



***AT-MC13***  
***AT-MC14***  
***AT-MC15***  
***AT-MC16***

***Media Converters***

***User Guide***

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# AT-MC1x Family of Media Converters

## WARNING!

Before attempting to install or configure this unit, please refer to the Electrical Safety and Installation Requirements located in the back of this guide.

## Overview

The Allied Telesyn AT-MC13, AT-MC14, AT-MC15 and AT-MC16 are 10Base media converters. They convert Ethernet signals from twisted pair cable to fiber optic or thinnet cable and vice versa, providing seamless connection between two different media. An external 12 Vdc power adapter supplies power to the media converters.

The AT-MC13, AT-MC14 and AT-MC16 are fiber/twisted-pair converters: The AT-MC13 is for multi-mode fiber and has ST<sup>®</sup> connectors, the AT-MC14 has SC connectors for multi-mode fiber, and the AT-MC16 is for single-mode fiber and has ST connectors. The AT-MC15 is a thinnet/twisted-pair converter providing a 10Base-2 BNC connector. See Figures 1 through 4.

### Note

For definitions of technical terms associated with Allied Telesyn's products, refer to the Glossary on Allied Telesyn's website at [www.alliedtelesyn.com](http://www.alliedtelesyn.com).

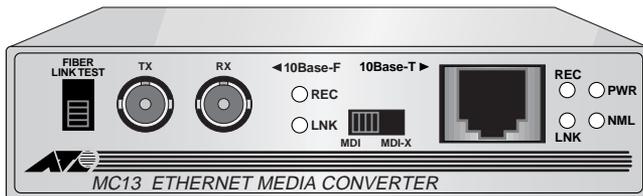


Figure 1: AT-MC13 for Twisted-Pair to Multi-Mode Fiber with ST-Type Connectors

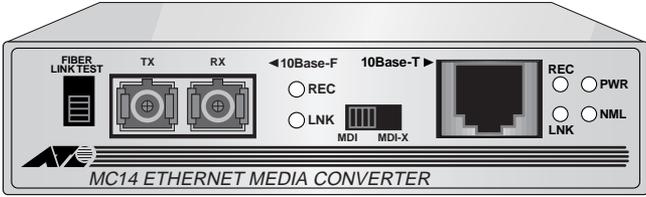


Figure 2: AT-MC14 for Twisted Pair to Multi-Mode Fiber with SC-Type Connectors

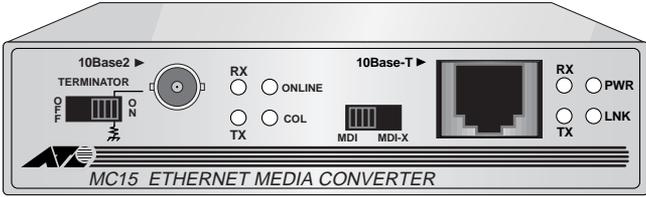


Figure 3: AT-MC15 for Twisted Pair to Thinnet with BNC-Type Connector

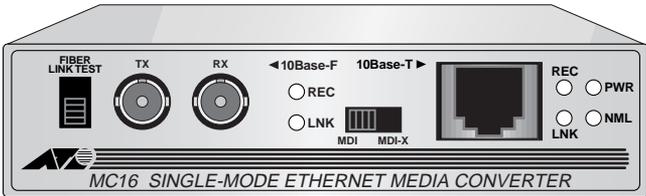


Figure 4: AT-MC16 for Twisted Pair to Single-Mode Fiber with ST-Type Connectors

## Major Features

- Full duplex transparent operation
- Low power consumption
- Minimal delay for optimum performance
- Fast data conversion
- Polyswitched fuse protection
- Missing link feature provides link fault detection on 10Base-T and 10Base-FL segments (fiber models only)
- Fiber link test switch and Normal LED (fiber models only)
- Twisted Pair MDI/MDI-X switch
- Internal termination on BNC port (thinnet model only)
- Link (Online on thinnet model) and Receive LEDs on each port
- Power LED
- External power adapter

## Cabling

Twisted-pair segments can use 22, 24 or 26-gauge unshielded twisted pair (UTP) or shielded twisted pair (STP) cabling. The cable must comply with the IEEE 802.3 10Base-T standard for Category 3, 4, or 5. The cable between the media converter and the link partner (switch, hub, workstation, etc.) must be less than 100 meters (328 ft.) long.

Coaxial cable used with the AT-MC15 must comply with the IEEE 802.3 10Base-2 standard. The maximum segment length is 185 meters (606 ft.), and the minimum length between nodes is 0.5 meters (1.64 ft.).

Fiber segments using the AT-MC13 (duplex ST connectors) or AT-MC14 (duplex SC connectors) must use 62.5/125  $\mu\text{m}$  multi-mode fiber cable. You can connect two devices over a two-kilometer (6,562 ft.) distance.

Fiber segments using the AT-MC16 (duplex ST connectors) must use 9/125  $\mu\text{m}$  single-mode fiber cables. You can connect two devices over a fifteen-kilometer (49,213 ft. or 9.3 mi.) distance in full-duplex operation. For half-duplex operation, the recommended maximum distance is 412 meters (1,352 ft.).

**Duplex.** Both fiber or twisted-pair link partners used with the AT-MC13, AT-MC14 or AT-MC16 must be operated in the same duplex mode (either both full duplex or both halfduplex).

### Configuration

Figure 5 shows two typical network configurations of the AT-MC1x Media Converter.

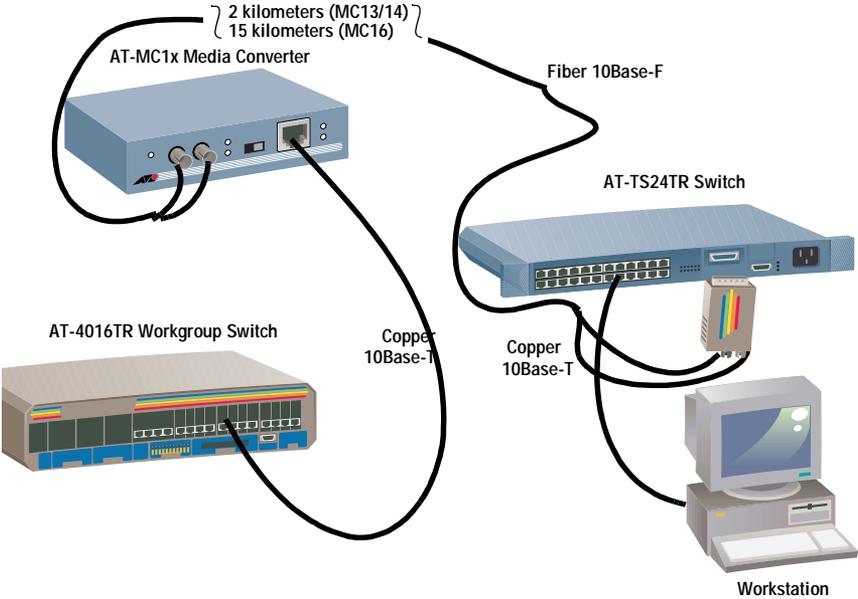
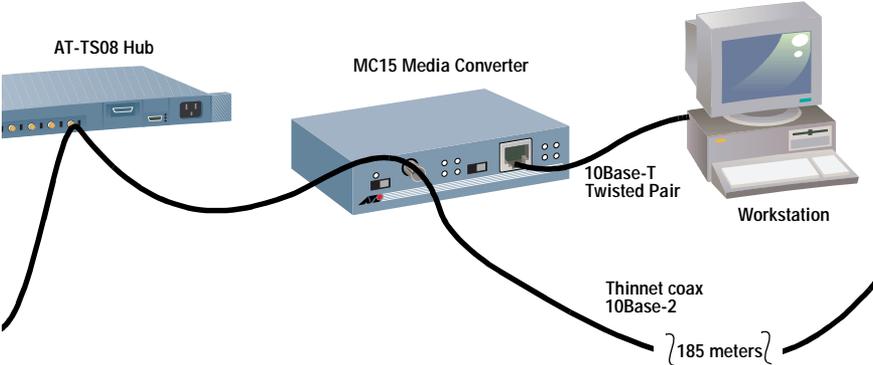


Figure 5: Typical Configurations: Connection to Desktop

## MDI/MDI-X Switch

The MDI/MDI-X switch, located on the front of the units, is a straight-through or crossover cable selection switch. It enables the 10Base-T (RJ45) port to be connected to a repeater or to a DTE without using a special crossover cable.

The default setting of the switch is MDI-X, which means you can connect the 10Base-T port to a workstation or to any other DTE that uses a straight-through cable.

In the MDI configuration, slide the switch to the MDI side and connect the 10Base-T port to a repeater/hub/switch using a straight-through cable.

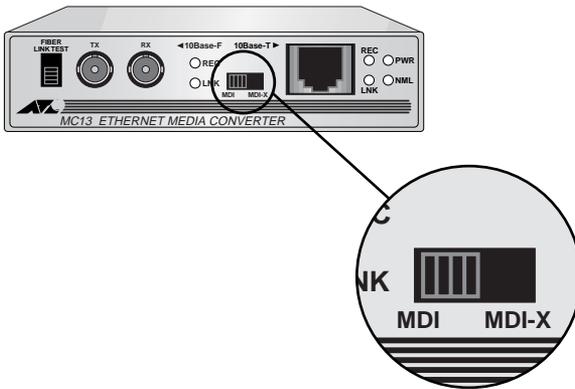


Figure 6: MDI/MDI-X Switch

Table 1: RJ45 Pinout

RJ45—MDI Pinout		RJ45—MDI-X Pinout	
Pin	Signal	Pin	Signal
1	TD+	1	RD+
2	TD-	2	RD-
3	RD+	3	TD+
6	RD-	6	TD-
4, 5, 7, 8	N/A	4, 5, 7, 8	N/A

### Fiber Link Test Switch (Fiber Models Only)

The Fiber Link Test Switch is located on the left hand side of the front panel of the fiber unit s. This switch sets the unit in an artificial link transmission state for testing without the copper side being connected. The default position of the switch is down. This setting leaves the unit in normal operating state. The switch should be in the up position only for testing since it does not perform media conversion properly with the switch in this position. The NML LED is illuminated when the Fiber Link Test switch is in the default (down) operating position.

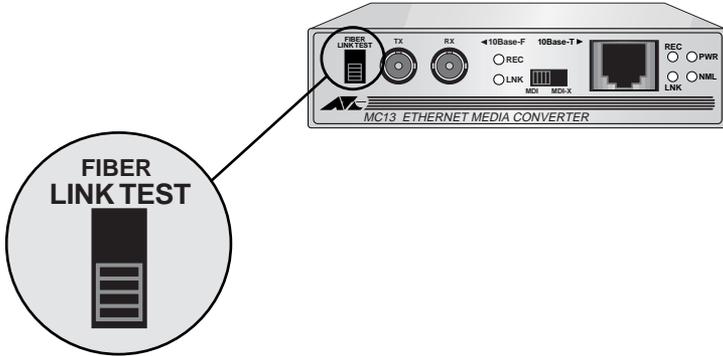
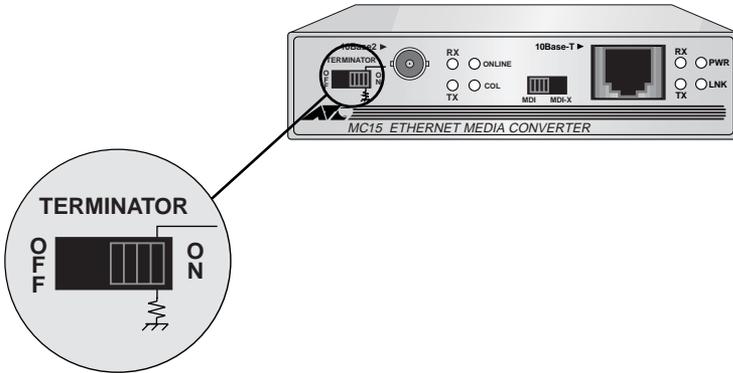


Figure 7: Fiber Link Test Switch

### Internal Termination Switch (Thinnet Model Only)

The AT-MC15's Internal Termination switch offers 50 Ω termination without the use of a T-connector and 50 Ω barrel terminator. End-point nodes and only end-point nodes need 50 Ω termination. Internal nodes on a thinnet segment should be connected to the cable via standard 10Base-2 T-connectors.



**Figure 8:** Internal Termination Switch

## LEDs

Status LEDs are located on the front panel next to each port.

**Table 2:** Media Converter LEDs

LED	Description
PWR	Indicates power is applied
LNK	Indicates link is established
REC	Indicates valid data is being received
NML (fiber models only)	Indicates unit's Fiber Link Test Switch is in normal operating position (down) and not in Test position (up)
TX (thinnet model only)	Indicates data is being transmitted on the BNC port
RX (thinnet model only)	Indicates valid data is being received on the BNC port
ONLINE (thinnet model only)	Indicates the BNC port is connected to an active 10Base-2 segment
COL (thinnet model only)	Indicates the BNC port is sensing a collision signal

## Power Requirements

The AT-MC13, AT-MC14, AT-MC15 and AT-MC16 draw power from the wall-mount external ac-dc power adapter attached to its dc jack. ATI supplies an approved safety compliant ac power adapter for the 120 and 240 Vac versions with an unregulated output of 12 Vdc at 1 A. The power required for the media converters is 12 Vdc, 500 mA.



**Figure 9:** External Ac-Dc Power Adapter

## Installing the AT-MC13, AT-MC14, AT-MC15 and AT-MC16

1. Make sure the following items are contained in your package: media converter and power adapter.
2. Choose the correct switch settings for the media converter MDI/MDI-X Switch and Fiber Link Test Switch (fiber models) or Internal Termination Switch (thinnet model).
3. Connect the twisted pair cable to the 10Base-T port and the fiber or thinnet cable to the other port.
4. Connect the power adapter to the media converter and then to an ac outlet.

## Technical Specifications

**Table 3:** Media Converter Technical Specifications

Specifications	
Dimensions	4.125" w x 3.75" d x 1.0" h
Operating temperature	0°C to 40°C
Storage temperature	-20°C to 80°C
Operating altitude	up to 10,000 ft.
Humidity	5% to 80% (noncondensing)
EMI/RFI (See note 1.)	FCC Class A, IC Class A, AT-MC13, AT-MC14, AT-MC16: EN55022 Class A AT-MC15: EN55022 Class B
Safety	EN60825 EN60950
Immunity	EN50082-1 Immunity Standard
Power	500 mA, 12 Vdc

NOTE 1. All products meet EN55022 Class B with shielded twisted pair (STP) cable.

## Warranty

The AT-MC13, AT-MC14, AT-MC15 and AT-MC16 Media Converters have a lifetime warranty. The power adapter has a one year warranty.



# Electrical Safety and Installation Requirements

**STANDARDS:** This product meets the following standards.

## U.S. Federal Communications Commission

### RADIATED ENERGY

Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of 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 this 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.

Note: Modifications or changes not expressly approved of by the manufacturer or the FCC, can void your right to operate this equipment.

## Industry Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



AT-MC13, AT-MC14, AT-MC16 RFI Emission

EN55022 Class A

**WARNING:** In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

AT-MC15 RFI Emission

EN55022 Class B

Immunity

EN50082-1

**AT-MC13, AT-MC14, AT-MC16 WARNING:** This product requires shielded cables to comply with emission and immunity standards. If it is used with unshielded cables, the user may be required to take measures to correct the interference problem at their own expense.



### SAFETY

Power to the hub must be sourced only from the adapter.

### EUROPE—EC

Use TÜV licensed AC adapter of 12 Vdc, min 500 mA.

### OTHER COUNTRIES

Use a Safety Agency Approved AC adapter of 12 V dc, min 500 mA.



Laser

EN60825

AT-MC13, AT-MC14: This is a "CLASS 1 LED PRODUCT"

**AT-MC16 Warning: Class 1 Laser product.**

**Warning:** Do not stare into the Laser beam.

At time of installation the Fiber Optic Lasers comply with FDA Radiation Performance Standard 21CFR Subchapter J, applicable at date of manufacture.



**LIGHTNING DANGER**

**DANGER:** DO NOT WORK on equipment or CABLES during periods of LIGHTNING ACTIVITY.

DO NOT BLOCK AIR VENTS

Do not connect a telephone line into the signal connector.

**OPERATING TEMPERATURE**

This product is designed for a maximum ambient temperature of 40 degrees C.

**ALL COUNTRIES:** Install product in accordance with local and National Electrical Codes.

**NORMEN:** Dieses Produkt erfüllt die Anforderungen der nachfolgenden Normen.



**AT-MC13, AT-MC14, AT-MC16 Hochfrequenzstörung** EN55022 Klasse A

**WARNUNG:** Bei Verwendung zu Hause kann dieses Produkt Funkstörungen hervorrufen. In diesem Fall müßte der Anwender angemessene Gegenmaßnahmen ergreifen.

**AT-MC15 Hochfrequenzstörung** EN55022 Klasse B

Störsicherheit

EN50082-1

**AT-MC13, AT-MC14, AT-MC16 ACHTUNG:** Für dieses Produkt sind abgeschirmte Kabel erforderlich, damit den Richtlinien für Emission und Interferenzschutz entsprochen wird. Falls das Produkt mit nicht abgeschirmten Kabeln verwendet wird, können weitergehende Maßnahmen für die Korrektur von Interferenzproblemen auf Kosten des Benutzers notwendig werden.



**SICHERHEIT**

**EUROPE—EC**

Gebrauchen Sie einen von TÜV zugelassenen Wechselstromadapter für Gleichstrom 12 Vdc, 500 mA.



Laser

EN60825

AT-MC13, AT-MC14: Das ist ein "LED Produkt der Klasse 1"

**AT-MC16 WARNUNG Laserprodukt der Klasse 1.**

**WARNUNG Nicht direkt in den Strahl blicken.**



**GEFAHR DURCH BLITZSCHLAG**

**GEFAHR:** Keine Arbeiten am Gerät oder an den Kabeln während eines Gewitters ausführen.

ENTLÜFTUNGSÖFFNUNGEN NICHT VERSPERREN

Verbinden Sie nicht das Telefonkabel mit dem Signalverbindungsstecker.

**BETRIEBSTEMPERATUR**

Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als 40° C entworfen.

**ALLE LÄNDER:** Installation muß örtlichen und nationalen elektrischen Vorschriften entsprechen.

**STANDARDER** : Dette produkt tilfredsstiller de følgende standarder.



AT-MC13, AT-MC14, AT-MC16 Radiofrekvens forstyrrelsesemission

EN55022 Klasse A

**ADVARSEL:** I et hjemligt miljø kunne dette produkt forårsage radio forstyrrelse. Bliver det tilfældet, påkræves brugeren muligvis at tage tilstrækkelige foranstaltninger.

AT-MC15 Radiofrekvens forstyrrelsesemission

EN55022 Klasse B

Immunitet

EN50082-1

**AT-MC13, AT-MC14, AT-MC16 ADVARSEL:** Dette produkt skal bruges med afskærmede kabler for at overholde bestemmelserne vedrørende udstråling og støjimmunitet. Hvis det bruges med uafskærmede kabler, kan det blive påkrævet af brugeren at korrigere interferensproblemer for egen regning.



#### **SIKKERHED**

Strømforsyningen til apparatet må udelukkende tages fra tilpasningstransformatoren.

#### **EUROPE - EC**

Brug kun TÜV godkendt vekselstrømstransformator på 12 Vdc, 500 mA.



Laser

EN60825

AT-MC13, AT-MC14: Dette er et "PRODUKT UNDER KLASSE 1 LED"

**AT-MC16: ADVARSEL Laserprodukt av klasse 1.**

**ADVARSEL** Stirr ikke på strålen.



#### **FARE UNDER UVEJR**

**FARE:** UNDLAD at arbejde på udstyr eller KABLER i perioder med LYNAKTIVITET.

VENTILATIONSÅBNINGERNE MÅ IKKE BLOKERES

Tilslut ikke telefonledninger til signalstikforbindelsen.

#### **BETJENINGSTEMPERATUR**

Dette apparat er konstrueret til en omgivende temperatur på maksimum 40 grader C.

**ALLE LANDE:** Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.

**EISEN:** Dit product voldoet aan de volgende eisen.



AT-MC13, AT-MC14, AT-MC16: RFI Emissie

EN55022 Klasse A

**WAARSCHUWING:** Binnenshuis kan dit product radiostoring veroorzaken, in welk geval de gebruiker verplicht kan worden om gepaste maatregelen te nemen.

AT-MC15 RFI Emissie

EN55022 Klasse B

Immunititeit

EN50082-1

**AT-MC13, AT-MC14, AT-MC16 WAARSCHUWING:** Om te voldoen aan de emissie- en immunitieitsnormen dient dit apparaat te zijn voorzien van afgeschermd kabels. Als het met niet-afgeschermd kabels wordt gebruikt, kan het zijn dat de gebruiker maatregelen moet treffen om interferentieproblemen voor eigen rekening op te lossen.



### VEILIGHEID

Stroom mag alleen via de adapter naar het apparaat toegevoerd worden.

### EUROPE - EC

Gebruik een door TÜV gekeurde wisselstroomadapter van 12 Vdc, 500 mA.



Laser

EN60825

AT-MC13, AT-MC14: Dit is een "KLASSE 1 LED-PRODUKT"

**AT-MC16 Waarshuwng Klasse-1 laser produkt.**

**WAARCHUWING** Neit in de straal staren.



### GEVAAR VOOR BLIKSEMINSLAG

**GEVAAR:** NIET aan toestellen of KABELS WERKEN bij BLIKSEM.

VENTILATIEGATEN NIET BLOKKEREN

Sluit geen telefoonlijn aan op de signaalverbinding.

### BEDRIJFSTEMPERATUUR

De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 40 graden Celsius.

**ALLE LANDEN:** het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.

**NORMES:** ce produit est conforme aux normes de suivantes.



AT-MC13, AT-MC14, AT-MC16 émission d'interférences radioélectriques  
EN55022 Classe A

**MISE EN GARDE :** dans un environnement domestique, ce produit peut provoquer des interférences radioélectriques. Auquel cas, l'utilisateur devra prendre les mesures adéquates.

AT-MC15 émission d'interférences radioélectriques EN55022 Classe B

Immunité EN50082 - 1

**AT-MC13, AT-MC14, AT-MC16 Avertissement :** Il faut utiliser des câbles blindés pour ce produit afin de respecter les normes d'émission et d'immunité. Si l'utilisateur choisit d'utiliser des câbles non blindés, il sera peut-être contraint de prendre les mesures nécessaires pour corriger les problèmes d'interférences, ainsi que d'assumer le coût correspondant.



### SÉCURITÉ

L'alimentation du concentrateur doit être uniquement fournie par l'adaptateur.

### EUROPE - EC

Utiliser un adaptateur secteur conforme TÜV de 12 V dc, 500 mA en courant continu.



Laser EN60825

AT-MC13, AT-MC14 : Ce matériel est un "PRODUIT À DIODE ÉLECTROLUMINESCENTE DE CLASSE 1"

**AT-MC16 ATTENTION Produit laser di classe 1.**

**ATTENTION Ne pas fixer le faisceau des yeux.**



### DANGER DE Foudre

**DANGER:** NE PAS MANIER le matériel ou les CÂBLES lors d'activité orageuse.

NE PAS BLOQUER LES FENTES D'AÉRATION

Ne pas connecter une ligne téléphonique au connecteur de signaux.

### TEMPÉRATURE DE FONCTIONNEMENT

Ce matériel est capable de tolérer une température ambiante maximum de 40 degrés Celsius.

**POUR TOUS PAYS:** Installer le matériel conformément aux normes électriques nationales et locales.

**STANDARDIT:** Tämä tuote on seuraavien standardien mukainen.



AT-MC13, AT-MC14, AT-MC16 Radioaaltojen häirintä EN55022 Luokka A

**VAROITUS:** Kotiolosuhteissa tämä laite voi aiheuttaa radioaaltojen häiriötä, missä tapauksessa laitteen käyttäjän on mahdollisesti ryhdyttävä tarpeellisiin toimenpiteisiin.

AT-MC15 Radioaaltojen häirintä EN55022 Luokka B

Kestävyys EN50082-1

**AT-MC13, AT-MC14, AT-MC16 VAROITUS:** Tämä tuote vaatii suojattuja kaapeleita toimiakseen emissio- ja häiriönsietostandardien mukaisesti. Jos tuotetta käytetään ilman suojattuja kaapeleita, käyttäjä voi joutua korjaamaan häirinnän aiheuttaman ongelman omalla kustannuksellaan.



**TURVALLISUUS**

Tähtipisteeseen (hub) syötettävän virran pitää tulla ainoastaan sovittimesta.

**EUROPE - EC**

Käytä TÜV-lisenssillä valmistettua verkkosovittinta, jonka tasajännitteen nimellisarvot ovat 12 Vdc, 500 mA (milliampeeria).



Laser EN60825

AT-MC13, AT-MC14: Tämä on "ENSIMMÄISEN LUOKAN VALODIODITUOTE"

**AT-MC16 VAROITUS Luokan 1 Lasertuote.**

**VAROITUS Älä katso säteeseen.**



**SALAMANISKUVAARA**

**HENGENVAARA: ÄLÄ TYÖSKENTELE** laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.

**ÄLÄ TUKI ILMAREIKIÄ**

Älä liitä puhelinlinjaa signaalin liittimeen.

**KÄYTTÖLÄMPÖTILA**

Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 40°C.

**KAIKKI MAAT:** Asenna tuote paikallisten ja kansallisten sähköturvallisuusmääräysten mukaisesti.

**STANDARD:** Questo prodotto è conforme ai seguenti standard.



AT-MC13, AT-MC14, AT-MC16 Emissione RFI (interferenza di radiofrequenza) EN55022 Classe A

**AVVERTENZA:** in ambiente domestico questo prodotto potrebbe causare radio interferenza. In questo caso potrebbe richiedersi all'utente di prendere gli adeguati provvedimenti.

AT-MC15 Emissione RFI (interferenza di radiofrequenza) EN55022 Classe B

Immunità EN50082-1

**AT-MC13, AT-MC14, AT-MC16 AVVERTENZA:** questo prodotto, se utilizzato con cavi schermati, è conforme alle norme sulle emissioni e sull'immunità. In caso di uso senza cavi schermati, l'utente può dover adottare a proprie spese misure correttive contro le interferenze.



**NORME DI SICUREZZA**

Questo dispositivo deve essere alimentato solo mediante l'adattatore.

**EUROPE - EC**

Utilizzare l'adattatore per c.a. da 12 Vdc, 500 mA conforme alla normativa TÜV.



Laser EN60825

AT-MC13, AT-MC14: Questo è un "PRODOTTO CON LED DI CLASSE 1"

**AT-MC16 AVVERTENZA Prodotto laser di Classe 1.**

**AVVERTENZA Non fissare il raggio con gli occhi.**



**PERICOLO DI FULMINI**

**PERICOLO:** NON LAVORARE sul dispositivo o sui CAVI durante PRECIPITAZIONI TEMPORALESCHESCHE.

NON OSTRUIRE LE PRESE D'ARIA

Non collegare una linea telefonica al connettore del segnale.

**TEMPERATURA DI FUNZIONAMENTO**

Questo prodotto è concepito per una temperatura ambientale massima di 40 gradi centigradi.

**TUTTI I PAESI:** installare il prodotto in conformità delle vigenti normative elettriche nazionali.

**SIKKERHETSNORMER:** Dette produktet tilfredsstiller følgende sikkerhetsnormer.



AT-MC13, AT-MC14, AT-MC16 RFI stråling EN55022 Klasse A

**ADVARSEL:** Hvis dette produktet benyttes til privat bruk, kan produktet forårsake radioforstyrrelse. Hvis dette skjer, må brukeren tade nødvendige forholdsregler.

AT-MC15 RFI stråling EN55022 Klasse B

Immunitet N50082-1

**AT-MC13, AT-MC14, AT-MC16 ADVARSEL:** Dette produktet må brukes med vernede kabler for å tilfredsstille emisjons- og fritakelsesstandarder. Dersom produktet brukes med uvernede kabler, må brukeren muligens rette forstyrrelsesproblemene for egen regning.



#### **SIKKERHET**

All strømtilførsel må komme fra adapteren.

#### **EUROPE - EC**

Benytt TÜV-godkjent AC-adapter på 12 Vdc, 500 mA (milliampere).



Laser

EN60825

AT-MC13, AT-MC14: Dette er et "KLASSE 1 LED PRODUKT"

**AT-MC16 ADVARSEL Laserprodukt av klasse 1.**

**ADVARSEL** Stirr ikke på strålen.



#### **FARE FOR LYNNEDSLAG**

**FARE:** ARBEID IKKE på utstyr eller KABLER i TORDENVÆR.

BLOKKER IKKE LUFTVENTILENE

Telefonlinje må ikke koples til signalkontakten.

#### **DRIFTSTEMPERATUR**

Dette produktet er konstruert for bruk i maksimum romtemperatur på 40 grader celsius.

**ALLE LAND:** Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.

**PADRÕES:** Este produto atende aos seguintes padrões.



AT-MC13, AT-MC14, AT-MC16 Emissão de interferência de radiofrequência  
EN55022 Classe A

**AVISO:** Num ambiente doméstico este produto pode causar interferência na radiorecepção e, neste caso, pode ser necessário que o utente tome as medidas adequadas.

AT-MC15 Emissão de interferência de radiofrequência EN55022 Classe B

Imunidade EN50082-1

**AT-MC13, AT-MC14, AT-MC16 ADVERTÊNCIA:** Este produto requer a utilização de cabos blindados para cumprimento dos standards de limites de emissão e imunidade. Se o produto for utilizado com cabos não blindados, o utilizador poderá necessitar de tomar medidas para correcção de problemas de interferência, por sua própria conta.



### SEGURANÇA

Use somente o adaptador fornecido para alimentação elétrica do hub.

#### EUROPE - EC

Use um adaptador de corrente alternada com saída DC de 12 Vdc, 500 mA em conformidade com as especificações da TÜV.



Laser EN60825

AT-MC13, AT-MC14, AT-MC16: Este é um "PRODUTO CLASSE 1 LED"

**AT-MC16: Aviso Produto laser de classe 1**

**AVISO Não olhe fixamente para o raio.**



#### **PERIGO DE CHOQUE CAUSADO POR RAIOS**

**PERIGO:** NÃO TRABALHE no equipamento ou nos CABOS durante períodos suscetíveis a QUEDAS DE RAIOS.

NÃO BLOQUEIE AS ABERTURAS DE VENTILAÇÃO

Não conecte uma linha telefônica ao conector de sinal.

#### **TEMPERATURA DE FUNCIONAMENTO**

Este produto foi projetado para uma temperatura ambiente máxima de 40 graus centígrados.

**TODOS OS PAÍSES:** Instale o produto de acordo com as normas nacionais e locais para instalações elétricas.

**ESTÁNDARES:** Este producto cumple con los siguientes estándares.



AT-MC13, AT-MC14, AT-MC16 Emisión RFI

EN55022 Clase A

**ADVERTENCIA:** en un entorno doméstico, este producto puede causar radiointerferencias, en cuyo caso, puede requerirse del usuario que tome las medidas que sean convenientes al respecto.

AT-MC15 Emisión RFI

EN55022 Clase B

Inmunidad

EN50082-1

**ADVERTENCIA:** Este producto exige cables protectores para ajustarse a las normas de emisión e inmunidad. Si se utiliza con cables sin protección, el usuario tendrá que correr con los gastos por las medidas a tomar en caso de problemas de interferencias.

### SEGURIDAD



La energía para el dispositivo central o "hub" debe provenir únicamente del adaptador.

#### EUROPE - EC

Utilizar un adaptador de corriente alterna autorizado TÜV de 12 Vdc, 500 mA.



Laser

EN60825

AT-MC13, AT-MC14: este es un "PRODUCTO DE DIODO LUMINISCENTE (LED) CLASE 1"

**AT-MC16: ¡ADVERTENCIA! Producto láser Clase 1.**

**¡ADVERTENCIA! No mirat fijamente el haz.**



### PELIGRO DE RAYOS

**PELIGRO:** NO REALICE NINGUN TIPO DE TRABAJO O CONEXION en los equipos o en LOS CABLES durante TORMENTAS ELECTRICAS.

NO BLOQUEE LAS ABERTURAS PARA VENTILACION

No conectar ninguna línea telefónica al conector de señales.

### TEMPERATURA REQUERIDA PARA LA OPERACIÓN

Este producto está diseñado para una temperatura ambiental máxima de 40 grados C.

**PARA TODOS LOS PAÍSES:** Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.

**STANDARDER:** Denna produkt uppfyller följande standarder.



AT-MC13, AT-MC14, AT-MC16 Radiostörning EN55022 Klass A  
**VARNING:** Denna produkt kan ge upphov till radiostörningar i hemmet, vilket kan tvinga användaren till att vidtaga erforderliga åtgärder.

AT-MC15 Radiostörning EN55022 Klass B  
 Immunitet EN50082-1

**AT-MC13, AT-MC14, AT-MC16 VARNING:** Denna produkt kräver skärmade kablar för att uppfylla standardkraven för emission och immunitet. Om den används med oskärmade kablar kan användaren vara tvungen att vidta åtgärder på egen bekostnad för att åtgärda störningsproblemet.



#### **SÄKERHET**

Endast anslutningsenheten får vara kraftkälla till centralen.

#### **EUROPE - EC**

Använd en växelströmsanslutningsenhet licensierad av TÜV. Likström 12 Vdc, 500 mA.



Laser EN60825

AT-MC13, AT-MC14 Detta är en "KLASS 1 LYSDIODPRODUKT"

**AT-MC16 VARNING! Laserprodukt av klass 1.**

**VARNING! Laserstrålning när enheten är öppen.**



#### **FARA FÖR BLIXTNEDSLAG**

**FARA:** ARBETA EJ på utrustningen eller kablarna vid ÅSKVÅDER.

**BLOCKERA INTE LUFTVENTILERNA**

Koppla inte telefonledning till signalkontakten.

#### **DRIFTSTEMPERATUR**

Denna produkt är konstruerad för rumstemperatur ej överstigande 40 grader Celsius.

**ALLA LÄNDER:** Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.



*Appendix A*  
*Technical Support Fax Order Form*

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State/Province \_\_\_\_\_  
Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_

**Incident Summary**

Model number of Allied Telesyn product I am using \_\_\_\_\_  
Network software products I am using (e.g., network managers)

\_\_\_\_\_  
\_\_\_\_\_

**Brief summary of problem**

\_\_\_\_\_  
\_\_\_\_\_

**Conditions (List the steps that led up to the problem.)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Detailed description (Use separate sheet, if necessary)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**When completed, fax this sheet to the appropriate ATI office. Fax numbers can be found on page 29.**



*Appendix B*

***Chassis Installation Manual Feedback***

**Please tell us what additional information you would like to see discussed in the manual. If there are topics you would like information on that were not covered in the manual, please photocopy this page, answer the questions and fax or mail this form back to Allied Telesyn. The mailing address and fax number are at the bottom of the page. Your comments are valuable when we plan future revisions of the manual.**

**I found the following the most valuable** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I would like the following more developed** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I would find the manual more useful if** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Please fax or mail your feedback. Fax to 1-425-481-3790. Or mail to:  
Allied Telesyn International Corp.  
Technical Communications Department  
19015 North Creek Parkway Suite 200  
Bothell, WA 98011 USA**



# Where to Find Us

For Technical Support or Service		
Location	Phone	Fax
<b>Americas</b> United States, Canada, Mexico, Central America, South America	1 (800) 428-4835	1 (425) 481-3790
<b>Asia</b> Singapore, Taiwan, Thailand, Malaysia, Indonesia, Korea, Philippines, China, India	(+65) 3815-613	(+65) 3833-830
<b>Australia</b> Australia, New Zealand	(612) 416-0619	(612) 416-9764
<b>France</b> France, Belgium, Luxembourg, The Netherlands, Middle East, Africa	(+33) 1-60-92-15-32	(+33) 1-69-28-37-49
<b>Germany</b> Germany, Switzerland, Austria, Eastern Europe	(+49) 30-435-900-126	(+49) 30-435-70-650
<b>Hong Kong</b>	(+852) 2-529-4111	(+852) 2 529-7661
<b>Italy</b> Italy, Spain, Portugal, Greece, Turkey, Israel	(+39) 2-416047	(+39) 2-419282
<b>Japan</b>	(+81) 3-3443-5640	(+81) 3-3443-2443
<b>United Kingdom</b> United Kingdom, Denmark, Norway, Sweden, Finland, Iceland	(+44) 1-235-442560	(+44) 1-235-442680
<b>Technical Bulletin Board Service</b>	1 (425) 483-7979	
<b>Technical Support E-mail Address</b>	TS1@alliedtelesyn.com	
<b>CompuServe</b>	Go ALLIED	
<b>World Wide Web</b>	<a href="http://www.alliedtelesyn.com">http://www.alliedtelesyn.com</a>	
<b>FTP Server</b>	Address: ftp.alliedtelesyn.com [lowercase letters] Login: anonymous [lowercase letters] Password: your e-mail address [requested by the server at login]	

## For Information Regarding Allied Telesyn International Corp.

**Allied Telesyn International Corp.**  
 19015 North Creek Parkway  
 Bothell, WA 98011  
 Tel: 1 (425) 487-8880  
 Fax: 1 (425) 489-9191

**Allied Telesyn International Corp.**  
 950 Kifer Road  
 Sunnyvale, CA 94086  
 Tel: 1 (800) 424-4284 (USA and Canada)  
 Fax: 1 (408) 736-0100

### For Sales Information

#### Australia

##### Lindfield, NSW

Tel: (612) 416-0619, Fax: (612) 416-9764

#### Canada

##### Rexdale, Ontario

Tel: (416) 675-6738, Fax: (416) 675-0057

##### Richmond, British Columbia

Tel: (604) 244-0678, Fax: (604) 270-3644

#### England

##### Abingdon, Oxon

Tel: (+44) 1235-442500, Fax: (+44) 1235-442590

#### France

##### Les Ulis

Tel: (+33) 1-60921525, Fax: (+33) 169-28-37-49

#### Germany

##### Berlin

Tel: (+49) 30-435-90-00, Fax: (+49) 30-435-706-50

##### Freising

Tel: (+49) 8161-9906-0, Fax: (+49) 8161-9906-22

#### Hong Kong

##### Mongkok

Tel: (+852) 2-529-4111, Fax: (+852) 2-529-7661

#### Italy

##### Milano

Tel: (+39) 2-416047, Fax: (+39) 2-419282

#### Japan

##### Machida-shi, Tokyo

Tel: (+81) 427-21-8141, Fax: (+81) 427-21-8848

##### Yodogawa-ku, Osaka

Tel: (+81) 6-391-6310, Fax: (+81) 6-391-6325

#### Singapore

Tel: (+65) 383-3832, Fax: (+65) 383-3830

#### United States

##### Scottsdale, AZ

Tel: (602) 423-7087 Fax: (602) 423-7088

##### Los Angeles, CA

Tel: (310) 412-8684, Fax: (310) 412-8685

##### Mission Viejo, CA

Tel: (714) 699-0628, Fax: (714) 699-0276

##### San Diego, CA

Tel: (619) 279-3899, Fax: (619) 279-3897

##### Santa Ana, CA

Tel: (714) 838-0434, Fax: (714) 838-9721

##### Clearwater, FL

Tel: (813) 726-0022, Fax: (813) 726-0234

##### Norcross, GA

Tel: (770) 448-7214, Fax: (770) 448-2600

##### Reading, MA

Tel & Fax: (617) 944-3492

##### Eden Prairie, MN

Tel: (612) 829-7506, Fax: (612) 903-5284

##### St. Louis, MO

Tel: (314) 894-6160, Fax: (314) 894-3773

##### Dover, NH

Tel: (603) 743-3010, Fax: (603) 743-6327

##### Plaistow, NH

Tel: (603) 382-0815, Fax: (603) 382-0818

##### Portsmouth, NH

Tel: (603) 431-6461, Fax: (603) 431-1649

##### Morrisville, NC

Tel: (919) 468-0831, Fax: (919) 468-0829

##### Lake Oswego, OR

Tel: (503) 699-3130, Fax: (503) 636-6575

##### Austin, TX

Tel: (512) 261-6378, Fax: (512) 261-6379

##### Dallas, TX

Tel: (214) 365-9471, Fax: (214) 365-9472

##### San Antonio, TX

Tel: (210) 646-8744

##### Vienna, VA

Tel: (703) 506-0196, Fax: (703) 506-1986