AMP of Great Britain Ltd

ASSEMBLY INSTRUCTIONS FOR AMP* CHAMP* SHIELDED CONNECTORS BACK TO BACK IEEE-488 KIT

IS. 1121	G.B.
Released	24.10.86
Revised	28.4.87

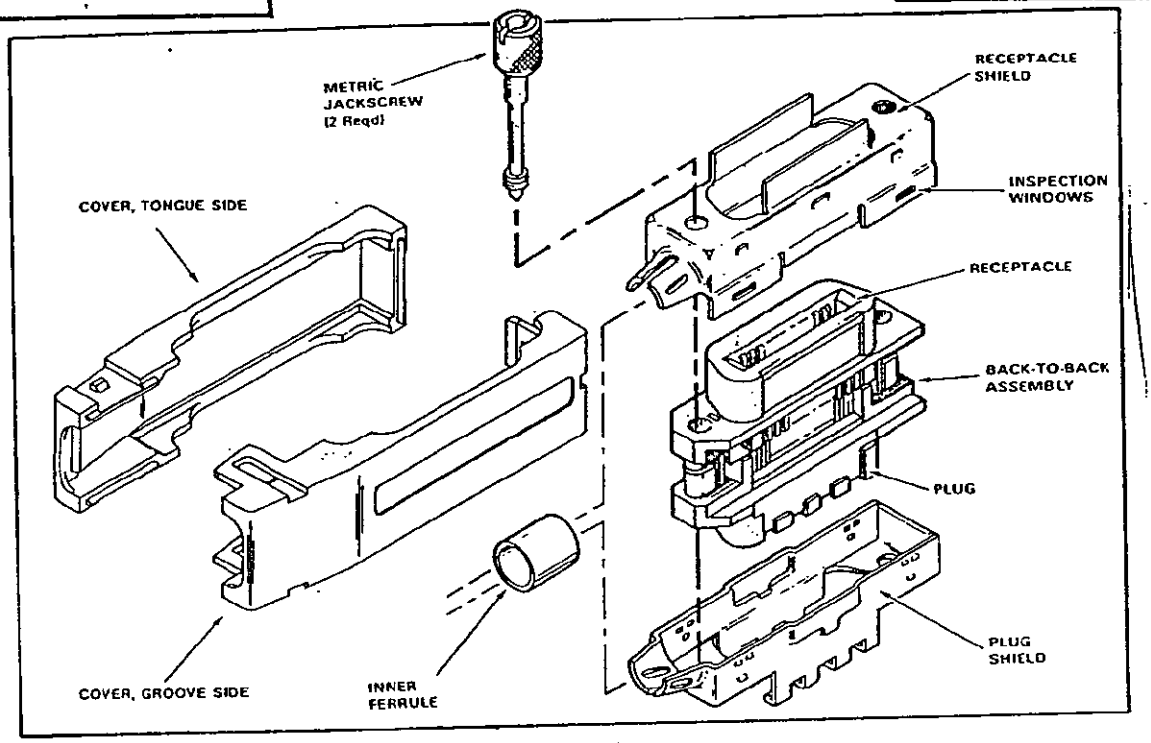

Fig 1

KIT COMPONENTS

ITEM NO.	DESCRIPTION	PART NO.	QTY	LENGTH PER ASSY
1	BACK TO BACK ASSY	554628-1	1	-
2	RECEPTACLE SHIELD	554621-1	1	-
3	PLUG SHIELD	554622-1	1	-
4	COVER, TNG SIDE	554829-1	1	-
5	COVER, GRV SIDE	554830-1	1	-
6	JACKSCREW, METRIC	553489-1	2	-
7	FERRULE, INNER	554725-3	1	-
8	TUBE, HEATSHRINK	18293-1	-	100mm
9	TUBE, HEATSHRINK	1-727022-1	-	32mm
10	CABLE	18445-1	-	As req'd

Cable has 23 PVC Insulated Copper Conductors plus Drain Wire - 6 pairs 26 AWG (7 x 34), 10 Single 26 AWG (7 x 34), 1 Single 24 AWG (7 x 32), 1 Drain Wire (Uninsulated)

NOTE: ALL DIMENSIONS IN MILLIMETRES

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1. INTRODUCTION

This Instruction Sheet (IS.1121 GB) covers the assembly of Shielded CHAMP Back-To-Back Components as shown in Figure 1. The 24-Position IEEE-488 Kit is used in the fabrication of the IEEE Interface Bus Cable Assembly.

READ THESE INSTRUCTIONS THOROUGHLY BEFORE STARTING ASSEMBLY

2. DESCRIPTION

The Shield Components shown in Figure 1 are designed to reduce problems of EMI/RFI (Electro-Magnetic Interference/ Radio Frequency Interference) at the interface of CHAMP Connectors.

Shielding accessories for the CHAMP Connector Kit consist of a back-to-back assembly, bright nickel plated outer shields with an inner ferrule, two metric Jackscrews and a two-part plastic outer cover with integral cable clamp. Shields also contain spring fingers at the cable exit for braid contact. The 24-position connector will accept a cable of 8,9mm (.350") nominal diameter.

After the CHAMP back-to-back connector is wired and assembled it must be tested.

3. ASSEMBLY PROCEDURE

Use only components from Figure 1.

The method used for the ferrule application is dependent on whether the ferrule fits over the outer jacket or the screening braid.

Follow the procedure as detailed in Section 'B' and Figure 3 if the cable jacket diameter is less than the inside diameter of the ferrule.

or

Follow the alternative procedure as detailed in Section 'C' and Figure 4 if the cable jacket diameter is greater than the inside diameter of the ferrule.

A. CABLE PREPARATION (BRAID SHIELD)

Strip the outer cable jacket 165mm from end of cable. (See Figure 2)

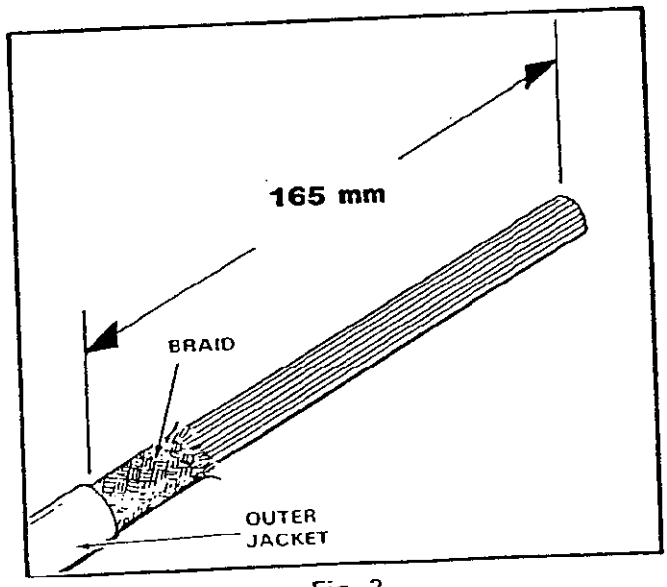

Fig. 2

B. FERRULE APPLICATION

1. Slide inner ferrule, Item 7, over outer cable jacket and stop flush with end. (See Figure 3)

2. Trim braid 25mm from end of outer jacket taking care not to damage or cut through the drain wire or conductor insulations. Fold cable braid over inner ferrule and outer jacket. Make sure braid is spread evenly around the circumference of the inner ferrule. Trim braid 3mm beyond inner ferrule and use heatshrink tubing, Item 9, to contain loose ends. Apply heat to tube until fully shrunk. CAUTION! Do not overheat heat heatshrink tube and avoid heat damaging other conductors.

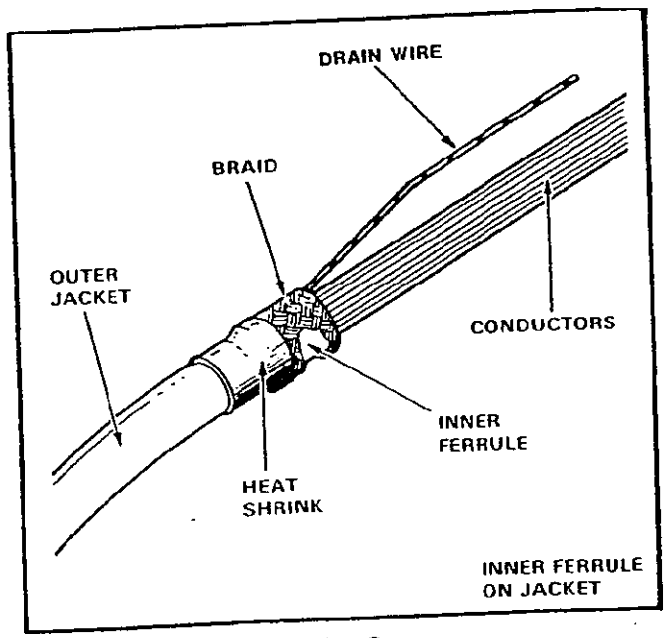

Fig. 3

C. ALTERNATIVE FERRULE APPLICATION

1. Slide inner ferrule, Item 7, over cable braid and butt up against end of outer jacket. (See Figure 4)

2. Trim braid 25mm from end of inner ferrule taking care not to damage or cut through the drain wire or conductor insulations. Fold cable braid over inner ferrule and outer cable jacket. Make sure the braid is spread evenly around the circumference of the inner ferrule. Trim the braid 3mm beyond the end of the inner ferrule and use heatshrink tubing, Item 9, to contain loose ends. Apply heat to tube until fully shrunk. CAUTION! Do not overheat heatshrink tube and avoid heat damaging other conductors.

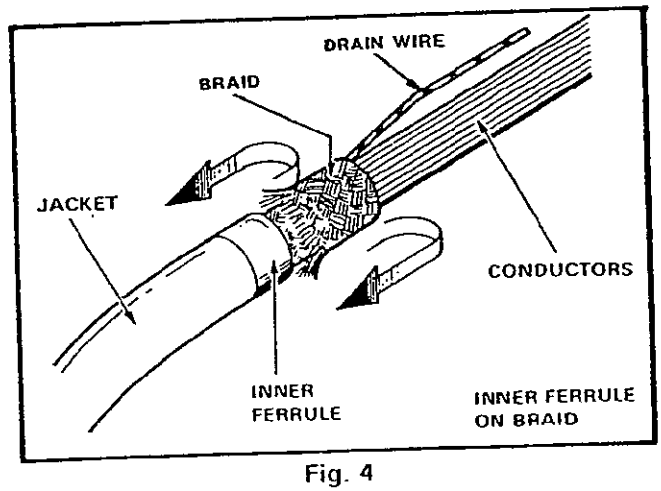

Fig. 4

D. DRAIN WIRE PREPARATION

Use small heatshrink tube, Item 8, to oversleeve bare drain wire. Slide heatshrink tube over wire up to ferrule. DO NOT APPLY HEAT!

E. CABLE TERMINATION

Remove Mylar Tape and trim back to ferrule. Verify that drain wire has not been cut.

Terminate cable conductors into receptacle side of assembly ensuring tube, Item 8, over drain wire, remains positioned up to the ferrule.

For wire insertion use AMP* CHAMPOMATOR* insertion machine, Series IEEE, Part No. 231646-1 and refer to Manual for instructions.

For further details refer to relevant assembly drawings.

NOTE *Be sure cable exists from chamfered side of connector (see Figure 5).*

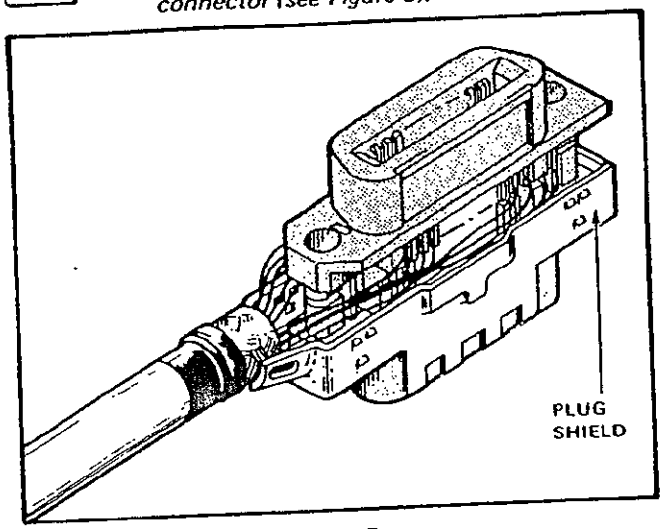

Fig. 5

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F. SHIELDING ASSEMBLY

1. Position plug shield over terminated assembly. Dress cable as required to ensure all wires are in shield and will not be pinched by receptacle shield. (See Figure 5)

2. Align receptacle shield over terminated assembly and plug shield. Locate spring fingers at cable exit at braid over inner ferrule. Snap shields together ensuring braid is in contact with spring fingers at cable outlet and no wires are pinched with shields. Locking tabs of plug shield should be visible through windows of receptacle shield. (See Figure 6)

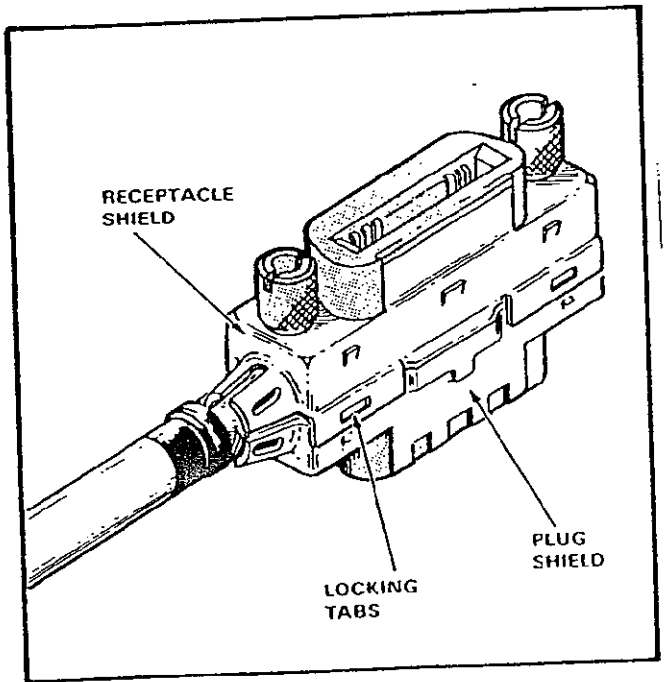

Fig. 6

3. Snap together the two halves of the outer cover, Items 4 and 5, over the shielding and cable assembly, ensuring that it is correctly positioned and the cable is well secured by the integral cable clamp.

4. Install the two metric jackscrews in the receptacle side threading through the plastic until the screws come through the plug side. Check if the jackscrews are 'captured' and free to rotate.

THIS COMPLETES THE ASSEMBLY FOR THE IEEE-488 BACK-TO-BACK SHIELDED CHAMP CONNECTOR.