

INSTALLATION INSTRUCTIONS FOR MP SERIES INCORPORATING CRIMP CONTACTS

PI 523

This publication contains information for proper crimping, insertion and removal of crimp contacts in MP Series Connectors, as well as applicable tool information.

SECTION I: INSTALLATION

1. Cleaning

Inserts, contacts and inside surfaces of shells must be kept free of oil, grease and dirt throughout the installation procedure. Use a clean cloth moistened with anhydrous, isopropyl alcohol.

2. Assemble Parts

Prior to any contact crimping operations, the back-shell and PG gland must be slipped on the wire bundle in proper sequence.

3. Cable and Wire Preparation

- Provide for sufficient wire slack to permit easy installation of the connector.
- Using Table 1 as a guide cut the wire to length and strip the insulation the appropriate distance from the end. Hot wire stripping methods are recommended wherever possible. If other methods are employed, use extreme care to avoid nicking or cutting wire strands.
- Check to be sure strands of wire are not separated. If necessary, reform by lightly twisting the strands together.

Table 1

Contact size	16	18
Strip insulation	5/16"	5/16"

4. Crimping

- Insert the stripped end of wire into the contact wire-well and apply slight pressure until it is positively bottomed. Visually check to assure that wire strands are visible in the inspection hole provided in the wire-well.
- Using proper information from Table 2, select crimping tool and preset the tool in accordance with instructions provided with the tool.



Figure 1: Good crimp – wires visible in inspection hole

- Using crimp tool M22520/1-01 with locator TH29-1, insert the contact and wire into the tool as far as possible, then close the tool handles. This tool has a built-in safety feature in that the handles cannot be reopened until the crimping cycle is completed. A complete and uniform and reliable crimp is insured. Visually inspect the crimp. Wires should be visible in the inspection hole. See Figure 1.

5. Installing Contacts

- Start in the centre of the connector and work clockwise towards the outer edges. For #16 use MP-INS-16 and for #18 use MP-INS-18. Pilot pins may be used to assist in the installation of socket contacts. See Figure 2. Pilot pins can be ordered with reference to the following part numbers: MP-GUIDE-16 for size 16 socket contact pilot pins; MP-GUIDE-18 for size 18 socket contact pilot pins. To assist in contact insertion, isopropyl alcohol may be applied to the pilot pins or pin contacts.



Figure 2: Pilot pins for assisting in installation of socket contacts

- Grip the contact at the shoulder nearest the mating end of the contact. The contact should be positioned against the shoulder undercut in the tips of the tool. See Figure 3. Insert the contact in the applicable contact hole in the rear of the insert, until the tips of the tool bottom against the insert.



Figure 3: MP-INS-16 Insertion Pliers for Size 16 contacts

INSTALLATION INSTRUCTIONS FOR MP SERIES INCORPORATING CRIMP CONTACTS

PI 523

- c) Remove and reposition the plier tips against the shoulder nearest the wire-well end of the contact. See Figure 4. Insert the contact to its “fully-seated” position.



Figure 4: MP-INS-16 Insertion Pliers for Size 16 contacts

Note: the two stage insertion method of size 16 contacts described above is recommended to avoid possible contact bending.

- d) Continue in like manner (depending upon method of insertion) to seat the remainder of the contacts. If the contact becomes separated from the insertion tool during operation, DO NOT PROBE in an attempt to reposition the tool on the contact. The contact should be removed and reinstalled in the prescribed manner.
- e) Personnel inserting contacts will normally “feel” the contact reach its fully seated position. Visually check the mating ends of the connector to be sure all contacts are properly inserted to the same depth.
- f) After installation and inspection of contacts has been completed, slide all rear accessories forward and tighten.

Note: Contacts should not be removed unless absolutely necessary, since continuous removal tends to reduce contact retention.

1. Removing Contacts for Replacement

- a) Loosen all rear accessories and unscrew them from the connector shell. Slide all parts back along the wires.
- b) Using MP-EXT-16/18 (Figure 5), be sure to use the correct contact removal tip with the tool as per Table 2. Working from the front face of the connector, position the tool tip on the contact and push the contact back through the insert and remove.

Note: When removing contacts always push in a straight line parallel to the contacts to avoid possible damage.

- c) To replace contacts, follow the procedure given in Section I, “Installation”.



Figure 5: MP-EXT-16/18 Removal Tool and Contact Removal Tips

Table 2

Contact #	Size/Type	TH29-1 Turret Position	Insertion Tool	Guide Pin	Extraction Tool *	Crimping Tool
MP-108400	#16 PIN	Blue	MP-INS-16	N/A	MP-EXT-16	M22520/1-01
MP-108300	#18 PIN	Blue	MP-INS-18	N/A	MP-EXT-18	M22520/1-01
MP-108600	#16 SKT	Green	MP-INS-16	MP-GUIDE-16	MP-EXT-16	M22520/1-01
MP-108500	#18 SKT	Green	MP-INS-18	MP-GUIDE-18	MP-EXT-18	M22520/1-01

* Refer to figure 5