

IRIS-4 50

Quick Installation and Maintenance Guide



IRIS-4 50

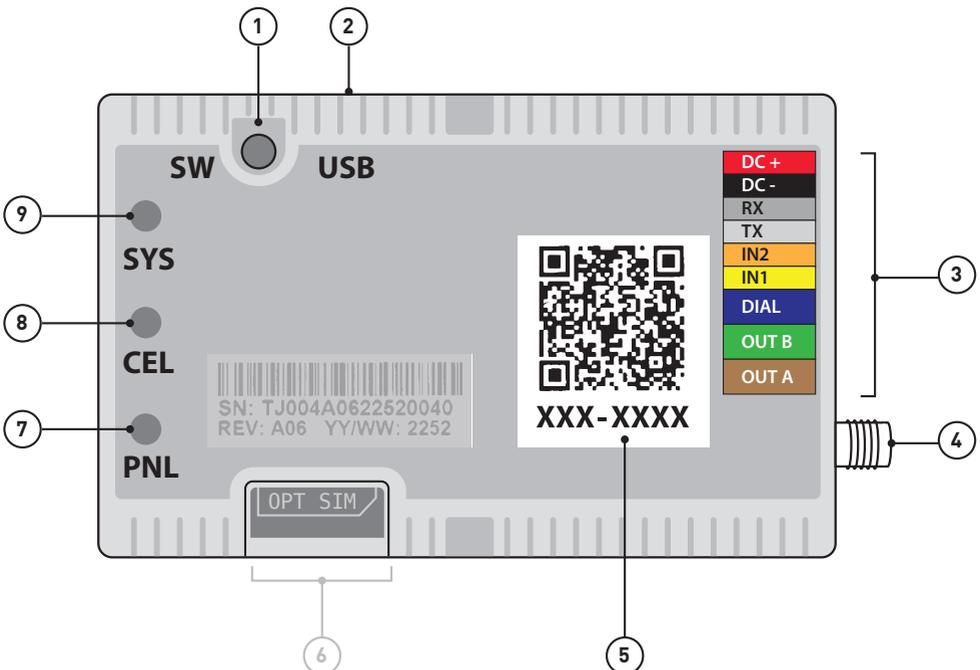
Quick Installation and Maintenance Guide

I. PACKAGE CONTENTS

- Terminal
- Cable harness loom
- Cellular T-bar antenna (2.5m long)
- Velcro mounting pads
- Adhesive mounting pad
- Cable tie wrap for mounting

2. TERMINAL LAYOUT

- ① = Signal strength/default button
- ② = USB micro connector
- ③ = Cable harness loom, with color coded identification
- ④ = Cellular antenna connection
- ⑤ = Terminal Activation Code (TAC)
- ⑥ = Not in use
- ⑦ = Panel interface status indicator (red)
- ⑧ = Cellular status indicator (yellow)
- ⑨ = Terminal status LED indicator (green)



3. PRODUCT FEATURES

FEATURES	IRIS-4 50
Cellular network interface 2/3/4G	1
eSIM	1
Dial capture input	1
Pin inputs	2
Relay outputs	2
Serial input (RS232)	1

4. BEFORE YOU START

The terminal must have its cellular subscription activated, prior to installation, by going to www.addsecure.com/activate, and using the Terminal Activation Code (TAC), which is found on the terminal and the packaging. Make sure that the monitoring centre (ARC) to which the terminal will send alarm signals is equipped with the appropriate IRIS Secure Apps receiving system.

The following information should be obtained from the Monitoring Centre.

- Terminal account number.
- Monitoring centre IP address.

5. LED INDICATIONS

LED COLOUR	DISPLAY	REASON
Terminal status (green)	On, steady	No faults.
	Flashing, on 0.5s, off 0.5s	One or more fault present.
Cellular (yellow)	On	Cellular OK, will flicker off for 0.1s to shows poll to alarm receiver at ARC.
	Flashing, 0.5s on, 0.5s off	Polling failed or not configured.
	Flashing, 0.1s on, 0.9s off	Registered to cellular network, but no IP connection.
	Off	Not registered to cellular network.
Panel (red)	On	Panel interface OK.
	Flashing, on 0.5s, off 0.5s	Panel interface fault, either Dial Capture tamper, pin input tamper or no serial activity. Note each of these fault notifications are disabled by default.
All LEDs	Will flash together for a short period when the terminal has been defaulted. Will blink together for a short period if the terminal is installing new software which it has received.	

IRIS-4 50

Quick Installation and Maintenance Guide

6. INSTALLATION

6.1 Cable harness attachment

Connect the cable harness to the terminal, by lining up the connector, matching the colour of the wires to the label, and pressing firmly in.

6.2 Mounting

The terminal is intended to be mounted within the existing tamper protected alarm panel enclosure which means that the interfaces between the terminal and the alarm panel do not need to be separately protected against tamper. Identify a location within the enclosure from which the interface cables provided with the terminal will reach their required destination on the panel. The position of the cellular antenna must also be taken into account, and this is best located externally to the enclosure.

Fix the terminal into the position chosen using either the Velcro pads, adhesive mounting pad, cable tie provided, or some combination of these.

6.3 Connecting cellular

Connect the antenna to the terminal and locate the antenna in a place away from metal surfaces or obstructions, and where a good signal strength is expected to be available. Do not fix the antenna until after the terminal has been powered up and the cellular signal strength can be checked (see section 'Connecting Power' below).

6.4 Connecting to the alarm panel

Dial capture

If the dial capture interface (PSTN emulation) is to be used, connect this to the existing PSTN dialer interface of the alarm panel. Polarity is not important.

Pin inputs

If pin inputs are to be used, connect these to the appropriate outputs from the panel. By default these inputs are disabled, and if used should be configured so that in the alarm condition they are open circuit.

Relay Outputs

If signaling back to the panel is required, connect either Relay A and/or B as required to the alarm panel inputs. The relay contacts are voltage free, so wire accordingly. Relay outputs can be used to signal various fault reporting states.

By default, Relay A is set to 'General Fault', and any fault condition will therefore be reported by this relay, such as loss of comms or connection to the ARC. This does not require any further configuration.

Serial

If a serial interface is to be used, connect RX and TX to the serial interface from the panel. By default this interface is set to 9600bps using the IRIS API protocol.

Connecting power

The power provided to the terminal via the cable connection should be DC (see specification section) and battery backed from the alarm panel. Once power is provided, the terminal will:

- Instigate connection to the cellular network, using the eSIM already fitted.
- Report status on the LEDs, as described in the LED Indications table.

Once the cellular connection has been made, as indicated by the cellular status LED, the cellular signal strength can be seen by holding down the default/signal strength button. When the button is pressed for 4s, all LEDs will go off briefly, and then re-light, showing the signal strength accordingly:

- Only panel (red) LED on – signal strength lower than recommended.
- Panel (red) and cellular (yellow) LEDs on – signal strength acceptable.
- All LEDs on – signal strength high.

Use this to locate the antenna for best signal and then fix the antenna to this position.

Note: *The terminal can be powered from the USB connection for local configuration but the cellular interface will not operate unless it is powered with an appropriate power supply.*

6.5 Configuring the terminal

The terminal can be configured using the IRIS Toolbox software application on a PC connected to the terminal with a USB cable. Please use Toolbox software version 4.7.1 or later.

To reset to factory default settings:

- Power down the terminal.
- Hold down the default/signal strength button.
- Power up the terminal.
- Continue to hold the button down for 5s and then release it.

The LEDs will flash to indicate the default has occurred, as described in the LED Indications table.

6.6 Commissioning test

Once the configuration of the terminal is complete, perform a full commissioning test in collaboration with the ARC. This will normally involve testing normal alarm transmissions from the alarm panel to the ARC and verifying acknowledgement of these alarms with the operators at the ARC.

6.7 Maintenance

Inspect the terminal on an annual basis. At each inspection, perform the following routine:

- Check the terminal mountings are still secure.
- Confirm the current status of the terminal from the LEDs.
- Clear any faults on the terminal.
- Check if the terminal is running the latest software.
- Perform full test of alarms from the alarm panel and confirm acknowledgement of these by the operators at the ARC.

You can check for current faults, reflash to the latest software, perform communication path checks and other tasks using the IRIS Toolbox.

IRIS-4 50

Quick Installation and Maintenance Guide

7. SPECIFICATIONS

Transmission paths	Edge DS2220 / IRIS-4 50	
Cellular		
LTE (4G) Cat1	B28A(700MHz), B20(800MHz), B8(900MHz) B3(1800 MHz), B1(2100MHz), B7(2600MHz)	
UMTS (3G)	B8(900MHz), B3(1800MHz), B1(2100 MHz)	
GPRS (2G)	B8(900MHz), B3(1800MHz)	
Connection	SMA socket for antenna	
Fault detection	Loss of registration with network, loss of connectivity to ISA/ARC	
IP		
TCP ports (outbound)	53165 (Alarms and Polling) 51292 (Diagnostic and Reflashing) 10001 (Upload/Download)	
Alarm transmission		
Interface to Monitoring Center	ISA or IRIS Management Suite via EN 50136-2 pass-through mode	
Dial capture interface to alarm panel	Two-wire interface	Note: Cabling must not exceed 3 meters
Serial interface to alarm panel	RS232 (basic TX/RX)	Note: Cabling must not exceed 3 meters
PIN Inputs interface	Maximum input voltage range 0V to +28V DC Input 'low' (alarm) threshold < 1V Input 'high' (restore) threshold > 2V Selectable internal pull-up impedance 10K to 3.3V supply	Note: Cabling must not exceed 3 meters

(Alarm transmission)		
Alarm protocols	SIA (level 1 to 3) reference SIA DC-03-1990.01(R2003.10)	
	Contact ID reference SIA DC-05-1999.09	
	FF (Scancom)	
	Robofon (dial capture only)	
	Telim (dial capture only)	
	CESA (dial capture only)	
Tamper detection (when external to alarm panel enclosure and configured accordingly)	Dial capture interface	
	Serial Interface	
	Pin inputs	
Fault reporting to Monitoring Center	Transmission interface/path fault	
Relay outputs (solid-state)		
Maximum operating voltage	28V DC	Note: Cabling must not exceed 3 meters
Maximum current rating	100mA DC	
Power supply		
Supply voltage	5-28 VDC	
Typical current	80mA @ 12VDC, 40mA @ 24VDC	
Maximum current	1A @12VDC	
Recommended external PSU	 12V DC 1A 12 Watt	Note: Cabling must not exceed 3 meters
Environmental		
Operating temperature range	-10°C to 55°C	
Operating humidity range	95% max., non-condensing	
Weights and dimensions		
Physical dimensions	87mm x 55mm x 16mm	
Terminal weight	85 grams (with wire harness)	
Fully packaged weight	200 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 terminal 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 terminal complies with the following European Directives and standards:

- 2014/53/EU (Radio Equipment Directive)
- 2012/19/EU (WEEE2)
- 2015/863/EC (ROHS 3)
- No. 1907/2006 (REACH)

The full text of the EU declaration of conformity, and updates, is available at www.addsecure.com

CONTACT AND SUPPORT

General: www.addsecure.com

Installation and service support: Please refer to AddSecure's local webpage, under the section Contact and Support, for the country specific details such as email address and telephone numbers.

Sales enquiries: Please refer to AddSecure's local webpage, under the section Contact and Support, for the country specific details such as email address and telephone numbers.

The information contained is supplied without liability for any errors or omissions. No part may be reproduced or used except as authorized by contract or other written permission. The copyright and foregoing restriction on reproduction and use extend to all media in which the information may be embedded. © 2023 AddSecure



EN50131, EN50136

The terminal is compliant with the requirements of European Standards:

EN 50131-1: 2006+A2:2017 & EN 50131-10:2014

EN 50136-1: 2012 & EN 50136-2: 2013

Security Grade 4 when mounted in a Grade 4 Alarm Transmission System (ATS)

SP5 compliant

Environmental Class II, SPT Type Y

