



IRIS Touch Dialler Installation Manual for EN54-21 Compliant Fire Applications

Version 1.1

Now certified
and compliant with
EN50131, EN50136
Security Grade 4
ATSG

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1. Introduction

The IRIS Touch range of diallers are certified as compliant with the European standard EN54-21 – ‘Fire detection and fire alarm systems - Alarm transmission and fault warning routing equipment’. In order to comply with this standard there are conditions to which the installation must comply. These conditions apply both to the dialler and to the fire control and indicating equipment (CIE). This guide describes these conditions.

The IRIS Touch models that are certified to EN54-21 and for which this guide is applicable includes:

- IRIS Touch 200, Touch 220, Touch 240
- IRIS Touch 400, Touch 420, Touch 440, Touch 440R
- IRIS Touch 600, Touch 620, Touch 640

For compliance, these diallers must be using firmware 1.14 or later.

Please note – if these conditions are not complied with, then the installation will not be compliant with EN54-21.

All other aspects of the installation are covered in the standard intruder alarm installation guide for the particular product.

2. General description of the equipment

IRIS Touch diallers are used to take alarms from fire control and indicating equipment (CIE) and transfer these reliably over IP telecommunication networks such as Broadband and GPRS. In most cases the interface uses inputs to the IRIS Touch dialler, but in special cases dial capture (PSTN emulation), serial RS232 data and serial RS485 data can also be used.

Depending on the particular version backup communication over GPRS or PSTN is also provided.

All communications paths can be constantly monitored (supervised) so any failures are reported to the alarm monitoring centre.

The diallers comply with transmission system type 1 as described in Annex A of EN54-21 when signaling is over Ethernet (e.g. broadband), GPRS or Ethernet with GPRS backup. The diallers comply with transmission system type 2 as described in Annex A of EN54-21 when one of the signaling paths is PSTN (e.g. Ethernet with PSTN backup, GPRS with PSTN backup or PSTN only).

2.1. Technical specification

Please refer to the specifications in the intruder installation guide for the appropriate IRIS Touch dialler.

3. Installation, Configuration and Commissioning

3.1. Requirements for the monitoring centre

- The monitoring centre should set up the monitoring of the site as follows:

Type 1 (i.e. transmission over Ethernet and/or GPRS):

Reporting time (i.e. poll period + poll overdue period) 80s or less.

Type 2 (i.e. PSTN used as main or backup transmission path)

Reporting time (i.e. poll period + poll overdue period) = 24 hours or less

- The IRIS Secure Apps system at the monitoring centre should be set so that the diallers use the same TCP/IP port number for both alarm transmission and polling. This setting is found in the System Settings App under Global Settings > Polling Connections.

3.2. Requirements for the installation

General installation instructions are provided in the installation guides provided with each product. The following additional requirements are for EN54-21 compliance:

- The Fire CIE must have the capability of indicating fire signal acknowledgements and fault conditions as visual indications driven by the outputs from the dialler, as described below. These indicators must be in compliance with EN54-21.
- The dialler should be powered from an EN54-4 compliant power source.
- The dialler must be mounted in an Access Level 3 protected enclosure compliant with the requirements of either EN54-2 (Fire detection and fire

alarm systems – Control and indicating equipment) or EN54-4 (Fire detection and fire alarm systems – Power supplies). If there is not sufficient space to mount the dialler within the existing CIE or power supply cabinet, an alternative is to use a separate EN54-4 compliant power supply cabinet. A model from the Elmdene 'ST' range is recommended. If the enclosure used is not actually that used to house the power source, then the enclosure must be mounted against the power source enclosure in such a way that the power cable between the two cannot be the subject of tamper or accidental damage.

This requirement applies to *all* of the approved products, including the IRIS Touch 2xx series which comes already in a plastic housing.

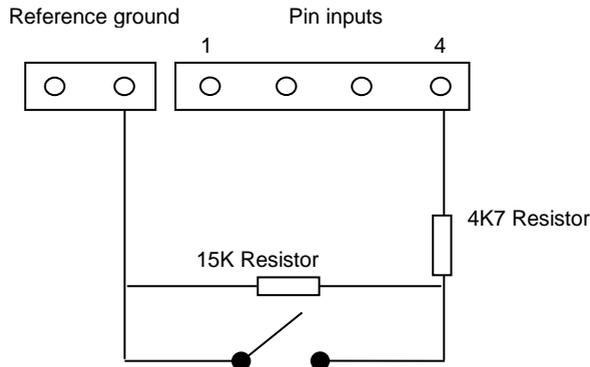
- The interface to the fire control equipment should be via dialler inputs (pins) and relay outputs, as described below. The dialler's 'Dial Capture' interface that emulates a PSTN line should not be used as it does not provide adequate status signaling back to the control equipment.
- The dialler must be set to the EN54-21 mode which can be done in the Settings->Extra Features menu on the dialler:
- When this mode is selected, input pins are allocated for the fire application as follows:
 1. Input pin 1 – Fire Alarm/Restore – open circuit = alarm
 2. Input pin 2 – Fire Alarm Fault/Restore – open circuit = fault

The alarm codes generated by these inputs are as follows:

SIA – Pin 1 FA01/FR01
 Pin 2 FT02/FJ02

Contact ID - Pin 1 Event 111 group 0 zone 1
 Pin 2 Event 130 group 0 zone 2

- End of line resistors should be fitted for detection of open circuit or short circuit faults:



- Wire the fire alarm and fault outputs from the panel to the position in the diagram marked as a switch – open is the alarm (pin 1) or fault (pin 2) condition and closed is the restore condition.
- The dialler provides relay outputs for the following indications which should be wired to corresponding inputs to the CIE.
 1. Relay B – Indicates that an acknowledgement to a fire alarm signals has been received from the monitoring centre. This relay is normally open and closes when the acknowledgement is received. It will be opened when the fire alarm restore signal is transmitted.
 2. Relay A - Fault indication (no acknowledgment received, loss of power to dialler, transmission network fault, software watchdog restart or configuration memory fault. This relay is normally closed and opens if any of the above fault conditions are present.
- When all connections have been made, run through the Installation Wizard in the normal way. At the end, make sure that input alarms for pin 1 and pin 2 are enabled and monitoring for tampers is also enabled.
- Other alarm inputs can also be enabled if required from the Settings menu, but do not change the settings for inputs 1 or 2.

- Test alarm and fault activation and restore and confirm correct receipt by the monitoring centre.
- When installation has been completed and correct operation confirmed, the label provided in the packaging that indicates EN54-21 compliance and product type must be fixed to the outer surface of the enclosure in a visible position.

4. Operating Instructions

Once the equipment is installed it will operate autonomously and no interaction with it is required.

5. Maintenance Information

No maintenance is required.

6. EC Declaration of Conformity



The products listed below are certified as compliant with the requirements of EN54-21:2006, providing they are installed and operated in accordance with the procedures covered in this guide.

Notified Product Certification Body identification number	0832
Manufacturer	Chiron Security Communications Ltd
Manufacturer's address	Wyvols Court, Swallowfield, Reading, Berkshire, RG7 1WY, UK
Last two digits of year in which the marking was first affixed.	11
EC Certificate of Conformity Number	xxxxxxxxx
Type of products	Alarm transmission and fault warning routing equipment for fire alarm systems installed in buildings.
Product models	IRIS Touch 200 IRIS Touch 220 IRIS Touch 240 IRIS Touch 400 IRIS Touch 420 IRIS Touch 440 IRIS Touch 440R IRIS Touch 620 IRIS Touch 640

<p>Relevant documents (available on the Chiron Security Communications web site www.chironsc.com)</p>	<p>IRIS Touch 200 Range Dialler Installation Guide (for IRIS Touch 200/20/40)</p> <p>IRIS Touch 400 Range Dialler Installation Guide (for IRIS Touch 400/20/40/40R)</p> <p>IRIS Touch 600 Range Dialler Installation Guide (for IRIS Touch 620/40)</p> <p>IRIS Touch Range Dialler Installation Guide for LPS 1277 Compliant Applications (for all the above products)</p>
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