303-AND 305-TYPE CONNECTORS
ASSOCIATED CORDS AND PLUGS

1. GENERAL

1.01 This section describes the plugs, cords and test connectors used with the 303-and 305-type connectors.

1.02 When this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 Plugs, cords, and test connectors used on other than 303-and 305-type connectors are covered in Sections 201-206-102, 201-207-102, 201-208-102, and 201-216-102.

1.04 Test sets, jacks, and cords used on the 303-type connectors are also used on the 305-type connectors. The test connectors for the 303- and 305-type connectors are different.

2. CORDS AND TEST CONNECTORS

2.01 Table A lists the test connectors used with the 303- and 305-type connectors.

2.02 Table B lists the cords used with the 303- and 305-type connectors.

2.03 A KS-21386, L1 miniature plug adapter (Fig. 1) is available to utilize test cords which have a standard size end finish (464A plug) for use with miniature jacks. The W2FM, W4CJ, and W4CM cords can all be adapted to function as W2HA, W4CT, and W4CU cords, respectively, by using the KS-21386, L1 adapter. The adapter also allows frame personnel to plug headsets that are equipped with the 464A plugs into miniature jacks.

3. H, M, AND N TEST CONNECTORS AND C-4920 MULTIPLE PAIR TEST CONNECTORS

A. General

3.01 This part describes the H, M, and N test connectors and the Communications Technology Corporations C-4920 multiple pair test connectors (see Section 106-315-119) and covers their use in testing outside plant cable pairs terminated on 303- or 305-type connectors. The H test connector mounts on the test terminal field of the 303-type connector. The M and N test connectors mount on the test terminal field of the 305-type connectors. The C-4920 multiple pair test connector connects the test terminal field of the 303-type connector to automatic pair identification equipment.

B. Description

3.02 The H test connector (AT-8461) shown in Figure 2 is used with the 303-type connector. It contains 100 (50 pairs) spring loaded contacts which provide access to the recessed test terminals of the 303-type connector. The H test connector should not be inverted from one test terminal field to another. Both sets of pair numbering on the test connector have the same orientation.

3.03 The M test connector (AT-8823) shown in Figure 3 is used with the 305-type connector. The test connector consists of a plastic shell in which 200 (100 pairs) spring-loaded contacts are internally connected to two 50-pair, 15-foot long cables. Each of the cables terminates in two KS-19162, L4 (or equivalent) connectors for attachment to automatic pair identification equipment. The four connectors are numbered 1-25, 26-50, 51-75, and 76-100 to identify the respective cable pair count.

3.04 The N test connector (AT-8882) shown in Figure 4 is used with the 305-type connector. The test connector has the test field spikes at

right angles to the spring loaded contacts to facilitate testing due to the orientation of the 305-type connector mounting on the frame. The test connector is mounted to the connector test terminal field with captive thumbscrews. Connection is made to all 200 recessed gold-plated test terminals (100 pairs), providing a means of checking one cable pair at a time.

3.05 The C-4920 multiple pair test connector shown in Figure 5 consists of a plastic shell in which 100 gold-plated pins (50 pairs) are housed. These gold-plated pins are internally connected to a 50-pair test cord. The 15-foot test cord divides into two 25-pair branches which terminate in two KS-19162, L4 (or equivalent) connectors, for attachment to automatic pair identification equipment.

C. Use

Warning: All test connectors must be handled and used carefully to avoid damage and contamination to spring loaded contacts and/or test field spikes.

3.06 The H test connector and C-4920 multiple pair test connector are placed onto a 50-pair test terminal field of the 303-type connector. The test connectors are held in place by hooks over the rear of the connector panel. The M and H test connectors are placed onto the 100-pair test terminal field of the 305-type connector. These test connectors are held in place by captive thumbscrews.

3.07 The test connectors will not make contact with the test terminals on any special service pair that is protected and covered with a KS-19478 guard.

3.08 The test connector spikes of the H and N test connectors also accommodate the chuck-type connectors of the W2FH and W2FM cords (Figure 6 and Table B) for connection of outside plant or other test equipment.

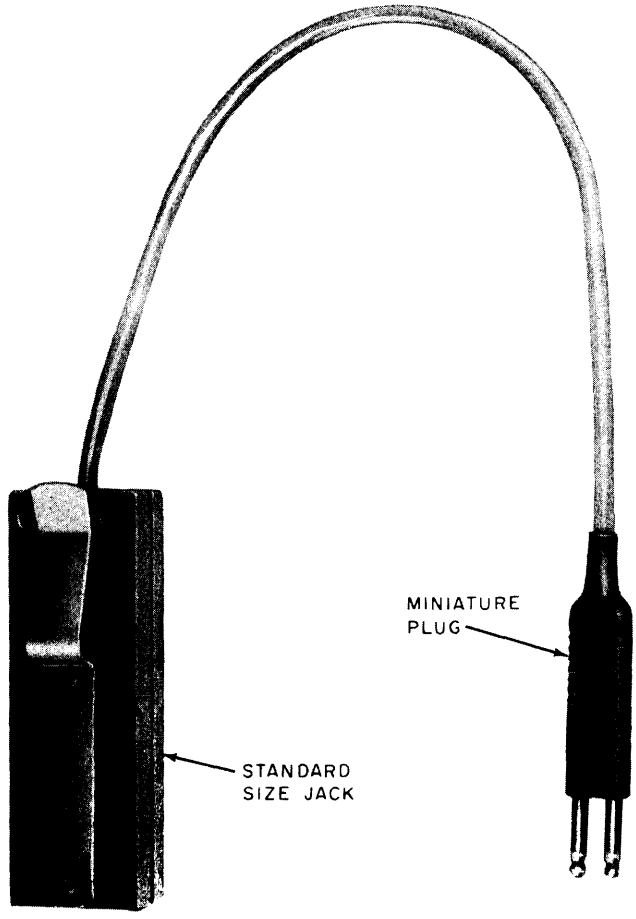
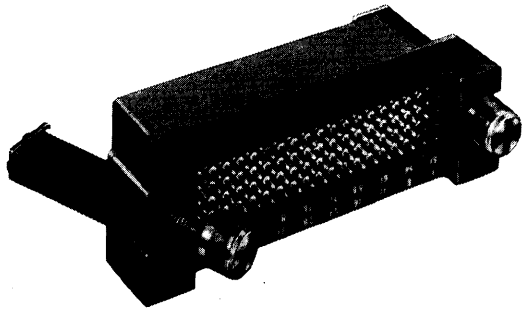
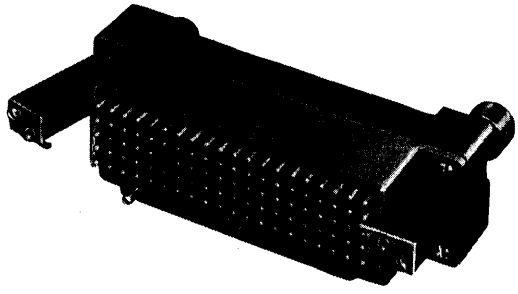


Fig. 1—KS-21386, L1 Miniature Plug Adapter



FRONT VIEW



REAR VIEW

Fig. 2—H Test Connector (AT-8461) (For 303-Type Connectors)

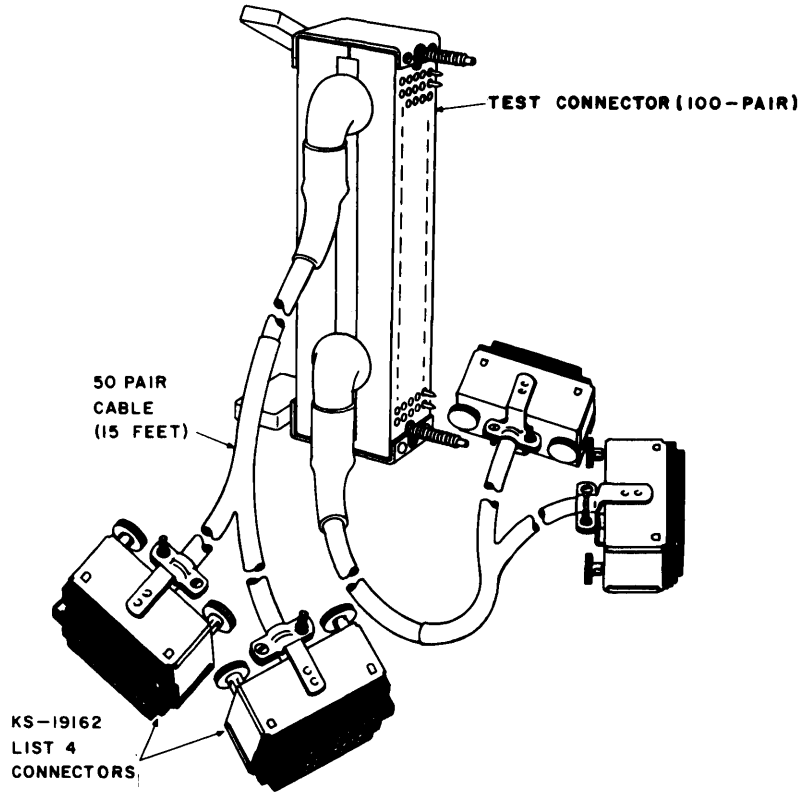


Fig. 3—M Test Connector (AT-8323) (For 305-Type Connector)

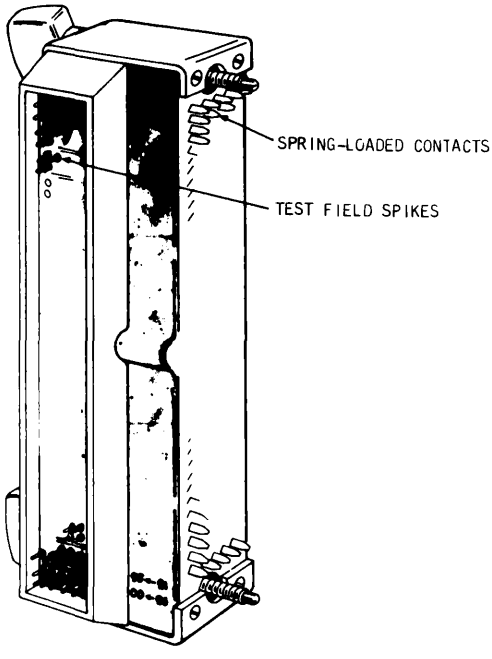


Fig. 4—N Test Connector (AT-8882) (For 305-Type Connector)

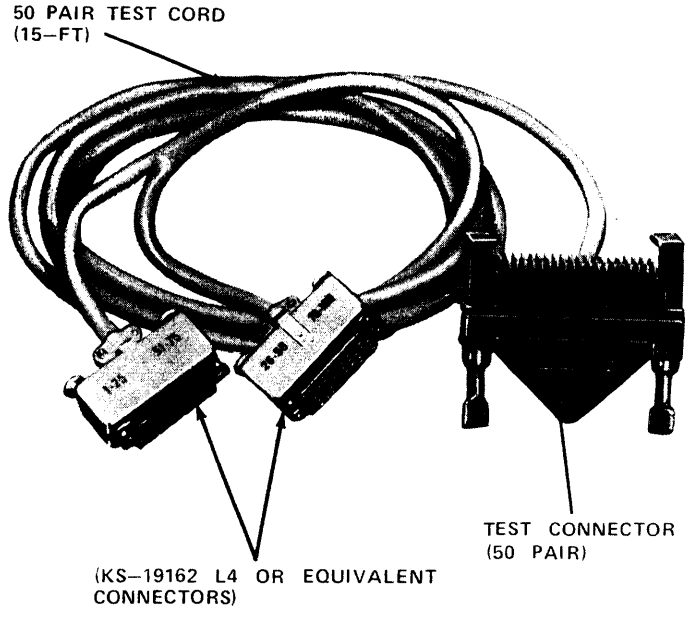


Fig. 5—C-4920 Multiple Pair Test Connector

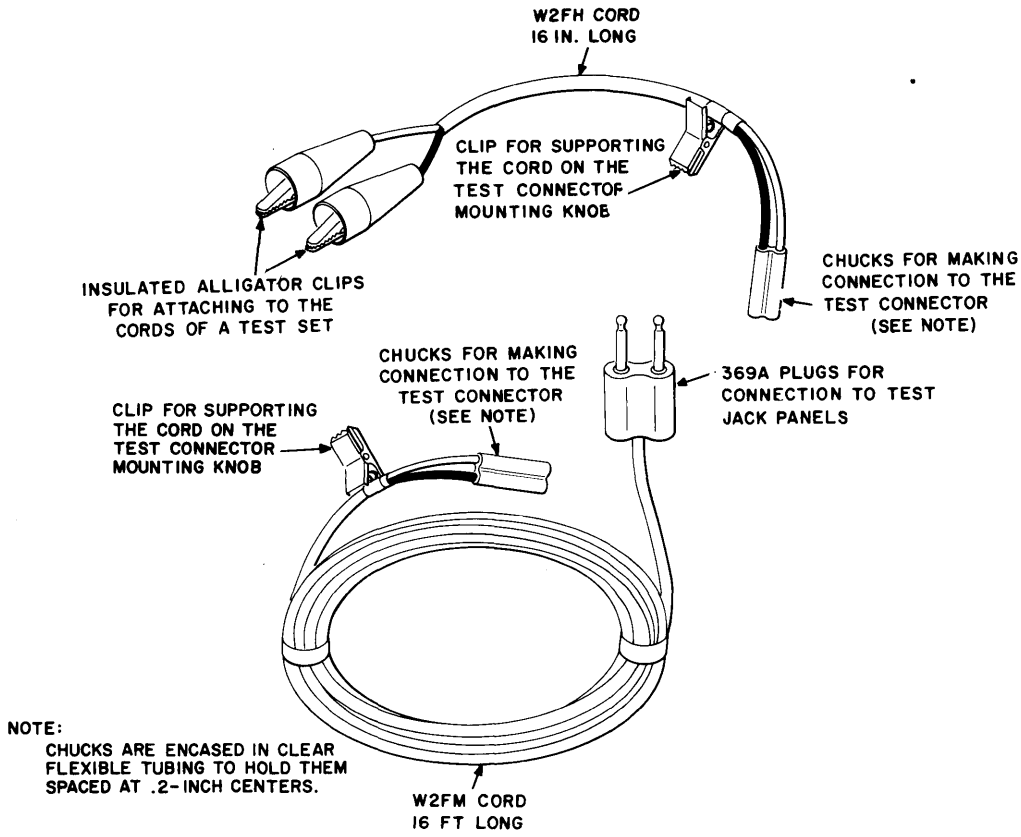


Fig. 6—W2FH and W2FM Cords

TABLE A

TEST CONNECTORS USED WITH 303- AND 305-TYPE CONNECTORS

TEST CONNECTOR	DESCRIPTION AND USE	ILLUSTRATION AND SCHEMATIC
H Test Connector	Used to provided access to all 50 test terminals on either one of the test terminal fields of 303-type connectors.	See Figure 2 and Paragraph 3.02
M Test Connector	Used with 305-type connectors for connecting the 100 pair test terminal field to automatic pair identification equipment.	See Figure 3 and Paragraph 3.03
N Test Connector	Used to provide access to all 100 test terminals on the test terminal field of the 305-type connectors.	See Figure 4 and Paragraph 3.04
C-4920 Multiple Pair Test Connector	Used with 303-type connectors to connect the test terminal fields to automatic pair identification equipment.	See Figure 5 and Paragraph 3.05

TABLE B

CORDS USED WITH 303- AND 305-TYPE CONNECTORS

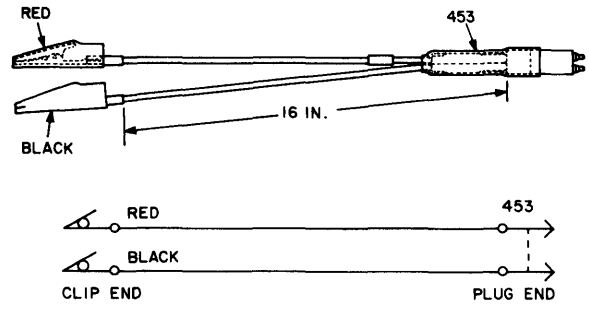
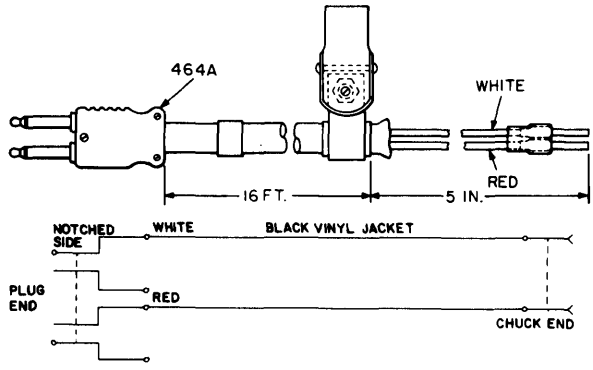
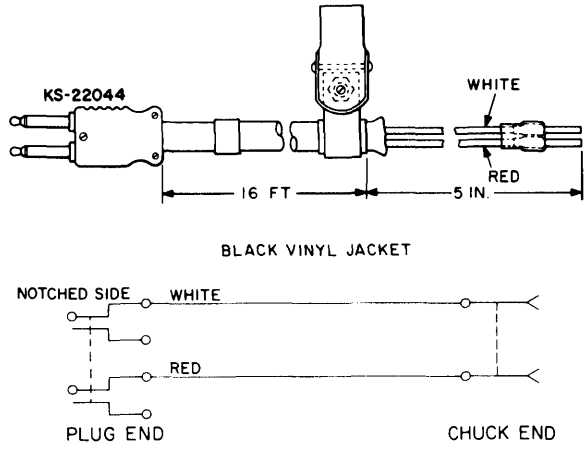
CORD	USE	ILLUSTRATION AND SCHEMATIC
P2EF	Used to short the tip and ring, or to ground the tip and/or ring, of an individual cable pair by inserting the plug end into a pair of recessed test terminals on the 303- or 305-type connector. ***CAUTION: Not to be used as an adapter for connecting longer cords.***	
W2FM	Used to bridge a cable pair from a 303- and 305-type connector (via the spiked terminals of an H or N test connector) to a test desk trunk through a frame mounted jack box. ***Note:*** Also see W2HA cord.	
W2HA	Bridging cord similar to W2FM and used with 303- and 305-type connectors but on frames equipped with Miniature Test/-Talk System equipment.	

TABLE B (Contd)

CORDS USED WITH 303- AND 305-TYPE CONNECTORS

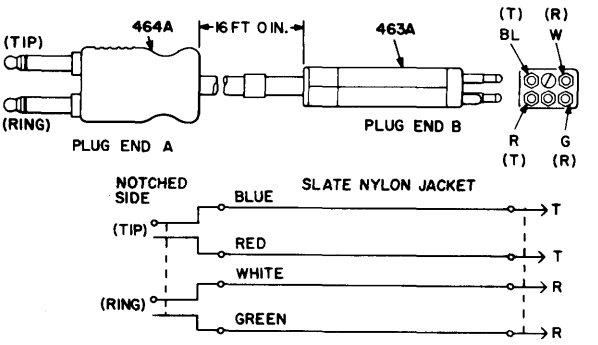
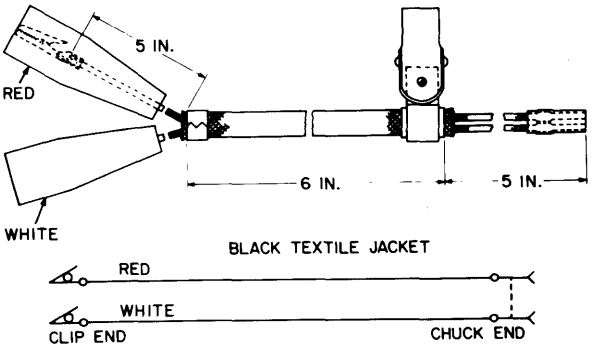
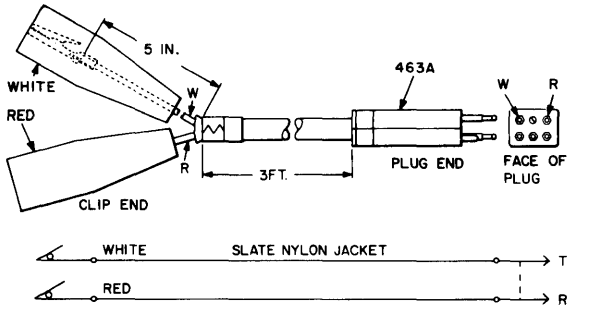
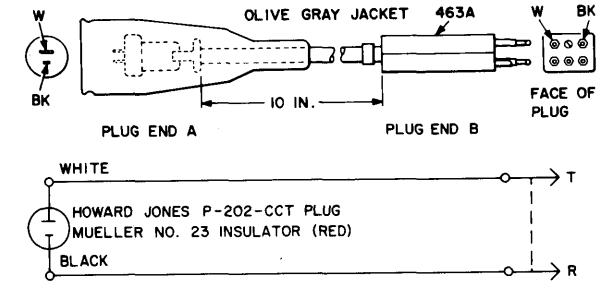
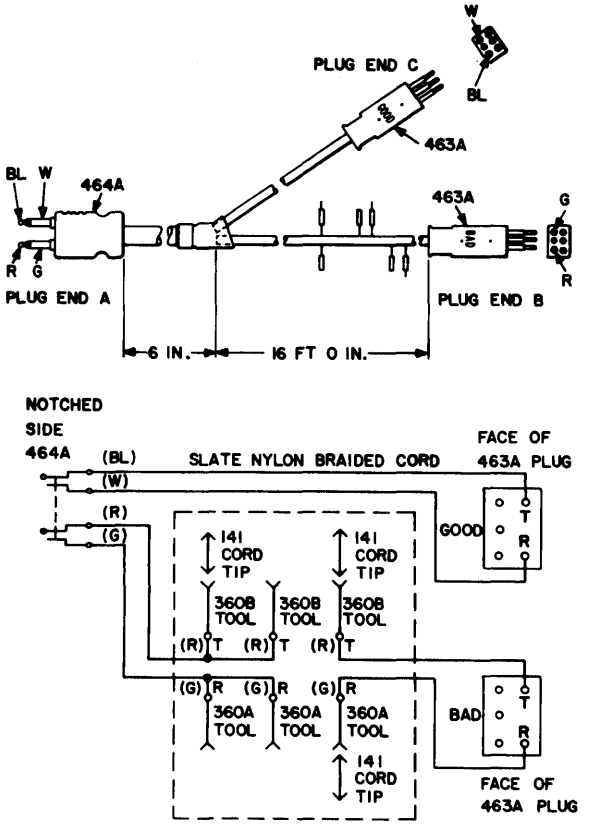
CORD	USE	ILLUSTRATION AND SCHEMATIC
W4CJ W4CT	Used for making In and Out Tests on 303-or 305-type connectors. Same as W4CJ with miniature KS-22044 plug. Used with frames equipped with Miniature Test/Talk System hardware (ED-6C110).	
W2FH	Used to connect an outside plant test set to a cable pair on the 303- and 305-type connectors (via the spiked terminals of the H or N test connector.	
W2GL	Used to make a connection with a cable pair at a vacant protector unit socket on a 303- or 305-type connector. Allows testing while the central office equipment is disconnected from the outside plant.	
W2GM	Used in series with a P2DB cord to connect a KS-14103 breakdown test set to a cable pair at a protector unit socket on a 303- or 305-type connector.	

TABLE B (Contd)

CORDS USED WITH 303- AND 305-TYPE CONNECTORS

CORD	USE	ILLUSTRATION AND SCHEMATIC
W4CM	Used in making manual and automatic Varley measurements on 303- and 305-type connectors.	
W4CU	Same as W4CM with miniature KS-22044 plug and used on frames equipped with Miniature Test/Talk System equipment.	