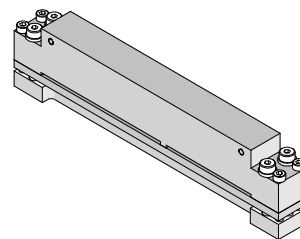


## DDR4 DIMM Memory Module Extraction Tool



## Application Tooling Specification Sheet



Order No. 62202-3810

### FEATURES

- Tool provides for positive alignment to individual pin.
- Tool provides uniform individual distribution of press force to each pin for removal.
- All pins removed at once with single tool cycle.
- Will adapt to different PCB thickness.

### SCOPE

Products: DDR3 DIMM Memory Module Assembly, 78731 Series Assemblies (284 and 288 Circuit). See Product List below for specific part numbers.

### Product List

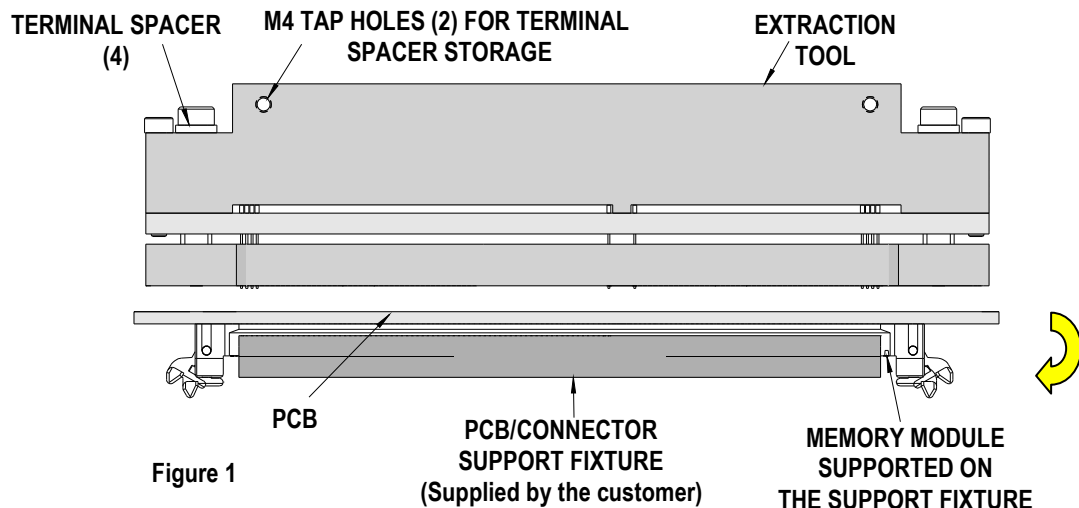
The following is a partial list of the product order numbers and their specifications this tool is designed to run. Updates to this list are available on [www.molex.com](http://www.molex.com).

Series No.	Circuit Size	Assembly Order Number					
78731	284	78731-0002	78731-0003	78731-0004	78731-0005	78731-0006	78731-0007
		78731-0008	78731-0009	78731-0010	78731-0011		
	288	78731-1002	78731-1003	78731-1004	78731-1005	78731-1006	78731-1007
		78731-1008	78731-1009	78731-1010	78731-1011		

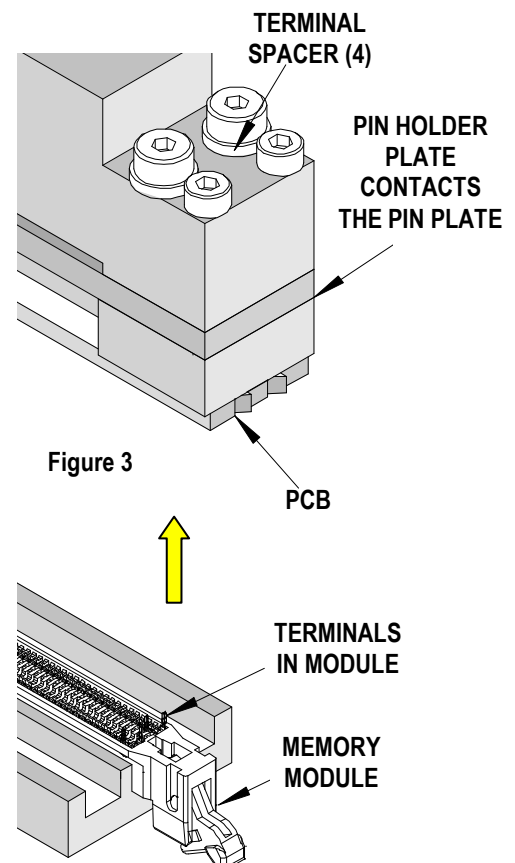
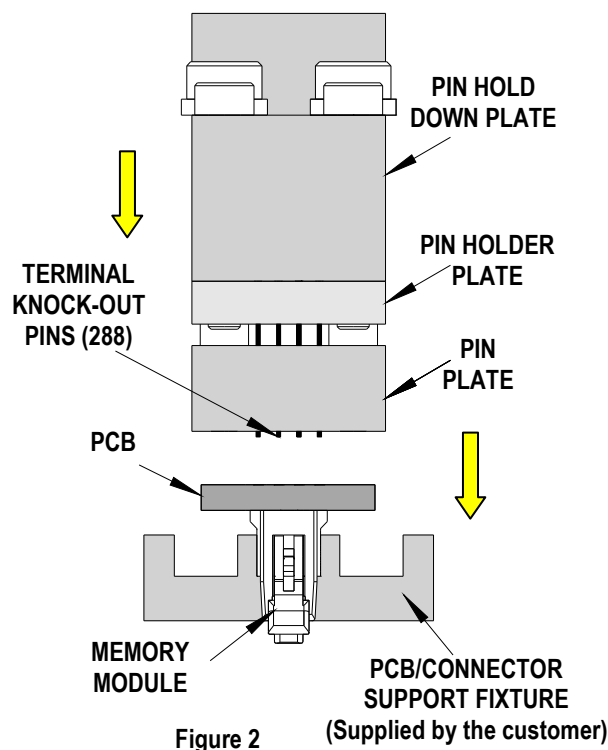
### Tool Operation:

1. Position the Memory Module with the printed circuit board in the correct orientation as shown in Figure 1. Make sure that the Memory Module is seated correctly in the PCB/Connector support fixture. (Supplied by the customer. See Page 3.)

**Note:** For the 284 circuit assemblies, remove two knockout pins from each end of the tool (See knock out pin replacement).



2. With the Memory Module supported with the customer supplied fixture, the Extraction Tool can now be placed on the back side of the printed circuit board. See Figure 2.
3. The printed circuit board thickness will determine the method of location for the terminal knockout pins (the stock tool supplied has all terminal knockout pins extended thru the Pin Hold Down Plate). This is used when the terminals tips are recessed inside the circuit board.



**Note:** When the printed circuit board thickness is thinner and the terminals are protruding through the printed circuit board, remove the Terminal Spacer (4) one at a time by removing the shoulder screw and sliding the spacer off. Replace the shoulder screw one at a time and tighten. (The Terminal Spacers can now be stored on the Pin Hold Down Plate using the (2) M4 holes with M4 button head screws.)

4. Place Extraction Tool flatly on the backside of printed circuit board allowing all pins to enter the correct related terminal holes. All knock-out pins should enter the matching holes. If all pins are not in the terminal holes, slide the Extraction Tool slightly in a circular motion until all pins fall into the holes.
5. When the printed circuit board is thinner (see note above) the knockout pins will be retracted in the Pin Holder Plate. Place Extraction Tool flatly on backside of printed circuit board allowing the terminals to enter the holes in the Pin Holder Plate. All terminals should enter the matching holes in the Pin Holder Plate. If all terminals are not in the plate holes, slide the Extraction Tool slightly in a circular motion until all terminals fall into the holes.
6. The Memory Module Terminals are now ready for removal from the printed circuit board. Apply an equal force across the length of the Pin Hold-Down Plate. The Pin Hold-Down Plate will push all the knockout pins downward all at once and will push all the terminals out in one motion. The stroke of the tool is complete when the Pin Holder Plate contacts the Pin Plate.
7. When all terminals have been pushed out of the printed circuit board the force on the Pin Hold-Down Plate can be removed. The knockout pins will retract back.
8. Lift the printed circuit board off from the Support Fixture. If the Memory Module is still on the printed circuit board remove by hand by lifting on the housing. See Figure 3.
9. With the Memory Module removed, inspect the area. Use long pliers to remove any remaining terminals that are still in the printed circuit board and remove any additional debris if present.

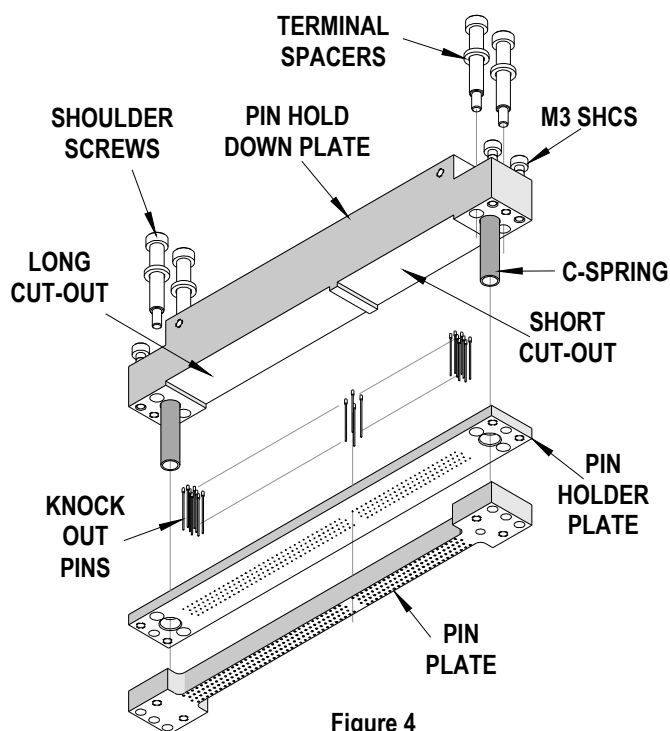


Figure 4

## Printed Circuit Board (PCB) Support

The DDR4 DIMM Memory Module connector requires a PCB/Connector support fixture when removing the connector from a PCB. To prevent printed circuit board damage a support fixture should be located directly beneath the connector being removed. This also will prevent any possible damage to adjacent connectors.

Due to the custom nature of every application, Molex does not offer any PCB/Connector support fixtures. The customer must supply their own support fixture.

When designing the support fixture, clearance must be provided for the connector and terminals being removed and to all adjacent connectors.

**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.

## Knock Out Pin Replacement

To replace a broken or damaged knock out pin:

1. Remove the (4) M3 SHCS holding the pin hold down plate to the pin holder plate.
2. Remove the (4) shoulder screws.

**Caution:** The pin hold down plate has springs below it that will release as the last shoulder screw is removed.

3. Move the pin hold down plate aside and identify the pin(s) to be replaced.
4. Using a tweezers or small pliers, grip the head of the pin and pull it out of the pin holder plate.
5. Install the replacement pin, making sure it goes through the pin holder plate and the pin plate. If any obstruction is felt, remove the pin and inspect the holes for debris.
6. Place the pin hold down plate and the (2) springs on the pin holder plate; the long cut-out on the pin holder plate is located over the larger group of pins.
7. Reinstall the (4) shoulder screws and the terminal spacers, (if used).
8. Re-install the (4) M3 SHCS.

## PARTS LIST

Extraction Tool 62202-3810			
Item	Order No.	Description	Quantity
<b>Perishable Tooling</b>			
1	62202-3815	Knock Out Pin	288
<b>Other Components</b>			
2	62202-3811	Pin Hold Down Plate	1
3	62202-3812	Pin Holder Plate	1
4	62202-3813	Pin Plate	1
5	63600-5541	Terminal Spacer	4
<b>Hardware</b>			
6	63600-5540	Shoulder Screw 4.5mm by 23mm Long	4
7	63600-2976	Compression Spring	2
8	N/A	M3 by 20 Long SHCS	4**
** Available from an industrial supply company such as MSC (1-800-645-7270).			

## Assembly Drawing

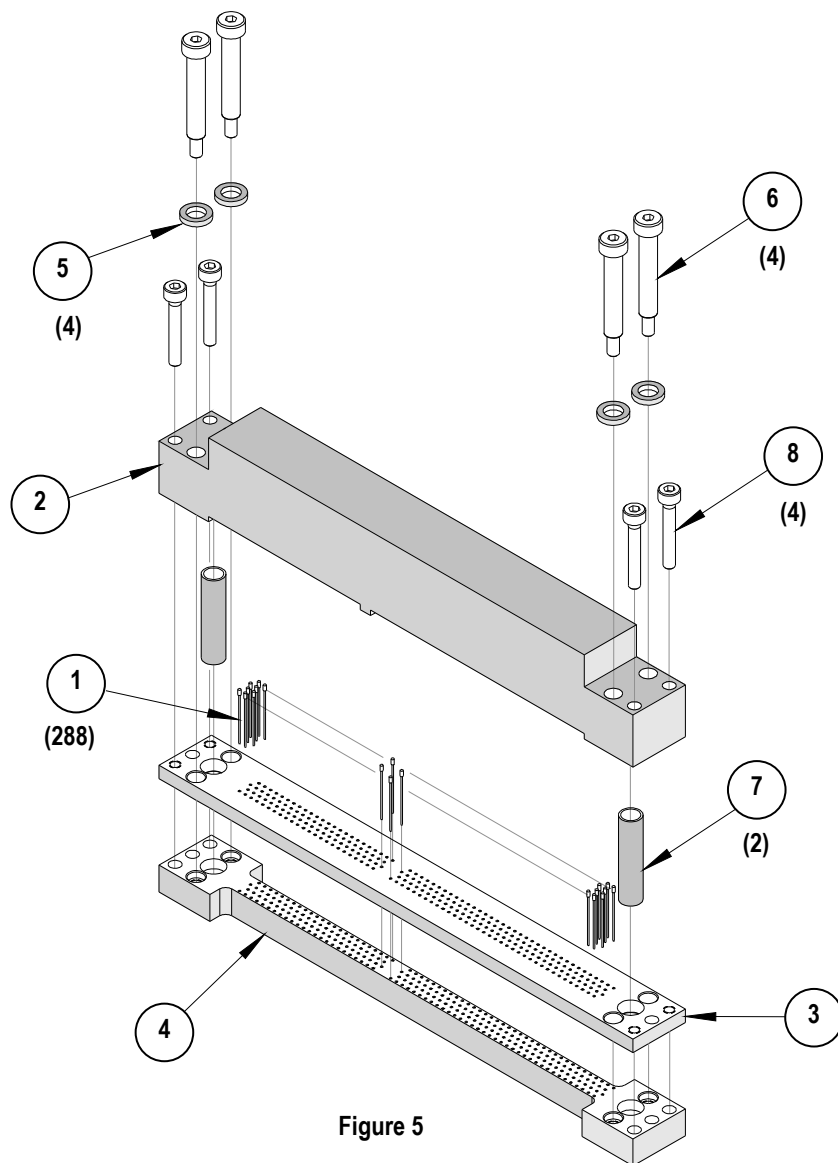


Figure 5

## Contact Information

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

Visit our Web site at <http://www.molex.com>