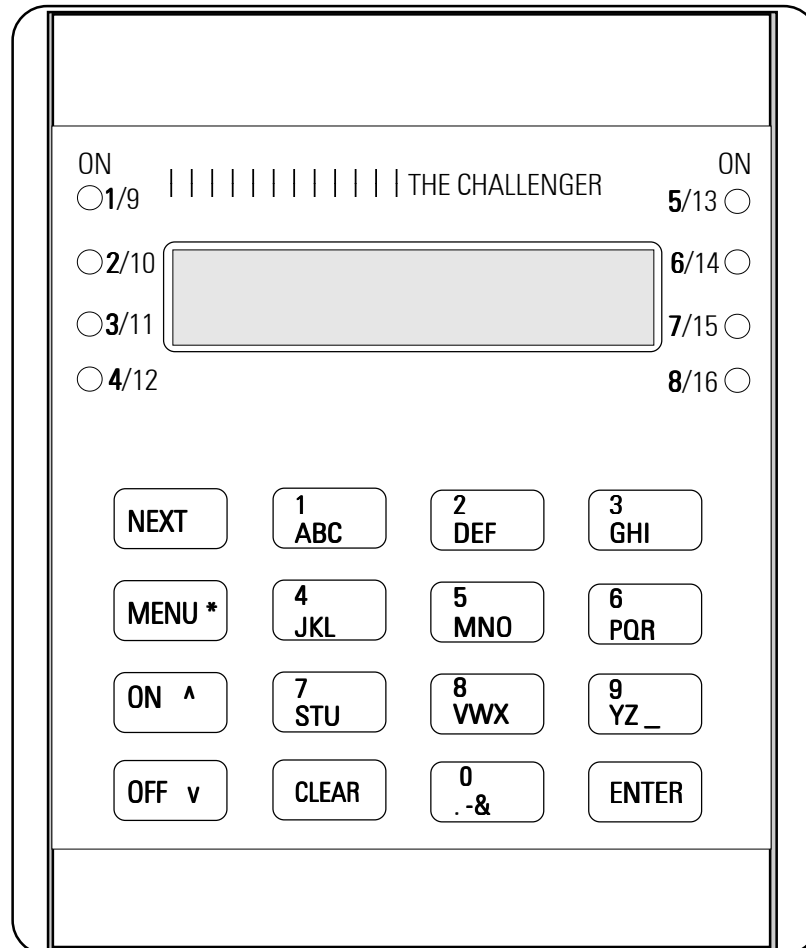




Challenger V8 8 Area LCD Arming Station TS0801 and TS0802 Installation Guide



Main features

- The 8 Area Arming Station is used with the Challenger Alarm Panel Version 6 or later, and Alliance Panels to provide access to programming and user menu functions as well as Alarm system and Access control.
- The liquid crystal display (LCD) displays text to guide the user through programming and system functions and to show alarm condition details.
- Eight LEDs provide initial indication of area status.
- The unit also features a backlit keypad to improve readability in bad light.
- The TS0801 or TS0802 can also be used with Challenger and Alliance intelligent access controllers for alarm and access control functions.
- When used with Version 8 Challenger Panels and Alliance Panels, the time before text rotation begins and the rotation speed can be programmed in the Challenger and Alliance installer menu.
- The RAS can be installed up to 1.5km from the Challenger or Alliance to provide remote alarm & access control.
- One open collector output is available to drive a relay or LED etc.
- One input is provided which may be used for the egress function.
- The **difference between the TS0801 and the TS0802**, is that the TS0802 can also be connected to a magnetic card reader to create a combined keypad/magnetic card reader LCD arming station.

Cable

- Run the cable through the entry hole on rear of the unit. The cable is either butted up against the unit in conduit or comes out of the wall behind.

Mounting

- The unit can be mounted in two ways:- flush mount or surface mounted.
- When surface mounting, four screws are used on the mounting box and the keypad is then secured by two screws from the front of the keypad.
- For flush mounting, the two screws at the front of the unit will hold the keypad to the wall.
- Cut-out required for flush mounting - 98mm high x 95mm wide.
- Once the unit is mounted, the top and bottom cover strips can be fitted over the screws.
- *Note:* Mount the unit so it's easy to use without reaching up, and so shorter users can see the LCD without looking up.

Protective earthing system recommendations

(The following recommendations are based upon Australian wiring regulations ACA AS/ACIF S009 Section 5 and AS3000:2000 Section 5.)

- Challenger system equipment **with earth terminals** must be earthed via a Communications Earth Terminal (CET) by either connecting to the protective earthing system earth bar in the main or sub-electrical switchboard or, connecting directly to the main building earth conductor.
- All Challenger earth wiring must be Green/Yellow at least 2.5mm² or greater, to comply with Australian wiring regulations (*see wiring diagram*).
- The device's "GND" link must remain fitted.
- **Do not** connect the plug pack earth to any device's earth terminal.
- This method of protective earthing is the only way to minimise earth potentials between any two Challenger products by using a common building earth system.

Tips:

- **Do not** install multiple earth stakes in the same building. (Electrical installation.)
- Install Challenger LAN isolation devices (TS0893) between multiple buildings.

Packing list

1 x installation guide	<input type="checkbox"/>
1 x TS08081 or TS0802	<input type="checkbox"/>
2 x plastic clip-on screw covers	<input type="checkbox"/>
2 x 3-way plug- on screw terminals	<input type="checkbox"/>

Tip:

- Open both ends of the box! Parts are packed under both ends.

LAN System & Protective Earth Connection Block Diagram

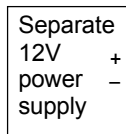
Be sure to read the protective earthing system recommendations first!

Tips:

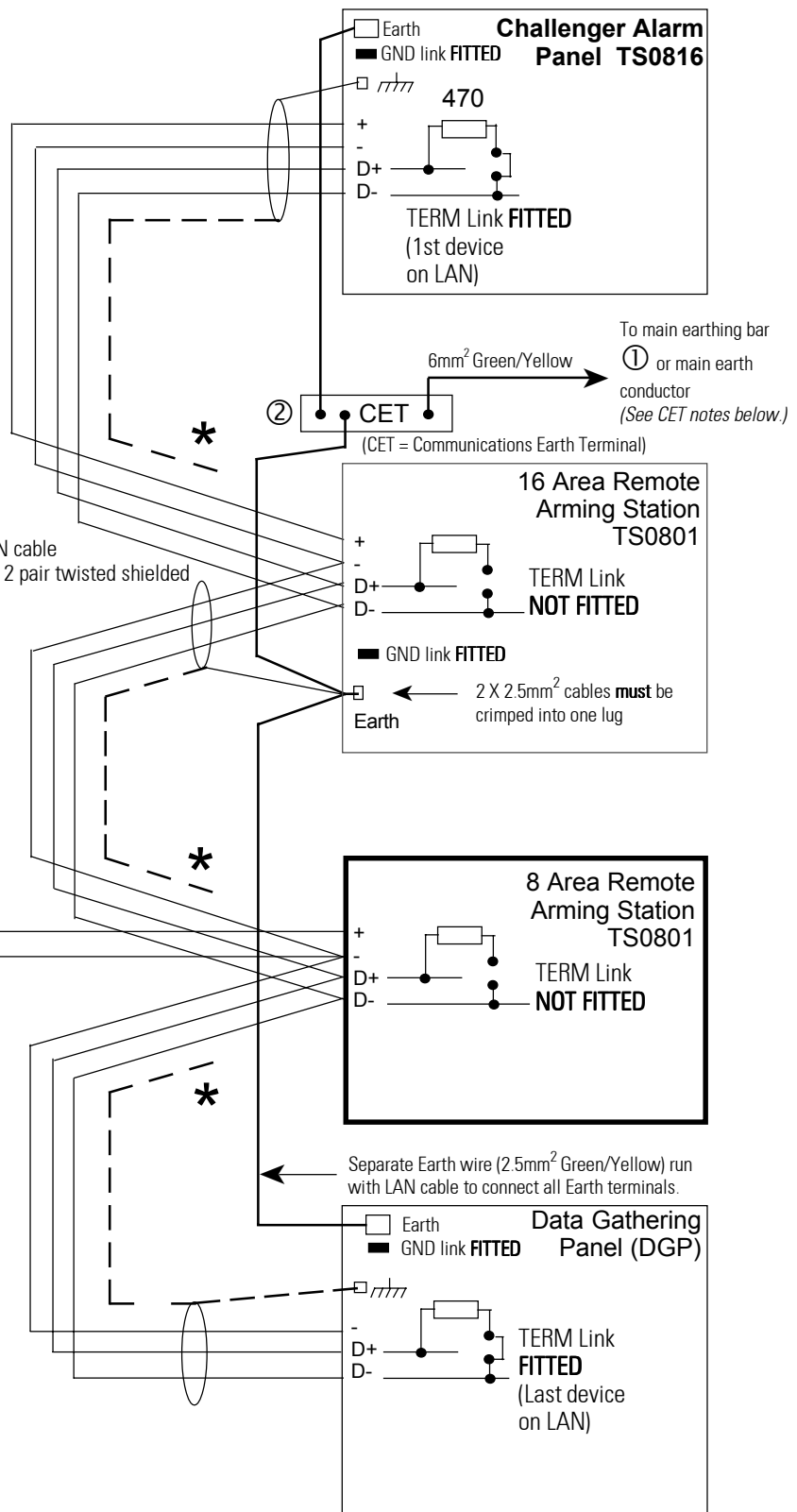
- "TERM" link fitted on first and last devices on the LAN. In a "star" wiring configuration the "TERM" link is only fitted on the devices at the ends of the two longest LAN cable runs. (See each product's install guide.)

- 2.5mm² conductor **must not** exceed 135 metres from the earth stake to the furthest termination point. Upgrade the earth cable gauge in accordance with ACA regulation S009.

* Shield of data cable NOT connected at this end. Note that the shield of each length of data cable is connected at one end only.



(Required if Remote Arming Station (RAS) is >100 metres from nearest panel or DGP)



Notes on Communications Earth Terminal (CET)

- ① Termination of 6mm² earth to switchboard earth bar or main earth conductor **must** be installed by a licenced electrical contractor. Install only one CET per switchboard.
- ② CET is a two or more terminal earth bar. CET **must** be labelled: "Communications Earth Terminal"

LAN connection

- The RS485 LAN is used to connect Arming Stations and Data Gathering Panels (to provide extra inputs) to the Challenger panel.
- Arming Stations (RASs) must be connected via a 2 pair twisted shielded data cable (Belden 8723 is recommended) from the LAN connection.
- The shield of any data cable connected to the 8 Area Arming Station (RAS) should be connected to earth at one end only, i.e., the Panel or DGP that the other end of the data cable is connected to.
- It is recommended that where the distance between a **TS0801/TS0802** (RAS) and the nearest device is more than 100 metres, a separate power supply be used to power the RAS.
- To power the RAS, **do not** connect '+' from the LAN. Connect '+' of the local power supply to '+' on the RAS and connect 0 volts from the power supply **and** 0 volts from the LAN connection to the terminal marked '-'.
- See wiring diagrams on page 3.

LEDs

Rx: Rx LED flashing indicates polling data being received on the LAN from the Challenger Panel. No flashing Rx LED indicates LAN fault (usually cabling) or Challenger Panel not operational.

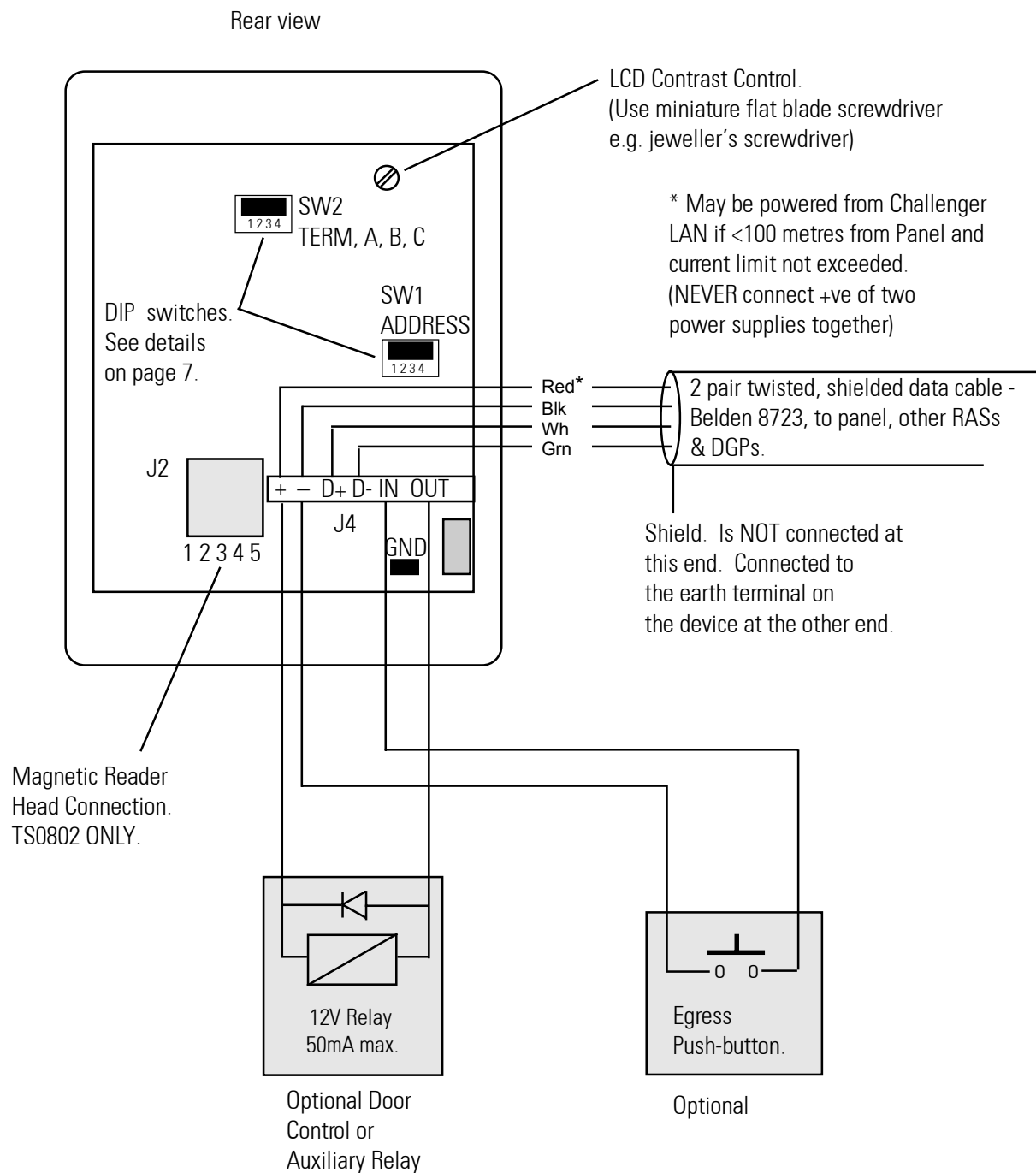
Tx: Tx LED flashing indicates RAS is replying to polling from the Challenger Panel. Rx LED flashing but no Tx LED indicates RAS is not programmed to be polled or is addressed incorrectly.

Mechanical & environmental specifications

Enclosure dimensions: 130mm high, 108mm wide and 28mm deep.
Storage temperature: -20 degrees C to +80 degrees C.
Operating temperature: 0 degrees C to +50 degrees C.
Humidity: 95% Non-condensing

Note: Units should only be used in a clean environment and not in humid air.

Connection diagrams



See: Connection details on pages 6 & 7.

Connections: 5mm plug on screw terminals

- J4:**
- + Positive connection of the 12V DC supply. (10.5 -13.8 Volts @75mA maximum)
 - Negative connection of the 12V DC supply and Common 0 Volt connection of the RS485 LAN.

If the LAN cable from the arming station to the Challenger Panel or nearest DGP is less than 100 metres, the Power connections can be wired to the COMMS + & - terminals on the Challenger panel, or the AUX PWR + & - terminals on the DGP, using the Red & Black pair in the LAN cable.
(See connection diagram on page 3)

- D+ Data positive and Data negative connection of the RS485 LAN.
- D- Remote units can be up to 1.5 kms from *The Challenger* control panel.
(See: Diagram on page 3 & "LAN connection" details on page 4)
- IN An Egress button (normally open, momentary pushbutton switch) may be connected across "IN" and "-". When pressed, this button will control the egress function.
(See connection diagram on page 3)
- OUT Open Collector Output. 50mA maximum. This output controls the first relay of the relay control group which is assigned to this arming station.
(See connection diagram on page 3)

Connections: Headers

READER: **J2** +5V DC Supply and data connections for magnetic card reader head.

TS0802 only:

1	RDP	Read Data Pulse
2	RCP	Read Clock Pulse
3	CLS	Card Loading Signal
4	+5V DC	
5	GND.	(0V)

Links

GND Must remain fitted.

LCD contrast control

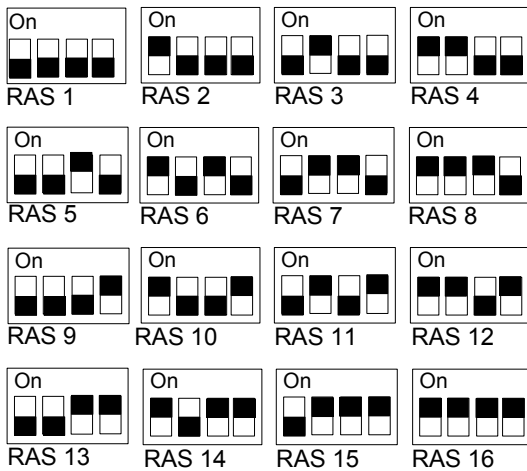
To change the contrast, the use a miniature flat-bladed screwdriver, e.g., jeweller's screwdriver to turn the control marked CONTRAST on the back of the unit.

- Turn **clockwise** to make both letters and background darker
- **Anticlockwise** for lighter.

RAS DIP switch settings:

There are two banks of DIP switches on the TS0801. (See the connection diagram on page 5.)

SW1 "Address" DIP switches 1 to 4 identify this RAS number.



SW2: "Term, A, B, C"

DIP switches 1 to 4 are used to terminate the LAN and enable various other functions as detailed below.

Number

1	TERM	ON	Inserts a terminating resistor across the LAN. The "TERM" switch must be ON if the RAS is the first or last device on the LAN. If the system LAN is wired in a "star" configuration, the "TERM" switch is only ON if the RAS is at the end of one of the two longest LAN cable runs, i.e., in a Challenger system only two devices connected to the LAN can have the LAN terminated.
2	Area 9-16	OFF	The 8 Area LEDs will display the status of areas 1 to 8.
		ON	The 8 Area LEDs will display the status of areas 9 to 16.
3	Keypad	ON	The keyboard backlighting will time out with the LCD backlighting.
	Backlight		
4	Mag Card Format	OFF	Tecom Format
		ON	Non-Tecom formats, for example credit cards, financial institution etc., any cards with data on track 2 <i>See: V8 User Guide - Program Users for programming non-Tecom format cards.</i>

TS0802 ONLY



Please note, this product conforms to the standards set by Standards Australia on behalf of the Australian Communications Authority (ACA). GE Interlogix recommends enclosure covers remain fitted to comply with C-Tick.

WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Disclaimer Details

The customer is responsible for testing and determining the suitability of this product for specific applications. In no event is GE Interlogix Pty Limited responsible or liable for any damages incurred by the buyer or any third party arising from its use, or their inability to use the product.

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