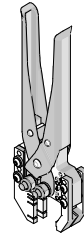


**Impact™
Power Module
Right Angle
Removal Tool**

molex

**Application Tooling
Specification Sheet**



Order No. 62202-4500

FEATURES

- A pliers-type tool used to remove the Power Module Right Angle Headers from the PCB
- Tool is adjustable for 3, 4, 5, and 6 pair standard or orthogonal configurations
- Tool can be set-up for single or two power module removal from the PCB.

SCOPE

Products: Impact™ Power Module Right Angle Headers, standard and orthogonal configurations 3 to 6 pairs.
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 be used on. Updates to this list are available on www.molex.com.

Pair	Series No.	Assembly Order Number							
3	78211	78211-1011	78211-1022	78211-1023	78211-1033	78211-1044	78211-1211	78211-1222	78211-1233
		78211-1244							
		78211-5011	78211-5022	78211-5023	78211-5033	78211-5044	78211-5211	78211-5222	78211-5233
		78211-5244							
3	78347	78347-1000	78347-1001	78347-1002	78347-1003	78347-1004	78347-1010	78347-1011	78347-1024
		78347-1012	78347-1013	78347-1014	78347-1020	78347-1021	78347-1022	78347-1023	78347-1041
		78347-1030	78347-1031	78347-1032	78347-1033	78347-1034	78347-1040	78347-1042	78347-1043
		78347-1044							
		78347-2000	78347-2001	78347-2002	78347-2003	78347-2004	78347-2010	78347-2022	78347-2023
		78347-2011	78347-2012	78347-2013	78347-2014	78347-2020	78347-2021	78347-2033	78347-2034
		78347-2024	78347-2030	78347-2031	78347-2032	78347-2044	78347-2040	78347-2041	78347-2042
		78347-2043							
		78347-5000	78347-5001	78347-5002	78347-5003	78347-5004	78347-5010	78347-5022	78347-5023
		78347-5011	78347-5012	78347-5013	78347-5014	78347-5020	78347-5021	78347-5033	78347-5034
		78347-5024	78347-5030	78347-5031	78347-5032	78347-5040	78347-5041	78347-5042	78347-5043
		78347-5044							
		78347-6000	78347-6001	78347-6002	78347-6003	78347-6004	78347-6010	78347-6022	78347-6023
		78347-6011	78347-6012	78347-6013	78347-6014	78347-6020	78347-6021	78347-6033	78347-6034
78347-6024	78347-6030	78347-6031	78347-6032	78347-6044	78347-6040	78347-6041	78347-6042		
78347-6043									
3	78657	78657-1011	78657-1022	78657-1023	78657-1033	78657-1044	78657-1211	78657-1222	78657-1233
		78657-1244							
		78657-5011	78657-5022	78657-5023	78657-5033	78657-5044	78657-5211	78657-5222	78657-5233
		78657-5244							
4	78213	78213-1011	78213-1022	78213-1033	78213-1044	78213-1211	78213-1222	78213-1233	78213-1244
		78213-5011	78213-5022	78213-5033	78213-5044	78213-5211	78213-5222	78213-5233	78213-5244
4	78349	78349-1000	78349-1001	78349-1002	78349-1003	78349-1004	78349-1010	78349-1011	78349-1012
		78349-1013	78349-1014	78349-1020	78349-1021	78349-1022	78349-1023	78349-1024	78349-1030

Impact™ Power Module Right Angle Removal Tool

Pair	Series No.	Assembly Order Number							
4	78349	78349-1031	78349-1032	78349-1033	78349-1034	78349-1040	78349-1041	78349-1042	78349-1043
		78349-1044							
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		78349-2013	78349-2014	78349-2020	78349-2021	78349-2022	78349-2023	78349-2024	78349-2030
		78349-2031	78349-2032	78349-2033	78349-2034	78349-2040	78349-2041	78349-2042	78349-2043
		78349-2044							
		78349-5000	78349-5001	78349-5002	78349-5003	78349-5004	78349-5010	78349-5011	78349-5012
		78349-5013	78349-5014	78349-5020	78349-5021	78349-5022	78349-5023	78349-5024	78349-5030
		78349-5031	78349-5032	78349-5033	78349-5034	78349-5040	78349-5041	78349-5042	78349-5043
		78349-5044							
		78349-6000	78349-6001	78349-6002	78349-6003	78349-6004	78349-6010	78349-6011	78349-6012
		78349-6013	78349-6014	78349-6020	78349-6021	78349-6022	78349-6023	78349-6024	78349-6030
		78349-6031	78349-6032	78349-6033	78349-6034	78349-6040	78349-6041	78349-6042	78349-6043
		78349-6044							
5	78215	78215-1011	78215-1022	78215-1033	78215-1044	78215-1211	78215-1222	78215-1233	78215-1244
		78215-5011	78215-5022	78215-5033	78215-5044	78215-5211	78215-5222	78215-5233	78215-5244
5	78351	78351-1000	78351-1001	78351-1002	78351-1003	78351-1004	78351-1010	78351-1011	78351-1012
		78351-1013	78351-1014	78351-1020	78351-1021	78351-1022	78351-1023	78351-1024	78351-1030
		78351-1031	78351-1032	78351-1033	78351-1034	78351-1040	78351-1041	78351-1042	78351-1043
		78351-1044							
		78351-2000	78351-2001	78351-2002	78351-2003	78351-2004	78351-2010	78351-2011	78351-2012
		78351-2013	78351-2014	78351-2020	78351-2021	78351-2022	78351-2023	78351-2024	78351-2030
		78351-2031	78351-2032	78351-2033	78351-2034	78351-2040	78351-2041	78351-2042	78351-2043
		78351-2044							
		78351-5000	78351-5001	78351-5002	78351-5003	78351-5004	78351-5010	78351-5011	78351-5012
		78351-5013	78351-5014	78351-5020	78351-5021	78351-5022	78351-5023	78351-5024	78351-5030
		78351-5031	78351-5032	78351-5033	78351-5034	78351-5040	78351-5041	78351-5042	78351-5043
		78351-5044							
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		78351-6013	78351-6014	78351-6020	78351-6021	78351-6022	78351-6023	78351-6024	78351-6030
78351-6031	78351-6032	78351-6033	78351-6034	78351-6040	78351-6041	78351-6042	78351-6043		
78351-6044									
6	78217	78217-1011	78217-1022	78217-1055	78217-1077	78217-1911	78217-1922	78217-1955	78217-1977
		78217-5011	78217-5022	78217-5055	78217-5077	78217-5911	78217-5922	78217-5955	78217-5977
		78353-1001	78353-1002	78353-1005	78353-1007	78353-1011	78353-1012		
6	78353	78353-1015	78353-1017	78353-1021	78353-1022	78353-1025	78353-1027	78353-1051	78353-1052
		78353-1055	78353-1057	78353-1071	78353-1072	78353-1075	78353-1077		
		78353-2001	78353-2002	78353-2005	78353-2007	78353-2011	78353-2012	78353-2015	78353-2017
		78353-2021	78353-2022	78353-2025	78353-2027	78353-2051	78353-2052	78353-2055	78353-2057
		78353-2071	78353-2072	78353-2075	78353-2077				
		78353-5001	78353-5002	78353-5005	78353-5007	78353-5011	78353-5012	78353-5015	78353-5017
		78353-5021	78353-5022	78353-5025	78353-5027	78353-5051	78353-5052	78353-5055	78353-5057
		78353-5071	78353-5072	78353-5075	78353-5077				
		78353-6001	78353-6002	78353-6005	78353-6007	78353-6011	78353-6012	78353-6015	78353-6017
		78353-6021	78353-6022	78353-6025	78353-6027	78353-6051	78353-6052	78353-6055	78353-6057
		78353-6071	78353-6072	78353-6075	78353-6077				

Description

The 62202-4500 Impact™ Power Module Right Angle Removal Tool is a pliers-type tool for removing a power module right angle header from the printed circuit board. The tool is approximately 215.0mm (8.5 in.) long by 66.0mm (2.6 in.) wide (closed) by 38.0mm (1.5 in.) thick and weighs .48 kg (1 lb).

Operating Space (Keep Out Zone)

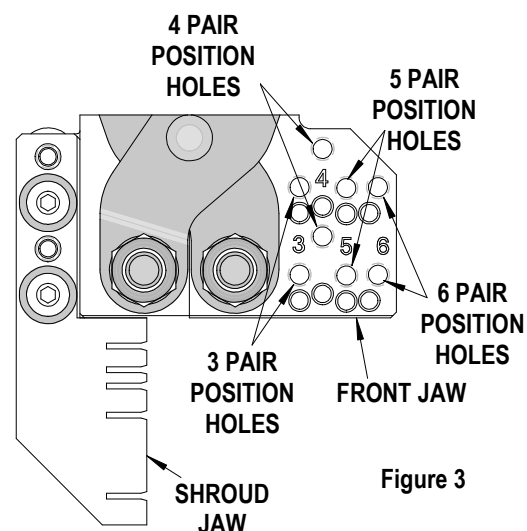
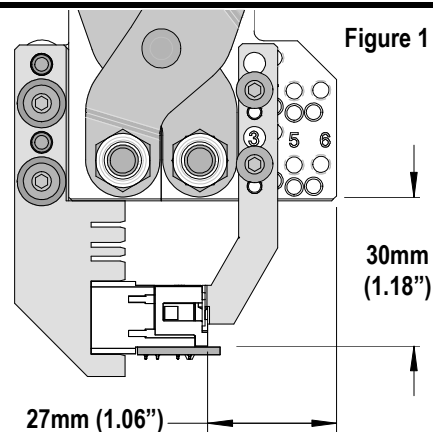
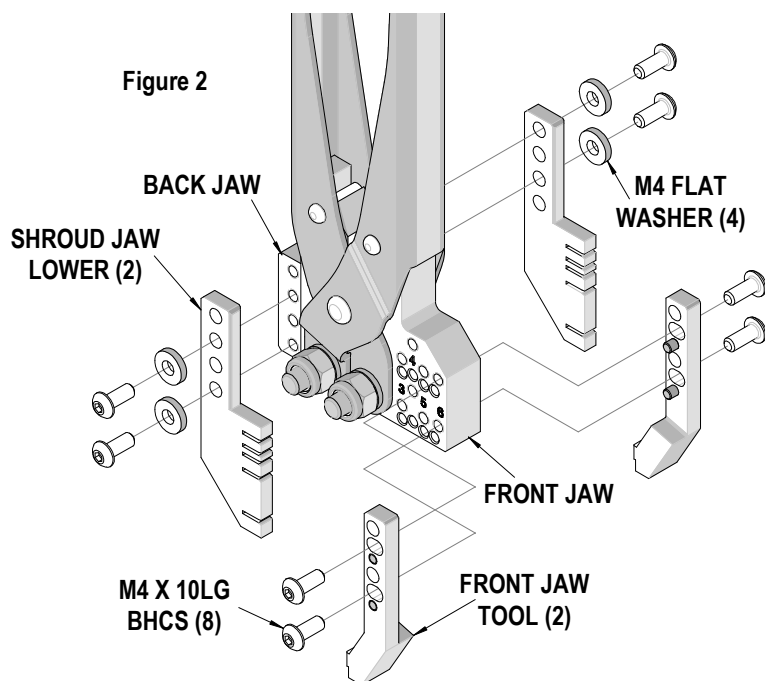
A certain amount of space is required on the printed circuit board for the Removal Tool to fit over the power module. Make sure there are no other components in this space. See Figure 1.

Tool Setup

NOTE: Before removing any modules be sure to remove any screws that attach them to the PCB on the underside of the board.

The shroud jaws (2) are in the corner position for all pair sizes (3, 4, 5 and 6) and should stay in place when removing the power module(s). The different locations of the slots have been placed on the shroud jaws so all pair sizes will fit.

To remove the front jaw tool (2) from the front jaw, remove the (2) M4 BHCS on the front jaw tool from each of the front jaw tools. The locating pins should be left in the front jaw tool when removing them. These pins are for locating the front jaw tools for the different pair sizes. See Figure 2.



With the front jaw tool removed, the jaw tool can now be placed in the position needed for removing the desired power module right angle headers. This is determined by the pair number of the module used (3, 4, 5, or 6 pairs). The front jaw is marked with numbers 3, 4, 5, and 6. This number relates to the correct location in which the front jaws are installed. See Figure 3. The shroud jaw position is fixed and can be used in all pair sizes. No adjustments are required.

Note: Be certain to correctly position the front jaw tool. See Figure 5 for front jaw tool placement.

When the set-up for the position needed is complete, open the removal tool so jaws fit over the module to be removed. The bottom face of the front and back jaws should be resting on or near the top of the power module. Slowly squeeze the removal tool closed, making sure the slots on the shroud jaw are seating inside the edges on the module and the lifting fingers on the front jaw tools are below the tabs of the metal stiffener. See Figure 4.

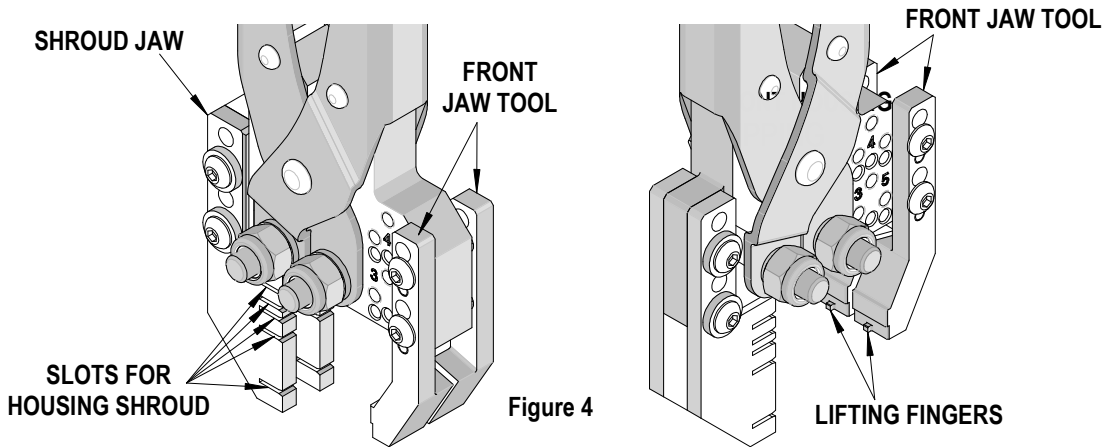


Figure 4

When the removal tool is properly seated onto the module the removal tool should be closed tightly so both front and back jaw faces are touching. See Figure 5.

Use a perpendicular upward motion to remove the module. DO not excessively “rock” the module back and forth this may damage to the PCB assembly.

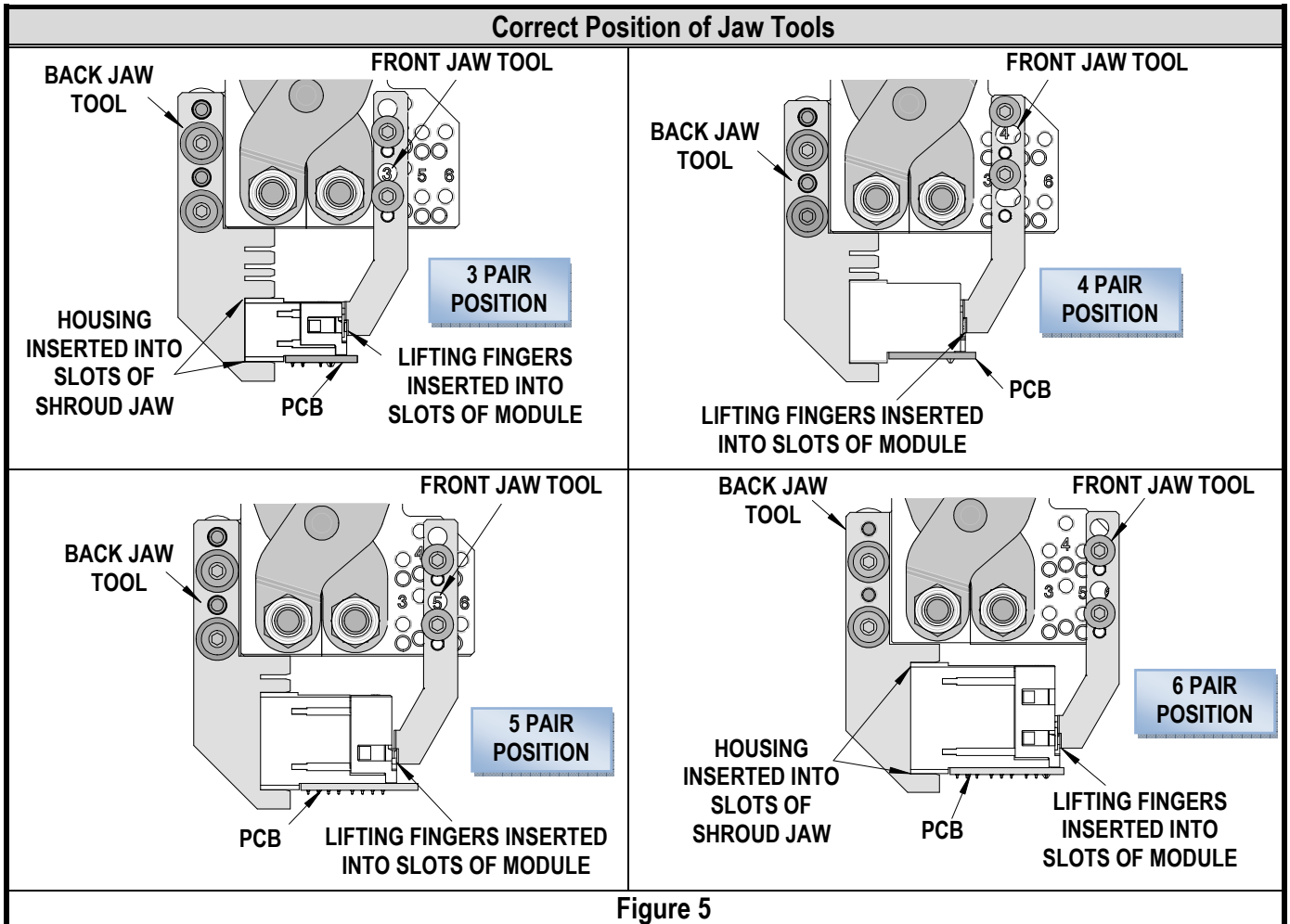


Figure 5

Adjustments

Single power module

Single power module can have a hold down to the right or left of them. See Figure 6. When removing a single power module remove one of the front jaw tools and one of the shroud jaws from the same side of the removal tool. See Figure 7.

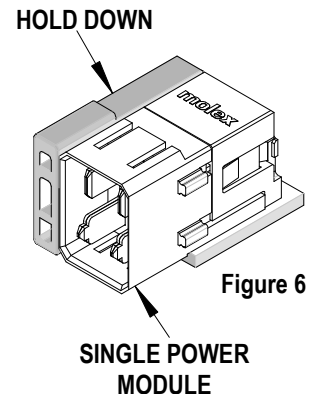


Figure 6

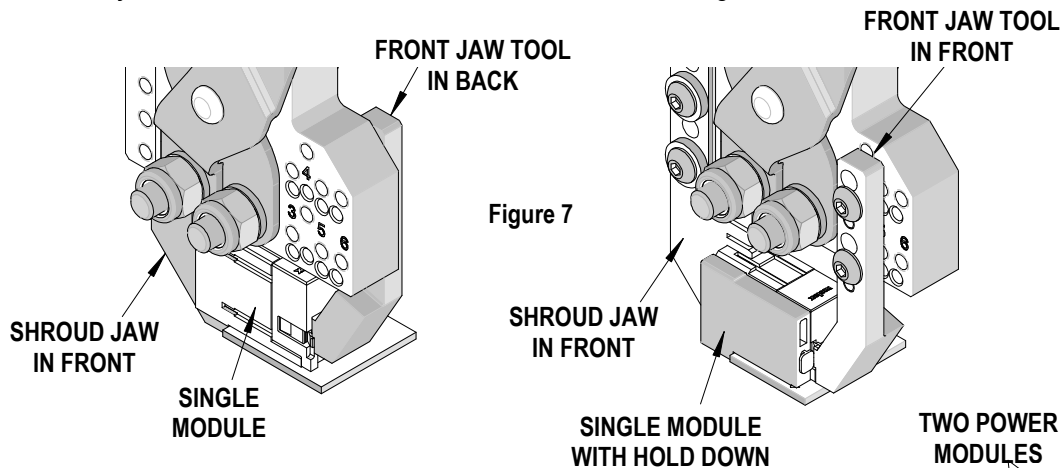


Figure 7

After removing these parts follow the same procedure as described in Tool Set-Up and Module Removal.

Two power modules

Two power modules can have a hold down to the right or left of them. See Figure 8.

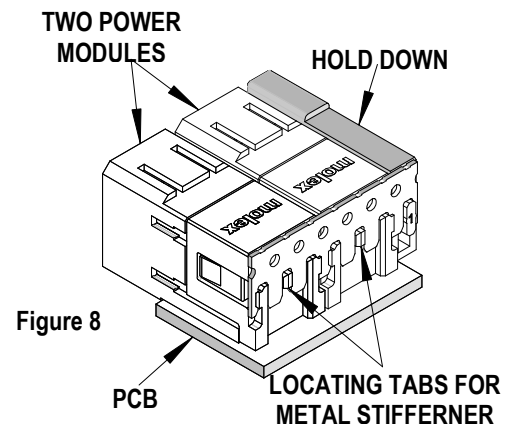


Figure 8

Maintenance

It is recommended that each operator of the tool be made aware of, and responsible for, the following maintenance steps:

1. Remove dust, moisture, and other contaminants with a clean brush, or soft, lint free cloth.
2. Do not use any abrasive materials that could damage the tool.
3. Make certain all pins; pivot points and bearing surfaces are protected with a thin coat of high quality machine oil. Do not oil excessively.
4. When tool is not in use, store in a clean, dry area.
5. There are no repair parts available for this tool. Should the tool be damaged a new tool is required.

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

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