

# EDCA-DIO-01

## Enclosure Door Contact Alarm



### Install Guide

- Provides 12VDC to an external contact switch or other actuation device
- Contact switch status (open/closed) can be wired to standard alarm input of a managed Ethernet switch
- Allows a managed Ethernet switch to report that enclosure door is open or closed
- Can be powered by the same power supply powering the managed Ethernet switch
- Supports wide input voltage range of 20-60 VDC; input is fused and reverse-polarity protected

### Contents

|  |    |
|--|----|
| Introduction and Description .....             | 1  |
| Ordering Information .....                     | 2  |
| Specifications .....                           | 2  |
| EDCA-DIO-01 Dimensions .....                   | 3  |
| Installation.....                              | 3  |
| Package Contents .....                         | 3  |
| DIN Rail Clip Installation.....                | 3  |
| Wall Mount Plate Installation (Optional) ..... | 4  |
| EDCA-DIO-01Installation .....                  | 5  |
| EDCA-DIO-01Install Procedure .....             | 6  |
| Switch Software Configuration .....            | 6  |
| Related Manuals .....                          | 6  |
| For More Information .....                     | 6  |
| Troubleshooting .....                          | 6  |
| Recording Information .....                    | 7  |
| 22365 Magnetic Contact Switch (Option).....    | 8  |
| 22365 Specifications .....                     | 8  |
| 22365 Installation Instructions.....           | 8  |
| Compliance Information .....                   | 9  |
| Warranty .....                                 | 9  |
| Contact Us.....                                | 10 |
| Record of Revisions .....                      | 10 |

## Introduction and Description

The Transition Networks EDCA-DIO-01 Enclosure Door Contact Alarm adds an additional level of security to applications by monitoring the status of the door on equipment enclosures. The EDCA-DIO-01 inserts power into any 12V Digital Input (DI) application by making it active. The EDCA-DIO-01 provides power between a connected sensor or alarm and the Digital Input port on a Transition Networks Managed Hardened Ethernet PoE Switch.

With a Transition Networks Managed Hardened Ethernet PoE Switch installed in a cabinet, a mechanical contact closure switch (optional accessory) is installed at the cabinet door, and the EDCA-DIO-01 (also installed in the cabinet) links the two together. When the door to the cabinet is open, the switch is notified of the open door and network administrators are alerted.

The EDCA-DIO-01 can be used in applications where Transition Networks PoE switches and other equipment are installed in cabinets and require additional levels of security.

The EDCA-DIO-01 requires power and can be powered by the same power supply providing power to the Transition Networks Ethernet switch in the cabinet. The power port is a 2-wire Terminal Block supporting 20 - 60 VDC.

The switch must be mountable near the enclosure door so that the opening and closing of the door will trigger the switch. The switch requires wire connection terminals.

The EDCA is an enclosure door alarm device which can provide alerts if the cabinet door has been opened. The EDCA is a 12 volt step down voltage converter. It enables the DIO function in a switch to use 48V main power supply as the source of power, and step the voltage down to the DIO voltage input range.

The EDCA-DIO-01 can be mounted within the cabinet via DIN Rail Clip or via an optional Wall Mount Plate. For example, the EDCA-DIO-01 can be used in conjunction with the Transition Networks SISPM1040-362-LRT, SISPM1040-384-LRT-C, or SISPM1040-582-LRT hardened managed Ethernet switches

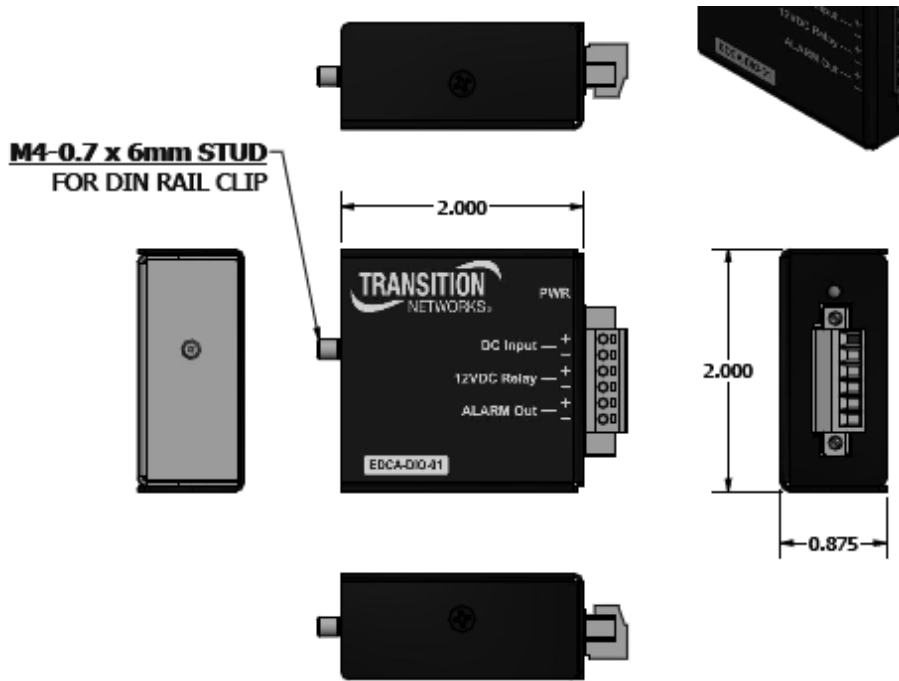
## Ordering Information

| SKU         | Description   |
|-------------|---|
| EDCA-DIO-01 | Enclosure Door Contact Alarm  |
| 22057       | DIN Rail Clip (included)  |
| WMB-EDCA    | Wall Mount Bracket for Enclosure Door Contact Alarm (sold separately) |
| 22365       | Magnetic Contact Switch accessory (sold separately)                   |

## Specifications

|                                    |   |
|------------------------------------|---|
| IEEE, IETF, Safety Compliance      | N/A   |
| Regulatory Compliance for Emission | EN 55032  |
| Regulatory Compliance for Immunity | EN 55024  |
| Power Consumption                  | 1.2W (100mA at 12V out max.)  |
| Power Source                       | 20-60 VDC   |
| Power Output                       | 12VDC +/- 10%   |
| Dimensions                         | 2.2" x 2" x 7/8" (6.2 x 5 x 2.2 cm)   |
| Weight                             | 0.2 Lb. (0.09 Kg.)  |
| Environment                        | Operating Temp: -25 to +75 deg. C. Storage Temp: -40 to +85 deg. C<br>Altitude: 0-10,000 feet. Operating Humidity: 5% to 95% (non-condensing) |
| MTBF                               | Telcordia SR-332 (Issue 3). Environment = GB (Ground, Fixed, Controlled).<br>Calculation Results at GB/30C: MTBF = 9,950,896 hours            |
| Warranty                           | Lifetime  |

## EDCA-DIO-01 Dimensions



## Installation

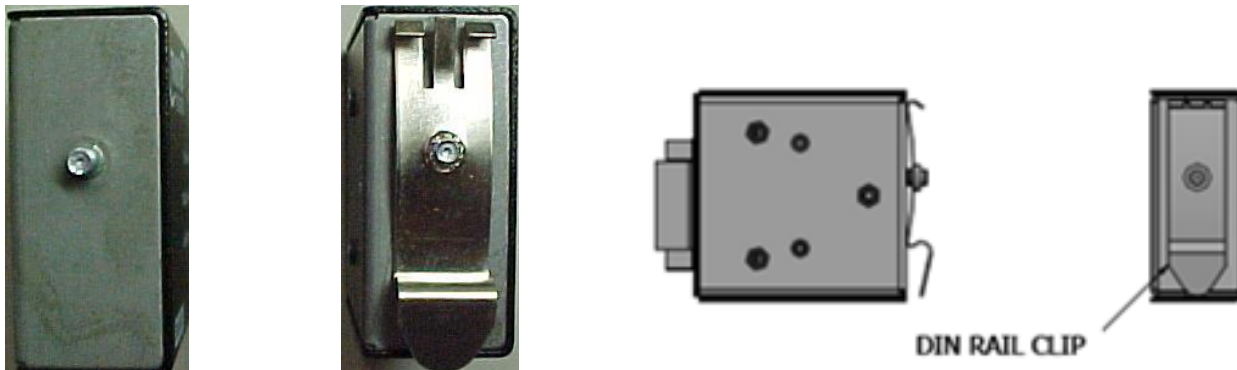
### Package Contents

Carefully unpack the EDCA-DIO-01 and verify you have received the following items. Contact your sales representative if any item is missing. Please save the packaging for possible future use.

- One EDCA-DIO-01
- One printed Quick Start Guide
- DIN Rail Clip
- One Documentation Postcard

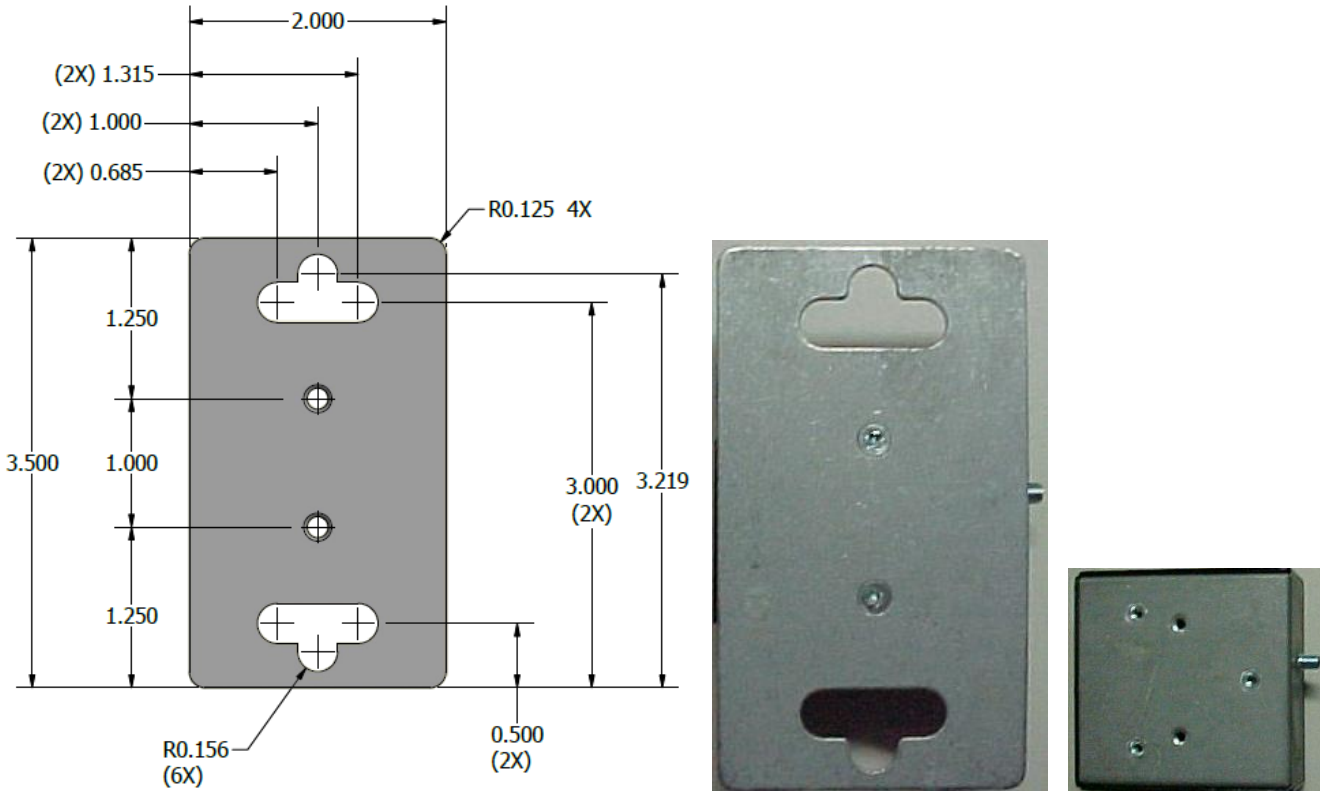
### DIN Rail Clip Installation

1. Attach and tighten the DIN rail clip on the threaded stud until it is secured and aligned properly.



### Wall Mount Plate Installation (Optional)

1. Attach the Wall Mount Plate to the EDCA-DIO-01 using the two provided screws.
2. Attach the Wall Mount Plate to the wall using two screws (not provided).



## EDCA-DIO-01 Installation

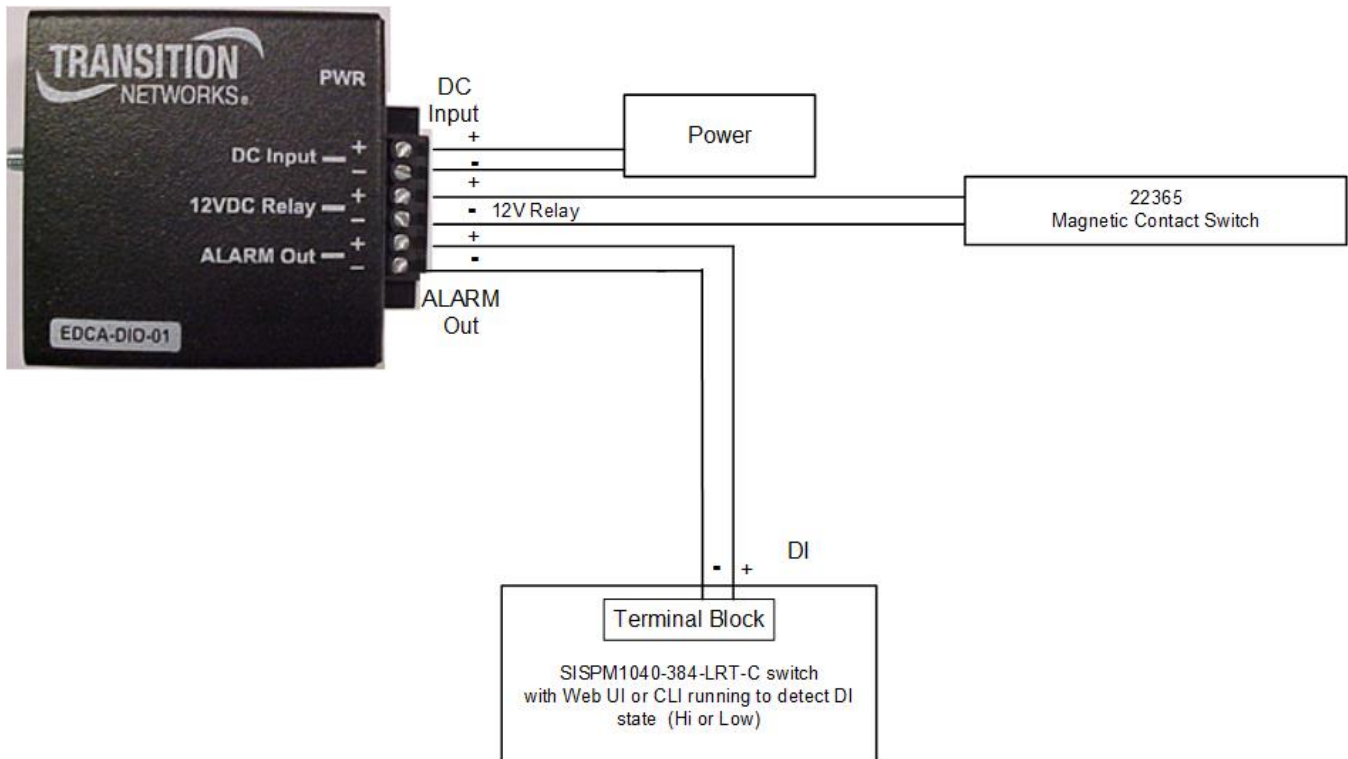
The EDCA-DIO-01 requires power and can be powered by the same power supply providing power to the Transition Networks Ethernet switch in the cabinet. The power port (marked DC Input) is a 2-wire Terminal Block supporting 20 - 60 VDC.

The DI ports must also be 2-wire terminal blocks on the Transition Networks Ethernet switch.

Transition Networks sells as an optional accessory a universal mechanical door contact closure switch that works with a variety of enclosures. However, your cabinet manufacturer may provide their own door closure contact switch. The switch requires wire connection terminals.



The figure below shows a Transition Networks SISPM1040-384-LRT-C Ethernet switch, EDCA-DIO-01, and power supply in a single cabinet/enclosure. **Warning:** Ensure that the target alarm input is capable of accepting the applied voltage (12VDC in these examples).



**Note:** If installing external audio or visual alarm equipment, place that equipment in series with the 22365 or switch that came with the cabinet.

## EDCA-DIO-01 Install Procedure

1. Mount a mechanical door closure contact switch near the enclosure door so that the opening and closing of the door will trigger the switch.
2. Connect the **12VDC Relay** port to the sensor or door contact closure switch.
3. Connect the **ALARM Out** port to the Digital input port on the Ethernet Switch.
4. Connect to **DC Input** power last.
5. Verify that the **PWR** LED is lit.

## Switch Software Configuration

When the EDCA-DIO-01 is installed with a Transition Networks managed hardened Ethernet PoE switch, you can set up alarm notifications and clear the logged alarm from either the switch Web UI or the CLI. See the related manual for your particular switch model.

## Related Manuals

- EDCA-DIO-01 Quick Start Guide, 33796
- SISPM1040-582-LRT Install Guide, 33755
- SISPM1040-582-LRT Web User Guide, 33756
- Install Guide, SISPM1040-362-LRT and SISPM1040-384-LRT-C, 33727
- Web User Guide, SISPM1040-362-LRT and SISPM1040-384-LRT-C, 33728

## For More Information

A printed Quick Start Guide is shipped with each unit.

For Transition Networks Drivers, Firmware, etc. go to the [Product Support](#) webpage (logon required).

For Transition Networks Manuals, Brochures, Data Sheets, etc. go to the [Support Library](#) (no logon required).

**Note:** Information in this document is subject to change without notice. Note that this manual provides links to third party web sites for which Transition Networks is not responsible.

## Troubleshooting

Follow the steps below to resolve problems.

1. Check the PWR LED.
2. Verify proper EDCA-DIO-01 installation; see the EDCA-DIO-01 Install Procedure above.
3. Verify the Installation steps above.
4. Verify connected sensor or alarm and connections.
5. Verify connection with the Transition Networks Managed Hardened Ethernet PoE Switch.
6. Record device and site information; see [Recording Information](#) below.
7. Contact Transition Networks Tech Support; see Contact Us on page [10](#).

## Recording Information

After performing the Troubleshooting steps above, and before calling Tech Support, obtain information from the box label and/or product label.



Box Label



Product Label

SKU (model #): \_\_\_\_\_

Serial No.: \_\_\_\_\_

Transition Networks connected devices: \_\_\_\_\_

Others connected devices: \_\_\_\_\_

LED Status: \_\_\_\_\_

Your Transition Networks service contract number: \_\_\_\_\_

Describe the failure: \_\_\_\_\_

\_\_\_\_\_

Describe any action(s) already taken to resolve the problem (e.g., changing mode, rebooting, etc.): \_\_\_\_\_

\_\_\_\_\_

Describe your network environment (layout, cable type, etc.): \_\_\_\_\_

\_\_\_\_\_

The device history (i.e., have you returned the device before, is this a recurring problem, etc.): \_\_\_\_\_

\_\_\_\_\_

Any previous Return Material Authorization (RMA) numbers: \_\_\_\_\_



## 22365 Magnetic Contact Switch (Option)

The optional 22365 Magnetic Contact Switch accessory is sold separately.

The 22365 features positive clamping terminals with anti-rotation lugs and captured screws with combination heads for easy, quick installations.

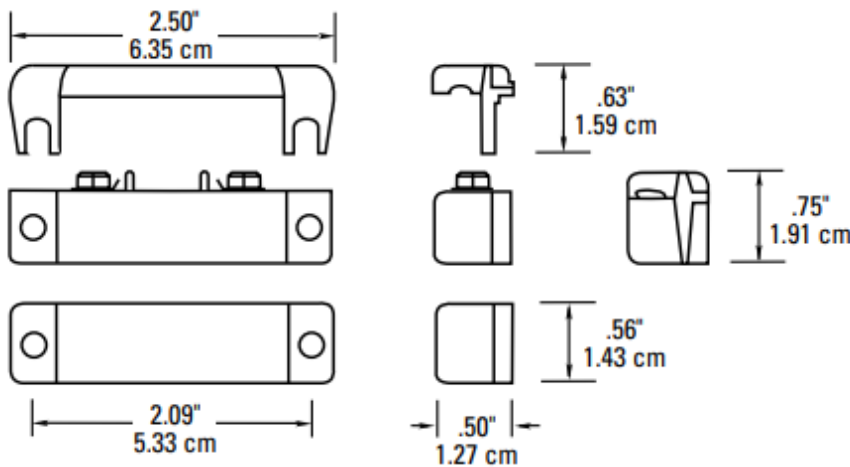
The positive terminals do not require washers that can corrode or increase resistance. The captured screws cannot be accidentally removed and lost, and they incorporate heads that will accept both Phillips and flat-blade screwdrivers.



### 22365 Specifications

|   |   |
|---|---|
| Voltage   | 100 VAC/VDC max.                        |
| Current   | 0.5 A max.                              |
| Power   | 7.5 W max.                              |
| Loop Type (Open or Closed)                      | Closed                                  |
| Electrical Configuration(Normally open or SPDT) | Normally open                           |
| Dimensions (WxHxD)                              | 2.5 x 0.50 x 0.56 in. (64 x 13 x 14 mm) |
| Gap Distance (3/4" or 1-1/2" or 2")             | Up to 3/4 in. (See Note 1 below)        |
| Housing   | Flame retardant ABS plastic             |

**Note 1:** Gap specifications are nominal and may vary  $\pm 20\%$ . Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



### 22365 Installation Instructions

1. Select desired mounting positions for contact and magnet. Attach with the desired mounting method (e.g., Velcro, industrial tape, nuts and bolts, super glue, rivets, etc.).
2. If protective cover is to be used to shield screw terminals, allow space for "ears" of cover before tightening down mounting screws. Route connecting wires through holes provided in cover.



# Compliance Information

## Declaration of Conformity

|   |   |
|---|---|
| <b><i>Declaration of Conformity</i></b>   |   |
| <i>Transition Networks, Inc.</i><br><small>Manufacturer's Name</small>  |   |
| <u>10900 Red Circle Drive, Minnetonka, Minnesota 55343 U.S.A.</u><br><small>Manufacturer's Address</small>                |   |
| <b>Declares that the products:</b><br><b>EDCA-DIO-01 Enclosure Door Contact Alarm</b>                                     |   |
| <b>Conform to the following Product Regulations:</b>  |   |
| FCC Part 15 Class A, EN 55032:2012, EN 55024:2010   |   |
| Directive 2014/30/EU  |   |
| Low-Voltage Directive 2014/35/EU  |   |
| With the technical construction on file at the above address, this product carries the<br><b>CE Mark</b>                  |   |
| I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s). |   |
| <u>Minnetonka, Minnesota</u><br><small>Place</small>  | <u>July 25, 2019</u><br><small>Date</small>                     |
| <br><small>Signature</small>             |   |
| <u>Stephen Anderson</u><br><small>Full Name</small>   | <u>Vice President of Engineering</u><br><small>Position</small> |
| <small>25141B</small>   |   |

## FCC Regulations

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Warranty

### Limited Lifetime Warranty

Effective for Products Shipped May 1, 1999 and After. Every Transition Networks labeled product purchased after May 1, 1999, and not covered by a fixed-duration warranty will be free from defects in material and workmanship for its lifetime. This warranty covers the original user only and is not transferable.

This warranty does not cover damage from accident, acts of God, neglect, contamination, misuse or abnormal conditions of operation or handling, including over-voltage failures caused by use outside of the product's specified rating, or normal wear and tear of mechanical components.

Transition Networks will, at its option:

- Repair the defective product to functional specification at no charge
- Replace the product with an equivalent functional product
- Refund a portion of purchase price based on a depreciated value

To return a defective product for warranty coverage, contact Transition Networks' Customer Support for a return authorization number.

Send the defective product postage and insurance prepaid to the following address:

Transition Networks, Inc.  
 10900 Red Circle Drive  
 Minnetonka, MN 55343 USA

Attn: RETURNS DEPT: CRA/RMA # \_\_\_\_\_

Failure to properly protect the product during shipping may void this warranty. The return authorization number must be written on the outside of the carton to ensure its acceptance. We cannot accept delivery of any equipment that is sent to us without a CRA or RMA number.

CRA's are valid for 60 days from the date of issuance. An invoice will be generated for payment on any unit(s) not returned within 60 days.

Upon completion of a demo/ evaluation test period, units must be returned or purchased within 30 days. An invoice will be generated for payment on any unit(s) not returned within 30 days after the demo/ evaluation period has expired.

The customer must pay for the non-compliant product(s) return transportation costs to Transition Networks for evaluation of said product(s) for repair or replacement. Transition Networks will pay for the shipping of the repaired or replaced in-warranty product(s) back to the customer (any and all customs charges, tariffs, or/and taxes are the customer's responsibility).

Before making any non-warranty repair, Transition Networks requires a \$200.00 charge plus actual shipping costs to and from the customer. If the repair is greater than \$200.00, an estimate is issued to the customer for authorization of repair. If no authorization is obtained, or the product is deemed not repairable, Transition Networks will retain the \$200.00 service charge and return the product to the customer not repaired. Non-warranted products that are repaired by Transition Networks for a fee will carry a 180-day limited warranty. All warranty claims are subject to the restrictions and conventions set forth by this document.

Transition Networks reserves the right to charge a \$50 fee for all testing and shipping incurred, if after testing, a return is classified as "No Problem Found."

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. TRANSITION NETWORKS IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON TRANSITION NETWORKS'S BEHALF.

## Contact Us

**Technical Support:** Technical support is available 24-hours a day. US and Canada: 1-800-260-1312. Int'l: 00-1-952-941-7600. **Main Office** tel: +1.952.941.7600 | toll free: 1.800.526.9267 | fax: 952.941.2322 [sales@transition.com](mailto:sales@transition.com) | [techsupport@transition.com](mailto:techsupport@transition.com) | [customerservice@transition.com](mailto:customerservice@transition.com) **Address** Transition Networks | 10900 Red Circle Drive | Minnetonka, MN 55343, U.S.A. **Web:** <https://www.transition.com>

## Record of Revisions

| Rev. | Date    | Description  |
|------|---------|--|
| A    | 7/31/19 | Initial release.   |
| B    | 9/9/19  | Add MTBF information and update Magnetic Contact Switch P/N. |

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