

TS1162 Three-LED Arming Station Installation Sheet

Figure 1: TS1162 front features and mounting dimensions



Description

The TS1162 Three-LED Keypad Remote Arming Station (RAS) is typically used to enter a personal identity number (PIN) via the keypad's numbered keys to unlock a door, or to arm and disarm the system.

An input is provided for a Request To Exit (RTE or Egress) button, and an open collector output is available to power a small door lock relay (10 mA maximum).

The RAS has an optical tamper sensor on the back. When connected to the RS-485 LAN, tamper data is transmitted to the Challenger system along with system data.

Product contents

Quantity	Item
1	TS1162 Three-LED RAS with 2 m cable
1	Installation Sheet
1	Adhesive keypad label
1	470 Ω LAN termination resistor

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

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

Connecting the RAS

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

Connect the RAS to other equipment according to Table 1 below.

Table 1: RAS wiring

Wire colour	Function	Application
Red	+12V	Positive 10.8 to 30 VDC supply
Black	0 V	DC supply ground
White	D+	RS-485 data positive
Green	D-	RS-485 data negative
Yellow	RTE	Optional egress button
Violet	O/C	Optional open collector output to operate a door relay

Note: The supplied cable contains wires that are not used in this application. We recommend that unused wires are secured and protected against accidental shorts.

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 termination: If required, terminate the LAN by connecting the 470 Ω LAN termination resistor (supplied) across the D+ and D- terminals (green and white wires).

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.

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.

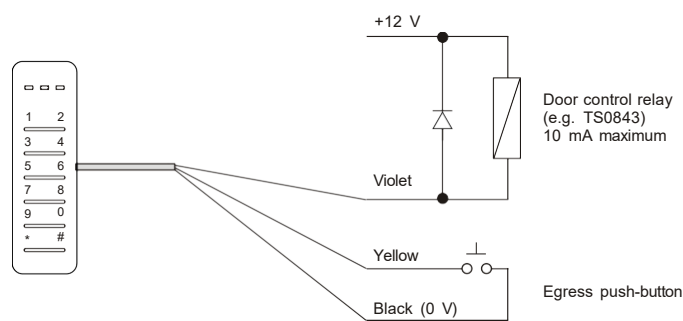
If powering the module from the Challenger panel or Intelligent Access Controller is not practicable, then you must use an external power supply (such as TS0073).

Optional connections. The yellow and violet wires may be used as follows:

- **Yellow.** An Egress button (normally open, momentary pushbutton switch) may be connected across the yellow wire and 0 V (black) wire. When pressed, this button will control the egress function.
- **Violet.** Open collector output, 10 mA maximum, may be used for a door lock circuit. Connect the lock across the violet wire and 12 V supply, in parallel with a suppression diode such as 1N4004.

The 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.

Figure 2: Door relay and simple push button connections



Preparing the mounting location

The RAS can be mounted on any flat surface.

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.

Mount the RAS at a height and location such that all users can operate the keypad. Do not cut the cable shorter than 10 cm.

Installing the RAS

To install the RAS:

1. Mount the RAS body on the prepared mounting location using two pan head screws, 3.0 to 3.5 mm diameter (not supplied). It is not recommended to use countersunk screws.
2. Ensure the mounting surface for the keypad label is clean and dry.
3. Remove the backing from the adhesive keypad label and press firmly in place.

Programming the RAS

Configuring the RAS

Configure the RAS for the local environment.

Note: Ensure that the programming option “LCD arming station” is set to No. This option is set to Yes by default for RAS 16 to facilitate the Challenger panel’s modem access option.

To configure the RAS:

1. Determine the RAS’s address on the RS-485 LAN (it is assigned address 16 by default).
2. Connect the RAS to the RS-485 LAN and to power (see “Connecting the RAS” on page 1).

The RAS will beep once, and the LEDs will flash.
3. Use an LCD RAS to program the Challenger panel or Intelligent Access Controller to poll RAS 16.

The left LED will display green, and the middle LED will display orange (unless “LCD arming station” is set to Yes: it must be set to No).
4. Use the menu option Remote Controllers to access the RAS menu, and then select the required options, including the address. See “RAS menu options” below.
5. When finished programming the RAS, exit the RAS menu to apply the new programming.
6. Poll the RAS at the new address (if applicable).
7. When finished adding readers, de-poll address 16 (if no longer needed).

RAS menu options

When connected to a Challenger panel’s or Intelligent Access Controller’s RS-485 LAN, and polled, you can access the TS1162’s RAS menu options.

On a Challenger LAN use Install menu option 28. Remote Controllers to access the RAS menu (on an Intelligent Access Controller LAN use DGP menu option 10. Remote Controllers).

The RAS menu options are:

- 1-Tamper Option. Tamper is enabled by default. Disable if required.
- 2-Reader Address. RAS 16 by default. Change to another address if required.

- 3-RTE (Egress). Egress and open collector output are disabled by default. Enable this option to use an egress button and the open collector output.
- 4-Backlight Option. Backlight is on for access by default. Change to always on if required.
- 5-Buzzer Option. Buzzer is enabled by default. Change to disabled if required.
- 6-Restore Factory Settings. If you select this option, you will be prompted to confirm.

Contact information

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

Operation

The RAS has three LEDs to indicate system status.

Table 2: LED indications

Position	State	Indication
Left	Green/Red	Green for system disarmed/ Red for system armed
Left	Green flashing	Door unlock time
Middle	Orange	Normal (always on)
Right	Red flashing	Alarm

Specifications

Voltage	10.8 to 30 VDC
Max. operating current	150 mA @ 13.5 V
Dimensions (W × H × D)	44 x 140 x 20 mm
Cable	2 m LiYCY (included)
Connectivity	RS-485 data bus (LAN)
Open collector output	10 mA max.
Operating environment	
Operating temperature	-40 to 55°C
Protection class	IP67

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 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.

