

Economy Power (EP) 2.5 Wire-to-Wire and Wire-to Board Connectors





Note: All figures show single-row connectors and TPA; instruction also applies to dual-row connectors and TPA.

CONNECTOR				ТРА		CONTACT		
Туре	Function	Rows		Rows		Туре		Wire Size
		Single	Dual	Single	Dual	Socket	Pin	(AWG)
Plug Housing	Free Hanging	1969442-[]	1969540-[]	1969443-[]	1969541-[]	0440000 4	000007.4	
Receptacle Housing	Free Hanging	1969588-[]	1969592-[]			2110989-1	2238007-1	26-22
	Panel Mount	1969590-[]	1969594-[]			1744423-1	2238008-1	24-20
Header	PC Board Mount	2132230-[]	1969543-[]	_	_			
		2132415-[]	1969582-[]			_	_	_
		1744426-[]	1969572-[]					

Figure 1

This instruction sheet covers connector assembly and disassembly, pc board mounting, panel mounting, and removal. Connector, TPA, and contact part numbers are given in Figure 1. The TPA is optional.

Reasons for re-issue of this instruction sheet are provided in Section 4, REVISION SUMMARY.

1. ASSEMBLY

1.1. Insert Contacts into Housing

- 1. Ensure that the contact is properly terminated to the wire according to application specification 114-13315.
- 2. Insert the terminated contact into the housing as follows:
 - a. Grasp the contact directly behind the insulation barrel, and align the contact with housing contact cavity from the wire end of the housing so that the locking lance is aligned with the locking ramp. See Figure 2, Detail A. Make sure that the contact is perpendicular (not at an angle) to the contact cavity. See Figure 2, Detail B.



CAUTION

Never insert the contact upside down; otherwise, the locking lance could depress and cause it to not latch properly onto the locking ramp of the contact cavity.

- b. Push the contact straight, and not rotated, into the contact cavity. If it is rotated, damage to the contact will occur or the contact will not latch properly onto the locking ramp. See Figure 2, Detail B. Do not force the contact into the housing.
- c. Ensure that the contact locking lance latches onto the locking ramp. The locking lance can be viewed through the window of the locking ramp. See Figure 2, Detail A.

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Figure 2

- 3. If using, install the TPA onto the housing as follows:
 - a. Align the TPA with the wire end of the housing so that each position faces a contact cavity and is on top of the wires. See Figure 3, Detail A.
 - b. Slide the TPA into the housing so that the positions enter the contact cavities evenly and until the locking latch(es) locks onto the nub(s) of the housing. There will be an audible and tactile "click". See Figure 3, Detail B.



NOTE

The TPA for single row housings with more than 5 positions have more than one locking latch and the housings have more than one nub; and the TPA with 5 positions or less have one locking latch and the housings have one nub, which is located under the housing locking latch. The TPA for dual row housings have two locking latches and the housings have two nubs.





4. Lightly pull the TPA back to ensure retention.

1.2. Mount Header onto PC Board

- 1. Ensure that the pc board meets the requirements given in 114-13315.
- 2. Align the header solder tines with the applicable holes in the pc board, start insertion of all solder tines into the pc board, then press the header until it is seated on the pc board.



CAUTION

To prevent deformation or other damage to the solder tines, handle the header by the housing.

3. Solder the header to the pc board according to the requirements given in 114-13315.

1.3. Panel Mounting

- 1. Ensure that the panel meets the requirements given in 114-13315.
- 2. From the back of the panel, align the mating face of the connector with the cutout, then push the connector through the panel until the panel latches snap into place and secure the connector to the panel. See Figure 4.



Figure 4

1.4. Mating

Align the mating face of the connectors so that the mating latch and locking ramp align, then push the connectors together until the mating latch fully engages the locking ramp. See Figure 5.



Figure 5



2. DISASSEMBLY

2.1. Unmating

Push the handle of the connector mating latch (shown in Figure 5) toward the connector until the latch releases from the connector locking ramp, then pull the connector straight from the mated connector.

2.2. Removal from Panel

Simultaneously squeeze the panel latches of the connector (shown in Figure 4) until they clear the panel cutout, then push the connector straight through the back of the panel. Refer to Figure 4.

2.3. Removal from PC Board

Remove the header from the pc board using standard de-soldering methods.

2.4. Extracting Contacts

NOTE

- 1. Remove the TPA from the housing by releasing the locking latch(es) from the nub(s) of the housing and pulling the TPA straight from the housing. No contact can be extracted until the TPA is removed.
- 2. Extract the contacts using extraction tool 2161958-1 according to instruction sheet 408-32061 (packaged with the tool).



Do not re-insert any extracted contacts.

3. REPLACEMENT AND REPAIR

Do not use defective or damaged products. Connectors, contacts, and TPAs are not repairable.

Do not re-use a contact by removing the wire.

Do not re-insert any contact after extracting it from the housing.

4. REVISION SUMMARY

Revisions to this instruction sheet include:

• Changed NOTE in Paragraph 1.1, step 3,b, and changed 5 positions to 10 positions in Figure 3