**LAN–LINE* Thinnet Tap System for LAN–LINE
Tap Assemblies 222503–[ ] and 414913–[ ],
and Drop Cable Assembly 222675–[ ]**

Instruction Sheet
408–9365
25 MAR 96   Rev F

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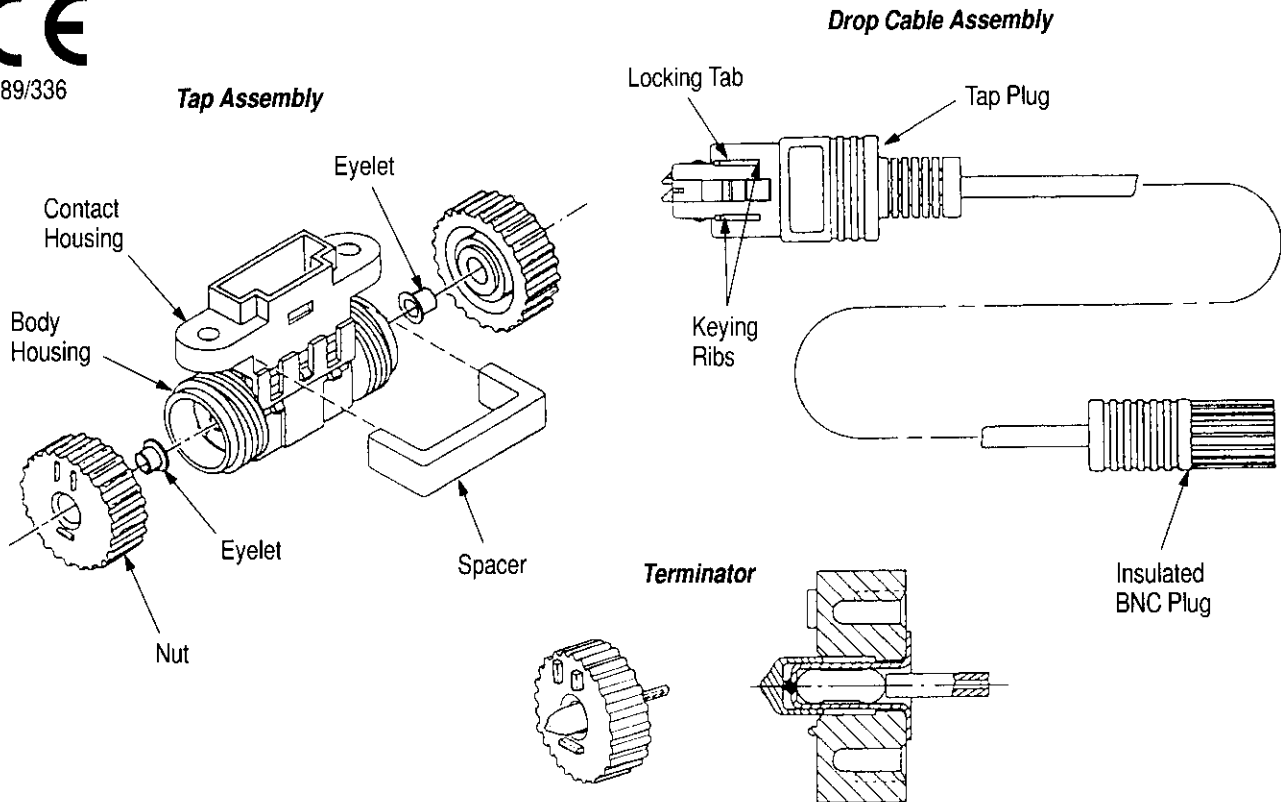89/336

Tap Assembly

Drop Cable Assembly

Terminator

1. INTRODUCTION

This instruction sheet describes the installation and use of AMP* LAN–LINE Tap Assemblies 222503–[ ] and 414913–[ ], which is used in Ethernet network ("Thinnet") applications. Drop Cable Assembly 222675–[ ], Terminator 222504–[ ], and Wall Cover Kit 222754–1 are also covered. The cable assembly connects a device (such as a computer terminal) to the tap. The 50Ω terminator can be installed in the tap assembly for a permanent termination of a network line.

NOTE *AMP LAN–LINE Thinnet tapping system is for use in IEEE 802.3/ISO 8802–3, 10Base2 networks.*

Reasons for reissue of this sheet are provided in Section 4, REVISION SUMMARY.

2. DESCRIPTION

The tap assembly includes a body housing, a contact housing, two nuts, and a plastic spacer. The center contact of the coaxial network cable connects to the tap through insulation–displacement type contacts inside the body housing. The cable braided shield makes contact with a metal disc, also inside the body housing.

The tap can be mounted in a wall–mounting plate, or it can be used in free–hanging applications.

The drop–cable assembly is provided as a finished unit. The assembly is made of twin coaxial RG–58–type cable, a tap plug (with keying ribs and a locking tab), and an insulated BNC plug connector that attaches to the device being added to the network.

Terminators are permanently installed in the tap when the tap is located on the end of a network cable, thus defining the end of the network segment.

3. INSTALLATION

3.1. Installing the Tap Assembly

CAUTION *AMP Thinnet Tap is designed for only one application cycle. Once removed from a cable or terminator, the tap cannot be re–used.*

LOC B

CAUTION *Make sure that you have located the proper cable before applying the tap assembly. The tap assembly must be installed to IEEE 802.3/ISO 8802–3, 10Base2 compliant cable.*

1. Turn the system power OFF.

2. Locate the network bus cable and determine the desired location on the cable. Place a mark on the cable at the approximate center of the tap location.
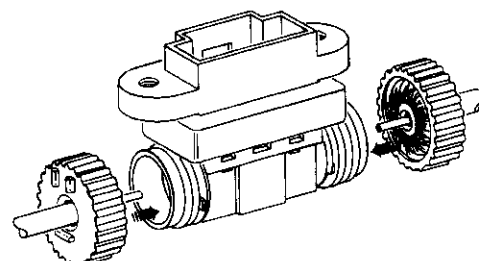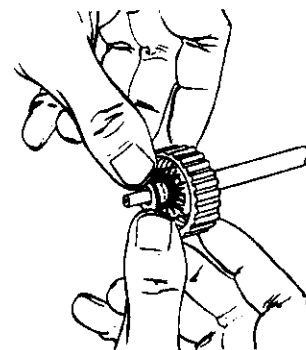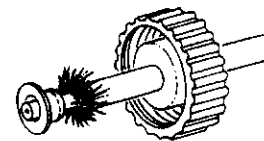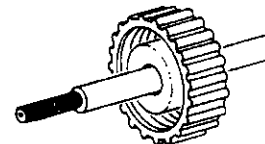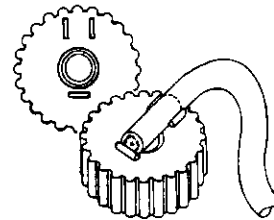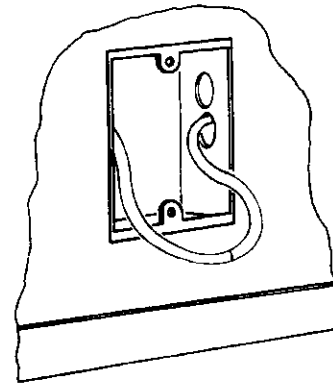
3. Clean–cut the cable (90°) at the mark, then strip 12.7±0.002 mm [.500±.050 in.] of outer jacket from each cable end. If required, strip–length markings are provided on each nut.

4. Carefully slide each wire nut, threaded end outward, onto the appropriate cable end.

5. Flare the braid away from the cable dielectric. **Remove ALL foil shield, making sure that no dielectric is removed.**

6. Slide a metal eyelet, flanged end outward, onto each cable end. While holding the eyelet, slide the nut up to the eyelet and *press the eyelet into the hole in the nut.* Make sure that the cable braid is captured between the eyelet and the nut.

7. Insert each cable end into the respective side of the body housing, making sure to push the cables in as far as possible. The end of the eyelet flange should bottom on the body housing's ground contact, and *no strands from the braid should enter the tap hole.* If using a terminator, insert it into the body housing at this time.
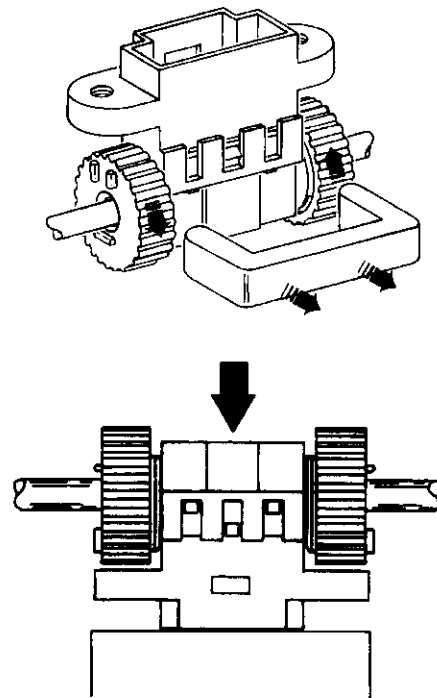
8. Partially screw the nuts onto the body housing. DO NOT tighten the nuts onto the plastic spacer.

9. Remove and discard the plastic spacer, then hand–tighten the nuts.

10. Support the face of the contact housing on a firm surface, and push the body housing downward. The two latches on either side of the body housing will engage the slots in the contact housing with a "click."

NOTE *Check that the two housings are fully engaged. If not, repeat Step 10.*

3.2. Using the Wall Plate

If desired, the tap may be mounted with the optional wall plate. The two screws supplied with the tap are used to mount the tap onto the wall plate. Two longer screws are supplied in the wall plate kit to fasten the wall plate onto a box. To mount the tap with the wall plate:
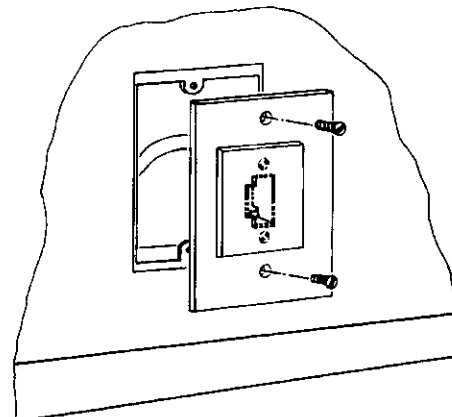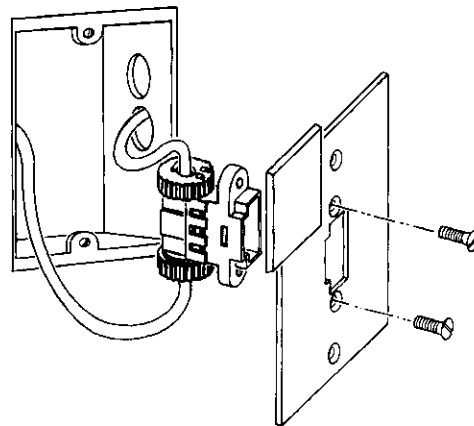
1. Position the completed tap assembly onto the plate, making sure to align the respective mounting holes.

2. Using the two short screws, attach the tap assembly to the wall plate.

CAUTION *Be sure to use only the screws supplied with the tap when mounting the assembly. Using the longer screws, supplied with the wall plate, may cause the tap housing and the body housing to partially separate, resulting in network failure.*
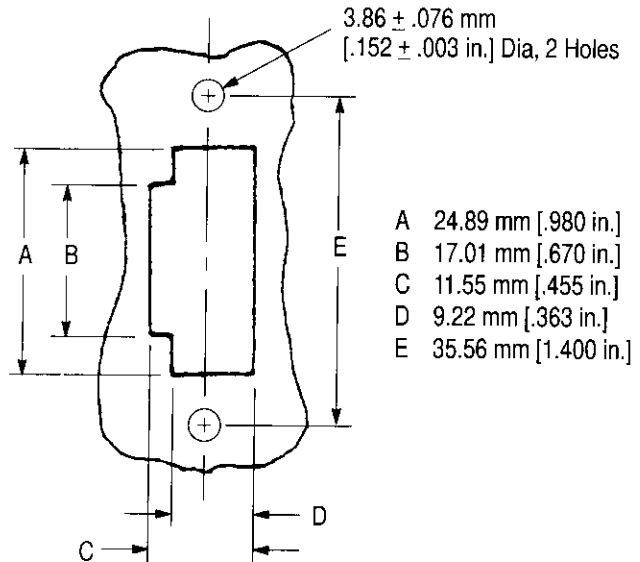
3. Carefully position the tap assembly into the wall box, making sure to avoid pinching or kinking the bus cable. Align the mounting screws in the wall plate and wall box.

4. Insert the two long screws through the wall plate and into the wall box. Tighten the screws securely.

If desired, the tap assembly can be installed on a panel. Refer to this diagram for the correct cutout dimensions:

NOTE: Wall Cover Kit 222754–1 includes two 6–32 X 1/2 in. oval head screws and two 6–32 X 3/8 in. oval head screws.

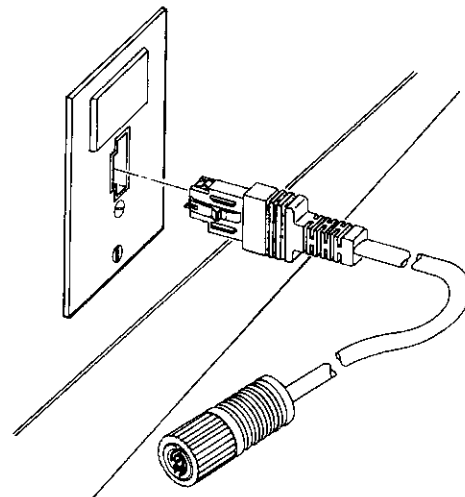### 3.3. Using the Drop Cable Assembly

To install the drop cable assembly:

1. Align the keying ribs on the drop cable plug with the keyed area of the tap contact housing.

2. Push the plug into the tap until it bottoms completely (the locking tab on the plug should click), then pull back lightly on the plug. If the plug disengages from the tap assembly, repeat the insertion.

To disconnect the drop cable assembly:

1. Lightly push the plug into the tap assembly.

2. While maintaining pressure on the plug, press the plug's locking tab inward.

3. Pull back lightly on the plug. If the plug does not easily disengage from the tap assembly, repeat the disconnection procedure.

When the tap is not in use, the protective dust cover should be rotated to cover the tap cavity.

3.86 ± .076 mm
[.152 ± .003 in.] Dia, 2 Holes

A   24.89 mm [.980 in.]
B   17.01 mm [.670 in.]
C   11.55 mm [.455 in.]
D   9.22 mm [.363 in.]
E   35.56 mm [1.400 in.]

3.4. Qualification

AMP LAN–LINE Thinnet tapping system is designed to comply and verify with EN55022 Class B and EN50082–1 provided that the driving devices also comply with these standards.

4. REVISION SUMMARY

Since the previous release of this instruction sheet, the following changes and additions were made:

Per EC 0990–0240–96:

- Modified title of instruction sheet
- Added Drop Cable Assembly 222675–[ ] to title
- Added CE logo to page 1
- Added NOTE to Section 1
- Added information to CAUTION in Section 3
- Added Paragraph 3.4