iris
touch
Alarm over IP

IRIS Touch **6** SERIES NG

Quick Installation &
Maintenance Guide

Version 1.0

EN
50131/6
Independently
certified

EN54-21 CPR

VdS

Contents

1. Introduction

The IRIS Touch 6 offers cost effective Alarm over IP (AoIP) for the commercial and residential sectors.

All IRIS Touch 6 diallers are certified as suitable for all Grade 4 systems with an Alarm Transmission System (ATS) configuration SP6 for single path, or ATS configuration DP4 for dual path (IRIS Touch 640 only).

The IRIS Touch 6 is based on Chiron's successful IRIS Touch range of AoIP diallers with the same hardware and software used in all IRIS diallers; with the same level of security and features provided to military, governments, banks and commercial industry markets.

The IRIS Touch 6 offers both polling and alarms over communication paths of Ethernet and or GPRS (3G, 4G and CDMA on request) to the monitoring centre.

This manual describes a quick guide to the installation of products from the IRIS Touch 6. For the full manual, including multi-lingual versions, please visit our website at:
http://www.chironsc.com/downloads_security.html

2. Product Features

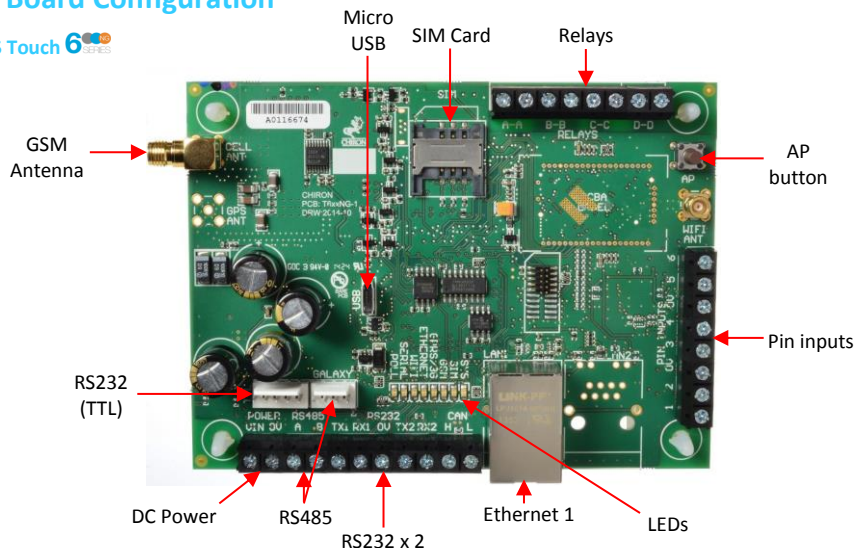| Features	IRIS Touch		
	600	**620**	**640**
Ethernet	–	1	1
GPRS	●	–	●
Relays	4	4	4
Inputs (Pins)	6	6	6
Serial RS485	●	●	●
Serial TTL	●	●	●
RS232 (Basic or Full)	2 x Basic		
Text messaging	●	–	●
Multi language menus	●	●	●
VoIP & SIP services	●	●	●
Option available on request	3G / 4G / CDMA		

3. Package Contents

Contents dependent on model type:

- Dialler board
- Ethernet cable (IRIS Touch 620 & 640)
- GSM antenna (IRIS Touch 600 & 640)

4. Board Configuration

IRIS Touch 6

LEDS

LED & Colour			Indication
SYS		Flashing 0.5s on, 0.5s Off	Shows dialler is operational
SIM		On	Dialler is seeing the SIM card
		Off	Dialler not currently seeing the SIM card
GSM		On	GSM connected / registered (IRIS Touch 600 & 640)
		Off	GSM Not connected / registered (IRIS Touch 600 & 640)
GPRS/3G		On	GPRS/3G is attached to the network (IRIS Touch 600 & 640)
		Off	GPRS/3G is not attached to the network (IRIS Touch 600 & 640)
ETHERNET		On	ETH connected / synchronized (IRIS Touch 620 & 640)
		Off	ETH disconnected / not synchronized (IRIS Touch 620 & 640)
SERIAL		Flashing 0.2s On, 0.2s Off	Shows not communicating with panel
		Flashing 1.5s On, 1.5s Off	Shows dialler not configured
		Flashing 0.1s On, 0.9s Off	Shows normal communication
POLL		On	Successfully polling with monitoring centre **Note:** Flickers off to show each poll
		Off	Not polling with monitoring centre

5. Before You Start

Monitoring Centre (ARC)

Make sure that the monitoring centre to which the IRIS Touch device will send alarm signals is equipped with the appropriate IRIS Secure Apps receiving system. The following information should be obtained from the monitoring centre.

Dialler account number	
Monitoring centre IP address	

Ethernet Connection Details

The customer's Ethernet (LAN) network details are required in order to connect the IRIS Touch. The following information should be obtained from the customer.

Fixed IP address or DHCP	
	If using DHCP then the following information will not be required as will be assigned by the network.
IP address	
Gateway address	
Subnet mask address	

GPRS SIM Card and Access Point Name

If the installation uses GPRS then a SIM card will be required. The IRIS Touch will also need to be given a GPRS 'Access Point Name' (APN) and other possible configurations as shown below. These can be obtained from the SIM card provider.

Access Point Name (APN)	
User Name (USR)	
Password (PWD)	
SIM Pin	

6. Installing the IRIS Touch

Use the following procedure to install your IRIS Touch dialler:

6.1. Mounting

Choose a suitable location taking into consideration the routing of both power and dialler interface cables within the alarm panel or separate enclosure. Secure the dialler within the enclosure using the fitted standoff or the alternative self-adhesive feet.

Note: For EN50131-10 compliance you must use the supplied standoff and not the self-adhesive feet.

6.2. Power

The IRIS Touch dialler can be powered from a separate or Aux 9-28V DC power supply specified to delivery up to 1A current using the screw terminals, or receive power directly via the 4 or 5 Pin Molex connector (RS485 or RS232 TTL) headers as indicated in Section 3 "Board Configuration"

Note: For Radio & Telecoms Terminal Equipment Directive the power cable needs to be no longer than 3 meters in length.

Fit the power cable. DO NOT APPLY POWER TO THE DIALLER UNTIL INDICATED.

6.3. Connections

Connect cables to the PCB for your system as shown on in Section 3 "Board Configuration".

- Ethernet enabled systems (IRIS Touch 620 & 640): Ethernet socket ETH1.

  Connect the Ethernet cable from 'ETH1' to the local IP router/switch or socket that has been allocated for the LAN/WAN network IP connection.

- GPRS enabled systems (IRIS Touch 600 & 640): Cell Ant. Fit the supplied T-bar GSM antenna.

  Note: An external GSM antenna can be fitted if required.

Optional serial connection

The following 5 connections are optional and depend on the panel connection method to be used.

By default the IRIS Touch RS485 connection is for Honeywell Galaxy panels and the Serial TTL header is for Texecom Premier panels. For alternative selections for other panel connection please contact Chiron for further details.

- RS485 screw terminals currently available for Honeywell Galaxy data bus connections (optional).
- RS485 4pin header (Molex) currently available for Honeywell Galaxy data bus connections (optional).
- RS232 (TTL) currently available for Texecom Com1 connections (optional).
- RS232 port 1 screw terminal (optional for Hayes command terminal).
- RS232 port 2 screw terminal (optional for integrated panel connection).

RS485 connections (Honeywell Galaxy panels)

You can use the screw terminal blocks or the 4 Pin Headers (Molex).
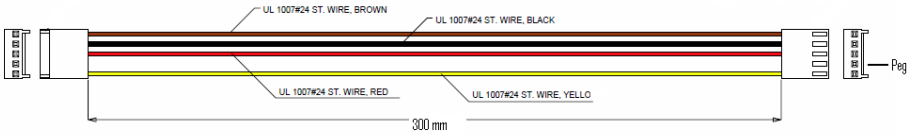
If using the screw terminals the connections are:

IRIS RS485 Screw terminal	To		Galaxy Data Bus Terminal
0V (Power)	←	→	Galaxy (-)
VIN (Power)	←	→	Galaxy (+)
A	←	→	Galaxy (A)
B	←	→	Galaxy (B)

TTL connections (Texecom Premier Range)

Ordered from Chiron

Description   = Texecom RS232 Lead

Part No   = Tex600

6.4.   GSM SIM card (IRIS Touch 600 & 640)

DO NOT FIT SIM card until after you have performed the GPRS Network Scan detailed in the Section 6.8 "Configuration" you will be prompted when to insert the SIM card.

6.5. PIN Inputs

The IRIS Touch dialler has 6 Pin inputs that can be used to generate alarm messages. These can be:

- Text messages via SMS *(GSM &GPRS.)*
- SIA, Contact ID and Fast Format alarm messages over IP to the monitoring centre.

Note: These pin alarm inputs can also be used when the dialler is directly connected to an alarm panel via the serial or RS485 connections.

Via Open/Close Contact Source

Each PIN input is designed to be connected in a loop via an open/close contact source from an alarm panel, or other device, to a reference ground PIN available on the IRIS dialler, as shown opposite.

Opening the contact (i.e. loop is open circuit) generates an alarm signal. Closing the contact generates the equivalent restore signal.
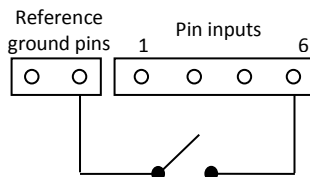
Via Sense Resistors

It is also possible to link the contacts to the IRIS dialler via sense resistors so that an open or short circuit tamper on the loop can be detected and the monitoring centre alerted. In this case, the connections should be made as shown opposite.

Note: For this feature to work correctly it is essential that the resistors are connected at the contact end of the loop and not the dialler end. The monitoring centre must also enable the monitoring of this facility on the dialler within the IRIS Secure Apps receiving system.
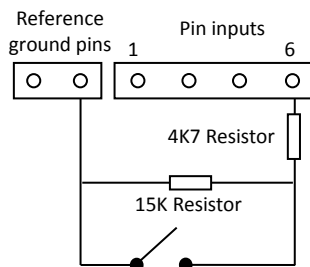
6.6. Switch on and test

To confirm power is applied, look for the indicator SYS LED is flashing Yellow ⬭ on the IRIS Touch dialler board.

6.7. GPRS Network Scan (IRIS Touch 600 or 640)

With the IRIS Touch 600 or 640 that are using the GPRS communication you will need to perform a signal strength check, to confirm that in the current installation you have the required signal strength for a reliable connection.

GPRS signal strength

Press and hold the "AP" button which will allow you to see the current signal strength indicated across the LEDs.

For a reliable GPRS connection it is recommended that you have a signal strength of 3 or more LEDs on as shown on the examples below:

Signal strength too low   **Minimum signal strength**   **Maximum signal strength**

If the signal strength is below or close to minimum then try to reposition the antenna or use an external high gain antenna to improve signal strength (if necessary) and rerun the signal strength test to gain best signal strength.

Once you have the required GPRS signal strength power down the dialler and insert the SIM card into the SIM card holder, and then power the dialler back up.

6.8. Configuration

To configure your dialler, use one of the following methods:

- Alarm panel integration e.g. Honeywell Galaxy (RS485 connection) Texecom Premier range (RS232 TTL connection). Please refer to Section 6.9 "Panel configuration".

  Note: For connections to Honeywell Galaxy or Texecom Premier on the serial integration ensure you configure the alarm panel first as this will transmit configuration to the IRIS Touch dialler.

  For more details on the alarm panel integration download the full panel installation manual from http://www.chironsc.com/downloads_security.html.

- Connect the board's Micro USB connector to a laptop / PC running the IRIS Toolbox software.

  Download the IRIS ToolBox user guide from http://www.chironsc.com/downloads_security.html.

Note: If you want to use the IRIS Touch dialler for pin inputs only and no serial connections then you will need to connect a Laptop / PC and configure the dialler using the IRIS Toolbox software, using the remote Touch screen and Installation Wizard.

Defaulting

If at any point you want to completely default the dialler you can use the following procedure:

1. Push and hold down the AP button for 4 Seconds.
2. Then completely power down the IRIS Touch whilst still holding the AP button.
3. Now reapply power and still keep the AP button pushed down for another 10 seconds.

6.9. Panel configuration

IRIS Touch 6xx diallers can be configured directly by the integration with certain panel manufacturers and this is detailed below:

Configuration on Honeywell Galaxy Panel via RS485

The IRIS Touch dialler can simulate a Galaxy Ethernet Module (Comm's Mod 4) and remote keypad, for both Alarms and Remote Service Suite upload/download connection. For further information on both the Galaxy installation and Remote Service Suite upload/download connection please refer to the IRIS Honeywell Installation manual or IRIS Remote Service App Client User Guide for Honeywell Galaxy range from http://www.chironsc.com/downloads_security.html.

Note: For GPRS it is not possible to configure the settings (e.g. APN) from the Galaxy keypad as the Galaxy has no entry method.

IRIS Touch 600 or 640 with GPRS connection:

The GPRS APN can be configured via an SMS message from any mobile phone.

Connect the IRIS Touch dialler to the Galaxy Data bus as indicated in Section 6.3 "Connection", and then power up the Galaxy Control panel, if not already powered.

If GPRS is used, you will need to set the GPRS APN. You can do this by sending a text message to the phone number of the SIM card being used. The text should be in the format:

AT%G10='apn'

Where 'apn' is the APN name, e.g. 'orangeinternet'

Note: The APN must be configured before the IRIS Touch is polling as after the dialler is polling all SMS configuration will be rejected for security.

Alternatively, the information can be set via the IRIS Toolbox software on a PC / Laptop which connects via the Micro USB connector. This is available from http://www.chironsc.com/downloads_security.html.

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The configuration menu on the Galaxy panel for the Ethernet card is found at location 56 (Communications) entry 4 (Ethernet), please enter the required information as indicated below.

You must enter Engineer Mode to access these options.

56 = Communication

├─ 4 = Ethernet

01= Module Config	1 = IP Address	- Program in the IP address for the IRIS e.g. 192.168.0.10
	2 = Site Name	- Leave blank
	3 = Gateway IP	- Enter the network gateway IP address e.g. 192.168.0.1
	4 = Network Mask	- Enter the subnet mask e.g. 255.255.255.0
02 = Alarm Reporting	1 = Format	- Set to SIA level 3
	2 = Primary IP	
	├─ 1 = IP Address	- Set this to the IP address of the Monitoring Centre e.g. 80.176.196.135
	4 = Account No.	- Enter in the account number for the Monitoring Centre.
03 = Remote Access	1 = Access Period	- Set to 4 Any Time
	2 = Mode	- Set to Direct Access if making call into site from Remote Service Suite for Upload/Download.
		- Set to MGR Authorise if making the call from site to Remote service suite for upload/download connection and enter the Call Back IP1 address for the Secure Apps Remote Service Server, or the Honeywell RSS Communication Server e.g. 80.176.196.135
9 = Encrypt	1 = Alarm Report	- Set to Off
	2 = Remote Access	- Set to Off

After you have entered in the relevant information exit Engineer Mode and the panel should now detect 2 new RS485 modules (Comms Mod 4 & Keypad 15).

If the new modules are not detected then you may need to power off the Galaxy panel, check the dialler connections, and power back on.

Now go back into Engineer Mode and select the menu option sequence 56.04.05 'ENGINER TEST' and send the test alarm. Check to see if this test alarm has been received by the monitoring centre (ARC).

You can now perform your alarm signals commissioning and sign off required by the monitoring centre (ARC).

Note: If you are required to default the IRIS Touch and start again you can do this by setting the primary IP address within the Galaxy menu 56.04.02.02 to an IP address of 127.0.0.1.

Configuration on Texecom Premier panels via RS232

The IRIS range has been fully integrated into the Texecom Premier Alarm panel range and most configurations can be configured from the panel keypad.

Note: For GPRS connections you will need to enter in the GPRS settings (e.g. APN).

With the latest integration on the Texecom Premier Elite panel this configuration is possible via the keypad. For older / different models it is currently not possible to configure the GPRS settings (e.g. APN) from the keypad as the Texecom has no entry method.

IRIS Touch 600 or 640 with GPRS connection:

For GPRS versions, the APN can be configured via an SMS message from any mobile phone.

Connect the IRIS Touch dialler via the TTL header to the Texecom Com 1 header as indicated in Section 6.3 "Connection" ensuring that the 'Serial Connection' is selected for 'TTL', power up the Texecom panel, if not already powered up.

If GPRS is used, you will need to set the GPRS APN. On the latest Texecom Premier Elite panel you can do this via the keypad and is detailed in the configuration below. For older / different models that do not have the keypad option you can do this by sending a text message to the phone number of the SIM card being used. The text should be in the format:

AT%G10='apn'

Where 'apn' is the APN name, e.g. 'orangeinternet'

Note: The APN must be configured before the IRIS Touch is polling as after the dialler is polling all SMS configurations will be rejected for security reasons.

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Below is a detailed description of the configuration setting for the latest Texecom Premier Elite range if you have different version of the Texecom Premier range or want to preform upload/download connections via Wintex then please refer to the IRIS Texecom Premier Installation manual or IRIS Remote Service App Client User Guide for Texecom range from http://www.chironsc.com/downloads_security.html.

Texecom Premier Elite Series (24, 48, 88, 168, 640)

7 = UDL/DIGI Options

   3 = Program Digi

      Arc 1 Protocol — Set to the alarm format requested by the monitoring centre or Customer i.e. Fast Format, Contact ID, or SIA level 2/3.

      Primary No — Set this to the IP address of the Monitoring Centre in a 12 digit format i.e. 80.176.196.135 = 080176196135.

      Secondary No — Leave blank as the IRIS System will receive the secondary number from the monitoring centre IRIS Secure Apps platform.

      Account Number — Enter in the account number from the Monitoring Centre, 4 or 6 digits.

      Dialler Attempts — Leave as the default 3.

      Report options — The Reporting options will change depending on the alarm format selected, please set up the various reporting option for the Alarm event you wish to send to the monitoring centre.

      Config — Enable the Connect via IP (Key press 7).

   4 = Digi Options — Enable the Digi (key press 1) should now see E on option screen now.

   5 = UDL Options

      4 = UDL Password — Must match the UDL password setup within Wintex.

      6 = Ring Count — Set to 1 for use with the IRIS Remote Service App.

   7 = Setup Modules

      2 = Setup IP Data

         Note: To use DHCP please leave the ComIP Address and Gateway blank/default values.

         1 = ComIP Address — Program in the address for the IRIS in a 12 digit format i.e. 192.168.0.10 = 192168000010.

         2 = ComIP Port — Program the Port number for Wintex connection normally 10001.

         3 = ComIP Gateway — Enter the network gateway IP address in a 12 digit format i.e. 192.168.0.1 = 192168000001.

         4 = ComIP Netmask — Enter the network subnet mask i.e. 255.255.255.000.

         5 = Polling/SMG IP — Set this to the IP address of the monitoring centre in a 12 digit format i.e. 80.176.196.135 = 080176196135.

         6 = SNG/Name — Enter in the account number from the monitoring centre, 4 or 6 digits.

      3 = Setup GPRS Data

         0 = Access Pnt Name — Enter the GPRS access point name for the SIM card you are installing.

         1 = User Name — Enter the user name for the SIM card if assigned.

         2 = Password — Enter the password for the SIM card if assigned.

   8 = Com Port Setup

      2 = Com Port 1 — Set to IRIS IP Module.

You can now perform your alarm signals commissioning and sign off required by the monitoring centre (ARC).

6.10. Testing

Once all configurations are complete perform a full commissioning test with the monitoring centre. This will normally involve testing normal alarm transmissions from the alarm panel to the monitoring centre, and verifying that these are successfully received.

7. Maintenance

There is no requirement for any onsite maintenance on the IRIS Touch 6.

If you want to carry out a maintenance inspection please perform the following:

- Confirm the status of the IRIS Touch unit.
- Clear any faults on the dialler.
- Perform full test of alarms from the alarm panel and confirm these are received at the monitoring centre.

The IRIS Touch will give a visual indication of the current system status via the SYS LED. If this is yellow constant ⬭ the current setup of the dialler is all reporting OK, if yellow flashing ⬭ the dialler has some trouble events being reported.

7.1. Confirm current status

The IRIS Touch will indicate the current status via the LEDs as per the information below.

For further information please refer to the IRIS Touch 6 Engineer Manual available from http://www.chironsc.com/downloads_security.html.

LED & Colour			Indication
SYS	⬭	Flashing 0.5s on, 0.5s Off	Shows dialler is operational
SIM	⬭	On	Dialler is seeing the SIM card
	⬭	Off	Dialler not currently seeing the SIM card
GSM	⬭	On	GSM connected / registered (IRIS Touch 600 & 640)
	⬭	Off	GSM Not connected / registered (IRIS Touch 600 & 640)
GPRS/3G	⬭	On	GPRS/3G is attached to the network (IRIS Touch 600 & 640)
	⬭	Off	GPRS/3G is not attached to the network (IRIS Touch 600 & 640)
ETHERNET	⬭	On	ETH connected / synchronized (IRIS Touch 620 & 640)
	⬭	Off	ETH disconnected / not synchronized (IRIS Touch 620 & 640)
SERIAL	⬭	Flashing 0.2s On, 0.2s Off	Shows not communicating with panel
	⬭	Flashing 1.5s On, 1.5s Off	Shows dialler not configured
	⬭	Flashing 0.1s On, 0.9s Off	Shows normal communication
POLL	⬭	On	Successfully polling with monitoring centre **Note:** Flickers off to show each poll
	⬭	Off	Not polling with monitoring centre

7.2. Communication paths check and communication to ARC

To test the communication paths for both polling and alarm communications remove one of the communication paths (dual path), and then confirm that the polling LED stays on for a number of minutes. Next send an alarm from the alarm panel and confirm this has been received at the monitoring centre.

If you have an IRIS Touch 640 with dual paths enabled repeat these tests for the other communication path.

If all working correctly you will then receive confirmation that you can leave site.

8. Specifications

Transmission paths			600	620	640
Ethernet	Standard		–	UTP 10/100 Base T with auto-negotiation	
	Connection		–	Rj45 socket for CAT5 cabling	
	IP addressing		–	Dynamic (DHCP) or fixed	
	Connection fault detection		–	Loss of Ethernet synchronisation	
GPRS (3G/4G/CDMA optional on request)	Standard		Quad band GSM 850/900/1800/1900 MHz	–	Quad band GSM 850/900/1800/1900 MHz
	Connection		SMA socket for GSM antenna connection	–	SMA socket for GSM antenna connection
	Connection fault detection		Loss of registration with network	–	Loss of registration with network
IP					
TCP ports (outbound)			53165 (Alarms & Polling), 51292 (Diagnostic & Reflashing), 10001 (Upload / Download)		
Alarm transmission					
Interface to monitoring centre			IRIS Secure Apps or IRIS Management suite		
Serial interface to alarm panel			RS485, RS232 (TTL), RS232 x 2		
PIN Inputs interface to alarm panel			Maximum input voltage range 0V to +24V		
			Input 'low' (alarm) threshold < 1V		
			Input 'high' (restore) threshold > 2V		
			Internal pull-up impedance 10K to 3.3V supply		
Alarm protocols			SIA (level 1 to 3)		
			Contact ID		
			Fast format (Scancom)		
Tamper detection reporting to monitoring centre			Serial interface, Pin inputs		
Fault reporting to monitoring centre			Transmission interface/path fault		
Relay outputs					
Maximum operating voltage			24V DC		
Maximum current rating			100mA DC		
Power supply					
Supply voltage			9V to 28V DC **Note: For Radio & Telecoms Terminal Equipment Directive the power cable needs to be no longer than 3 meters in length**		
Typical current			97mA @ 12V DC	98mA @ 12V DC	106mA @ 12V DC
Maximum current			1A @ 12V DC		
Recommended external PSU			12V DC 1A 12 Watt		
Environmental					
Operating temperature range			-10°C to 55°C		
Operating humidity range			95% max., non-condensing		
Weights and dimensions					
Physical dimensions			12 cm x 9 cm		
PCB weight			60 grams		
Fully packaged weight			160 grams		

Safety

Care should be taken when connecting telecommunications equipment to ensure only like interfaces are connected to avoid safety hazards.

SELV: SELV (Safety Extra-Low Voltage) is defined as a secondary circuit which is so designed and protected that under normal and single fault conditions the voltage between any two accessible parts does not exceed a safe value (42.4V peak or 60V dc maximum)

The interfaces on the IRIS Connect have the following safety classifications:

- Power Interface: SELV for connection to a DC supply

- Inputs: SELV for connection to alarm output pin.

Conformance

European Directives
The IRIS Connect complies with the following European Directives:
- 1999/5/EC (Radio & Telecoms Terminal Equipment Directive)
- 2006/95/EC (Low Voltage Directive)
- 2004/108/EC (Electromagnetic Compatibility Directive)

EN50131, EN50136 (VdS Certified)
The dialler is compliant to the requirements of European Standards:

EN50131-1: 2006 & EN50131-10: 2014
EN50136-1: 2012 & EN50136-2: 2013
Security Grade 4 ATS-SP6 (IRIS Touch 600, 620 and 640), ATS-DP4 (IRIS Touch 640) / Environmental Class II

EN54-21CPR (VdS Certified)

EN54-21 CPR fire approved

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IP by security professionals, for the professional security industry

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