

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 telephone line and is not visible from the outside of the property. The remote keypads should be located so that the user can access them easily during entry and exit.

1.2 Fixing

Remove the screws securing the polycarbonate front cover, this will allow the lower cover to hinge down (on steel panels remove the central cover fixing screw and slide the cover vertically taking care not to strain the earth bonding strap.)

First disconnect the low voltage AC wires from the PCB and then release 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 2½" screw) and leave protruding ½", mount the box utilising the keyhole, align and secure using 2 off No8 x 2½" screws. Refit the PCB and reconnect the AC wires.

1.3 Pre-installation test

Connect a remote keypad to the RKP terminals on the end station PCB. Observing the correct polarity, connect the battery to the terminals marked Batt + - The panel will now go into alarm condition. Entering the manager code (0123) will silence the system. The Day & Power LED's will be lit with 8 Zones flashing. (LCD will show "Power Up") To reset the panel re-enter the manager code and the Day LED will become steady (DAY mode). Upon completion of initial test, disconnect the battery.

1.4 Wiring Configuration

First determine the wiring configuration: either closed loop or end of line resistor (EOLR). EOLR flag must be selected should you choose to utilise this method.

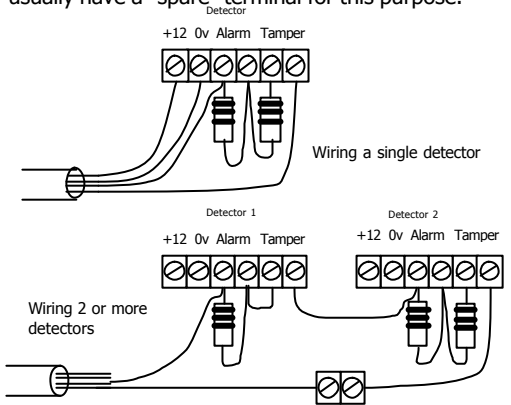
note: The Bell Tamper and RKP tamper loops are always N/C and cannot be changed.

1.5 Closed Loop

Wire each zone in turn making sure to connect the tampers in series then continue to wire, internal & external sounder and strobe and any additional remote keypads.

1.6 EOLR (Fully Supervised Loop)

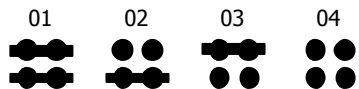
For EOLR mode each detector must have a 2k2 resistor connected across its alarm contacts. In addition, a 2k2 resistor must be connected across the end of the zone wiring, as shown in the following diagram. Note that PIR detectors usually have a "spare" terminal for this purpose.



1.7 RKP's

Up to 4 RKP's (any combination of LED - LCD - LCD Prox) may be wired in parallel with the tamper being wired in series using a single 6-core cable to a maximum of 100 metres. The backplate allows for 360° cable entry, carefully cut away the sidewall using a junior hacksaw.

LCD keypads have an address facility, as supplied each RKP is pre-addressed 01, additional RKP's should be changed to 02, 03 etc.



1.8 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.

1.9 Connecting to a BT Phone Socket

The *Avanti^{XP}* control panel has been designed to be connected to a phone line and can be interrogated on a personal computer using **Dialog** PC software. On installation you should run a solid copper telephone wire from the BT master socket to the control panel.

Connect these conductors to the TIP and RING terminals of the panel – these can be connected either way.



When a phone line rings it can have quite high voltages across it, which may give an electric shock. Please ensure that the phone line is disconnected from the socket whilst you wire it to the panel.

1.10 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 manager code (**0123**) to silence, the Day & Power will be lit and 8 Zone LED's flashing. (LCD will show "Power Up")

To reset the panel re-enter the manager 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.

Note: - To connect *Dialog* PC software remotely via a telephone to *Avanti^{XP}*, it is imperative that the remote access is enabled and a six digit remote access code entered.

Please note that should you wish to Set, Unset & Reset the system remotely the relevant flag must be enabled and written consent should be obtained from the customer.

2 Descriptions

2.1 Security Zones

Avanti^{XP} comes 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. For **EOLR** operation, a supply of 2k2 resistors is included.

2.2 Zone Expander

Avanti^{XP} may be expanded to 24 zones by fitting up to 2 x ZXP 8 Zone **XPanders** (only possible when using **LCD** keypads).

Zone Functions per Program:

Immediate – Use this function 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 should be utilised to allow passage between the entry/exit door and the control panel when there are detectors present.

2.3 Other Zone types

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

Note: -A zone programmed for fire activates only the internal sounder as a warning, it will not signal to an Arc, unless it has been enabled.

PA –A zone may be programmed for either Audible PA or Silent PA and should be wired in series.

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.

Tamper/24H –provides 24 hour monitoring e.g. foil, windows, fire door.

Exit Modes per Program:

Timed Exit – a timed program will **SET** once the exit timer has expired and all zones are clear.

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

Silent Set – an immediate program will **SET** the system silently when all zones are clear.

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

2.4 Tamper (Closed Loop)

Avanti^{XP} 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

2.5 Bell output & Strobe

Connect wires from the external sounder to terminals **D** (bell positive) and **B** (bell negative). The bell tamper should be wired to the **TA** 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 such as **neon** follow the manufacturers instructions.

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

Strobe on setting, when enabled, will flash for 5 seconds.

2.6 Internal sounder

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

2.7 Set+

This output becomes 12V positive on **SET** and is negative on becoming unset.

2.8 13V Supply

This terminal provides a 13.8V output to power detectors and shock sensors etc.

2.9 Service timer

Avanti^{XP} has provision for a service timer which when enabled is time-based. If expired Zones 1–4 will flash (LCD will show "Service Due") when the system is Unset. **Avanti^{XP}** can be Reset & used as normal.

2.10 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**.

Note: - The **PTS** function in **Avanti^{XP}** can be programmed to operate as a doorbell.

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 manager/user code must be entered.

2.11 Disable Bell tamper

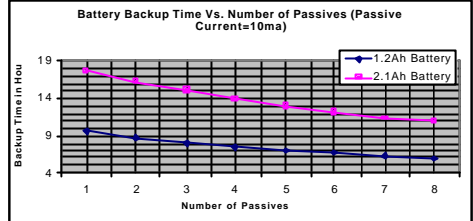
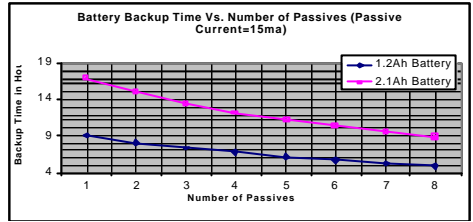
A System Flag option in **Avanti^{XP}** is Disable Bell Tamper.

This feature generates real benefit via **DiaLog** as the Bellbox tamper may be disabled remotely if a problem occurs. It can also be flagged at the panel. This flag is by default disabled.

2.12 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^{XP}** with remote keypad using a **neon** sounder, assuming 1 complete alarm cycle of 20 minutes.



2.13 Battery monitoring

At 1 hour intervals the battery charge voltage (Aux supply to detectors, keypads and ZXPs) is dropped to 10.5V for 2 seconds so that the battery voltage can be measured on-load. A battery low voltage will occur if the voltage is less than 11.0V. The fault will clear once the battery voltage has risen above 11.5V.

2.14 Fault display

There are 3 possible faults:

LED RKP

Z1 (flashing)

Z2 (flashing)

Z3 (flashing)

LCD display

Mains Failed

Tel Line Fail

Batt Low Volts

LED RKP

In Day mode the flashing TAMPER LED indicates a fault. Entry of a valid code will show up to 3 LEDs flashing, prompting the user to accept the fault by re-entering a valid code. This override is then logged in the Event Log.

LCD / LCD Prox Rkp

In Day mode the LCD display will show "Fault" whenever a fault has occurred. Entry of a valid code or presentation of a Fob will list the faults, prompting the user to accept the fault by entering a valid Pin code. This override is then logged in the Event Log.

2.15 Fault Lockout

If there is a fault lockout (say zone tamper) access by pressing Z followed Engineer code.

3 Operation

3.1 Programs

The **Avanti^{XP}** provides the facility for up to 3 programs that can be selected by entering the **A**, **B** or ***** keys after entering the access code when setting the system. By default the A program is used for Full Set timed exit, program B silent set for use at night, and the program ***** is not initialised.

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 manager or user code (4 digits) must be entered and a program selected (**A**, **B** or *****). The exit timer will begin and a series of beeps will sound.

To set the system on a prox keypad offer the Grey keyfob for a full set (Programme A) or the Red keyfob for a part set (Programme B).

Unsetting the System

To **UNSET** the system a user/manager code must be entered, this will return the panel to **DAY** mode. If the external siren is sounding (or has sounded) then entering the user/manager code will silence the sounder. All that is required to **reset** the system is to enter a user/manager code, providing the fault has cleared.

To unset the system with a prox offer the Grey or the Red keyfob.

Fault during setting

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

If the system has a tamper fault the keypad will not respond until the tamper is cleared.

Omitting Zones

To omit a zone a user/manager code must be entered, A program should then be selected 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.

Can only omit if "omit permit" on

Quick Set

This feature allows the panel to be **SET** so that it overrides the programmed exit time. Entering a User/manager code, selecting Program **A/B** or ***** and then pressing **⏸** will cause the panel to **SET** within 2 seconds.

3.3 Access Codes

Avanti^{XP} has the following access codes:
Manager – 10 User Codes - Holiday - Duress - Engineer - Latch key

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 Alarm Log, test the system, programme **Chime** for any zone and authorise Engineer access.

User Access Code – allows the User to **SET** and **UNSET** the system. Any User can also change their own code and allow Engineer access.

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 **accesses** the system. At this point the Holiday Access Code becomes invalid and is no longer accepted by the control panel.

Duress code allows the user the same operation as user codes but will also activate a silent **PA**.

Engineer Access Code – cannot be used to **SET** or **UNSET** the panel, it can only be used to configure the system and view the Alarm Log. Therefore it can only be used from within **DAY** mode (May require authorisation). If flagged the Engineer code can be permanently locked.

Latch key Code - allows the User to **SET**, **UNSET** the system and change their own code. On unsetting a report is sent to the ARC (only with **Advanced Monitoring Mezzanine Xpress Connect** service) irrespective of open /close being flagged

3.4 Keypad tamper

Keypad tamper will activate after 20 invalid key presses. A full alarm condition will be created when system is **SET**, during **DAY** a local tamper alarm will sound.

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**.

3.7 Unset/Set Reporting (Open/Close)

Avanti^{XP} can be flagged to send open/close signals. By default this flag is disabled.

With regards to DD243 the unset signal assists in the filtering of mis-operations (or Abort). For example if an Intruder signal is sent, followed by a Confirmed signal, then by an unset signal within the allocated time, the ARC will treat this activity as a mis-operation.

If you choose not to send unset/set signals *Avanti^{XP}* will report a Restore of the Intruder Alarm & Confirmed Alarm signals when Unset from Alarm by a User. The ARC must be advised to treat a Restore of these signals as a User mis-operation if it occurs within 120 seconds of the Confirmed Alarm signal.

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 To revert to factory defaults, enter engineering mode, press * twice within 2 seconds (on LCD keypads reset NVM is located in the Miscellaneous Menu), *Avanti^{XP}* will then generate an extended acceptance tone.

Method 2 To retain all programming, but **clear** the engineer and manager access codes, disconnect power and remove link/wires between **T** and **A**. Link **Set+** to **T** with lid tamper closed and power up the panel, a confirmation tone will be heard. (**Note:** - If engineer code has been locked only the manager code will revert to factory default.)

3.9 Double Knock

Avanti^{XP} 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.

3.10 Engineer & Anticode Reset

To comply with DD243 a confirmed alarm must be Reset by the Engineer. To utilise Anti-Code Reset both the Anti-Code & Engineer Reset flags must be enabled. The Engineer can still Reset if the Anti-Code flag is enabled.

If Anti-Code has been enabled the user must enter their access code, a four digit quote code will then be created by the Zone LED's (Lcd will show "Quote code is"). To view the sequence again any key may be pressed. An Anti-Code can then be generated via **Dialog** PC software.

3.11 Notes on UDL operation

The major benefit of *Avanti^{XP}* is the ability to control & program the system remotely via **DiaLog** PC software.

Avanti^{XP} must be configured for UDL before **DiaLog** can be utilised. (See UDL Set-Up)

With all UDL systems there is the possibility that the engineer may (via **DiaLog**) inadvertently change some system parameters that result in a false alarm.

For example changing a N/C zone to be N/O will always result in a false alarm. Changing a Security zone to a PA (during DAY mode) will also result in a false alarm. To reduce the incidence of false alarm activations the *Avanti^{XP}* deals with this information uniquely & intelligently.

If such changes are made that conflict with the stability of the system an update will only become active at the time of set/unset. This method reduces false alarms by ensuring that any operational conflict can only occur whilst there is a user at the premises.

3.12 Enable remote access

This flag **must** be set for remote access (UDL) to work at all and a 6 digit remote access code entered (irrespective of what the other flags are set to). If it is clear then the panel will never answer an incoming call.

3.13 Authorise Engineer

If this flag is set **Avanti^{XP}** requires the Manager or User to authorise engineer access. If access has not been authorised then the call will not be answered.

The Manager authorises Engineer as follows: Press **J** enter the Manager code, press **3**, (if LCD scroll through until **Authorise Engineer?** and accept by pressing **A**); panel gives a "confirm" bleep, press **Z** to quit from Manager access. This action starts a 3 hour timer during which both remote and onsite access is permitted.

A User can also authorise Engineer access by entering a valid code followed by Pressing **Z** this will start a 5 minute timer allowing the Engineer to enter his code. This action starts a 3 hour timer during which both remote and onsite access is permitted.

3.14 Ring count

This is a number between 00 and 99. **Avanti^{XP}** will only answer an incoming call once it has seen this number of rings.

3.15 Callback

When **DiaLog** tries to connect to a panel it always passes a call back number (1, 2 or 3) to the panel. If Call Back is flagged at the panel, **Avanti^{XP}** will hang-up the phone line, and dial the specified call back number.

The Call Back number passed by **DiaLog** can be changed from the "UDL set-up" menu. Please note that it is not the actual phone number that is passed, simply an index for the phone number to use.

3.16 Double Call (Fax Defeat)

Double call acts as answer/fax machine or customer defeat. If the telephone line rings 1 – 5 times and then stops ringing, **Avanti^{XP}** will

activate a 20 seconds timer. If the telephone line rings again during this 20 seconds window **Avanti^{XP}** will answer the call immediately and attempt to connect to the remote PC.

Note: If the line initially rings more than 5 times, or the customer answers the call within the 5 rings Avanti^{XP} will not activate the timer.

3.17 Sequential Dialing

The panel makes 5 attempts to communicate with the ARC associated with Account #1, with a delay of 5s between each call. If this is unsuccessful the panel then makes 5 attempts to communicate with the ARC on Account #2, with a delay of 5s between each call, followed by 5 calls to Account #3.

3.18 Alternate Dialing

The panel makes one attempt to communicate with the ARC on Account #1, and if that fails it will make one attempt to communicate with Account #2, followed by Account #3. It repeats this sequence 5 times, with a delay of 5s between each call.

3.19 Line Fail (audible)

When the audible line fail flag has been enabled the panel will produce an error sound every 60 seconds until the panel has been reset by the customer entering a valid access code (LCD) will show "Tel Fail").

See also section 2.14 Faults

3.20 Test Report (automatic)

To fully comply with EN50131/PD6662 you must set the 24 Hour Flag. This will generate a Test Report (24 hours after the last call) through to the ARC.

If you are connecting to **mezzanine XPress Connect** you can select to send a test report every 90 days.

4 Engineer Programming (LED)

Once the engineers access code (9999) has been entered from within DAY mode (Manager Authorisation may be required), 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 engineer's menu.

- Press **1** to Set up the Programs
- Press **2** to Set up Zone Type
- Press **3** to Set up the Zone Attributes
- Press **4** to Set up the Access codes
- Press **5** to Set up the System Parameters
- Press **6** to Set up the Communicator
- Press **7** to Set up the UDL
- Press **8** to Enter the Test Menu
- Press **Z** to Exit back to DAY mode
- Press ***** twice within 2 sec's for Factory Reset
- Press **⏏** to View the Alarm Log

Throughout these instructions whenever you see the icon **A or B** you must either press Key **A** to **accept** the change or press Key **B** to **abort** the change, either returns you to the main engineer menu. Within some menus Pressing **A or B** will only return you to the top of that sub-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**.

Day, PA and Tamper LED's will then 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 flash.

DAY with Leds 1-6 flashing means Program **A** Selected.

PA with Leds 1-6 flashing means Program **B** Selected.

TAMPER with Leds 1-6 flashing means Program ***** Selected.

Zone Lights 1 to 6 will flash to prompt for a selection of keys 1 to 6 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 **5** To Set-up the Exit time
- Press **6** To Set-up the Entry time
- Press **Z** To return to Engineer Menu

Note:- Only zones that have a zone type '**Security**' can be used in a program. An error tone indicates that a zone is not a Security zone.

4.2 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.

A or B

This will then return to the previously selected program
ie:- **A,B** or*

4.3 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.

A or B

This will then return to the previously selected program ie:- A,B or*

4.4 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.

A or B

This will then return to the previously selected program ie:- A,B or*

4.5 Setting up the Exit mode

On entering Set-up the Exit mode, zone LED's 1, 2, 3, 4 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 = Silent exit

LED 4 = Terminated

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 Silent exit mode

Press **4** To select Terminate mode

Press **Z** To return to Engineer Menu

A or B

This will then return to the previously selected program ie:-A,B or*

4.6 Setting up the Exit timer

Set-up Exit Timer menu is entered from the Set up programs menu by pressing **KEY 5**.

The Exit timer may be programmed from 00 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:

A or B

This will then return to the previously selected program ie:-A,B or*

4.7 Setting up the Entry timer

Set-up Entry Timer menu is entered from the Set up programs menu, by pressing **KEY 6**.

The entry timer may be programmed from 00 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:

A or B

This will then return to the previously selected program ie:-A,B or*

4.8 Zone Types

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

On entering the set-up Zone Types menu, the Day LED will flash, along with all 8 zone LED's. Select the Zone Number to be programmed and then select one of the following zone types.

Press – 0 for Not Used (Day LED on)

Press – 1 for Security (Day & LED 1 on)

Press – 2 for PA (Audible) (Day & LED 2 on)

Press – 3 for PA (Silent). (Day & LED 3 on)

Press – 4 for Fire Zone (Day & LED 4 on)

Press – 5 for Tamper (Day & LED 5 on)

Press – 6 for Doorbell (Day & LED 6 on)

A or B

This will then return back to the top of zone types menu KEYING Z will return you to engineer menu

4.9 Setting up Zone Attributes

Set-up Zone Attributes menu is entered from the Engineers menu, by pressing **Key 3**.

Each of the zones has 4 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 permit OMIT (**Key 1**)

Zone LED 2 – On for double knock (**Key 2**)

Zone LED 3 – On for normally open (**Key 3**)

Zone LED 4 – On for Chime (**Key 4**)

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

A or B

This will then return the engineer back to the Attributes Menu.

4.10 Programming Access Codes

Programming Access Codes is entered from the Engineers menu by pressing **Key 4**

The Day LED and zone LED's 1 to 8 will flash to prompt the selection of access codes 1 to 8. Select the access code to be changed from the following options:

- 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 Duress code
- Press **8** To Program the Engineer code
- Press **9** To Program the Latchkey 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.

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.



This will return you to the top of the Access codes menu.

KEYING Z will return you to Engineer menu

Note:-Additional User Access Codes cannot be setup with an LED keypad but can be programmed either via **Dialog** PC software or with the use of an LCD RKP – see Section 9.4 – Codes LCD

5 System

5.1 System Flags

Set up System flags is entered from the Engineers menu, by pressing **KEY 5** followed by **KEY 1**.

There are 7 system flags that can be set to tailor the way that the system operates.

On entering the set-up system flags menu, the DAY LED will be steady.

Toggle the flags are as required:

- LED 1** On for engineer reset.
- LED 2** On for EOLR zones
- LED 3** On for Key switch operation (PTS input)
- LED 3** Off for Push to set (PTS input)
- LED 4** On for Confirmed alarms
- LED 5** On for anti-code reset.
- LED 6** On for Daylight saving
- LED 7** On for Disable Bell tamper
- LED 8** on for PTS as doorbell

A or B

Returns you to the top of System menu.
KEYING **Z** returns to Engineer menu

5.2 Setting up the Bell Active Timer

Set-up Bell Active Timer menu is entered from the Engineers menu, by pressing **Key 5** followed by **KEY 2**.

The Bell Active Timer may be programmed from 00 Minutes to 99 Minutes.

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

A or B

Returns you to the top of System menu.
KEYING **Z** returns to Engineer menu

5.3 Setting up the Bell Delay timer

Set-up Bell Delay Timer menu is entered from the Engineers menu, by pressing **Key 5** followed by **KEY 3**.

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 and zone 1 & 2 LED's will light, to prompt for a 2-digit number between 00 and 99. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

A or B

Returns you to the top of System menu.
KEYING **Z** returns to Engineer menu

5.4 Setting up Confirmed Alarm Time

Set-up Confirmed Alarm time menu is entered from the Engineers menu, by pressing **Key 5** followed by **KEY 4**.

Subsequently, the Day LED and zone 1 & 2 LED's will light, to prompt for a 2-digit number between 30 and 60 for the Confirmed alarm time in minutes. Once the 2-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

A or B

Returns you to the top of System menu, KEYING **Z** returns to Engineer menu

Note:-entering a confirmed alarm time less than 30 minutes or greater than 60 minutes will default the confirmed alarm time to 30 minutes.

5.5 Setting the Clock

Set-up Clock is entered from the Engineers menu, by pressing **KEY 5** followed by **KEY 5**.

Time is entered in a 24hr format, e.g. HHMM. i.e.: - entering 13:30 sets the time to 1:30 PM. Once the 4-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

A or B

Returns you to the top of System menu, KEYING **Z** returns to Engineer menu

5.6 Setting the Date

Set-up Date menu is entered from the Engineers menu, by pressing **Key 5** followed by pressing **Key 6**.

Date is entered as DDMMYYW, where YY is the last 2 digits of the year, and W is the weekday (1 = Monday). The Year is required only for leap year calculation; the weekday is required for Daylight saving calculation.

ie: -2608032 = Tuesday 26th August 2003

Once the 7-digit time has been entered, the **PA** and **TAMPER LED** will flash prompting the engineer to:

A or B

Press To Accept or Abort the changes.
Returns you to the top of System menu,
KEYING Z returns to Engineer menu

5.7 Programming Site Code

Set-up Site code menu is entered from the Engineers menu, by pressing **Key 5** followed by pressing **7**.

Once the Programming Site code menu has been entered the Day LED and zone LED's 1 & 2 will light to prompt the selection of a 2-digit site code.

Enter a 2-digit site code. All zone LED's will now extinguish, and the PA and Tamper LED's will flash prompting the engineer to.

Press **A or B** To Accept or Abort the changes.
Returns you to the top of System menu,
KEYING Z returns to Engineer menu.

5.8 Advanced System Flags

Set-up Advanced system flags is entered from the Engineers menu by pressing **Key 5** followed by **8**.

KEY 1 to Disable keypad unset **A or B**

KEY 2 to disable Confirmed alarm on entry **A or B**

Note:- Keypads are disabled only if keyswitch I/P programmed

KEY 3 to Lock engineer code **A or B**

KEY 4 to activate Strobe on Set **A or B**

KEY 5 to Enable service timer **A or B**

6 Communicator

6.1 Communicator set up

Set up the communicator menu is entered from the Engineers menu, by pressing **KEY6**.

When the Set-up Communicator menu has been selected, Day LED will be **steady** and zones 1to 8 LED's will **flash** to prompt the engineer to select which of the options to set up.

Set up digi-format **KEY 1** followed by either
(0 disabled) (1 SIA)
(2 Contact ID) (3 BSIA)

Arc Phone No 1 **KEY 2** (max 20 digits) **A or B**
 Arc Phone No 2 **KEY 3** (max 20 digits) **A or B**
 Arc Phone No 3 **KEY 4** (max 20 digits) **A or B**
 Arc Account 1 **KEY 5** (max 4 digits) **A or B**
 Arc Account 2 **KEY 6** (max 4 digits) **A or B**
 Arc Account 3 **KEY 7** (max 4 digits) **A or B**

Alternate dialling **KEY 8** Followed by **KEY1** **A or B**

Line fail audible warning **KEY 8** Followed by **KEY2**

Report open/close **KEY 8** Followed by **KEY3** **A or B**

Report fire **KEY 8** Followed by **KEY4** **A or B**

Report SIA Names **KEY 8** Followed by **KEY5** **A or B**

24Hour Test call **KEY 8** Followed by **KEY6** **A or B**

90Day Test call **KEY 8** Followed by **KEY7** **A or B**

6.2 Reporting Codes

BSIA 8 Channel		SIA		Contact ID	
C	Description	Alarm Code	Restore Code	Alarm Code	Restore Code
1	Fire	FA	FH	110	110
2	PA	PA	PH	120	120
3	Intruder	BA	BH	130	130
4	Set/unset	OL	OP	400	400
5	Tamper	BT	BJ	137	137
6	Isolate (Bypass)	BB	BU	573	573
7	Confirmed	BV	None	139	139
8	Mains Fail	AT	AR	301	301
	Battery Low Voltage	YT	YR	302	302

7 UDL

7.1 UDL Set up

Set up the UDL is entered from the Engineers menu, by pressing **KEY 7**.

When the Set-up UDL menu has been selected, Day and zone LED's 1-7 will **flash** to prompt the engineer to select which of the options to set up.

Local Flags

KEY 1 Then toggle LEDs
1 to enable remote access
2 to enable remote set, unset, reset.

Press **A or B** To Accept or Abort the changes.
Returns you to the top of UDL menu, KEYING Z returns to Engineer menu

Remote Flags

KEY 2 Then toggle LEDs
1 for manager authorise
2 to enable call back **A or B**
3 to enable double call

Press **A or B** To Accept or Abort the changes.
Returns you to the top of UDL menu, KEYING Z returns to Engineer menu

KEY 3 to program remote access code (6 digits) **A or B**

KEY 4 to set No of rings before answer (max 99) **A or B**

KEY 5 to enter call back phone No 1 (20 digits) **A or B**

KEY 6 to enter call back phone No 2 (20 digits) **A or B**

KEY 7 to enter call back phone No 3 (20 digits) **A or B**

KEYING Z returns to Engineer menu **A or B**

Note: - To connect Dialog PC software remotely via a telephone to the panel, it is imperative that the remote access is enabled and a six digit remote access code entered.

8 Test Menu (LED)

The Test Menu is entered from the Engineers menu by pressing Key **8**.

When the Test menu has been selected the DAY LED will flash.

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 **4** to set +ve
- Press **0** to switch outputs off
- Press **5** to test Communicator
- Press **6** to Walk Test

Communicator Test

Refer to section 6.1 to setup the format, ARC telephone No and account No before starting test

Press **5** to enter Communicator test

Select channels to be tested between 1 & 8.

Relevant zone LED's will indicate. Press **A** to begin the test procedure, PA will be lit also.

Avanti^{XP} will now wait for a Success or Failure tone via the RKP.

After the success or failure of the test **Avanti^{XP}** will send a restore signal on channels tested, DAY, PA, Tamper & relevant zone LED's will be lit. **Avanti^{XP}** will again wait for a Success or Failure tone via the RKP.

Once the test is complete **Avanti^{XP}** will return to the top of the test menu: indicated by flashing Day LED. Press **Z** for Engineers Menu.

Note: No zone information is sent during a test. Test may take 20-40 seconds. Please ensure correct ARC information has been inputted.

BSIA channel numbers, SIA and Contact ID event codes transmitted during test.

Press **6** to enter walk test

On entering the zone walk test, all zones will be reset, and all LED's will be switched off.

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. To return to Engineer Menu Press Key **Z**.

C	BSIA 8 Channel Description	SIA		Contact ID	
		Alarm Code	Restore Code	Alarm Code	Restore Code
H	1 Fire	FA	FH	110	110
	2 PA	PA	PH	120	120
	3 Intruder	BA	BH	130	130
	4 Set/unset	OL	OP	400	400
	5 Tamper	BT	BJ	137	137
	6 Isolate (Bypass)	BB	BU	573	573
	7 Confirmed	BV	None	139	139
	8 Mains Fail	AT	AR	301	301
	Battery Low Voltage	YT	YR	302	302

9 Engineer Programming (LCD)

The programming of **Avanti^{XP}** is accessed via menus, as each menu is called up the screen shows the menu name and the option. [**A**] key accepts or selects, the [**B**] key scrolls to the next option, the[*] key returns to previous option and the [**Z**] always quits menu.

When entering numbers [**A**] accepts, [**B**] backspaces [**Z**] quits.

When entering names [**A**] accepts, [**B**] backspaces [**Z**] quits without changing the name. Text is entered the same as a mobile phone, the [**♪**] key toggles capitals, ABC-abc.

From **DAY** mode enter engineers access code (**9999**) (user authorisation may be required), the Display will scroll the following screens.

Pressing **A** will enter **Help**

**Show help?
[A] for YES**

Pressing **B** will enter **Engineering**.

**Show help?
[B] for NO**

For Help Press key '**A**'.

**In help screens,
[B] for next page**

Then Pressing key '**B**' will cycle you through the remaining help screens.

**Or [Z] key
to QUIT help.**

In Menus...

**[B] key gives
Next option**

**[*] key gives
PREVIOUS option**

Then finally Press key '**B**' to return you to the Engineer menu.

**This is the end
Of the help page**

**[Z] key always
QUITS menu**

Engineer menu screen.

**XP ENGINEER MENU
Setup Programs?**

9.1 Menus (LCD)

On entering ^{Menu 1} the Engineer menu Press key '**A**' to enter Setup programs or '**B**' to view next menu.

**XP ENGINEER MENU
Setup Programs?**

Press the '**B**' key until the required menu option is showing then press '**A**'.
note:- By pressing numbers 1 through to 9 you can access directly to the menu you require.

Menu 2

**XP ENGINEER MENU
Setup Zones?**

Menu 3

**XP ENGINEER MENU
Setup Codes?**

Menu 4

**XP ENGINEER MENU
Setup System?**

Menu 5

**XP ENGINEER MENU
Setup Digi?**

Menu 6

**XP ENGINEER MENU
Setup UDL?**

Menu 7

**XP ENGINEER MENU
Test System?**

Menu 8

**XP ENGINEER MENU
View Event Log?**

Menu 9

**XP ENGINEER MENU
MISC menu**

Press the '**B**' key until the required menu option is showing then press '**A**'

**MISC MENU
Show Help?**

Pressing '**Z**' quits and returns you to Day.

**XP ENGINEER MENU
Alarm Co. Info?**

**XP ENGINEER MENU
Reset Nvm**

Press the '**A**' to quit and return to Day. A **Bleep** will confirm

**XP ENGINEER MENU
Quit Engineer?**

9.2 Programs (LCD)

There are a three programs options.

Program A Program B Program *

Press key **A**.

**XP ENGINEER MENU
Setup Programs?**

Press the '**B**' key until the required program option is showing then press '**A**'.

Zone functions:-

Timed - Not used - Inhibited Immediate -

Press key '**A**'.

**SETUP PROGRAM
Zone Functions?**

Press the '**B**' key until the required zone number is showing then press '**A**'. **Note:-** Only security zones will be listed.

**SELECT ZONE
Zone 1?**

Press the '**B**' key until the required zone function option is showing then press '**A**'.

**ZONE FUNCTION
Timed Zone?**

Each Zone will then be scrolled in turn

Press the '**A**' key.

**SELECT ZONE
Finished?**

**Exit Modes:-Timed exit - Final door
- Silent Terminated - Disabled**

Press the '**A**' key to enter Exit mode menu.

**SELECT PROGRAM
Exit Mode?**

Press the '**B**' key until the required exit mode option is showing then press '**A**'.

**SELECT PROGRAM
Timed Exit?**

Press the '**A**' key to select exit timer.

**SELECT PROGRAM
Exit Time?**

To change the exit time to 15 seconds, enter 1 then 5 then press '**A**' to accept the change.

**EXIT TIME ?
?20**

Entry time is entered in a similar way
Repeat the above for Programs '**B**' and '*'

9.3 Zones (LCD)

Press key '**A**'

**XP ENGINEER MENU
Setup Zones?**

Press the '**B**' key until the required zone number is showing then press '**A**'

**SELECT ZONE
Zone 1?**

Press key '**A**' to access zone name.

**SETUP ZONE
Name?**

To edit current name press '*' to delete, then enter new zone name then press '**A**'.

**ZONE NAME
?Zone 1**

Zone types:- There are a seven zone types all are programmed in a similar way.

**Security - PA Audible - PA Silent - Fire
Tamper/24H - Doorbell - Not used**

Press key '**A**' to access zone type.

**SETUP ZONE
Type?**

Press the '**B**' key until the required zone type is showing then press '**A**'.

**SELECT ZONE TYPE
Security?**

Press key '**A**' to access zone flags.

**SETUP ZONE
Flags?**

Press the '**B**' key until the required Flag is showing then press '**A**' to select

**SELECT FLAG
Chime?**

**Flag options:- Omit Allowed-Double Knock-
Normally open - Chime**

To change flag, press key '**B**' to toggle ON or OFF then press key '**A**' to accept change.

**Chime
OFF**

Press key '**A**' when finished.

**SELECT FLAG
Finished?**

Repeat for each flag option

Press key '**A**' when finished setting up zone.

**SETUP ZONE
Finished?**

Press key '**A**'.

**SELECT ZONE
Finished?**

9.4 Codes (LCD)

Access codes:-

There are fifteen access codes all are programmed in a similar way.

User codes 1 to 10 -Holiday 11-Manager 12

Duress 13 – Engineer14 - Latch key 15

Press key 'A'.

**XP ENGINEER MENU
Setup Codes?**

Press the 'B' key until the required User is displayed then press 'A'.

**SELECT CODE
User 1?**

To edit name press the 'A' key.

**SETUP CODE
Change Name?**

To delete current name press '*', to backspace press 'B', then enter new user name then press 'A'.

**USER NAME
?User 1**

To enter change code press the 'A' key.

**SETUP CODE
Change Code?**

Enter a four digit code then press the 'A' key to accept the change.

**USER CODE
----**

Note:-If a code already exists display will show ****

Press key 'A' to assign a keyfob.
(Prox keypads only)

**SETUP CODE
Assign Keyfob?**

On presenting a Grey keyfob a confirmation beep will sound.

Present Grey Fob

On presenting a Red keyfob a confirmation beep will sound.

Present Red Fob

To delete a code press the 'A' key to confirm code deleted.

**SETUP CODE
Delete Code?**

Press key 'A' to delete keyfob.

**SETUP CODE
Delete Keyfob?**

Press key 'A' to scroll to next User.

**SETUP CODE
Finished?**

Each User can then be scrolled in turn

9.5 System Flags (LCD)

System flags:-

There are a number of system flags all are programmed in a similar way.

Engineer Reset - EOLR Zones
Keyswitch - Confirmed alarm
Anti code reset - Daylight saving
Disable bell tamper- PTS as Doorbell

Programming examples of System Flags.

Press 'A' to enter system menu.

**XP ENGINEER MENU
Setup System?**

Press 'A' to enter Flags sub menu.

**SETUP SYSTEM
Flags?**

Press 'B' until the required System Flag option is showing then press 'A'.

**SELECT FLAG
Engineer Reset?**

To change a flag, press key 'B' to toggle ON or OFF then press key 'A' to accept change.

**Engineer Reset
ON**

Repeat for each flag option

9.6 System (LCD)

System options:-

There are a number of options, all are programmed in a similar way.

Bell time	Bell delay
Confirm time	Set time
Set date	Site code

Example of System options Bell Time.

Press 'A' to enter system menu.

XP ENGINEER MENU
Setup System?

Press 'A' to view current Bell time.

SETUP SYSTEM
Bell Time?

Enter required bell time then press key 'A'.

Bell Time
14?

Example of System options set Time/Date.

Press 'A' to enter system set time menu.

SETUP SYSTEM
Set Time?

Key in the required time then press key 'A'.
ie:- for 3.30 PM enter 15 30.

Set Time HH:MM
15:30

Press key 'A' to enter set date.

SETUP SYSTEM
Set Date?

Select day by pressing the 'B' key until the correct day is showing then press key 'A'.

SELECT DAY
Monday?

Key in the required date, month and year then press key 'A'.

Date DD/MM/YY
03/01/04

ie:- for 3rd Jan 2004, enter 03 01 04.

9.7 Advanced Flags (LCD)

System options:-

There are a number of options, all are programmed in the same way.

No Code unset (Disables Rkp on unset DD243)	No C/A on Entry (no confirmed alarm on entry)
Strobe on Set	Lock Engineer code
Service Timer	Enable Zone expander

Example of Advanced Flags option No Code Unset.

Press key 'A' to enter Advanced Flags menu.

SETUP SYSTEM
Advanced Flags?

Press the 'B' key until the required flag is showing then press 'A'.

SELECT FLAG
No Code Unset?

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept the change.

No Code Unset
OFF

Example of Advanced Flags option Strobe on Set.

Press the 'B' key until the required flag is showing then press 'A'.

SELECT FLAG
Strobe on Set?

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept the change.

Strobe on Set
OFF

9.8 System set up Digi (LCD)

Digi Formats:

SIA - Contact ID - BSIA Fast format.

Press key 'A' to enter Digital communicator menu.

**XP ENGINEER MENU
Setup Digi?**

Press key 'A' to enter Digital communicator formats.

**SETUP DIGI
Format?**

Note:- You may set up to three ARC telephone numbers and Accounts.

Press the 'B' key until the required Digi format is displayed then press 'A' to select.

**SELECT FORMAT
BSIA 8 Channel?**

Press key 'A' to enter ARC telephone #1 or 'B' to scroll to ARC #2 or #3 then press 'A' to select.

**SETUP DIGI
ARC Phone #1?**

Enter required ARC telephone number then press key 'A'.

ARC Phone #1?

Press key 'A' to enter ARC account #1 or 'B' to scroll to ARC #2 or #3 accounts then press 'A' to select.

**SETUP DIGI
Account #1?**

Digi flags:- There are a number of flags, all are programmed in a similar way.

**Audible Line fail
Report Fire
24Hour Test**

**Report unset/set
Report SIA names
90Day Test**

Example of Digi Flags option Audible line fail.

Press key 'A' to enter Digi flags menu.

**SETUP DIGI
Flags?**

Press the 'B' key until the required flag is showing then press 'A'.

**SELECT FLAG
Audible L/Fail?**

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept change.

**Audible L/Fail?
OFF**

9.9 System set up UDL (LCD)

Local flags options:-

There are two flags, both are programmed in the same way.

Enable UDL

Press key 'A' to enter Setup UDL menu

Enable Set/unset.

**XP ENGINEER MENU
Setup UDL?**

Press key 'A' to view or enable local flags.

**SETUP UDL
Local Flags?**

Press the 'B' key until the required flag is displayed then press 'A' to select.

**SELECT Flag
Enable UDL?**

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept change.

**Enable UDL
OFF**

Press key 'A' to select.

**SELECT Flag
Enable Set/Unset?**

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept change.

**Enable Set/Unset?
OFF**

When finished press key 'A'.

**SELECT FLAG
Finished?**

Remote flags:

Manager authorise, Call back, Double call.

Press key 'A' to view or enable remote flags.

**SETUP UDL
Remote Flags?**

Press the 'B' key until the required flag is displayed then press 'A' to select.

**SELECT Flag
Mgr Authorise?**

To change flag, press key 'B' to toggle ON or OFF then press key 'A' to accept change.

**Mgr Authorise
OFF**

Press key 'A' to change remote access code.

**SETUP UDL
Remote Code?**

Enter a six digit code then press the 'A' key to accept.

Remote Code

When finished press key 'A'.

**SETUP UDL
Finished?**

9.10 Test Menu (LCD)

Test:- Bell - Strobe - Speaker - Digi - Set +

Press key 'A' to enter Test menu.

**XP ENGINEER MENU
Test System?**

Press key 'A' to test bell.

**TEST SYSTEM
Bell?**

Press any key to stop, and scroll to next test.

**Bell is ON
Press any key**

Press key 'A' to test strobe.

**TEST SYSTEM
Strobe?**

Press any key to stop, and scroll to next test.

**Strobe is ON
Press any key**

Press key 'A' to enter walk test menu.

**TEST SYSTEM
Walk Test?**

On entering walk test this screen will be presented showing any zones that have been tested.

Walk Test

As you walk test each zone a confirmation bleep will sound, the screen will show the last zone tested.

**ZONE TESTED
Z1:Frontdoor**

Press key 'A' to enter Then press 'B' to review zones previously walk tested.

**TEST SYSTEM
View Walk Test?**

9.11 Event Log 256 (LCD)

Press key 'A' to enter event log.

**XP ENGINEER MENU
View Event Log?**

On entering the event log this screen will show that you are at the start of the event log. Press key 'B' to view most recent event .

Engineer Start

Shows restore sent to ARC.

**Intruder Restore
3:Lounge**

Press key 'A' to view the time and date of the event.

**Time:16:21
Date:25/July**

Press key 'B' to view the previous (older) event, this screen shows who disarmed the system (user 2, Peter).

**Disarm Alarm(NC)
2:Peter**

Press key 'B' to view the previous event, this screen shows the zone that caused the activation (zone 3, Lounge).

**Intruder Alarm
3:Lounge**

Press key 'A' to view the time and date of the event.

**Time:10:15
Date:25/July**

Press key 'B' to view the previous event, press key '*' to view the next newer event. Press Z to quit.

9.12 Miscellaneous Menu (LCD)

**Help file:- mdt phone No - Alarm co info
Check Fob - Reset NVM**

Press key 'A' to access company information.

**XP ENGINEER MENU
Alarm Co.Info?**

Key the required text and then press 'A'.

**First Line Text
?**

Key the required telephone number and then press 'A'.

**Second Line Text
?**

Press key 'A' to clear the NVM and revert to factory defaults.

**XP ENGINEER MENU
Reset Nvm?**

10 Appendices

10.1 *Avanti*^{XP} Specifications

8 ZONES EXPANDABLE TO 24

All fully programmable + tamper
6 types including Security, Fire, Tamper, Audible PA, Silent PA and Doorbell

Attributes N/O, Double knock, permit omit, chime

REMOTE KEYPAD

Up to 4 backlit remote keypads LED, LCD or LCD Prox. LCD RKPs with built in HELP FILE
Up to 2 ZXP zone XPanders

TAMPER

Normally closed or fully supervised using EOLR

PROGRAMS

3 part set programs with independent Entry/Exit times

ACCESS CODES

Engineer-Manager-Duress-Holiday-10 User-Latch key codes

RE-SET

Programmable anti-code, engineer or remote reset facility

PTS INPUT

Dedicated push to set/keyswitch input

ALARM/EVENT LOG

16 Alarm activations recall
256 Event log: time and date stamped

OUTPUTS

Bell (TADB), Strobe, Sounder (Hi-Lo), Set+ Dry contacts relay output option

CHIME

All zones can be programmed for chime

COMMUNICATOR

Integrated digi-modem BSIA fast format, Contact ID, SIA, 3 account codes.
Confirmed alarm reporting to DD243 2002

UDL

Remote upload/download via **Dialog** downloader PC software
3 ringback phone numbers
2400 baud (upload 3 secs, download 6 secs)

RECHARGEABLE BATTERY

2.1 Ah polycarbonate endstation,
7 Ah steel endstation

DIMENSIONS

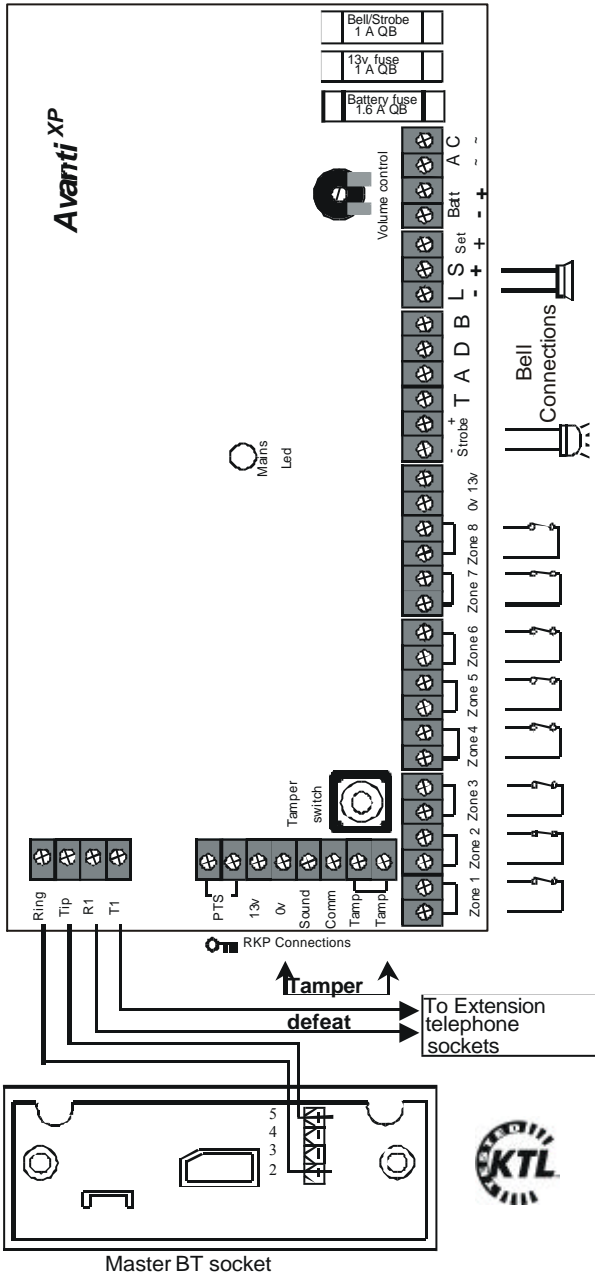
CPU polycarbonate: 235 x 180 x 58 mm
CPU steel: 245 x 245 x 80 mm
RKP: 132 x 95 x 95 mm

EN50131-1	Grade 2
EN50131-2	Environmental Class II indoors
Mains Supply Voltage	230V(+10%,-15%)at 50Hz
Max Mains current	200mA
Max output current	550mA (combination all outputs)
Output Voltage(s)	13.8 nominal
Max ripple voltage	0.7V pk-pk
Battery type	Sealed lead acid Polycarbonate 2.1Ahr Steel 7Ahr
Battery low voltage Fault	Operates at 11.0V, releases at 11.5V

PRODUCT CODES

Avanti ^{LC} ES Polycarbonate	9EP308
Avanti ^{LC} ES Steel	9EP309
Avanti ^{XP} ES Polycarbonate	9EP320
Avanti ^{XP} ES Steel	9EP321
Avanti ^{XP} 8 zone XPander pcb	9EP340
Avanti ^{XP} 8 Z XPander boxed	9EP341
Avanti LED RKP	9EP310
Avanti LCD RKP	9EP311
Avanti LCD/Prox RKP	9EP312
Avanti R4B Fob	9EP314

10.2 Avanti^{XP} PCB Layout



10.3 FACTORY DEFAULTS

User codes 1-10 not used
Holiday code not used
Manager code 0123
Duress code not used
Engineer code 9999
Latchkey code not used
Site code 00
Entry time 30 sec's
Exit time 30 sec's
Bell delay 0 sec's
Bell time 14 mins

Flags

PTS input = PTS
Engineer reset disabled
Anti-code reset disabled
Confirmed alarms disabled
EOLR disabled
Service timer disabled
Remote access disabled
Strobe on set disabled
Lock engineer code disabled
Zone Xpanders ZXP1 & ZXP2 disabled
24Hour Test disabled
90Day Test disabled
Z1:- Double knock disabled
Normally closed
Zone enabled
Not a chime zone

Z2, Z3, Z4, Z5, Z6, Z7, Z8:-
Double knock disabled
Normally closed
Zone enabled

Zones 9 – 24 not used

Program A:-

Z1 Timed
Z2 Time inhibited
Z3-8 Immediate
Exit mode timed

Program B:-

Z1 Timed
Z2 Time inhibited
Z3-6 Immediate
Z7-8 not used
Exit mode silent

Program *:- not initialised

10.4 Avanti ZXP

The ZXP is a Zone Expansion module for use with the **mdt Avanti^{XP}** control panel. Each ZXP has 8 zones and a separate tamper circuit. Up to 2 ZXP's can be connected to an **Avanti^{XP}** panel to give a total of 24 zones.

10.5 Compatibility

The ZXP is compatible with **Avanti^{XP}** control panels that have version 6.0 (or later) software, and have LCD keypads.

The ZXP must not be used on XP panels that have LED keypads, since it will not be possible to view alarms on zones 9 to 24, and certain Engineer Programming operations are restricted to 8 zones only.

A "V6.0" sticker on the outer cardboard box identifies version 6.0 panels. Please ensure that you have a version 6.0 control panel before starting installation. Note that a version 5.0 panel cannot be upgraded to version 6.0 just by changing the processor – other components need to be changed too.

To carry out upload and download to a version 6.0 panel you will need **Dialog** PC software version 6.0 or later. To obtain an update to **Dialog** contact **mdt**.

10.6 Mounting

The ZXP module is supplied as a bare (unpacked) printed circuit board (PCB) or in a standard double gang mains back box. Self-adhesive pillars are provided for mounting the PCB in a box.

10.7 Panel Connection

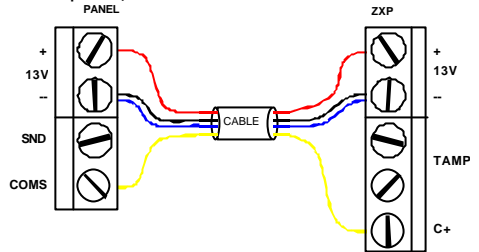
The ZXP connects to the control panel via the 3 keypad bus connections, +13V- and COMS, using standard 4-core alarm cable. The COMS wire from the panel should connect to the "C+" terminal of the ZXP. It is not necessary to run a tamper loop to the ZXP, although TAMP terminals are provided for the purpose.

The cable should not be run close to mains wiring, telephone wiring, or other computer wiring, as this may interfere with the correct operation of the ZXP.

The ZXP can be located up to 100m from the control panel provided that this is the only device connected to the cable.

When 2 ZXP's, or 1 ZXP and 1 LCD keypad, are connected to the same cable the maximum length is 50m. This can be doubled to 100m by using 2

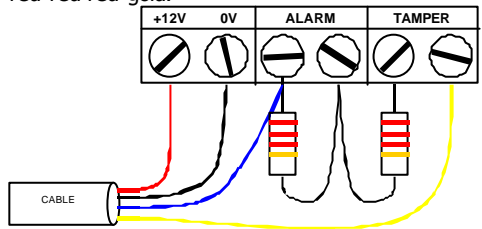
cores twisted together to connect the 0V to the control panel, as shown below.



10.8 Zone Inputs

The ZXP's 8 zone inputs can operate as either Normally Closed Loop (NC) or End-Of-Line Resistor (EOLR). The mode of operation is determined by the control panel flag called "EOLR Zones". When this is set ON all control panel and all ZXP zones will operate as EOLR zones. It is not possible to have some NC zones and some EOLR zones. The advantage of using EOLR zones is that the control panel can indicate a tamper fault on a specific zone. Using NC zones the panel can only indicate a general tamper fault, leaving you to determine where the fault is.

When used, EOLR Zones should be wired using the supplied resistors as shown below. Both resistors have the same value, and have the colour code red-red-red-gold.



10.9 Tamper Zone

The ZXP has a separate tamper circuit (labelled TAMP) for use when NC zones are used. This circuit is always a NC loop circuit, it cannot operate as EOLR. If this circuit is not used a wire link should be fitted between the terminals.

10.10 Box Tamper Detection

The ZXP has 2 ways of monitoring for a box tamper. If the ZXP is mounted in a shallow box, such as a double gang mains back box, then the tamper spring will close the tamper switch and provide a box tamper detection. If the ZXP is mounted in a deep box, such as a PSU box that has its own tamper switch, then the tamper switch should be wired to the ZXP's "BTAMP" terminals. If you do not intend to use the box tamper, then a wire link should be placed in the "BTAMP" terminals.

10.11 +13V- Terminals

These terminals provide power for detectors. Up to 80mA @ 13V is available. Do not connect any device that has a large current demand (such as an electronic door release) to these terminals.

10.12 Addressing

When 2 ZXP's are connected to a panel each ZXP must have a different address, which is set by the ADDRESS jumper. With the jumper in place the ZXP will have address 1, giving zones 9 to 16. With the jumper removed the ZXP will have address 2, giving zones 17 to 24.

It is permissible to enable ZXP 2 (zones 17 to 24) even though ZXP 1 (zones 9 to 16) is disabled.

LCD Keypads use a different addressing scheme, so it is Ok to have a ZXP address 1, and an LCD keypad address 1.

10.13 LED Indications

The red "POWER" LED will light when the ZXP has power supplied to it. The green "OK" LED will light when the ZXP successfully communicates with the control panel. This can be used as an aid to fault finding, see later.

10.14 Panel Programming

By default Zones 1 to 8 (the standard control panel zones) have a Zone Type of "Security", and all 8 zones are used in Program A (the Full Set). By default Zones 9 to 24 have a Zone Type of "Not Used", and are not used in any of the Programs. To enable a zone you must change its type to something other than "Not Used" as follows: XP Engineer Menu → Setup Zones → Select Zone → Type → Security (etc)

If you change a zones type to "Security" then you must also add the zone into one or more Programs, as follows:

XP Engineer Menu → Setup Programs → Select Program → Zone Functions → Select Zone → Immediate (etc).

If you enable any zone in the range 9 to 16 then you must also enable ZXP 1. Similarly, if you enable any zone in the range 17 to 24 you must also enable ZXP 2. The ZXP's are enabled in the "Advanced Flags" menu as follows:

XP Engineer Menu → Setup System → Advanced Flags → Enable ZXP 1 → ON

10.15 Walk Test

The Walk Test in version 6.0 control panels has been changed so that all 24 zones (and tampers in EOLR operation) can be tested. In addition the ZXP's dedicated tamper circuits (Zone and Box tamper) can be walk tested by the Engineer. Note that for a zone to be walk tested it must first have been enabled.

A new menu option "View Walk Test" allows you to view the results of the last walk test.

10.16 New Events

The following events relating to ZXP faults can now be logged in the Event Log, and may be seen in the Alarm Cause display (displayed to the customer after an alarm condition):

ZXP Failed – Communications to ZXP have failed. See the fault finding guide.

ZXP Tamper Zone – Zone Tamper circuit open.

ZXP Box Tamp – Box Tamper open.

The above events also have corresponding "Restored" events.

Similar events are also shown in the Fault Lockout display when you attempt to quit from the Engineer Menu when a fault exists.

These ZXP events will also be communicated to the Alarm Receiving Centre (ARC) if the Communicator is enabled. The event codes communicated depend on the Format being used:

	BSIA	Contact ID	SIA
ZXP Failed	Tamper Alarm,	Exp. Module Failure	Exp. Device Missing
ZXP Tamper Zone	also sends Intruder Alarm if system is set	Exp. Module Tamper	Exp. Device Tamper
ZXP Box Tamper		Exp. Module Tamper	Exp. Device Tamper

10.17 ZXP Specification

Operating Temperature	0 to 70°C
Voltage	12V to 15V
Current	20mA

(not including current drain from detectors)

10.18 Fault Finding

"POWER" LED is off

- no power. Check 13V and 0V terminals for voltage (12 to 15V) and correct polarity.

"OK" LED is off

- No power. Check the POWER LED and see above.
- Wrong version of panel software. Check that the panel has version 6.0 or later software.
- The panels "Enable ZXP" flag is OFF. Turn it ON.
- ZXP has incorrect address. Check jumper setting.
- Break or bad connection in COMS wire from panel.
- ZXP is too far from panel.

ZXP Zones will not Walk Test

- ZXP not operating. Check the "OK" LED and see above.
- Zone not enabled. Program the zone type.
- zone is wired for EOLR operation but the "EOLR Zones" flag is OFF. Turn the flag ON.
- Detector wired to wrong zone. Check wiring.
- Faulty or incorrectly wired detector. Check and re-wire.

ZXP Zones will not give an alarm when system is set

- Try to walk test the zone, if this fails see above.
- Zone not added to the Program being used. Add the zone to the correct Program (A, B or *).

Permanent ZXP Failed Fault

- ZXP is not connected. Connect a ZXP or turn OFF the "Enable ZXP" flag.
- ZXP not operating. Check the "OK" LED and see above.
 - Excessive current drain from detector connected to ZXP 13V terminals. Disconnect detectors 13V supply from ZXP to check.
 - ZXP is too far from panel. Double-up the 0V connection between ZXP and panel.

Intermittent ZXP Failed Alarm

- Bad or high resistance connection in wiring from control panel.
- Interference from mains, telephone, or computer wiring located too close to ZXP cable. Move cables apart.
- ZXP is too far from the panel. Double-up the 0V connection between ZXP and panel, or run a dedicated cable to ZXP (see section called "Panel Connection").

Avanti^{XP} V7.0

PD 6662 2004 EN50131-1 Grade 2 Class II

Avanti^{LC}

PD 6662 2004 EN50131-1 Grade 2X Class II

1. Installation

- 1.1 System Design
- 1.2 Fixing
- 1.3 Pre-installation test
- 1.4 Wiring Configuration
- 1.5 Closed Loop
- 1.6 EOLR (Fully Supervised Loop)
- 1.7 RKP's
- 1.8 Mains Connection
- 1.9 Connecting to a BT Phone Socket
- 1.10 Test & Commission

2. Descriptions

- 2.1 Security Zones
- 2.2 Zone Expander
- 2.3 Other Zone types
- 2.4 Tamper (Closed Loop)
- 2.5 Bell output & Strobe
- 2.6 Internal sounder
- 2.7 Set+
- 2.8 13V Supply
- 2.9 Service timer
- 2.10 PTS
- 2.11 Disable Bell tamper
- 2.12 Battery
- 2.13 Battery monitoring
- 2.14 Fault display
- 2.15 Fault Lockout

3. Operation

- 3.1 Programs
- 3.2 Operating
- 3.3 Access Codes
- 3.4 Keypad tamper
- 3.5 Entry Exit timers
- 3.6 On Board PA
- 3.7 Unset/Set Reporting (Open/Close)
- 3.8 Non Volatile Memory (NVM)
- 3.9 Double Knock
- 3.10 Engineer & Anticode Reset
- 3.11 Notes on UDL operation
- 3.12 Enable remote access
- 3.13 Authorise Engineer
- 3.14 Ring count
- 3.15 Callback
- 3.16 Double Call (Fax Defeat)
- 3.17 Sequential Dialing
- 3.18 Alternate Dialing
- 3.19 Line Fail (audible)
- 3.20 Test Report (automatic)

4. Engineer Programming (LED)

- 4.1 Setting up Programs
- 4.2 Setting up Immediate Zones
- 4.3 Setting up Timed Zones

- 4.4 Setting up Time Inhibited zones
- 4.5 Setting up the Exit mode
- 4.6 Setting up the Exit timer
- 4.7 Setting up the Entry timer
- 4.8 Zone Types
- 4.9 Setting up Zone Attributes
- 4.10 Programming Access Codes

5. System

- 5.1 System Flags
- 5.2 Setting up the Bell Active Timer
- 5.3 Setting up the Bell Delay timer
- 5.4 Setting up Confirmed Alarm Time
- 5.5 Setting the Clock
- 5.6 Setting the Date
- 5.7 Programming Site Code
- 5.8 Advanced System Flags

6. Communicator

- 6.1 Communicator set up
- 6.2 Reporting Codes

7. UDL

- 7.1 UDL Set up

8. Test Menu (LED)

9. Engineer Programming (LCD)

- 9.1 Menus (LCD)
- 9.2 Programs (LCD)
- 9.3 Zones (LCD)
- 9.4 Codes (LCD)
- 9.5 System Flags (LCD)
- 9.6 System (LCD)
- 9.7 Advanced Flags (LCD)
- 9.8 System set up Digi (LCD)
- 9.9 System set up UDL (LCD)
- 9.10 Test Menu (LCD)
- 9.11 Event Log 256 (LCD)
- 9.12 Miscellaneous Menu (LCD)

10. Appendices

- 10.1 *Avanti^{XP}* Specifications
- 10.2 *Avanti^{XP}* PCB Layout
- 10.3 FACTORY DEFAULTS
- 10.4 Avanti ZXP
- 10.5 Compatibility
- 10.6 Mounting
- 10.7 Panel Connection
- 10.8 Zone Inputs
- 10.9 Tamper Zone
- 10.10 Box Tamper Detection
- 10.11 +13V- Terminals
- 10.12 Addressing
- 10.13 LED Indications
- 10.14 Panel Programming
- 10.15 Walk Test
- 10.16 New Events
- 10.17 ZXP Specification
- 10.18 Fault Finding