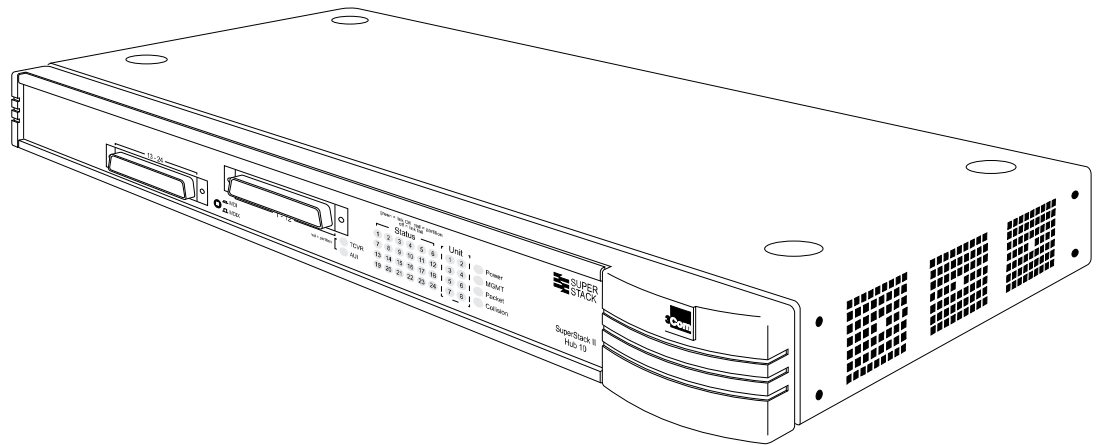


# SuperStack II



## SuperStack™ II Hub 10 Telco (3C16672A) User Guide



## TECHNICAL INFORMATION

### Related Standards

The Hub 10 Telco has been designed to conform to the following standards:

<b>Functional</b>	ISO 8802/3, IEEE 802.3
<b>Safety</b>	UL 1950, EN 60950, CSA 22.2 #950
<b>EMC</b>	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

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

### Electrical

#### Hub 10 Telco only

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

#### Hub 10 Telco & Management Module

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

### Environmental

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

DUA1667-2AAA03



## SAFETY INFORMATION

Please read the following safety information carefully before installing the Hub 10 Telco.



**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<sup>†</sup> 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).

<sup>†</sup>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:<br>No. 18 AWG<br>Type SV or SJ<br>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

Veillez lire à fond l'information de la sécurité suivante avant d'installer le Hub 10 Telco.



**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:<br>No. 18 AWG<br>Type 5V ou SJ<br>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 Telco 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 Telco (3C16672A) has two 12 port Telco connectors on the front panel providing Ethernet TP port connections, 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 addition to the AUI port. A range of different media Transceiver Modules is available from 3Com (see ["Products and Bulletin Boards"](#)).

The Hub 10 Telco can be stand-alone or linked with other Hub 10, LinkBuilder FMS II, FMS, 10BT or 10BTi units to form a stack of units of different media. Stacking units gives you the benefit of a higher port count while the stack is still seen by the network as a single 802.3 repeater.

The Hub 10 Telco is suited for use in the office 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 Telco 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 local supplier for details.

## Repeater Functions

The Hub 10 Telco has been designed to conform to the IEEE 802.3 standard for Local Area Networks. The unit 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 Telco 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 features.

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 your unit.



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

## Network Connections

The Hub 10 Telco has been designed for use with the majority of known Telco connectors.

Cable fixings have been supplied for holding the Telco cables to the unit. There are locations for these fixings to the left of the Telco connectors.

In the unlikely event that your Telco connector will not connect fully to the Hub 10 Telco, we recommend that you:

- Use a connector extension
- Use a Telco connector with a different cable approach

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 a Bridge MicroModule into the slot on the rear panel (see ["Products and Bulletin Boards"](#)).

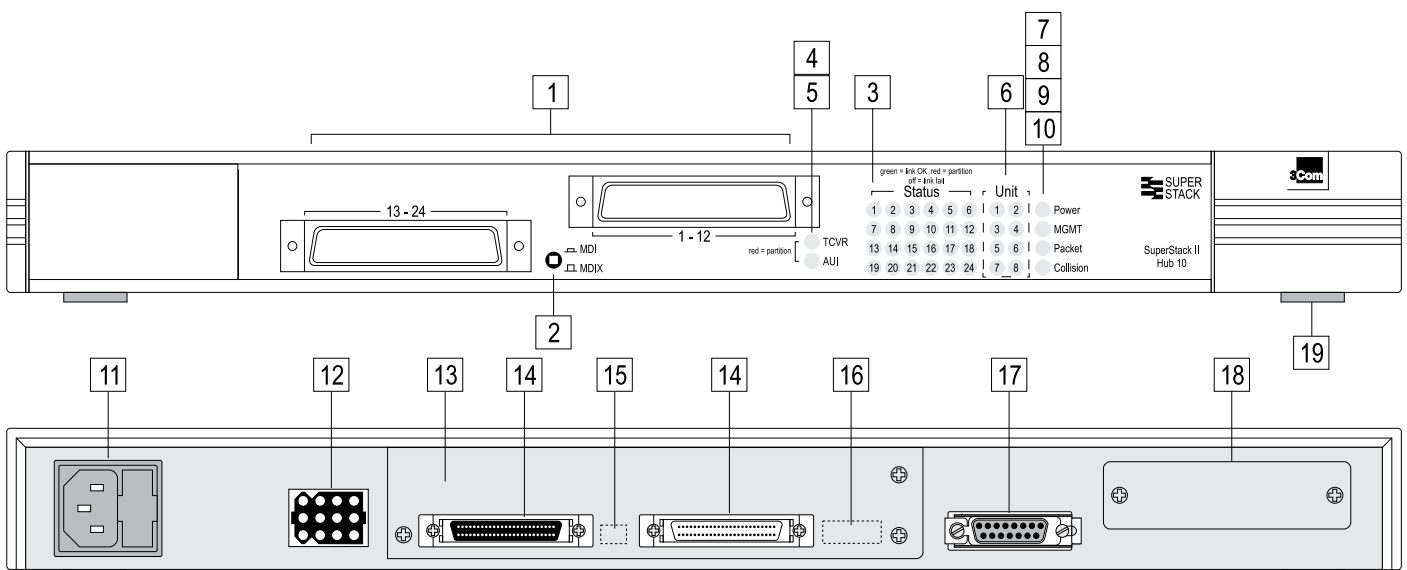
You can connect the Hub 10 Telco to any other 10Base-T unit using port 24, to form an inter-repeater link. You must switch port 24 to MDI to bypass the internal cross-over normally implemented by 10Base-T unit ports. See ["MDI Switch"](#).

## 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. The numbers, in bold, are used as references in the text.

## Front Panel

### 1 24 Telco Ports

A range of Telco connectors can be used with the Hub 10 Telco. Refer to ["Introduction"](#) for more information.



**CAUTION:** Do not over-tighten the screws on the Telco connectors.

### 2 MDI Switch

The Media Dependent Interface (MDI) switch controls the operation of port 24. 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 24 to a workstation or any other DTE.



MDI

**In** In this position you can connect port 24 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 Telcos, connect port 24 on unit 1 to any port on unit 2. Ensure that the MDI switch on unit 1 is IN (MDI) and that if port 24 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 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 Telco 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 ["STATUS LEDs"](#), **3**, 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 ["STATUS LEDs"](#), **3**, 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 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.

### 8 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 Telco 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.

### 9 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.

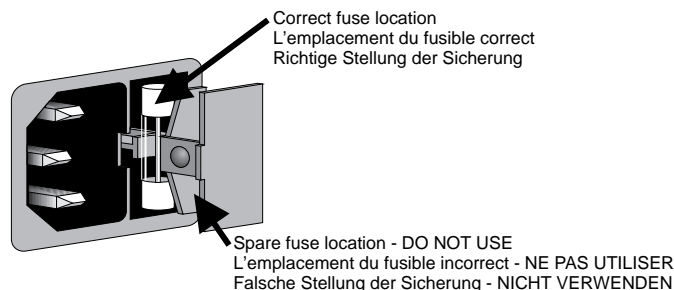
### 10 Collision LED

The Collision LED flashes yellow when a packet collision has been detected on a segment connected to one of the 24 Telco 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.

## Rear Panel Connection

### 11 Power Supply and Fuse



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

The Hub 10 Telco 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 Telco. 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 Telco 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.

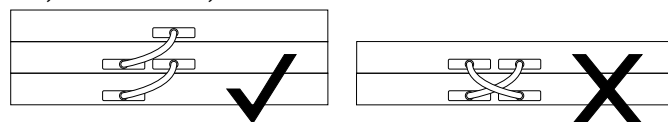
**CAUTION:** Do not remove the Management Module blanking plate with the power still connected.

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 Telco (see overleaf for a list). 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 Telco 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 Telco



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

When deciding where to site the Hub 10 Telco 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 Telco 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 Telco 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.



*The LinkBuilder 10BTi can only manage LinkBuilder 10BT units and the FMS Telco 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 Telco:

- 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 Telco 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 Telco. 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 Telco 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 AND BULLETIN BOARDS

## 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 Hub 10 12Port TP
- 3C16671A SuperStack II Hub 10 24Port TP
- 3C16672A SuperStack II Hub 10 24Port Telco
- 3C16665A SuperStack II Hub 10 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         | 3C12065 Fiber Optic (ST) |
| 3C12063 TP                 | 3C12066 Coaxial          |
| 3C12064 Fan Out (male AUI) | 3C12067 FB               |
| 3C16060 Bridge MicroModule |                          |

## Bulletin Boards

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

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

**3Com Corporation**  
**P.O. Box 58145**  
**5400 Bayfront Plaza**  
**Santa Clara**  
**CA 95052-8145**  
**USA**

**c/o 3Com Centre**  
**Boundary Way**  
**Maylands Park South**  
**Hemel Hempstead**  
**Herts HP2 7YU**  
**UK**




# RACK MOUNTING KIT INSTRUCTIONS

## Introduction

The Hub 10 Telco 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 the section "[Siting the Hub 10 Telco](#)" 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 Telco 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.

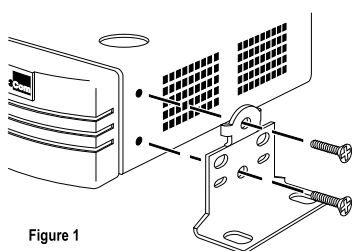


Figure 1

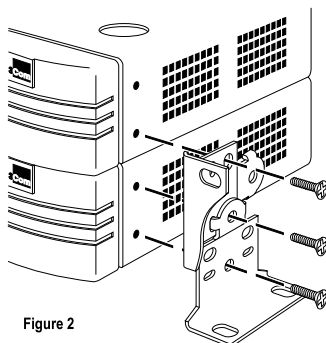


Figure 2

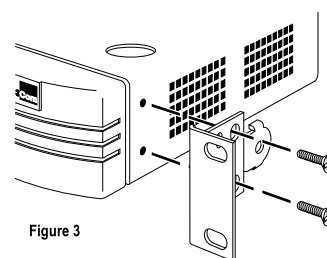


Figure 3



## 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

The duration of the 3Com standard lifetime limited warranty is lifetime, excluding the power supply and fans. See below for terms and conditions of this warranty.

**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:

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

If a product does not operate as warranted above during the applicable warranty period, 3Com shall, at its option and expense, repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

**Software:** 3Com warrants that the software programs licensed from it will perform in substantial conformance to the program specifications therefor for a period of ninety (90) days from the date of purchase from 3Com or its Authorized Reseller. 3Com warrants the media containing software against failure during the warranty period. No updates are provided. 3Com's sole obligation with respect to this express warranty shall be (at 3Com's discretion) to refund the purchase price paid by Customer for any defective software products, or to replace any defective media with software which substantially conforms to 3Com's applicable published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. 3Com makes no warranty or representation that its software products will work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third party products listed in the 3Com software product documentation or specifications as being compatible, 3Com will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product.

**Standard Warranty Service:** Standard warranty service for hardware products may be obtained by delivering the defective product, accompanied by a copy of the dated proof of purchase, to 3Com's Corporate Service Center or to an Authorized 3Com Service

Center during the applicable warranty period. Standard warranty service for software products may be obtained by telephoning 3Com's Corporate Service Center or an Authorized 3Com Service Center, within the warranty period. Products returned to 3Com's Corporate Service Center must be pre-authorized by 3Com with a Return Material Authorization (RMA) number marked on the outside of the package, and sent prepaid, insured, and packaged appropriately for safe shipment. The repaired or replaced item will be shipped to Customer, at 3Com's expense, not later than thirty (30) days after receipt of the defective product by 3Com.

**Warranties Exclusive:** IF A 3COM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND SATISFACTORY QUALITY. 3COM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

3COM SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLIGENCE, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

**Limitation of Liability:** TO THE FULL EXTENT ALLOWED BY LAW 3COM ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF 3COM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to you. This warranty gives you specific legal rights which may vary depending on local law.

**Governing Law:** This Limited Warranty shall be governed by the laws of the state of California.

**3Com Corporation**, 5400 Bayfront Plaza, Santa Clara, CA, 95052-8145, U.S.A.  
Tel: (408) 764-5000

9/1/96



## 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.



## LEGAL NOTICES

### 3Com Corporation 5400 Bayfront Plaza Santa Clara, California 95052-8145

© 3Com Ireland, May 1996. All rights reserved. No part of this documentation may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without permission from 3Com Ireland.

3Com Ireland reserves the right to revise this documentation and to make changes in content from time to time without obligation on the part of 3Com Ireland to provide notification of such revision or change.

3Com Ireland provides this documentation without warranty of any kind, either implied or expressed, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. 3Com may make improvements or changes in the product(s) and/or the program(s) described in this documentation at any time.

### UNITED STATES GOVERNMENT LEGENDS:

If you are a United States government agency, then this documentation and the software described herein are provided to you subject to the following restricted rights:

For units of the Department of Defense:

**Restricted Rights Legend:** Use, duplication or disclosure by the Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) for restricted Rights in Technical Data and Computer Software clause at 48 C.F.R. 52.227-7013. 3Com Ireland, c/o 3Com Centre, Boundary Way, Maylands Park South, Hemel Hempstead, Hertfordshire, HP2 7YU, UK.

For civilian agencies:

**Restricted Rights Legend:** Use, reproduction or disclosure is subject to restrictions as set forth in subparagraph (a) through (d) of the Commercial Computer Software - Restricted Rights Clause at 48 C.F.R. 52.227-19 and the limitations set forth in 3Com Corporation's standard commercial agreement for the software. Unpublished rights reserved under the copyright laws of the United States.

Unless otherwise indicated, registered trademarks are registered in the United States and may or may not be registered in other countries.

3Com and LinkBuilder are registered trademarks of 3Com Corporation. SuperStack II and FMS are trademarks of 3Com Corporation. Other brand and product names may be registered trademarks or trademarks of their respective holders.

The technology behind 3Com's LAN Security Architecture is protected by U.S. patents 5,161,192 and 5,386,470 (foreign patents applied for).

Part Number: DUA1667-2AAA03

Revision: 01

Published: December 1996



## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>