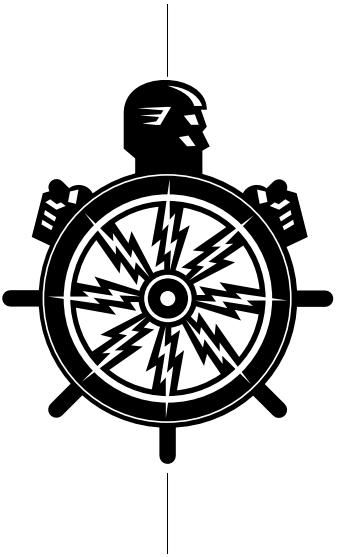
# Mini MAU
# Installation Guide



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# Introduction

Thank you for purchasing a Mini MAU from Asanté Technologies.

The Asanté Mini MAU is an ideal network solution for connecting computers and other peripherals with an AUI port to a 10BaseT, 10Base2 or 10BaseFL Ethernet network.

## Asking for assistance

To contact Asanté Technical Support for help:

| | |
|---|---|
| | (800) 622-7464 |
| **Telephone** | (408) 435-0706 |
| **Fax** | (408) 432-6018 |
| **Applelink mail** | ASANTE.TECH |
| **Internet mail** | support@asante.com |

### Technical Support Hours

6:00 AM to 6:00 PM Pacific Standard Time, Monday—Friday

## Asanté Mini MAUs

The Asanté Mini MAU plugs directly onto the back of your PC, Macintosh or any other network device that has a AUI interface.

Asanté offers three types of MAUs:

- ❏ AUI to Mini MAU Unshielded Twisted Pair (UTP)
- ❏ AUI to Mini MAU Thin Coax
- ❏ AUI to Mini MAU Fiber

The Mini MAUs are compatible with any Ethernet device that has an AUI Ethernet port.

❖ **Note:** They are also designed to slide into the recessed MAU slots of the AsantéHub 2072 repeater modules.❖

## Summary of Mini MAU Features

- Standards based transceivers for unshielded twisted pair (UTP), thin and fiber-optic Ethernet.
- Full compatibility with IEEE 802.3 specifications for 10BaseT, 10Base2, and 10BaseFL Ethernet.
- Diagnostic LEDS
- Ability to turn HBE on or off.
- Can be used as an accessory to AsantéHub 2072 Repeater modules.
- 10BaseT Mini MAU includes switch to enable and disable Link Integrity, allowing for compatibility with pre-10BaseT devices.

## Mini MAU Media and Connectors

| Mini MAU | Media | Connector | Port |
|---|---|---|---|
| **10BaseT Mini MAU** | UTP Unshielded Twisted Pair | RJ-45 | AUI |
| **10BaseFL Mini MAU** | Fiber | ST | AUI |
| **10Base2 Mini MAU** | Thin Coax | BNC | AUI |

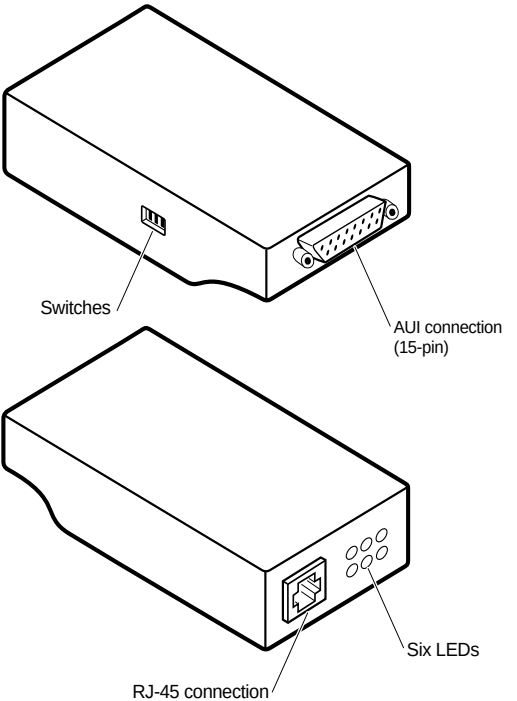


**Figure 1** Mini MAU for 10BaseT

## Installation Mini MAU

The installation of an Asanté Mini MAU is very simple:

**1** Locate the AUI port on the device.

The AUI is on the rear of your hub or computer. Externally it consists of the 15 pin AUI connector.

**2** Connect the Mini MAU to the AUI port.

**3** Connect the Ethernet cable to the Mini MAU.

**Twisted-pair cable (10BaseT) with Mini MAU**

Connect the 10BaseT Mini MAU to the device's AUI port.

Plug one end of the cable into the 10BaseT port on the Mini MAU.

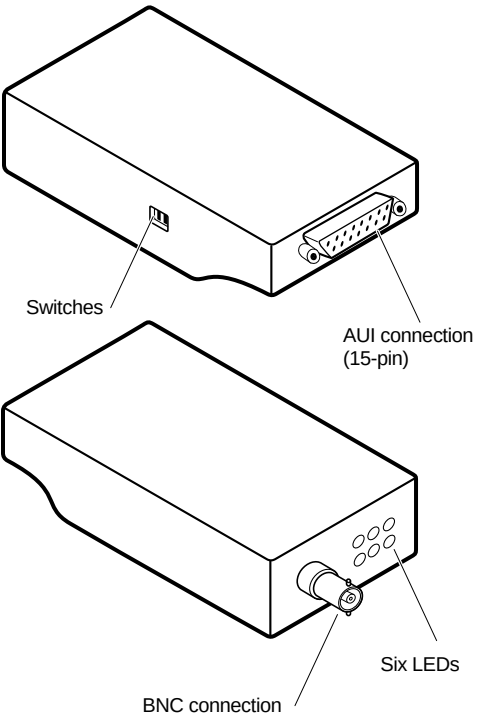


**Figure 2** Mini MAU for Thin Ethernet

**Thin cable (10Base2) with Mini MAU**

Connect the 10Base2 Mini MAU to the device's AUI port.

Before the 10Base2 Mini MAU is connected to the thin Ethernet cable, there may be a straight-through (barrel) BNC connector in the cable at the location where a node connection is available.

Simply remove the barrel connector, and connect a "T" connector to the BNC port on the Mini MAU. The connector slips on, twists, and locks in place.

❖ **Note:** Check with your network administrator before disconnecting cable. Other users must be warned of the interruption of network operations. Even if the network uses self-terminating media or connectors, users downstream from the break will be affected.❖

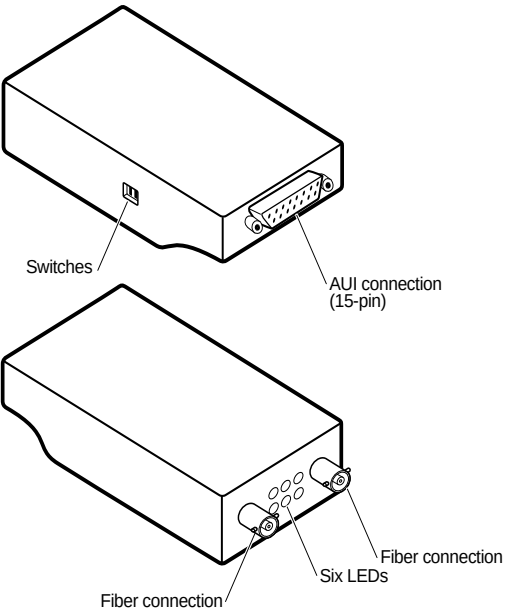


**Figure 3** Mini MAU for Fiber

**Fiber**

Connect the 10BaseFL Mini MAU to the device's AUI port.

Connect the Mini MAU fiber connector to the fiber cable with ST connectors.

❖ **Note:** Check with your network administrator before disconnecting cable. Other users must be warned of the interruption of network operations. Even if the network uses self-terminating media or connectors, users downstream from the break will be affected.❖

# LEDs and Switches for the Mini MAU

## Mini 10BaseT MAU LED Display

| LED | Color | Status |
|---|---|---|
| Power on | Green | MAU ON<br>receiving power from AUI |
| Link | Green | ON Link OK<br>OFF Link failed |
| Receive | Green | ON<br>MAU is receiving |
| Transmit | Green | ON<br>MAU is transmitting |
| Polarity | Yellow | ON<br>MAU polarity is reversed |
| Collision | Yellow | ON<br>Collision on Net-work |

## Switches for 10BaseT MAU

There are three switches on the side on the 10BaseT Mini MAU.The default settings for the switches are identified below.

- ❏ Heartbeat Enable (HBE)function disabled.
  (1, switch UP)
- ❏ Link Test (LNK) enabled
  (1, switch UP)
- ❏ Polarity Correction (POL) enabled
  (1, switch UP)

### HBE Switch

If this switch is enabled a short burst of collision signal, (heartbeat) is transmitted from MAU to the device it's connected to after every packet is transmitted. It is also referred to as the SQE (Signal Quality Error test).

By default the HBE function is disabled the DIP switch is set to the "UP" (1) position.

❖ Note: If the MAU is used with a hub or repeater this switch should be disabled.❖

**Link Integrity Enabled Test Switch**

This switch is normally enabled to verify cable link. This switch can be disabled to work with non-10BaseT compliant repeaters and hubs.

**Polarity Correction**

This switch, when enabled, inverts the polarity of a signal automatically if a received signal has reverse polarity. Wiring problems cause reverse polarity.

❖ **Note**: If you use the MAU with an AsantéHub leave the Polarity Correction Switch enabled. ❖

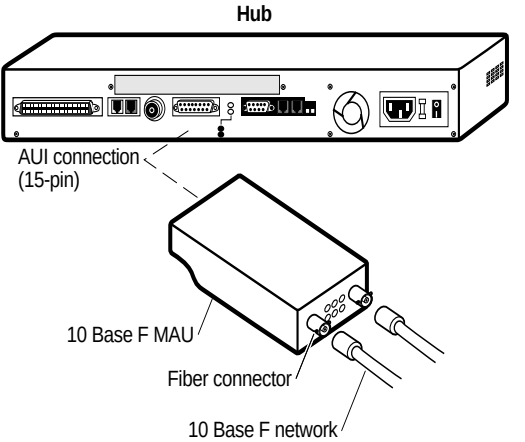


**Figure 4** Mini MAU Fiber to hub

## Mini 10BaseFL MAU

| LED | Color | Status |
|---|---|---|
| Power on | Green | MAU ON<br>receiving power from AUI |
| Link | Green | ON Link OK<br>OFF Link failed |
| Receive | Green | ON<br>MAU is receiving |
| Transmit | Green | ON<br>MAU is transmitting |
| Jabber | Yellow | ON<br>Transceiver stops transmitting due to a packet transmission exceeding more than 20 ms. |
| Collision | Yellow | ON<br>Collision on Network |

## Switches for 10Base-F MAU

The default settings are identified below:

- ❏ Loopback Test Switch enabled.
  (1, switch UP)
- ❏ HBE Switch disabled.
  (1, switch UP)

The default settings are Loopback switch enabled and HBE Switch disabled.

### Loopback Test Switch

When this switch is enabled the AUI transmit pair data is looped back to the AUI receiver pair. This test can be used for troubleshooting to determine if the returned signal is the same as the transmitted signal.

This switch can be disabled.

### HBE Switch

The HBE of the Mini 10BaseFL can be disabled by setting the DIP switch to the "UP" (1) position.

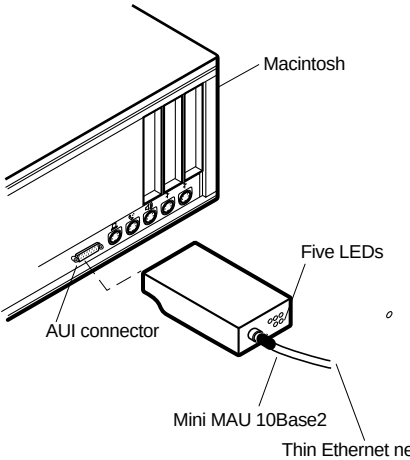


**Figure 5** Mini MAU Thin Ethernet to Macintosh

## Mini 10Base2 MAU

| LED | Color | Status |
|---|---|---|
| Power ON | Green | MAU ON<br>receiving power from AUI |
| HBE ON | Green | ON HBE is ON<br>Switch set to “Down” (0) position. |
| Receive | Green | On<br>MAU is receiving or transmitting |
| Transmit | Green | ON<br>MAU is transmitting |
| Jabber | Yellow | ON<br>Transceiver stops transmitting due to a packet transmission exceeding more than 20 ms. |
| Collision | Yellow | ON<br>Collision on Network |

## Switches for 10Base2 MAU

The default settings are identified below:

- ❏ Termination disabled
  (1, switch UP)
- ❏ HBE disabled
  (1, switch UP)

### Termination

The Mini 10Base2 MAU has a built-in 50ohm termination resistor. This is useful if the user does not have a terminator. If enabled the switch is in the “Down” (0) position and the 50 ohm termination is connected across the BNC.

### HBE

The HBE can be disabled on the Mini 10Base2 MAU by setting the DIP switch to the “UP” (1) position. This is the default setting.

❖ **Note**: All Asanté MAUS attached to a hub or repeater should have HBE disabled. For example, if the Mini MAU is attached to an AsantéHub 1012 or 2072.❖

### Installing a Mini MAU for the AsantéHub 2072

To install an Asanté Mini MAU into the recessed port on the double-slotted AsantéHub 2072 do the following:

**1** Unscrew the two ejector screws on each side of the module's front panel and pull out the module approximately four to five inches from the chassis.

**2** Remove the Mini MAU's filler plate on the AsantéHub.

3 Insert the Mini MAU by hand-guiding it into its recessed slot until the MAU is securely fastened to it's connector.

4 Re-insert the module into the chassis.

## Specifications Mini MAU

**Power**

- ❑ 120mA@ 11-16VDC from the Ethernet device AUI.

**Environmental**

- ❑ 1 to 50 C

**Dimensions**

- ❑ 3.35”x 1.65” x 0.8”