AMP

DLI CONNECTORS
INSTRACTION MANUAL

Drawn Per EC FJ00–1980–99

DLI CONNECTORS INSTRUCTION MANUAL

1. Description of DLI Connectors

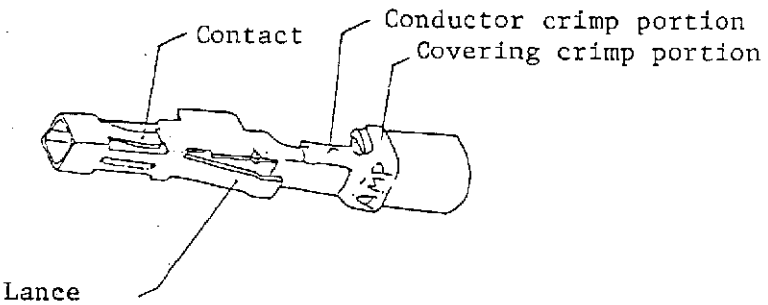
DLI connectors have been developed for connecting wires to printed circuit boards of automotive electronic devices being increasingly miniaturized and densified. They are available in two types - horizontal connection type and vertical connection type - according to the leading direction of wires.

The PCB terminal arrangement is two rows spaced 4 mm for the horizontal connection type and 4.6 mm for the vertical connection type. The terminal spacing in each row is 3 mm.

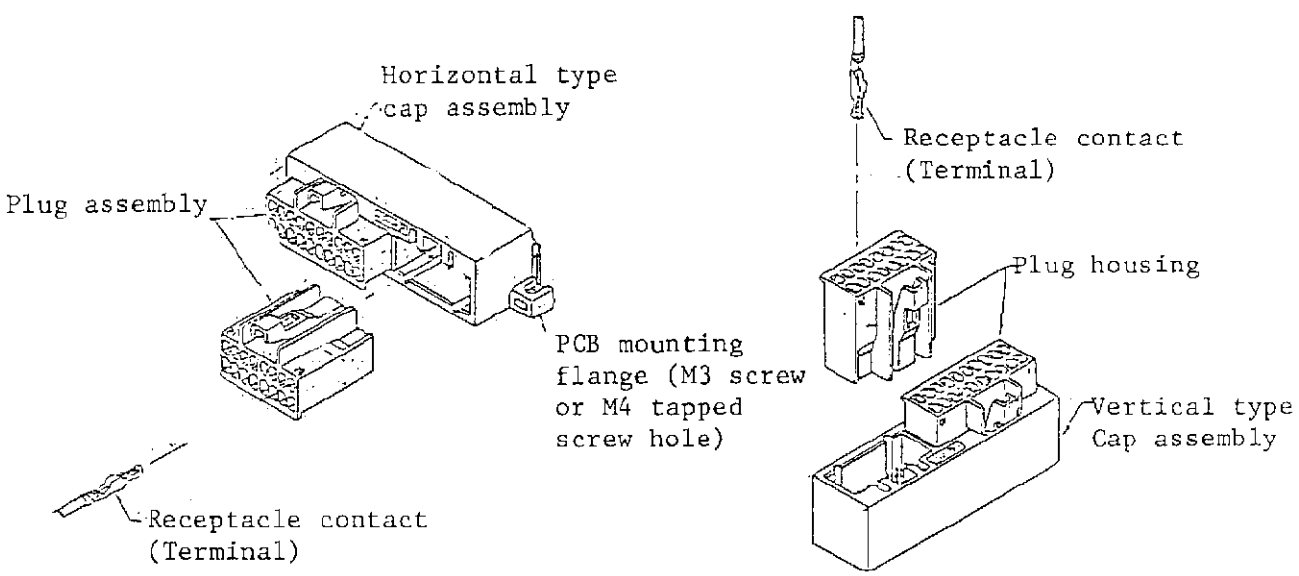
1.1 Applicable connector numbers

Number of Terminals	Name	Connector Number		Plating
		Horizontal Type	Vertical Type	
〃	Receptacle contact	170291-1		Tin
〃	Receptacle contact	170291-3		Gold
36(20+16)	Cap assembly	172023-2	172255-2	Tin
36(20+16)	Cap assembly	1-172023-2	〃	Gold
28(16+12)	Cap assembly	172241-2	172256-2	Tin
28(16+12)	Cap assembly	1-172241-2	〃	Gold
20	Cap assembly	172143-2	172257-2	Tin
20	Cap assembly	1-172143-2	〃	Gold
16	Cap assembly	172242-2	172258-2	Tin
16	Cap assembly	1-172242-2	〃	Gold
12	Cap assembly	172243-2	172259-2	Tin
12	Cap assembly	1-172243-2	〃	Gold
8	Cap assembly	172244-2	172260-2	Tin
8	Cap assembly	172244-3	〃	Gold
20	Plug housing	172047-2		〃
16	Plug housing	172021-2		〃
12	Plug housing	172245-2		〃
8	Plug housing	172246-2		〃

1.2 Names of parts



Receptacle Contact



2. Crimping Operation

Crimping should be made by the tools and in the methods specified by AMP. For the details, refer to the applicable standards listed at the end of the manual.

Management of Crimped In-Process Works

(1) Store the works in a dry, clean place. Must not expose the works when they are being stored extending to the next day.

(2) To bundle works, one bundle must not exceed 100 works.

(3) Don't stack many works directly one upon the other. Otherwise, the projections may stick to each other and the terminals may be deformed by weight, causing poor contact and other defects.

(4) If works are twisted together, don't try to separate them forcibly but disentangle them carefully.

3. Harness Assembly Operation

3.1 Inserting wires into housings

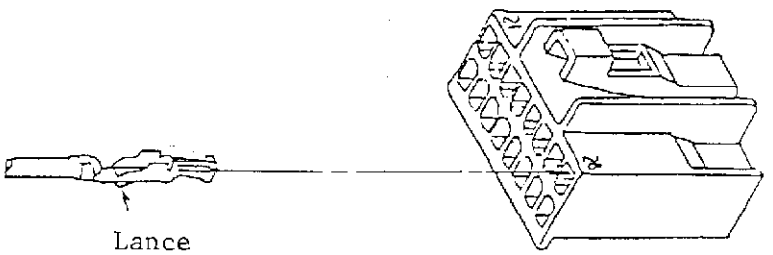
(1) Confirm the circuits being connected prior to inserting crimped terminals into plug housings.

(2) Insert each terminal so that the lance faces the opposite terminal of the other row.

(3) Be sure that the inserted terminal is locked positively. (The terminal snaps when it is locked. Enforce to check the inserted terminal if locked, by lightly pulling the terminal toward you.)

(4) In insertion, ensure that the poorly crimped terminals are not included.

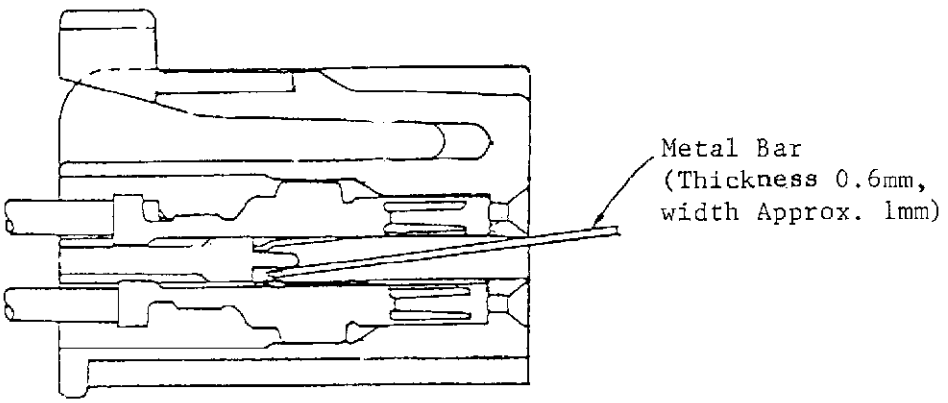
(5) Follow the next Para. 3.2 if the terminal once inserted is being removed for re-insertion.



3.2 Removing method of terminals

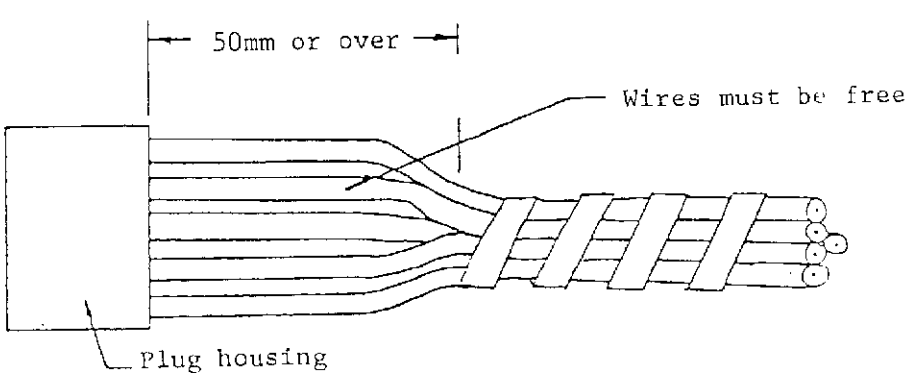
Use the special tool and comply with the instruction manual of the tool for removing a terminal inserted into the housing by mistake.

If the special terminal extracting tool is not available, use a metal bar with a thickness of approx. 0.6 mm and a with of approx. 1 mm (with the tip chamfered for easy insertion into the housing and protection of the terminal from scratching). Hold the wire of the terminal being removed and push it inwards. Introduce the metal bar between the lance of the terminal and the housing as illustrated, and pull the wire. If it is hard to remove the terminal, don't pull the wire forcibly but follow the steps again from the beginning. Open the folded lance by the tip of a watch repair screwdriver or the like before re-inserting the removed terminal. Don't re-use the terminal if deformed.



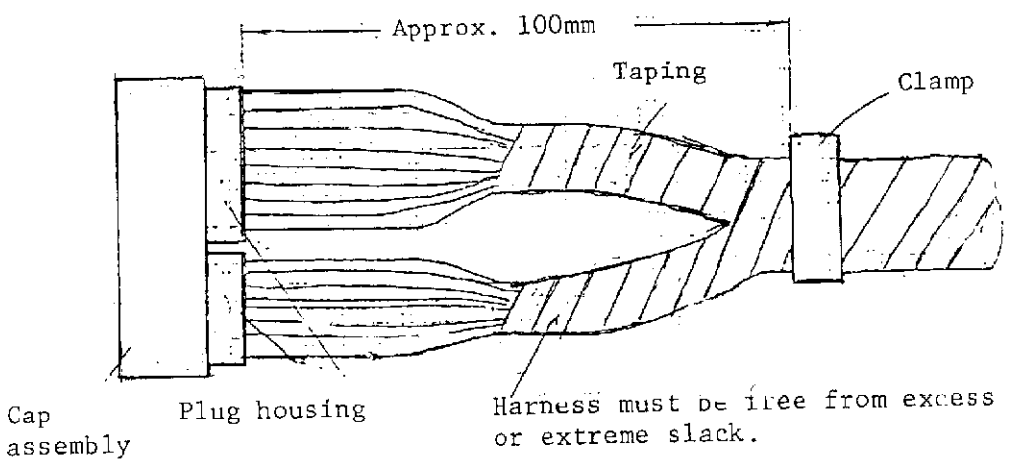
3.3 Taping (Bundling)

Don't bundle or bend 90° the wires connected to the housing at a point close to the housing. Otherwise, excess strains are applied to the terminals in the housing, causing poor fitting. Bundle or bend the wires at a point somewhat apart from the housing as illustrated below.



4. Clamping Harnesses

It is desirable to clamp the harness to the same vibrating surface as that of the connector as illustrated below for preventing heavy vibration or shocks from working on the connector, when the connector is located in a place of heavy vibration.



5. Reference Standard and Instruction Manuals

(1) 108-5124 : "Product Specification of DLI Connectors"

(2) 114-5045 : "Crimping Conditions of DLI Connector, Receptacle Contacts"

(3) IS-137J : "DLI Connector and Receptacle Contact Manual Tools Operation Manual"

(4) IS-175J : "Contact Extractor for DLI Connectors Operation Manual"