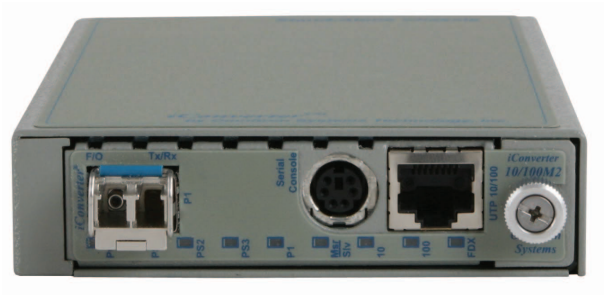
Omnitron Systems

iConverter®

1-Module Power Chassis



User Manual

38 Tesla, Irvine, CA 92618 USA
Phone: (949) 250-6510; Fax: (949) 250-6514

Warranty

This network product and the included AC/DC power adapter are warranted to the original purchaser (Buyer) against defects in material and workmanship for a period of two (2) years from the date of shipment. The warranty for the network product can be extended to lifetime by registering the product at www.omnitron-systems.com/support within ninety (90) days from the date of shipment. During the warranty period, Omnitron will, at its option, repair or replace a product which is proven to be defective with the same product or with a product with at least the same functionality.

For warranty service, the product must be sent to an Omnitron designated facility, at Buyer's expense. Omnitron will pay the shipping charge to return the product to Buyer's designated US address using Omnitron's standard shipping method.

Limitation of Warranty

The foregoing warranty shall not apply to product malfunctions resulting from improper or inadequate use and/or maintenance of the equipment by Buyer, Buyer-supplied equipment, Buyer-supplied interfacing, unauthorized modifications or tampering with equipment (including removal of equipment cover by personnel not specifically authorized and certified by Omnitron), or misuse, or operating outside the environmental specification of the product (including but not limited to voltage, ambient temperature, radiation, unusual dust, etc.), or improper site preparation or maintenance.

No other warranty is expressed or implied. Omnitron specifically disclaims the implied warranties of merchantability and fitness for any particular purpose.

The remedies provided herein are the Buyer's sole and exclusive remedies. Omnitron shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any legal theory.

Environmental Notices

The equipment covered by this manual must be disposed of or recycled in accordance with the Waste Electrical and Electronic Equipment Directive (WEEE Directive) of the European Community directive 2012/19/EU on waste electrical and electronic equipment (WEEE) which, together with the RoHS Directive 2015/863/EU, for electrical and electronic equipment sold in the EU after July 2019. Such disposal must follow national legislation for IT and Telecommunication equipment in accordance with the WEEE directive: (a) Do not dispose

waste equipment with unsorted municipal and household waste. (b) Collect equipment waste separately. (c) Return equipment using collection method agreed with Omnitron.

The equipment is marked with the WEEE symbol shown to indicate that it must be collected separately from other types of waste. In case of small items the symbol may be printed only on the packaging or in the user manual. If you have questions regarding the correct disposal of equipment go to www.omniton-systems.com/support or e-mail to Omnitron at intlinfo@omnitron-systems.com.

Safety Warnings and Cautions

ATTENTION: Observe precautions for handling electrostatic discharge sensitive devices.

WARNING: Potential damage to equipment and personal injury.

WARNING: Risk of electrical shock.

Customer Support Information

Phone: (949) 250-6510
Fax: (949) 250-6514
Address: Omnitron Systems Technology, Inc.
38 Tesla
Irvine, CA 92618, USA
Email: support@omnitron-systems.com
URL: www.omnitron-systems.com

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iConverter 1-Module Power Chassis User Manual

Product Overview

The 1-Module iConverter Power Chassis supports a single iConverter module and is powered by an external AC power adapter or an external DC power source (20 to 60VDC).

Model 8240-x and 8241-x Model 8242-x and 8243-x

1-Module Power Chassis (Shown without modules installed)

This User Manual describes the following models:

Model Number	Model Type	Power Description
8240-x	1-Module Chassis with 3.3 watt AC Power Supply	2.5 mm Barrel Connector, 100 to 240VAC, 50/60Hz, 0.13A @ 120VAC,
8241-x	1-Module Chassis with 5.0 watt AC Power Supply with dying gasp	2.5 mm Barrel Connector, 100 to 240VAC, 50/60Hz, 0.15A @ 120VAC,
8242-x	1-Module Chassis with 8.3 watt AC Power Supply	2.1 mm Barrel Connector, 100 to 240VAC, 50/60Hz, 1.0A @ 120VAC,
8242-9	1-Module Chassis with 8.3 watt 48 VDC Power Supply	Direct DC 3-Pin Terminal, +/- 20 to 60VDC 0.6A @ 48VDC
8243-9	1-Module Chassis with 8.3 watt 48 VDC Power Supply with dying gasp	Direct DC 3-Pin Terminal, +/- 20 to 60VDC 0.6A @ 48VDC
8243-1	1-Module Chassis with 8.3 watt AC Power Supply with dying gasp	2.1 mm Barrel Connector, 100 to 240VAC, 50/60Hz, 1.0A @ 120VAC,
8243-2	1-Module Chassis with 8.3 watt AC Power Supply with dying gasp	2.1 mm Barrel Connector, 100 to 240VAC, 50/60Hz, 1.0A @ 120VAC,
x indicates the type of AC power adapter (1 = US wall mount power adapter, 2 = Universal power adapter)		

Use the Power Calculator to verify the iConverter chassis power supplies will meet the requirements of the installation.

Dying Gasp Trap

The 8241-1, 8241-2, 8243-1, 8243-2 and 8243-9 chassis feature Dying Gasp Trap, which reports loss of power input or chassis power supply failure. This feature requires an iConverter management module be installed in the chassis. When power failure occurs, the chassis reserves enough power to keep the installed module running in order to send a final SNMP alert to the management software.

Wall and Rack Mounting

The 1-Module chassis can be wall/rack mounted by attaching the optional wall/rack mount brackets (8249-0). A 19" Rack Mount Shelf (8260-0) is available to install three 1-Module chassis.

The operating temperature of this equipment is 0 to 50 degrees C or -40 to 60 degrees C depending on the model number. If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack must not exceed the maximum rated temperature for the chassis used.

Installation of the equipment should be such that the air flow in the front and back of the unit is not compromised or restricted.

Installing this equipment into a rack in such a way as to make it unstable **may cause injury or death**. Always make sure that the rack you are installing this equipment into is properly secured, stable, balanced and designed to carry the weight and weight distribution of this equipment.

Never use this equipment to carry any weight except its own. Never use it as a shelf to support the weight of other equipment.

Installing Module

Carefully slide the module into the open slot in the chassis. Align the module with the installation guides and ensure that the module is firmly seated against the backplane. Secure the module by fastening the front panel thumbscrew (push in and turn clockwise to tighten) to the chassis front.

AC Powered Chassis and Cabling

Secure the ground wire to the ground screw (located on the rear of the chassis).

To power the module using the included AC power adapter, route the power cord through the provided strain relief (depending on the model) for additional support. Connect the barrel connector at the end of the wire on the AC/DC adapter to the barrel connector on the module. Connect the AC/DC adapter to the AC outlet.

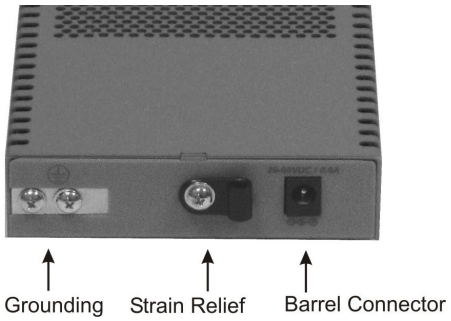
Confirm that the unit has powered up properly by checking the Power LED located on the front of the installed module. Use only the supplied AC/DC power adapter to power the chassis.

WARNING!!!

NEVER ATTEMPT TO OPEN THE CHASSIS OR SERVICE THE POWER SUPPLY. OPENING THE CHASSIS MAY CAUSE SERIOUS INJURY OR DEATH. THERE ARE NO USER REPLACEABLE OR SERVICEABLE PARTS IN THIS UNIT.

NOTE: The 8242-x and 8243-x models use a different AD/DC power adapter than the 8240-x and 8241-x models. The DC barrel connector on the 8242-x and 8243-x is a 2.1mm center connector and supplies a nominal 48VDC. The DC barrel connector on the 8240-x and 8241-x is a 2.5mm center connector and supplies a nominal 9VDC.

If installing with the NEBS Mounting Kit for 8242-x and 8243-x models, secure the grounding wire to the ground lug. See the figure below for the location of the grounding lug.



Rear of 1-Module Power Chassis,
Models 8242-x and 8243-x with AC Power Connector

DC Powered Chassis and Cabling

The over current protection for the connection with centralized DC shall be provided in the building installation and shall be a UL listed breaker rated at 20 Amps, and installed per the National Electrical Code, ANSI/NFPA-70.

This equipment requires 20-60VDC/0.6Amp rated power. Appropriate overloading protection should be provided on the DC power source outlets utilized.

NOTE: The DC power battery return (BR) terminal or positive terminal must be grounded at the source end (power feed or DC mains power end). The DC power BR input terminal is not connected to the equipment frame (chassis), so it is configured as DC-I according to the GR-1089-CORE, Issue 4 (sec 9.8.3) definitions.

WARNING: Only a DC power source that complies with safety extra low voltage (SELV) requirements can be connected to the DC-input power supply.

WARNING REGARDING EARTHING GROUND:

- This equipment shall be connected to the DC supply system earthing electrode conductor or to a bonding jumper from an earthing terminal bar or bus to which the DC supply system earthing electrode is connected.
- This equipment shall be located in the same immediate area (such as adjacent cabinets) as any other equipment that has a connection between the earthed conductor of the same DC supply circuit and the earthing conductor, and also the point of earthing of the DC system. The DC system shall not be earthed elsewhere.
- The DC supply source is to be located within the same premises as this equipment.
- There shall be no switching or disconnecting devices in the earthed circuit conductor between the DC source and the earthing electrode conductor.

Locate the DC circuit breaker and switch the circuit breaker to the OFF position.

Prepare a power cable using a three conductor insulated wire (not supplied) with 12AWG to 14AWG thickness. Cut the power cable to the length required.

Strip approximately 3/8 of an inch of insulation from the power cable wires.

Connect the ground wire to the ground terminal on the chassis by fastening the stripped end to the DC power connector (ground).

Connect the power cables to the chassis by fastening the stripped ends to the DC power connector.

WARNING: Note the wire colors used in making the positive, negative and ground connections. Use the same color assignment for the connection at the circuit breaker.

Connect the power wires to the circuit breaker and switch the circuit breaker ON.

Rear of 1-Module Power Chassis, Models 8242-9 and 8243-9 with DC Power Connector

WARNING!!!

NEVER ATTEMPT TO OPEN THE CHASSIS OR SERVICE THE POWER SUPPLY. OPENING THE CHASSIS MAY CAUSE SERIOUS INJURY OR DEATH. THERE ARE NO USER REPLACEABLE OR SERVICEABLE PARTS IN THIS UNIT.

Specifications

1-Module Chassis Common Specifications		
Regulatory Compliances	Safety: EMI: ACT:	UL, CE, NEBS Level 3, UKCA FCC Class A TAA, BAA, NDAA
Environmental	RoHS, WEEE, REACH	
Dimensions W x D x H	3.8” x 5.5” x 1.0” (96.52 mm x 139.7 mm x 25.4 mm) - 3.3/5.0 watt models 3.8” x 6.0” x 1.0” (96.52 mm x 152.4 mm x 25.4 mm) - 8.3 watt models	
Weight	1.5 lbs. (0.68 kg)	
Temperature	Commercial: Wide: Extended: Storage:	0 to 50°C -40 to 60°C -40 to 75°C (8.3 watt models only) -40 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

AC Power Specifications					
Description	**1-Module AC**		**1-Module AC**		**1-Module AC**
Model Number	8240-1	8241-1	8240-2	8241-2	8242-x, 8243-x
Input Power Requirements (typical)	100 to 240VAC, 50 / 60Hz 0.13A @ 120VAC		100 to 240VAC, 50 / 60Hz 0.19A @ 120VAC		100 to 240VAC, 50 / 60Hz 1.0A @ 120VAC
Output Power	3.3 watts 1A @ 3.3VDC	5.0 watts 1.5A @ 3.3VDC	3.3 watts 1A @ 3.3VDC	5.0 watts 1.5A @ 3.3VDC	8.3 watts 2.5A @ 3.3VDC
Power Connector	2.5mm Barrel Connector)		2.5mm Barrel Connector)		2.1mm Barrel Connector
MTBF (hrs)	250,000		100,000		260,000

DC Power Specifications	
Description	**1-Module 48VDC**
Model Number	8242-9, 8243-9
Input Power Requirements	20 to 60VDC* 0.6A Max
Output Power	8.3 watts 2.5A @ 3.3VDC
Power Connector	3-Pin Terminal (Isolated)
MTBF (hrs)	2,700,000

* Effective range is 18 to 60VDC when using a module without dying gasp support.