



# TS0862 Smart Door Controller

## Installation and Programming Guide

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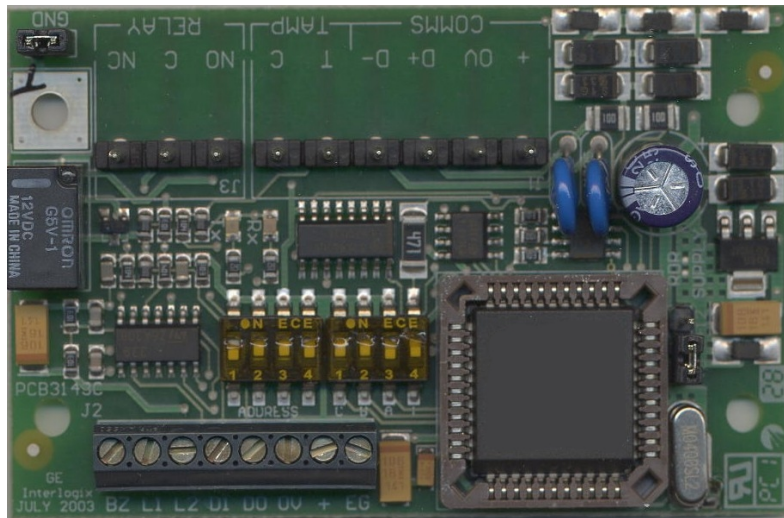
### Installation Kit

Item	Quantity
This document .....	1
TS0862 PCB .....	1
3-way (blue) screw terminal block .....	3
Stand-off mounts .....	4
10 mm M3 screws .....	4

### Application

This document applies to:

- TS0862 v 1.6 or later
- PCB no. 3143C or later



## PRODUCT OVERVIEW

- TS0862 Smart Door Controller is a low cost, compact Door Controller that performs all the functions necessary to control the operation of a single door.
- The outstanding feature of TS0862 is its offline database of 20 users, which can be programmed using an arming station and a card reader.
- TS0862 may be powered from the Challenger panel, an Intelligent Access Controller, or from a separate power supply in order to maintain an independent supply. The independent power supply option and offline database ensures that service is maintained even if TS0862 LAN communications is isolated from the Challenger panel or Intelligent Access Controller.
- TS0862 uses the memory of the connected Challenger panel and so supports the same card formats as the panel. When the panel has an Intelligent User Module (IUM) fitted, the panel (and TS0862) supports numerous card formats up to 48 bits. A panel without IUM is limited to Wiegand 26-bit, Tecom ASC, and Tecom Mag Swipe card formats.

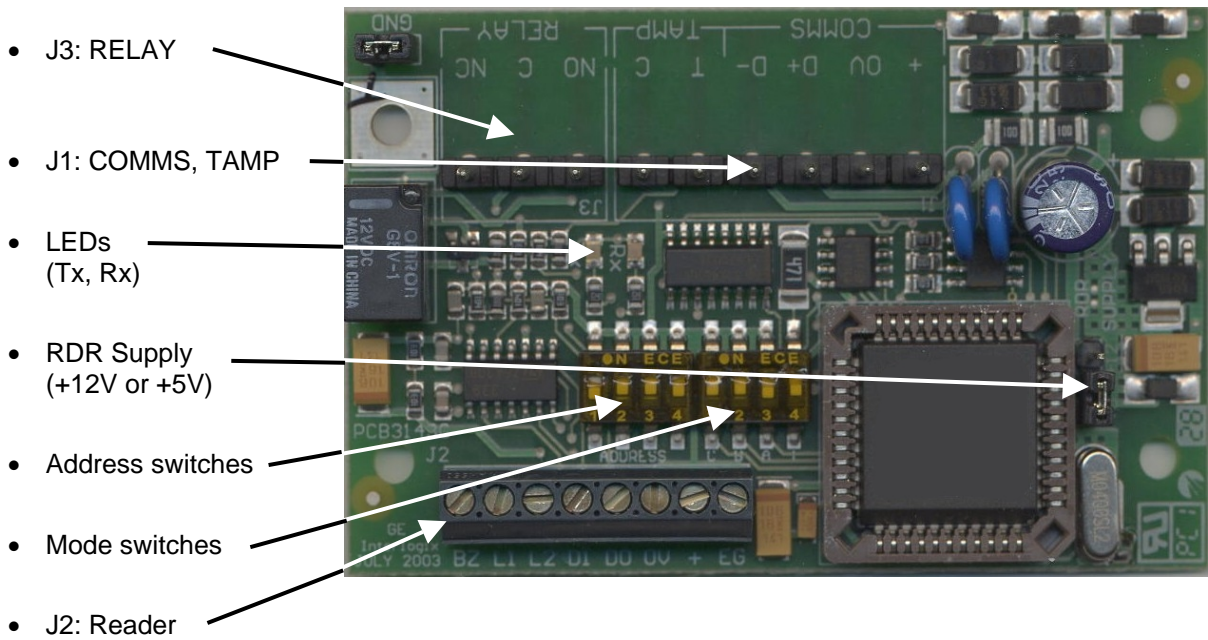
# INSTALLING TS0862

## MOUNTING

The Smart Door Controller PCB can be mounted in any existing Challenger metal enclosure which supports the BB format, or the Single B enclosure TS0305 or Double B enclosure TS0306, both of which may be purchased separately.

## SETTINGS

The following image is a guide to links and settings used on TS0862.



These links and settings are used as described in the following sections.

### J3: RELAY CONNECTIONS

- **NC linked to C** — Normally Closed.
- **NO linked to C** — Normally Open.

The relay is energised for the access period. See Challenger Arming Station Relay Control Group programming. (Installer Menu 3), and see *Steps Required for Doors Using Relays* on page 13.

### J1: COMMS, TAMP CONNECTIONS

Pin	Application	
+	12 volt DC supply input from LAN or from separate power supply.	
0V	Ground for LAN (and for separate power supply, if used). 45mA maximum with no reader or other peripheral devices connected.	
D+	Positive data connection of the RS485 LAN.	
D-	Negative data connection of the RS485 LAN.	
T	Input connection for panel tamper switches.	Short circuit for seal, open circuit for unsealed. (Must be sealed if not used). Can only be used with normally closed contacts, such as the panel tamper switch.
C	Common connection for panel tamper switches.	

## LED INDICATIONS

Rx LED	Tx LED	Indication
Flashing	Flashing	Rx flashing indicates polling from the Challenger panel. Tx flashing indicates replies to polling from the Challenger panel.
no activity	Flashing once per second	Operating without a LAN connection (offline mode).
Flashing	no activity	RAS is not programmed to be polled or is addressed incorrectly.

## RDR SUPPLY LINK

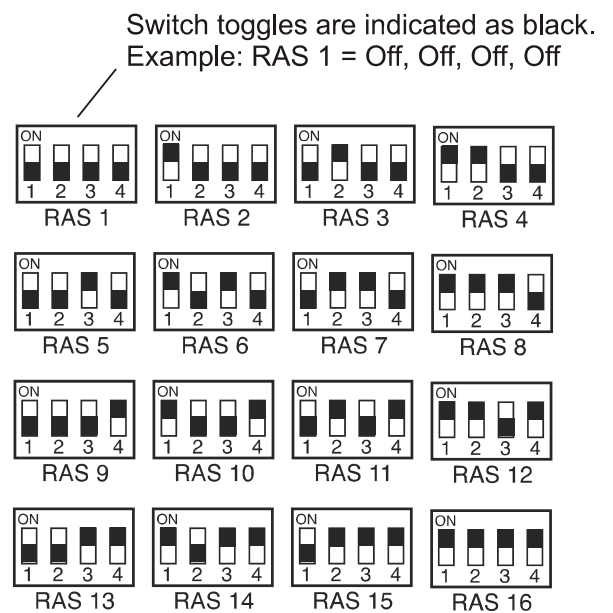
This Link selects the output reader supply to either +12 or default +5 volts.

**Caution:** Check the reader's supply voltage before connecting.

## ADDRESS SWITCHES

The TS0862 is polled as a RAS. Address switches 1 through 4 identify the RAS number.

RAS no.	DIP switch no.			
	1	2	3	4
1	Off	Off	Off	Off
2	On	Off	Off	Off
3	Off	On	Off	Off
4	On	On	Off	Off
5	Off	Off	On	Off
6	On	Off	On	Off
7	Off	On	On	Off
8	On	On	On	Off
9	Off	Off	Off	On
10	On	Off	Off	On
11	Off	On	Off	On
12	On	On	Off	On
13	Off	Off	On	On
14	On	Off	On	On
15	Off	On	On	On
16	On	On	On	On



## MODE SWITCHES

Mode switch	Application	
C	On	Magnetic swipe reader connected to J2.
	Off	Wiegand reader connected to J2.
B	On	Financial institution magnetic swipe cards used on J2 reader.
	Off	Tecom format magnetic swipe cards used on J2 reader.
A	On	Enables the offline programming mode.
	Off	Disables the offline programming mode (all other times).
T	On	This TS0862 is the last physical device on the RS485 LAN.
	Off	This TS0862 is NOT the last physical device on the RS485 LAN.

## J2: READER CONNECTIONS

Pin	Function	Wire Colour	Wiegand Reader	Magnetic Stripe Reader
BZ	Buzzer	Blue	Open collector output to control Reader beeper, if fitted.	BZ (B2)
L1	LED 1	Brown	Open collector output to control reader LED (red).	L1
L2	LED 2	Yellow	Open collector output to control reader LED (green).	L2
D1	Data 1	White	Data 1's connection to reader.	Data (D1) Magnetic swipe
D0	Data 0	Green	Data 0's connection to reader.	Clock (D0) Magnetic swipe
0V	Data Ground	Black	Data ground	0V
+	Reader power supply	Red	+5V or +12V depending on setting of RDR Supply link to suit reader. 100mA max. at 5V for 2 seconds and 75mA constant.	PWR +5V, at 75mA
EG	Egress	Violet	Input connection for door Egress (Exit) button or TS0064. Connecting this input to the TS0064 Expanded Button Interface EIP terminal provides In/Out button inputs including the Egress button function. Shorting EG to 0V will activate Egress (i.e. Egress Button requires Normally Open contacts).	

**NOTE:** + (Positive) cable is connected to +5V or +12V depending on type of reader used.

## CONNECTIONS

### READER WIRING

Reader wiring requires 4-pair multi-strand, Level 5 UTP data cable. 50 metres maximum.

**NOTE:** *If the cable is run in a noisy electrical environment and/or a long length of cable is used, use a suitable shielded 7- or 8-core data cable.*

### LAN CONNECTION

The RS485 LAN is used to connect Arming Stations and Data Gathering Panels (to provide extra inputs) to the Challenger panel. Two-pair twisted, shielded data cable (such as Belden 8723) is recommended. If Belden 8723 is used, TS0862 can be up to 1500 m (LAN cable length) from the Intelligent Controller or Challenger.

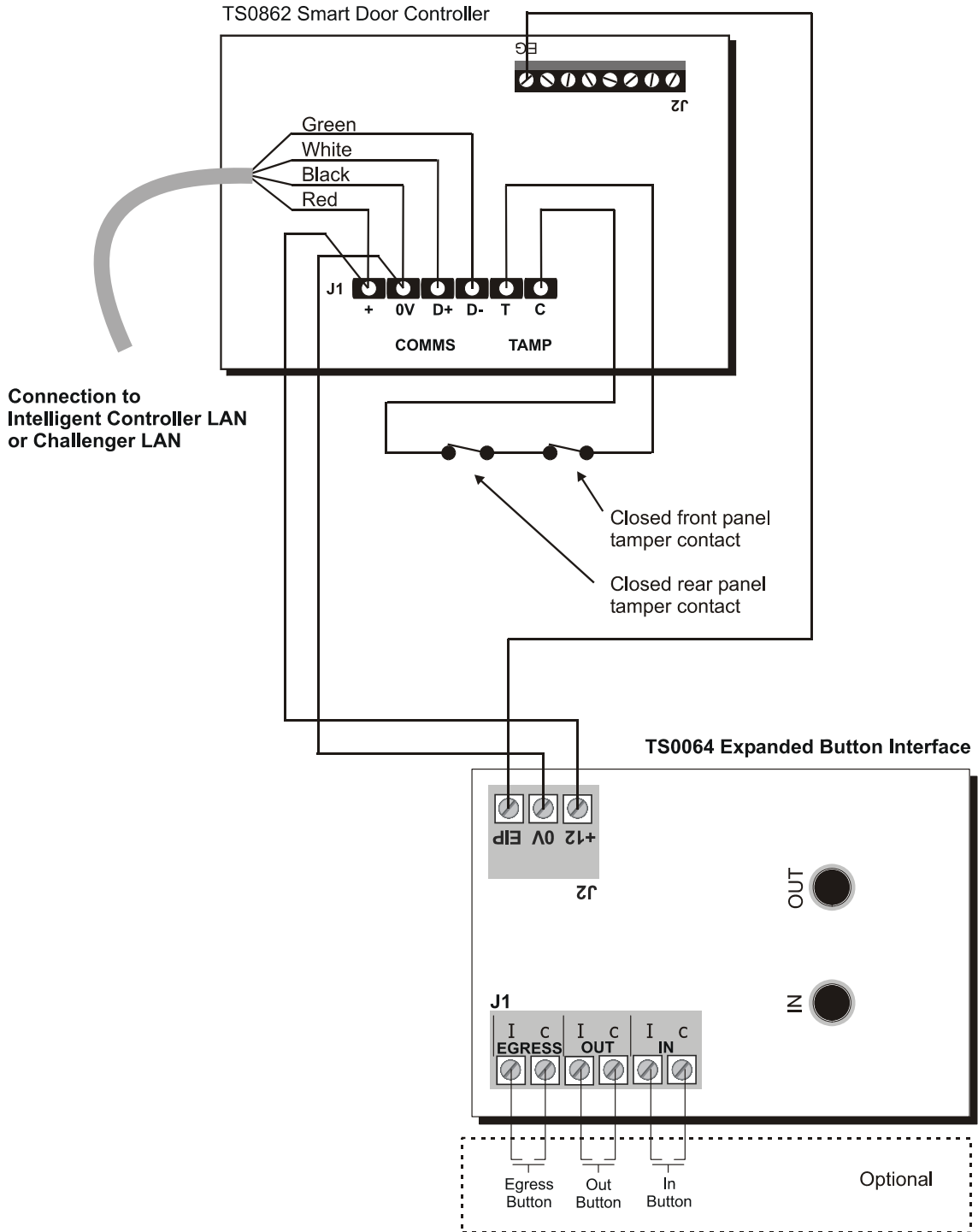
The shield of any data cable connected to the Smart Door Controller should be connected to earth at one end only (i.e. the panel or DGP that the other end of the data cable is connected to).

### POWER SUPPLY

TS0862 may be powered via 12 volt DC supply input from LAN or from separate power supply. We recommend you use a separate power supply if the TS0862 and the nearest device are more than 100 metres apart. To power TS0862 with a separate 12 volt DC supply input:

- Connect '+' of the local power supply to '+' on the J1 connector. **Do not** connect '+' from the LAN cable.
- Connect 0 volts from the power supply **and** 0 volts from the LAN connection to the J1 connector terminal marked '0V'.
- Use 'figure 8' cable for power if distance from LAN power connection is greater than 30 metres.

### CONTROLLER AND BUTTON INTERFACE WIRING DIAGRAM



## PROGRAMMING TS0862

The Smart Door Controller may be programmed via an LCD RAS to operate on one Wiegand or one magnetic stripe card reader together with a simple Egress push button or the TS0064 (In button, Out button, and optional Egress button).

### ONLINE ACCESS CONTROL

**NOTE:** For online programming, Challenger software version 8.54 or greater is needed.

In online programming mode, mode switch 'A' will have no effect. However always leave it in the off position. This switch is only used in the offline mode to program cards.

Programming online access control involves the following steps:

Step	Main task (some tasks involve further steps)
1	Set the RAS address on TS0862.
2	Enable polling.
3	Access the Smart Door Controller menu, and then use the Smart Door Controller menu options that pertain to the specific TS0862 that you are programming.
4	Program Challenger Access Control Settings

These steps are described in the following sections.

### SET THE RAS ADDRESS ON TS0862

Step	Instructions
1	Use the address switches to select the required RAS address for this Door Controller. See <i>Address Switches</i> on page 3 for the table on RAS addresses.

### ENABLE POLLING

This and the following procedures are performed on an LCD RAS. These steps assume that the TS0862 is connected to the Challenger LAN.

Step	Instructions
1	Select menu option 19 - INSTALL
2	Select Installer menu option 3 - POLL RAS.
3	Enter the RAS address set in the previous step.

### ACCESS THE SMART DOOR CONTROLLER MENU

These steps assume that the TS0862 is connected to the Challenger LAN.

Step	Instructions
1	Select menu option 19 - INSTALL
2	Select Installer menu option 28 - Remote Controllers. The following information appears in the RAS LCD:
	Remote Type, 1-Door Ctrl 2-RAS Type No:
3	Key in 2 for RAS and press ENTER. The following information appears in the RAS LCD:
	Remote RAS Setup Remote No: _

Step	Instructions
4	Key in the remote number (the RAS address as set using the address switches) and press ENTER. The following information appears in the RAS LCD: <div style="text-align: right; background-color: #cccccc; padding: 5px;">Smart Door Controller 0-Exit Menu:</div>
5	Key in the required menu number and press # to commence programming. You can scroll up and down the menus by using the # (ENTER) and the * (MENU) keys.

## SMART DOOR CONTROLLER MENU OPTIONS

The following table describes the Smart Door Controller menu options.

Menu option	Name	Application tips	See page
1	Access Time	Program the access time. Alternatively, skip this option if you're willing to accept the default factory setting of 5 seconds. <b>NOTE:</b> If you want to use default factory settings, use menu option 8: Factory Defaults <b>before</b> you make any changes.	7
2	Egress Control	Program the egress control options. Alternatively, skip this option if you're willing to accept the default factory setting of Egress Only.	8
3	Display Card Format	Use this option to check the settings of mode switch C.	8
4	Display Card Type	Use this option to check the settings of mode switch B.	8
5	LED 1 Options	Program the LED 1 options. Alternatively, skip this option if you're willing to accept the default factory setting of Secure + Door Open.	9
6	LED 2 Options	Program the LED 2 options. Alternatively, skip this option if you're willing to accept the default factory setting of Door Open Only.	9
7	Door Relay	Program the door relay options (if used). Alternatively, skip this option if you're willing to accept the default factory setting of Relay + LED opens door.	9
8	Factory Defaults	Use this option to restore default settings and clear the database of all card numbers programmed by an installer.	10
9	Version Number	Use this option to view the software version number.	10
10	Learn Mode	Use this option to add up to 20 user cards into the TS0862's on-board database for offline access control.	10
11	Number of Cards	Use this option to view the number of cards already held in the TS0862's on-board database.	12
12	Last Card Code	Use this option to view the card code of the last card badged.	12
13	Delete card	Use this option to find and delete a specific card from the TS0862's on-board database.	12

The following sections describe each of the menu options, listed in the order that they appear in the menu.

### OPTION 1—ACCESS TIME

Step	Instructions
1	Select Smart Door Controller menu option 1 - ACCESS TIME and press ENTER. The following default information appears in the RAS LCD: <div style="text-align: right; background-color: #cccccc; padding: 5px;">1-Offline Access Time 005 Seconds Time: _</div>
2	Press ENTER.
3	Key in a time in seconds from 0 to 255 to activate the door open relay.

Step	Instructions
4	Press ENTER and then press ENTER again to return to the main menu.

**OPTION 2—EGRESS CONTROL**

Step	Instructions
1	<p>Select Smart Door Controller menu option 2 - EGRESS CONTROL and press ENTER. The following default information appears in the RAS LCD:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Egress Only *-Change #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Egress Off *-Change #-Exit</div> <p style="text-align: center;">— OR —</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Egress + Arm/Disarm *-Change #-Exit</div> <ul style="list-style-type: none"> <li><b>Egress only</b> will operate with the TS0064 push button or any single poll push button connected to the EG input and 0V on the J2 connector of the TS0862.</li> <li><b>Egress + Arm/Disarm</b> requires the TS0064 push buttons. Any single poll push button may be connected to the EGRESS input of the TS0064 for egress operation.</li> <li>See <i>Controller and button interface wiring diagram</i> on page 5 for wiring details.</li> </ul>
2	Make any required changes and then press ENTER to return to the main menu.

**OPTION 3—DISPLAY CARD FORMAT**

These options are for installer’s information and can only be changed through mode switch C. Effectively, this is displaying the position of mode switch C.

Step	Instructions
1	<p>Select Smart Door Controller menu option 3 - DISPLAY CARD FORMAT and press ENTER. The following default information appears in the RAS LCD:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Wiegand Reader #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Magnetic Stripe #-Exit</div>
2	Press ENTER to return to the main menu.

**OPTION 4—DISPLAY CARD TYPE**

These options are for installer’s information and can only be changed through mode switch B. Effectively, this is displaying the position of mode switch B.

Step	Instructions
1	<p>Select Smart Door Controller menu option 4 - DISPLAY CARD TYPE and press ENTER. The following default information appears in the RAS LCD:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Tecom #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px; border: 1px solid #ccc;">Financial #-Exit</div>
2	Press ENTER to return to the main menu.



**OPTION 5—LED 1 OPTIONS**

Step	Instructions
1	<p>Select Smart Door Controller menu option 5 - LED 1 OPTIONS and press ENTER to determine LED 1 operation.</p> <p><b>NOTE:</b> LED 1 is normally the red LED.</p> <p>The following default information appears in the RAS LCD:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">LED 1 Secure + Door Open *-Change, #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">LED 1 Secure *-Change, #-Exit</div> <ul style="list-style-type: none"> <li>• <b>LED 1 Secure + Door Open</b>, LED 1 is on when the area is secured and flashes LED 1 when access is granted.</li> <li>• <b>LED 1 Secure</b>, LED 1 is on when the area is secure and flashes LED 2 when access is granted.</li> </ul>
2	Make any required changes and then press ENTER to return to the main menu.

**OPTION 6—LED 2 OPTIONS**

Step	Instructions
1	<p>Select Smart Door Controller menu option 6 - LED 2 OPTIONS and press ENTER to determine LED 2 operation.</p> <p><b>NOTE:</b> LED 2 is normally the green LED.</p> <p>The following default information appears in the RAS LCD:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">LED 2 Door Open Only *-Change, #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">LED 2 Door Open + Access *-Change, #-Exit</div> <ul style="list-style-type: none"> <li>• <b>LED 2 Door Open Only</b> flashes LED 2 when access is granted, it is off at all other times.</li> <li>• <b>LED 2 Door Open + Access</b> flashes LED 2 when access is granted and is continuously on when the area is in access.</li> </ul>
2	Make any required changes and then press ENTER to return to the main menu.

**OPTION 7—DOOR RELAY**

Step	Instructions
1	<p>Select Smart Door Controller menu option 7 - DOOR RELAY and press ENTER to select the condition for operating the Door Access Relay (on the PCB).</p> <p>The following default information appears in the RAS LCD:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">Relay + LED Opens Door *-Change, #-Exit</div> <p>Alternatively, the following information may appear:</p> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; width: fit-content; margin: 10px auto;">Relay Opens Door *-Change, #-Exit</div> <ul style="list-style-type: none"> <li>• <b>Relay +LED Opens Door</b> activates on-board relay when a Challenger relay is programmed (as above) OR when the LED is flashing when access is granted.</li> <li>• <b>Relay Opens Door</b> activates on-board relay when a Challenger relay is programmed to operate Relay 1 for the TS0862 (RAS). See 'Relay Control Group' for Remote Arming Stations (RAS) in Challenger Programming.</li> </ul>
2	Make any required changes and then press ENTER to return to the main menu.

**OPTION 8—FACTORY DEFAULTS**

Option 8 is used only when you want to restore default settings and clear the database of all card numbers programmed by an installer.

Step	Instructions
1	Select Smart Door Controller menu option 8 - FACTORY DEFAULTS and press ENTER to restore default settings and clear the database of all card numbers programmed by an installer. The following information appears in the RAS LCD: <div style="text-align: right; border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto;">Clear Database? *-Yes, # -No</div> Alternatively, the following information may appear:
2	Press * (menu) key to clear the database and return all settings to the factory default (you will be asked to confirm the action). Alternatively, press ENTER to return to the main menu without making any changes.

The default factory settings are as follows:

Setting	Default value
Database	Empty
Access Time	5 seconds
Egress	Egress Only
Card Format	Mode Switch C Setting
Card Type	Mode Switch B Setting
LED 1	Secure + Door Open
LED 2	Door Open Only
Door Relay	Relay + LED opens door

**OPTION 9—VERSION NUMBER**

Step	Instructions
1	Select Smart Door Controller menu option 9 - VERSION NUMBER and press ENTER to view the software version number. The following information appears in the RAS LCD: <div style="text-align: right; border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto;">Copyright 1988-XX Tecom Systems Ver. TS0862 SDC.XXX</div>
2	Press ENTER to return to the main menu.

**OPTION 10—LEARN MODE**

Once the card format and type has been established, up to 20 user cards can be 'learned' into the TS0862's on-board database using option 10 - LEARN MODE. Cards can be entered into the TS0862's on-board database **only** by using Smart Door Controller menu option 10 - LEARN MODE.

The on-board database is NOT used for online access control, because when TS0862 is online it is under the control of the Challenger's user database. The TS0862 on-board database is used for access control **only** when the TS0862 loses communication with the Challenger, or is in permanent offline mode.

When programming cards in online mode, normal door access control functions continue to operate. So, if a user is valid for access, then access is granted even though you are programming the card into the on-board database.

Step	Instructions
1	Before entering Learn mode, decide which users' cards will be enabled for offline mode and obtain the cards for learning.

Step	Instructions
2	Select Smart Door Controller menu option 10 - LEARN MODE and press ENTER to enable card programming. Turn the learn mode option on. When the learn mode option is on, a timeout period of four minutes applies if no programming is taking place. If this happens, turn the learn mode on again.
3	Badge the card four times at the card reader to program the card into the on-board database. <b>Note:</b> no more than three seconds between badges or else the badging process must start again. One short beep is sounded by the Wiegand Card Reader each time a card is badged, in addition to the number of beeps listed in the programming instructions. This is because the first beep is generated by the Wiegand card reader indicating it has read the card. On the first badge: <ul style="list-style-type: none"> <li>• Two beeps (OK) will be sounded.</li> <li>• Alternatively, if the card is not in the Challenger user database, seven beeps (error) will be sounded.</li> </ul> On the second and third badges: <ul style="list-style-type: none"> <li>• Two beeps will be sounded.</li> </ul> On the fourth badge (if the database is not full): <ul style="list-style-type: none"> <li>• The card code is entered into the TS0862's database.</li> <li>• One long beep followed by two short beeps are sounded.</li> </ul> On the fourth badge (if the database is full): <ul style="list-style-type: none"> <li>• The card code is discarded.</li> <li>• Three long beeps are sounded.</li> </ul> Repeat Step 3 until all the cards are learned into the offline database.
4	Online programming can be exited in three ways: <ul style="list-style-type: none"> <li>• Turn it off via Smart Door Controller menu option 10 - LEARN MODE.</li> <li>• Time out. After four minutes of no use while in the Smart Door Controller menu.</li> <li>• Logout of the Smart Door Controller.</li> </ul>

#### REMOVING A CARD FROM ON-BOARD DATABASE

To remove a card from the TS0862's database, the card format and type must match the card.

Step	Instructions
1	Select Smart Door Controller menu option 10 - LEARN MODE and press ENTER to enable card programming. Turn the learn mode option on. When the learn mode option is on, a timeout period of four minutes applies if no programming is taking place. If this happens, turn the learn mode on again.
2	Badge the card six times at the card reader to remove the card from the on-board database. <b>Note:</b> no more than three seconds between badges or else the badging process must start again. One short beep is sounded by the Wiegand Card Reader each time a card is badged, in addition to the number of beeps listed in the programming instructions. This is because the first beep is generated by the Wiegand card reader indicating it has read the card. On the sixth badge, one long beep is sounded when the card is removed from the on-board user database. This does not affect in any way the Challenger's user database.
3	Online programming can be exited in three ways: <ul style="list-style-type: none"> <li>• Turn it off via Smart Door Controller menu option 10 - LEARN MODE.</li> <li>• Time out. After four minutes of no use while in the Smart Door Controller menu.</li> <li>• Logout of the Smart Door Controller.</li> </ul>

**OPTION 11—NUMBER OF CARDS**

Step	Instructions
1	<p>Select Smart Door Controller menu option 11 - NUMBER OF CARDS and press ENTER to view the number of cards already held in the TS0862's database.</p> <p>The following information appears in the RAS LCD (if 15 is the number of cards already programmed into the database):</p> <div style="text-align: right; background-color: #cccccc; padding: 5px;">                     Cards 15                      #-Exit                 </div>
2	Press ENTER to return to the main menu.

**OPTION 12—LAST CARD CODE**

Step	Instructions
1	<p>Select Smart Door Controller menu option 12 - LAST CARD USED and press ENTER to view the card code of the last card badged.</p> <p>The following information appears in the RAS LCD.</p> <p>Example for Wiegand format cards:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px;">                     01, 1B, 34, 26, 78, 95                      #-Exit                 </div> <p>Example for Tecom format cards:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px;">                     00, 43, 46, 00, 00 91                      #-Exit                 </div> <p>Example for Financial Institution format cards:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px;">                     52, 16, 29, 52, 60, 1E                      #-Exit                 </div>
2	Press ENTER to return to the main menu.

**OPTION 13—DELETE CARD**

Step	Instructions
1	<p>Select Smart Door Controller menu option 13 - DELETE CARDS and press ENTER to view the number of the first card in the database.</p> <p>The following type of information appears in the RAS:</p> <div style="text-align: right; background-color: #cccccc; padding: 5px;">                     00, 43, 46, 00, 00, 91                      *- Delete, # - Next                 </div>
2	<p>Press the * key to delete the card from the database.</p> <p>Alternatively, press the # key to view the next card in the database.</p>
3	To return to the main Smart Door Controller menu at any time, press '0' (zero), then press #.

**RETURNING TO CHALLENGER INSTALLER MENU**

Step	Instructions
1	To return to the Challenger Installer menu, press 0 (zero), then press # at the main menu.

## PROGRAM CHALLENGER ACCESS CONTROL SETTINGS

### STEPS REQUIRED FOR ALL USERS

When in the online mode, the TS0862 is under the control from the Challenger's user database. Therefore, for a card to get an access granted in this online mode, the following steps must be performed to set up the necessary card and user information in the Challenger, as per normal access control programming.

Step	Instructions
1	Program card site code number and offset number. See the <i>Version 8 Challenger Programming Guide</i> , option 19: Installer menu, option <b>20: Site Code</b> for details.
2	Program the user cards or code numbers. See the <i>Version 8 Challenger Programming Guide</i> , User menu option <b>14: Program Users</b> for details.
3	Program one door group to each user. See the <i>Version 8 Challenger Programming Guide</i> , Users menu option <b>20: Door and Floor Groups</b> for details.
4	Optionally, program the RAS to display the site code and ID number of the last card presented. See the <i>Version 8 Challenger Programming Guide</i> , option 19: Installer menu, option <b>25: Display Card</b> for details.

### STEPS REQUIRED FOR DOORS USING RELAYS

The following steps are required only if the relay output for this Smart Door Controller is needed.

Step	Instructions
1	Program a relay control group number for the Smart Door Controller. See the <i>Version 8 Challenger Programming Guide</i> , option 19: Installer menu, option <b>3: Arming Stations</b> for details, and see <i>Relay Control Groups</i> in the <i>Numbering</i> section.
2	Program an event flag for the Smart Door Controller relay number See the <i>Version 8 Challenger Programming Guide</i> , option 19: Installer menu, option <b>16: Relay Mapping</b> for details.

## OFFLINE ACCESS CONTROL

### BASIC SETUP AND PROGRAMMING

For offline programming, TS0862 mode switch 'A' must be on. It is normally off.

Should the Challenger ever fail or the communication fail between the Challenger and the Smart Door Controller, the Smart Door Controller has the capacity to continue operating as a stand alone unit with its own power supply. In this offline mode, cards programmed into the TS0862's on-board database will be used to determine access control, while those cards stored in the Challenger database will not be used.

Bearing this in mind it is important to take due consideration when selecting those cards which will make up the 20 cards in the off-line on-board database as they will be the only users who have access when the Challenger user database are no longer accessible. During this time the integrity of the security system is under suspicion.

Normal door operations continue when in the programming mode, provided valid card codes are in the on-board database.

Programming offline access control involves the following steps:

Step	Main task (some tasks involve further steps)
1	Initial connections
2	Card format & card type
3	Offline programming mode
4	Programming cards into TS0862 on-board user database

These steps are described in the following sections.

### INITIAL CONNECTIONS

Connect the 12 VOLT DC supply, the selected card reader type and Egress buttons, if required, as per this document.

Ten seconds after power-up, the Tx LED will flash once per second indicating that the TS0862 is operating. The once per second flash rate is indicating that the TS0862 has gone into offline mode with no Challenger LAN connected.

### CARD FORMAT & CARD TYPE

Select mode switch C in the **Off** position for Wiegand format and **On** position for Magnetic Stripe format.

For Magnetic Swipe format, mode switch B will be in the **Off** position for Tecom type cards and the **On** position for Financial Institution cards.

### OFFLINE PROGRAMMING MODE

To enter off-line programming mode set mode switch A to the **On** position. This is the only way to program cards (Learn Mode) while in offline mode.

Ensure the mode switch A is turned **Off** when programming is complete, otherwise the TS0862 will always be in Learn Mode while the TS0862 is offline.

## PROGRAMMING CARDS INTO TS0862 ON-BOARD USER DATABASE

Step	Instructions
1	Before entering Learn mode, decide which users' cards will be enabled for offline mode and obtain the cards for learning.
2	<p>In off-line programming mode badge the card four times at the card reader to program the card into the on-board database.</p> <p><b>Note:</b> no more than three seconds between badges or else the badging process must start again. One short beep is sounded by the Wiegand Card Reader each time a card is badged, in addition to the number of beeps listed in the programming instructions. This is because the first beep is generated by the Wiegand card reader indicating it has read the card.</p> <p>On the first badge:</p> <ul style="list-style-type: none"> <li>• If the card is not in TS0862 on-board user database, seven beeps (error) will be sounded.</li> <li>• Alternatively, two beeps will be sounded.</li> </ul> <p>On the second and third badges:</p> <ul style="list-style-type: none"> <li>• Two beeps will be sounded.</li> </ul> <p>On the fourth badge (if the database is not full):</p> <ul style="list-style-type: none"> <li>• The card code is entered into the TS0862's database.</li> <li>• One long beep followed by two short beeps are sounded.</li> </ul> <p>On the fourth badge (if the database is full):</p> <ul style="list-style-type: none"> <li>• The card code is discarded.</li> <li>• Three long beeps are sounded.</li> </ul> <p>Repeat Step 2 until all the cards are learned into the offline database.</p>

## REMOVING CARDS FROM TS0862 ON-BOARD USER DATABASE

To remove a card from the TS0862's database, the card format and type must match the card and mode switch A is on.

Step	Instructions
1	<p>In off-line programming mode badge the card six times at the card reader to remove the card from the on-board database.</p> <p><b>Note:</b> no more than three seconds between badges or else the badging process must start again. One short beep is sounded by the Wiegand Card Reader each time a card is badged, in addition to the number of beeps listed in the programming instructions. This is because the first beep is generated by the Wiegand card reader indicating it has read the card.</p> <p>On the sixth badge, one long beep is sounded when the card is removed from the on-board user database.</p>

## STATEMENTS



***N4131***

When installed as directed, this product conforms to the standards set by Standards Australia on behalf of the Australian Communications Authority (ACA).

### **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**

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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