VQC4000 and 5000 Series Manifolds with EX600 Ethernet Components

EX600-SEN5-X16 Ethernet IP Serial Interface
EX600-DXPD-X16 Input Block
EX600-DYPD-X16 Output Block
EX600-ED3-X16 End Plate
VQC4000 and VQC5000 Series Valves

Note: Must provide 24 Vdc +/- 10%, 8 Amp maximum power supply

Power Consumption:

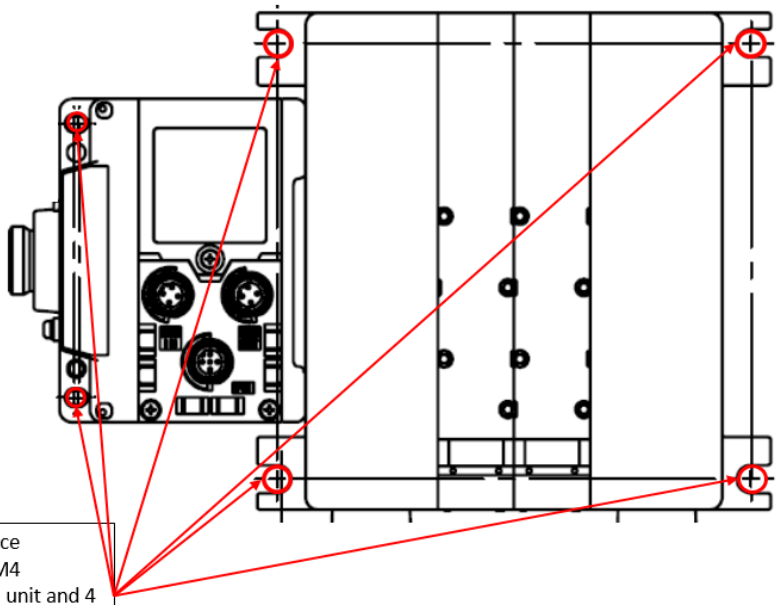
2 EX600-DXPD	70mA each	
Maximum Supplied Current: 0.5 A maximum input per port, 2 A max per Input Block		
1 EX600-DYPB	50mA	
Maximum Load Current: 0.5 A maximum per output, 2 A max per Output Block		
1 EX600-SEN5-X16	120mA	
2 Station Mfld	40mA ea	x 2 = 80mA
4 Station Mfld	40mA ea	x 4 = 160mA
6 Station Mfld	40mA ea	x 6 = 240mA
8 Station Mfld	40mA ea	x 8 = 320mA

Procedure for the installation of the VQC4000 manifold

Step 1

Drill holes on the mounting surface where the manifold is to be installed being careful to match the bolt hole pattern required. Ensure that the holes are on center as shown below.

Note: Surface must be flat. See figure 1

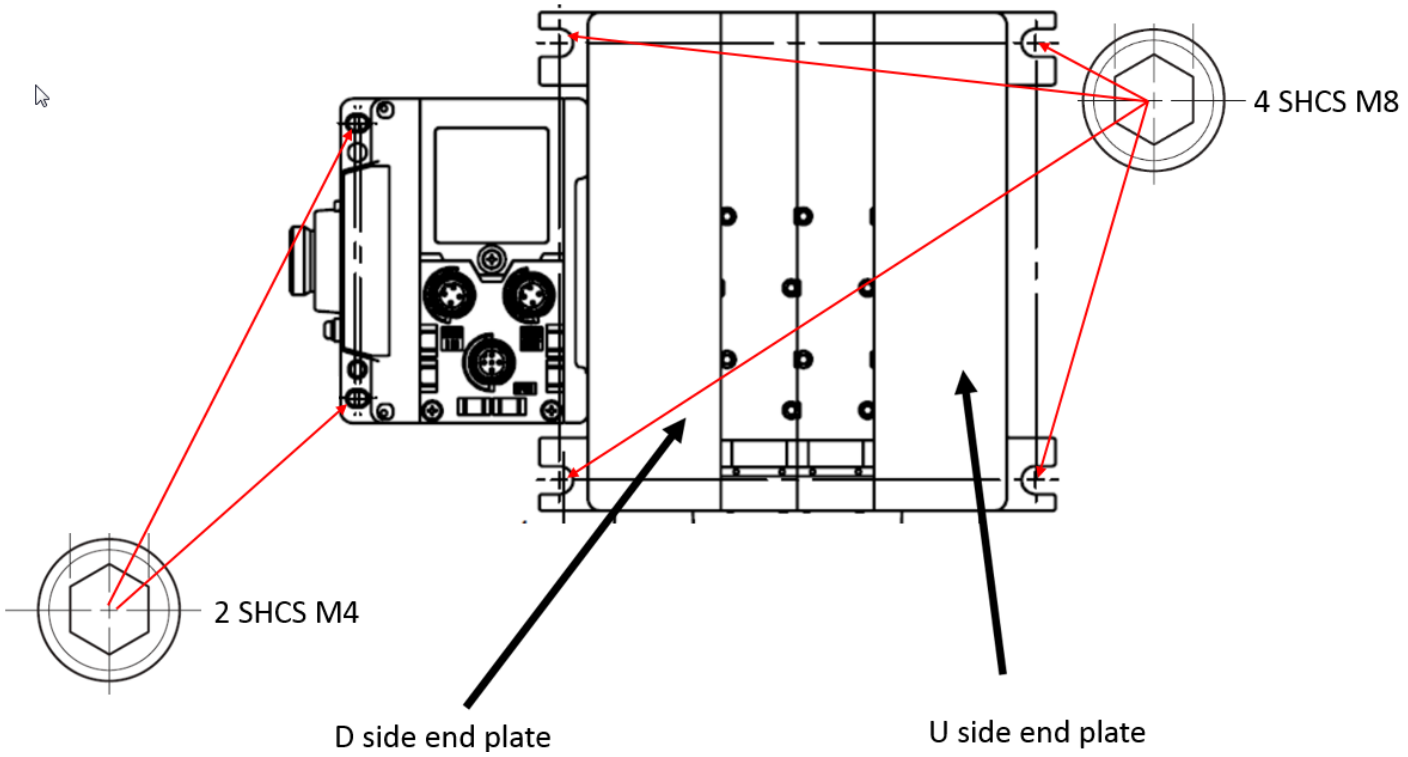


Drill the 6 holes on a flat mounting surface
As show in the figure 1 (2 holes for the M4
Socket head cap screws (SHCS) for the SI unit and 4
Holes for the M8 sockets head cap screws for the
Manifold)

Figure 1

Step 2

Place manifold on surface and install all socket head cap with high collar lock washer. Hand tight only.
(2 M4 SHCS for the SI unit size and 4 M8 SHCS for the U side end plate and D side end plate of the manifold)



Procedure for the installation of the VQC4000 manifold

Step 3

Move the manifold until the SHCS and high collar lock washers meet the wall of the manifold slot and tighten the SHCS on the end plate on the D side starting with the SHCS in HOLE 1 as shown in Figure 2. Next tighten the holes on the U side end plate. Tighten the two M4 SHCS on the SI end plate last. Ensure that there is no strain between the SI unit and the manifold that may cause intermittent connection issues.

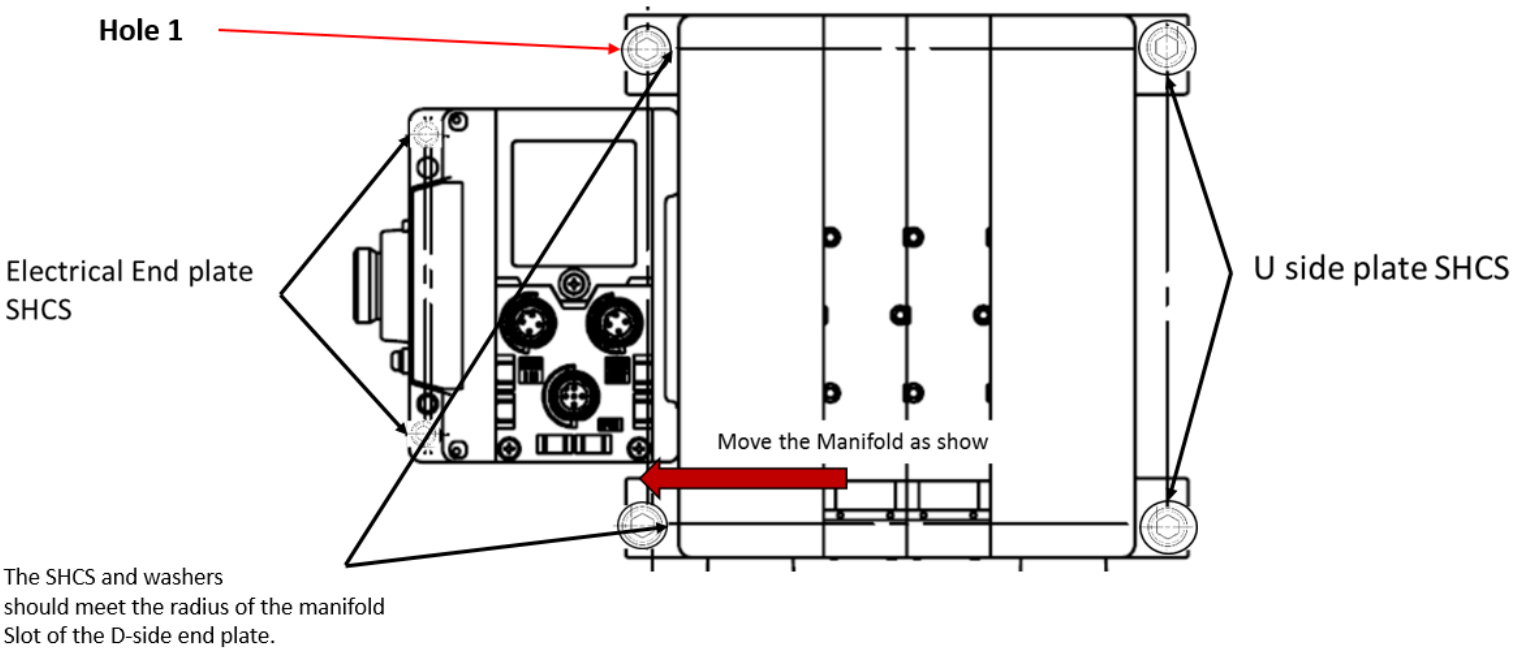
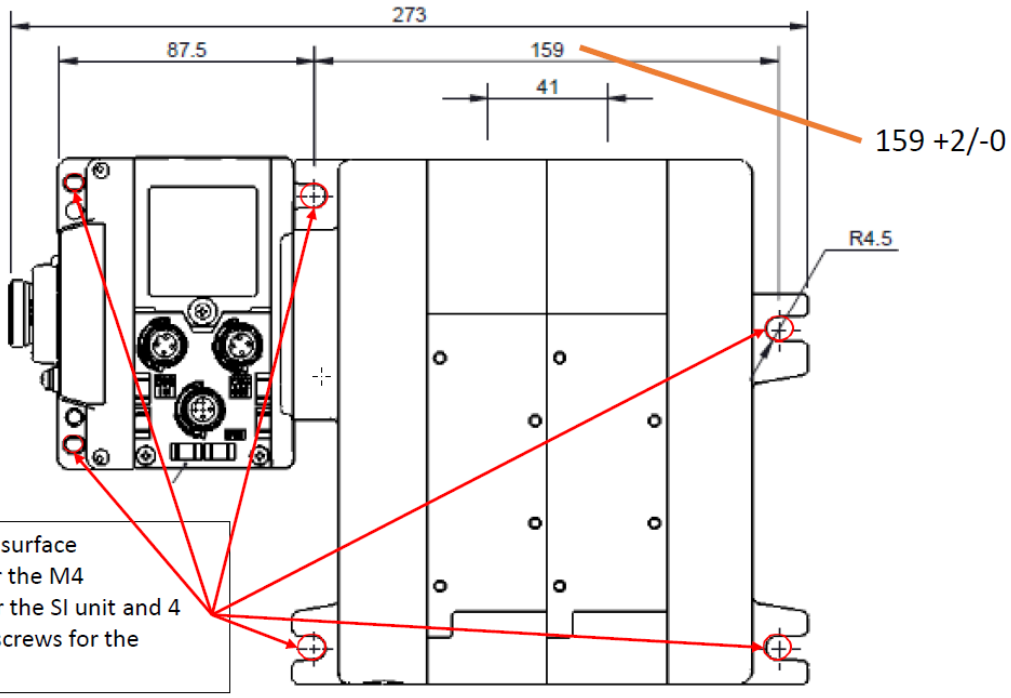


Figure2

Procedure for the installation of the VQC5000 manifold

Step 1

Drill holes on the mounting surface where the manifold is to be installed being careful to match the hole pattern required. See figure 1. Note: Mounting surface must be flat



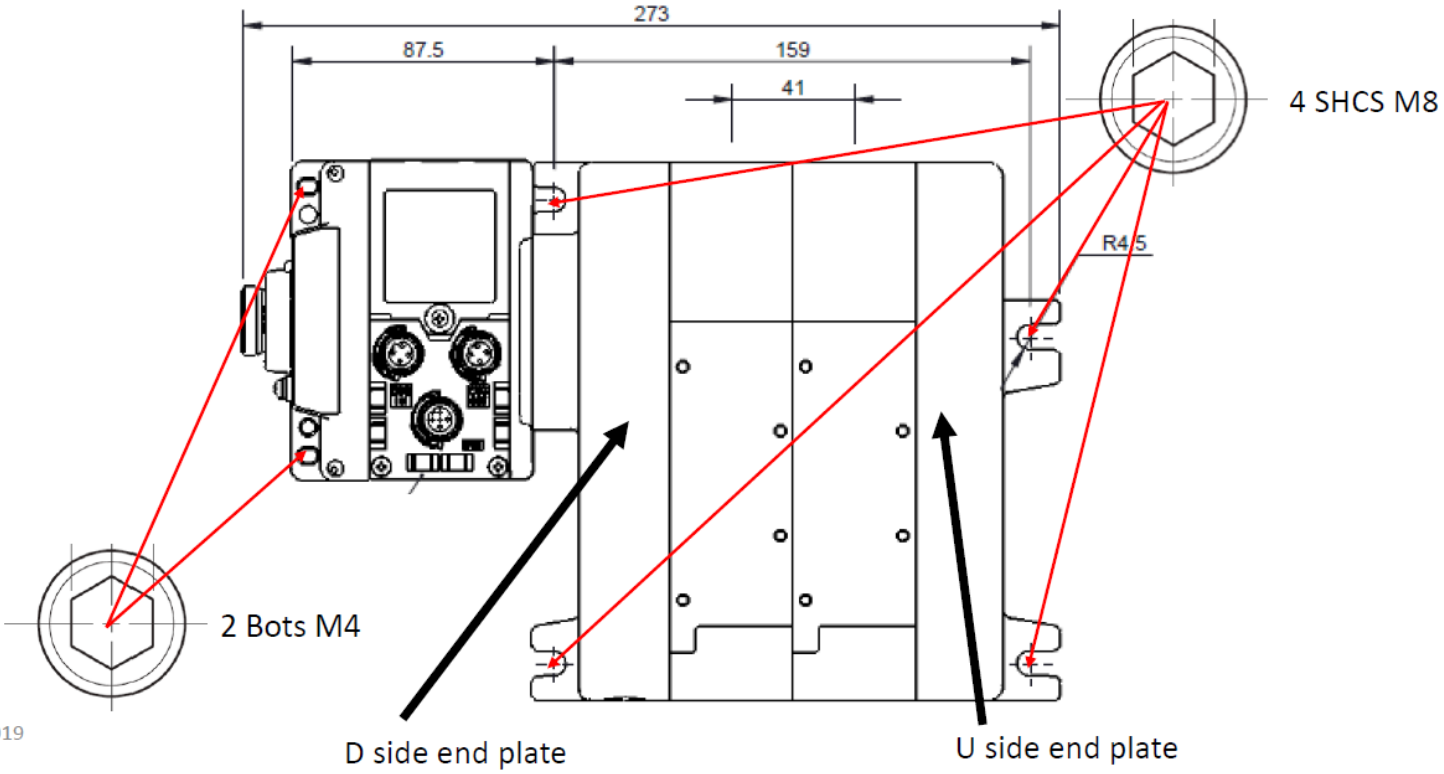
Drill the 6 holes on the mounting surface As show in the figure 1 (2 hole for the M4 socket head cap screws (SHCS) for the SI unit and 4 hole for the M8 socket head cap screws for the manifold)

1/18/2019

Figure 1

Step 2

Place manifold on surface and install all socket head cap screws with high-collar lock washer. Hand tight only. (2 M4 SHCS for the SI unit size and 4 M8 SHCS for the U side end plate and D side end plate of the manifold)



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Procedure for the installation of the VQC5000 manifold

Step 3

Move the manifold until the SHCS and high collar lock washers meet the wall of the manifold slot and tighten the SHCS on the end plate on the D side starting with the SHCS in Hole 1 as shown in Figure 2.

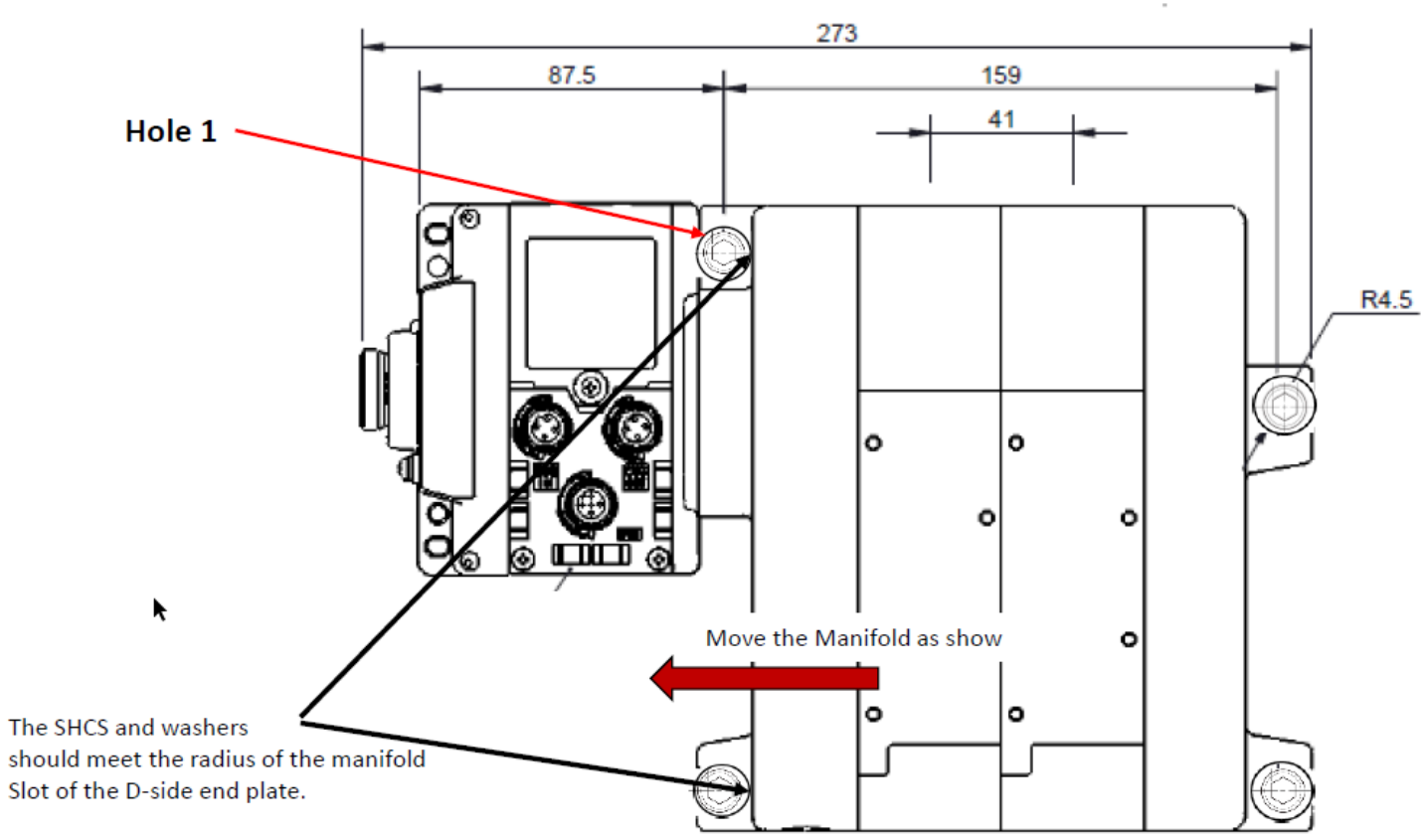


Figure2

Procedure for the installation of the VQC5000 manifold

Step 4

Tighten the rest of the SHCS beginning with the U side end plate and lastly with the two mounting SHCS securing the electrical end plate. Make sure there is no deflection or distortion of components. See Figure 3.

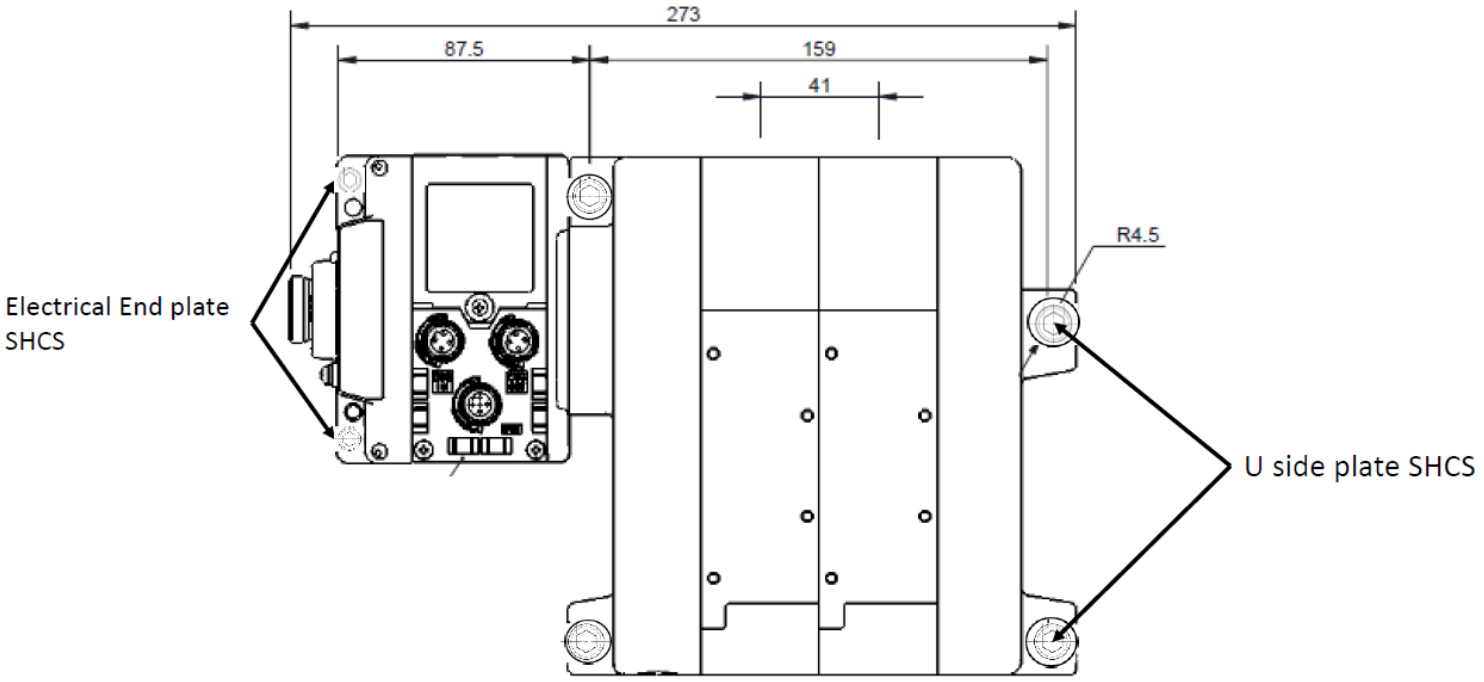
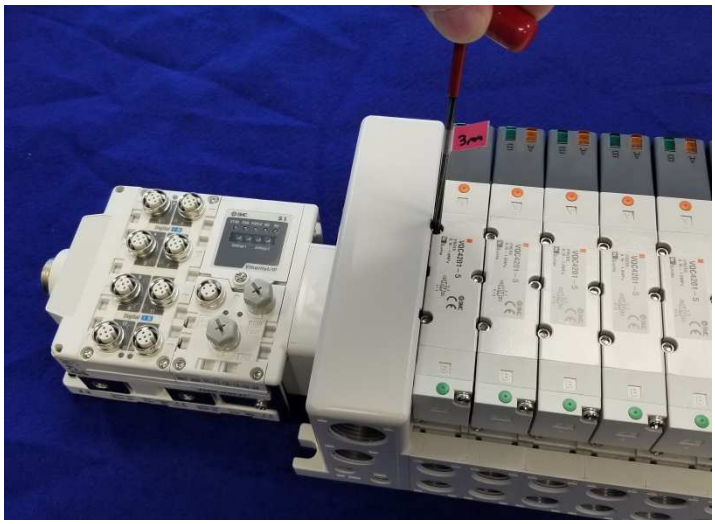


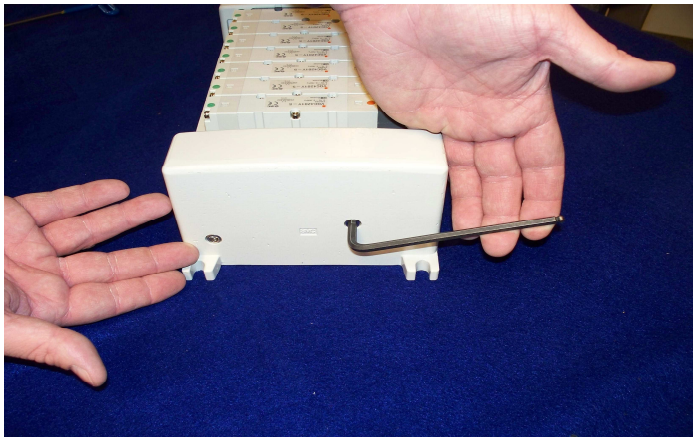
Figure 3

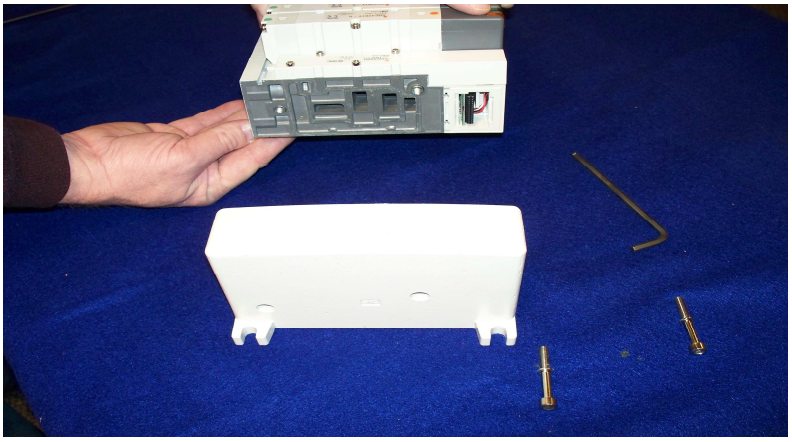
To remove a valve on the VQC4000 Series Manifold use a 3mm allen wrench (4mm allen on VQC5000 Series Manifold). Loosen the three bolts evenly and remove the valve. Make sure the gaskets stay on the manifold.

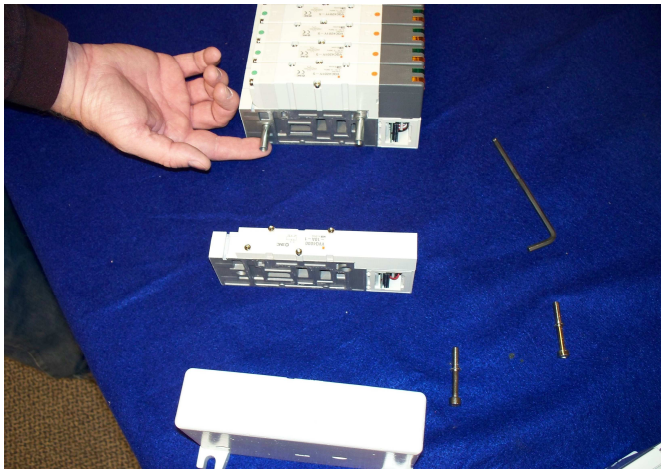


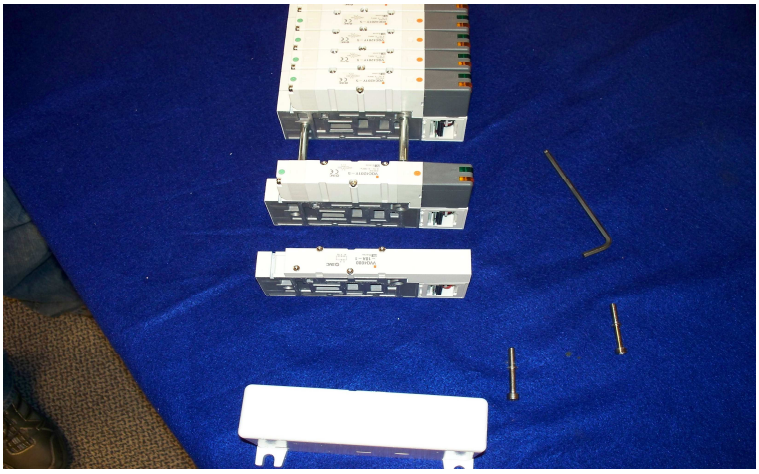
- Set the new valve in place and tighten down the three screws evenly, until the valve is seated and the bolts are tight.

If damage occurs to a manifold base, or the U Side End Plate use a 5mm allen wrench to remove the U Side End Plate on the VQC4000 Series manifold as shown below (6mm allen wrench on the VQC5000 Series Manifold).





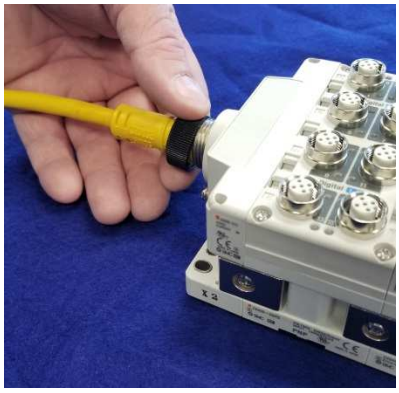
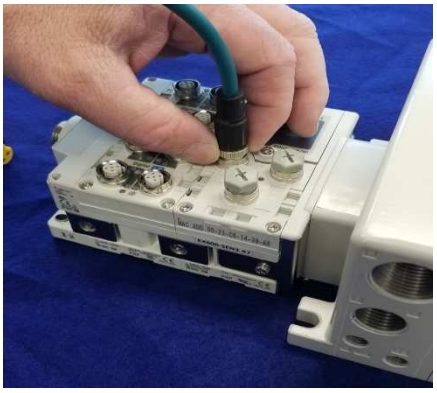


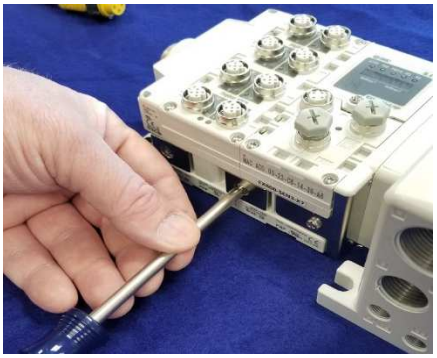


- Slide each manifold slice off of the Tie Rod assembly until you reach the damaged manifold slice. Replace by simply sliding the new manifold base back on to the tie rod assy and re-assembling the manifold

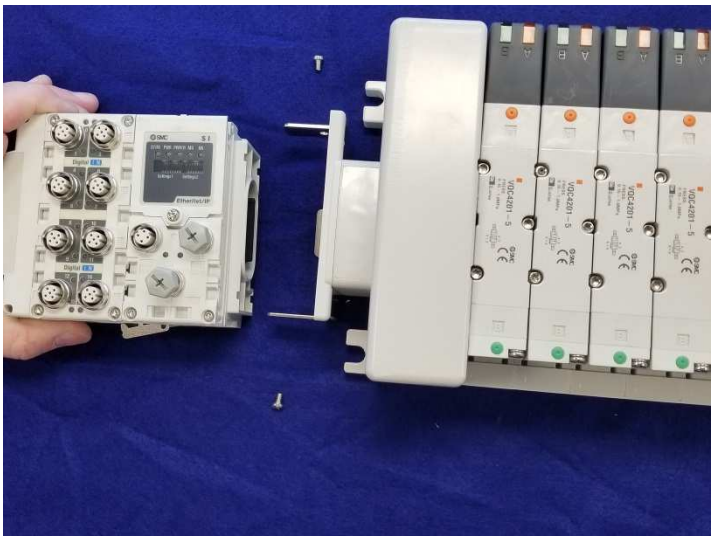
When diagnosing problems pertaining to the EX600-SEN3 follow the Ethernet Trouble Shooting portion of the Operations Summary provided with this documentation. If the Ethernet module needs to be replaced follow the instructions below.

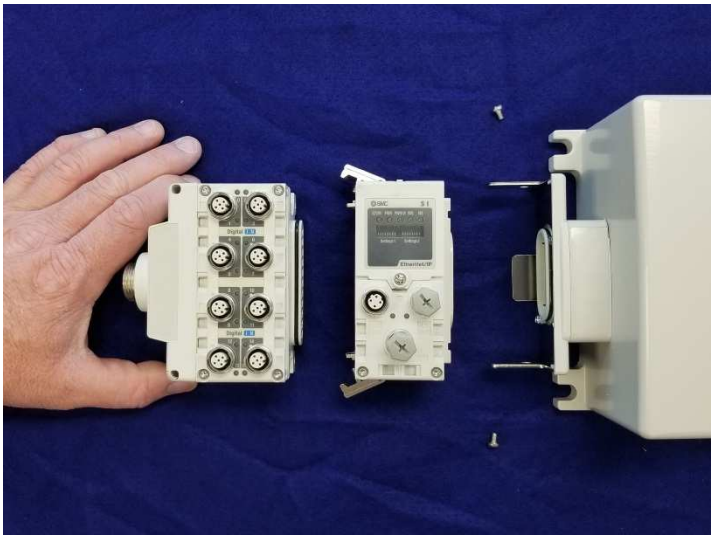
1. Remove the Auxiliary Power Cable and Communication Cables from the EX600-SEN3.
2. Separate the EX600-SEN3 Serial Interface from the manifold and from EX600-DXPD input blocks, by loosen the screws (qty4) with a cross screw driver.



3. Remove EX600-SEN3 Ethernet Serial Interface from the manifold and then lift the clips from the Serial Unit EX600-SEN3

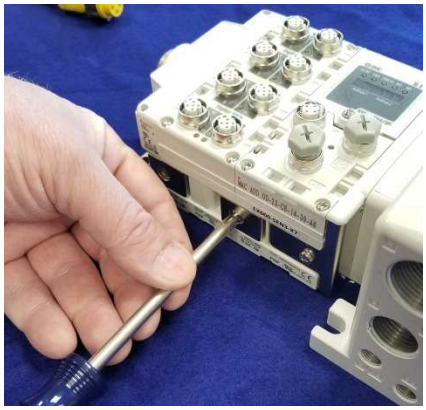


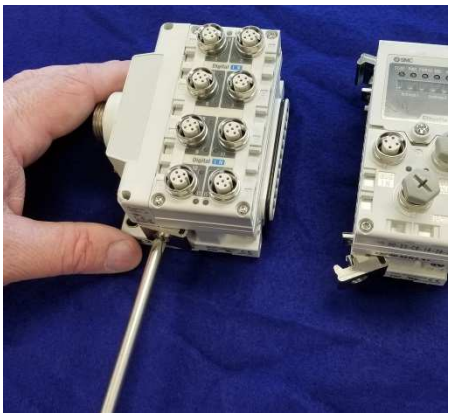


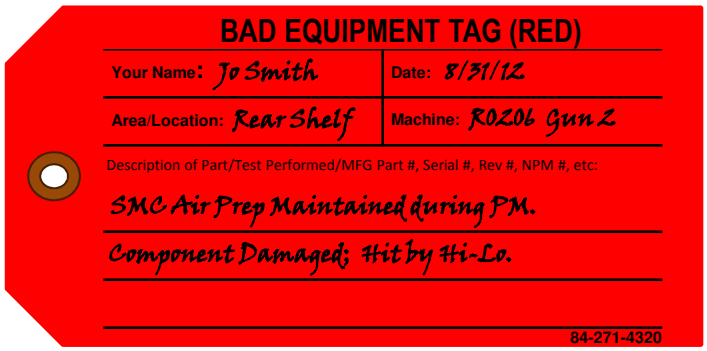
4. Replace suspect EX600-SEN3 with new unit off the shelf. Reassemble and reconnect.
5. Fill out red tag and affix to suspect unit, mark machine ledger.

When diagnosing problems pertaining to the EX600-SEN5-X16 input block, follow the Ethernet Trouble Shooting portion of the Operations Summary provided with this documentation. If the input module needs to be replaced follow the instructions below.

1. Remove the screws (qty2) from the clips of the EX600-SEN5-X16 using a cross screw driver.
2. Lift the clips from the EX600-SEN5-X16 and then separate the EX600-DXPD-16 from the EX600-SEN5-X16.
3. Remove the screws from the clips of the input block EX600-DXPD-16 and then lift the clips from input block the EX600-DXPD-X16 and then remove suspect input block.
4. Replace suspect input block and reassemble.
5. Tag suspect block with red tag, and mark machine ledger accordingly.







When performing unscheduled maintenance due to product failure, and/or damage due to external forces, ensure that the red tag procedure is followed appropriately and that the tag is affixed to the product being investigated. Make sure that the incident is noted on the Machine Ledger with the appropriate indications