THIN ETHERNET

ADAPTERS – TERMINATOR (50 OHM) WALL PLATES – TOOLS – TRANSCEIVERS

22. ADAPTERS

22a. BNC Straight Splice (Barrel Adapter) Jack-Jack
Use to connect sections of connectorized cable together.
AC No. 080789

22b. BNC "T" Jack-Plug-Jack
Use to connect the transceiver to the combination trunk/transceiver RG58 A/U cable as it is strung from workstation to workstation such as in the 3COM System. See Thin Ethernet layout on page T-103.

Also used to connect TCL transceivers to the trunk (RG 58 A/U) cable.

The two jacks attach to the plugs on the trunk cable and the plug attaches to the jack on the transceiver. At each end of the segment where the end transceivers are located, the "T" adapter requires a plug terminator on one side to terminate the line.
AC No. 080829

22c. BNC Bulkhead Jack-Jack
Use in a wall plate (Item 24) as a wall jack.
AC No. 080778
AC No. 080779

22d. "N" Plug to BNC Jack
(Between series adapter)
AC No. 086066

22e. BNC Plug to "N" Jack
(Between series adapter)
AC No. 089847

NOTE. To configure "N" Jack to BNC Jack; use "N" Jack-Jack adapter, item 7a. on "N" plug end of item 22d. or use item 22a. on the BNC plug end of item 22e.

These between series adapters are used when changing from a full size system to the smaller Thin Ethernet system or vice versa.

Also, item 22e is used to connect a Thin Ethernet transceiver to a full II size trunk cable using BNC connectors. See details on page T-118.

23. TERMINATOR - 50 OHM

23a. "BNC" Plug
A plug terminator must be attached to a "T" adapter at each end (segment) of the RG58 A/U coaxial cable.
AC No. 073989

24. WALL PLATES - For BNC Bulkheads

STAINLESS STEEL

24a. Single gang, one hole
AC No. 080791

24b. Single gang, two hole
For a neat installation, route the cable down thru the wall or under the floor and terminate in a wallplate. Use a preassembled transceiver cable (either 4 pair or RG58 A/U, depending on your system) from the wall plate to the workstation.
AC No. 080792 (use **D82787**)

25. TOOLS

25a. Crimp Tool w/die for BNC connectors - AMP
This tool will only work with item 21b. or equivalent AMP connector.
AC No. 081427

25b. Crimp Tool w/die for BNC connector - Amphenol
AC No. 080865

25c. Strip tool for RG 58 A/U
Will speed up cable preparation time. See strip dimensions on page T-120 & T-121 depending on connector used.
AC No. 033657

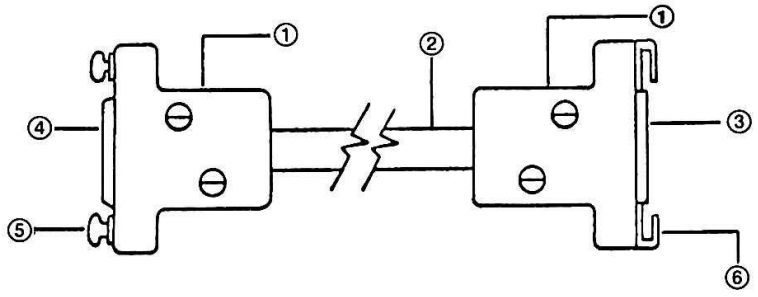
26. TRANSCEIVERS

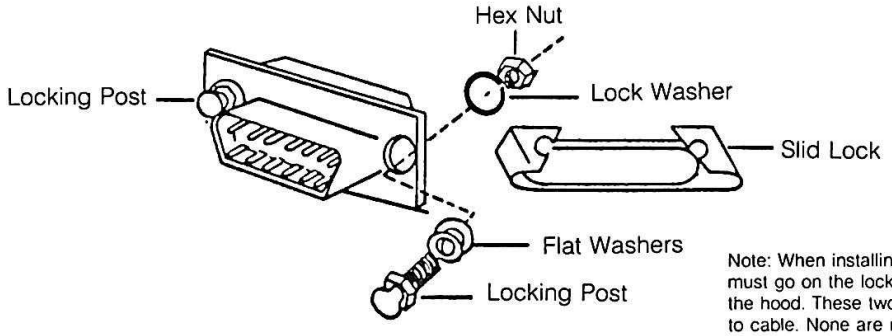
See Item 15g. and 15h. on page T-111. Use tie wraps to hold the transceiver in place.

See Item 11., page T-109.

SEE THE CHECK LIST ON PAGE T-105. HAVE YOU ORDERED ALL THE COMPONENTS NEEDED TO INSTALL THE SYSTEM?

TRANSCEIVER CABLES — PINOUT DIAGRAMS





Note: When installing the locking posts, note the two (2) flat washers must go on the locking post first before screwing the locking posts into the hood. These two washers are only needed when connecting cable to cable. None are needed when attaching cable to equipment. This mounting hardware will not fit on a hood with lips.

TRANSCEIVER CABLES — PINOUT DIAGRAMS

Hood Installation

For shield continuity, fold shield back over jacket so shield and hood make contact at the cable entry position of hood.

WIRE DIAGRAMS

— Ethernet® Versions 1 & 2 —		——— IEEE 802.3 ———	
1) Shield	**9)** White	**1)** Open	**9)** White
2) Gray Ⓐ	**10)** Orange	**2)** Gray Ⓐ	**10)** Orange
3) Yellow	**11)** Open	**3)** Yellow	**11)** Open
4) Open	**12)** Blue	**4)** Shield	**12)** Blue
5) Green	**13)** Red	**5)** Green	**13)** Red
6) Black	**14)** Open	**6)** Black	**14)** Open
7) Open	**15)** Open	**7)** Open	**15)** Open
8) Open		**8)** Open	
Pin to Pin		Pin to Pin	

FUNCTION OF PAIRS

Red/Black ..... Power Pair
Green/Blue ..... Receive Pair
White/Gray Ⓐ ..... Collision Presence
Yellow/Orange ..... Transmit Pair

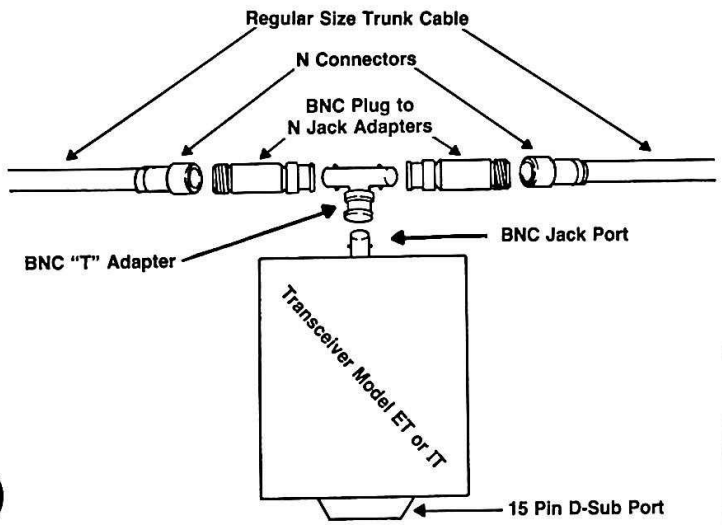
COMPONENTS

AC No. 089745	① Hood "D" Subminiature
AC No. Ⓑ	② Cable
AC No. 081424	③ 15 Pin Female Connector (Solder)
AC No. 081425	④ 15 Pin Male Connector (Solder)
AC No. 080868	⑤ Locking Post
AC No. 080867	⑥ Slide Lock

Note: See Catalog for crimp connectors
Ⓐ Might be brown.
Ⓑ Per Application

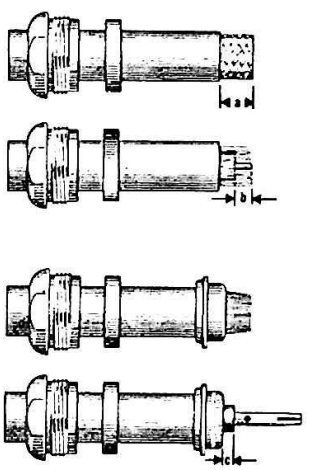
INSTRUCTIONS

INSTRUCTIONS FOR CONNECTING A THIN ETHERNET TRANSCEIVER (MODEL 2010 ET OR 2010 IT) TO A FULL SIZE TRUNK CABLE IN LIEU OF USING RG58 A/U THIN ETHERNET CABLE



1. Cut trunk cable at desirable ring mark.
2. If there is a possibility hardware could be grounded, slip on insulation sleeve, one piece per end (catalog item 12A).
3. Install Type "N" connectors (plugs) at each cut end of the trunk cable. (Catalog item 5).
4. Attach between series adapter "N" jack to BNC plug (catalog item 7D) to "N" plug at each cable end.
5. Attach the BNC plugs at each end of the cable to the jacks of a "T" adapter. (Catalog item 22b)
6. Slide the insulation sleeves up to the "T" adapter and heat shrink.
7. Assemble BNC plug end of the "T" adapter to the BNC jack on the transceiver.

TERMINATING INSTRUCTIONS FOR TYPE N SOLDER CONNECTORS



Place nut and gasket, with "V" groove toward clamp, over cable and cut off jacket to dim. a.

Comb out braid and fold out. Cut off cable dielectric to dim. b as shown.

Pull braid wires forward and taper toward center conductor. Place clamp over braid and push back against jacket. Fold back braid wires as shown, trim to proper length and form over clamp as shown. Solder contact to center conductor.

Insert cable and parts into connector body. Make sure sharp edge of clamp seats properly in gasket. Tighten nut.

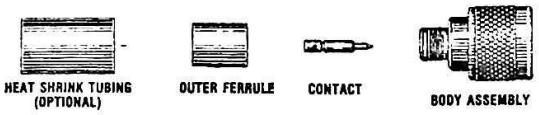
Stripping dimensions: a. .281"; b. .156"; c. .045"

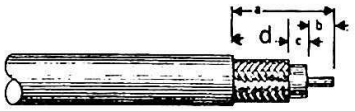
AC Nos. 040481 and 076954 Catalog item 5B

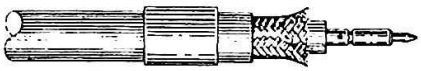
INSTRUCTIONS

TERMINATING INSTRUCTIONS FOR TYPE N CRIMP CONNECTORS

(Crimp-crimp or Solder-crimp)







Stripping dimensions: a. .6875"; b. .1875"; c. .09375"; d. .40625"

Strip cable jacket, braid, and dielectric to dimensions shown. All cuts are to be sharp and square. Important: Do not nick braid, dielectric, and center conductor. Tinning of center conductor is not necessary if contact is to be crimped. For solder method, tin center conductor avoiding excessive heat.

Slide outer ferrule onto cable as shown. Slightly flare, end of cable braid, as shown, to facilitate insertion onto inner ferrule. Important: Do not comb out braid.

Place contact on cable center conductor so it butts against cable dielectric. Center conductor should be visible through inspection hole in contact. Crimp or solder contact in place as follows:

Crimp Method: Use Cavity B of Die Set.

Solder Method: Soft solder contact to cable center conductor. Do not get any solder on outside surface of contact. Avoid excessive heat to prevent swelling of dielectric.

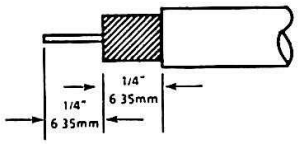
Install cable assembly into body assembly so inner ferrule portion slides under braid. Push cable assembly forward until contact snaps into place in insulator.

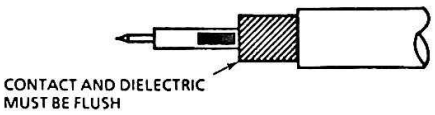
Slide outer ferrule over braid and up against connector body. Crimp outer ferrule using Cavity A of Die Set.

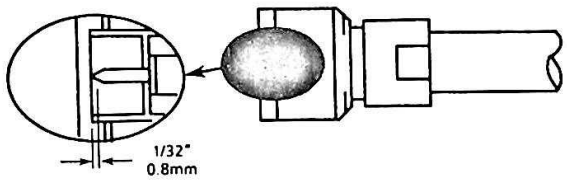
AC No. 075016 Catalog Item No. 5c Connector
AC No. 080270 Catalog Item No. 13d Crimp Tool
AC No. 057951 Catalog Item No. 13e Die Set

Note: Our heat shrink part number is 009678.

STRIPPING INSTRUCTIONS AND INSTALLATION INSTRUCTIONS FOR THE TWIST-ON (FAST FIT) TYPE N CONNECTOR







a. Using the Paladin ETN wire stripper or suitable alternate, prepare the end of the coaxial cable for connector installation.

b. Trim cable as shown, taking care not to nick the center conductor or outer braid.

c. Ensure that the outer braid lays flat.

d. Trim off any and all excess braid.

e. Twist the contact in a clockwise direction, on the inner conductor, until the back end of the contact is flush with the inner dielectric.

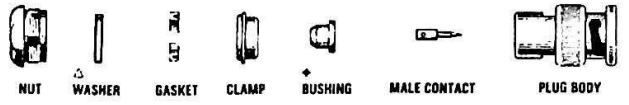
f. Twist the connector onto the cable in a clockwise direction. The connector is properly installed when the end of the contact is positioned within 1/32" of the front edge of the connector.

AC Nos. 081281 and 081282 Catalog Item No. 5a and 5d Connector
AC No. 080832 Catalog Item No. 13h Strip Tool

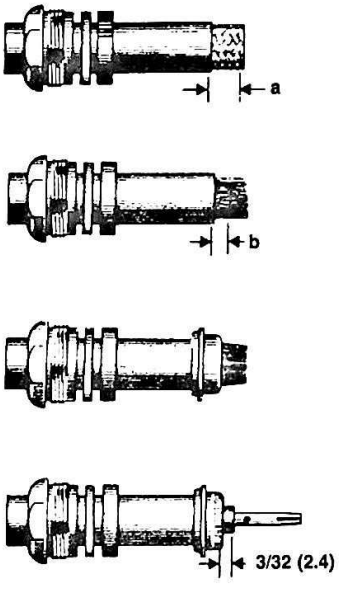
Note: To aid in twisting on contact, insert a paper clip in through the hole.

INSTRUCTIONS

TERMINATING INSTRUCTIONS FOR BNC SOLDER CONNECTOR



Don't use bushing with RG58 A/U



Place nut, washer and gasket over cable and cut jacket to dimension shown.

Comb out braid and fold out. Cut cable dielectric to dimension. Tin center conductor.

Pull braid wires forward and taper toward center conductor. Place clamp over braid and push back against cable jacket.

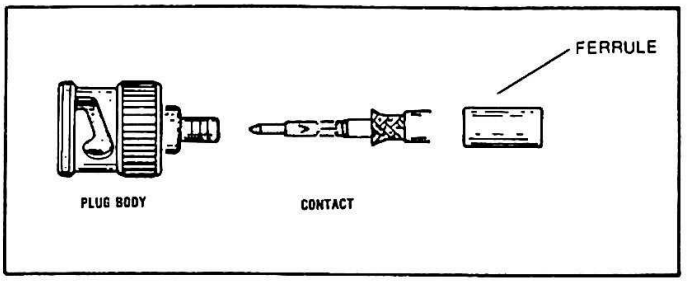
Fold back braid wires as shown, trim to proper length (⅛", 3.2 mm.) and form over clamp as shown. Solder contact to center conductor.

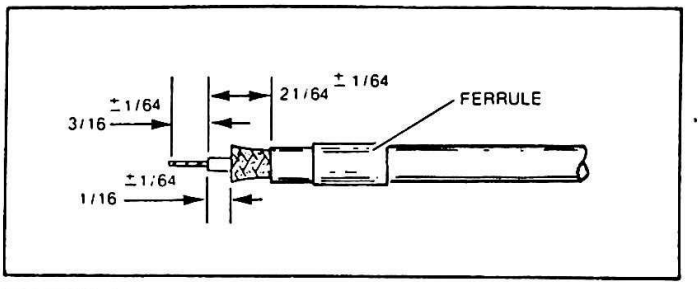
Insert cable and parts into connector body. Make sure sharp edge of clamp seats properly in gasket. Tighten nut.

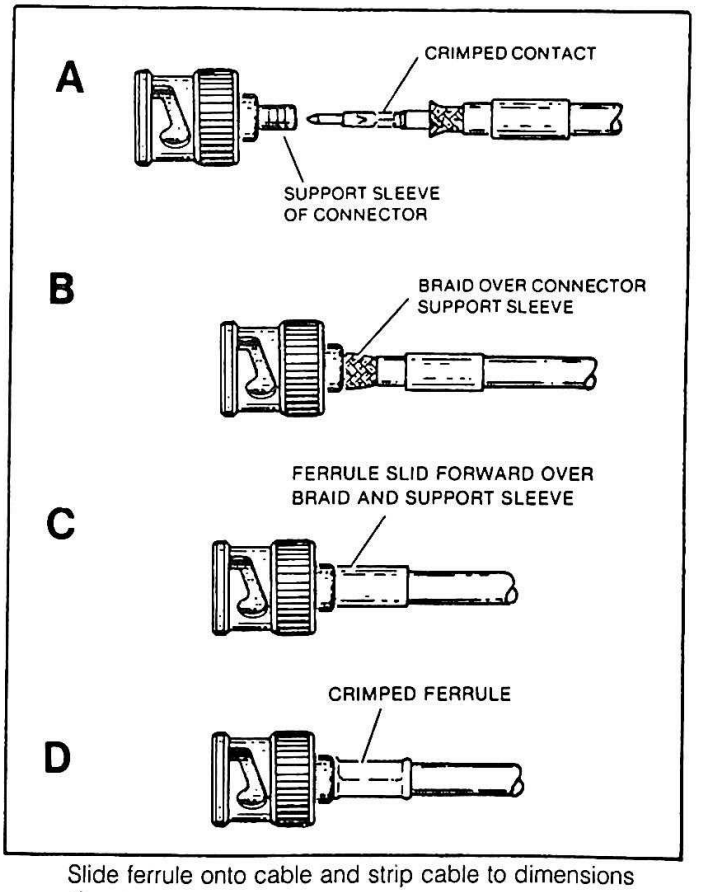
Stripping dimensions: a. .3125": b. .203"

AC No. 080826 Catalog Item 21a Connector

TERMINATING INSTRUCTIONS FOR BNC CRIMP CONNECTOR







Slide ferrule onto cable and strip cable to dimensions shown.

Insert contact into plug with braid over support sleeve.

Slide ferrule forward over braid and support sleeve.

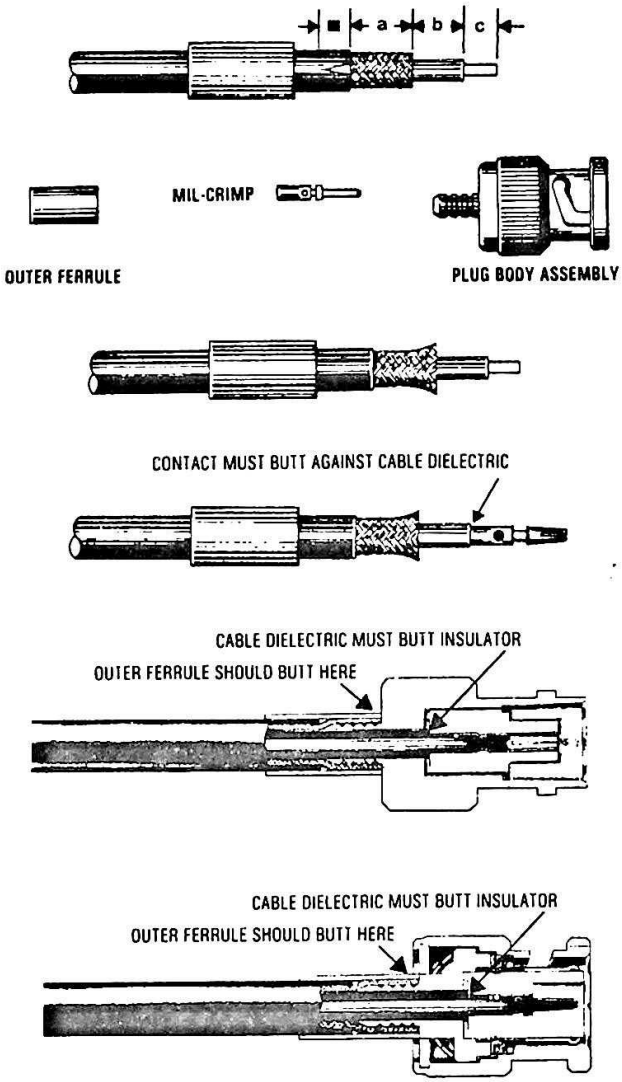
Crimp ferrule.

AC No. 080827 Catalog Item No. 21b Connector
AC No. 081427 Catalog Item No. 25a Tool

INSTRUCTIONS

TERMINATING INSTRUCTIONS FOR BNC CRIMP CONNECTOR

(Crimp-crimp or Crimp solder)



Strip cable jacket, braid, and dielectric to dimensions shown. Stripping dimensions: a. .34375": b. .09375": c. .15625". All cuts are to be sharp and square. Important: Do not nick braid, dielectric, and center conductor. Tinning of center conductor is not necessary if contact is to be crimped. For solder method, tin center conductor avoiding excessive heat. Slide outer ferrule onto cable as shown. Flare slightly end of cable braid as shown to facilitate insertion onto inner ferrule. Important: Do not comb out braid. Place contact on cable center conductor so that it butts against cable dielectric. Center conductor should be visible through inspection hole in contact. Crimp or solder the contact in place as follows:

Crimp method: Use Cavity B of die set.
Solder method: Soft solder contact to cable center conductor. Do not get any solder on outside surfaces of contact. Avoid excessive heat to prevent swelling of dielectric.

Install cable assembly into body assembly so that inner ferrule portion slides under braid. Push cable assembly forward until contact snaps into place in insulator. Slide outer ferrule over braid and up against connector body. Crimp outer ferrule using Cavity A of die set.

AC No. 089248 Catalog Item No. 21c Connector
AC No. 080865 Catalog Item No. 25b Tool