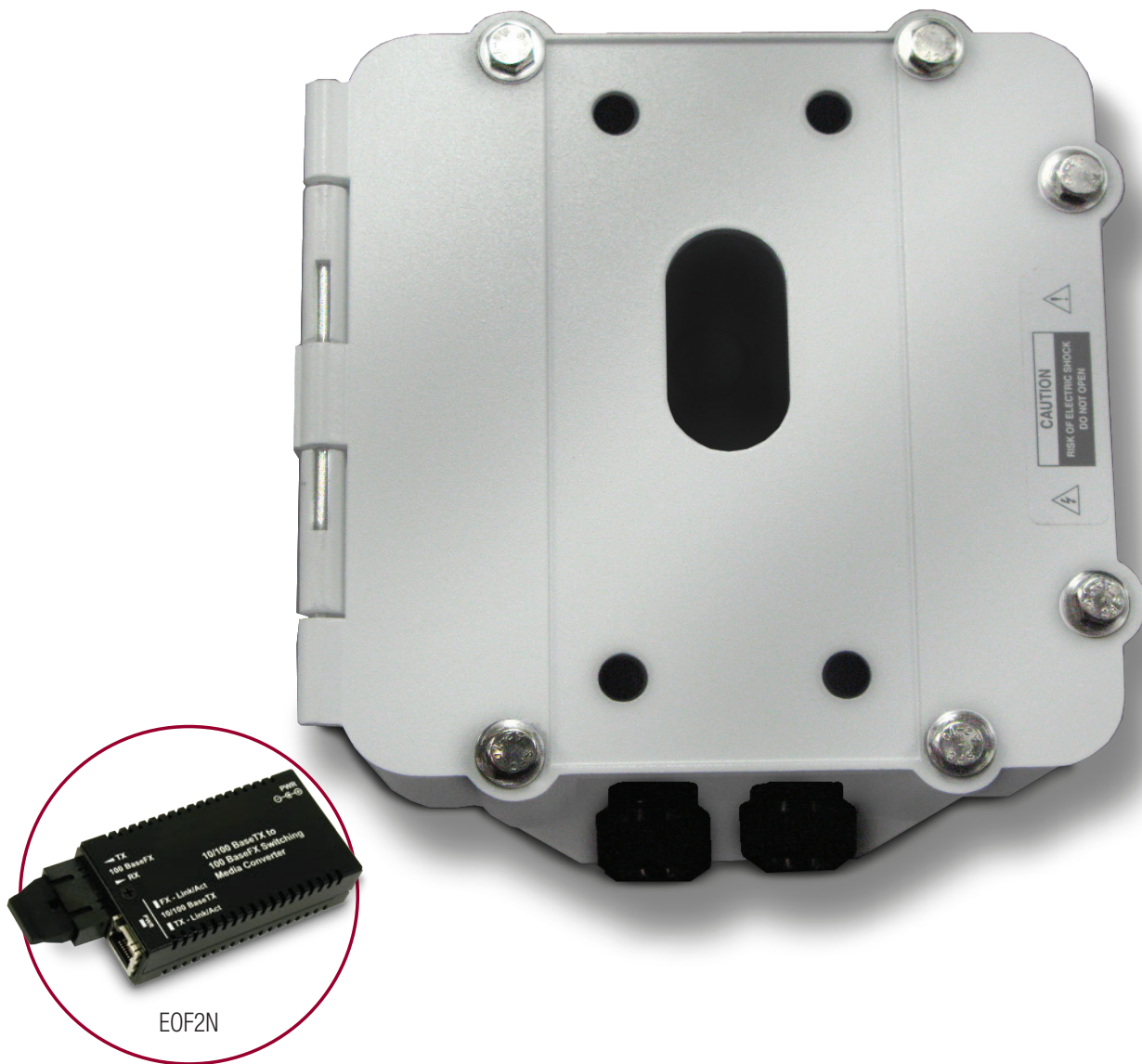


PB24FM-SC

Standard Multi-Functional Power Box with EOF2N (Ethernet Over Fiber Converter)

PB24FM-SC.....Rugged cast aluminium power box with 220/115Vac input converting to 24Vac and 96W output power. Includes Ethernet over Fiber converter (EOF2N)



EOF2N

Moog Inc.
Sensor and Surveillance Systems

3650 Woodhead Drive, Northbrook, IL, USA 60062
+1.847.498.0700 Fax: +1.847.498.1258 www.moogS3.com

IMPORTANT SAFEGUARDS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with damp cloth.
- 7 Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
- 8 Cable Runs- All cable runs must be within permissible distance.
- 9 Mounting - This unit must be properly and securely mounted to a supporting structure capable of sustaining the weight of the unit.

Accordingly:

- a. This installation should be made by a qualified service person and should conform to all local codes.
 - b. Care should be exercised to select suitable hardware to install the unit, taking into account both the composition of the mounting surface and the weight of the unit.
- 10 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - 11 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
 - 12 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
 - 13 Only use attachment/ accessories specified by the manufacturer.
 - 14 Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
 - 15 Unplug this apparatus during lighting storms or when unused for long periods of time.
 - 16 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Be sure to periodically examine the unit and the supporting structure to make sure that the integrity of the installation is intact. Failure to comply with the foregoing could result in the unit separating from the support structure and falling, with resultant damages or injury to anyone or anything struck by the falling unit.

UNPACKING

Unpack carefully. Electronic components can be damaged if improperly handled or dropped. If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper.

Be sure to save:

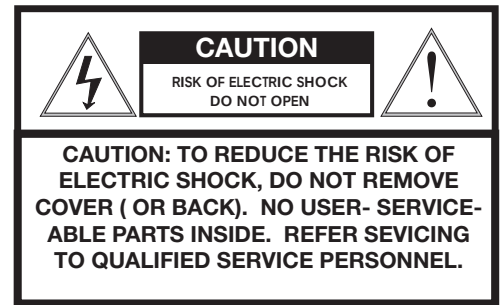
- 1 **The shipping carton and packaging material. They are the safest material in which to make future shipments of the equipment.**
- 2 **These Installation and Operating Instructions.**

SERVICE

If technical support or service is needed, contact us at the following number:

TECHNICAL SUPPORT
AVAILABLE 24 HOURS
1 - 800 - 554 -1124

SAFETY PRECAUTIONS



The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk to persons.

Este símbolo se piensa para alertar al usuario a la presencia del "voltaje peligroso no-aislado" dentro del recinto de los productos que puede ser un riesgo de choque eléctrico.

Ce symbole est prévu pour alerter l'utilisateur à la présence "de la tension dangereuse" non-isolée dans la clôture de produits qui peut être un risque de choc électrique.

Dieses Symbol soll den Benutzer zum Vorhandensein der nicht-Isolier "Gefährdungsspannung" innerhalb der Produkteinschließung alarmieren die eine Gefahr des elektrischen Schlages sein kann.

Este símbolo é pretendido alertar o usuário à presença "di tensão perigosa non-isolada" dentro do cerco dos produtos que pode ser um risco de choque elétrico.

Questo simbolo è inteso per avvertire l'utente alla presenza "di tensione pericolosa" non-isolata all'interno della recinzione dei prodotti che può essere un rischio di scossa elettrica.



The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Este símbolo del punto del exclamation se piensa para alertar al usuario a la presencia de instrucciones importantes en la literatura que acompaña la aplicación.

Ce symbole de point d'exclamation est prévu pour alerter l'utilisateur à la présence des instructions importantes dans la littérature accompagnant l'appareil.

Dieses Ausruf Punktsymbol soll den Benutzer zum Vorhandensein de wichtigen Anweisungen in der Literatur alarmieren, die das Gerät begleitet.

Este símbolo do ponto do exclamation é pretendido alertar o usuário à presença de instruções importantes na literatura que acompanha o dispositivo.

Questo simbolo del punto del exclamation è inteso per avvertire l'utente alla presenza delle istruzioni importanti nella letteratura che accompagna l'apparecchio.

Product Warranty Registration

Register Your Products Online

www.moogS3.com/technical-support/product-registration

Moog values your patronage. We are solely committed to providing you with the highest quality products and superior customer service. With 3-Year and 5-Year warranties (depending on the product purchased) we stand behind every product we sell.

See full warranty details at www.moogS3.com/technical-support/warranty-plan/

Register your products today to receive the following benefits:

- Simple and Trouble-Free RMA process
- Product / software updates
- Special promotions
- Eliminate the need to archive purchase documents such as receipts, purchase orders, etc.

Limited Warranty for Moog Products

Moog - Decatur Operations, subsequently referred to as "Manufacturer," warrants these products to be free from defects in material or workmanship as follows:

PRODUCT CATEGORY	PARTS \ LABOR
All Enclosures and Electronics	Five (5) Years
Accessory Brackets	Five (5) Years
Controllers	Three (3) Years
Power Supplies / IR Illuminators	Three (3) Years
Poles / PolEvators™ / CamEvator	Three (3) Years
Warrior Series™ / Q-View™	Three (3) Years
SView Series™	Three (3) Years 6 months if used in auto scan / tour operation
DeputyDome™, NiteTrac™, Igloo Dome, PurgeDome™	Three (3) Years 6 months if used in auto scan / tour operation
EXO Series™ Dome and Fixed Camera Systems*	Three (3) Years 6 months if used in auto scan / tour operation
EXO Series™ GeminEye Visible and Thermal Camera Systems	One (1) Year

During the labor warranty period, to repair the Product, Purchaser will either return the defective product, freight prepaid, or deliver it to Manufacturer at Moog Decatur Operations, 2525 Park Central Boulevard, Decatur, Georgia, 30035. The Product to be repaired is to be returned in either its original carton or a similar package affording an equal degree of protection with a RMA # (Return Materials Authorization number) displayed on the outer box or packing slip. To obtain a RMA# you must contact our Technical Support Team at 800.554.1124, extension 101. Manufacturer will return the repaired product freight prepaid to Purchaser. Manufacturer is not obligated to provide Purchaser with a substitute unit during the warranty period or at any time. After the applicable warranty period, Purchaser must pay all labor and/or parts charges. The limited warranty stated in these product instructions is subject to all of the following terms and conditions.

TERMS AND CONDITIONS

1. NOTIFICATION OF CLAIMS: WARRANTY SERVICE: If Purchaser believes that the Product is defective in material or workmanship, then written notice with an explanation of the claim shall be given promptly by Purchaser to Manufacturer. All claims for warranty service must be made within the warranty period. If after investigation, Manufacturer determines the reported problem was not covered by the warranty, Purchaser shall pay Manufacturer for the cost of investigating the problem at its then prevailing per incident billable rate. No repair or replacement of any Product or part thereof shall extend the warranty period of the entire Product. The specific warranty on the repaired part only shall be in effect for a period of ninety (90) days following the repair or replacement of that part or the remaining period of the Product parts warranty, whichever is greater.

2. EXCLUSIVE REMEDY: ACCEPTANCE: Purchaser's exclusive remedy and Manufacturer's sole obligation is to supply (or pay for) all labor necessary to repair any Product found to be defective within the warranty period and to supply, at no extra charge, new or rebuilt replacements for defective parts.

3. EXCEPTIONS TO LIMITED WARRANTY: Manufacturer shall have no liability or obligation to Purchaser with respect to any Product requiring service during the warranty period which is subjected to any of the following: abuse, improper use, negligence, accident, or acts of God (i.e., hurricanes, earthquakes), modification, failure of the end-user to follow the directions outlined in the product instructions, failure of the end-user to follow the maintenance procedures recommended by the International Security Industry Organization, written in product instructions, or recommended in the service manual for the Product. Furthermore, Manufacturer shall have no liability where a schedule is specified for regular replacement or maintenance or cleaning of certain parts (based on usage) and the end-user has failed to follow such schedule; attempted repair by non-qualified personnel; operation of the Product outside of the published environmental and electrical parameters, or if such Product's original identification (trademark, serial number) markings have been defaced, altered, or removed. Manufacturer excludes from warranty coverage Products sold AS IS and/or WITH ALL FAULTS and excludes used Products which have not been sold by Manufacturer to the Purchaser. All software and accompanying documentation furnished with, or as part of the Product is furnished "AS IS" (i.e., without any warranty of any kind), except where expressly provided otherwise in any documentation or license agreement furnished with the Product. ANY COST ASSOCIATED WITH REMOVAL OF DEFECTIVE PRODUCT AND INSTALLATION OF REPLACEMENT PRODUCT IS NOT INCLUDED IN THIS WARRANTY.

4. PROOF OF PURCHASE: The Purchaser's dated bill of sale must be retained as evidence of the date of purchase and to establish warranty eligibility.

DISCLAIMER OF WARRANTY

EXCEPT FOR THE FOREGOING WARRANTIES, MANUFACTURER HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY AND/OR ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2-312(3) OF THE UNIFORM COMMERCIAL CODE AND/OR IN ANY OTHER COMPARABLE STATE STATUTE. MANUFACTURER HEREBY DISCLAIMS ANY REPRESENTATIONS OR WARRANTY THAT THE PRODUCT IS COMPATIBLE WITH ANY COMBINATION OF NON-MANUFACTURER PRODUCTS OR NON-MANUFACTURER RECOMMENDED PRODUCTS PURCHASER MAY CHOOSE TO CONNECT TO THE PRODUCT.

LIMITATION OF LIABILITY

THE LIABILITY OF Manufacturer, IF ANY, AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT OR CONTRACT, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE. IN NO EVENT SHALL MANUFACTURER BE LIABLE TO PURCHASER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION, REPLACEMENT LABOR COSTS, REIMBURSEMENT, OR DAMAGES ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS OR FOR ANY OTHER REASON WHATSOEVER.



Electrical Specifications

PB24FM-SC



English

Input Power: 110 VAC/220VAC 1A/.5A Power Consumption: 1Amp (120 Watts) at 120 VAC Power Output: 96 VA at 24 VAC 52 Watts Heater/Blower 32 Watts Camera Power

An all pole main switch with a contact of at least 3mm in each pole shall be incorporated in the electrical installation of the building.

Tools Required: .150" Flathead Screwdriver 7/16 Wrench or Socket 9/16 Wrench or Socket



Español

Energía De Entrada: 110 Consumo De Energía de VAC/220VAC 1A/.5A: 1Amp (120 vatios) en 120 VAC de salida de energía: VA 96 en 24 VAC 52 vatios de Heater/Blower 32 vatios de energía de la cámara fotográfica

Todo el interruptor principal del poste con un contacto de por lo menos 3m m en cada poste será incorporado en la instalación eléctrica del edificio.

Herramientas Requeridas: destornillador de cabeza llana del 150"7/16 llave de la llave o del zócalo 9/16 o zócalo



Français

Puissance D'entrée : 110 Puissance D'Énergie de VAC/220VAC 1A/.5A : 1Amp (120 watts) à 120 VCA de rendement de puissance : VA 96 à 24 VCA 52 watts de Heater/Blower 32 watts de puissance d'appareil-photo

Un tout le commutateur principal de poteau avec un contact au moins de 3mm dans chaque poteau sera incorporé dans l'installation électrique du bâtiment.

Outils Requis : tournevis à tête plate de 150"7/16 clé de clé ou de douille 9/16 ou douille



Deutsch

Zugeführte Energie: 110 VAC/220VAC 1A/.5A Leistungsaufnahme: 1Amp (120 Watt) bei 120 VAC Abgabeleistung: VA 96 bei 24 VAC 52 Watt Heater/Blower 32 Watt Kamera-Energie

Ein aller Pfostenhauptschalter mit einem Kontakt von 3mm mindestens in jedem Pfosten wird in der elektrischen Installation des Gebäudes enthalten.

Werkzeuge Erforderten: 150"Flachkopfschraubenzieher 7/16 Schlüssel-oder Einfaßung 9/16 Schlüssel oder Einfaßung



Portuguese

Poder De Entrada: 110 Consumo De Potência de VAC/220VAC 1A/.5A: 1Amp (120 watts) em 120 VAC de saída de poder: VA 96 em 24 VAC 52 watts de Heater/Blower 32 watts de poder da câmera

Todo o interruptor principal do pólo com um contato ao menos de 3mm em cada pólo será incorporado na instalação elétrica do edifício.

As Ferramentas Requereram: chave de fenda flathead do 150"7/16 de chave da chave ou do soquete 9/16 ou soquete



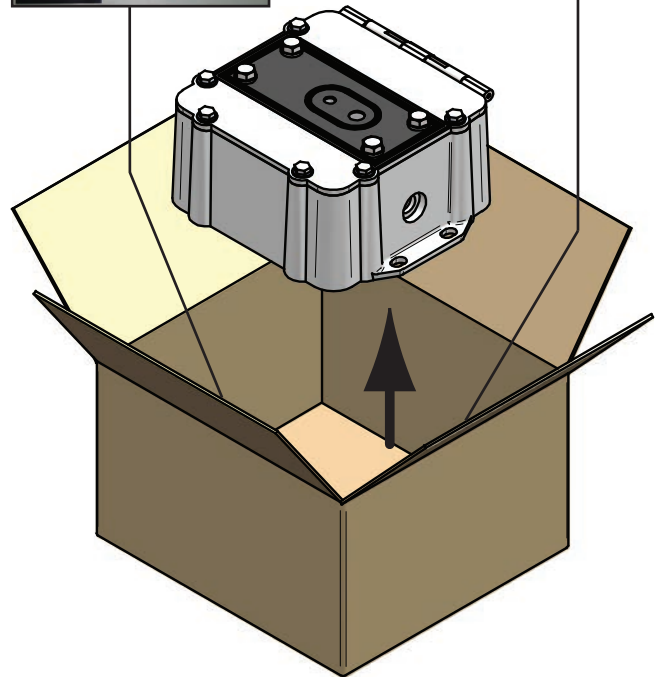
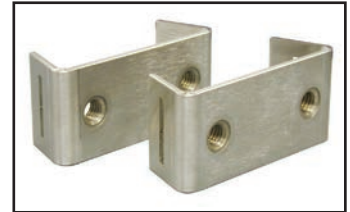
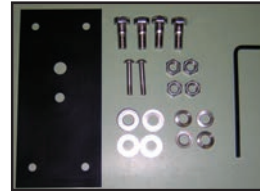
italiano

Alimentazione in ingresso Di Entrada: 110 Assorbimento di corrente Di energia di VAC/220VAC 1A/.5A: 1Amp (120 watt) a 120 VCA di uscita di alimentazione: VA 96 a 24 VCA 52 watt di Heater/Blower 32 watt di alimentazione della macchina fotografica

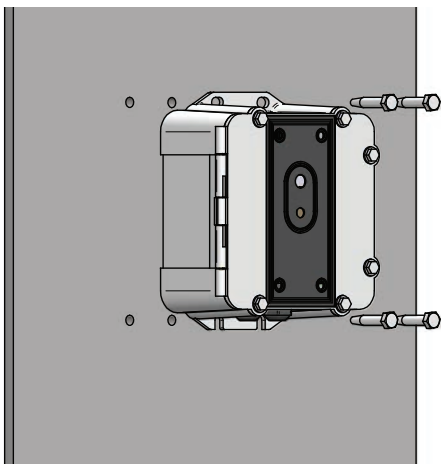
Tutto l'interruttore principale del palo con un contatto almeno di 3mm in ogni palo sarà compreso nell'installazione elettrica della costruzione.

Attrezzi Richiesti: cacciavite a testa piatta del 150"7/16 di chiave dallo zoccolo o dalla chiave 9/16 o zoccolo

Contents of Box



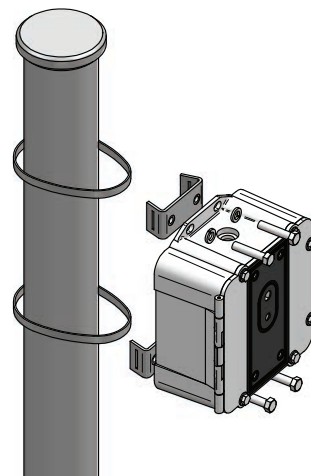
1



Wall Mounting: Attach unit securely with (4) 3/8" or 8mm hardware (not supplied).

- La pared que monta la caja de la energía es posible, pero el hardware no es incluido.
- Le mur montant la boîte de puissance est possible, mais le matériel n'est pas inclus.
- Die Wand, die den Energie Kasten anbringt, ist möglich, aber die Kleinteile sind nicht enthalten.
- A parede que monta a caixa do poder é possível, mas a ferragem não é incluída.
- La parete che monta la scatola di alimentazione è possibile, ma i fissaggi non sono inclusi.

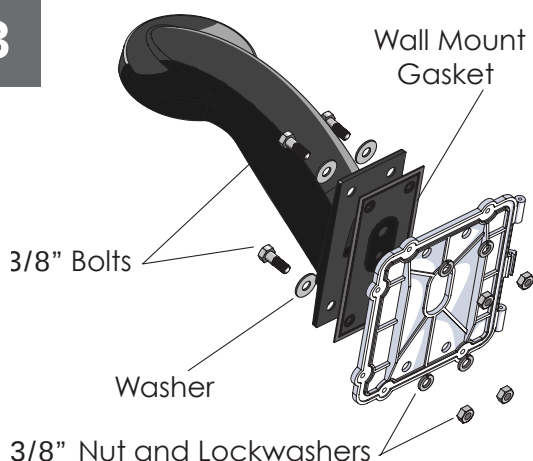
2



The power box may be pole mounted with the pole support clips.

- Ésta es la plantilla del montaje para la caja de la energía.
- C'est le calibre de support pour la boîte de puissance.
- Dieses ist die Montageschablone für den Energie Kasten.
- Este é o molde da montagem para a caixa do poder.
- Ciò è la mascherina del montaggio per la scatola di alimentazione.

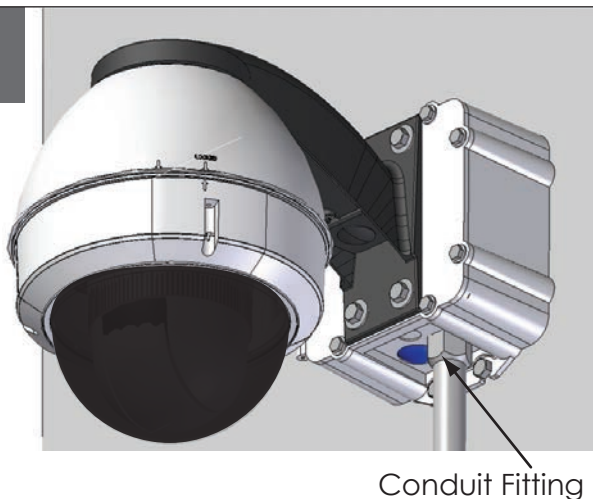
3



The wall mount bracket must be attached using the gasket as shown.

- El soporte del montaje de la pared se debe unir usando la junta según lo demostrado.
- La parèthèse de bâti de mur doit être jointe utilisant la garniture comme montrée.
- Der Wandfassung Haltewinkel muß mit der Dichtung angebracht werden, wie gezeigt worden.
- O suporte da montagem da parede deve ser unido usando a gaxeta como mostrado.
- La staffa del supporto della parete deve essere fissata per mezzo della guarnizione come indicata.

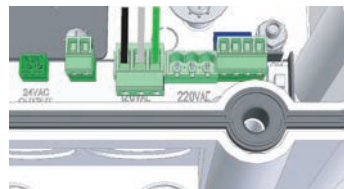
4



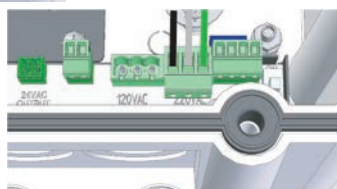
This is the assembled unit with the housing and conduit.

- El soporte del montaje de la pared se debe unir usando la junta según lo demostrado.
- La parèthèse de bâti de mur doit être jointe utilisant la garniture comme montrée.
- Der Wandfassung Haltewinkel muß mit der Dichtung angebracht werden, wie gezeigt worden.
- O suporte da montagem da parede deve ser unido usando a gaxeta como mostrado.
- La staffa del supporto della parete deve essere fissata per mezzo della guarnizione come indicata.

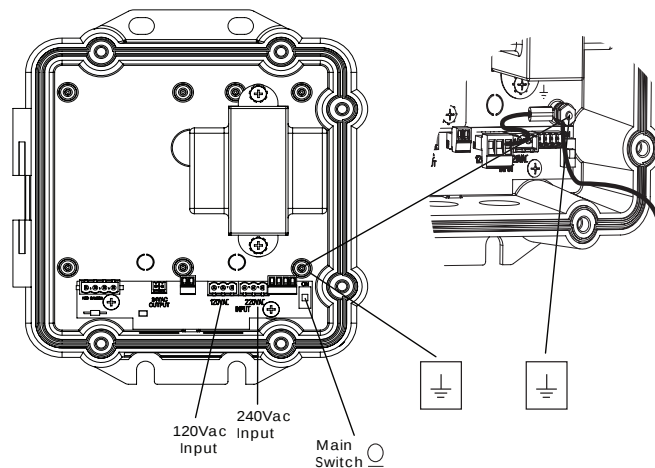
INPUT: (120VAC or 240VAC)



110-120VAC INPUT



220-240VAC INPUT



Line (L) and Neutral (N) wires should be connected as marked on the board and plugged into the corresponding voltage for the input single phase.

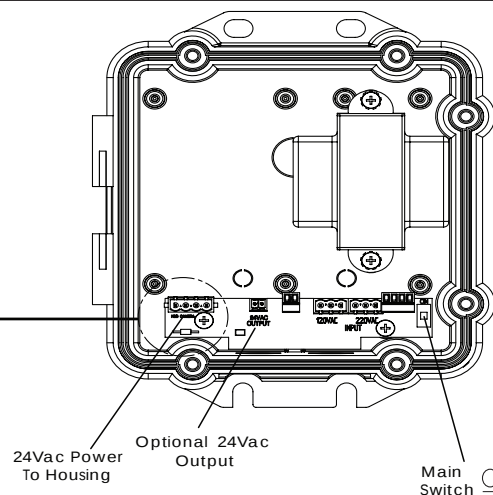
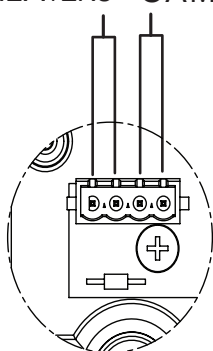
- Los alambres de la línea (l) y del hilo neutro (n) se deben conectar según lo marcados en el tablero y tapados en el voltaje correspondiente para la monofásico de la entrada.
- Des fils de la ligne (l) et du neutre (n) devraient être reliés comme marqué sur le conseil et branché à la tension correspondante pour le monophasé d'entrée.
- Linie (L) und des Neutralen (N) Leitungen sollten angeschlossen werden, wie auf dem Brett gekennzeichnet worden und in die entsprechende Spannung für das Eingang einphasige verstopft.
- Os fios da linha (L) e do ponto morto (N) devem ser conectados como marcados na placa e plugged na tensão correspondente para a fase monofásica da entrada.
- I legare della linea (l) e del neutrale (n) dovrebbero essere collegati come contrassegnato sul bordo ed inserito la tensione corrispondente per la monofase dell'input.

OUTPUT: (24VAC)

Connect Housing Power



HEATERS CAMERA

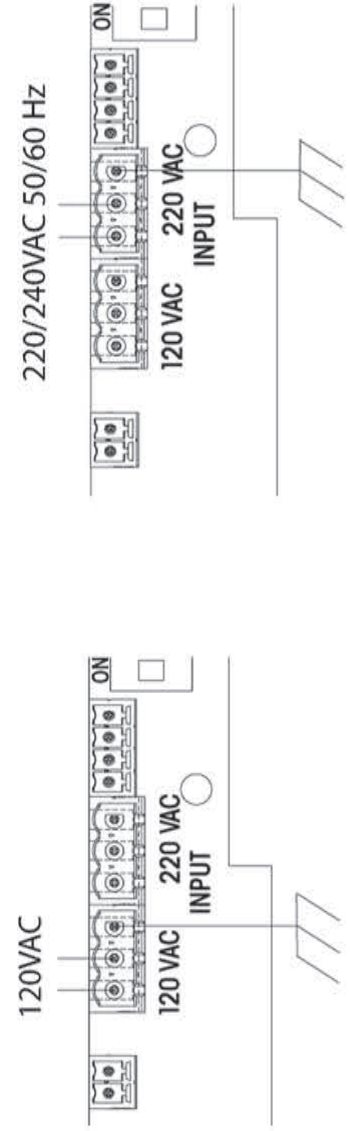
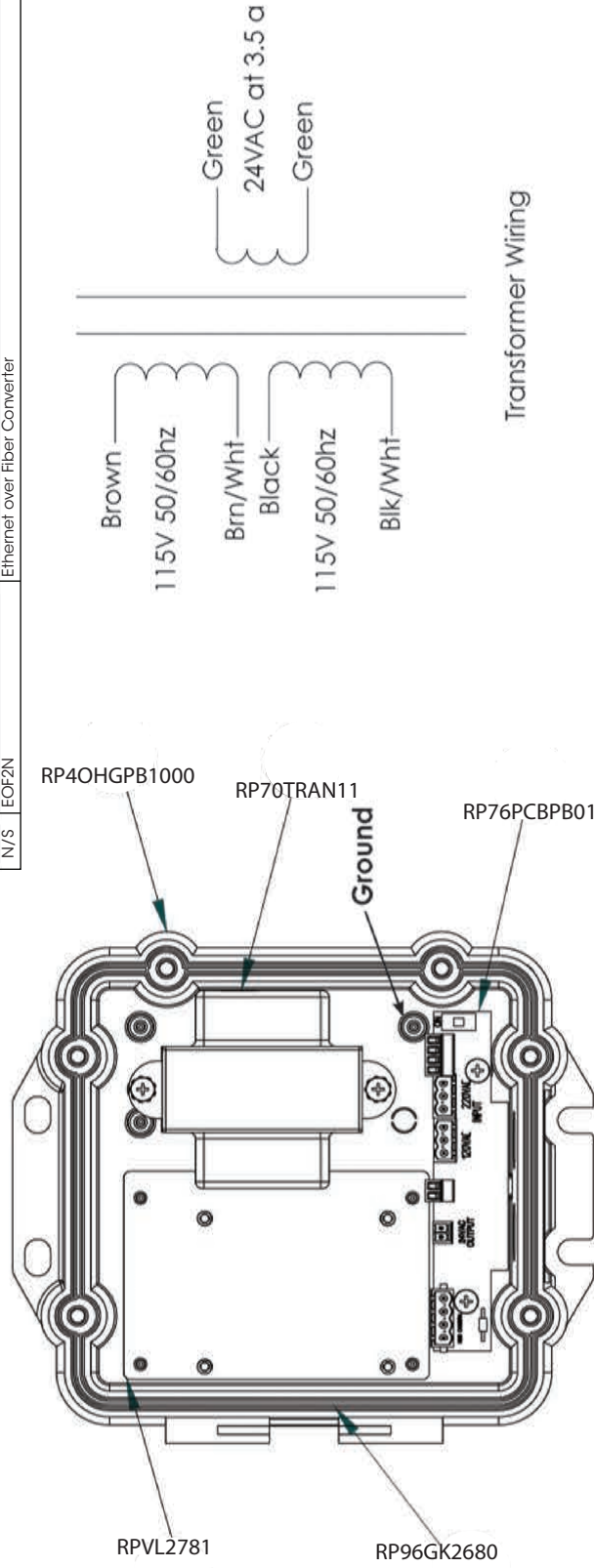


Internal resettable fuses are supplied for the main 24VAC output lines. Do not connect heaters to camera output. The 30334 is not designed for 3 phase or 208V systems.

- Los fusibles restaurables internos se proveen para las líneas de salida principales 24VAC. No conecte los calentadores con la salida de la cámara fotográfica. El 30334 no se diseña para 3 fases o sistemas 208V.
- Des fusibles réglables internes sont fournis pour les lignes de la sortie 24VAC principales. Ne reliez pas les réchauffeurs au rendement d'appareil-photo. Le 30334 n'est pas conçu pour 3 phases ou systèmes 208V.
- Interne rückstellbare Sicherungen werden für die Haupt-24VAC Ertragskurven geliefert. Schließen Sie Heizungen nicht an Kameraausgang an. Das 30334 ist nicht für 3 Phase oder Systeme 208V bestimmt.
- Os fusíveis resettable internos são fornecidos para as linhas de saída 24VAC principais. Não conecte calefatos à saída da câmera. O 30334 não é projetado para 3 fases ou sistemas 208V.
- I fusibili resettable interni sono forniti per le linee di uscita principali 24VAC. Non colleghi i riscaldatori all'uscita della macchina fotografica. Il 30334 non è progettato per 3 fase o sistemi 208V.

REPLACEMENT PARTS LIST

Part Number	Description
1 RP4OHGPB1000	Main Box Assembly (including cover)
2 RP70TRAN11	Transformer
3 RP76PCBPB01	Connection PCB
4 RP96GK2680	Door Gasket
5 RPVL2781	Mounting Plate
6 RP96GK2679	Wall Mount Gasket
N/S	Packet Assembly
N/S	Ethernet over Fiber Converter



Ethernet Over Fiber Converter (EOF2N)

Remove fiber converter from the power box.

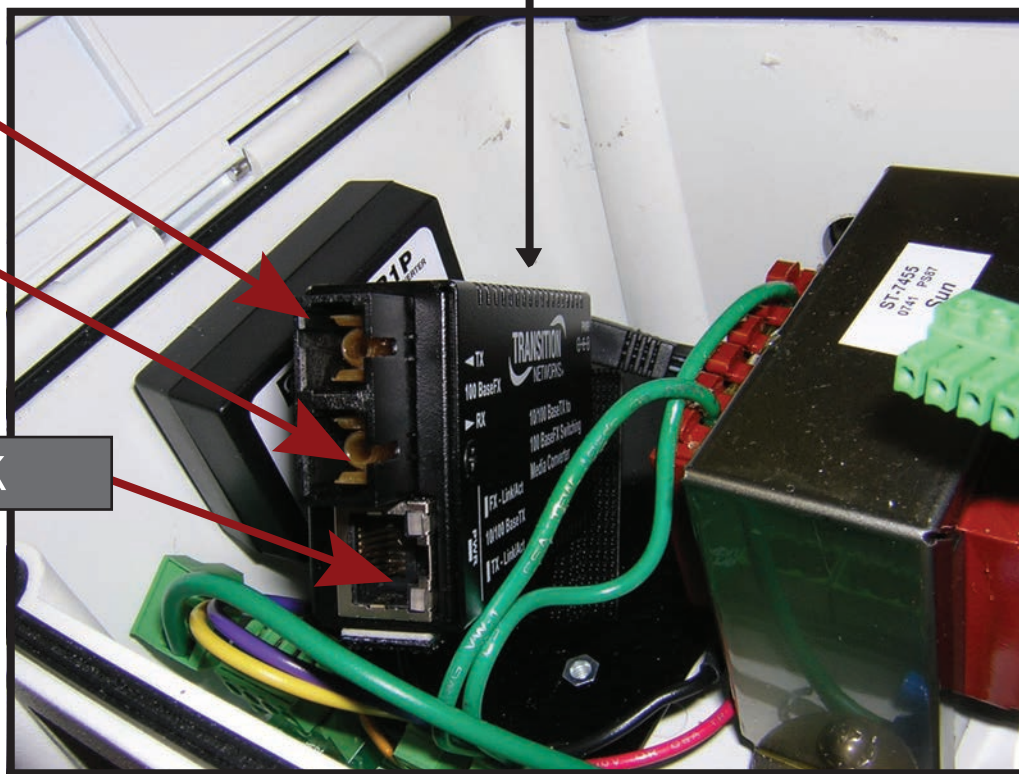


Connect fiber lines and RJ45 network cable to the fiber converter.

TX

RX

Network



Electrostatic Discharge (ESD)

Always observe the following ESD precautions when installing or handling the EOF2N media converter:

- Do not remove the converter from its protective packaging until you are ready to install it.
- Wear an ESD wrist grounding strap before handling any module or component. If you do not have a wrist strap, maintain grounded connection with the system unit throughout any procedure requiring ESD protection.

CAUTION:

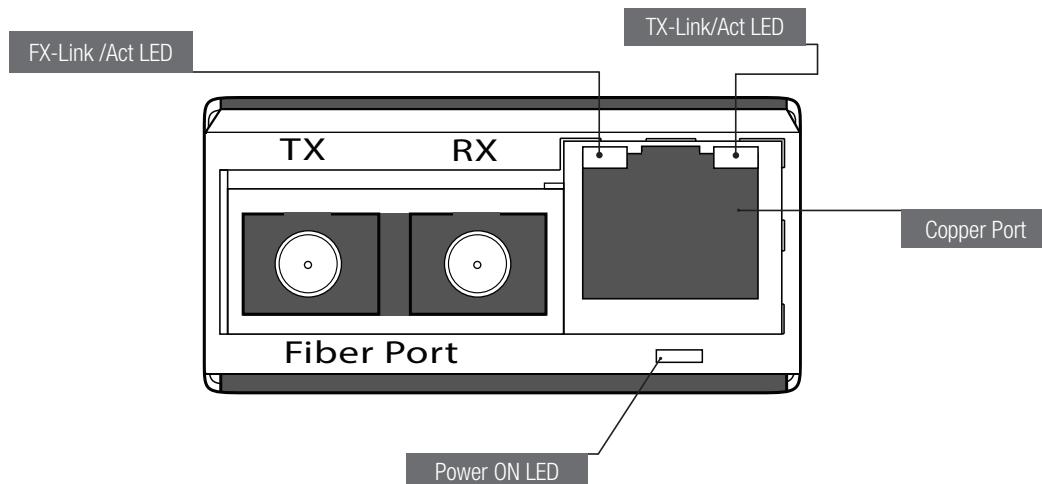
Integrated circuits and fiber optic components are extremely susceptible to electrostatic discharge damage. Failure to observe this caution could result in damage to these components.

WARNING:

If the media converter is an IEEE802.3-2005 Powered Device (PD) capable of receiving power via the Media Dependent Interface (MDI) leads, the power source, connector, and cables attached to the barrel power connector must meet the isolation requirement specified in IEEE802.3-2005.

Copper and Fiber ports

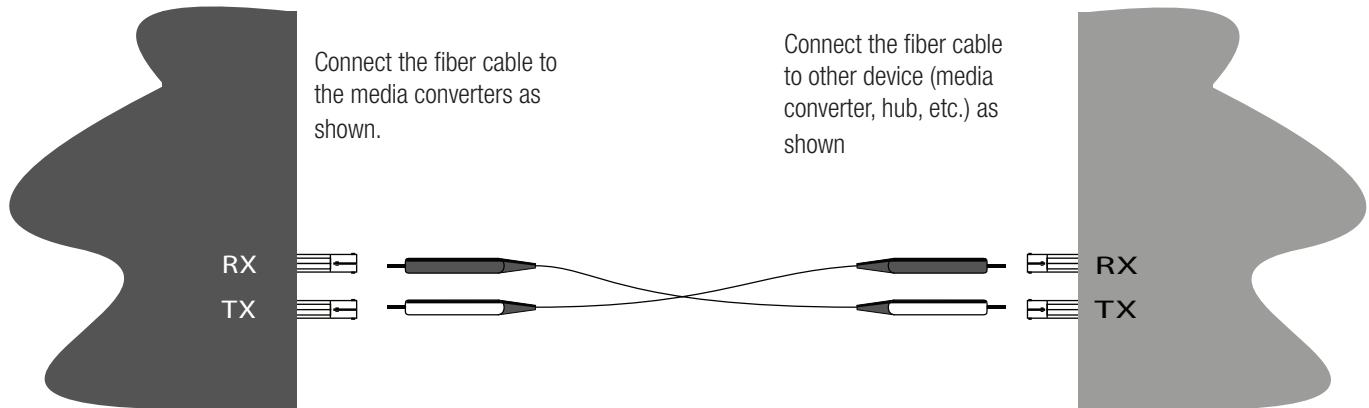
The illustration below shows the front panel of the EOF2N media converters.



Connect the fiber cable

Full duplex (always ON) is on the fiber side only; therefore, the 512-Bit Rule does not apply. The cable lengths are constrained by the cable requirement.

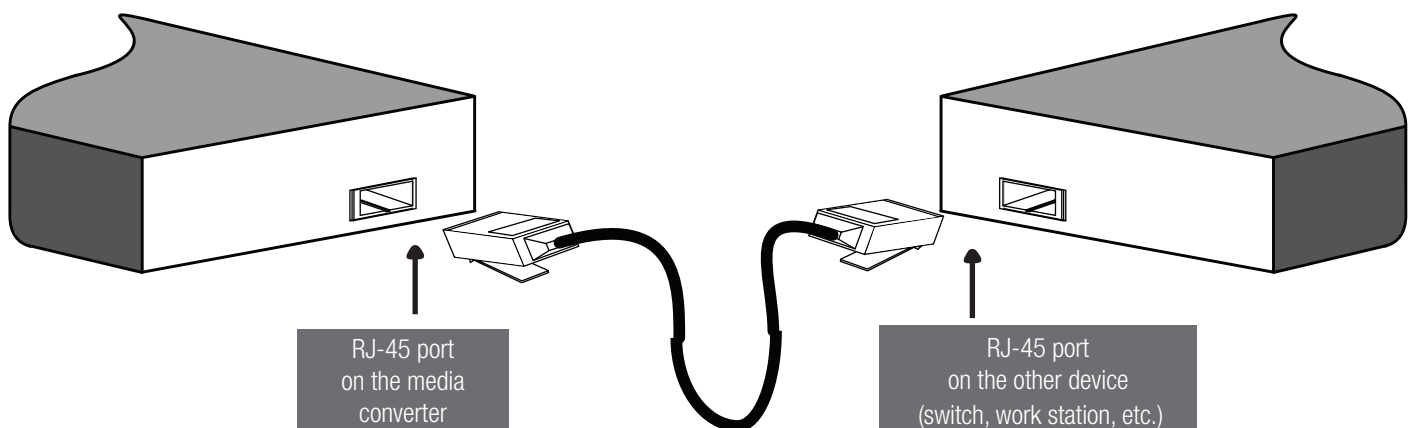
1. Locate or build IEEE 803.2™ compliant 100Base-FX fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cable to the EOF2N media converters as follows:
 - Connect the male TX cable connector to the female TX port.
 - Connect the male RX cable connector to the female RX port.
3. Connect the fiber cable to the other device (another media converter, hub, etc.) as follows:
 - Connect the male TX cable connector to the female RX port.
 - Connect the male RX cable connector to the female TX port.



Connect the twisted-pair copper cable

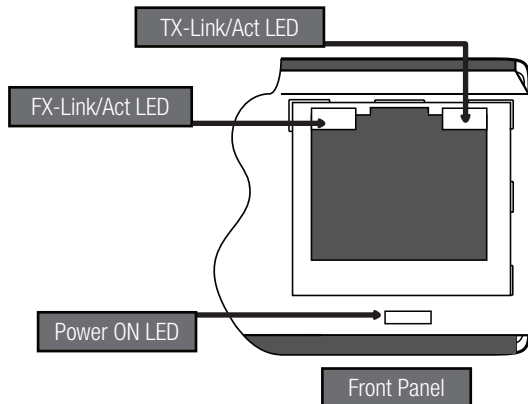
The EOF2N allows either MDI (straight-through) or MDI-X (crossover) cable connections to be configured automatically, according to network conditions.

- If half-duplex mode is used, refer to the 512-Bit Rule.
 - If full-duplex mode is used, the 512-Bit Rule does not apply. The cable lengths are constrained by the cable requirements.
1. Locate or build IEEE 803.2™ compliant 10Base-T or 100Base-TX cables, with RJ-45 connectors installed at both ends.
 2. Connect the RJ-45 connector at one end of the cable to the RJ-45 port on the EOF2N media converter.
 3. Connect the RJ-45 connector at the other end of the cable to the RJ-45 port on the other device (switch, workstation, etc.).



Status LEDs

Use the LEDs to monitor the status of the media converter.



LED descriptions are as follows:

FX-Link/Act LED

Green ON = Link (fiber)
Flashing = Activity

TX -Link/Act LED

Green ON = Link
Flashing = Activity

Power LED

Green ON = Connected to power

Product features

Congestion reduction

The EOF2N media converter do not forward collision signals or error packets from one collision domain to another, resulting in improvements in baseline network performance. In addition, the media converter filters packets destined for local devices, which reduces network congestion also.

Auto-Negotiation

The Auto-Negotiation feature is ON permanently for the EOF2N media converters. Auto-Negotiation allows the media converter to configure itself automatically to achieve the best possible mode of operation over a link. It broadcasts speed (10 Mb/s or 100 Mb/s) and duplex capabilities (full or half) to the other device and negotiates the best mode of operation. Auto-Negotiation allows quick and easy installation because the optimal link is established automatically.

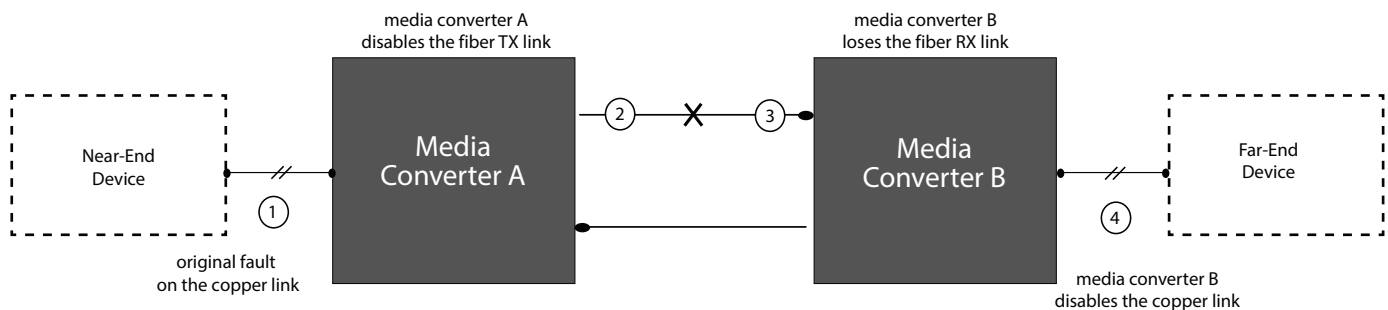
In a scenario where an auto-negotiation device is linked to a non-negotiating device, the negotiating device via parallel detection recognizes the speed of that second device then establishes the best operating speed (10Mbps or 100Mbps) at half-duplex.

MDI or MDI-X

The EOF2N utilizes either straight-through (MDI) or crossover (MDI-X) copper cables when connecting to 10Base-T or 100Base-TX devices. the EOF2N determines the characteristics of the connection and automatically configures the device to link up, regardless of the copper cable configuration, MDI or MDI-X.

Link Pass-Through

The Link Pass-Through feature (illustrated below) allows the media converter to monitor both the fiber and copper RX (receive) port for loss of signal. In the event of an RX signal loss (1), the media converter will automatically disable the TX (transmit) signal (2), thus "passing through" the link loss (3). The far-end device is automatically notified of the link loss (4), which prevents the loss of valuable data unknowingly transmitted over an invalid link.



Note: In the link pass-through devices (EOF2N) both copper and fiber cables must be installed before the LEDs will light.

Auto-Negotiation, AutoCross, Link Pass-Through, Far End Fault

Media Converter	Auto-Negotiation	AutoCross	LPT	FEF
EOF2N	Yes	Yes	No	Yes

Product features

Automatic link restoration

The media converter will automatically re-establish the link when connected to switches if the link is lost, even with Auto-Negotiation and Link Pass-through (both directions) enabled.

Full-Duplex flow control

In a full-duplex network, the maximum cable lengths are determined by the type of cables used for EOF2N cable specifications.

The 512-Bit Rule does not apply in a full-duplex network.

Note: Full duplex is ON permanently for the fiber port only.

Half-Duplex flow control (512-Bit Rule)

In a half-duplex network, the maximum cable lengths are determined by the round-trip delay limitations of each Fast Ethernet collision domain. (A collision domain is the longest path between any two terminal devices; e.g., a terminal, switch, or router.)

The 512-Bit Rule determines the maximum length of cable permitted by calculating the round-trip delay in bit-times (BT) of a particular collision domain. If the result is less than or equal to 512 BT, the path is good.

Flow Control

The process of adjusting the flow of data from one device to another ensures that the receiving device can handle all of the incoming data. This is particularly important where the sending device is capable of transmitting data much faster than the receiving device can accept it.

Distance extension

The EOF2N media converters can segment one (1) 10Base-T copper Ethernet and/or 100Base-TX copper Fast Ethernet, and one (1) 100Base-FX fiber Fast Ethernet collision domain:

In a half-duplex Ethernet or Fast Ethernet environment, the EOF2N media converters extend network distances by segmenting collision domains so that the 512-Bit Rule applies separately to each collision domain.

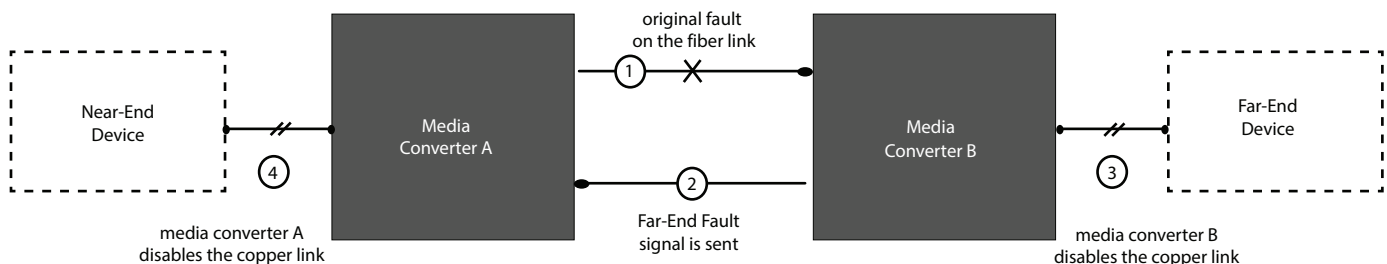
In a full-duplex Ethernet or Fast environment, the EOF2N media converters extend network distances to the physical cable limitations imposed by the selected twisted-pair copper fiber cables.

Rate conversion

The EOF2N media converters allow connection of 10Mb/s terminal devices on a 10Base-T legacy Ethernet copper network to 100Mb/s terminal devices on a 100Base-TX Fast Ethernet copper network and/or to 100Mb/s terminal devices on a 100Base-FX Fast Ethernet fiber network.

Far-End Fault (always ON)

When a fault occurs on an incoming fiber link (1), the media converter transmits a Far-End Fault signal on the outgoing fiber link (2). In addition the Far-End Fault signal also activates the Link Pass-Through, which, in turn, disables the link on the copper portion of the network (3) and (4).



Cable Specifications

The physical characteristics must meet or exceed IEEE 802.3™ specifications.

Fiber cable

Bite Error Rate:	<10 ⁻⁹
single mode fiber (recommended):	9 µm
Multimode fiber (recommended):	62.5/125 µm
Multimode fiber (optional):	100/140, 85/140, 50/125 µm

EOF2N

EOF2N

1300 nm multimode

Fiber-Optic Transmitter Power: min: -19.0 dBm max: - 14.0 dBm

Fiber-Optic Receiver Sensitivity: min: - 30.0 dBm max: - 14.0 dBm

The fiber optic transmitters on this device meet Class I Laser safety requirements per IEC-825/CDRH standards and comply with 21 CFR1040.10 and 21CFR1040.11.

Copper cable

Category 3: (Minimum requirement for 10 Mb/s operation)

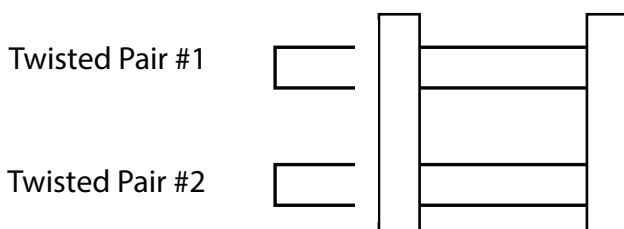
Gauge	24 to 22 AWG
Attenuation	11.5 dB/100m @ 5-10 MHz
Maximum Cable Distance	100 meters

Category 5: (Minimum requirement for 100 Mb/s operation)

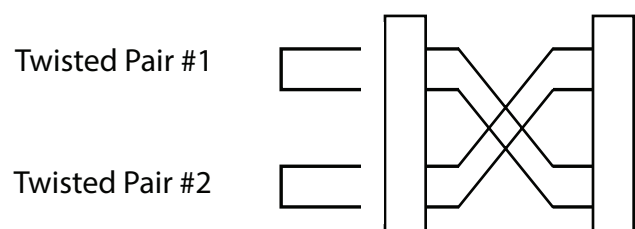
Gauge	24 to 22 AWG
Attenuation	22.0 dB /100m @ 100 MHz
Maximum Cable Distance	100 meters

- Straight-through or crossover twisted-pair cable may be used.
- Shielded (STP) or unshielded (UTP) twisted-pair cable may be used.
- Pins 1&2 and 3&6 are the two active pairs in an Ethernet network.
- Use only dedicated wire pairs for the active pins:
(e.g., blue/white & white/blue, orange/white & white/orange, etc.)
- Do not use flat or silver satin wire.

Straight-Through



Crossover Cable



MOUNTING TEMPLATE

