

MN3E・MN4E series

Equipped with regulator

Thank you for purchasing CKD product.
Please review the precautions in this document thoroughly for safe operation of this equipment.
Keep this document in a safe location so that it is easily referenced as necessary.
For further information, refer to the instruction manual and product catalog.

CAUTION!! Do not unpack solenoid valve until the piping is ready for connection.

Foreign particle entering through piping port will cause failure and malfunction.

WARNING

- Do not step on or place objects on the product. Failure to follow this warning may cause falling accident, falling of the product, bodily injury due to fall, malfunction due to breakage of the product, etc.
- Before inspecting, checking or adjusting the product, turn off power supply and shut down compressed air line and verify zero residual pressure.

CAUTION

- Be careful of the supply pressure when you use two 3-port valves built-in type. Check that the main pressure supplied to the valve block with two 3-port valve is higher than the pilot pressure, and that the main pressure does not drop below 0.2MPa.

Connection and installation

WARNING

- Do not use water or solvent for cleaning and painting. Plastics broken by the solvent and coating materials will clog the port, causing malfunction.

CAUTION

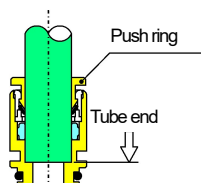
- Do not restrict the flow of air to the supply port.** Otherwise, supply pressure drops during operation and causes the device to malfunction.

- Before connecting the piping to the valve, thoroughly clean the inside of piping by air blowing (flushing) or by washing to clear off chips, cutting oil, dust and foreign particle.

Joint and tube

Push-in joint

- Insert the tube to the tube end. Verify positive engagement of the tube by jiggling it. If the tube is not fully inserted, it may become loose, causing air leakage.



Tube

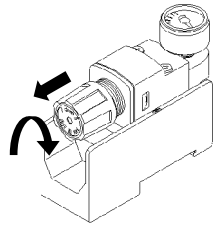
- Use a dedicated cutter to cut the tube perpendicular to its length.
- The bending angle of piping must be larger than the minimum bend radius of the tube.
- Before tube is used, It should be thoroughly washed to eliminate cutting chips, cutting oil, and other debris from inside the tube

Regulator pressure adjustment

CAUTION

- Regulator's pressure adjustment knob is a lock-type knob. To adjust pressure, release the lock before operating the knob. Operating the knob without releasing the lock will result in product damage.

- Pull the knob forward lightly to release the lock.
- Turn the knob to the right (direction of H indicated on knob) to increase pressure, and turn the knob to the left (direction of L indicated on knob) to reduce pressure.
- After adjusting pressure, push the knob in lightly to lock it (listen for a click).



How to disassemble/assemble regulator and regulator block

WARNING

- Turn power OFF and release pressure before performing work (such as making additions or disassembling/assembling) associated with making changes to regulator or regulator block specifications or replacing the regulator due to end of service life.
- Be sure to join the blocks. Tighten the screws with appropriate torque. Inappropriate assembling or tightening may cause air leakage, falling product, damaged screws, deformed DIN rail, etc.

CAUTION

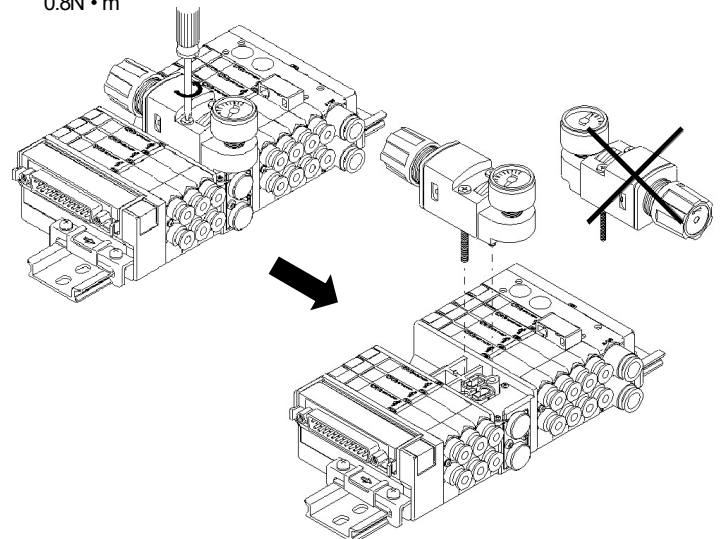
- Refer to the instruction manual for MN4E0 for details on handling the valve block.

Regulator replacement

CAUTION

If the direction of the regulator knob is reversed when put back together, the regulator may not reduce pressure.
Make sure to put the removed regulator back like how it was.

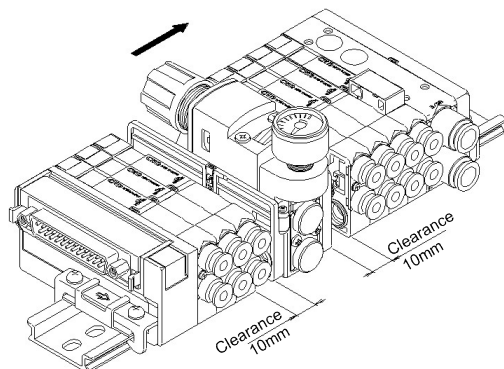
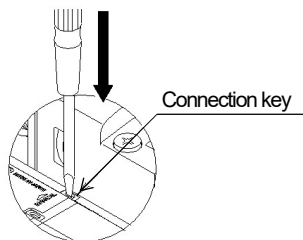
- Loosen the regulator mounting screw, and lift the regulator upward and off
 - After replacing the regulator, confirm that the gasket is not deviated from the block grooves, and assemble to the original state.
- The appropriate tightening torque for the regulator mounting screw is 0.5 to 0.8N・m



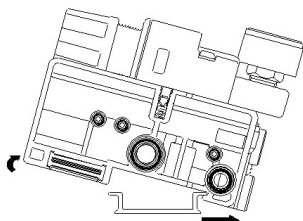
Please turn over

Regulator block replacement

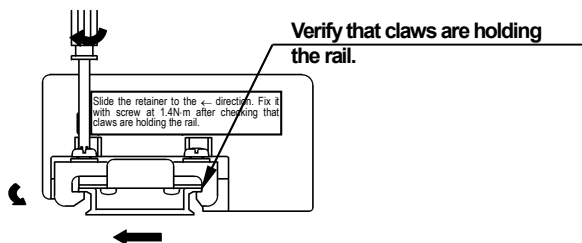
- Loosen DIN rail fixing screw on end block.
- Using a needle-nosed tool, press and hold the connection key for the valve block to be replaced and the blocks on both sides.
- While pressing and holding the connection key, slide the block toward the end block to provide approx. 10 mm clearance on both sides of the block to be replaced.



- Lift the piping port opposite side of the block and pull it toward the piping port to remove it from DIN rail.



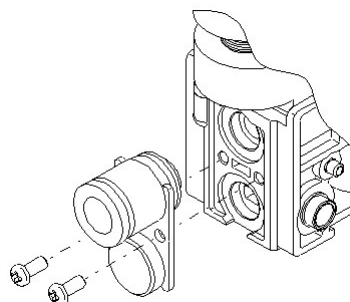
- Replace the block, and mount the blocks onto the DIN rail in the opposite order that they were removed.
- Slide all blocks toward the electric block and connect them so that no gap is found between blocks. Verify that the connector is pinch-free. Adding excessive force to incorrectly engaged connector causes breakage.
- Verify that the connection key is returned to the groove on the block upper surface.
- Slide the retainer of end block toward port until the claws catch the DIN rail and tighten the fixing screws after checking that claws are holding the rail. Appropriate tightening torque is 1.4 N·m.



Replacement of cartridge joint

CAUTION

- Do not lose the mounting screws; they are special type screws. If you lose them, do not substitute them with other screws. Otherwise, it will result in product damage.
- Remove the mounting screws.
- Pull the stopper plate and joint off together.
- Align the stopper plate with the groove on the replacement fitting, and temporarily assemble.
- Assemble the stopper plate and fitting together, and tighten the mounting screw. Recommended tightening torque is 0.4 to 0.45N · m
- After replacing, pull on the fitting and confirm that it is installed correctly.



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