AMP INCORPORATED
HARRISBURG PA U.S.A

AMP★ MODIFIED FORK CONNECTORS WITH SOLDER TYPE CONTACTS

IS 7565
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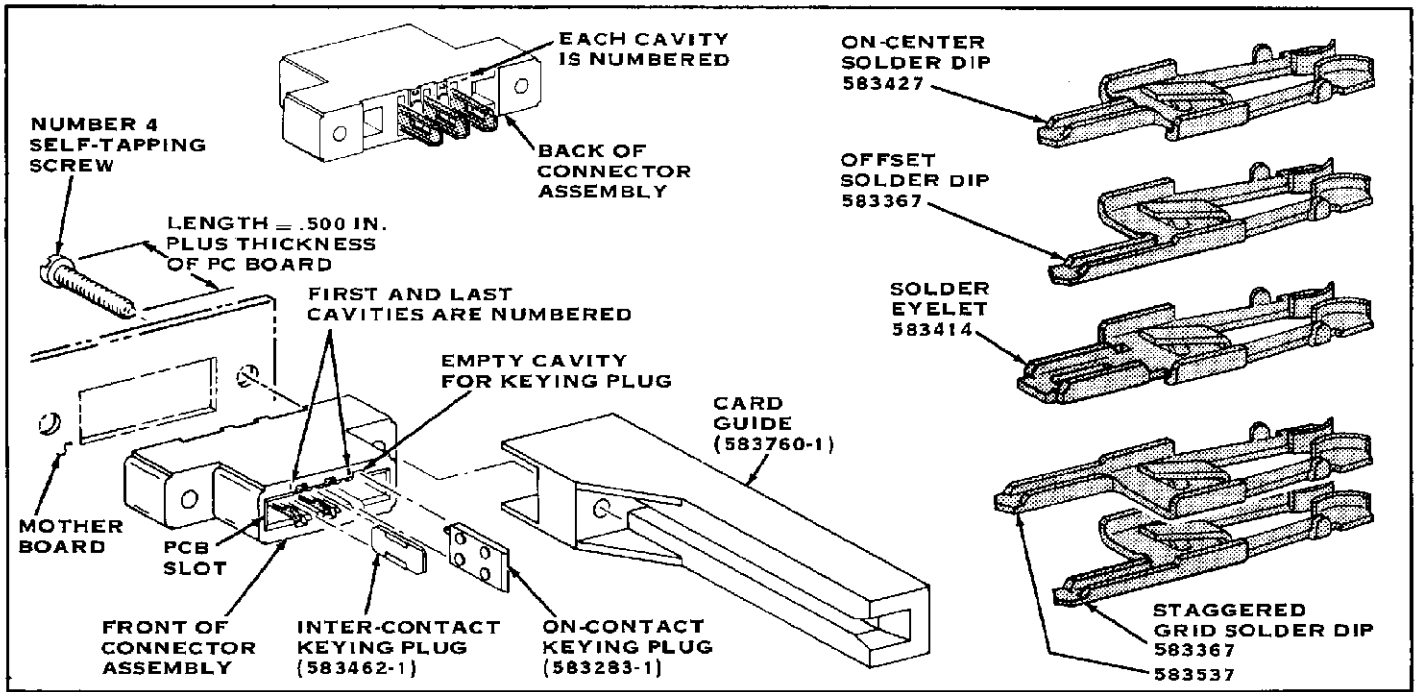
REVISED



CTR LINE OF CAV	NO. OF POSN	CONT CONFIGURATION – CONN ASSY				CTR LINE OF CAV	NO. OF POSN	CONT CONFIGURATION – CONN ASSY			
		ON-CENTER SOLDER DIP	OFFSET SOLDER DIP	STAGGERED GRID SOLDER DIP	SOLDER EYELET			ON-CENTER SOLDER DIP	OFFSET SOLDER DIP	STAGGERED GRID SOLDER DIP	SOLDER EYELET
.156	3	583347-1 583347-2	583792-1 583792-2	583793-1 583793-2	583413-2 583413-1	.156	15	583355-1 583355-2	1-583792-3 1-583793-4	583793-9 583386-2	583419-2 583419-1
	6	583351-1 583351-2	583792-3 583792-4	583793-3 583366-2	583415-2 583415-1		18	583356-1 583356-2	1-583792-5 1-583792-6	1-583793-0 583365-2	583420-2 583420-1
	7	583794-1 583794-2	583792-5 583792-6	583793-4 583543-2	583794-3 583794-4		22	583357-1 583357-2	1-583792-7 1-583792-8	1-583793-1 583467-2	583421-2 583421-1
	9	583352-1 583352-2	583792-7 583792-8	583793-5 583582-2	583416-2 583416-1		24	583358-1 583358-2	1-583792-9 2-583792-0	1-583793-2 1-583793-3	583422-2 583422-1
	10	583353-1 583353-2	583792-9 1-583792-0	583793-6 583387-3	583417-2 583417-1		33	583359-1 583359-2	2-583792-1 2-583792-2	1-583793-4 1-583793-5	583423-2 583423-1
	12	583354-1 583354-2	1-583792-1 1-583792-2	583793-7 583793-8	583418-2 583418-1						

FIGURE 1

1. INTRODUCTION

These instructions cover AMP Modified Fork Housings that are pre-loaded with solder type contacts. A typical connector assembly with accessories is shown in Figure 1.

Read these instructions, and those referenced for specific procedures, before starting.

NOTE

All dimensions presented on this instruction sheet are in inches, unless otherwise stated.

2. DESCRIPTION

Connector assemblies are available with 3 through 33 contact positions on .156-in. centers, and in four different contact configurations (see chart in Figure 1). The first and last contact cavities are number coded on the FRONT, and each individual cavity is number coded on the BACK, as indicated in Figure 1.

Connector assemblies are designed for mother/daughter printed circuit board (pcb) applications, conforming to the dimensions shown in Figure 3.

Assemblies with on-center, offset, and staggered grid solder dip contacts are designed to be mounted and soldered directly to the mother board. Solder eyelet assemblies are designed to have individual wire leads soldered to the contacts.

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3. CONNECTOR ASSEMBLY

Selection — Determine the specific requirements, then refer to the chart in Figure 1, and select the applicable connector assembly according to the number of contact positions, and contact configuration.

Extraction/Insertion — Although the assembly is pre-loaded, situations may arise when extraction of damaged contacts, and insertion of new contacts or keying plugs may be necessary. The applicable part numbers are referenced in Figure 1.

NOTE *The assembly must be removed from the mother board before extracting and inserting contacts.*

The AMP Extraction Tool 91037-2 is designed to extract contacts from the assemblies. Read the AMP Instruction Sheet IS 7337 packaged with the tool for the proper extraction procedures.

An insertion tool is not required for inserting contacts into these assemblies. To insert a contact, align it with the BACK of the applicable contact cavity, and push the contact straight in until it bottoms. Pull back lightly to be sure the contact is locked in the cavity.

NOTE *Staggered grid contacts must be oriented so that the locking lance is facing the number one position cavity before insertion.*

4. KEYING PLUGS

The assembly can be keyed with inter-contact or on-contact keying plugs. Inter-contact keying plugs are designed to fit in the slots between the contact cavities, and on-contact keying plugs are designed to fit into an empty contact cavity (see Figure 1). Read the AMP Instruction Sheets IS 7436, and IS 7338 respectively, packaged with these keying plugs for the proper insertion and extraction procedures.

A slot must be cut between the circuit pads on the daughter board to accept the inter-contact keying plug, and on the circuit pad area to accept the on-contact keying plug. See Figure 2.

5. CARD GUIDES

Card guides are designed to guide and stabilize the daughter boards. Secure the card guides to the connector assembly and mother board with No. 4 self-tapping screws (see Figure 1).

The use of card guides will necessitate the use of a daughter board that is wider than the pcb slot. A notch providing a minimum engagement depth of .330 in. must be cut into the daughter board (see Figure 2).

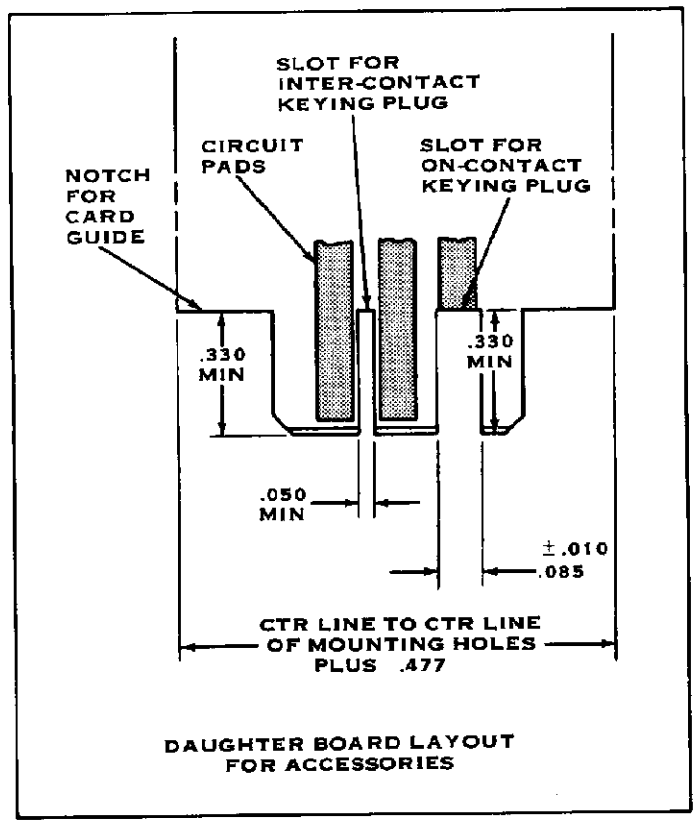


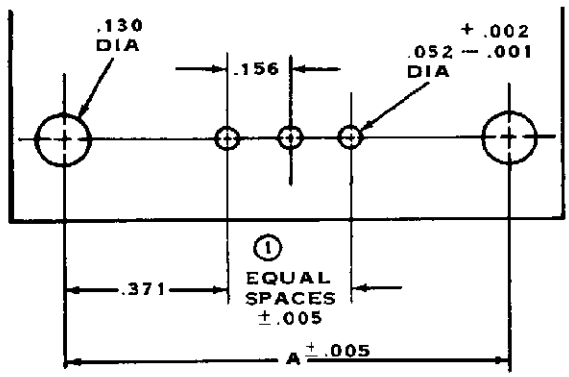
FIGURE 2

6. PRINTED CIRCUIT BOARD LAYOUT

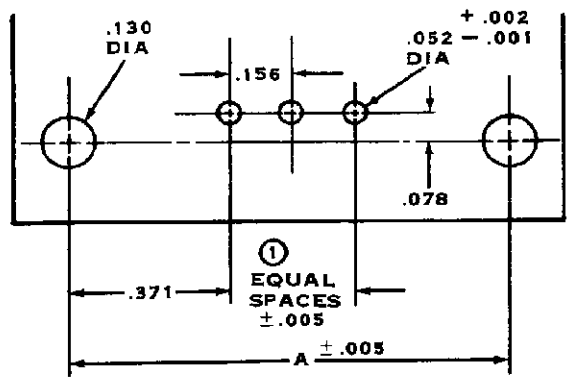
The connector assemblies are designed to be soldered or mounted on .062-in. thick mother boards, and accept daughter boards within .055 to .070-in. thickness (including pads). The overall width of the pad area must be within .005 in. to ensure alignment between the circuit pads and contacts. Refer to Figure 3 for the dimensions suggested for the mother board and daughter board layout.

MOTHER BOARD LAYOUTS*

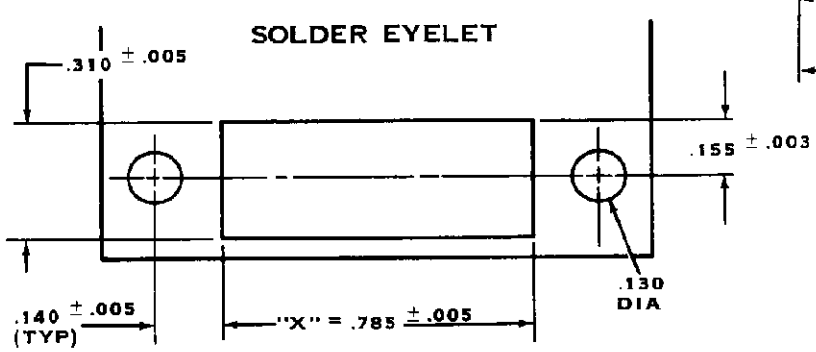
ON-CENTER SOLDER DIP



OFFSET SOLDER DIP

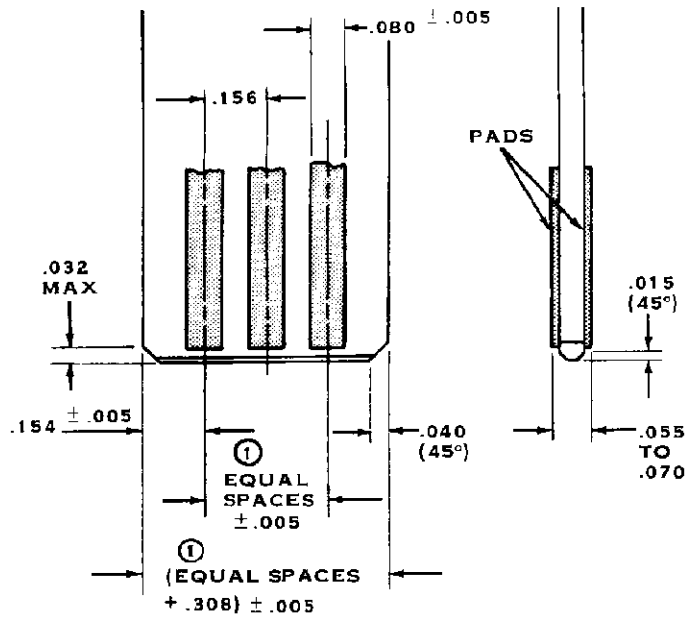


SOLDER EYELET



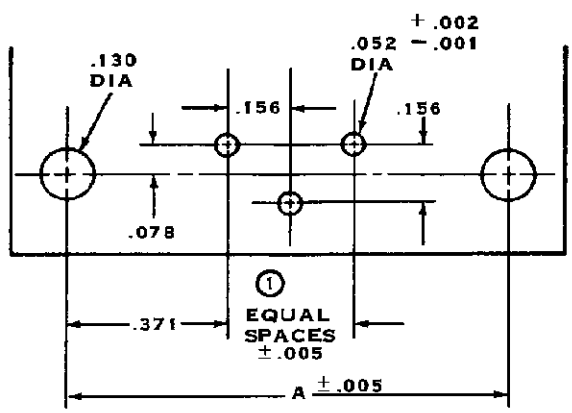
"X" — CUTOUT FOR 3-POSITION CONNECTOR ASSEMBLY. ADD .156 IN. FOR EACH ADDITIONAL CONTACT POSITION.

DAUGHTER BOARD LAYOUT



① EQUAL SPACES = TOTAL NUMBER OF CONTACT POSITIONS MINUS ONE — TIMES .156 IN.
EX.: 7 CONTACTS IN LINE = 6 X .156

STAGGERED GRID SOLDER DIP



NO. OF POSN	DIMENSION A
3	1.066
6	1.534
7	1.690
9	2.002
10	2.158
12	2.470
15	2.938
18	3.406
22	4.030
24	4.342
33	5.746

* ALL LAYOUTS ARE VIEWED FROM TOP OF MOTHER BOARD.

FIGURE 3

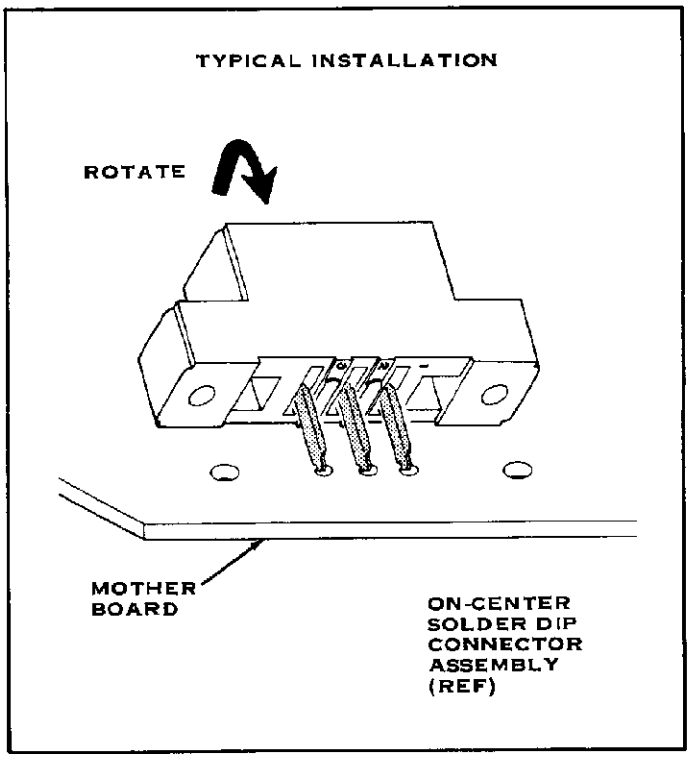


FIGURE 4

7. INSERTION PROCEDURES

Connector assemblies are inserted as follows:

1. Start the contact posts into the holes in the mother board as shown in Figure 4. Rotate the assembly until the posts are perpendicular to the holes.
2. Make sure all posts are aligned, then push the assembly in until it bottoms on the mother board.

8. SOLDERING

Solder eyelet assemblies are designed to have individual wires soldered to the contacts.

Assemblies with on-center, offset, and staggered grid solder dip contacts are soldered directly to the mother board as follows:

1. Insert a .062-in. thick dummy board into the pcb slot to maintain contact alignment.
2. Check to be sure the connector assembly is bottomed on the mother board.
3. Solder the posts using standard reflow soldering techniques.