



User Guide

M-MCR-01

Mini Media Converter Chassis

- 19" Rack-Mountable Powered Chassis
- Securely houses up to 18 Mini Media Converters
- One AC power source independently powers up to 18 hot-swappable Mini Media Converters
- Supports a wide array of Transition Networks Mini Media Converters

Contents

Introduction.....	1
Product Description.....	2
Features.....	2
Package Contents.....	2
Installation.....	3
Table Top Installation.....	3
Rack Installation.....	3
Install Media Converters into the M-MCR-01.....	5
Power Supply Mounting to the M-MCR-01.....	5
Connect Power to the M-MCR-01.....	6
Technical Specifications.....	7
M-MCR-01 Specs.....	7
Power Supply Specs.....	7
Dimensions.....	8
Compliance Information.....	9
Declaration of Conformity.....	9
Contact Us.....	9
Warranty.....	9
Related Manuals.....	11
For Additional Information.....	11
Record of Revisions.....	11

Introduction

Transition Networks' M-MCR-01 is a 19" powered chassis for TN Mini Media Converters. **Note:** the M-MCR-01 is only intended for installation of supported Mini Media converters designed and built by Transition Networks.



The M-MCR-01 is a high-density powered 19" rack mountable chassis for Transition Networks Mini converters, the most miniaturized converters in the industry. It offers a powered standard 19" chassis for Mini converter installation and power input in central office and other deployments, as an accessory to the Mini converter series portfolio.

The M-MCR-01 features 18 slots for side-mounted Mini converters, an internal AC power supply (included) to provide 12 VDC output, and a powered backplane with barrel connectors. Transition Networks' M-MCR-01 provides space and power in a rack-mountable chassis for eighteen (18) separate

and independent Transition Networks stand-alone media converters, each with power requirements of 12 VDC.

Product Description

The M-MCR-01 Mini Media Converter Chassis is a 19" rack mountable powered chassis for the Mini family of stand-alone media converters. Designed for Transition Networks' line of office grade, non-hardened, mini media converters, this chassis is ideal for installations where multiple Minis are being deployed in the same location. The M-MCR-01 offers a simple, cost-effective way to securely mount up to 18 Mini converters while requiring a single AC power connection.

As networks grow, so does the need to interface between various types of cabling infrastructure, and the Mini copper-to-fiber media converters offer a low cost, space saving option for making those connections between disparate cable types. The M-MCR-01s is suitable for Enterprise and Government applications where multiple points of fiber connectivity are required. The chassis can accept any combination of Transition Networks' layer-1 100Base and 1000Base Mini media converters as well as the layer-2 10/100 and 10/100/1000 Mini media converters, all with the barrel-type DC power input connector. Each M-MCR-01 slot has a fuse to keep one malfunctioning Mini Converter from affecting the rest.

The M-MCR-01 occupies 1.5U of rack space, allowing two chassis to be mounted in 3 units of rack space, efficiently using critical rack space in datacenters or wiring closets. The Mini converters are hot-swappable and directly connect to the chassis backplane to receive their power connection. Three lock-down bars can be raised and lowered to allow additional Mini converters to be installed in an active chassis. These bars are also used to securely hold the Mini converter in the chassis, even when the copper and fiber data cables are being inserted and removed from the individual Mini converters.

Features

- 19" rack mountable powered chassis
- Install up to 18 Mini Media Converters
- Universal AC power supply
- Supports hot-swappable converters
- Any combination of non-hardened Transition Networks Mini converters
- Provides modular, centralized, high-density media conversion
- 0° to 50°C operating temperature
- 23" rack mount brackets available
- Applications for Enterprise Networks, Higher Education or Corporate Campus, Physical Security and Surveillance, Government Agency Networks
- Lifetime Warranty

Package Contents

Contact your sales representative if you have not received the following:

- One M-MCR-01 Mini Media Converter Chassis
- One Power Supply
- One country-specific Power Cord
- Kit, Rack Mount Ears
- Nine Rubber Feet
- One Documentation Postcard **or** One User Guide (this manual)

Save the packing material for possible future use.

Installation

Table Top Installation

The M-MCR-01 is shipped with nine (9) black rubber feet for optional installation on a table or other flat, stable surface. When installing on a table top, remove the rubber feet from the card and place them evenly spaced on the bottom of the chassis. The M-MCR-01 must be installed in a well-ventilated area.

Rack Installation

The M-MCR-01 ships with four (4) attachment screws for installation in a standard rack.

Warning: Take care to mount the M-MCR-01 so that it will not fall. Failure to observe this warning could result in an injury or damage to the equipment.

Caution: Follow the rack manufacturer's recommendation for mounting the M-MCR-01 into the rack.

Caution: Ensure that proper airflow around the M-MCR-01 is maintained.

Safety Instructions for Rack Mount Installations

The instructions below (or similar) are intended for rackmount installation environments:

1. **Elevated Operating Ambient:** if installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may exceed room ambient. Install the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified.
2. **Reduced Air Flow:** install the equipment in a rack so that the amount of air flow required for safe operation is not compromised.
3. **Mechanical Loading:** Mount the equipment in the rack so that a hazardous condition does not occur due to uneven mechanical loading (weight distribution/rack balance).
4. **Circuit Overloading:** give consideration to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Consider all equipment nameplate ratings when addressing this concern.
5. **Reliable Earthing:** maintain reliable earthing of rack-mounted equipment; pay particular attention to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

Mount One M-MCR-01 into a Rack

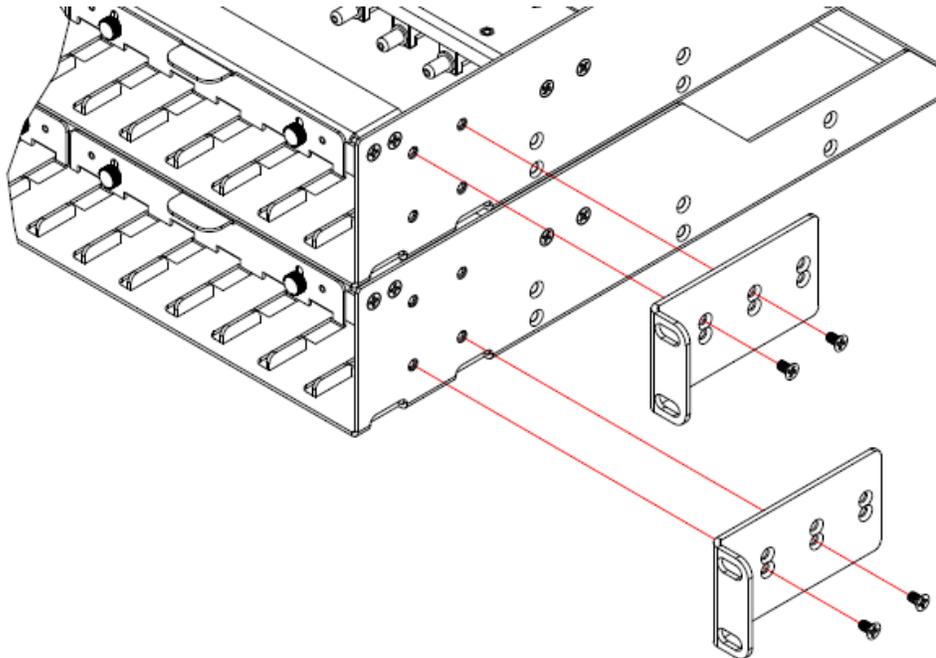
The M-MCR-01 is 1-1/2 U high, and you can use 2 RU to rack-mount a single chassis, or use 3 RU to rack-mount two M-MCR-01 chassis as follows:

1. Locate four (4) screws (provided) and optional clip-nuts (not provided) for each M-MCR-01 Media Converter Rack.
2. Carefully align the M-MCR-01 at a level position between the rack mounting rails as shown on the next page.
3. Install two (2) screws through the right front bracket and two (2) screws through the left front bracket; use the clip nuts to secure the M-MCR-01 to the rack.

Mount Two M-MCR-01s into a Rack

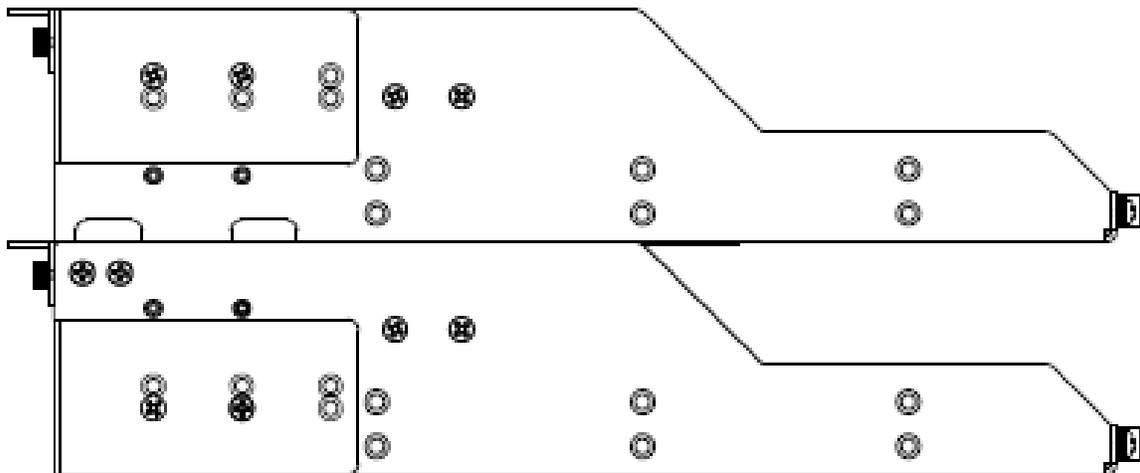
To mount two M-MCR-01 units in three RU of rack space:

1. Locate four (4) screws (provided) and optional clip-nuts (not provided) for each M-MCR-01 Media Converter Rack.
2. Carefully align the M-MCR-01 at a level position between the rack mounting rails as shown below.



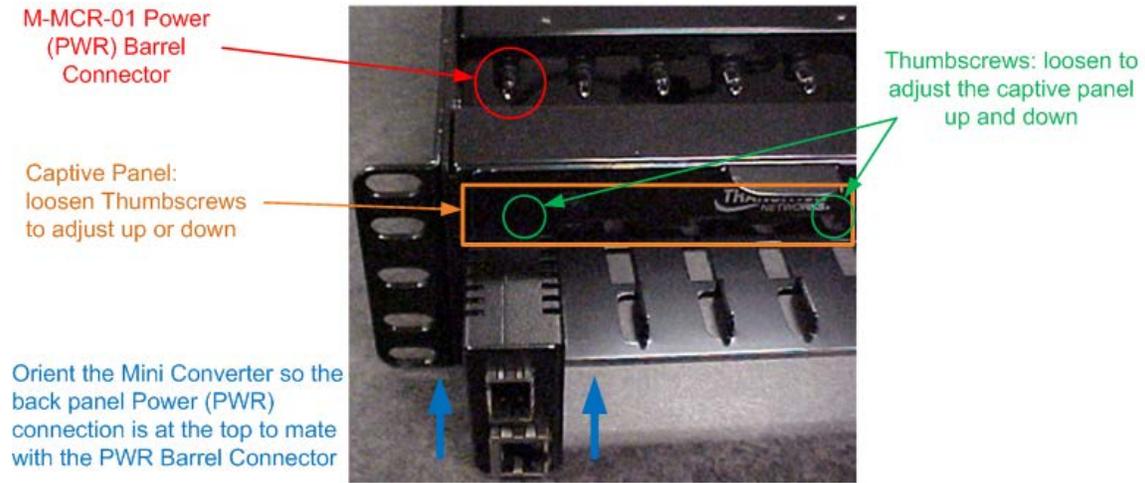
3. Install two (2) screws through the right front bracket and two (2) screws through the left front bracket. Optionally, use the clip nuts to secure the M-MCR-01 to the rack.

Note: use the top holes / screws to mount the top unit, and use the bottom holes / screws to mount the bottom unit. The two mounted M-MCR-01 units should look like this:



Install Media Converters into the M-MCR-01

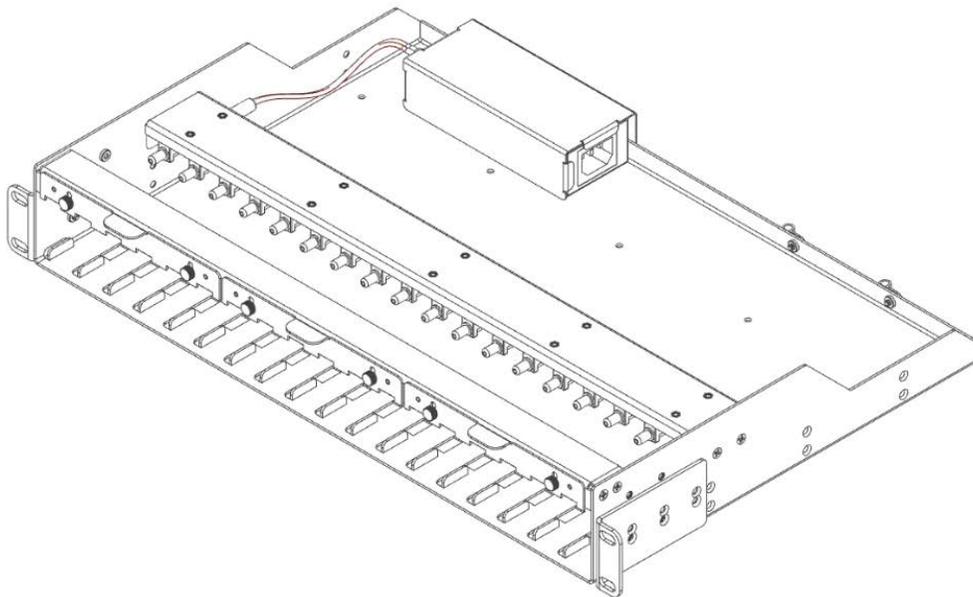
1. Position the media converter in the M-MCR-01 as shown below and then carefully slide it into the slot.



2. If desired, slide the captive panel down to secure the bank of six media converters (optional).
3. Tighten the lock-down bars (captive panel fastener) located directly above the bank of three media converter to secure it to the M-MCR-01.

Power Supply Mounting to the M-MCR-01

The M-MCR-01 ships from the factory with the Power Supply attached to the M-MCR-01 chassis.



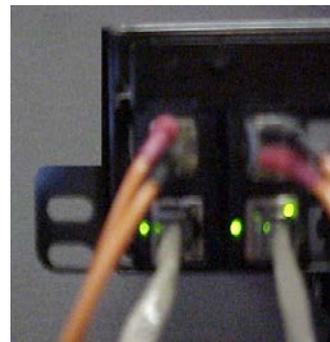
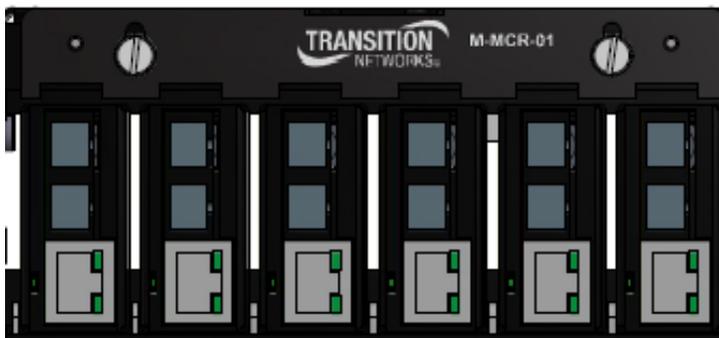
Connect Power to the M-MCR-01

Caution: Make sure that the M-MCR-01 will not overload the circuit used to supply power. See the [Technical Specifications](#) section on page 6 for current and power maximums.



Warning: Make sure that the M-MCR-01 is properly grounded. Failure to observe this warning could result in an electrical shock.

1. Insert the male end of the power cord into the M-MCR-01 Input Power (PWR) Barrel Connector.
2. If desired, use the Cable Clamps to restrain the Power Cord (optional).
3. Insert the other end of the Power Cord into a live AC wall outlet.
4. Verify that the media converter front panel Power LED lights. The LEDs vary between mini media converter models. A “generic” and a model-specific set of front panels are shown below. See the related media converter user guide for LED details.



Technical Specifications

M-MCR-01 Specs

The M-MCR-01 was designed to meet the following specifications.

Standards	N/A
Status LEDs	Power: Power supply LED, ON = Lit for normal operation
Power Consumption	N/A
Regulatory Compliance	N/A
Dimensions:	17.3 x 12 x 2.6 inches (W x D x H)
Weight:	7.35 lbs (3.32 Kg (M-MCR-01 with power supply and cord)
Shipping Weight:	7.4 lbs. [3.35 kg]
MTBF*	MTBF for the mini chassis – 700,000 hours MIL-HDBK-217F @ 25C
Operating Temp:	0°C to +50°C
Storage Temp:	-40°C to 85°C
Humidity:	5%– 95% non-condensing
Altitude:	0 – 10,000 feet
Warranty:	Lifetime limited warranty

Power Supply Specs

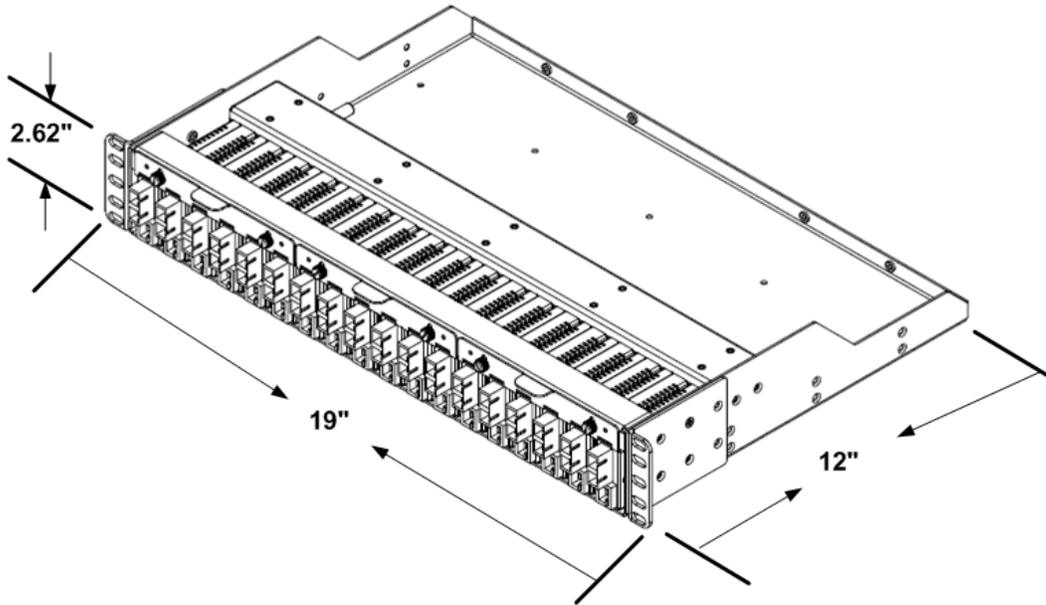
Power is supplied from a +12VDC, IEC, -30° C to 50° C:60w, -30° C to 70° C:30w, B connector source as described below:

Input Range:	90 - 264 VAC
Output Voltage:	12 V
Output Current:	0 - 5 A
Max. output:	60 W
Output type:	Single
Output description:	12V5A
Power supply type:	AC/DC power supply
Enclosure type:	Adaptor
RoHS	Compliant
Weight:	10.758 oz.
MTBF:	709.7K Hrs. min. MIL-HDBK-217F (25°C)
Protection:	Short circuit, Overload, Over voltage, Over temperature

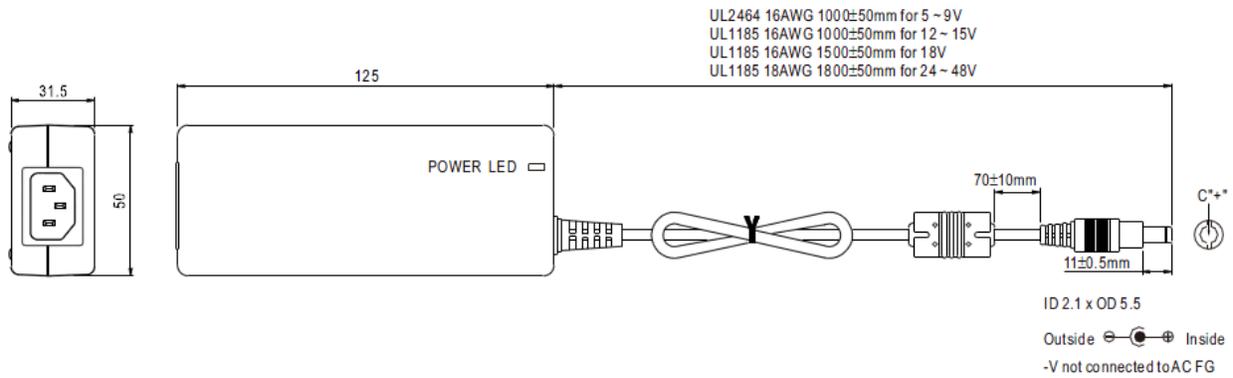
Note: Information in this document was deemed accurate at the time of publication. For the most current information on the M-MCR-01, view the online user guide at www.transition.com.

Dimensions

M-MCR-01 Dimensions: 2.62" H x 19" W x 12" D (66.54 mm H x 482.59 mm W x 304.79 mm D).



Power Supply Dimensions: 125 x 50 x 31.5mm (LxWxH)



Compliance Information

Declaration of Conformity

<i>Declaration of Conformity</i>			
<i>Transition Networks, Inc.</i>			
<small>Manufacturer's Name</small>			
<i>10900 Red Circle Drive, Minnetonka, Minnesota 55343 U.S.A.</i>			
<small>Manufacturer's Address</small>			
Declares that the products:			
Media Converter Rack			
Model M-MCR-01			
Conform to the following Product Regulations:			
EN 55022: 2006 Class A; EN 55024:1998+A1:2001+A2:2003, IEC 60950-1:2005, C-UL Listed, CE Mark			
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standards(s).			
<i>Minnetonka, Minnesota</i>	<i>June 4, 2015</i>	<i>Stephen Anderson</i>	
<small>Place</small>	<small>Date</small>	<small>Signature</small>	
		<i>Stephen Anderson</i>	<i>Vice President of Engineering</i>
		<small>Full Name</small>	<small>Position</small>
			<small>151415</small>

Contact Us

Technical support: Technical support is available 24-hours a day:

US and Canada: 1-800-260-1312 or International: 00-1-952-941-7600

Chat Live: Chat live via the Web with Transition Networks Technical Support. Log onto www.transition.com and click the **Live Chat** link.

Web-based seminars: Transition Networks provides seminars via live web-based training. Log onto www.transition.com and click the **Learning Center** link.

E-Mail: Send an e-mail anytime to our technical support staff at techsupport@transition.com.

Address: Transition Networks

10900 Red Circle Drive
 Minnetonka, MN 55343, U.S.A.
 Telephone: 952-941-7600
 Toll free: 800-526-9267
 Fax: 952-941-2322

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. If the user is unsure about

the proper means of installing or using the equipment, contact Transition Networks' free technical support services.

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

Return Authorization

To return a defective product for warranty coverage, contact Transition Networks' technical support department for a return authorization number. Transition Networks' technical support department can be reached through any of the following means:

Service Hours

USA: 8:00 PM Sunday through 8:00 PM Friday CST

After Hours: Calls will be answered by an on call engineer.

Direct Contact Numbers

Domestic: + 1 800-260-1312

International: + 1 952-358-3601

Fax: +1 952-941-2322

Email: techsupport@transition.com Online Support

Live Help: [Chat live](#) with a Transition Networks representative.

Return Instructions

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 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.

Related Manuals

A printed Documentation Postcard is shipped with each Transition Networks device. A substantial set of technical documents, white papers, case studies, etc. are available on the Transition Networks web site at www.transition.com.

The related manuals are listed below.

- M-E-ISW-FX-01-AC User Guide, 33492
- M-E-ISW-FX-01 User Guide 33462
- M/E-PSW-FX-02 User Guide, 33487
- M/GE-PSW-xxx-01 User Guide, 33398
- M/E-TX-FX-01 User Guide, 33517

For Additional Information

Check the Transition Networks [web site](#) for the latest information. Log in to the Product Page for the latest Features, Specs, Accessories, SKUS, and Support Files.

Record of Revisions

Rev	Date	Notes
A	1/27/16	Initial release.

Trademark Notices

All trademarks and registered trademarks are the property of their respective owners.

Copyright Restrictions

© 2016 Transition Networks.

All rights reserved. No part of this work may be reproduced or used in any form or by any means - graphic, electronic or mechanical - without written permission from Transition Networks.

