

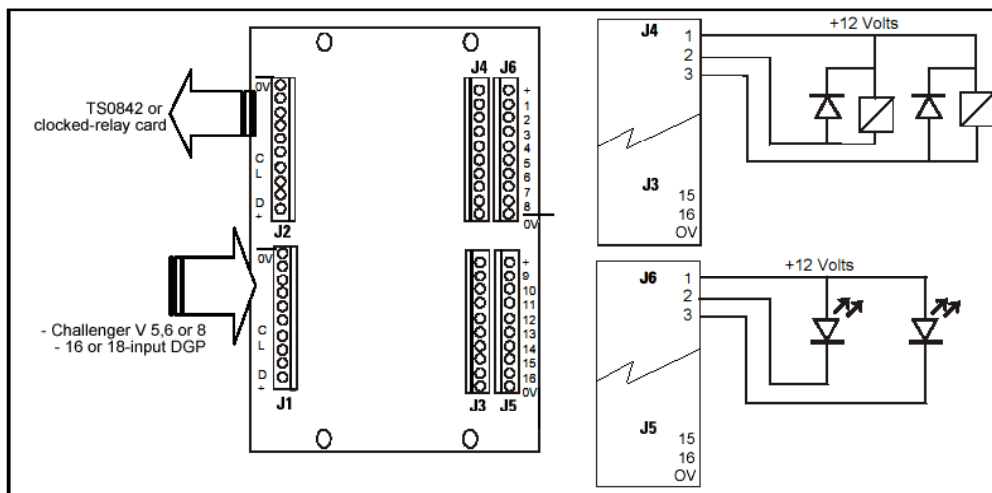
Installation Guide

Revised! — see *Protective Earthing Addendum*

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Diagram of the TS0482 PCB



What is the Open Collector output?

- The TS0482 16-Way Clocked Open Collector Card has sixteen 50mA open collector outputs with connections for either direct connection to the Open Collector output or via 1.5kOhm resistors for LEDs.
- Clocked open collector cards can be fitted to Challenger panels or Data Gathering Panels (DGPs).
- When connected together in daisy-chain fashion, the TS0842 provides up to 255 outputs when connected to the Challenger Alarm Panel.

What this guide covers

This guide covers the installation of the TS0842 with Challenger versions 5,6, 7 and 8 and other Challenger products.

Who should install?

Qualified Installation Technicians. In Australia, the TS0842 must be installed in accordance with ACA cabling requirements.

Delivery checklist and general specifications

Specifications and delivery checklist

Check the list to ensure all parts are included. Contact Interlogix Australia Pty Ltd immediately if you believe you don't have the items listed or what you've received doesn't match the specifications listed.

Delivery checklist	✓
TS0482 16-Way Clocked Open Collector Card.	
Cable. Part number: LEV8-10-500P	

General specifications

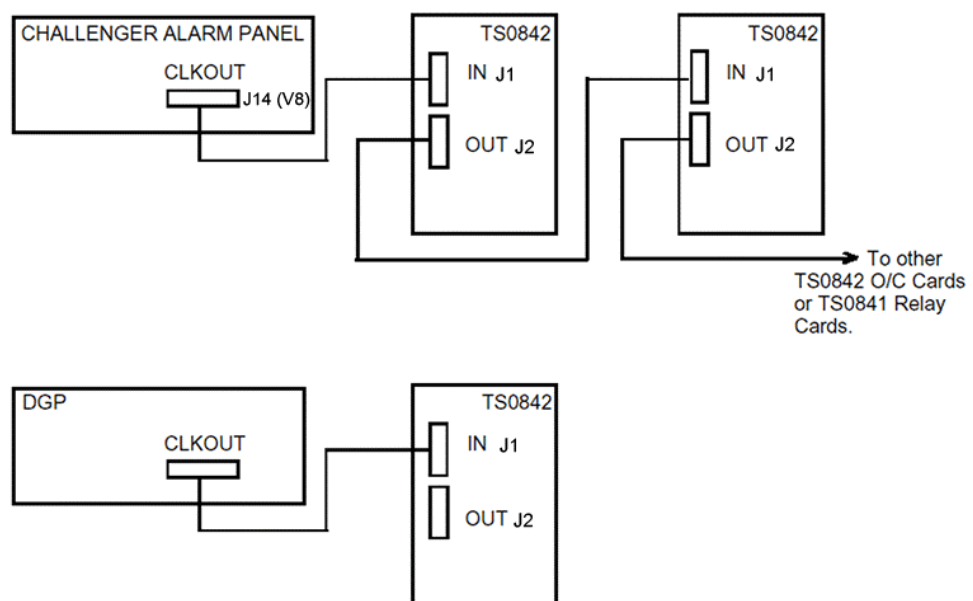
- **Dimensions (PCB Card):** Size B PCB: 80 x 52 mm.
- **Current consumption:** The TS0482 Clocked Open Collector Card requires 50mA maximum current plus any current drawn by devices connected to the +12V pin on the output connectors.

Max cards per Challenger product

This table lists the maximum number of 16-Way Open Collector Cards per Challenger product.

Maximum 16 Way Open Collector Cards per Challenger product		
Outputs	Maximum Cards	Maximum Usable Inputs
Alarm Panels (All versions)	16	255
DGPs (All versions)	1	16

Sample system layout diagram:



Output and input connection data for Challengers and Challenger products

Interconnection cabling:

This table lists the I/O connector pin numbers for outputs from the TS0482 to the inputs for other Challenger products.

TS0482 input pin numbers		Output pin numbers for Challengers (* see notes below)				
TS0842 (also ATS1820) J1	Signal description	V8 Challenger TS0816 J14		* V6 Challenger, TS0015 J8		* V5 Challenger, TS0010-14, TS05XX J6
1	+ 12 volts	1		2		10
2	Data	2		7		3
4	Latch	4		6		4
5	Clk	5		5		5
10	0 Volts	10		1		1
TS0482 input pin numbers		Output pin numbers for other Challenger products. (* see notes below)				
TS0842 (also ATS1820) J1	Signal description	* V8 8 I/P DGP TS0820, TS0822 J8	* V8 16 I/P DGP/ Door Controller TS0817 J21	* 16 I/P DGP TS0016, TS0017 Access Controller TS0067 J8	* V6 8 I/P DGP TS0020, TS0022, TS0023, TS0024 J6	* TS0842 J2
1	+ 12 volts	1	1	10	2	1
2	Data	2	2	6	7	2
4	Latch	4	4	7	6	4
5	Clk	5	5	8	5	5
10	0 Volts	10	10	1	1	10

Notes on connector details

*** Products marked with an * need a specific cable. See the *Installation Summary* table on page 5 for more information.**

Output wiring details and diagrams

Output Wiring

TS0842 Open Collector Card output wiring connections for direct open collector and LED outputs are listed below with diagrams.

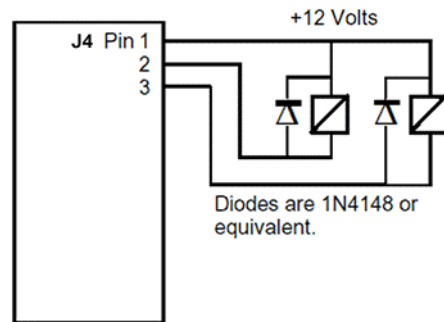
Output wiring data and examples

Direct Open Collector Outputs

J4	1 +12 Volts
2	Output 1
3	Output 2
4	Output 3
5	Output 4
6	Output 5
7	Output 6
8	Output 7
9	Output 8
10	0 Volts
J3	1 +12 Volts
2	Output 9
3	Output 10
4	Output 11
5	Output 12
6	Output 13
7	Output 14
8	Output 15
9	Output 16
10	0 Volts

Wiring Examples

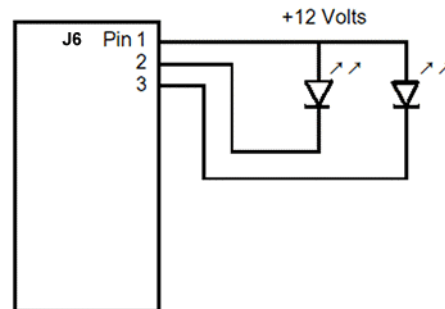
Wiring Relays to Open Collector Outputs, J4 & J3



LED Outputs (via 1.5 kOhm Resistor)

J6	1 +12 Volts
2	Output 1
3	Output 2
4	Output 3
5	Output 4
6	Output 5
7	Output 6
8	Output 7
9	Output 8
10	0 Volts
J5	1 +12 Volts
2	Output 9
3	Output 10
4	Output 11
5	Output 12
6	Output 13
7	Output 14
8	Output 15
9	Output 16
10	0 Volts

Wiring Light Emitting Diodes (LEDs) to LED outputs, J6 & J5 (On-board dropping resistor)



Mounting and installation summary

Installation
summary

This table lists the Challenger products the TS0482 connects to, the cables required and recommended enclosure options.

TS0842 connects to...	using cable...	Notes
Challenger panels		
TS0816 V8 Alarm Panel.	Cable supplied	Separate enclosure required. *
TS0015 Alarm Panel (V6 / V7).	Special cable part number: LEV6-10-500P	Separate enclosure required. *
V5 Challenger Alarm Panels. TS0010, TS0014, TS05XX	Special cable part number: LEV5-10-500P	Up to 4 TS0842s can be fitted in V5 enclosure * depending on the cards fitted, but extra standoffs are required.
DGPs, door controllers and other Challenger products		
TS0820/TS0822 V8 DGPs	Cable supplied	One TS0842 can be fitted in TS082x * enclosure depending on what other cards fitted.
8 I/P DGP TS0020/TS0022 TS0023/TS0024	Special cable part number: LEV6-10-500P	One TS0842 can be fitted in TS002x * enclosure depending on what other cards fitted.
TS0817 V8 16 I/P DGP/Door Controller	Cable supplied	One TS0842 mounts on existing standoffs in all 8-32 Input Data Gathering Panels, depending on the other modules fitted.
TS0016, TS0017 16 I/P DGP.	Special cable part number: LEV6-DOOR-10-500P	
TS0067 Door Controller.	Special cable part number: LEV6-DOOR-10-500P	Separate enclosure required. *
TS0841/TS0842 Relay / Open Collector Card.	Cable supplied	Cable for interconnecting TS0841/TS0842 Clocked Relay/Open Collector Cards.
TS0304		Separate Enclosure. V6 DGP Box 360 x 260 x 75mm with mounting for 1 Size "A" PCB, and 4 Size "B" PCBs or 2 Size "Double B" PCBs. Note: TS0842 is a Size "B" PCB. *
TIP: Clocked Relay Cards and 4 Way Relay Cards can't be used together on the same product.		
* We recommend the Universal Enclosures: TS0307, TS0308 and TS0309.		

How to program and enable relay assignments

Enabling and Programming Relay Assignments.

- Open collector outputs are regarded as relays.
- Map relays to event numbers and/or time zones as required.
- Relay function can also be inverted or programmed to be active or inactive during the time zone. *See: Challenger Programming Guide for more information.*

Relay programming

This table list Challenger products and relay programming required.

Devices	Instructions/notes
<ul style="list-style-type: none"> • Challenger Alarm Panels. Version 6, 7 and 8 • TS0015 & TS0816 	<p>Relay Controllers. Enter the number of Relay Controllers connected to the Challenger Alarm Panel. A 16 Way Open Collector Card is equivalent to two (2) Relay Controllers.</p>
<ul style="list-style-type: none"> • 8-32 Input Data Gathering Panel. • TS0020 to TS0024 • TS0820 to TS0824 	<p>Switch DIP switch 6 on Data Gathering Panel to "ON". This enables the "CLKOUT" data connection for a 16-Way Open Collector Card.</p>
<ul style="list-style-type: none"> • Intelligent Access Controller • Data Gathering Panel, 16-Input • TS0067 • TS0069 	<p>Output Controllers. Enter the number of Relay Controllers connected to the Access Controller. A 16-Way Open Collector Card is equivalent to two (2) Relay Controllers.</p>
<ul style="list-style-type: none"> • Version 5.9 Challenger Alarm Panel. • TS0010 to TS0014, • TS05XX 	<p>Remove Links RL5, RL6 & RL7 on the Alarm Panel PCB. Relays 5, 6, & 7 on the Alarm Panel become inoperative. Installer Menu Option 7 - Program System Options.</p> <p>Output Controllers: Enter the number of relay controllers connected to the Challenger Alarm panel. A 16-Way Open Collector Card is equivalent to two (2) Relay Controllers.</p> <p>On earlier Version 5 Alarm panels the output controllers option isn't enabled by programming. Switch DIP switch 6 on the Alarm Panel to "ON".</p>
<ul style="list-style-type: none"> • 16-Input Data Gathering Panel. • TS0016 • TS0017. 	<p>Switch DIP switch 6 on Data Gathering Panel to "ON".</p> <p>This enables the "CLKOUT" data connection for a 16 way Open Collector Card.</p>

Contact details
and hours

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Technical Support hours are: 9:00 to 5:30 p.m., Monday to Friday.

Disclaimer

The customer is responsible for testing and determining the suitability of this product for specific applications.

In no event is Interlogix Australia Pty Ltd responsible or liable for any damages incurred by the buyer or any third party arising from the use or their inability to use the product.

Due to ongoing product development, the contents of this manual can change without notice. We make every effort to ensure the accuracy of this manual. However, Interlogix Australia assumes no responsibility for errors or omissions in this manual or their consequences. Please notify us if you find any errors or omissions.

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TECOM | KALATEL | ARITECH | SENTROL | ESL

Part number: MAINST-TS0842



N4131

Please note, this product conforms to the standards set by 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 need to take adequate measures.
