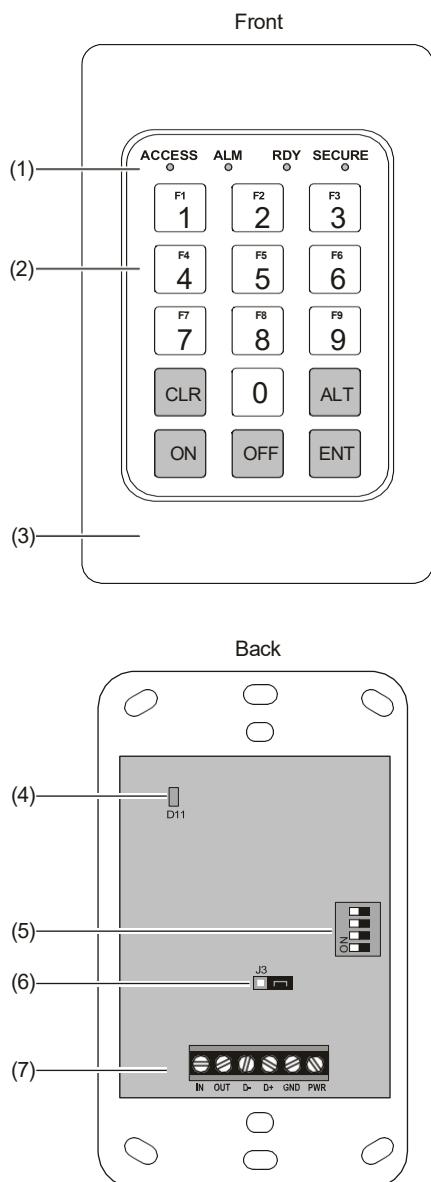


TS0003 Four-LED Arming Station Installation Sheet

Figure 1: TS0003 front and back features



- (1) System status LEDs
- (2) 15-key keypad for personal identity number (PIN) entry
- (3) Front cover (snaps in place over keypad)
- (4) Tx LED for checking LAN communication
- (5) Address DIP switch
- (6) TERM link
- (7) Connection block

Description

TS0003 Four-LED Arming Stations provide a user interface to the Challenger intrusion detection and access control system.

A remote arming station (RAS) can be installed up to 1500 m (cabling distance) from its control panel or Intelligent Access Controller to provide remote operation.

Additional features include:

- Operates from 10.5 to 13.8 VDC
- An open collector output is available to power a LED or a small relay (50 mA max)
- One input for Request To Exit (Egress) control

Product contents

| Quantity | Item |
|----------|------------------------|
| 1 | TS0003 Four-LED RAS |
| 1 | Installation Sheet |
| 1 | Surface mounting block |

Inspect the package and contents for visible damage. If any components are damaged or missing, do not use the unit; contact the supplier immediately. If you need to return the unit, you must ship it in the original box.

Installation

The RAS can be flush mounted, or it can be surface mounted by using the surface mounting block (supplied).

Note: A qualified service person, complying with all applicable codes, should perform all required hardware installation.

Configuring the RAS

Configure the RAS for the local environment.

To configure the RAS:

1. Determine the RAS's address on the LAN.
2. Set the LAN address via the four-segment Address DIP switch (see Figure 1 above, item 5) according to Table 1 on page 2.
3. If required, terminate the LAN by placing the jumper onto J3 (see Figure 1 above, item 6).

If the RAS is the last device on the RS-485 LAN the LAN termination should be ON. In a star wiring configuration, the RS-485 LAN may consist of a number of cable runs (branches). LAN termination should be set to ON only at the devices at the far ends of the two longest branches. A star LAN that has multiple branches in excess of 100 m may need to use TS0893 Isolated RS-485 to RS-485 Interface modules to isolate the LAN segments that do not have LAN termination set to ON.

Table 1: Address DIP switch settings

| Address | SW1 | SW2 | SW3 | SW4 |
|---------|-----|-----|-----|-----|
| 01 | O | O | O | O |
| 02 | I | O | O | O |
| 03 | O | I | O | O |
| 04 | I | I | O | O |
| 05 | O | O | I | O |
| 06 | I | O | I | O |
| 07 | O | I | I | O |
| 08 | I | I | I | O |
| 09 | O | O | O | I |
| 10 | I | O | O | I |
| 11 | O | I | O | I |
| 12 | I | I | O | I |
| 13 | O | O | I | I |
| 14 | I | O | I | I |
| 15 | O | I | I | I |
| 16 | I | I | I | I |

Legend: I = ON, O = OFF

Preparing the mounting location

The RAS will be mounted on a wall that has a cable entry for the RS-485 LAN data, power, and optionally connections for an egress button and a small relay.

Surface mount. The surface mounting block (enclosed) is first secured to a wall and then the RAS is secured to the mounting block.

Flush mount. The RAS is recessed into a wall so that the base is flush to the wall surface (the mounting block is not used).

Mount the RAS at a height and location such that all users can operate the keypad.

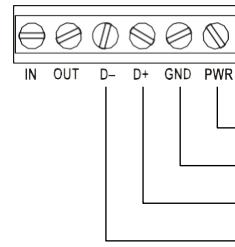
Connecting the RAS

Remove power to the control panel or Intelligent Access Controller, as applicable.

Connect the RAS to other equipment according to Figure 2 below.

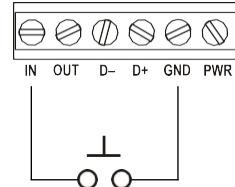
Figure 2: RAS wiring

Standard connections

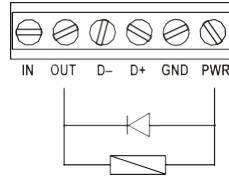


+12 VDC supply (LAN + or external power)
-12 VDC supply and LAN 0 V
RS-485 data +
RS-485 data -

Additional connections



Egress push button



Door control relay
(e.g. TS0843)
50 mA maximum

LAN cable recommendation. We recommend that you use 2-pair twisted shielded data cable (such as Belden 8723) for the RS-485 LAN.

The length of the LAN cable run must not exceed 1.5 km unless LAN Isolation Interfaces are used to extend the distance.

LAN cable shield. In each segment of the LAN cable, connect one end only of the cable shield to a LAN earth terminal (typically at the panel or DGP). A device (such as TS0003 RAS) that does not have an earth point and is not at the end of the LAN will have in and out LAN segments. Join the LAN cable shields for the in and out segments to make, in effect, one continuous shield that is connected at one end only to a LAN earth terminal.

Powering the RAS. The Challenger panel or Intelligent Access Controller may be used to power the RAS in the following circumstances:

- The LAN cabling distance to the RAS is no more than 100 m (if using Belden 8723).
- Electrical isolation is not required.

If powering the module from the Challenger panel or Intelligent Access Controller is not practicable, then you must use an external power supply (such as TS0073).

Optional connections. The optional IN and OUT terminals may be used as follows:

- **IN.** An Egress button (normally open, momentary pushbutton switch) may be connected across the IN and GND terminals. When pressed, this button will control the egress function.
- **OUT.** Open collector output, 50 mA maximum. The OUT output is activated when a certain relay number is activated. The relay number is the first relay of the relay control group assigned to the RAS. For example, assign relay control group 1 to use relay 1, assign relay control group 2 to use relay 9, and so on. Refer to *Challenger V8 & V9 Programming Manual* for details.

Installing the RAS

After configuring the RAS and connecting the necessary wiring, apply power to check the operation of the RAS.

To install the RAS:

1. Prise the top corners of the RAS away from the keypad to remove the cover from the RAS body and to expose the mounting holes and screws. Remove the two mounting screws and retain for later use.
2. Program the Challenger panel or Intelligent Access Controller to poll the RAS address.
3. Check the TX LED to verify that the TS0003 is replying to polling (see Figure 1 on page 1, item 4).
4. If required, use the RAS body as a template for drilling mounting holes and for cutting cabling access.
5. Mount the RAS body on a flat surface using the screws provided.
6. Mount the cover onto the RAS body by engaging the top, and then gently pressing the cover over the body until the cover snaps into place.

Operation

Keypad

The keypad (see Figure 1 on page 1, item 2) has numbered keys for entering codes and selecting numerical menu options, plus five additional keys. These additional keys work as follows:

- ON — Enter your PIN using the numbered keys, and then press [ON] to arm the area(s) assigned to the RAS.
- OFF — Enter your PIN using the numbered keys, and then press [OFF] to disarm the area(s) assigned to the RAS.
- ENT — Select numerical menu options (or other data entry), and then press [ENT] when data entry is required.
- CLR — Press [CLR] to cancel the current keystrokes.

Front LEDs

The RAS has four LEDs on the front to indicate system status (see Figure 1 on page 1, item 1).

- ACCESS — Lit when an area assigned to the RAS's alarm group is disarmed. If the area is disarmed and the door is unlocked, the LED flashes for the access time.
- ALM — Lit when any area assigned to the RAS is in alarm state.
- RDY — Lit when all inputs in areas assigned to the RAS are sealed. If used on a 4-door controller LAN, the LED is on when a PIN is required.
- SECURE — Lit when any area assigned to the RAS is in armed state.

All front LEDs flashing indicates that the RAS is not being polled.

TX LED indications

A TX LED is located on the PCB in the back of the RAS (see Figure 1 on page 1, item 4) to assist in fault diagnosis, and is visible when the RAS is removed from the wall. The TX LED flashes to indicate the RAS is replying to polling from the control panel.

If the TX LED does not flash, possible causes include:

- The RAS DIP switches may be set to the wrong address.
- Polling to the RAS address may not be enabled in the control panel.
- Connection fault or other fault in the LAN cabling.

Dimensions

Figure 3: Dimensions of TS0003 alone

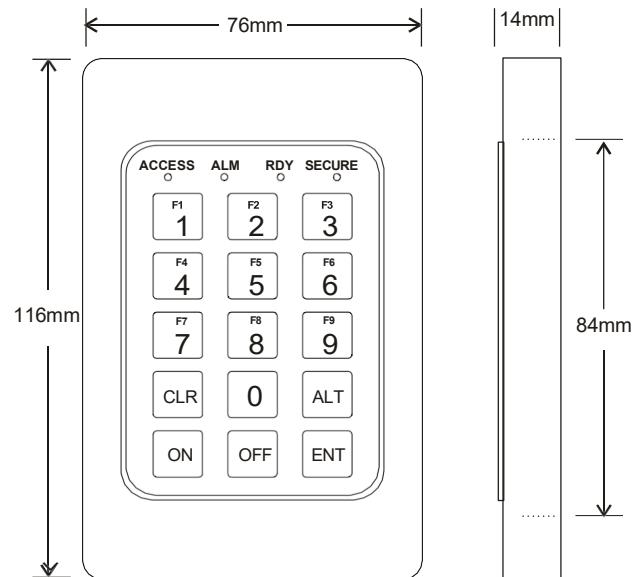
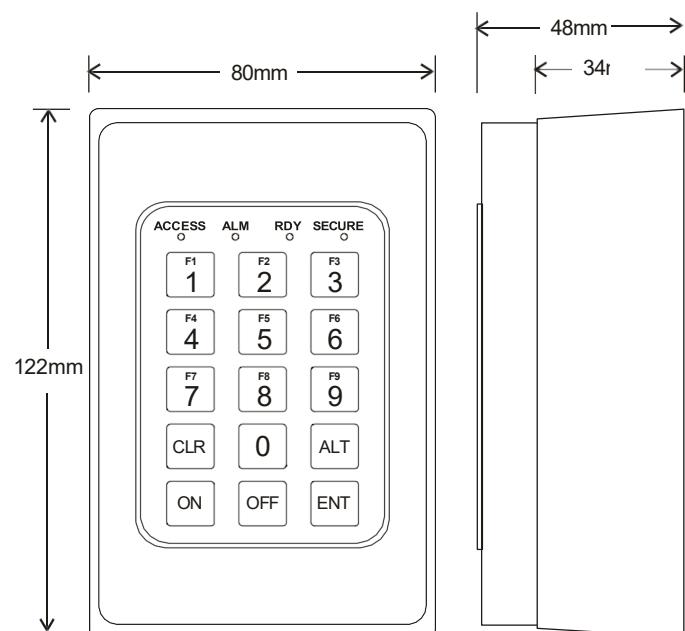


Figure 4: Dimensions of TS0003 with surface mounting block



Specifications

| | |
|---------------------------|------------------------|
| Voltage | 10.5 to 13.8 VDC |
| Typical operating current | 60 mA @ 13.5 V |
| Dimensions (W × H × D) | |
| Surface mount | 76 × 116 × 14 mm |
| Flush mount | 80 × 122 × 48 mm |
| Operating environment | |
| Operating temperature | 0 to 50°C |
| Relative humidity | 0 to 95% noncondensing |

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

Regulatory information

| | |
|---------------------|--|
| Manufacturer | KGS Fire and Security Australia Pty Ltd Suite 4.01, 2 Ferntree Place, Notting Hill VIC, 3168, Australia |
| Year of manufacture | The first two digits of the product serial number (located on the product identification label) are the year of manufacture. |
| Compliance |  N4131 |

NOTICE! 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

The customer is responsible for testing and determining the suitability of this product for specific applications. In no event is KGS Fire and Security Australia Pty Ltd (trading as Aritech) 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.

Contact information

For contact information, see www.aritech.com.au.