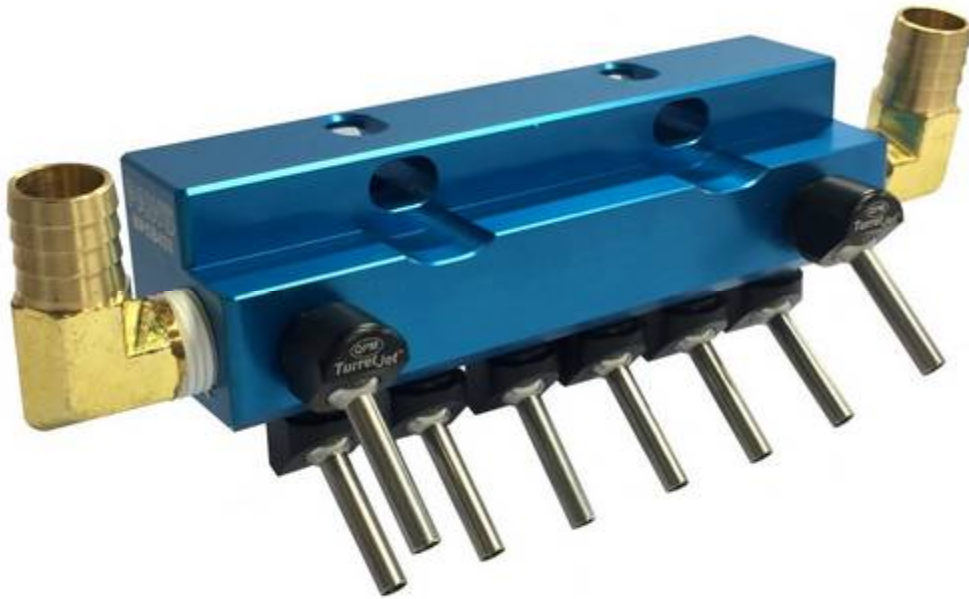




MPCB420 Multi-Port Coolant Block



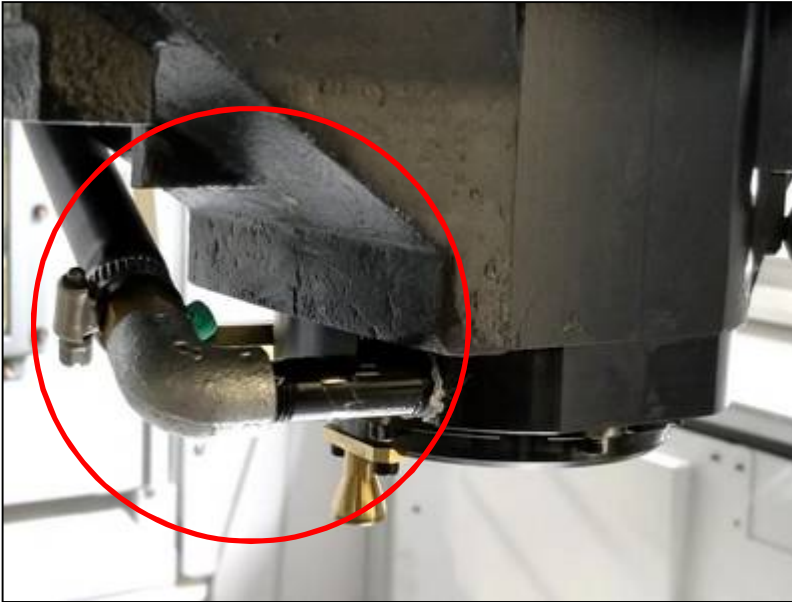
Brother R450 & R650 Installation Instructions

STEP 1:

- 1) Verify P.CLT is off and the pump has stopped spinning
- 2) Hand Jog Y-axis all the way forward
- 3) Hand Jog x-axis farthest away from side door
- 4) **Push the E-STOP.** You want to lockout the machine
- 3) Remove both side panels

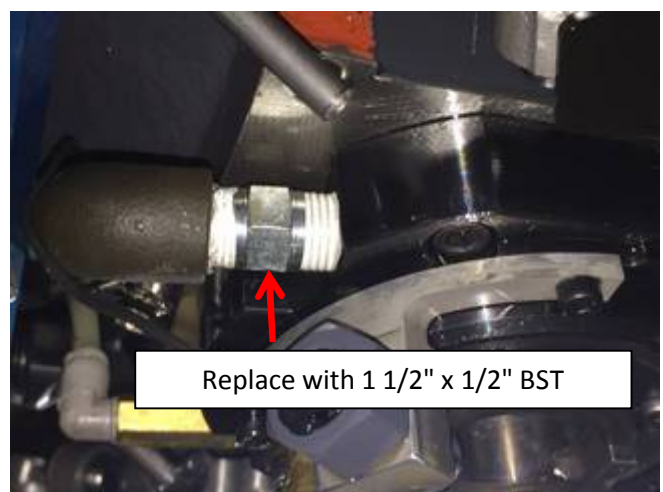
STEP 2:

- 1) Disconnect the tool wash coolant hose from the spindle by loosening hose clamp
- 2) Remove the pipe, elbow and barb fitting from the spindle



STEP 3:

- 1) Replace the 2" x 1/4" NPT pipe with the 1 1/2" x 1/2" BST and reinstall it on the spindle bearing housing, then the elbow and the barb.

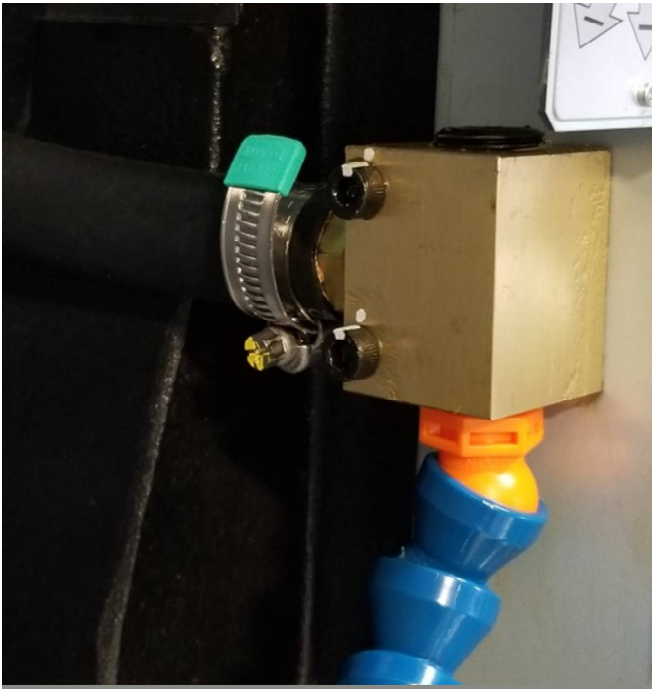


- 2) Connect the 3/8" hose back onto the barbed fitting and tighten hose clamp. Rotate elbow upward at slight angle for clearance.

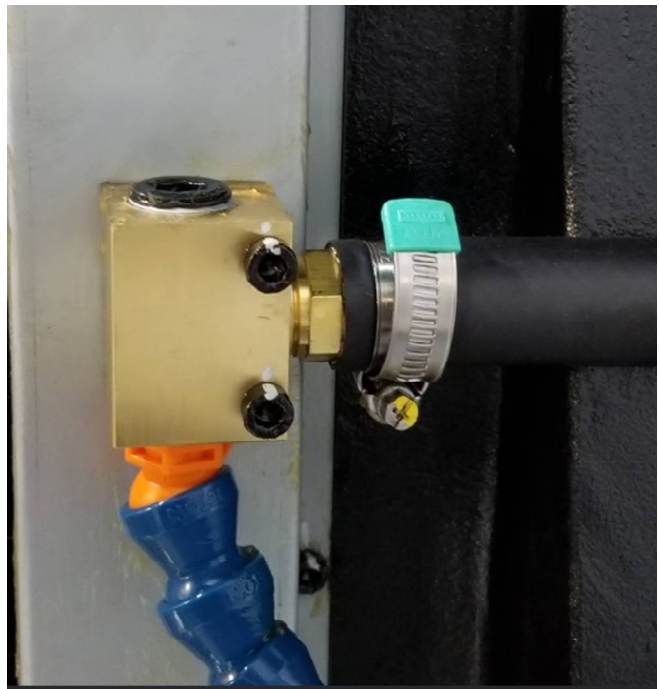
STEP 4:

1) Remove both coolant hoses from the Line lock blocks. Loosen hose clamps and disconnect hose

Right Side



Left Side



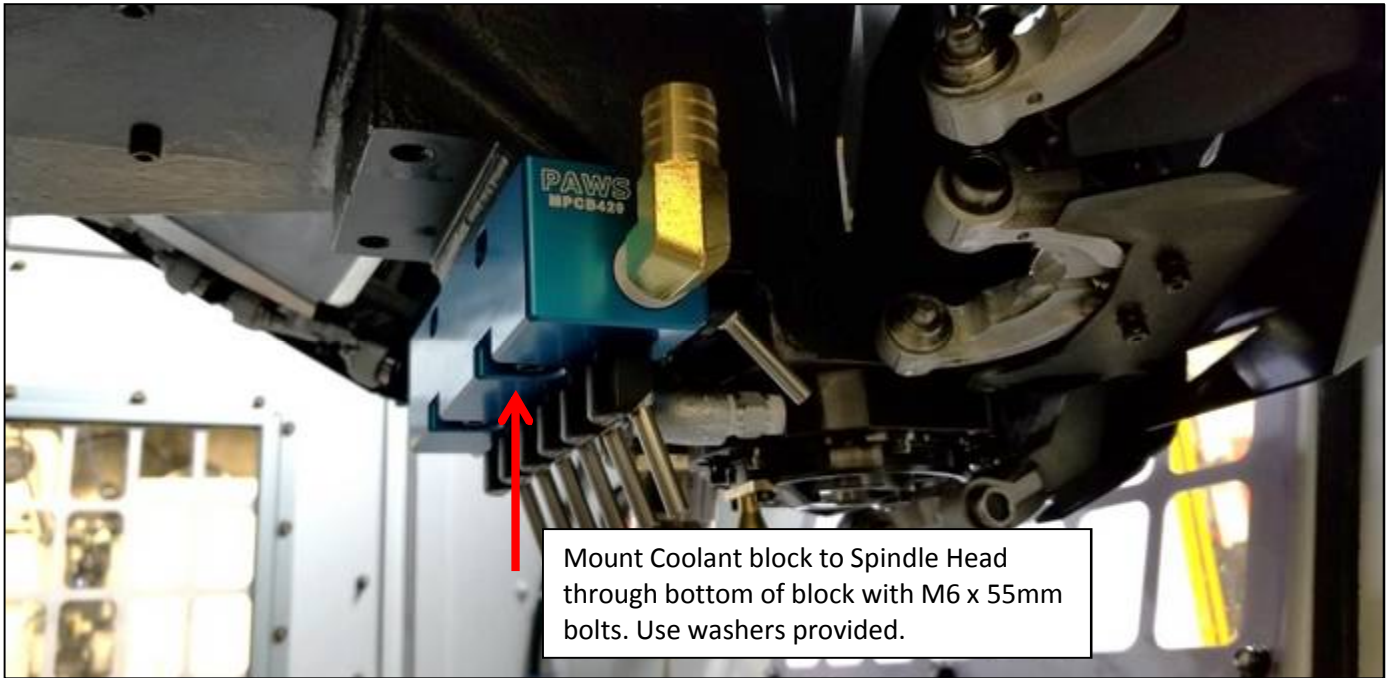
2) Disconnect hoses from the solenoid at the back of the carriage. Pull hoses out as they will be replaced with new hoses that run directly to coolant block.



3) Keep all hose clamps

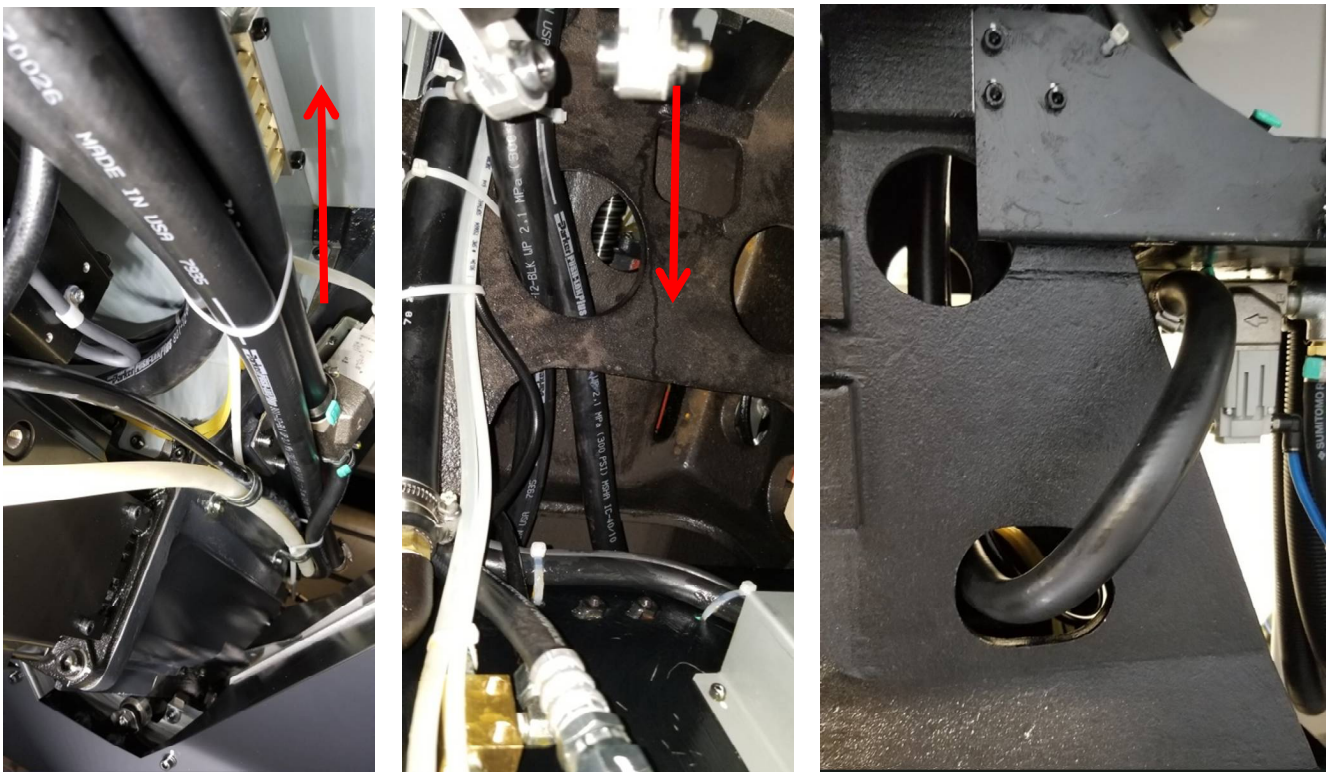
STEP 5:

- 1) Bolt coolant block to the spindle with M6 x 55mm bolts provided.



STEP 6:

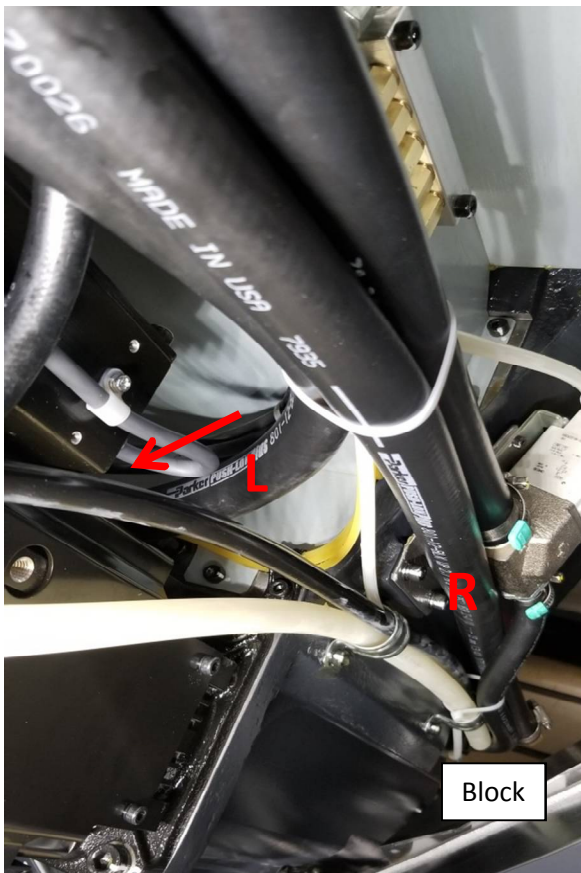
- 1) Run the 9' 8" hose up the right side of the spindle into the cable tray. Follow the cable tray up, over, and down, through the hole in the carriage and out the right side, looping it back to the solenoid. Before clamping hose to solenoid, make sure there are no kinks. Attach hose to coolant block using hose clamp.



2) Feed the 10' 6" hose up the right side of the spindle and follow the other hose around cable tray and down. Run hose out of the left side hole in the carriage, looping back to the solenoid. Before tightening hose clamp make sure there are no kinks.



3) To attach hose to the left side of coolant block, feed the hose between the motor and carriage, running hose down the left side of the spindle. Attach the hose to the coolant block with hose clamp, making sure you have no kinks.



IMPORTANT !!

STEP 7:

Where the two hoses come out of the cable tray and go into the carriage hoses need to be zip tied away from the tool carriage gear.

WARNING

If the zip ties are not installed the gears can shear the hose in half and cause an excessive coolant leak.



STEP 8:

- 1) Put both side panels back on
- 2) Release E-STOP
- 3) Push Reset
- 4) Turn the coolant on
- 5) Check for leaks

STEP: 5 (R650 ONLY)

WARNING * Collision can occur if NOT programed correctly * **WARNING**

The following ladder program will prevent the VMC from allowing the coolant block to accidentally collide with way cover.

I/O
INPUT/OUTPUT
ENTER
VERSIONS
PARAMETER CHANGE
1
ENTER

DATA BANK
USER PARAMETERS
ENTER
SWITCH 2
0564 Y-AXIS POSITION SIGNAL OUTPUT RANGE (-)
-1.5000
ENTER
0567 Z-AXIS POSITION SIGNAL OUTPUT RANGE (+)
11.500
ENTER
SWITCH 1
PAGE DOWN AND CURSOR TO PLC LADDER PROTECTION
0
ENTER
COMPLETION MODE
CANCEL W/SAVING CHANGES

WHILE IN DATA BANK GO TO
EXTRENAL I/O SIGNAL
EXTERNAL ALARM
PAGE DOWN & CURSOR OVER TO EXTERNAL ALARM 99
TYPE IN
"OVER TRAVEL"
ENTER
Stop Level (4)
ENTER
Cancel Level (2)
ENTER
Alarm Log (1)
ENTER
COMPLETION MODE
CANCEL W/SAVING CHANGES

(Continued in Next Column)

(Continued)

I/O
I/O MENU
PLC
ENTER
PLC
ENTER
STANDARD LADDER PROGRAM 1
ENTER
SHOW COMMENTS
CURSOR DOWN TO THE BOTTOM

EDIT MODE
--| |-- F1
BX011
ENTER
--| |-- F1
BX012
ENTER
PAGE OVER ONCE
--|/|--F1
BX129
ENTER

HOLD SHIFT CURSOR OVER AS FAR RIGHT AS IT WILL LET YOU
PAGE OVER TWICE
--()—F3
BY1D9
ENTER
CONVERT
VEIW MODE
WRITE LADDER
YES
WAIT TILL YOU SEE IT SAYS "COMPLETE", THEN PUSH THE
RESET

Note: If done correctly, you should not be able to hand jog coolant block into way cover when spindle is close to machine table

STEP: 6 (R650 ONLY)

TEST to verify ladder logic was programmed successfully

- 1) go into "Manual Mode"
- 2) Set Jog Handle to "Y"
- 3) Move spindle forward about 6 inches in negative (-) direction away from way cover
- 4) Set Jog Handle to "Z"
- 5) **remove any tools from spindle to avoid running into table**
- 6) Move down in Z (-) direction as far as you can go

Verify coolant block can NOT bump into way cover

- 7) Slowly move spindle in Y (+) direction
- 8) if programmed successfully machine should display

"EX2089 * Over Travel ALARM"

If machine does not alarm out please verify STEP# 5

To Clear Alarm

- 9) Move jog handle to "OFF" position
- 10) Press and hold "RESET" button and at the same time press and hold the "RELEASE" button
- 11) let go of "RESET" button while still holding "RELEASE" button and hold "Z+" until spindle is moved above way cover

Alarm should be cleared.

For Help or assistance with installation:

Please call (866) 686-7297, Ask for Eric
PAWS Workholding, 11533 Liberty Street Clio, MI 48420
www.pawsworkholding.com

List of materials needed for install:

parts list

- | | |
|---|---------------------|
| 1 | Coolant block |
| 2 | ½" npt x barb elbow |
| 1 | 9'8" x ¾" id hose |
| 1 | 10'6" x ¾" id hose |
| 2 | 6mm x 50mm bolts |
| 2 | 6mm washers |
| 1 | 1 ½" x ½" BST pipe |