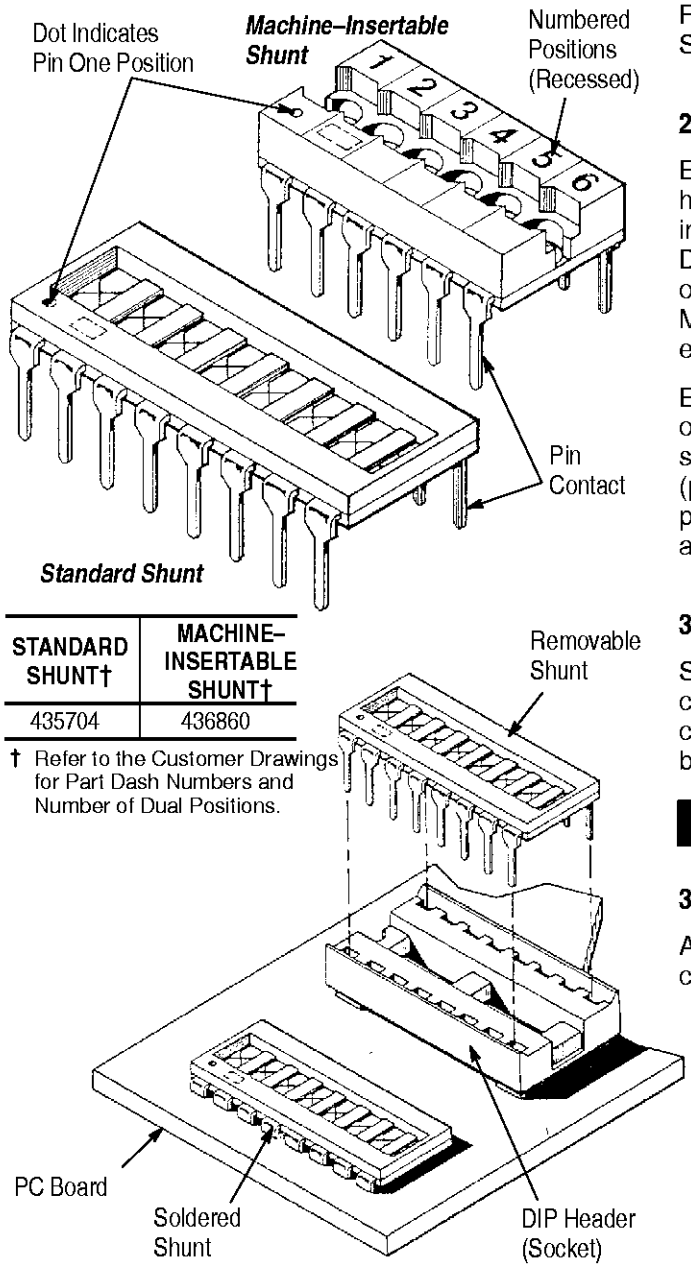
Programmable Shunts for Dual In–Line Packages (DIP)



STANDARD SHUNT†	MACHINE–INSERTABLE SHUNT†
435704	436860

† Refer to the Customer Drawings for Part Dash Numbers and Number of Dual Positions.

Figure 1

1. INTRODUCTION

This instruction sheet covers installation and programming procedures for the AMP* DIP Shunts listed in Figure 1. The shunts are used to manually program various types of electronic equipment.

NOTE *All dimensions are in millimeters [with inch equivalents in brackets]. Illustrations are not drawn to scale.*

Reasons for reissue of this sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION

Each shunt assembly consists of a thermoplastic housing (standard are black in color, machine insertable are gray) preloaded with pin contacts in a DIP configuration. A recessed dot on the top surface of each housing indicates the pin one position. Machine–insertable shunts are also numbered at each position.

Each shunt can be used as supplied (all buses intact), or it can be programmed (bus or buses cut). The shunt can be soldered directly onto a printed circuit (pc) board, or used with a DIP header (sockets) to provide easy removal when programming changes are required.

3. SHUNT PROGRAMMING

Select the applicable shunt for the required number of contact positions. Programming is accomplished by cutting the bus (strap) that connects two pins. The bus can be cut before or after installation of the shunt.

NOTE *When programming, the shunt must be solidly supported during the procedure.*

3.1. Standard Shunt (435704)

AMP Programming Tool 435862–1 must be used to cut the bus.

1. Make sure shunt is solidly supported so pin contacts will not be deformed when tool is pressed against bus (see Figure 2).

2. Determine specific bus to be cut. Position pointed tool tip across cutout sections of bus.

3. Push straight down on tool handle until bus opens. Repeat procedures, if necessary, for other buses.

CAUTION *Only light force is required to cut the bus – excessive force could damage the housing.*

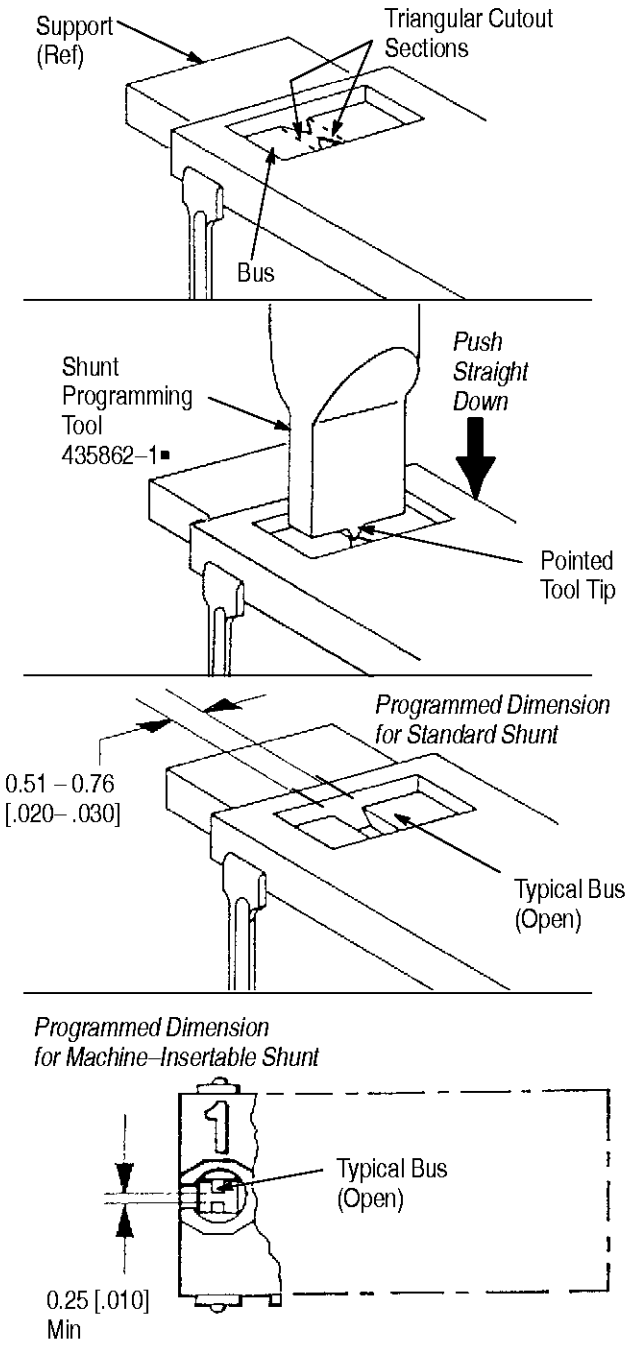
3.2. Machine–Insertable Shunt (436860)

No special tool is required to program the shunt. The shunt is designed with a defined target area for easy programming with a pointed object such as a stylus, scriber, or ball point pen. A force of 22 to 44 Newtons [5 to 10 pounds] is required to program each shunt position. Follow the same procedure given for the standard shunt.

4. SOLDER BRIDGING

Solder bridging is a method of connecting an open bus with solder. Use a small soldering tip (0.76 mm [.030 in.]) and a low temperature solder (60% tin/lead) with a melting temperature of 190°C [374°F].

CAUTION *Soldering should be done as quickly as possible to prevent heat buildup in the thermoplastic housing. Care should be used to prevent the solder tip from contacting the housing.*



▪ Required for Standard Shunt Only

Figure 2

A bus bar that has been solder bridged may be re–opened by removing the solder. Use a small soldering tip (0.76 mm [.030 in.]) to reheat and wick or vacuum the solder from the bus. Refer to previous CAUTION to prevent damage to the housing.

5. INSTALLING SHUNT

5.1. Standard Shunt (see Figure 3)

Use the following steps to ease insertion and prevent deformation of pins.

1. Hold shunt at a slight angle and start one row of contact pins into contact holes. Do NOT overinsert.
2. Rotate shunt until second row of contact pins is aligned with opposite row of contact holes.
3. Make sure all contact pins have started entry into holes. Grip sides of shunt and push contact pins into holes until housing bottoms.

5.2. Machine–Insertable Shunt

The shunt can be applied by commercially available integrated circuit (IC) insertion equipment from Universal Instruments Corporation, Binghamton, NY; DynaPert Division of USM Corporation, Boston, MA; or others.

Follow the machine manufacturer's requirements and instructions for automatic application of the shunt.

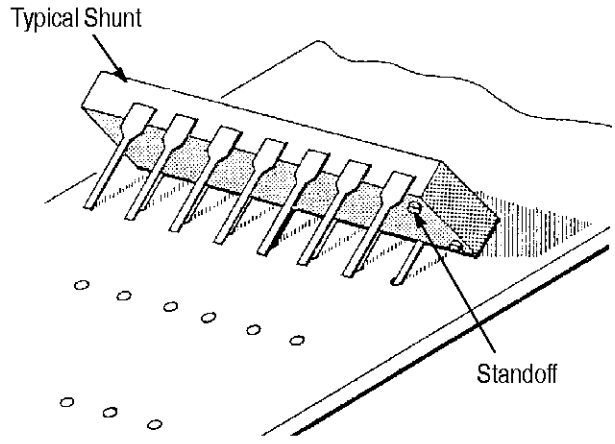


Figure 3

6. REVISION SUMMARY

Revisions to this document include:

Per EC 0990–1001–98:

- Removed part numbers 435754 and 382704
- Removed sentence from paragraph 2