Introducing the Cascade Stacking Kit

With a SuperStack® 3 Switch 4400 Cascade Stacking Kit (3C17227) you can connect two SuperStack 3 Switch 4400 units together. This kit contains:

- Two Switch 4400 Cascade Modules (3C17224)
- One Switch 4400 Cascade Cable (3C17225)

Refer to “Stacking Switches Together”.

Introducing the Cascade Extender Kit

For each additional Switch you wish to stack, you will need a Cascade Extender Kit (part number 3C17228). Each Cascade Extender Kit enables you to add one additional Switch. This kit contains:

- One Switch 4400 Cascade Module (3C17224)
- One Switch 4400 Cascade Cable (3C17225)
- One Switch 4400 Cascade Extender Unit (3C17226)

Refer to “Stacking Additional Switches”.

Using a SuperStack 3 Switch Cascade Stacking Kit with additional Cascade Extender Kits allows you to connect up to eight SuperStack 3 Switch 4400 units in a single stack.

Table 1 explains how many Cascade Stacking Kits and Cascade Extender Kits are required to create a stack of Switches.

<table>
<thead>
<tr>
<th>Number of Switches in the Stack</th>
<th>Number of Cascade Stacking Kits Required</th>
<th>Number of Cascade Extender Kits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>One</td>
<td>None</td>
</tr>
<tr>
<td>Three</td>
<td>One</td>
<td>One</td>
</tr>
<tr>
<td>Four</td>
<td>One</td>
<td>Two</td>
</tr>
<tr>
<td>Five</td>
<td>One</td>
<td>Three</td>
</tr>
<tr>
<td>Six</td>
<td>One</td>
<td>Four</td>
</tr>
<tr>
<td>Seven</td>
<td>One</td>
<td>Five</td>
</tr>
<tr>
<td>Eight</td>
<td>One</td>
<td>Six</td>
</tr>
</tbody>
</table>

You can gather information about the status of the Module and its packet activity using the Expansion Module port LEDs on the front of the Switch. For explanations on how the LEDs work, see the “LED Function Table”.
The Cascade Cable

Cascade Cables can be used to connect together two SuperStack 3 Switch 4400 units, both fitted with Cascade Modules. Furthermore, the cables can be used with Cascade Extender Units to stack three or more Switches.

Cascade Cables are 30 cm (11.8 in) long and color co-ordinated with yellow and blue D-Type connectors.

Figure 1 The Cascade Cable

The yellow connector has ‘UP’ marked on its casing: the blue connector has ‘DOWN’ marked on its casing.

The Cascade Extender Unit

The Cascade Extender Unit (see Figure 2) provides three ports: a blue Down port, a yellow Up port and a Modular port and plugs directly into a Cascade Module’s D-Type port (see Figure 5 and Figure 6), enabling you to stack three or more Switches together. It is a device that allows its host Switch to be removed and replaced without disturbing the rest of the stack.

Figure 2 The Cascade Extender Unit

WARNING: Installation and removal of the Module must be carried out by qualified personnel only. Before installing the Module into a unit, you must first disconnect the unit from the mains power supply. For full safety instructions, refer to the user guide that accompanies the unit.

AVERTISSEMENT: Confiez l’installation et la dépose de ce Module à un personnel qualifié. Avant d’installer ce Module dans un groupe, vous devez au préalable débrancher ce groupe de l’alimentation secteur. Pour prendre connaissance des consignes complètes de sécurité, consultez le guide utilisateur qui accompagne ce groupe.


WARNING: When the Module is inserted into the switch, the captive screws securing the Module must be tightened with a suitable tool. Keep the blanking plate and the fixings in a safe place. If you remove the Module at any time, you must then replace the blanking plate.

AVERTISSEMENT: Quand le Module est inséré dans le commutateur, visser le module, en le sécurisant fortement avec un outil adapté. Conservez la plaque d’obturation et les fixations en lieu sûr. Si vous retirez le Module à tout instant, vous devez alors replacer la plaque d’obturation.

WARNHINWEIS: Beim Einsetzen des Moduls in dem Switch sind die unverlierbaren Schrauben mit einem passenden Werkzeug festzuziehen. Die Distanzplatte und die Befestigungselemente an einem sicheren Ort aufzubewahren. Beim Austausch des Moduls ist auch die Distanzplatte zu ersetzen.

Installing and Removing the Module

Handling the Module

The Module can be easily damaged by electrostatic discharge. To prevent damage, observe the following:

- Always wear an anti-static wristband connected to a suitable earth point.
- Do not remove the Module from its packaging until you are ready to install it into a Switch.
- Do not touch any of the pins, connections or components on the Module.
- Handle the Module only by its edges and front panel.
- Always store or transport the Module in anti-static packaging.

CAUTION: The Cascade Module is not hot-swappable. Always make sure that the Switch is powered down and disconnected from the mains before installing or removing a Module. Use the following instructions when installing or removing a Module.

Due to the length of the Cascade Cables, you must insert all of the Cascade Modules into Expansion Module Slot 1 or all of the Cascade Modules into Expansion Module Slot 2 on the Switches. If you need to remove any Module, refer to the following instructions.
Installing and Removing the Module

Installing the Module into a Switch
1. Ensure that the Switch is disconnected from the mains power supply and that you are wearing an anti-static wristband connected to a suitable earth point.
2. Undo the two screws securing the blanking plate at the rear of the Switch using a suitable screwdriver. Do not remove any other screws from the rear of the Switch.
3. Remove the blanking plate.
4. Hold the Module so that the text on the front panel is upright and insert it into the Switch, ensuring the connectors are fully engaged (see Figure 3). Make sure the Module is pushed fully in.
5. Secure the Module by tightening the two captive screws with a screwdriver.

Removing the Module from a Switch
1. Ensure that the power supply and the backbone connection cables are disconnected from the Switch.
2. Undo the Module’s two captive screws with a suitable screwdriver. Do not remove any other screws from the Switch.
3. Remove the Module.
4. If you are not fitting another Module immediately, you must replace the blanking plate to ensure that dust and debris do not enter the Switch. Replacing the blanking plate will also help circulate cool air through the Switch.

Stacking Switches Together

Stacking Two Switches Together
To stack two Switches together, you will need the 3Com Cascade Stacking Kit (part number 3C17227). This kit contains:
- Two Switch 4400 Cascade Modules (3C17224)
- One Switch 4400 Cascade Cable (3C17225)

3. Power-up the Switches.
4. Check the LEDs on the front of the Switch to ensure that the Module is operating correctly. Refer to the “LED Function Table” for more information.

Always secure the Cascade Cable to the Cascade Module by tightening its securing screws.

Table 2 Attaching the Cable Between Two Switches

<table>
<thead>
<tr>
<th>Connector Color</th>
<th>Attach to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>Cascade Module in the top Switch</td>
</tr>
<tr>
<td>Blue</td>
<td>Cascade Module in the bottom Switch</td>
</tr>
</tbody>
</table>

Stacking Additional Switches
If you have stacked two Switches together, and wish to add an additional Switch, you will need a Cascade Extender Kit (part number 3C17228). Each Cascade Extender Kit enables you to add one additional Switch.

To stack additional Switches, you must first install the Cascade Module into the Switch or Switches you wish to add and then connect the appropriate number of Cascade Extender Units and Cascade Cables. (See Figure 5 and Figure 6 for further information.)

To stack additional Switches, you must have stacked two Switches together previously.

The Switches in a stack are numbered 1 to 8, from the bottom up, for management purposes. You can stack up to a total of eight Switches.
To stack additional Switches:

1. Ensure that the Switch is disconnected from the mains power supply and that you are wearing an anti-static wristband connected to a suitable earth point.

2. Install the Cascade Module as described in “Installing the Module into a Switch”.

3. Hold the Cascade Extender Unit so its air vents are facing upwards and push it onto the Cascade Module. Make sure the Cascade Extender Unit is pushed fully on.

4. Secure the Cascade Extender Unit to the Cascade Module by tightening its securing screws with a suitable tool.

Perform steps 1-4 to each Switch you wish to add to the stack.

5. Connect the Cascade Cables as shown in Figure 5 or Figure 6. See Table 3, below, for further Cascade Cabling details.

6. Secure the Cascade Cable to the device by tightening its securing screws.

7. Power up the Switches in the stack.

8. Check the LEDs on the front of the Switch to ensure that the Module is operating correctly. See Table 4, the “LED Function Table”, for more information.

Table 3  Attaching the Cable Between Three or More Switches

<table>
<thead>
<tr>
<th>Connector Color</th>
<th>Attach to the:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>Cascade Module in the top Switch or the yellow port on each Cascade Extender Unit.</td>
</tr>
<tr>
<td>Blue</td>
<td>Cascade Module in the bottom Switch or the blue port on each Cascade Extender Unit.</td>
</tr>
</tbody>
</table>

**CAUTION:** Do not over-tighten the securing screws on the Cascade Extender Unit.

**CAUTION:** Never disconnect any of the Cascade Cables from a Cascade Extender Unit when the stack is in use as it will break the flow of data.

**CAUTION:** If you need to remove any Switches, remove only one Switch from the stack at any one time. This guarantees the resilience of the Cascade data path. Before you remove the Switch, ensure that it is powered-down and disconnected from the mains power supply; then unscrew the Cascade Extender Unit’s securing screws and separate the Switch from the Cascade Module. If you need to remove more than one Switch, all of the Switches in the stack must be powered-down and disconnected from the mains power supply before making the appropriate changes.

**LED Function Table**

Table 4 explains the functions of the Expansion Module port LEDs found on the front of the Switch.

Table 4  LED Function Table

<table>
<thead>
<tr>
<th>Module Packet LED</th>
<th>Color</th>
<th>Appearance</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>On</td>
<td></td>
<td>Full duplex activity being received or transmitted.</td>
</tr>
<tr>
<td>No color</td>
<td>Off</td>
<td></td>
<td>No activity.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module Status LED</th>
<th>Color</th>
<th>Appearance</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>On</td>
<td>The Module is installed and supported. The Link Status has been determined.</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>On</td>
<td>The Module is installed and supported. The Link Status has not been determined or there is no link for a single port Module.</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>Flashing</td>
<td>The Module is installed, however, it is not supported.</td>
<td></td>
</tr>
<tr>
<td>No color</td>
<td>Off</td>
<td>The Module is not installed.</td>
<td></td>
</tr>
</tbody>
</table>
When using the Module port, note the following:

- Only one Cascade Module may be fitted into a Switch. If two Cascade Modules are fitted, both Modules will be disabled.
- The Module is not hot-swappable.
- The Module is not hot-insertable.
- The Module only operates with SuperStack 3 Switch 4400 Cascade Cables (3C17225).

If you suspect a problem, carry out these steps before contacting your supplier:

- Ensure that the Module is correctly installed in the Switch.
- Ensure that any Cascade Extender Units are correctly installed into the Cascade Modules.
- Check that the Cascade cabling is correctly configured and secured.
- Ensure that the Switch in which the Module is fitted is powered-up.

For information about technical support, refer to the documentation supplied with your Switch.

The following options are available for technical support:

- In the first instance contact your Network Supplier
- Check the 3Com knowledgebase at http://knowledgebase.3com.com
- Browse the 3Com web site on http://www.3com.com

Please have your product model name, part number, hardware revision number and serial number along with all relevant details of the problem to hand before calling your Network Supplier or 3Com on the numbers below.

<table>
<thead>
<tr>
<th>Country</th>
<th>Telephone Number</th>
<th>Country</th>
<th>Telephone Number</th>
<th>Country</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia, Pacific Rim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>1 800 678 515</td>
<td>P.R. of China</td>
<td>10800 61 00137 or</td>
<td>Latin America</td>
<td>0800 13 3266</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>800 933 486</td>
<td>Singapore</td>
<td>02 6350 1590 or</td>
<td>Brazil</td>
<td>0800 13 3266</td>
</tr>
<tr>
<td>India</td>
<td>+61 2 9937 5085 or</td>
<td>S. Korea:</td>
<td>00800 0638 3266</td>
<td>Mexico</td>
<td>01 800 849CARE</td>
</tr>
<tr>
<td></td>
<td>000800 6501111</td>
<td></td>
<td>800 6161 463</td>
<td>Puerto Rico</td>
<td>800 666 5065</td>
</tr>
<tr>
<td>Indonesia</td>
<td>001 800 61 009</td>
<td>Taiwan, R.O.C.</td>
<td>00798 611 2230 or</td>
<td>Central and South America</td>
<td>AT&amp;T +800 998 2112</td>
</tr>
<tr>
<td>Japan</td>
<td>03 5783 1270</td>
<td>Thailand</td>
<td>02 3455 6455</td>
<td></td>
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<tr>
<td>Malaysia</td>
<td>1800 801 777</td>
<td></td>
<td>00800 611 261</td>
<td></td>
<td></td>
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<tr>
<td>New Zealand</td>
<td>0800 446 398</td>
<td></td>
<td>001 800 611 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>+61 2 9937 5083</td>
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<tr>
<td>Philippines</td>
<td>1235 61 266 2602</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Europe, Middle East and Africa

From anywhere in these regions, call: +44 (0)1442 435529 phone
+44 (0)1442 436722 fax

Europe and South Africa

From the following countries, you may use the following toll-free numbers:

- Austria: 0800 297468
- Belgium: 0800 71429
- Denmark: 800 17309
- Finland: 0800 113153
- France: 0800 917959
- Germany: 0800 1821502
- Hungary: 06800 12813
- Ireland: 1800 553117
- Israel: 1800 9453794
- Italy: 800 8 79489
- Luxembourg: 0800 3625
- Netherlands: 0800 0277788
- Norway: 800 11376
- Portugal: 0800 831416
- South Africa: 0800 995014
- Spain: 900 983125
- Sweden: 020 795482
- Switzerland: 0800 55 3072
- U.K.: 0800 966197

North America

1 800 638 3266
Enterprise Customers: 1 800 876 3266
**TECHNICAL SPECIFICATIONS**

- **Operating Temperature**: 0 to 40°C (32 to 105°F)
- **Operating Humidity**: 10 to 95% non-condensing
- **Power Consumption**: 3 W maximum
- **Safety Standards**:
  - UL 1950
  - EN 60950
  - CSA 22.2#950
  - IEC 60950

**Electromagnetic Compatibility**

- CISPR22 Class A
- EN55022 Class A
- AS/NZS 3548 Class A
- FCC Part 15 Class A
- ICES-003 Class A
- VCCI Class A
- CNS 13438 Class A
- Korean EMC Approval
- EN55024

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**REGULATORY NOTICES**

**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 the 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 the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference to radio communications, in which case the user will be required to correct the interference at their own expense.

**Information To The User**

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment in relation to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

*How to Identify and Resolve Radio-TV Interference Problems*

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

In order to meet FCC emissions limits, this equipment must be used only with cables which comply with IEEE 802.3.

**CE Statement (Europe)**


**CSA Statement**

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

**VCCI Statement**

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- Establishing environmental performance standards that comply with national legislation and regulations
- Conserving energy, materials and natural resources in all operations
- Reducing the waste generated by all operations
- Ensuring that all waste conforms to recognized environmental standards
- Maximizing the recyclable and reusable content of all products
- Ensuring that all products can be recycled, reused and disposed of safely
- Ensuring that all products are labelled according to recognized environmental standards
- Improving our environmental record on a continual basis

End Of Life Statement
3Com processes allow for the recovery, reclamation and safe disposal of all end-of-life electronic components.

Regulated Materials Statement
3Com products do not contain any hazardous or ozone-depleting material.

Environmental Statement about the Documentation
The documentation for this product is printed on paper that comes from sustainable, managed forests; it is fully biodegradable and recyclable, and is completely chlorine-free. The varnish is environmentally-friendly, and the inks are vegetable-based with a low heavy-metal content.

Product Registration
You can now register your Cascade Module, Cascade Stacking Kit and Cascade Extender Kit on the 3Com web site at:

http://support.3com.com/registration/frontpg.pl

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pddtechpubs_comments@3Com.com

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