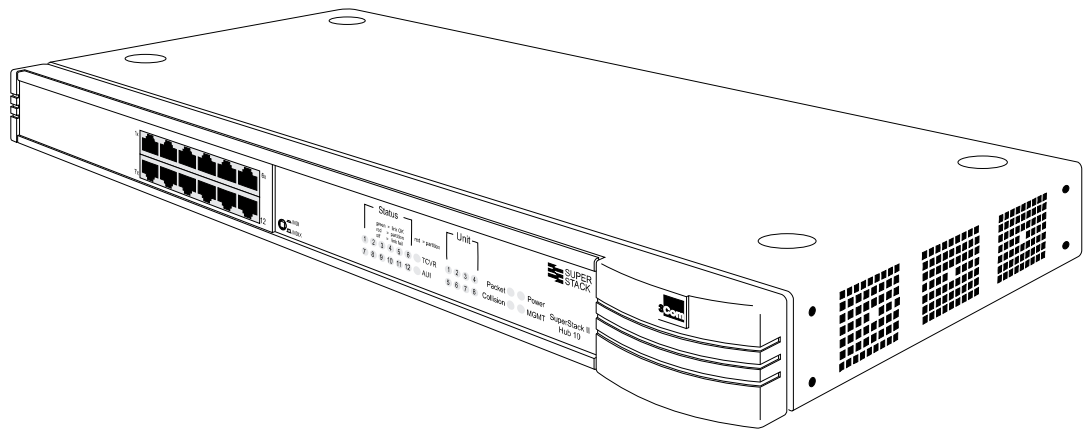# SuperStack II

**SuperStack™ II Hub 10
12 Port TP (3C16670A)
User Guide**

3Com

TECHNICAL INFORMATION

Related Standards

The Hub 10 12 Port TP has been designed to conform to the following standards:

Functional	ISO 8802/3, IEEE 802.3
Safety	UL 1950, EN 60950, CSA 22.2 #950
EMC	EN 55022 Class B, EN 50082-1, FCC Part 15 Class A, CSA C108.8 Class A
	(screened cables must be used to ensure compliance with these standards)
Environmental	EN 60068 (IEC 68)

Physical

Width	440mm (17.3 ins)
Depth	224mm (8.8 ins)
Height	44mm (1.7 ins) or 1U
Weight	2.6kg (5.7lb)
Mounting	free standing, or 19" rack or wall mounted using kit supplied

Electrical
Hub 10 12 Port TP only

Power Inlet	IEC 320
Fuse Protection	2 Amps
Power Consumption	22 VA
Power Dissipation	73 BTU/hr

Hub 10 12 Port TP & Management Module

Power Inlet	IEC 320
Fuse Protection	2 Amps
Power Consumption	30 VA
Power Dissipation	100 BTU/hr

Environmental

Operating Temperature	0-50°C (32-122°F)
Humidity	0-90% (non-condensing)

DUA1667-0AAA03

SAFETY INFORMATION

Please read the following safety information carefully before installing the Hub 10 12 Port TP.

WARNING: *Installation and removal of the unit must be carried out by* **qualified personnel only**.

- Connect the unit to an earthed power supply to ensure compliance with safety standards.

- It is essential that the socket outlet is installed near to the unit and is easily accessible. You can only disconnect the unit by removing the supply plug from the outlet.

- This unit operates under SELV conditions (Safety Extra Low Voltage) according to IEC 950, the conditions of which are maintained only if the equipment to which it is connected is also operational under SELV.

- The appliance coupler, i.e., the connector to the device itself and not the wall plug, must have a configuration for mating with an EN60320/IEC320 appliance inlet.

France and Peru Only

This unit cannot be powered from IT[†] supplies. If your supplies are of IT type, this unit should be powered by 230V (2P+T) via an isolation transformer ratio 1:1, with the secondary connection point labelled Neutral, connected directly to Earth (Ground).

[†]Impédance à la terre

Power Cord Set

This must be approved for the country where it will be used.

USA and Canada	- The cord set must be UL-approved and CSA certified.
	- The minimum specifications for the flexible cord are: No. 18 AWG Type SV or SJ 3-conductor
	- The cord set must have a rated current capacity of at least 10A.
	- The attachment plug must be an earth-grounding type with a NEMA 5-15P (15A, 125V) or NEMA 6-15P (15A, 250V) configuration.
Denmark	- The supply plug must comply with Section 107-2-D1, Standard DK2-1a or DK2-5a.
Switzerland	- The supply plug must comply with SEV/ASE 1011.

L'INFORMATION DE SÉCURITÉ IMPORTANTE

Veuillez lire à fond l'information de la sécurité suivante avant d'installer le Hub 10 12 Port TP.

AVERTISSEMENT: *L'installation et l'enlèvement de l'unité doivent être faits seulement par le personnel qualifié.*

- Brancher l'unité à une source de courant mise à la terre pour assurer la conformité aux normes de sécurité.

- C'est essentiel que le socle soit installé près de l'unité et soit accessible. Vous pouvez seulement débrancher l'unité en enlevant la fiche d'alimentation de la prise de courant.

- Cette unité marche sous les conditions SELV (Safety Extra Low Voltage) conformément à IEC950, ces conditions sont maintenues seulement si le matériel auquel elle est branchée, est aussi en exploitation sous SELV.

- Le socle de connecteur, c'est-à-dire, le connecteur à l'appareil lui-même et non pas la prise murale, doit avoir une configuration pour le branchement avec une admission d'appareil EN60320/IEC320.

Seulement Pour La France et Le Pérou

Cette unité ne peut pas être mise en marche des sources de courant IT (Impédance à la terre). Si vos sources de courant sont de type IT, cette unité doit être alimentée par 230V (2P+T) via un rapport de transformation d'isolation de 1:1, avec un point de connexion secondaire étiqueté Neutre, branché directement à la Terre (à la Masse).

La Cordon d'Alimentation Surmoulé

Celui-ci doit être approuvé pour le pays auquel il sera utilisé.

USA et le Canada:	- Le cordon surmoulé doit être UL Certifié et CSA Certifié.
	- Les spécifications minimales pour le cordon souple sont: No. 18 AWG Type 5V ou SJ 3-conducteur
	- Le cordon surmoulé doit avoir une capacité de courant calculée au moins de 10A.
	- La fiche de fixation doit être un type mis à la terre avec une configuration NEMA 5-15P (15A, 125V) ou NEMA 6-15P (15A, 250V).

WICHTIGE SICHERHEITSINFORMATIONEN

Bitte unbedingt vor dem Einbauen des Hub 10 12 Port TP Einheit die folgenden Sicherheitsanweisungen durchlesen.

Ein- und Ausbau des Gerätes ist **nur von Fachpersonal** *vorzunehmen.*

- Das Gerät an geerdete Stromversorgung anschließen, um eine Übereinstimmung mit den Sicherheitsbestimmungen zu gewährleisten.

- Es ist wichtig, daß der Netzstecker sich in unmittelbarer Nähe zum Gerät befindet und leicht erreichbar ist. Das Gerät kann nur durch Herausziehen des Verbindungssteckers aus der Steckdose vom Stromnetz getrennt werden.

- Das Gerät wird mit Sicherheits-Kleinspannung nach IEC 950 (SELV = Safety Extra Low Voltage) betrieben. Angeschloßen werden können nur Geräte, die ebenfalls nach SELV betrieben werden.

- Die Anordnung der Gerätsteckvorrichtung, d.h. die Steckverbindung am Gerät selbst im Gegensatz zum Wandstecker, muß in den EN60320/IEC320 Zuführungsstecker am Gerät passen.

- Der Anschlußkabelsatz muß mit den Bestimmungen des Landes übereinstimmen, in dem er verwendet werden soll.

INTRODUCTION

The SuperStack™ II Hub 10 12 Port TP (3C16670A) has 12 dedicated twisted pair ports on the front panel and an AUI port on the rear panel. The rear panel also has a slot for a 3Com Transceiver Module or Bridge MicroModule; if fitted the Module will operate in place of the AUI port. A range of different media Transceiver Modules is available from 3Com (see *"Products and Bulletin Boards "* for a list).

The Hub 10 12 Port TP can be stand-alone or linked with other SuperStack II Hub 10, LinkBuilder FMS II, FMS, 10BT or 10BTi units to form a stack of units of different media. Each stack is the equivalent to a single IEEE 802.3 repeater, so stacking units gives you the benefit of a higher port count.

The Hub 10 12 Port TP is suited for office use where it can be wall-mounted, rack-mounted, or free standing. Alternatively, the unit can be rack-mounted in a wiring closet or equipment room. A mounting kit is supplied.

The Hub 10 12 Port TP can be powered either from the AC mains supply, or through an optional 3Com Redundant Power System (3C565047) to provide a more reliable supply. Contact your supplier for details.

Repeater Functions
The Hub 10 TP has been designed to conform to the IEEE 802.3 standard for Local Area Networks, and provides all the standard functions of an 802.3 repeater, including:

■ Signal retiming

■ Preamble regeneration

■ Fragment extension

■ Automatic partition/reconnection

Management
A SuperStack II Hub 10 Management Module (3C16630A) or Advanced RMON Module (3C16632) can be fitted to the Hub 10 12 Port TP to provide full SNMP management, including statistics, resilient links and security features . Only one Management Module or Advanced RMON Module is required for each stack. Refer to the guides accompanying the module for details on how to manage an Hub 10 unit or stack.

Resilience and Security
Hub 10 Management Module (3C16630A) and Hub 10 Advanced RMON Module (3C16632) offer resilience and security f eatures.

Up to 16 resilient link pairs can be configured via management software. To avoid the creation of loops during power-up, Hub 10 units provide a Disable On Boot switch. If this switch is set to disable, all TP ports on the unit will be disabled during power-up until they are correctly configured

and enabled by management software. This is only necessary on units which have ports assigned as standby. Standby ports in resilient link pairs can only be configured on SuperStack II Hub 10 or LinkBuilder FMS II units.

Security features are described in the manual which comes with your Hub 10 Management Module.

By disabling ports on boot up and enabling them with management software, you provide extra security for the unit.

During the power up sequence, the main ports (on the front panel) are disabled BUT the AUI and Transceiver Module ports will be enabled for periods of up to 1 second. During this brief moment, the AUI and Transceiver Module ports are NOT secure.

Network Connections
You can connect the Hub 10 12 Port TP to any Data Terminal Equipment (DTE) fitted with a 10Base-T network adapter or a 10Base-T transceiver. Connect one end of the twisted pair cable to the RJ45 port on the unit and the other end to the RJ45 port on your network adapter or transceiver. You can attach up to 12 twisted pair segments to the front of the unit.

The Hub 10 12 Port TP can use both shielded 150ohm, and unshielded or shielded 100ohm twisted pair cables. To remain within 802.3 10Base-T rules the maximum length of cable between the unit and any DTE should not be greater than 100m (110 yards). Consult your supplier's technical support department if you need to use twisted pair cables over greater distances.

You can connect any 802.3 transceiver to the unit using an AUI cable connected to the AUI port on the rear panel. Alternatively, you can fit one of the 3Com Transceiver Modules or Bridge MicroModule into the slot on the rear panel (see *"Products and Bulletin Boards"* for list). If fitted, the Hub 10 12 Port TP will automatically use the Transceiver Module or Bridge MicroModule **instead** of the AUI port.

You can connect the Hub 10 12 Port TP to any other 10Base-T repeater using port 12, to form an inter-repeater link. You must switch port 12 to MDI to bypass the internal cross-over normally implemented by 10Base-T unit ports: see *"MDI Switch"*.

Important
To manage this hub, you may need a new version of the agent software installed on your Management Module. See *"Stack Management "* **for details.**

HOW TO USE THE HUB 10
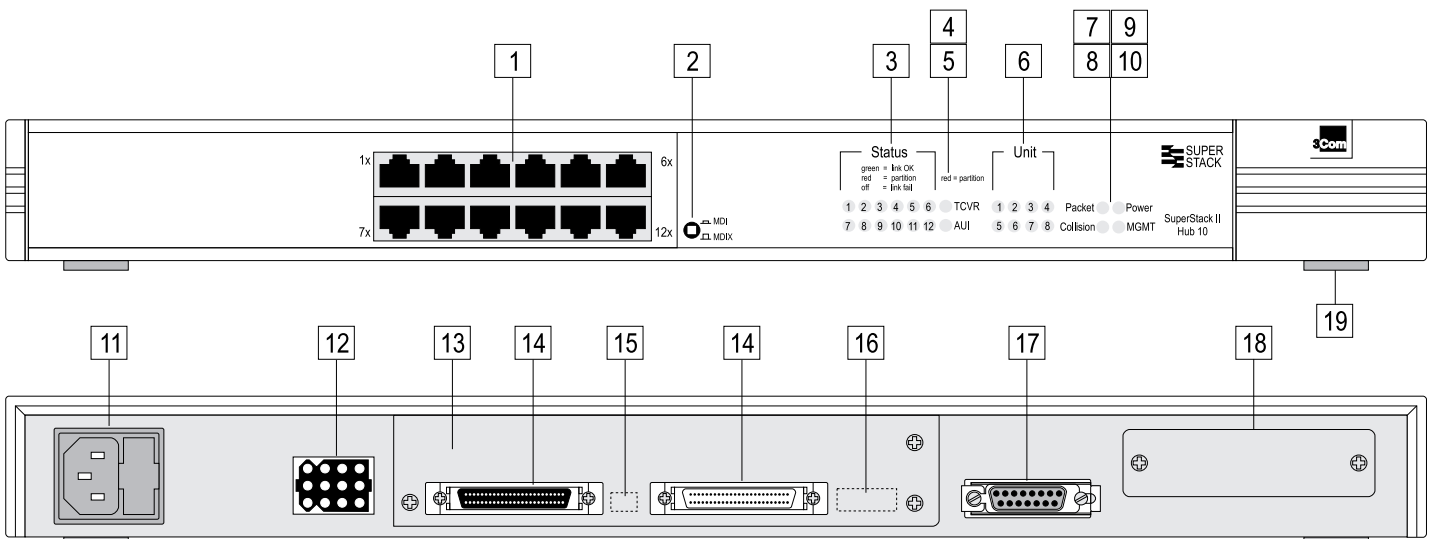
Numbered elements in this diagram refer to numbered sections in the text. These numbers, in bold, are used as reference

Front Panel

1 12 RJ45 Ports

WARNING: *These are shielded RJ45 data sockets. They can not be used as telephone sockets. Only connect RJ45 data connectors to these sockets.*

AVERTISSEMENT: *Les ports RJ45 sont les prises de courant de données RJ45 protégées. Ils ne peuvent pas être utilisés comme prises de courant téléphoniques. Brancher seulement les connecteurs RJ45 de données à ces prises de courant.*

WARNUNG: *Hierbei handelt es sich um abgeschirmte RJ45 Datenbuchsen, die nicht als Telefonbuchsen verwendbar sind. Nur RJ45 Datensteckverbinder an diese Buchsen anschließen.*

These are shielded RJ45 data sockets. They can not be used as telephone sockets. Only connect RJ45 data connectors to these sockets.

Either shielded or unshielded data cables with shielded or unshielded jacks can be connected to these data sockets.

2 MDI Switch

The Media Dependent Interface (MDI) switch controls the operation of port 12. The switch is recessed and can be operated using a ball-point pen or similar instrument.

MDIX	**Out**	In this position you can connect port 12 to a workstation or any other DTE.
MDI	**In**	In this position you can connect port 12 to any internal cross-over (X) port on another 10Base-T repeater using normal twisted pair cable to form an inter-repeater link.

To form an inter-repeater link using two Hub 10 12 Port TPs, connect port 12 on unit 1 to any port on unit 2. Ensure that the MDI switch on unit 1 is IN (MDI) and that if port 12 is used on unit 2, the MDI switch is OUT (MDIX).

3 STATUS LEDs

The STATUS LEDs show the partition state of a port and whether or not the Link Pulse signal is present on the segment connected to a port

Green The Link Pulse signal is being received and the segment attached to the port is functional. If the port does not transmit/receive, check the Disable On Boot switch 15 is Enabled.

Red The Link Pulse signal is being received and the port is partitioned from the network.

- Check the connections and the cable for any breaks in the segment.
- Make sure the transceiver attached to the DTE is correctly connected and powered up.
- Check for illegal 802.3 configurations, in particular, loops.
- Check that the Disable On Boot switch, **15**, is set for units with standby ports in resilient links.

If the cause of the partition is found and corrected, the segment is reconnected automatically, after the first valid packet is transmitted to, or received from the segment.

Off The Link Pulse signal is not being received.

- Check that the attached DTE is switched on.
- Check that the Link Pulse signal has not been disabled by management software.
- Check that the attached transceiver is not faulty.
- If it is port 12 or an inter-repeater link, check the setting of the MDI switch.
- Carry out the checks recommended for when a STATUS LED is red.
- Check for no more than 4 repeater stacks in series, and that cable lengths do not exceed the maximum specified in the standard for that medium.

If these checks do not identify the cause of a problem, it may be that the Hub 10 12 Port TP or the device connected to the port is faulty. Contact your supplier for further advice.

4 TCVR LED

The TCVR LED lights red if the Transceiver Module port has partitioned. Refer to section STATUS LEDs for information on what to do if a segment is partitioned.

A transceiver module port connected to coaxial cable segment may partition if the segment is incorrectly terminated.

The Transceiver Module port may partition if the SQE test pulse is enabled on its transceiver. SQE test should be disabled on transceivers used to connect 802.3 repeaters to the network.

5 AUI LED

The AUI LED lights red if the AUI port has partitioned. Refer to for information on what to do if a segment is partitioned.

An AUI port connected to coaxial cable segment may partition if the segment is incorrectly terminated.

The AUI port may partition if the SQE test pulse is enabled on its transceiver. SQE test should be disabled on transceivers used to connect 802.3 repeaters to the network.

6 UNIT LEDs

The UNIT LEDs indicate the position of this unit in the stack, providing a Management Module or Advanced RMON Module has been fitted to a unit in the stack. The appropriate UNIT LED will light green; if this unit has a Management Module (or Advanced RMON Module) fitted, it will show as unit number 1. If the unit is in a stack which does not contain a Management Module or Advanced RMON Module, the UNIT LEDs will not light.

7 Packet LED

The Packet LED flashes yellow whenever a packet is received on one of the 12 twisted pair ports, the AUI port, or the Transceiver Module port.

If this LED does not flash, there are no packets being received by the unit.

8 Collision LED

The Collision LED flashes yellow when a packet collision has been detected on a segment connected to one of the 12 twisted pair ports, the AUI port, or the Transceiver Module port.

Under normal 802.3 operation, collisions occur and cause the Collision LED to flash. The probability of collisions increases during heavy activity on the network. The Auto Partition/Reconnection function partitions a segment from the rest of the network if more than 64 consecutive collisions are detected on that segment.

9 Power LED

The Power LED lights green to indicate the power supply to the unit is correct. If it is not lit, and:

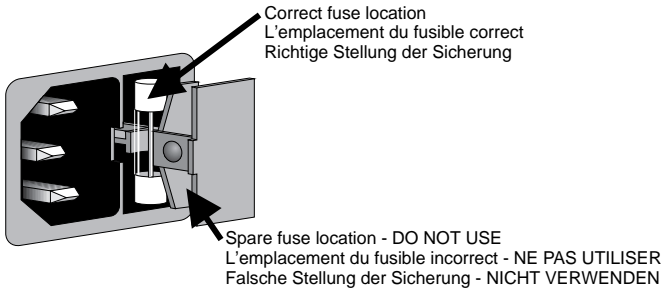|	
None of the ports work	Check the fuse in the IEC socket and the fuse within the power cable's plug (if fitted).
The AUI and Transceiver Module ports do not work, but the twisted pair ports work	The internal fixed fuse for the power supply to the AUI and Transceiver Module ports has blown. Contact your supplier.
All ports function normally	The LED has failed. Contact your supplier.

10 MGMT LED

The MGMT LED indicates the status of the Management Module or Advanced RMON Module if fitted.

Off	There is no Management Module or Advanced RMON Module fitted to the Hub 10 12 Port TP or the internal connection to it has been broken.
Green/(Yellow)	The Management Module (or Advanced RMON Module) is fitted and functioning normally.
Green flashing	Management agent software is being downloaded.
Red	There is a fault on the Management Module (or Advanced RMON Module) or one of the units in the stack. Check all connections and refer to the Management Module guide for more information.

Rear Panel Connection

11   Power Supply and Fuse

Correct fuse location
L'emplacement du fusible correct
Richtige Stellung der Sicherung

Spare fuse location - DO NOT USE
L'emplacement du fusible incorrect - NE PAS UTILISER
Falsche Stellung der Sicherung - NICHT VERWENDEN

WARNING:*Ensure that the power cord is disconnected before opening the fuse holder cover.*

The Hub 10 12 Port TP automatically adjusts to the supply voltage. The fuse is suitable for both 110V A.C. and 220-240V A.C. operation.

To change the fuse, release the fuse holder by gently levering a small screwdriver under the fuse holder catch. Only 2A anti-surge type fuses of the same type and manufacture as the original should be used with the Hub 10 12 Port TP. Close the fuse holder.

AVERTISSEMENT: *Assurer que l'alimentation soit débranchée avant d'ouvrir le couvercle du contenant du fusible.*

L'unité s'ajuste automatiquement à la tension d'alimentation. Le fusible est convenable aux deux opérations 110 V C.A. et 220-240 V C.A.

Pour changer le fusible, dégager le contenant du fusible en mettant doucement un petit tournevis sous l'arrêt de contenant du fusible. Seulement les fusibles de types 2A anti-transitoires du même type et fabricant que l'original doivent être utilisés.

WARNUNG:*Vor dem Öffnen der Sicherungshalterung das Gerät vom Netzstrom trennen.*

Das Gerät stellt sich automatisch auf die Versorgungsspannung ein. Die Sicherung ist sowohl für 110V A.C. wie für 220-240V A.C. geeignet.

Zum Auswechseln der Sicherung durch leichtes Heben mit einem kleinen Schraubenzieher die Abdeckungsklappe der Sicherungshalterung lösen. Sicherungen nur durch gleichen Typ und Wert wie die Originalsicherung ersetzen. Sicherung auswechseln und die Klappe der Sicherungshalterung wieder schließen.

12   Socket for Redundant Power System

Only connect a 3Com Redundant Power System, option 3C565047, to this socket. For details, follow the installation instructions in the guide accompanying the Redundant Power System.

## 13   Management Module or Advanced RMON Module Slot

The Hub 10 12 Port TP can be fitted with an optional SuperStack II Hub 10 Management Module or Advanced RMON Module. When the module has an IP/IPX address, you can then use SNMP management to manage the stack containing the unit.

CAUTION: *Do not remove the Management Module blanking plate with the power still connected.*

For instructions on installing either module in an Hub 10 unit, refer to the guide that accompanies the module. You will need to remove the blanking plate to reveal the slot for the module.If you subsequently remove the Management or Advanced RMON Module from the Hub 10 unit, you must replace the blanking plate to aid the circulation of cooling air and prevent the entry of dust and debris.

14   Hub Expansion Connectors

You can connect units together in a stack to form a single logical repeater. You need one Hub Expansion Cable (3C625) for each additional unit in the stack. The diagram below shows how you connect units together. Do not use two cables to connect any two units to each other - they will not work if you do this.
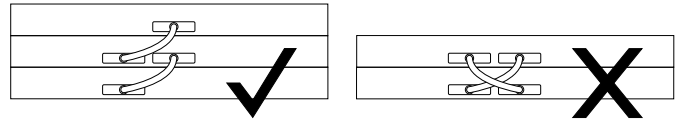
Disconnect power from all units that will form part of the new stack. Connect the male hub expansion connector of one unit to the female hub expansion connector of the next unit. Repeat this process until all the units are connected together. Refer to *"Stacking Units"* for the number of units allowed in a stack.

CAUTION: *If you intend to rack or wall mount the units, connect the units after they have been mounted.*

15   Disable On Boot Switch

This switch is located behind the blanking plate covering the Management Module slot,   **13**. The unit is shipped with this switch set to Enable.

CAUTION: *Do not disable ports unless you have a management module installed in the stack.*

Enable   TP ports on front panel are enabled on power up. They may be subsequently disabled via management software.

Disable   TP ports on front panel are disabled on power up until management software enables them. This is required for standby ports in resilient links.

16   Management/Advanced RMON Module Power Cable Connector

This plug, located behind the blanking plate, provides power to an Hub 10 Management Module or Advanced RMON Module, if fitted and connected. See the guide accompanying the module for installation instructions.

17   AUI Port

You can connect the unit to any 802.3 transceiver using an AUI cable (sometimes known as a transceiver cable or drop cable). Connect one end of the AUI cable to the AUI port on the rear panel of the unit and the other end to the AUI port on the transceiver. Engage the slide locks at both ends of the AUI cable.

Ensure that SQE test is disabled.

18   Transceiver Module Slot

A variety of 3Com plug-in Transceiver Modules or the Bridge MicroModule can be installed in the Hub 10 12 Port TP (see   *"Products and Bulletin Boards"*. Transceivers provide direct network connections to different media.

CAUTION: *Do not remove the Transceiver Module blanking plate with the power still connected.*

Ensure that SQE test is disabled.

To install a Transceiver Module, refer to the guide that accompanies it. If you subsequently remove the Transceiver Module, you must replace the blanking plate to aid the circulation of cooling air and prevent the entry of dust and debris.

19   Self-adhesive Pads

The Hub 10 12 Port TP is supplied with 4 self-adhesive rubber pads. If the unit is to be part of a free standing stack, apply the pads to the underside of the unit; stick a pad in the marked area at each corner of the unit. Place the units on top of each other, ensuring that the pads of the upper unit locate with the recesses of the lower unit.

Do not apply the pads if you intend to rack or wall mount the unit.

Siting the Hub 10 12 Port TP

⚠️ **CAUTION:** *When installing the Hub 10 12 Port TP in a stack with FMS units, the Hub 10 12 Port TP must be installed beneath any FMS units.*

When deciding where to site the Hub 10 12 Port TP ensure:

- It is accessible and cables can be connected easily.
- Cabling is away from:
    - sources of electrical noise such as radios, transmitters and broadband amplifiers.
    - power lines and fluorescent lighting fixtures.
- Water or moisture cannot enter the case of the unit.
- Air flow around the unit and through the vents in the side of the case is not restricted (3Com recommend that you provide a minimum of 25mm (1 inch) clearance).

To prolong the operational life of your units:

- Never stack units more than eight high if free standing.
- Do not place objects on top of any unit or stack.
- Do not obstruct any vents at the sides of the case.

Rack or Wall Mounting

The Hub 10 12 Port TP can be mounted in a 19 inch equipment rack or else wall-mounted using the LinkBuilder Rack Mounting Kit. See *"Rack Mounting Kit Instructions"* overleaf.

Stacking Units

The Hub 10 12 Port TP can be linked to other Hub 10 units to form a stack, or can be part of a mixed stack consisting of Hub 10, FMS, FMS II, 10BT or 10BTi units.

Different rules apply on stacking units if the stack only consists of Hub 10 and/or FMS II units compared to a stack with other mixed units.

Hub 10/FMS II only stacks

Up to 8 Hub 10 (FMS II) units can be linked together to form a free standing stack or be mounted in a 19 inch rack, in a managed or unmanaged configuration.

Only fit a Hub 10 or LinkBuilder FMS II Management Module or Advanced RMON Module, to either the unit at the top or bottom of the stack.

Mixed stacks of Hub 10/FMS II/FMS/10BT/10BTi

Link up to 8 units in a free standing stack or mounted in a rack. But any FMS, 10BT or 10BTi units must be units 1-4 in a managed stack.

If mixing Hub 10 (FMS II) and FMS units in a free standing stack, the narrower FMS units must be positioned at the top of the stack. This restriction does not apply if rack mounting the units.

Stack Management

To manage any stack containing a Hub 10 unit, the Management Module must have the correct version of the agent installed. The table below details the minimum agent version numbers for each management module.

3C16030	LinkBuilder FMS Management Module	3.04
3C16630	LinkBuilder FMS II Management Module	3.04
3C16630A	SuperStack II (FMS II) Management Module	3.14
3C16632	SuperStack II (FMS II) Advanced RMON Module	1.01

Check which version you have installed before adding a Hub 10 unit to your stack.

If you need to upgrade your agent, and a disk containing the new versions is not included in the packaging, a free upgrade is available from the 3Com bulletin boards (see *"Products and Bulletin Boards"*. The upgrade includes instructions on how to load the agent.

Managing with an FMS Management Module

| rack mounted stacks: | the module must be fitted to an FMS unit at the top or bottom of the stack. |
| free standing stacks: | the module must be fitted to an FMS unit at the top of the stack. |

Managing with a Hub 10 (FMS II) Management Module (3C16630A) or Advanced RMON Module (3C16632)

| rack mounted stacks: | the module must be fitted to a Hub 10 (FMS II) unit at the top or bottom of the stack. |
| free standing stacks: | the module must be fitted to a Hub 10 (FMS II) unit at the bottom of the stack. |

If you have a Hub 10, LinkBuilder FMS or FMS II unit fitted with a Management Module, and a LinkBuilder 10BTi in your stack, the Hub 10, FMS or FMSII Management Module will manage the stack.

ℹ️ *The LinkBuilder 10BTi can only manage LinkBuilder 10BT units and the FMS 12 Port TP Hub (3C16271). 10BTi cannot manage other FMS units or any Hub 10 (FMS II) units.*

Power Up

Use the following sequence to power up the Hub 10 12Port TP.

- Check the Disable On Boot switch at the rear and select position as appropriate: see **15**.
- Check the network connections and cables.
- Check the hub expansion cables if in a stack.
- Connect the power supply cable to the appropriate power socket on the rear panel of the unit, see **11** or **12**.
- Connect the plug to the power supply outlet socket and switch on the power supply at the socket. If you are using a 3Com Redundant Power Supply make sure it is switched on.

When the Hub 10 12 Port TP is powered up, the Power LED should be lit. If it is not, refer to *"Power LED"*, **9**.

Spot Checks

At frequent intervals you should visually check the Hub10 12 Port TP. Regular checks can give you an early warning of a possible failure; any problems can then be attended to when there will be least effect on users. Check the following:

Cabling	Check that all external cabling connections are secure and that no cables are pulled taut.
Cooling fans	Check that the cooling fans are operating and are not obstructed. The fans are fitted to the right hand side of the unit when viewed from the front.
Transceiver Module	Check that the Transceiver Module is connected securely. Refer to the guide provided with the Transceiver Module.

What To Do Next?

If the Hub 10 12 Port TP fails to operate successfully, contact your supplier with the following information before returning the unit:

- product number
- serial number
- a brief description of the fault

When returning any equipment to your supplier make sure the equipment is packed suitably for transit.

Products

SuperStack II Hub 10 is part of the SuperStack II range of 3Com products. Contact your supplier for the latest product information.

Hub 10 hubs

3C16670A SuperStack II Hub10 12Port TP
3C16671A SuperStack II Hub10 24Port TP
3C16672A SuperStack II Hub10 24Port Telco
3C16665A SuperStack II Hub10 6Port ST Fiber Optic

Hub 10 management

3C16630A SuperStack II Hub10 Management Module
3C16632 SuperStack II Hub10 Advanced RMON Module

Transceiver Modules

3C12060 Female AUI
3C12063 TP
3C12064 Fan Out (male AUI)
3C16060 Bridge MicroModule

3C12065 Fiber Optic (ST)
3C12066 Coaxial
3C12067 FB

Bulletin Boards

Management agent software upgrades are available from these 3Com bulletin boards.

Australia	(61) (2) 9955 2073	Japan	(81) (3) 3345 7266
France	(33) (1) 69 86 69 54	Singapore	(65) 534 5693
Germany	(49) (89) 627 32 188 or 627 32 189	Taiwan	(886) (2) 377 5838
Hong Kong	(852) 2537 5608	U.K.	(44) (1442) 438278
Italy	(39) (2) 273 00680 (fee required)	U.S.	(1) (408) 980 8204

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RACK MOUNTING KIT INSTRUCTIONS

Introduction

The Hub 10 12 Port TP is supplied with two mounting brackets and four screws. These are used for rack mounting and wall mounting the unit. When mounting the unit, you should take note of the guidelines given in *"Siting the Hub 10 12 Port TP"* overleaf.

Wall Mounting Hub 10 Units

! CAUTION: *Disconnect all cables from the Hub 10 unit(s) before continuing. Remove the self-adhesive pads from underside of the unit(s), if already fitted.*

Fitting the brackets to wall mount one unit:

■ Place the Hub 10 unit the right way up on a hard, flat surface with the front facing towards you.

■ Locate a mounting bracket over the mounting holes on one side of the unit, as shown in figure 1 below.

■ Insert the two screws and fully tighten with a screwdriver.

Repeat the last two steps for the other side of the Hub 10 unit.

Fitting the brackets to wall mount two units:

■ Stack the Hub 10 units the right way up on a hard, flat surface with the front facing towards you.

■ Locate two mounting brackets over the mounting holes on one side of the units, as shown in figure 2 below.

■ Insert the three screws and fully tighten with a screwdriver.

Repeat the last two steps for the other side of the units.

To wall mount the Hub 10 unit(s):

Ensure that the wall you are going to use is smooth, flat, dry and sturdy. Attach a piece of plywood (12" x 20" x 0.5") securely to the wall if necessary, and mount the Hub 10 unit(s) as follows:

■ Position the unit(s) against the wall (or plywood) ensuring that the ventilation holes face sideways. Mark on the wall the position of the screws holes for both wall brackets. Drill the four holes.

■ Using suitable fixings and screws (not provided), attach the unit(s) securely to the wall (or plywood).

Reconnect all cables.

Rack Mounting Hub 10 Units

The Hub 10 12 Port TP is 1U high and will fit a standard 19inch rack.

! CAUTION: *Disconnect all cables from the Hub 10 unit before continuing. Remove the self-adhesive pads from underside of unit, if already fitted.*

■ Place the unit the right way up on a hard, flat surface with the front facing towards you.

■ Locate a mounting bracket over the mounting holes on one side of the unit, as shown in figure 3 below.

■ Insert the two screws and fully tighten with a suitable screwdriver.

■ Repeat the two previous steps for the other side of the unit.

■ Insert the unit into the 19" rack and secure with suitable screws (not provided).
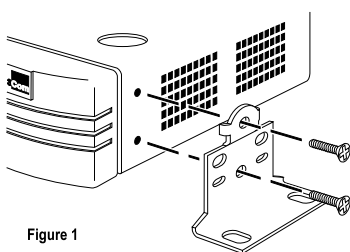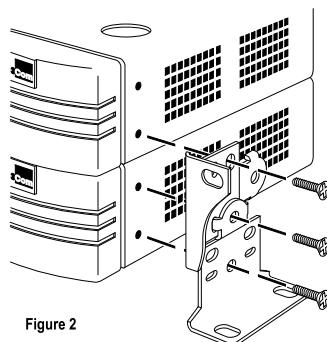
Reconnect all cables.
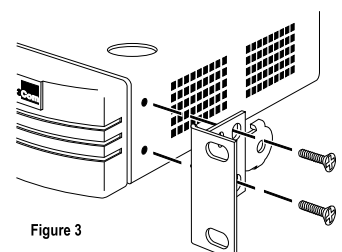

Figure 1

Figure 2

Figure 3

LIMITED WARRANTY

For first five years - +5 Lifetime Limited Warranty
The SuperStack II Hub 10 Fiber benefits from 3Com's enhanced +5 Lifetime Limited Warranty. This provides a full 5 years of advanced hardware exchange from your date of purchase in accordance with 3Com's standard terms and conditions. To qualify, you must submit your warranty registration card to 3Com. After the initial 5 year period, the warranty reverts to 3Com's standard lifetime limited warranty. The +5 Lifetime Limited Warranty is not offered or is void where restricted or prohibited by law.

After first five years - Lifetime Limited Warranty
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Hardware: 3Com warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following lengths of time from the date of purchase from 3Com or its Authorized Reseller:

Network adapters	Lifetime
Other Hardware products	One year (unless otherwise specified above)
Spare parts and spare kits	90 days

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ELECTRO-MAGNETIC COMPATABILITY

FCC Statement

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 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 the instruction manual, may cause harmful interference with 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.

CSA Statement

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.

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