

AMP MINI-AMP-IN\* HEADER

P/N 172020-1

INSTRUCTION SHEET

IS - 086J	
Released	7-31-78
Revised	8-14-79

This instruction sheet covers instructions for assembly procedure of AMP Mini AMP-IN\* Header P/N 172020-1. Read this instruction sheet carefully before you start assembly.

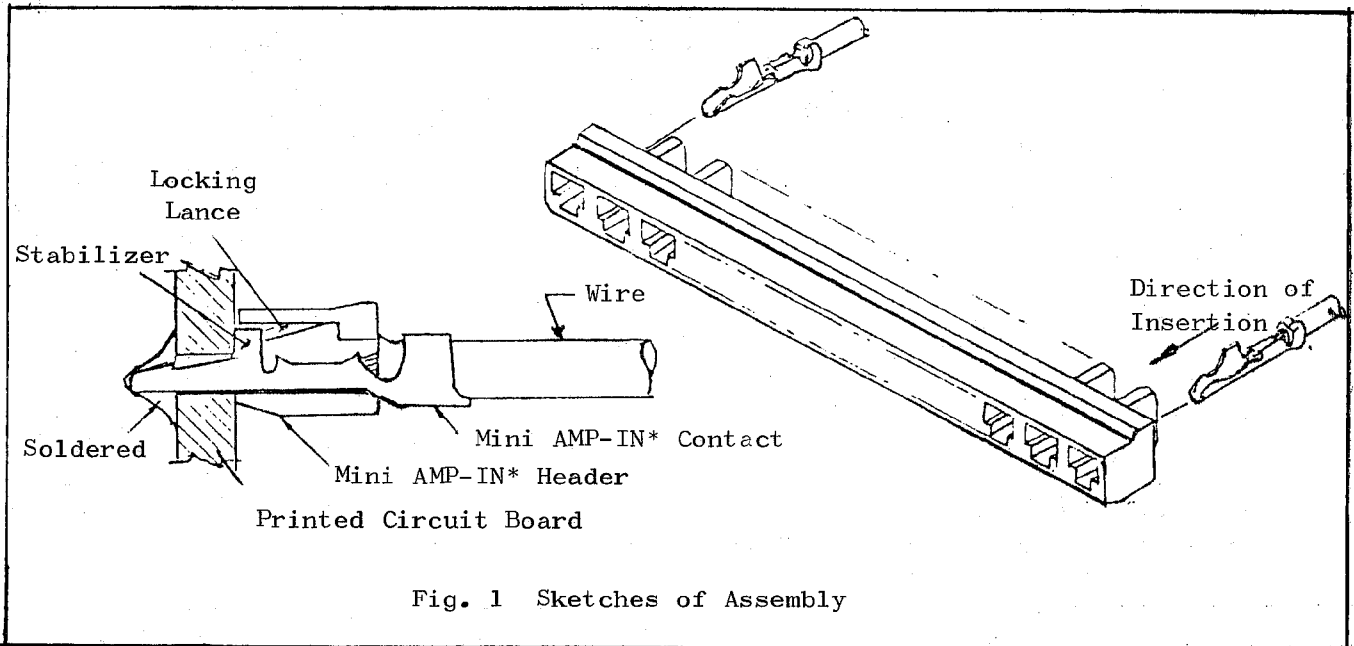


Fig. 1 Sketches of Assembly

INTRODUCTION:

AMP Mini AMP-IN header is used to line up AMP-IN contacts on PCB before insertion and soldering of contacts.

This header connection system allows you to handle mini AMP-IN\* contacts as a connector for simplified insert operation, thus saving man power and increasing production rate at assembly lines. Connector system, thus concentrated together also provides easier inspection and less care for maintenance. The header basically incorporates 13 connectors which may be reduced into smaller connectors having less number of contact positions, depending on the requirements at assembly.

1. SELECTION OF CONTACTS, CABLES AND PCB'S:

CONTENTS:

In this instruction sheet, the descriptions of the following subjects are provided:

1. Selection of Contacts, Cables and PCB
2. Precautions for Crimping and Insertion of Contacts
3. Precautions for Insertion of Contacts in Header into PCB
4. Divided Use of Header

Table 1 lists the combination of contacts, cables and PCB's which can be applied to mini AMP-IN headers.

Contact	Wire	Printed Circuit Board
P/N 170197-2 Mini AMP-IN Contact	Conductor Range: 0.2 - 0.56mm <sup>2</sup>	Thickness: 1.6 ± 0.14mm
	Insulation Diameter: 1.6 - 2.3 mm	Hole Diameter: 1.4 ± 0.1mm
		Center Line Spacing: 4.0 ± 0.07mm

Table 1

## 2. PRECAUTIONS FOR CRIMPING AND INSERTION OF CONTACTS:

After crimping of mini AMP-IN\* contacts on wires of the sizes specified in Table 1, insert them into the cavities of mini AMP-IN\* header.

2.1 When to insert contacts into the header, they must be oriented to the header as shown in Fig. 1, so that they can enter straight to pass through into the cavity freely without any force applied.

a) You must not insert a contact in directions other than shown in Fig. 1. Forced insertion may cause the contact to distort.

2.2 When insertion of contact into a header is completed, make sure is the contact stabilizer has been caught by the locking lance of the header.

a) When the stabilizer is caught by the lance, you may feel a sense of engagement.

b) To make sure of the engagement, pull back the crimped wire lightly to see if the contact is securely locked. Note contact holding strength is 1 kg min. so that excessively strong jerk on the wire should be avoided.

c) In case you removed a wrongly inserted contact after locking, replace the header with the new one.

## 3. PRECAUTIONS FOR INSERTING HEADER CONTACTS INTO PCB:

As the header is loaded with as many contacts as required, apply it onto the PCB for insertion of contacts into PCB holes of the size specified in Table 1.

3.1 As you insert header-loaded contacts in PCB holes, tilt the header toward you a little, so that the contact end alignment is visible and easy to control as shown in Fig. 2. Confirm right positioning of contacts with the holes.

a) If the contact insertion is not successful, move the wires by fingers for snug fitting of contacts into the holes.

3.2 After you confirm that all the contacts are rightly entering into the respective holes, raise the header to stand upright so that the contacts will settle in the right positions in the holes.

a) When all the contacts are rightly put into the PCB holes, there should be proper clearance of 0.5 to 1.5mm between the header and the PCB.

b) Again make sure that contacts are properly settled without abnormalities. This completes insertion of contacts.

## 4. PRECAUTIONS FOR DIVIDED USE OF HEADER:

The mini AMP-IN\* headers can be divided into smaller header as required.

4.1 To do this, cut the header at the middle line of the cavity of the desired length with the use of jigsaw or cutter knife, so that the train of other complete cavities will be left intact.

Let us show you some examples by Fig. 3.

When a 12-Position header is required, cut the header at the line 1 in Fig. 3, and when two 6-position headers are required, cut at the line 2 in Fig. 3.

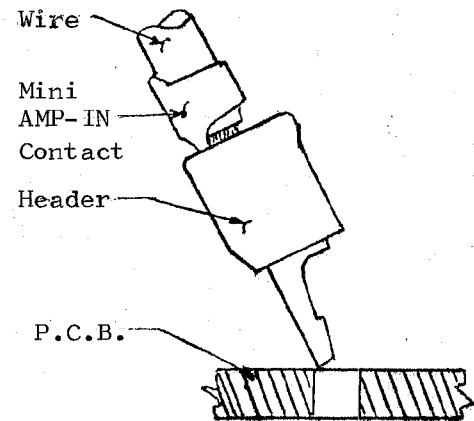


Fig. 2

Note: Cut a header at the cavity positions. Do not attempt to cut a header at the wall portions of the cavities.

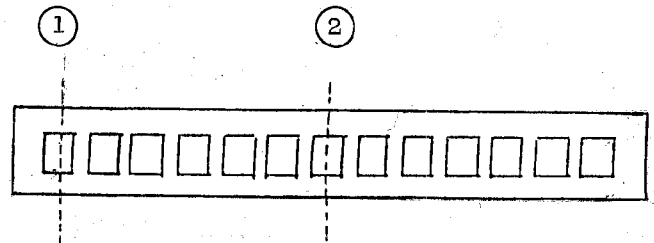


Fig. 3