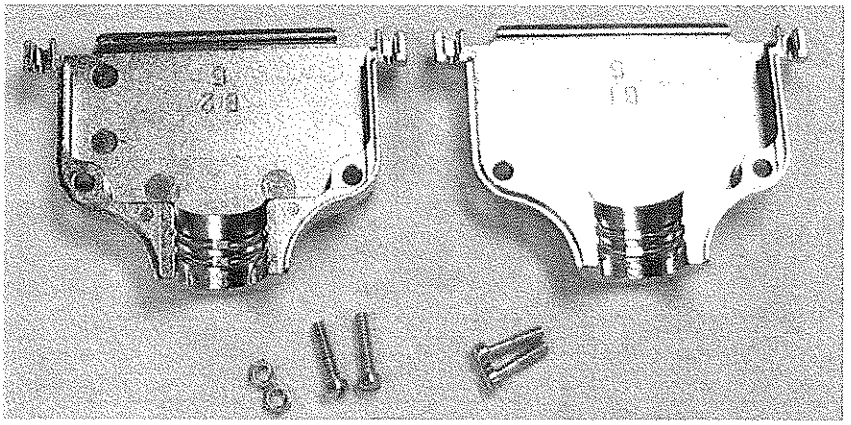
50 Pin Connector Kit

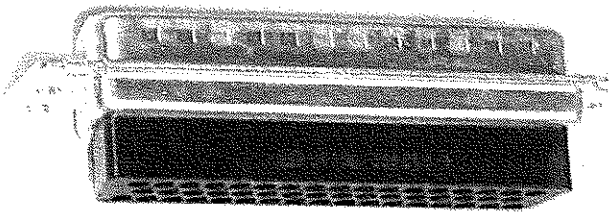
Teledyne 2000 and 3000 units utilize a 50 pin connector.

These units are supplied with a connection kit that includes parts for a 50 pin connector as well as 9 pin connector. The 9 pin connector is only used if the RS-232 output is going to be used but the same general procedures would apply.

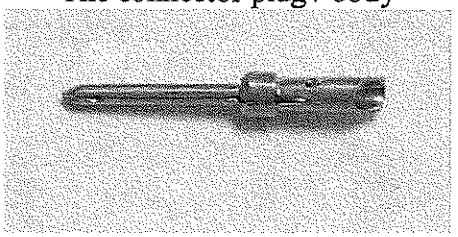
Kit contents



Two halves of the metal shell and associated screws and nuts



The connector plug / body



Pins for connecting wires.

In the kit, you will find enough pins to completely fill both connectors..

Step 1 Determine Connection Requirements
Determine how many connections you will need. In conjunction with the manual for your unit, determine how many signal wires you will require. As an example, if the 4-20 mA concentration signal and one alarm signal are required, four wires will be connected and they would be connect as follows:

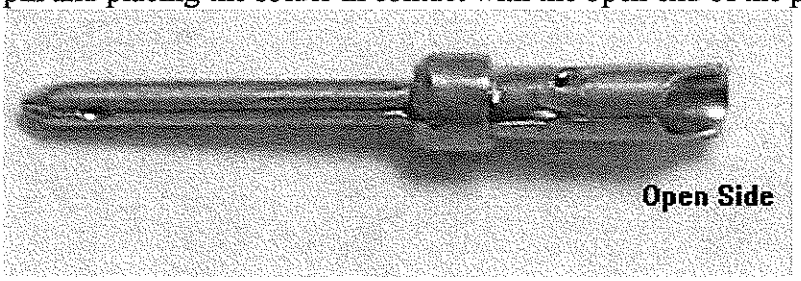
Pin #	Description
5	+ % Range, 4-20 mA, floating
6	– % Range, 4-20 mA, floating
45	Threshold Alarm 1, normally closed contact
28	Threshold Alarm 1, moving contact
46	Threshold Alarm 1, normally open contact

With regards to the alarm connection, only the normally open OR the normally closed contact would be used so only a total of four conductors are required.

Step 2 Select Cable
Select a multi-conductor cable with overall shield that has the appropriate number of conductors. Each conductor should be 20 or 22 AWG.

Step 3 Prepare Cable / Individual conductors.
Remove approximately two inches of the overall cable insulation. Strip approximately ¼ of insulation from each individual conductor and tin the wire.

Step 4 Prepare Pins
The pins are solder cup type. Load each pin with a small amount of solder by heating the pin and placing the solder in contact with the open end of the pin.



Step 5 Connect wires
Reheat the pin and insert the wire. One conductor per pin.

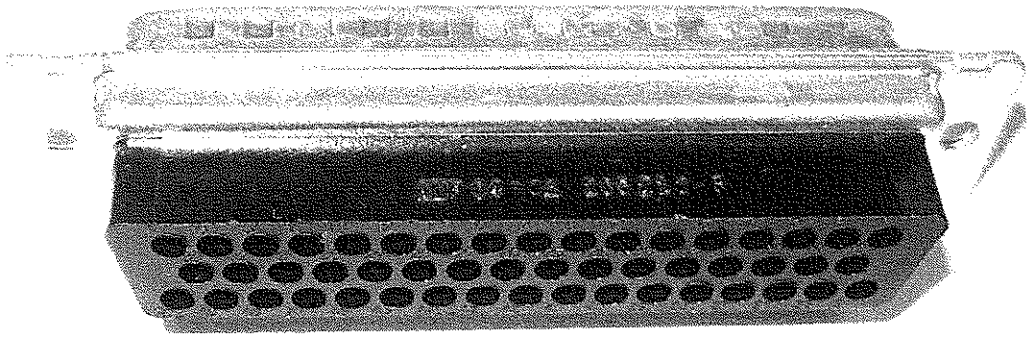
Step 6 Place Pins in Plug / Body

When viewed from the top, there is a silver metal side and a black plastic side. The sides can also be described as the number side which is recessed in the metal lip and the black plastic side which is unmarked.

The pins will be inserted from the black plastic side. If one looks closely, it is possible to make out numbers at each pin location. The pin will 'click' into place. Make sure of location as it is nearly impossible to remove the pin after it has clicked into place.

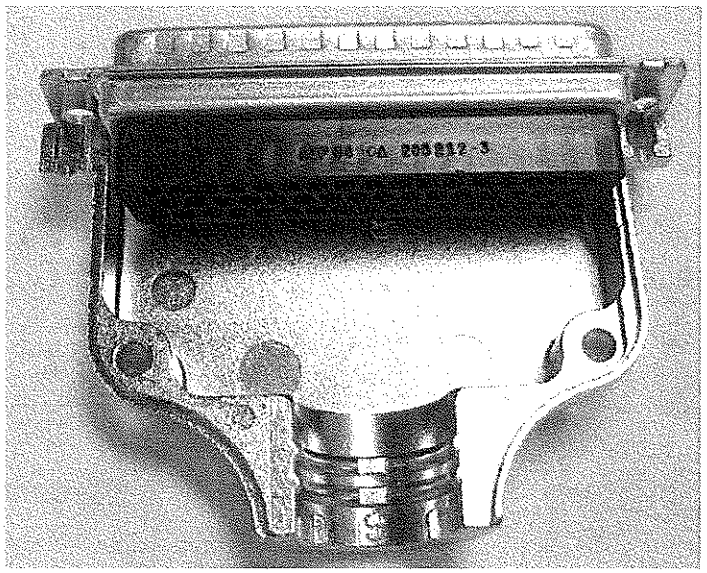
In using the picture as reference, the pins would be inserted from the bottom.

Repeat for all of the pins / wires

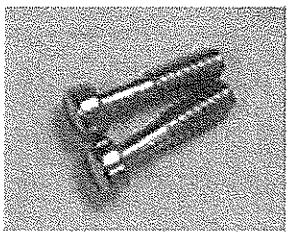


Step 7 Complete connector by placing body in shell

Taking one half of the metal shell, place the plug so that it sits at the front of the shell. The wires headed toward the back. The detail below shows the plug connector sitting in half of the shell. We recommend that some type of strain relief be used with regards to the cable and if not already in place, this is a good time to install such strain relief.

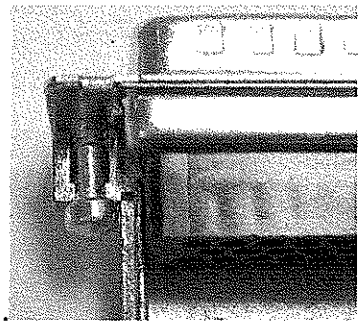


Two of the screws provided with mounting kit are to be used to connect the finished assembly to the mating connector on the analyzer. Please note that there are two different type of screws. One set is only partially threaded and these screws are to be used for this purpose.

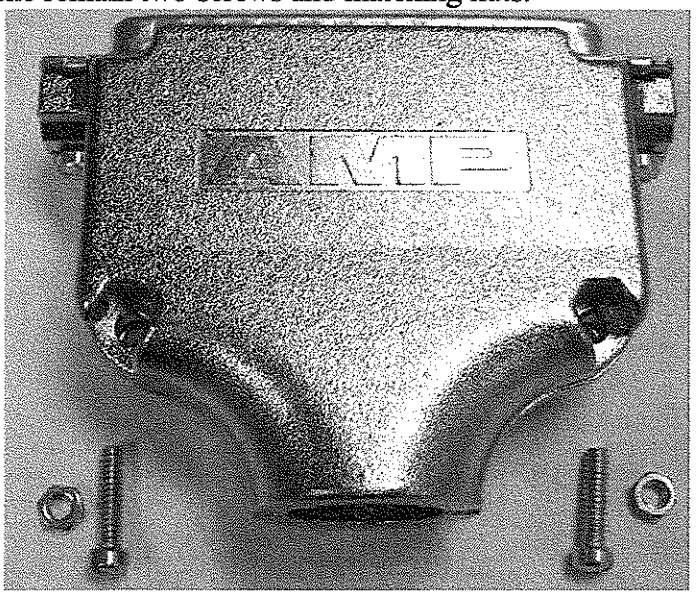


These two screws are to be laid on the channels on metal shell so that the threads are facing the pin side of the connector.

A detail of one of screws in the channel and inserted through the connector is shown below



Finish the assembly by placing the second half of the shell on the assembly. Secure the two halves using the remain two screws and matching nuts.



The finished assembly will now have pins in the proper location to mate with the connector supplied on the back of the 2000 / 3000 units.