



QE 16/0

16-Port 10BASE-T Ethernet Hub for
QSCControl2 Audio Control &
Monitoring Networks

USER MANUAL

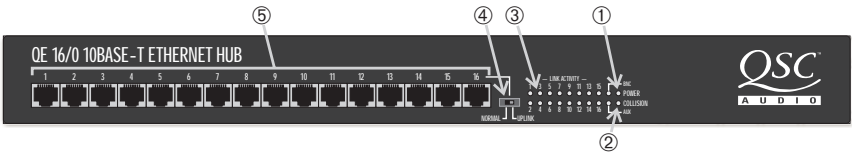


Figure 1: QE 16/0 front panel

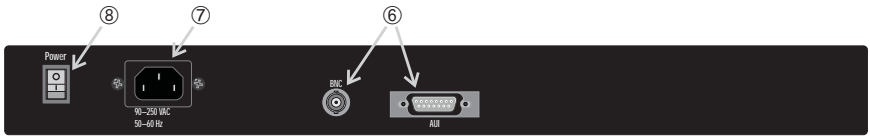


Figure 2: QE 16/0 rear panel

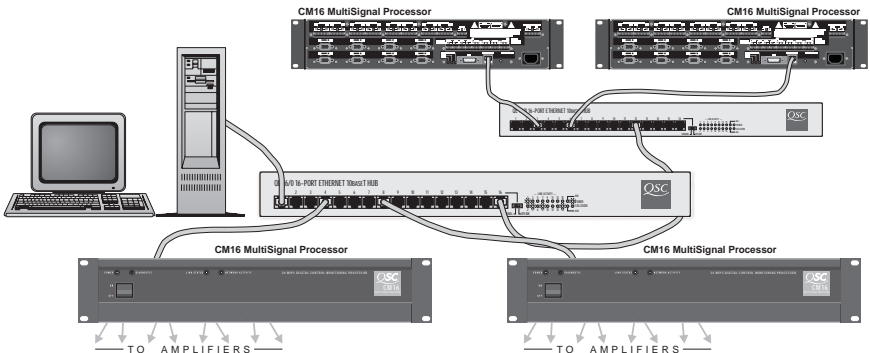


Figure 3: QE 16/0 hub in a QSCControl2 network

QSC Model QE 16/0

Quick Install Guide

16-Port RJ-45 + BNC/AUI Ethernet Hub for QSControl2™ Audio Systems

Introduction

The QSC Audio Model *QE 16/0* is a multi-port Ethernet hub that allows flexibility and versatility in audio control LAN topologies. It has 16 RJ-45 ports for unshielded twisted pair (UTP) network cabling, as well as a BNC/AUI port for direct connection to network segments using different media. The *QE 16/0* hub constantly monitors each port for signal quality and will disconnect (partition) a device producing noise or excessive collisions and will then automatically reconnect it when the offending condition clears.

Hub Features (see diagrams on previous page)

- | | |
|---------------------------|---|
| ① Power LED | Indicates the hub has AC power and is turned on. |
| ② Collision LED | Indicates a packet collision. |
| ③ Link/Activity LED | A steady green light indicates a good cable link between the hub and the network device connected to that port;
A blinking green light indicates network activity. |
| ④ Uplink Switch (Port 16) | Slide switch: <i>left</i> = Normal mode; <i>right</i> = Uplink mode |
| ⑤ RJ-45 Ports | Configurable as 16 normal UTP ports
or 15 normal UTP ports plus one UTP uplink port (Port 16). |
| ⑥ BNC and AUI Ports | BNC or AUI for connection to a LAN segment using different media. |
| ⑦ IEC connector | For AC power cord. The internal power supply automatically senses 90–250 VAC. |
| ⑧ ON/OFF power switch | |

Features:

- Allows interconnection of Thin (BNC) and UTP segments without other intermediate media conversion devices.
- Connects up to 16 UTP 10BASET segments and one Thin (BNC) *and/or* one Thick (AUI) Ethernet segment.
- Detects network collisions and alerts all participating host devices. Amplifies and re-times received signals and transmits the signals to attached host devices in the event of a collision.
- Preamble regeneration, signal retiring and restoration, extension of fragmented packets and jabber function for automatic partitioning to isolate network failure.
- Global power, collision, partition LEDs and individual port Link/RX or Link/Activity LED to aid network diagnosis and management.
- Performs full 10 Mbps Ethernet multi-port repeater functions and complies with IEEE 802.3 standard for 10BASET Unshielded Twisted Pair (UTP) and 10BASE2 Thin Coaxial (BNC) or 10BASE5 Thick Coaxial (AUI).

Specifications:

- **Industry standards:** Complies with IEEE 802.3, 10BASET standard, FCC Class A, CE Mark.
- **Interface:** 16 station ports for clients, servers, or other hubs. A designated Uplink port allows cascading to another hub.
- **Uplink port:** Requires UTP cable (Category 3, 4, or 5). Segment length can be up to 100 meters. When cascading using this port, the maximum segment length is 5 meters.
- **Power supply** Internally auto-sensing from 90 VAC to 250 VAC. Power consumption is 50 W maximum.
- **Environment:** Operating temperature: 0° C to 50° C; (Storage temperature: -20° C to 70° C); Operating humidity: 10% to 80% RH; (Storage humidity: 5% to 91% RH). [*RH = Relative Humidity*].
- **Physical dimensions:** 107 × 482 × 44.4 mm [L (depth) × W × H]; 1 RU rack-mountable
- **Weight:** 3 kg. (6.5 lb.)
- **Safety:** LVD certified.

LED Indicators

The QSC *QE 16/0* Ethernet hub uses front panel LED indicators to display its operating status: power on, link & activity status, and collision. The LEDs can function as useful troubleshooting aids.

Troubleshooting

The table below lists the LED indicators of the *QE 16/0*, what they should display in normal operation, and what might cause an abnormal indication.

LED Indicator	Normal indication	What it tells you
Power (green)	On	If it's <i>not</i> on: 1.) Make sure the AC power cord is properly inserted into the hub and the AC outlet. 2.) Make sure the power switch is on.
Link/Activity (green)	On or flashing	If the LED glows green steadily, it indicates that the port detects the 10BASET network carrier signal. If the LED flashes, it indicates network activity—i.e., the port is transmitting or receiving data.
Collision (red)	Off	If the LED flashes, it indicates that 2 or more network nodes have tried to access the network simultaneously. Occasional occurrences are normal and will not affect network performance. If the LED flashes repeatedly or continuously, one or more nodes may be malfunctioning, or there may be other devices utilizing the network heavily.



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