



AT-FS704

*10/100 Fast Ethernet
Unmanaged Switch*

Installation Guide

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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.

Canadian Department of Communications

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.

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

RFI Emission

EN55022 Class A

WARNING: This product requires shielded cables to comply with Class A emission limits. If not used with shielded cables, this product may cause radio interference in which case the user may be required to take adequate measures.

Immunity

EN50082-1



SAFETY

ELECTRICAL NOTICES

WARNING: ELECTRIC SHOCK HAZARD

To prevent ELECTRIC shock, do not remove cover. No user-serviceable parts inside. This unit contains HAZARDOUS VOLTAGES and should only be opened by a trained and qualified technician. To avoid the possibility of ELECTRIC SHOCK disconnect electric power to the product before connecting or disconnecting the LAN cables.



LIGHTNING DANGER

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

INSTALLATION

ELECTRICAL—AUTO VOLTAGE ADJUSTMENT

This product will automatically adjust to any voltage between the ranges shown on the label.

ELECTRICAL—TYPE CLASS 1 EQUIPMENT

THIS EQUIPMENT MUST BE EARTHED. Power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.

ELECTRICAL—CORD NOTICE

Use power cord, maximum 4.5 meters long, rated 6 amp minimum, 250V, made of HAR cordage molded IEC 320 connector on one end and on the other end a plug approved by the country of end use.



CAUTION: Air vents must not be blocked and must have free access to the room ambient air for cooling.

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.

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

Hochfrequenzstörung

EN55022 Klasse A

WARNING: Dieses Produkt muß mit entstörten Kabeln versehen sein, damit es den Emissionsgrenzen der Klasse A entspricht. Wenn dieses Produkt nicht mit entstörten Kabeln verwendet wird, könnte es Funkstörungen hervorrufen; der Anwender müßte in diesem Fall angemessene Gegenmaßnahmen ergreifen.

Störsicherheit

EN50082-1



SICHERHEIT

ACHTUNG: GEFÄHRLICHE SPANNUNG

Das Gehäuse nicht öffnen. Das Gerät enthält keine vom Benutzer wartbaren Teile. Das Gerät steht unter Hochspannung und darf nur von qualifiziertem technischem Personal geöffnet werden. Vor Anschluß der LAN-Kabel, Gerät vom Netz trennen.



GEFAHR DURCH BLITZSCHLAG

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

INSTALLATION

AUTOMATISCHE SPANNUNGSEINSTELLUNG

Dieses Gerät stellt sich automatisch auf die auf dem Etikett aufgeführten Spannungswerte ein.

GERÄTE DER KLASSE 1

DIESE GERÄTE MÜSSEN GEERDET SEIN. Der Netzstecker darf nur mit einer vorschriftsmäßig geerdeten Steckdose verbunden werden. Ein unvorschriftsmäßiger Anschluß kann die Metallteile des Gehäuses unter gefährliche elektrische Spannungen setzen.

NETZKABEL

Das Netzkabel sollte eine maximale Länge von 4,5 Metern, einen Nennwert von mindestens 6 A und 250 V haben, aus HAR-Material hergestellt und mit einer gepreßten, IEC 320 entsprechenden, Anschlußverbindung an einem Ende, und am anderen Ende mit einem im Land des Endverbrauchers geprüften Stecker ausgestattet sein.

**VORSICHT**

Die Entlüftungsöffnungen dürfen nicht versperrt sein und müssen zum Kühlen freien Zugang zur Raumluft haben.

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.

STANDARDS: Dette produkt tilfredsstiller de følgende standarder.

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

Radiofrekvens forstyrrelsesemission EN55022 Klasse A

ADVARSEL: Der skal bruges skærmmkabler med dette produkt for at opfylde Klasse A emissionsgrænser. Hvis skærmmkabler ikke bruges, kan dette produkt muligvis forårsage radio forstyrrelse. Bliver dette tilfældet, påkræves brugeren muligvis at tage tilstrækkelige foranstaltninger.

Immunitet EN50082-1

**SIKKERHED****ELEKTRISKE FORHOLDSREGLER****ADVARSEL: RISIKO FOR ELEKTRISK STØD**

For at forebygge ELEKTRISK stød, undlad at åbne apparatet. Der er ingen indre dele, der kan repareres af brugeren. Denne enhed indeholder LIVSFARLIGE STRØMSPÆNDINGER og bør kun åbnes af en uddannet og kvalificeret tekniker. For at undgå risiko for ELEKTRISK STØD, afbrydes den elektriske strøm til produktet, før LAN-kablerne monteres eller afmonteres.

**FARE UNDER UVEJR**

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

INSTALLATION**ELEKTRISK—AUTOMATISK SPÆNDINGSREGULERING**

Dette apparat vil automatisk tilpasse sig enhver spænding indenfor de værdier, der er angivet på etiketten.

ELEKTRISK—KLASSE 1-UDSTYR

DETTE UDSTYR KRÆVER JORDFORBINDELSE. Stikket skal være forbundet med en korrekt installeret jordforbunden stikkontakt. En ukorrekt installeret stikkontakt kan sætte livsfarlig spænding til tilgængelige metaldele.

ELEKTRISK—EDNING

Anvend ledning af maksimum 4,5 meters længde, med en kapacitet på minimum 6 amp., 250 v, bestående af en IEC 320 connector med indstøbt HAR ledning i den ene ende og et stik i den anden ende, der er godkendt af myndighederne i brugerlandet.



ADVARSEL: Ventilationsåbninger må ikke blokeres og skal have fri adgang til den omgivende luft i rummet for afkøling.

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.

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

RFI Emissie

EN55022 Klasse A

WAARSCHUWING: Dit product vereist beschermende kabels in overeenstemming met de limieten van Klasse A emissie. Als het niet met beschermende kabels wordt gebruikt, kan dit produkt radiostoring veroorzaken, in welk geval de gebruiker verplicht kan worden om gepaste maatregelen te nemen.

Immunititeit

EN50082-1



VEILIGHEID

WAARSCHUWINGEN MET BETREKKING TOT ELEKTRICITEIT

WAARSCHUWING: GEVAAR VOOR ELEKTRISCHE SCHOKKEN

Verwijder het deksel niet, teneinde ELEKTRISCHE schokken te voorkomen. Binnenin bevinden zich geen onderdelen die door de gebruiker onderhouden kunnen worden. Dit toestel staat onder GEVAARLIJKE SPANNING en mag alleen worden geopend door een daartoe opgeleide en bevoegde technicus. Om het gevaar op ELEKTRISCHE SCHOKKEN te vermijden, moet u het toestel van de stroombron ontkoppelen alvorens de LAN-kabels te koppelen of ontkoppelen.



GEVAAR VOOR BLIKSEMINSLAG

GEVAAR: NIET aan toestellen of KABELS WERKEN bij BLIKSEM.

INSTALLATIE

ELEKTRISCH: AUTOMATISCHE AANPASSING VAN DE SPANNING

Dit toestel past zich automatisch aan elke spanning aan, tussen de op het label vermelde waarden.

ELEKTRISCHE TOESTELLEN VAN KLASSE 1

DIT TOESTEL MOET GEAARD WORDEN. De stekker moet aangesloten zijn op een juist geaarde contactdoos. Een onjuist geaarde contactdoos kan de metalen onderdelen waarmee de gebruiker eventueel in aanraking komt onder gevaarlijke spanning stellen.

ELEKTRISCHE SNOEREN

Gebruik een elektrisch snoer, maximum 4,5 meter lang, berekend voor ten minste 6 ampère, 250 V, uit HAR vervaardigd, met aan het ene uiteinde een gevormd IEC 320 aansluitstuk en aan het andere uiteinde een stekker die goedgekeurd is door het land waar het toestel gebruikt zal worden.



OPGELET: De ventilatiegaten mogen niet worden gesperd en moeten de omgevingslucht ongehinderd toelaten voor afkoeling.

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 :

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

Emission d'interférences radioélectriques EN55022 Classe A

MISE EN GARDE: conformément aux limites d'émission de la Classe A, ce produit doit être utilisé avec des câbles blindés. Si ce produit n'est pas utilisé avec des câbles blindés, il peut émettre des interférences radioélectriques. Auquel cas, l'utilisateur devra prendre les mesures adéquates.

Immunité EN50082 - 1



SÉCURITÉ

INFORMATION SUR LES RISQUES ÉLECTRIQUES

AVERTISSEMENT: DANGER D'ÉLECTROCUTION

Pour éviter toute ÉLECTROCUTION, ne pas ôter le revêtement protecteur du matériel. Ce matériel ne contient aucun élément réparable par l'utilisateur. Il comprend des TENSIONS DANGEREUSES et ne doit être ouvert que par un technicien dûment qualifié. Pour éviter tout risque d'ÉLECTROCUTION, débrancher le matériel avant de connecter ou de déconnecter les câbles LAN.



DANGER DE Foudre

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

INSTALLATION

RÉGLAGE DE TENSION AUTOMATIQUE ÉLECTRIQUE

Ce matériel peut s'ajuster automatiquement sur n'importe quelle tension comprise dans la plage indiquée sur l'étiquette.

ÉQUIPEMENT DE CLASSE 1 ÉLECTRIQUE

CE MATÉRIEL DOIT ÊTRE MIS A LA TERRE. La prise de courant doit être branchée dans une prise femelle correctement mise à la terre car des tensions dangereuses risqueraient d'atteindre les pièces métalliques accessibles à l'utilisateur.

INFORMATION SUR LE CORDON ÉLECTRIQUE

Utiliser un cordon secteur de 4.5 mètres de long maximum, calibré à 6 ampères minimum, 250V, fabriqué en câblage HAR avec connecteur IEC 32C moulé à une extrémité, et à l'autre extrémité, une prise de courant mâle répondant aux normes du pays d'utilisation.



ATTENTION: Ne pas bloquer les fentes d'aération, ceci empêcherait l'air ambiant de circuler librement pour le refroidissement.

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.

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

Radioaaltojen häirintä EN55022 Luokka A

VAROITUS: Tämä tuote vaatii suojatut kaabelit täyttääkseen A Luokan säteilyrajoitukset. Ellei suojattuja kaapeleita käytetä, tämä laite voi aiheuttaa radioaaltohäiriötä, missä tapauksessa laitteen käyttäjän on mahdollisesti ryhdyttävä tarpeellisiin toimenpiteisiin.

Kestävyyys EN50082-1



TURVALLISUUS

SÄHKÖÖN LIITTYVIÄ HUOMAUTUKSIA

VAROITUS: SÄHKÖISKUVAARA

Estääksesi SÄHKÖISKUN älä poista kantta. Sisällä ei ole käyttäjän huollettavissa olevia osia. Tämä laite sisältää VAARALLISIA JÄNNITTEITÄ ja sen voi avata vain koulutettu ja pätevä teknikko. Vältäaksesi SÄHKÖISKUN mahdollisuuden katkaise sähkövirta tuotteeseen ennen kuin liität tai irrotat paikallisverkon (LAN) kaapelit.



SALAMANISKUVAARA

HENGENVAARA: ÄLÄ TYÖSKENTELE laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.

ASENNUS

SÄHKÖ—AUTOMAATTINEN JÄNNITTEENSÄÄTÖ

Tämä tuote säätää automaattisesti mihin tahansa jännitteeseen ohjetarrassa annettujen arvojen välillä.

SÄHKÖ—TYYPPILUOKAN 1 LAITTEET

TÄMÄ LAITE TÄYTYY MAADOITTAA. Pistoke täytyy liittää kunnollisesti maadoitettuun pistorasiaan. Virheellisesti johdotettu pistorasia voi altistaa metalliosat vaarallisille jännitteille.

SÄHKÖ—JOHTOON LIITTYVÄ HUOMAUTUS

Käytä seuraavanlaista virtajohtoa: maksimipituus 4,5 metriä, minimiteho 6 ampeeria, 250 V, valmistettu HAR-johdostosta, muovattu IEC 320 -liitin toisessa päässä ja käyttömaassa hyväksytty pistoke toisessa päässä.



HUOMAUTUS: Ilmavaihtoreikiä ei pidä tukkia ja niillä täytyy olla vapaa yhteys ympäröivään huoneilmaan, jotta ilmanvaihto tapahtuisi.

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.

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

Emissione RFI (interferenza di radiofrequenza) EN55022 Classe A

AVVERTENZA: questo prodotto richiede cavi schermati per adeguarsi ai limiti di emissione per gli apparecchi di Classe A. Se non viene usato con cavi schermati, questo prodotto potrebbe causare radio interferenza, nel qual caso potrebbe richiedersi all'utente di prendere gli adeguati provvedimenti.

Immunità EN50082-1



**NORME DI SICUREZZA
AVVERTENZE ELETTRICHE**

ATTENZIONE: PERICOLO DI SCOSSE ELETTRICHE

Per evitare SCOSSE ELETTRICHE non asportare il coperchio. Le componenti interne non sono riparabili dall'utente. Questa unità ha TENSIONI PERICOLOSE e va aperta solamente da un tecnico specializzato e qualificato. Per evitare ogni possibilità di SCOSSE ELETTRICHE, interrompere l'alimentazione del dispositivo prima di collegare o staccare i cavi LAN.



PERICOLO DI FULMINI

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

INSTALLAZIONE

ELETTRICITÀ—REGOLAZIONE AUTOMATICA DELLA TENSIONE

Questo prodotto regolerà automaticamente la tensione ad un valore compreso nella gamma indicata sull'etichetta.

ELETTRICITÀ—DISPOSITIVI DI CLASSE 1

QUESTO DISPOSITIVO DEVE AVERE LA MESSA A TERRA. La spina deve essere inserita in una presa di corrente specificamente dotata di messa a terra. Una presa non cablata in maniera corretta rischia di scaricare una tensione pericolosa su parti metalliche accessibili.

ELETTRICITÀ—AVVERTENZA SUL CAVO

Usare un cavo della lunghezza massima di metri 4,5, con capacità minima di 6 A, 250 V, di filo HAR, dotato di connettore stampato IEC 320 ad un'estremità e di spina approvata dal paese di destinazione all'altra.



ATTENZIONE: le prese d'aria non vanno ostruite e devono consentire il libero ricircolo dell'aria ambiente per il raffreddamento.

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.

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

RFI stråling

EN55022 Klasse A

ADVARSEL: Det må benyttes isolerte kabler med dette produktet for å tilfredsstille Klasse A strålingsgrenser. Hvis ikke kan dette produktet forårsake radioforstyrrelse. Hvis dette skjer, må brukeren ta de nødvendige forholdsregler.

Immunitet

EN50082-1



SIKKERHET

ELEKTRISITET

ADVARSEL: FARE FOR ELEKTRISK SJOKK

For å unngå ELEKTRISK sjokk, må dekslet ikke tas av. Det finnes ingen deler som brukeren kan reparere på innsiden. Denne enheten inneholder FARLIGE SPENNINGER, og må kun åpnes av en faglig kvalifisert tekniker. For å unngå ELEKTRISK SJOKK må den elektriske strømmen til produktet være avslått før LAN-kablene til- eller frakobles.



FARE FOR LYNNEDSLAG

FARE: ARBEID IKKE på utstyr eller KABLER i TORDENVÆR.

INSTALLASJON

ELEKTRISK—AUTO SPENNINGSTILPASNING

Dette produktet vil automatisk bli tilpasset hvilken som helst strømspenning i de områdene som vises på etiketten.

ELEKTRISK—TYPE 1- KLASSE UTSTYR

DETTE UTSTYRET MÅ JORDES. Strømkontakten må være tilkopleet en korrekt jordet kontakt. En kontakt som ikke er korrekt jordet kan føre til farlig spenninger i lett t ilgjengelige metallgeler.

ELEKTRISK—MEDDELELSE OM LEDNINGER

Bruk en strømedning av maksimalt 4.5 m. i lengde, godkjent for minst av 6 amp, 250V, fremstilt av HAR ledning IEC 320 koplingsstykke i den ene enden, og i den andre enden en plugg som er blitt godkjent i brukerlandet.



FORSIKTIG: Lufteventilene må ikke blokeres, og må ha fri tilgang til luft med romtemperatur for avkjøling.

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.

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

Emissão de interferência de radiofrequência EN55022 Classe A

AVISO: Este produto requer cabos protegidos a fim de obedecer aos limites de emissão da Classe A. Se não for utilizado com os cabos protegidos, este produto pode causar interferência na radiorrecepção e, neste caso, pode ser necessário que o utente tome as medidas adequadas.

Imunidade EN50082-1



SEGURANÇA

AVISOS SOBRE CARACTERÍSTICAS ELÉTRICAS

ATENÇÃO: PERIGO DE CHOQUE ELÉTRICO

Para evitar CHOQUE ELÉTRICO, não retire a tampa. Não contém peças que possam ser consertadas pelo usuário. Este aparelho contém VOLTAGENS PERIGOSAS e só deve ser aberto por um técnico qualificado e treinado. Para evitar a possibilidade de CHOQUE ELÉTRICO, desconecte o aparelho da fonte de energia elétrica antes de conectar e desconectar os cabos da LAN.



PERIGO DE CHOQUE CAUSADO POR RAIOS

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

INSTALAÇÃO

ELÉTRICO—AJUSTE AUTOMÁTICO DE VOLTAGEM

Este produto ajustar-se-á automaticamente a qualquer voltagem que esteja dentro dos limites indicados no rótulo.

ELÉTRICO—EQUIPAMENTOS DO TIPO CLASSE 1

DEVE SER FEITA LIGAÇÃO DE FIO TERRA PARA ESTE EQUIPAMENTO. O plugue de alimentação deve ser conectado a uma tomada com adequada ligação de fio terra. Tomadas sem adequada ligação de fio terra podem transmitir voltagens perigosas a peças metálicas expostas.

ELÉTRICO—AVISO SOBRE O CABO DE ALIMENTAÇÃO

Use cabo de alimentação com comprimento máximo de 4,5 metros, com uma capacidade indicada mínima de 6 amp e 250 V, fabricado de material para cabo HAR com conector moldado IEC 320 em uma extremidade e, na outra extremidade, um plugue aprovado para uso no país em questão.



CUIDADO: As aberturas de ventilação não devem ser bloqueadas e devem ter acesso livre ao ar ambiente para arrefecimento adequado do aparelho.

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.

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.

Emisión RFI

EN55022 Clase A

ADVERTENCIA: este producto requiere de cables armados para cumplir con los límites de emisión de Clase A. Si no se usa con cables armados, este producto puede causar radiointerferencias, en cuyo caso, puede requerirse del usuario que tome las medidas que sean convenientes al respecto.

Inmunidad

EN50082-1



SEGURIDAD

AVISOS ELECTRICOS

ADVERTENCIA: PELIGRO DE ELECTROCHOQUE

Para evitar un ELECTROCHOQUE, no quite la tapa. No hay ningún componente en el interior al cual puede prestar servicio el usuario. Esta unidad contiene VOLTAJES PELIGROSOS y sólo deberá abrirla un técnico entrenado y calificado. Para evitar la posibilidad de ELECTROCHOQUE desconecte la corriente eléctrica que llega al producto antes de conectar o desconectar los cables LAN.



PELIGRO DE RAYOS

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

INSTALACION

ELECTRICO—AUTO-AJUSTE DE TENSION

Este producto se ajustará automáticamente a cualquier tensión entre los valores máximos y mínimos indicados en la etiqueta.

ELECTRICO—EQUIPO DEL TIPO CLASE 1

ESTE EQUIPO TIENE QUE TENER CONEXION A TIERRA. El cable tiene que conectarse a un enchufe a tierra debidamente instalado. Un enchufe que no está correctamente instalado podría ocasionar tensiones peligrosas en las partes metálicas que están expuestas.

ELECTRICO—ADVERTENCIA SOBRE EL CABLE

Use un cable eléctrico con un máximo de 4,5 metros de largo, con una capacidad mínima de 6 amperios, 250 V, hecho de cable HAR, con el conector moldeado IEC 320 en un extremo y con un enchufe que está aprobado por el país de uso final en el otro.



ATENCION: Las aberturas para ventilación no deberán bloquearse y deberán tener acceso libre al aire ambiental de la sala para su enfriamiento.

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.

WARNING: Denna produkt kan ge upphov till radiostörningar i hemmet, vilket kan tvinga användaren till att vidtaga erforderliga åtgärder.

Radiostörning

EN55022 Klass A

WARNING: Skärnkabel bör användas med denna produkt för att uppfylla kraven gällande radiostörningar enligt Klass A. Om ingen skärnkabel används med denna produkt, kan radiostörningar uppstå, vilket kan tvinga användaren till att vidtaga erforderliga åtgärder.

Immunitet

EN50082-1



SÄKERHET

TILLKÄNNAGIVANDEN BETRÄFFANDE ELEKTRICITETSRIK:

RISK FÖR ELEKTRISK STÖT För att undvika ELEKTRISK stöt, ta ej av locket. Det finns inga delar inuti som behöver underhållas. Denna apparat är under HÖGSPÄNNING och får endast öppnas av en utbildad kvalificerad tekniker. För att undvika ELEKTRISK STÖT, koppla ifrån produktens strömanslutning innan LAN-kablarna ansluts eller kopplas ur.



FARA FÖR BLIXTNEDSLAG

FARA: ARBETA EJ på utrustningen eller kablarna vid ÅSKVÄDER.

INSTALLATION

ELEKTRISKT —AUTOMATISK SPÄNNINGSJUSTERING

Denna produkt justeras automatiskt till alla spänningar inom omfånget som indikeras på produktens märkning.

ELEKTRISKT—TYP KLASS 1 UTRUSTNING

DENNA UTRUSTNING MÅSTE VARA JORDAD. Nätkabeln måste vara ansluten till ett ordentligt jordat uttag. Ett felaktigt uttag kan göra att närliggande metalldelar utsätts för högspänning. Apparaten skall anslutas till jordat uttag, när den ansluts till ett nätverk.

ELEKTRISKT —ANMÄRKNING BETRÄFFANDE KABELN

Använd en kabel med maximum längd 4,5 meter och minimum 6 amp nominal, 250V, av HAR kabelfabrikat med ett specialutformat IEC 320-kontaktidon i ena änden och i den andra en plugg som godkänts i landet där produkten används.



WARNING: Luftventilerna får ej blockeras och måste ha fri tillgång till omgivande rumsluft för avsvälvning.

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.

Table of Contents

Electrical Safety and Installation Requirements	iii
Product Description	1
Key Features.....	2
Physical Description.....	3
Front Panel.....	3
Rear Panel	3
LED Indicators	4
Power Supply.....	5
Installation	7
Before you Proceed	7
Verifying Package Contents.....	7
Site Requirements	8
Desktop Installation.....	8
Wall Installation.....	9
Connectivity.....	9
PC- to-Switch Installation	10
Hub-to-Switch Installation	11
Hub-to-Switch Installation (without uplink port)	11
Switch-to-Switch Installation	12
Technical Specifications	13
Physical Characteristics.....	13
Agency Compliance.....	13
100Base-TX Cable	15
100Base-TX Connector Pinouts	15
Straight-through Cable Crossover Cable.....	15
Technical Support Fax Order	17
Incident Summary.....	17
AT-FS704 Switch Installation Guide Feedback	19
Where To Find Us	21

Chapter 1

Product Description

The AT-FS704 10/100 Fast Ethernet Switch is a four-port switch that integrates 100 Mbps Fast Ethernet and 10 Mbps Ethernet network capabilities in a highly flexible desktop package. Figure 1 shows the switch front and rear panels.

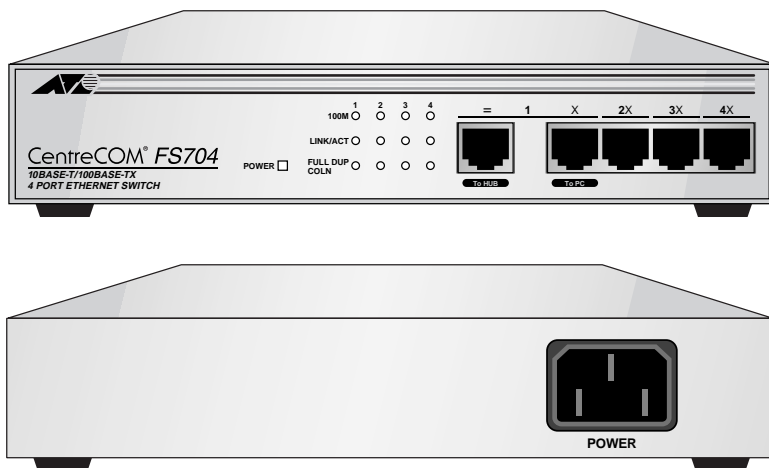


Figure 1 AT-FS704 Front and Rear Panels

The AT-FS704 is designed for easy installation and high performance in an environment where traffic on the network and the numbers of users increase continuously; it can be installed where space is limited, and it provides immediate access to a rapidly growing network through a wide range of user-reliable functions and features, as described in the following section.

Key Features

The AT-FS704 unmanaged Fast Ethernet switch has the following features:

- ❑ IEEE 802.3 and 802.3u compliant.
- ❑ Store-and-forward at full wire speed to support rate adaptation and ensure data integrity.
- ❑ Auto-negotiation for any port. This allows for auto-detection of speed (10/100 Mbps) and duplex mode (full- or half-duplex), thereby providing automatic and flexible solutions in your network connections.
- ❑ Auto polarity detection for correction of incorrect polarity on the receive twisted pair at each port.
- ❑ Data packet forwarding and filtering at full wire speed.
- ❑ 8 K active MAC address entry table per device with self learning and table aging.
- ❑ 4 MB packet buffer per device.
- ❑ Uplink/MDI (Media-Dependent Interface) port for uplink to another switch, hub or repeater. Please note that if you are using the uplink port, you will be unable to use Port 1, as these two ports are logically connected.

Physical Description

Front Panel

The AT-FS704 front panel consists of 4 (10/100 Mbps MDI-X) (Media Dependent Interface with Crossover) ports, 1 Uplink (MDI) port and LED indicators, as shown in Figure 2.

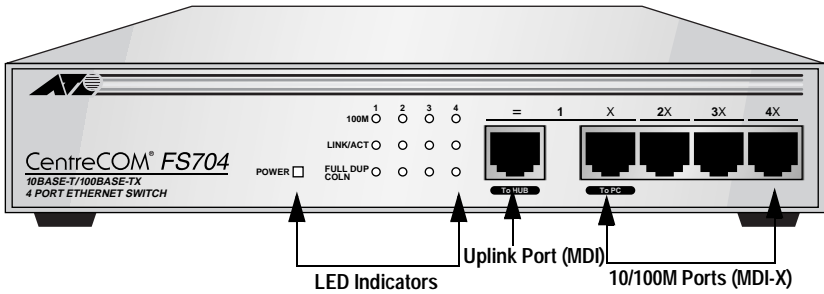


Figure 2 AT-FS704 Front Panel defined

Rear Panel

The rear panel of the AT-FS704 consists of an AC power connector, as shown in Figure 3. Supported input voltages range from 100 ~ 240 V AC at 50 ~ 60 Hz.

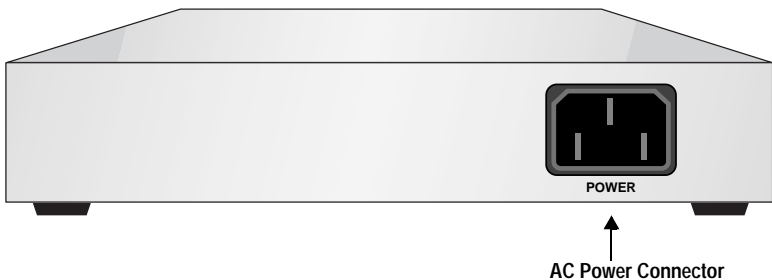


Figure 3 Rear Panel View of the AT-FS704

LED Indicators

The LED indicators include POWER, 100 M, LINK/ACT (Link/Activity) and FULL DUP/COLN (Full-duplex/Collision). The LED indicators are used to facilitate monitoring and troubleshooting of the switch. After the switch is turned on, the LED indicators should respond as follows:

- ❑ All of the LED indicators will blink momentarily. This blinking of the LED indicators represents a reset of the system.
- ❑ The FDX/Col LED indicators blink from yellow to green.
- ❑ The power LED indicator will remain ON.

Figure 4 shows the LED indicators on the AT-FS704 and Table 1 provides an explanation of each indicator:

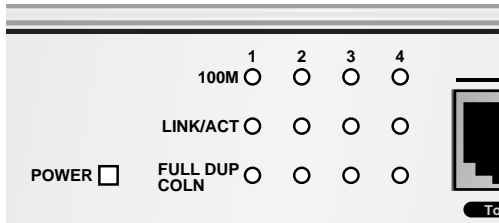


Figure 4 AT-FS704 LED Indicators

Table 1 LED Status

LEDs	Color	State	Description
100M	Green	ON OFF	Indicates a 100 Mbps device is connected to a respective port or the uplink port. If a 10 Mbps device is connected to a respective port or the uplink port, the LED indicator is OFF.
LINK/ACT	Green Blinking Green	ON	Secure the connection (or link) to a device at any port. Reception or transmission (Activity) of data at a port.
FULL DUP COLN	Green Blinking Yellow	ON OFF Collisions	The respective port is in full-duplex mode. The respective port is OFF for half-duplex mode. Collisions are occurring on the respective port.
POWER	Green	ON OFF	There is power to the switch. If the POWER LED is not on, check the AC power adapter to verify that the DC power cord is plugged into a functioning wall outlet and that the DC power cord is properly inserted into the switch's power connector.

Power Supply

The AT-FS704 can be used with AC power sources 100 - 240 V AC, 50/60 Hz. To power the unit ON, plug one end of the power cord into the AC power connector of the unit and the other end into the local power source outlet.

Chapter 2

Installation

Before you Proceed

Before installing the AT-FS704, make sure you read “Electrical Safety and Installation Requirements” on page iii.

Verifying Package Contents

Make sure that the package includes the following items:

- One AT-FS704 10/100 Fast Ethernet Switch
- One AC power cord (for the U.S., Continental Europe, and the U.K. only)
- Warranty card
- This installation guide
- Four rubber feet with adhesive backing (for desktop or shelf installation only)
- Wall mounting kit, which includes: two tapping screws and two plastic anchors

If any of the above items are damaged or missing, contact your representative immediately.

Site Requirements

Make sure you observe the following site requirements:

- ❑ Place the switch in a dust-free and moisture-free environment.
- ❑ Do not block ventilation openings on the unit. Make sure there is proper heat dissipation from and adequate ventilation around the switch.
- ❑ Make sure the AT-FS704 power is accessible and cables can be connected easily. Use dedicated power circuits or power conditioners to supply power to the unit, and make sure that the power cord is fully inserted in the AC power connector.
- ❑ The power outlet should be within 1.82 m (6 ft) of the device.
- ❑ Cabling should be away from sources of electrical noise such as radios, transmitters, broadband amplifiers, power lines and fluorescent fixtures.
- ❑ Do not place objects on top of the switch.
- ❑ Ensure the surface supports at least 1.2 Kg.

Desktop Installation

When installing the AT-FS704 on a desktop or shelf, first attach the rubber feet included with the device. Attach these cushioning feet on the bottom at each corner of the device. Allow enough ventilation space between the device and the objects around it. See Figure 5 for placement of rubber feet.

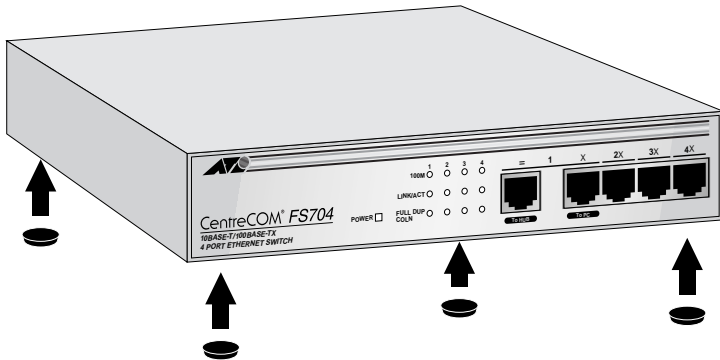


Figure 5 AT-FS704 Installed on a Desktop or Shelf

Wall Installation

The AT-FS704 comes with a wall mount kit. This kit includes two screws and two plastic anchors. For a proper placement on the wall, follow these installation requirements:

- ❑ Select a site that is free of obstructions from other equipment or devices. Consider the following points for site selection:
 - The switch should be placed high enough so that LED indicators can be observed and cable and power connections can be made.
 - Now is the time to decide whether you want the switch placed with the front panel facing up or to the side.
- ❑ Drill two holes into the wall the same distance apart as the screw support holes located on the bottom of the switch. Do not drill these holes too deep.
- ❑ Insert the plastic anchors into the holes in the wall and secure them with gentle hammer taps.
- ❑ Insert the screws provided with the wall mount kit into the plastic anchors and partially screw them in. Do not insert the screws with excessive torque. Note that the screw head along with a small portion of the screw body should be sticking out.
- ❑ Gently place the switch onto the wall with the front panel facing up or down by sliding the screws into the provided slots.
- ❑ Attach all power and network connections at this time, as described in the Connectivity section, below.

Connectivity

This section describes how to connect the AT-FS704 to your Fast Ethernet network, including:

- ❑ PC to Switch
- ❑ Hub to Switch
- ❑ Hub without Uplink (MDI) Port
- ❑ Switch to Switch (other devices)

PC- to-Switch Installation

A PC can be connected to the AT-FS704 with a two-pair Category 5 UTP/STP RJ45 straight cable. The PC (equipped with a RJ45 10/100 Mbps jack) should be connected to any of the four ports (1X-4X). See Figure 6.

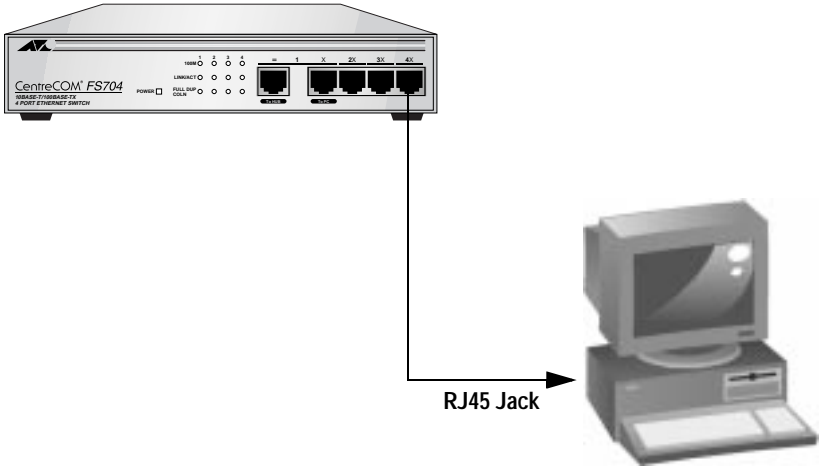


Figure 6 AT-FS704 Switch Connected to a PC or Workstation

Hub-to-Switch Installation

A hub (10/100Base-TX) can be connected to the AT-FS704 using a two-pair Category 5 UTP/STP RJ45 straight cable. Connect the hub uplink (MDI) port to any of the switch (MDI-X) ports, 1X-4X. See Figure 7.

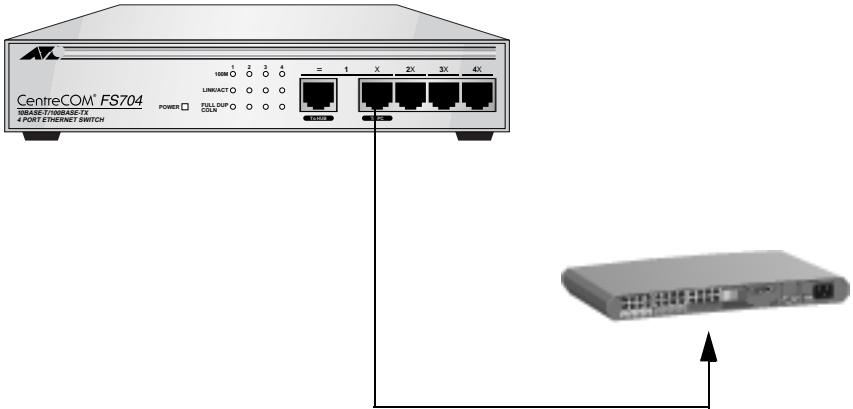


Figure 7 AT-FS704 Switch Connected to a 10/100Base-TX Hub

Hub-to-Switch Installation (without uplink port)

If a hub is not equipped with an uplink (MDI) port, then connection can be made using either straight cable or crossover cable (see “Appendix A, Technical Specifications” for cable requirements). Figure 8 demonstrates connection with straight or crossover cable.

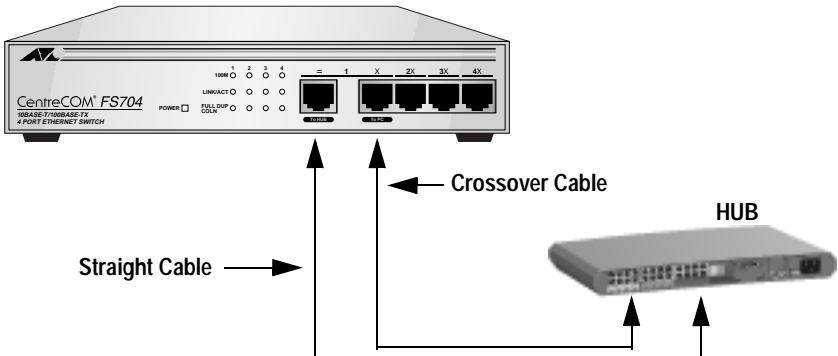


Figure 8 Switch Connected to Hub without Uplink (MDI) Port

As shown in Figure 8, when using straight cable, the connection is made from the uplink (MDI) port of the switch to any port of the hub. Figure 8 also demonstrates that the connection can be made from any (1X-4X) port of the switch to any port of the hub when using crossover cable.

Switch-to-Switch Installation

The AT-FS704 switch can be connected to any switch or other device (routers or bridges) using a two-pair Category 5 UTP/STP RJ45 straight or crossover cable, as shown in Figure 9.

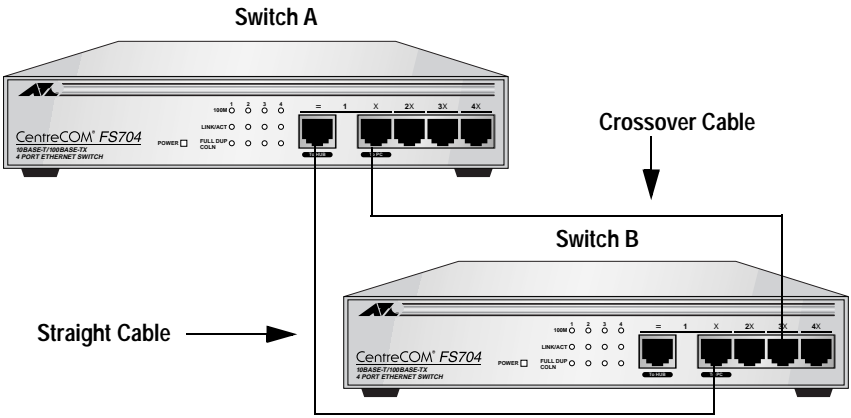


Figure 9 AT-FS704 Switch to Switch Connection Using the Straight or Crossover Cable Options

Figure 9 demonstrates using straight or crossover cable. When using straight cable, connect the uplink (MDI) port of the switch (Switch A) to any 10 Mbps or 100 Mbps (MDI-X) port of the other switch (Switch B), or other device. When using crossover cable, connect any (MDI-X) port of the switch (Switch A) to any 10 Mbps or 100 Mbps (MDI-X) port of the other switch (Switch B), or other device.

Appendix A

Technical Specifications

Physical Characteristics

Dimensions:	232 x 142 x 43 mm
Weight:	1.2 Kg
Operating temperatures:	0° to 40° C
Storage temperatures:	-30° to 60° C
Relative humidity:	5% to 95% non-condensing
Number of ports:	4 x 10/100 Mbps ports
Media interface exchange:	MDI RJ45 shared with port 1X

Agency Compliance

Standard:	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet ANSI/IEEE Std 802.3 Auto-Negotiation IEEE 802.3 Frame types: Transparent IEEE 802.3 MAC layer frame size: 64 - 1518 Bytes
EMI/RFI:	FCC Class A, CE Class A, VCCI Class A
Immunity:	EN 50082-1
Safety:	Complies with safety standards UL 1950, CSA 950, TUV/GS EN60950

Recommended Cables and Cable Specifications

The cable between the switch and the link partner (hub, workstation) must be less than 100 m (328 ft) long. 10Base-T segments can use 22, 24 or 26-gauge TP cabling that complies with IEEE 802.3 10Base-T standard for Category 3, 4 or 5. 100Base-TX segments must use IEEE 802.3u compliant Category 5 TP cable.

The AT-FS200 family of switches use three types of cabling:

- ❑ UTP/STP cable (RJ45 connector) for both 10/100Base-TX
- ❑ Fiber optics cable (ST/SC connector) for 100Base-FX

Table 2 provides an overview of IEEE 802.3 and 802.3u cabling specifications for 10Base-T, 100Base-TX, and 100Base-FX network configurations using twisted-pair cable and fiber optics.

Table 2 IEEE 802.3 and 802.3u Cabling Specifications

	10Base-T	100Base-TX	100Base-FX
Media	Unshielded/ Shielded Twisted Pair Category 3, 4, or 5	Unshielded/ Shielded Twisted Pair Category 5 only	1300 nm multimode fiber, 50/125 micron 1300 nm multimode fiber, 62.5/ 125 micron
Maximum Segment Length	100 m (328 ft)	100 m (328 ft)	Multimode fiber 412 m (1,351 ft) for half-duplex 2 km (1.2 mi) for full-duplex
Topology	Star, Tree	Star, Tree	Star, Tree
External Devices	Network Adapter Card, Repeater, Switch, or Router	Network Adapter Card, Repeater, Switch, or Router	Network Adapter Card, Repeater, Switch, or Router

100Base-TX Cable

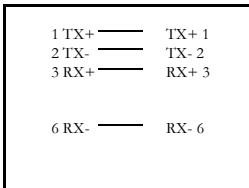
There are various grades of voice-quality and data-quality cables available. These can appear to be similar externally, although their high-speed data transmission characteristics are radically different. The identification problem is made worse by some suppliers selling voice-quality cables as data-quality cables.

If voice-quality cables are used in a 100Base-TX network system, data movement may be slow, collision-prone or non-existent. In addition, interface LEDs will usually indicate a valid link in such cases.

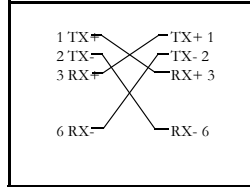
Category 5 cabling is required for 100Base-TX connections. Using any other category for a 100Base-TX connection may result in high error rates, or may not have the capacity to transmit data.

100Base-TX Connector Pinouts

Straight-through Cable



Crossover Cable



Appendix B

Technical Support Fax Order

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 _____

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 Allied Telesyn office. Fax numbers can be found on page 21.

Appendix C

AT-FS704 Switch Installation Guide Feedback

Please tell us what additional information you would like to see discussed in this guide. If there are topics you would like information on that were not covered in this guide, 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 guide.

I found the following the most valuable _____

I would like the following more developed _____

I would find the guide more useful if _____

Please fax or mail your feedback. Fax to 1-918-628-3222. Or mail to:
Allied Telesyn
c/o Technical Communications Department
950 Kifer Road
Sunnyvale, CA 94086 USA

Appendix D

Where To Find Us

For Technical Support or Service		
Location	Phone	Fax
Americas United States, Canada, Mexico, Central America, South America	1 (800) 428-4835	1 (918) 628-3222
Asia Singapore, Taiwan, Thailand, Malaysia, Indonesia, Korea, Philippines, China, India	(+65) 3815-613	(+65) 3833-830
Australia Australia, New Zealand	(61) 2-943-5111	(61) 2-416-9438-4966
France France, Belgium, Luxembourg, The Netherlands, Middle East, Africa	(+33) 1-60-92-15-32	(+33) 1-69-28-37-49
Germany Germany, Switzerland, Austria, Eastern Europe	(+49) 30-435-900-126	(+49) 30-435-70-650
Hong Kong	(+852) 2-529-4111	(+852) 2 529-7661
Italy Italy, Spain, Portugal, Greece, Turkey, Israel	(+39) 02-416047	(+39) 02-419282
Japan	(+81) 3-3443-5640	(+81) 3-3443-2443
United Kingdom United Kingdom, Denmark, Norway, Sweden, Finland, Iceland	(+44) 1-235-442560	(+44) 1-235-442490
Technical Bulletin Board Service	1 (425) 483-7979	
Technical Support E-mail Address	TS1@alliedtelesyn.com	
CompuServe	Go ALLIED	CompuServe
FTP Server	Address: gateway.centre.com [lowercase letters] Login: anonymous [lowercase letters] Password: your e-mail address [requested by the server at login]	

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