

CONNECTOR ASSEMBLY INSTRUCTIONS

LPT Series



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Part 1: Contact Crimping Process

1.1 Stripping

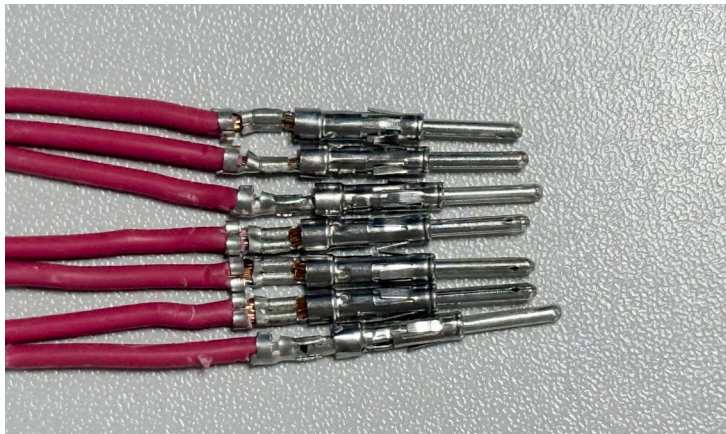


Figure 1-1

Choose the wire according the Contact Specification. Cutting wire to length and strip 4.5 ± 0.5 mm from the end. (Figure 1-1)

1.2 Contact Crimping

Use a crimping tool or machine to crimp the contact onto the wire, then check your work. Make sure the contact isn't bent or deformed and that the wire ends are visible through the inspection hole in the barrel (see Figures 1-2 and 1-3). Use Table I as a reference for the correct wire size and required tensile (pull) force.

The finished crimp must meet IPC-A-620 requirements.

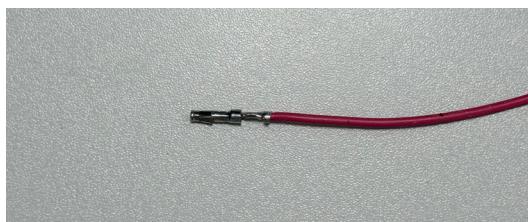


Figure 1-2

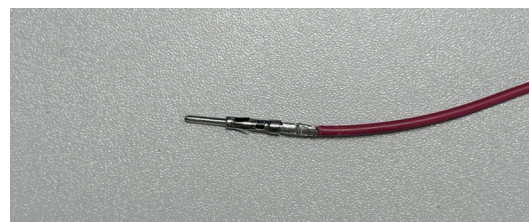


Figure 1-3

Wire		Tensile Fore	
AWG	mm ²	pounds	N
22	(0.324)	8	35.6
20	(0.519)	13	57.9
18	(0.823)	20	89
16	(1.31)	30	133.5
14	(2.08)	50	222.5
12	(3.31)	70	311.5

Table 1

Part 2: Receptacle Assembly

2.1 Contact Assembly

Insert the crimped contact to corresponding location, make sure the contact reach is in a fully seated position , visually check the mating ends of the connector to be sure all contacts are properly inserted to the same depth (a slight reverse pull 5~8N force to confirm contact correctly assembled).

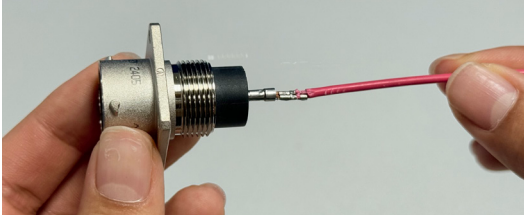


Figure 2-1

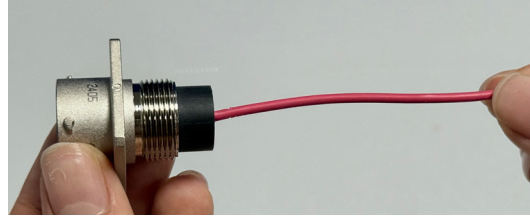


Figure 2-2

2.2 Assembly Locator

Insert locator with right position from front side of connector, push the locator to the bottom to fix the contact (Locator used for pin contact Receptacle/Plug).

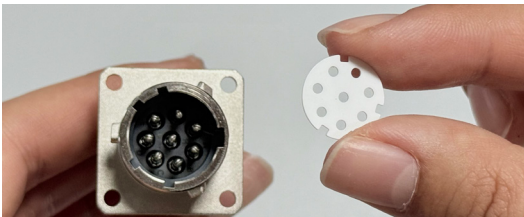


Figure 2-3

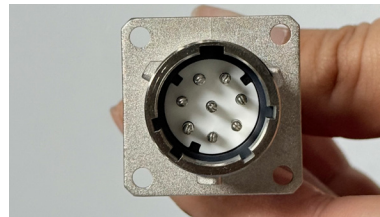


Figure 2-4

Note:

- a) If the contact was inserted into a wrong hole by mistake, do not pull it out forcibly. Take out the locator (if installed) first, and then use the corresponding pin withdrawal tool to remove the contact.
- b) When installing the socket to the panel, the diagonal screws should be pre-locked, all four screws should be pre-locked, and then locked according to the required torque.
- c) It is recommended that the mounting holes be blind. If the mounting holes are through, glue them after the screws are fixed.

Part 2: Receptacle Assembly (cont.)

2.3 Receptacle Assembly

2.3.1 Flange Type (LPT00/LPT02)

Prepare the Gasket (Separately to buy) and receptacle (Figure 2-5), put the gasket at back of receptacle (Figure 2-6).

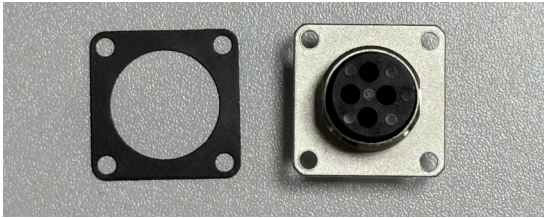


Figure 2-5

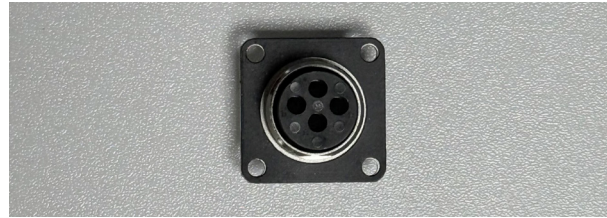


Figure 2-6

Put the receptacle at installation site (Figure 2-7), use M3 screw for size 8~22, and M3.5 screw for size 24. Receptacle locking torque recommend 4.8~6KG. CM (screw M3.0), size 24# locking torque recommend 7.5~9.2KG. CM (screw M3.5).

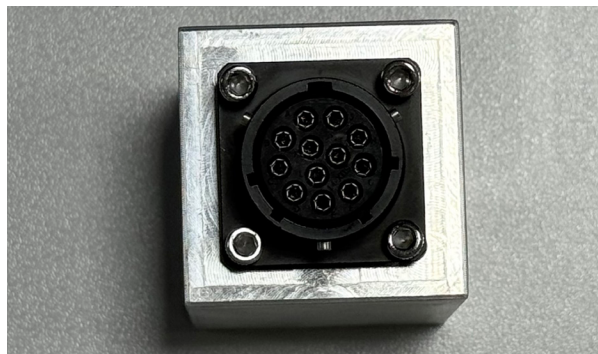


Figure 2-7

2.3.2 Jam Nut Type (LPT07)

Take off the Hex Nut from the receptacle, check the O-ring is at the shell (Figure 2-8), install the receptacle from back of the panel, and check the Notch of shell is align at the Notch of hole (Figure 2-9).

Part 2: Receptacle Assembly (cont.)



Figure 2-8

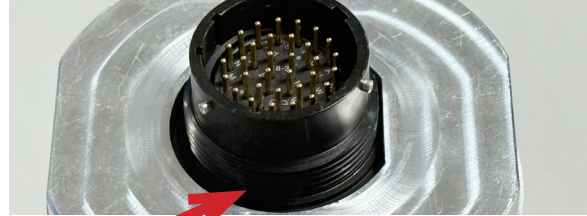


Figure 2-9

Lock the Hex Nut (Figure 2-10), Nut torque refer to Table II.

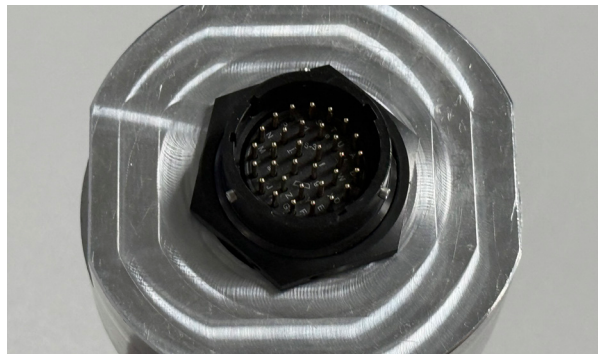


Figure 2-10

Receptacle Size	Nut Torque (KG.CM)	Receptacle Size	Nut Torque (KG.CM)
6	22.5~29.4	16	79~84.7
8	29.4~36.2	18	90~96
10	33.9~40.7	20	101.7~107
12	52~56.5	22	113~124
14	61~67.8	24	124~135.6

Table 2

Part 3: Plug Assembly

3.1 Contact Assembly

Prepare the wires first, refer to Contact Crimping Process. Install the Coupling nut with shell (Figure 3-1), grip the contact and get it penetrated through grommet (Figure 3-2). Insert at least 2 cables to fix the position for the remainder of the contacts (Figure 3-3).

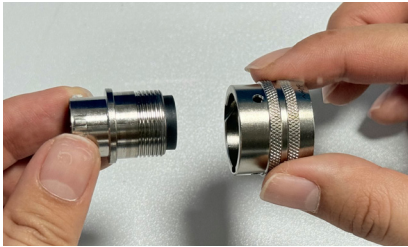


Figure 3-1

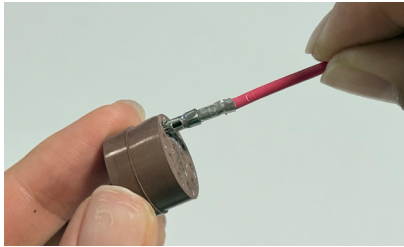


Figure 3-2

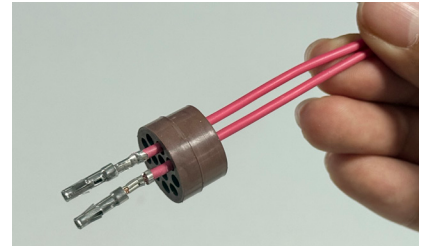


Figure 3-3

Personnel inserting contacts will normally “feel” the contact reach its fully seated position. Push grommet rests against the insulator face.

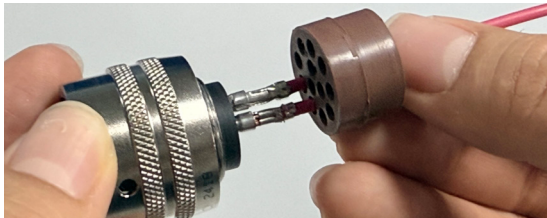


Figure 3-4

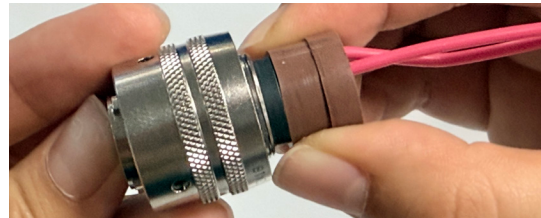


Figure 3-5

Continue in like manner to seat the remainder of the contact. Make sure grommet against the insulator face after contacts fully inserted.



Figure 3-6



Figure 3-7

Part 3: Plug Assembly (cont.)

3.2 Plug Assembly

Assemble sleeve and O-ring in turn with nut, get the nut thought wire. For long wire (length of wire >300mm) assembly , bring forward this step to Figure 3-8, assembly sleeve O-ring, nut firstly, before contact assembly.

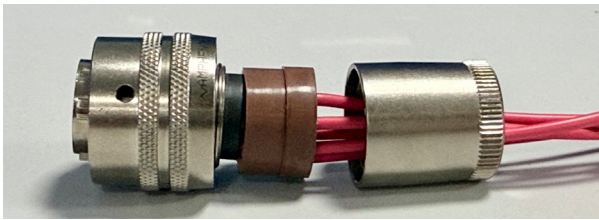


Figure 3-8

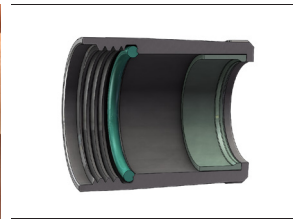


Figure 3-9

Fix plug with receptacle and tighten to recommended torque:

(16~25KG-CM) Figure 3-10 nut to plug shell , slide all rear accessories forward and tighten, make sure grommet against insert for water proof. Insert locator with right position from front side of connector, push the locator to the bottom to fix the contact (Locator used for pin contact Plug).



Figure 3-10



Figure 3-11

Part 4: Strain Relief Clamp (SR) Assembly

4.1 Contact Assembly

Assemble O-ring, sleeve and Grommet in turn into nut (Figure 4-1), then feed the wire through the Strain relief clamp; For longer wires (length of wire >300mm), bring forward this step to Figure 4-2, assembly sleeve/O-ring, nut firstly, before contact assembly.

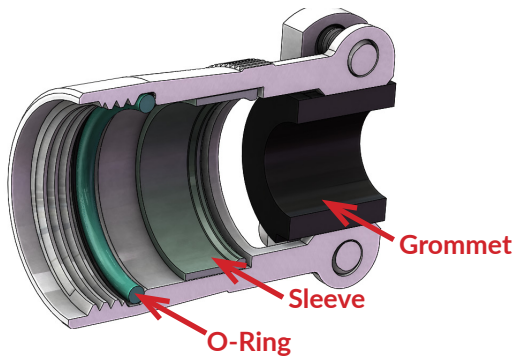


Figure 4-1



Figure 4-2

Take a receptacle or fixture, mating the plug with receptacle or fixture Figure 4-3, Tighten the back shell onto the shell (refer to tightening torque: 16~25KG·CM, Figure 4-3), and finish. (Standard tail parts according to the end) For the screws with strain relief Figure 4-4, the reference locking force of the screw is 10~20KG·CM.

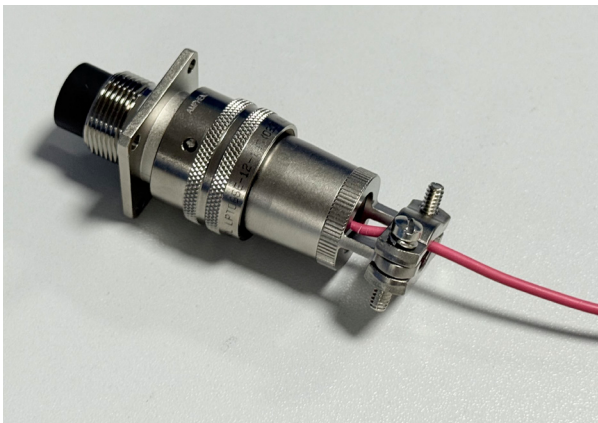


Figure 4-3

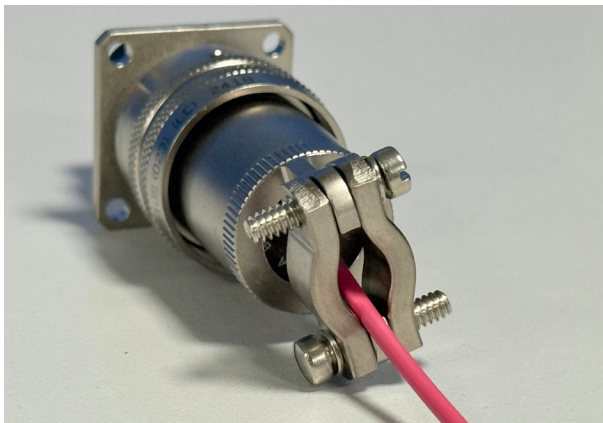


Figure 4-4

Part 5: Manual Crimp Tool

TOOL738767-1616 and TOOL738767-1212



Part 6: Removal Tools

6.1 Choose Tools

TOOL-738651-020 use for 20# contacts(C10-738774-20, C10-738775-20 & C10-780111-20)

TOOL-738651-016 use for 16# contacts(C10-780108-16, C10-780107-16, C10-731537-16, C10-731535-16, C10-731538-20 & C10-731536-20)

TOOL-738651-012 use for 12# contacts(C10-780110-12, C10-780109-12, C10-737341-12 & C10-737343-12)



6.2 Contact Removal

Insert the head of removal tool into the insert holes first like Figure 6-1.
Then one hand hold the connector, the other hand hold the tool like Figure 6-2.

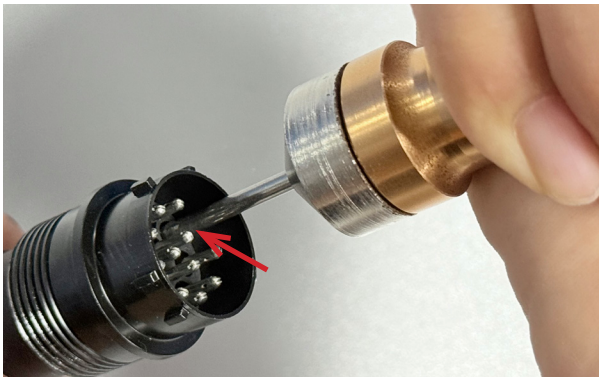


Figure 6-1



Figure 6-2

Part 6: Removal Tools (cont.)

Push the end of Tool like Figure 6-3, the contact will remove from the insert. Figure 6-4.

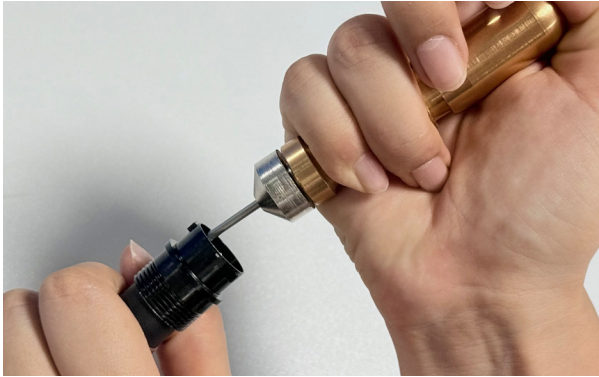


Figure 6-3

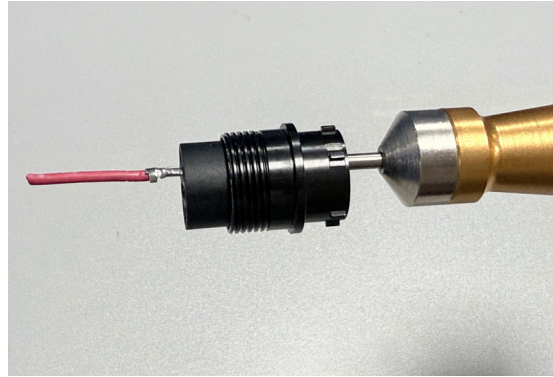


Figure 6-4

Finally, pull out the contact. Figure 6-5.



Figure 6-5