IMPEL Backplane Module Installation Press-In Tool	**molex**®	
	Application Tooling Specification Sheet	
		Order No. 62201-8920
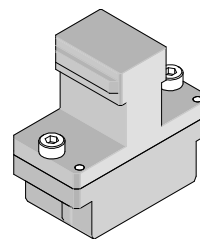
FEATURES

- Polarized tool prevents product damage
- Tool provides uniform distribution of press force across entire pin array
- May be used as a stand-alone tool or mounted in an optional holder with other Molex press-in tools
- Use tool 62201-8904 for removing connectors

SCOPE
<u>Products</u>: IMPEL Backplane Assembly, (6-Pair by 10 Column Assemblies).
See Product List below for specific part numbers.

Product List
The following is a partial list of the product order numbers and their specifications this tool is designed to run.
Updates to this list are available on www.molex.com.

Series	Column	Guide Style	Backplane Header Order No.					
171395	10	Unguided	171395-1104	171395-1105	171395-1107	171395-1108		
		Left	171395-3104	171395-3105	171395-3107	171395-3108	171395-3114	171395-3115
			171395-3117	171395-3118	171395-3124	171395-3125	171395-3127	171395-3128
			171395-3134	171395-3135	171395-3137	171395-3138	171395-3144	171395-3145
			171395-3147	171395-3148	171395-3154	171395-3155	171395-3157	171395-3158
			171395-3164	171395-3165	171395-3167	171395-3168	171395-3174	171395-3175
			171395-3177	171395-3178	171395-3184	171395-3185	171395-3187	171395-3188
		Right	171395-5104	171395-5105	171395-5107	171395-5108	171395-5114	171395-5115
			171395-5117	171395-5118	171395-5124	171395-5125	171395-5127	171395-5128
			171395-5134	171395-5135	171395-5137	171395-5138	171395-5144	171395-5145
			171395-5147	171395-5148	171395-5154	171395-5155	171395-5157	171395-5158
			171395-5164	171395-5165	171395-5167	171395-5168	171395-5174	171395-5175
			171395-5177	171395-5178	171395-3144	171395-3145	171395-3147	171395-3148

Tool Setup

Depending on the number of connectors to be installed and/or the press used, this tool can be used alone or with a group of press-in tools, mounted in a 62201-95XX rail (ordered separately). See Figure 1.

ALONE

Figure 1

WITH 62201-95XX RAIL
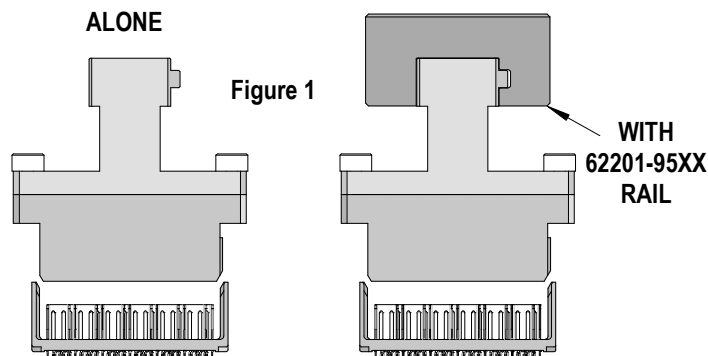
Tool Installation

The 62201-95XX rail is available in a variety of lengths to accommodate multiple press-in tools.

Rail Part Number	Rail Overall Length
62201-9501	24mm (0.94 in)
62201-9502	72mm (2.83 in)
62201-9503	156mm (6.14 in)
62201-9504	216mm (8.50 in)
62201-9509	254mm (10.0 in)
62201-9511	305mm (12.0 in)

Reference: This Press-In Tool is 19.70mm (0.78 in.) long.

Printed Circuit Board (PCB) Support

The IMPEL connectors require up to 3.6kg (8 lb) of force per pin to press into the PCB. To prevent excessive PCB flexure and/or damage to the PCB, a support plate is strongly recommended directly beneath the connector hole pattern.

Due to the custom nature of every application, Molex does not offer any PCB support plate. The customer must furnish their own support plate.

When creating the PCB support plate, remember to allow clearance for the connector pins as they pass through the PCB thickness.

Press Equipment Recommendations

Many types of presses can be used to install IMPEL connectors, but to assure consistent connector installation Molex recommends the following press criteria:

1. The capability to detect force variations as low as 4.5kg (10 lb) during the press-in cycle; excessive force measurements should stop the press-in cycle.
2. The rate of pressing can be regulated as low as 0.13mm (0.005 in) per second.
3. Press stroke control to within 0.25mm (0.010 in).
4. Total press stroke must be at least 19mm (0.75 in).
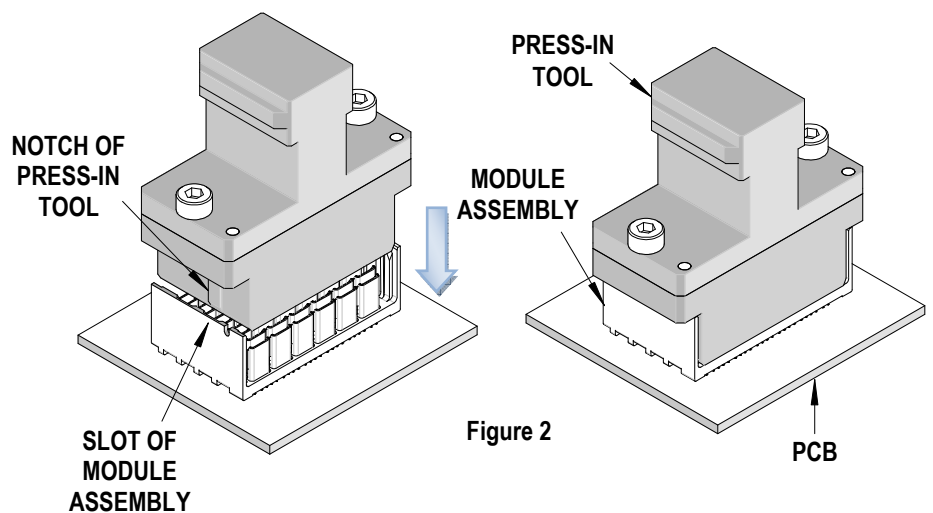5. For statistical purposes, automatic collection of force and distance data.

NOTCH OF PRESS-IN TOOL

SLOT OF MODULE ASSEMBLY

PRESS-IN TOOL

MODULE ASSEMBLY

PCB

Figure 2

Tool Operation

1. Insert by hand the backplane signal module assembly (s) carefully into the PCB hole pattern. Make sure the connector(s) are oriented properly by confirming the location of the #1 circuit notch with respect to the PCB layout.
2. Insert the Press-In Tool making sure that the notch in this tool is inserted into the slot on top of the connector housing of the backplane signal module assembly. See Figure 2.
3. Using the application tool and an appropriate press, seat the header assembly until there is less than 0.10mm (.004 in) clearance between the bottom of the plastic housing and the surface of the PCB. See Figure 3.
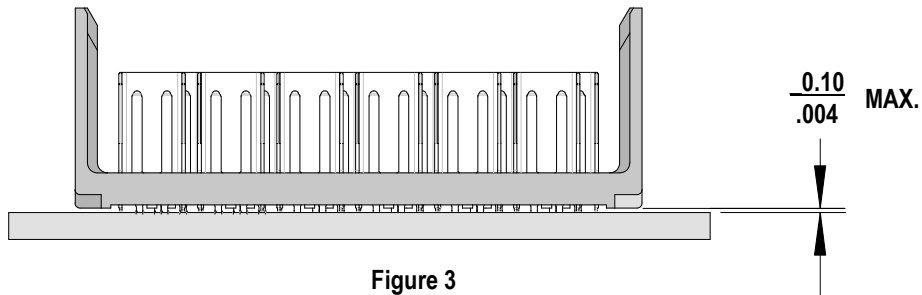
$$\frac{0.10}{.004} \text{ MAX.}$$

Figure 3

There should be no broken stand-offs along the perimeter of the part (an indication of over-pressing).

CAUTION: To prevent injury, never operate any press without the guards in place. Refer to the press manufacturer's instruction manual.

CAUTION: Molex application tooling specifications are valid only when used with Molex connectors and tooling.

Contact Information
For more information on Molex application tooling please contact Molex at 1-800-786-6539.

http://www.molex.com