 not used
5 Holiday co	de not used
6 Manager c	ode <b>8888</b>
7 Engineer c	ode <b>9999</b>
Entry time	30 secs
Exit time	30 secs
Bell delay	0 secs
Bell time	14 mins
Flage	
riays Poll follow of	ee
DEII IOIIOW OI	DTC
P15 IIIput =	P15
Program	*
Z1 Timed	
Z2 Time i	nhibited
Z 3-7 Immed	liate
Exit mode: T	imed
Program	
71 Timed	A_J

Z2 Time inhibited Z3-5 Immediate Z6-7 not used Exit mode: immediate 71: Omit enabled Double knock disabled Normally closed loop Zone enabled Not a fire zone Chime zone Not a doorbell Z2,Z3,Z4,Z5,Z6,Z7: Omit enabled Double knock disabled Normally closed loop Zone enabled Not a fire zone Not a chime zone Not a doorbell Z8: Omit enabled Double knock disabled Normally open loop Zone enabled Not a fire zone Not a Chime zone A Doorbell

Program B

Not initialised

Once a change has been made you need to accept or abort the changes. Pressing Key **A accepts** the change and returns you to the main engineer menu. Pressing Key **B aborts** the change and returns you to the main engineer menu. Within some menus Pressing **A** or **B** will only return you to the top of that menu and Key **Z** needs to be selected to return to engineers menu (this is identified throughout programming guide).

# 4.1 Setting Up Programs.

Set-up Programs menu is entered from the Engineers menu, by pressing Key **1**.

When the Set-up Programs menu has been selected, Day, PA and Tamper LED's will flash to prompt the engineer to select which of the 3 programs to set up.

Press **A** To Set program A. Press **B** To Set program B. Press **\*** To Set program **\***.

Once the program that needs to be altered has been selected, the following status LED's will light.

**DAY LED** means Program **A** Selected. **PA LED** means Program **B** Selected. **TAMPER LED** means Program \* Selected.

Zone Lights 1 to 4 will flash to prompt for a selection of keys 1 to 4 to program the relevant program settings.

Press 1 To Set-up Immediate zones.
Press 2 To Set-up Timed Zones.
Press 3 To Set-up Time Inhibited zones.
Press 4 To Set-up the Exit Mode.
Press 2 To return to Engineer Menu

#### 4.1.1 Setting Up Immediate Zones

On entering Set-up Immediate Zones, the zones that are currently set-up as immediate zones will have their respective zone LED's lit.

Pressing the key number that represents the zone to be added or removed from the list of immediate zones will toggle whether that zone is an immediate zone or not. The zone LED will be lit if it is set as an immediate zone, and extinguished if not.

Press A To Accept / B To Abort the changes.

# 4.1.2 Setting Up Timed Zones

On entering Set-up Timed Zones, the zones that are currently set-up as timed zones will have their respective zone LED's lit.

Whether a zone is a timed zone or not is carried out in the same way as immediate zones, by pressing the key number for the zone that needs to be toggled to become a timed zone or not.

Press A To Accept / Press B To Abort the changes.

### 4.1.3 Setting Up Time Inhibited Zones

On entering Set-up Time Inhibited Zones, the zones that are currently set-up as time inhibited zones will have their respective zone LED's lit.

Whether a zone is a time inhibited zone or not is carried out in the same way as immediate zones, by pressing the key number for the zone that needs to be toggled to become a time inhibited zone or not.

Press **A** To Accept / Press **B** To Abort the changes.

#### 4.1.4 Setting Up the Exit mode

On entering Set-up the Exit mode, zone LED's 1, 2, 3, or NONE will be lit. The function represented by the LED's is as follows:

LED 1 = Timed exit. LED 2 = Final Door set. LED 3 = Immediate/Silent set. NO LEDS means this program is disabled.

Press 0 To Select no exit mode.
Press 1 To Select Timed exit mode.
Press 2 To select Final Door set mode.
Press 3 To select Immediate/Silent set mode.
Press 2 To return to Engineer Menu.

Press **A** To Accept / Press **B** To Abort the changes.

# 4.2 Setting Up Zone Attributes.

Set-up Zone Attributes menu is entered from the Engineers menu, by pressing Key **2**.

Each of the zones has 9 Attributes that dictate its function, that are fixed regardless of what the program set-up has.

On entering the set-up Zone Attributes menu, the Day LED will flash, along with all 8 zone LED's. This is to prompt the engineer to select the **zone number** for which to set the attributes.

Once the zone number is entered, the Day LED will stop flashing and the zone LED's will be lit according to the zone attributes that are selected. The attributes are as follows:

Zone LED 1 – On for Chime. (Key 1) Zone LED 2 – On for OMIT. (Key 2) Zone LED 3 – On for double knock. (Key 3) Zone LED 4 – On for normally open loop. (Key 4) Zone LED 5 – On for Fire Zone. (Key 5) Zone LED 6 – On for Doorbell. (Key 6) Zone LED 7 – Not Used. Zone LED 8 – On for zone disabled. (Key 8) Tamper LED – On for Utility output A. (Key 9) PA LED – On for Utility output B. (Key 0)

Pressing the Key number that represents the LED number will toggle that attribute.

Press **A** To Accept / Press **B** To Abort the changes.

This will then return the engineer back to the Engineers  $\ensuremath{\mathsf{Menu}}$  .

#### 4.3 Setting Up the Exit timer.

Set-up Exit Timer menu is entered from the Engineers menu by pressing Key **3**.

The Exit timer may be programmed from 0 seconds to 99 seconds.

On entering the set-up Exit timer menu, the Day LED will be extinguished, and Zone 1 & 2 LED's will light, to prompt for a 2-digit number between 00 and 99 for the Exit time in seconds. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

Press **A** To Accept / Press **B** To Abort the changes.

# 4.4 Setting Up the Entry timer.

Set-up Entry Timer menu is entered from the Engineers menu, by pressing Key **4**.

The entry timer may be programmed from 0 seconds to 99 seconds.

On entering the set-up Entry Timer menu, the Day LED will be extinguished, and Zone 1 & 2 LED's will light, to prompt for a 2-digit number between 00 and 99 for the Entry time in seconds. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

Press **A** To Accept / Press **B** To Abort the changes.

#### 4.5 Setting Up the Bell Active timer.

Set-up Bell Active Timer menu is entered from the Engineers menu, by pressing Key **5**.

The Bell Active Timer may be programmed from 0 Minutes to 99 Minutes.

On entering the set-up Bell Active Timer menu, the Day LED will be extinguished, and zone 1 & 2 LED's will light, to prompt for a 2-digit number between 00 and 99 for the Bell Active time in minutes. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

Press **A** To Accept / Press **B** To Abort the changes.

## 4.6 Setting Up the Bell Delay timer.

Set-up Bell Delay Timer menu is entered from the Engineers menu, by pressing Key **6**.

The Bell Delay Timer may be programmed from 0 Minutes to 99 Minutes.

On entering the set-up Bell Delay Timer menu, the Day LED will be extinguished, and zone 1 & 2 LED's will light, to prompt for a 2-digit number between 00 and 99 for the Bell Delay time in minutes. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

Press A To Accept / Press B To Abort the changes.

#### 4.7 Programming Access codes.

Programming Access Codes is entered from the Engineers menu by pressing Key **7** 

Once the Programming Access codes menu has been entered then the Access code to be changed must be selected. The Day LED and zone LED's 1 to 7 will flash to prompt the selection of access codes 1 to 7. The access codes are selected as follows:

Press **1** To Program User Access code 1. Press **2** To Program User Access code 2. Press **3** To Program User Access code 3. Press **4** To Program User Access code 4. Press **5** To Program the Holiday code. Press **6** To Program the Manager code. Press **7** To Program the Engineer code.

Once the Access code to change has been selected, the Day LED will light constantly, and zone LED's 1 to 4 will light to prompt for the 4 digit access code to be entered. For every key pressed, 1 zone LED will be extinguished, indicating the number of digits left to enter of the access code.

Once all 4 digits of the access code have been entered, all of the zone LED's will be extinguished, and the PA and Tamper LED's will be flashing.

Press **A** To Accept / Press **B** To Abort the changes.

#### 4.8 Setting Up the Service timer.

Set-up Service Timer menu is entered from the Engineers menu by pressing KEY **8**.

The service timer is pre-set to 900 closings. The engineer has the option of:

- 1. Enable or disabling the service timer.
- 2. Resetting the service timer.

On entering the service timer menu the zone LED's have the following meaning:

**LED 1** Service Timer enabled. **LED 2** Service Timer disabled. **LED 3** Service Timer Expired.

Press 1 To Enable the service timer.Press 2 To Disable the service timer.Press 3 To Reset and enable the service timer.

Once a key has been pressed, there will be an acknowledgement bleep, and then the panel will be returned back to the engineers menu.

### 4.9 Test Menu.

The Test Menu is entered from the Engineers menu by pressing Key **9**. The alarm panel has several test modes making life a little easier for the installation engineer. They are as follows:

- Press **1** to switch bell drive on.
- Press **2** to switch strobe drive on.
- Press **3** to switch all speakers on.
- Press **0** to switch all outputs off.
- Press 6 to enter walk test.
- Press **9** to show zone status.
- Press **Z** To Exit the Walk Test menu.

On entering the Test menu, All the zone LED's will be switched off, and the PA and Tamper LED's will be flashing, indicating a test must be selected.

# WALK TEST.

On entering the zone walk test, all of the zones will be reset, and all zone LED's will be switched off. The PA and Tamper LED's will be flashing indicating that the engineer is within the walk test function.

Each time a zone is activated or de-activated the internal sounders will bleep. When a zone becomes active, the zone LED's for all active zones will be lit.

Press Z To exit walk test. This will move you back to the test menu, the PA and Tamper LED's will flash. To return to Engineer Menu Press Key Z.

## 4.10 Setting Up the System Flags.

Set up System Flags menu is entered from the Engineers menu, by pressing KEY  ${\bf 0}.$ 

There are 3 system flags that can be set to tailor the way that the system operates.

On entering the set-up system flags menu, zones 2 and 3 LED's will be lit according to the zone attributes that are selected. The flags are as follows:

**LED 2** On for Bell follow. **LED 3** On for Key switch operation (PTS input). **LED 3** Off for Push to set (PTS input).

Pressing the Key number that represents the LED number will toggle that attribute.

Press **A** To Accept / Press **B** To Abort the changes.

# 4.11 Viewing the Event Log.

The Event Log menu is entered from the engineers menu, by pressing  $\mathcal{I}$  key.

The Day LED will be extinguished to indicate Event Log mode.

The Zone, PA and Tamper LED's will now show the latest event. Whichever Zone, PA or Tamper LED is flashing is the first activated, and whichever Zone, PA or Tamper is lit was triggered after the first event, but before the system was un-set.

To navigate through the event log, the following keys are used:

Press 1 To Jump to the oldest event.
Press 2 To move to 1 event older.
Press 3 To move to 1 event newer.
Press 4 To Jump to the newest event.
Press 9 To Reset the event log.
Press 2 To Return to Engineer Menu.

If there are less than 16 events, then it is only possible to scroll between the number of events within the event log.

## 4.12 Changing Chime in Day Mode

Chime is a low security attribute that can be programmed onto any zones. In **Day** mode, the Chime Attribute for each of the 8 zones may be changed in the following manner:

## Press 🎜

All of the zones that will chime when they are activated will have the LED for that zone lit up.

Press the key that represents the zone that the zone attribute requires changing for. This will toggle the LED for that zone. When the LED is lit, that zone will chime when it is activated.

Once the changes have been made then:

Press A To Accept / Press B To Abort the changes.

# **5** Remote signalling

#### **Communicator Terminals**

The **RS** variant of the control panel is fitted with communicator outputs on the top left side of the PCB.

## 13V output

This output, along with the 0V output provides power for a wire on communicator, which is fused at 0.5A. **Note:** Care should be taken to ensure that the maximum load on the power supply is less than 350ma for auxiliary devices such as communicators, passives but excludes the Bell/Strobe outputs.

## Line Fail

This input allows the communicator to inform the panel that there is a line fault.

When the panel is in **DAY** mode a line fail will cause the Tamper LED to flash but will not cause an alarm. A line fault when the panel is **SET** will not cause an alarm, but will cancel any bell delay programmed into the panel.

#### Outputs

There are 6 outputs labelled **FIRE**, **PA**, **INT**, **SET**, **ABORT**, and **CONF**. Each output sits at 12V when not active and is pulled to approximately 0.8V when active. Each output can sink 50ma, giving enough energy to drive a relay if required. These outputs would normally be connected to a STU or communicator.

**FIRE** – This output becomes active (0V) when the panel is activated by a fire input.

**PA** – This output becomes active (0V) when the panel is triggered by:

- 1) PA input becoming active
- 2) Duress code being entered

 $\ensuremath{\text{INT}}$  – This intruder output becomes active (0V) when the panel is triggered whilst the panel is  $\ensuremath{\text{SET}}$ .

**SET** – This output becomes active (0V) when the panel is **SET**.

**ABORT** – This output becomes active (0V) when an alarm condition is reset.

**CONF** – This confirmed output becomes active (0V) when 2 or more zones are triggered when the panel is **SET**.

**Note**: If the communicator or STU is being powered by a separate power supply, the 0V of the external power supply must be connected to the 0V of the alarm panel.

# 5.1 Communicator Test Menu

It is imperative that the system is fully tested before connecting to a communicator or STU and that the Alarm Receiving Centre (ARC) is receiving signals correctly.

The Communicator Test menu is entered from the Engineers menu by pressing Key **9** (Test Menu) and then Key **4**. All zone LED's will be switched off with Day, PA, Tamper and Power LED's all steady.

Press 1 to test Fire output.

- Press 2 to test PA output.
- Press **3** to test Intruder output. Press **4** to test Open/Closed output.
- Press **5** to test Abort output.
- Press **6** to test Confirmed outputs.
- Press **0** to switch communicator outputs off.
- Press **Z** twice to return to Engineers Menu.

Contact		Log		Entry Timer
Site address				Seconds
				Exit Timer
				Seconds
				Bell Timer
				Minutes
	Resistance	Detectors	Area Covered	Bell Delay
Zone 1				Minutes
Zone 2				Installation date
Zone 3				1 1
Zone 4				
Zone 5				Engineer
Zone 6				
Zone 7				
Zone 8				



Due to continuous product development, we reserve the right, without prior notice, to alter specifications as and when required.

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