

Service and Maintenance

Repositioning of the Motor Conduit Box and Cable Entry
Motor Frame Sizes 71-132



Overview

- | | |
|---|-----------------------------------|
| 1 | Safety |
| 2 | Tooling |
| 3 | Changing the Conduit Box Position |
| 4 | Changing the Cable Entry |

Safety



Safety First

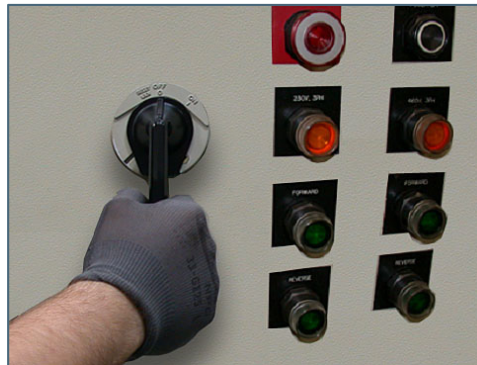
1. Never perform any work that you are either unqualified for or uncomfortable in doing
2. Follow all local safety guidelines
3. Never perform work on equipment that is connected to a power source or energized
4. Always use the proper tooling
5. Make use of all required PPE or Personal Protective Equipment

Safety



Safety First

1. Disconnect all power sources



2. Remove power cables from the motor



Safety



Important! – Following of these instructions will compromise the seal and paint coating applied during the assembly process at the SEW-Eurodrive assembly facility.

It is not recommended to change the conduit box position if the motor is an extreme installation such as wash-down or corrosive environments.

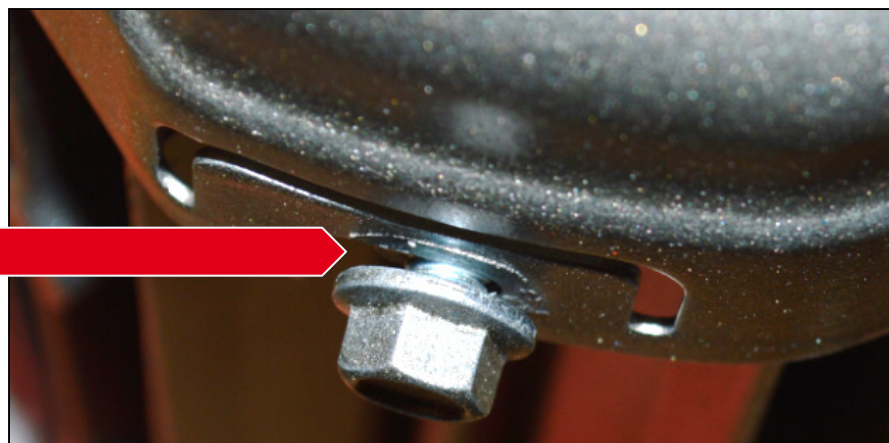
Required Tooling

- Metric Nut Driver
- Flat head screw drivers
- External Circlip Pliers
- Torx Bit Driver/T-Handles
- Dead Blow Hammer
- Torque Wrench



Conduit Box Position Change

Step 1 – Using the 8mm nut driver, loosen the fan guard screws to allow an ~1/8" gap between fan guard and back side of the screw head



Conduit Box Position Change

Step 2 – Rotate the fan guard slightly counter-clockwise and remove completely from the motor



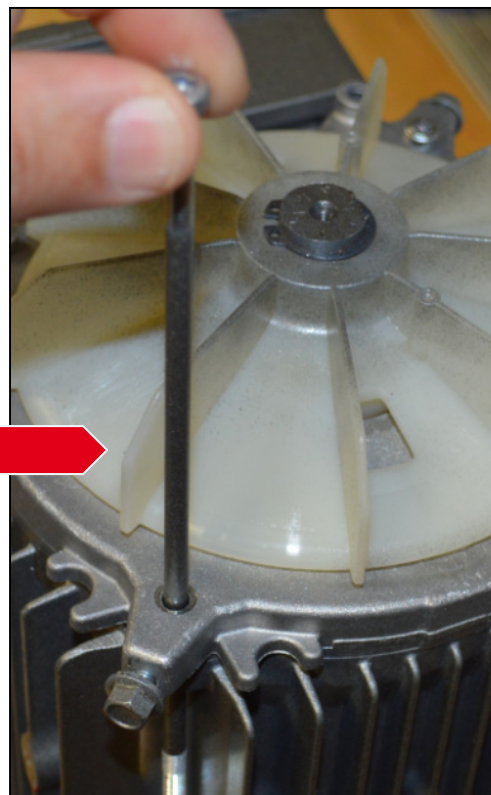
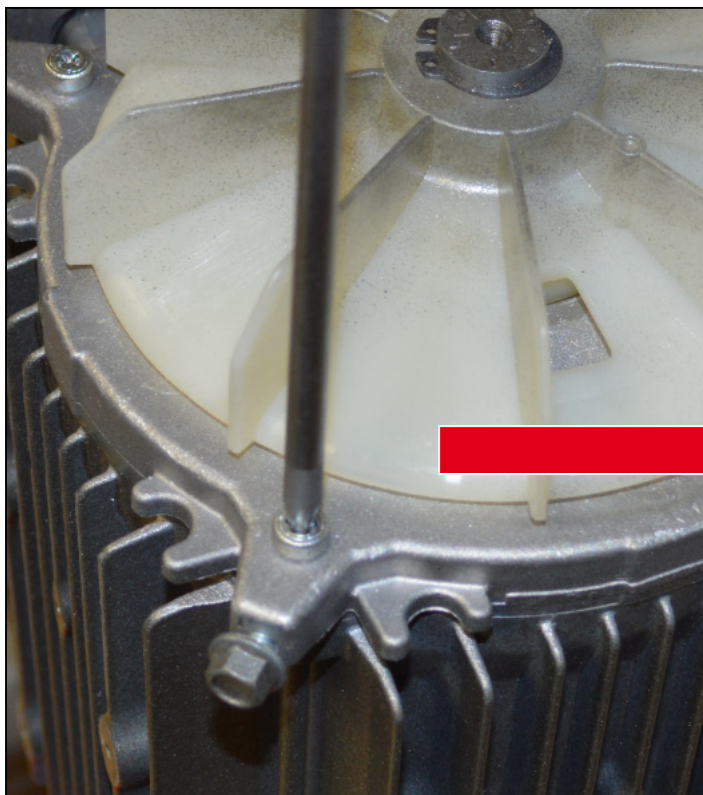
Conduit Box Position Change

Step 3 – Using the external circlip pliers, remove the circlip from the end of the motor rotor



Conduit Box Position Change

Step 4 – Using the proper Torx bit, remove all four tension rods completely from the motor



Motor Size	Torx Bit
DR.71	TX25
DR.80	
DR.90	TX30
DR.100	
DR.112	TX45
DR.132	

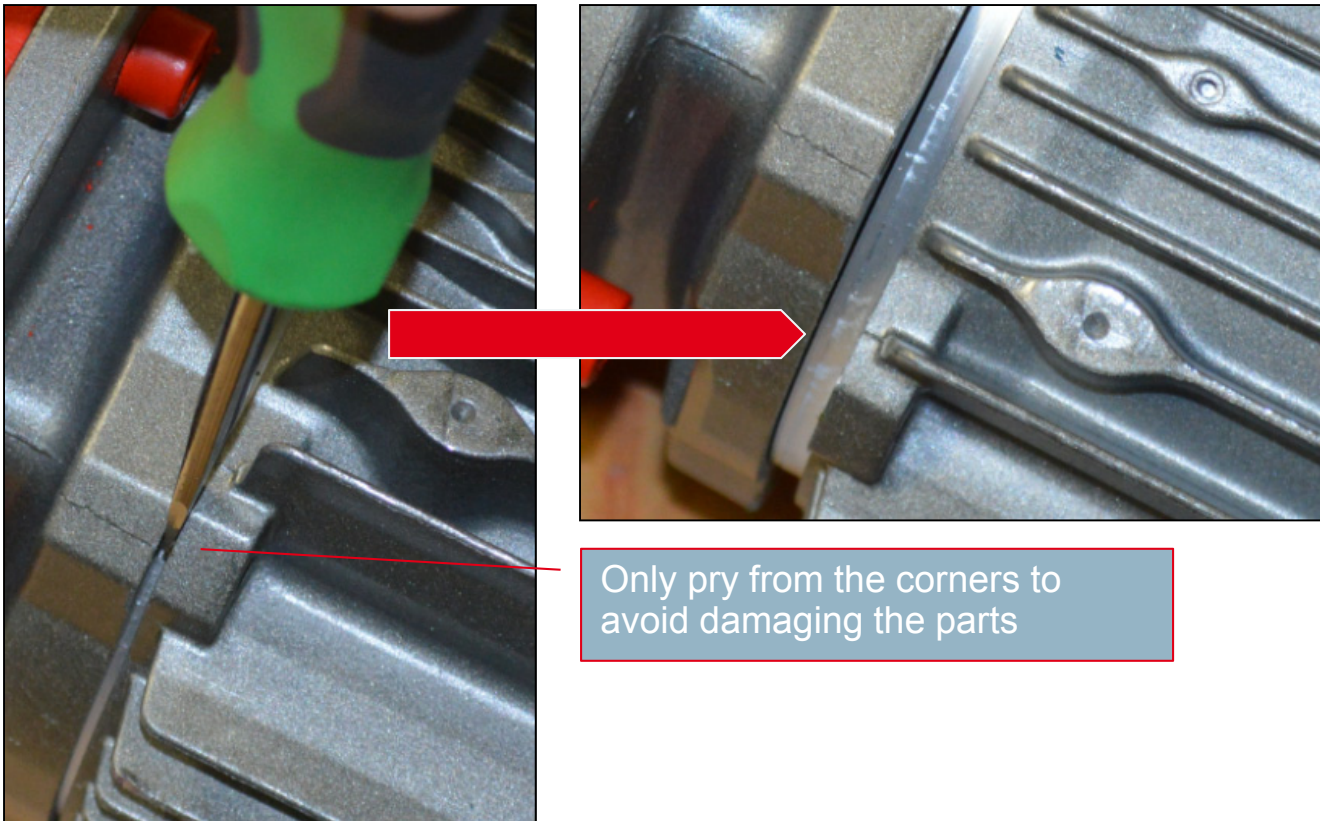
Conduit Box Position Change

Step 5 – Using the plastic headed dead blow hammer, lightly tap the backside of the conduit box to loosen the stator from the motor flange



Conduit Box Position Change

Step 6 – Using the two flat headed screw drivers, lightly pry the stator away from the motor flange until a gap of $\sim 1/4"$ is present



Conduit Box Position Change

Step 7 – Rotate the Stator to desired conduit box position

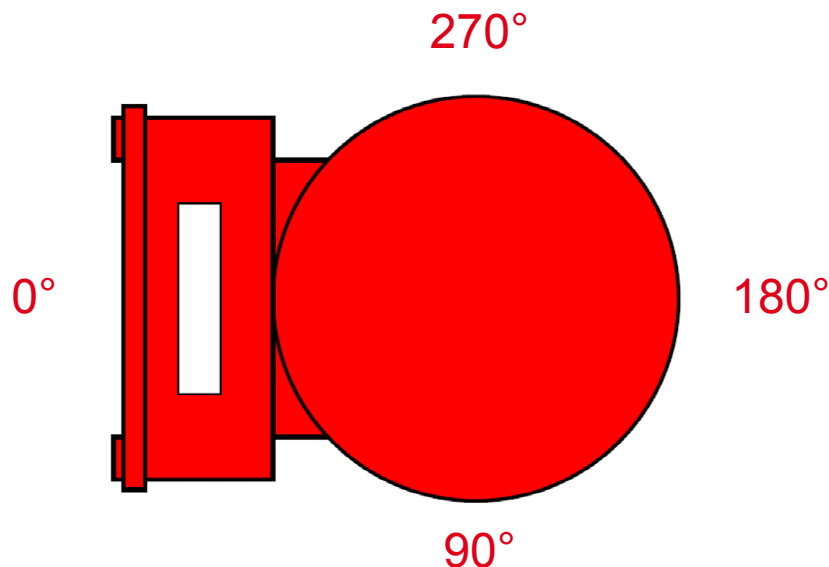


Conduit Box Position Change

Information – SEW Motors allow for 4 different Conduit Box locations

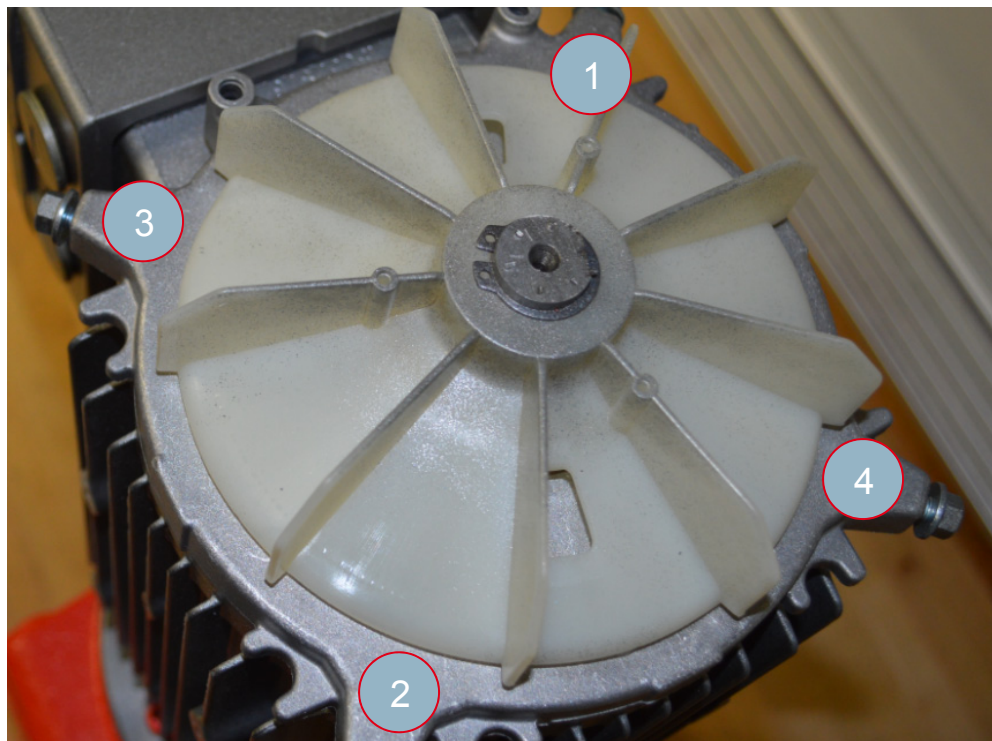
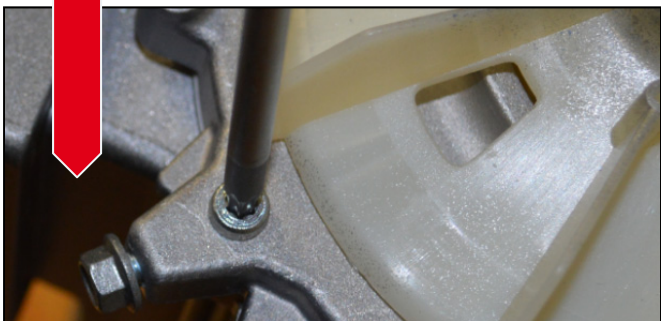
0° / 90° / 180° / 270°

This position is based on viewing the motor from the fan guard as illustrated below –



Conduit Box Position Change

Step 8 – Reinstall the tension rods by hand and then tighten them in a diametrically opposed pattern until the stator is completely tight against the motor flange and the proper tightening torque is reached



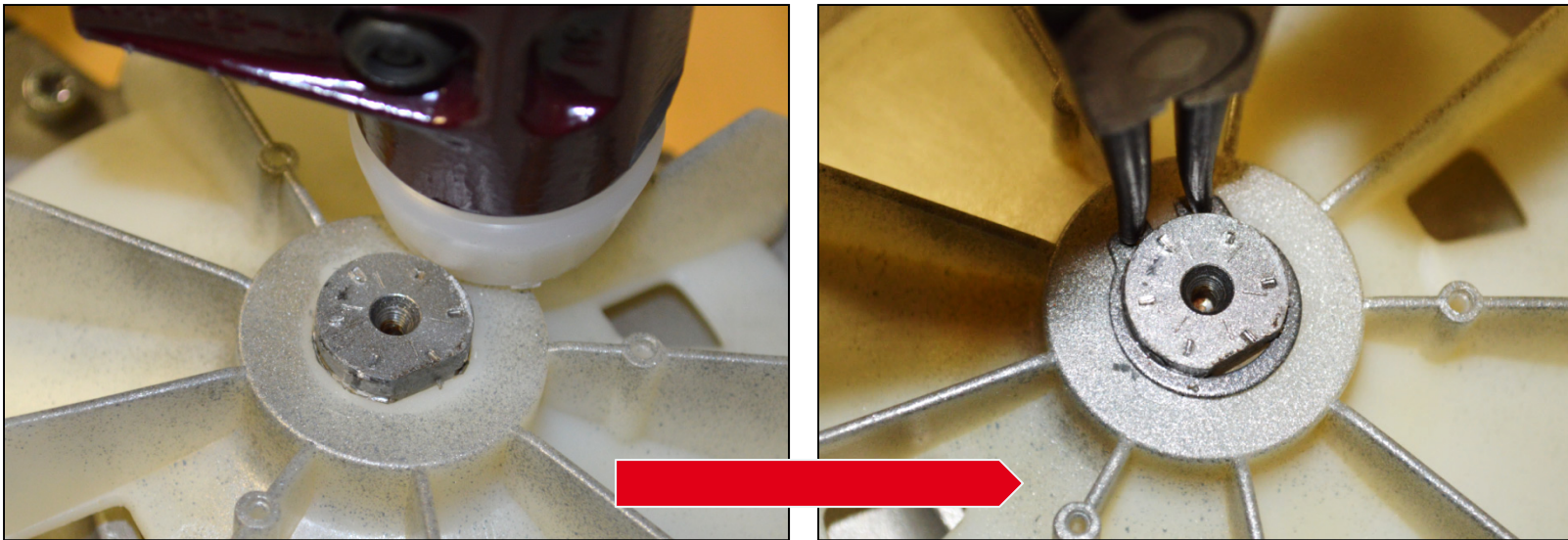
Conduit Box Position Change

Information – Tightening Torque (Tension Rods)

Motor Size	Torque [Nm]	Torque lb.-in]
DR71	5	45
DR80		
DR90	9	80
DR100		
DR112	21	186
DR132		

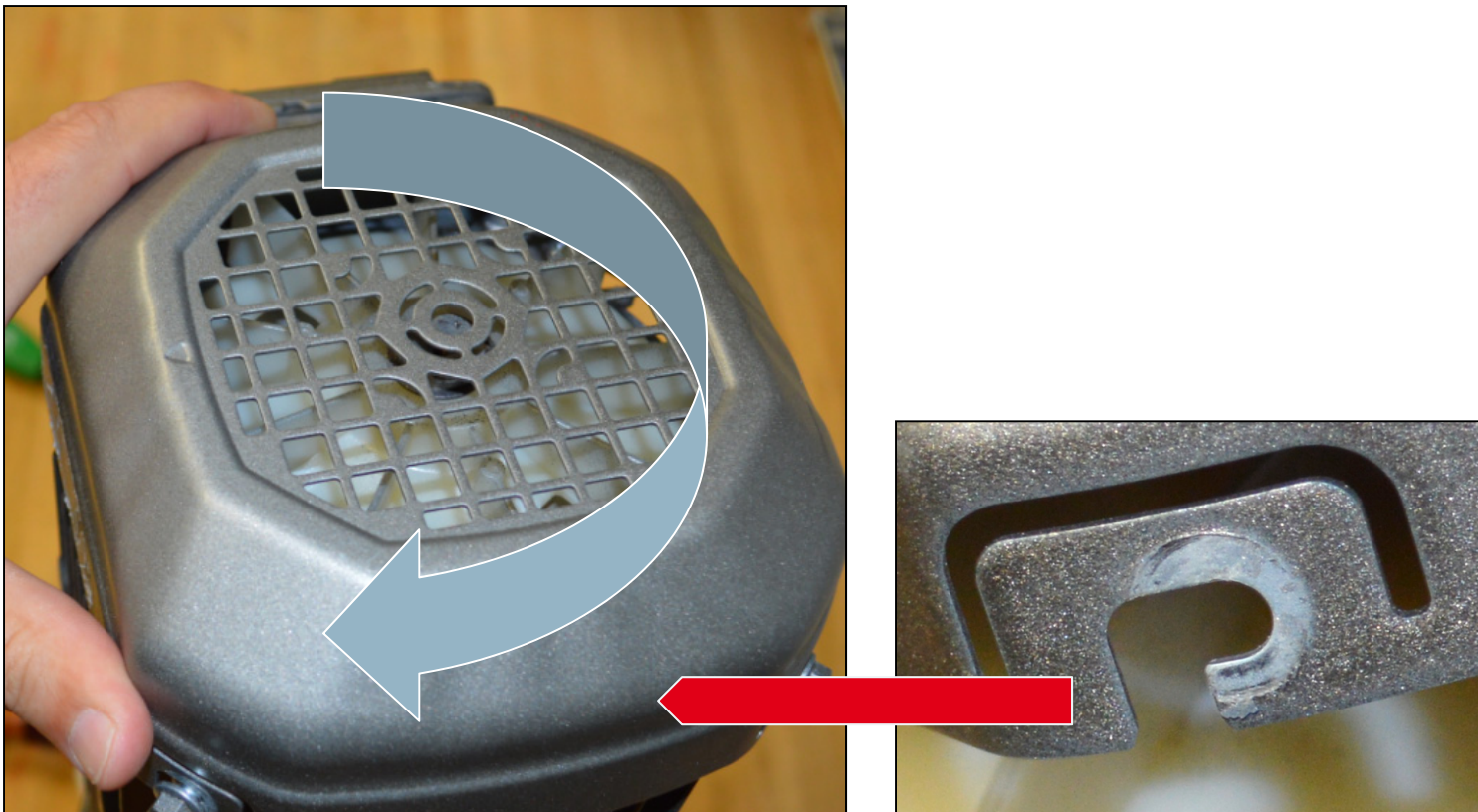
Conduit Box Position Change

Step 9 – Tap the fan back into place and reinstall the circlip



Conduit Box Position Change

Step 10 – Reinstall the fan guard by placing it over the fan and twisting in a clockwise manner until locked into place



Conduit Box Position Change

Step 11 – Tighten the fan guard screws in a diametrically opposed pattern to the proper torque



Conduit Box Position Change

Information – Tightening Torque (Fan Guard Screws)

Motor Size	Torque [Nm]	Torque lb.-in]
DR71	3.3	30
DR80		
DR90		
DR100		
DR112		
DR132		

Conduit Box Position Change

Step 12 – Visually inspect the unit to verify all steps are completed and that the motor is ready for use



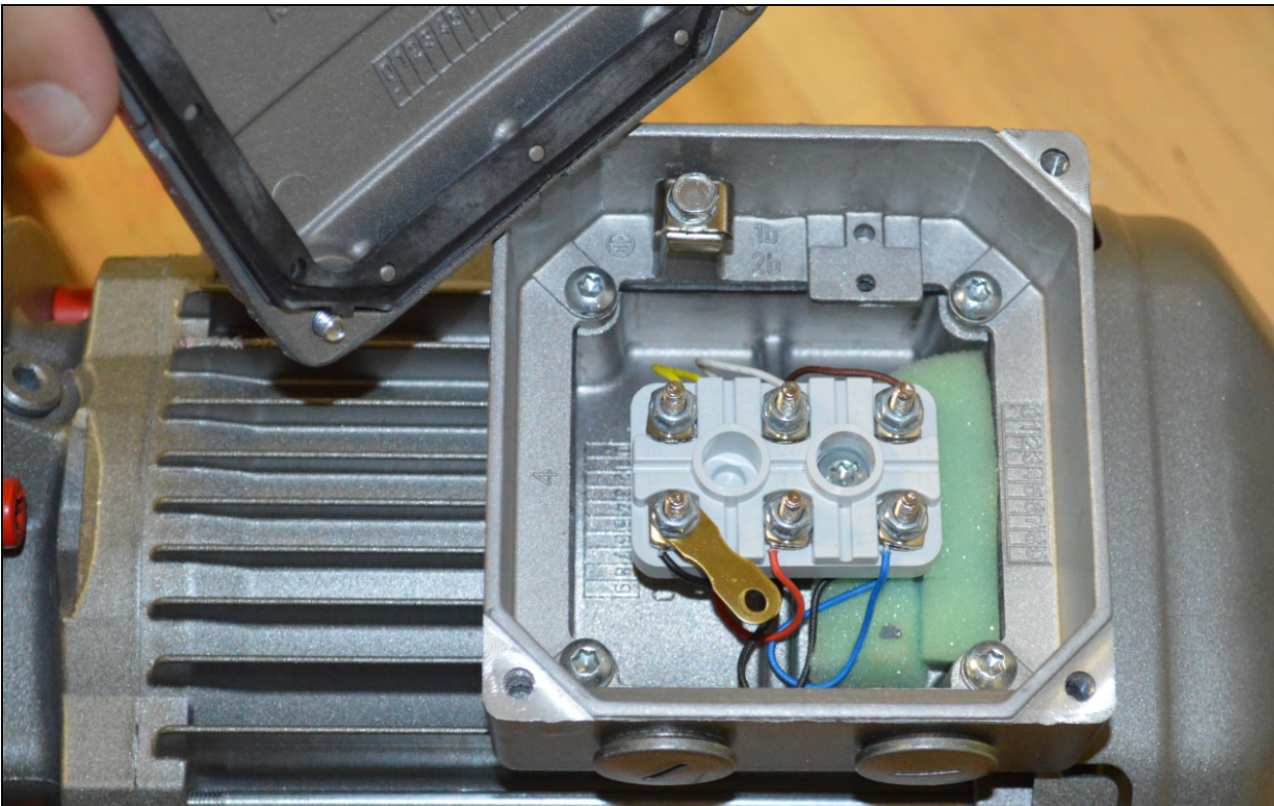
Cable Entry Position Change

Step 1 – Remove the conduit box lid by loosening the 4 screws using an 8mm nut driver



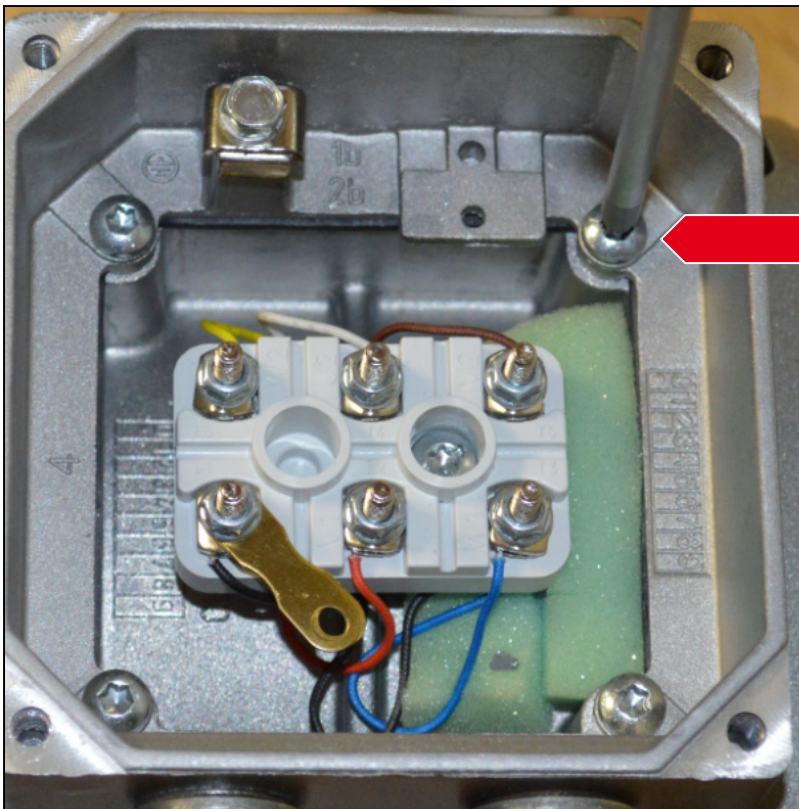
Cable Entry Position Change

Step 2 – Remove conduit box lid from the conduit box



Cable Entry Position Change

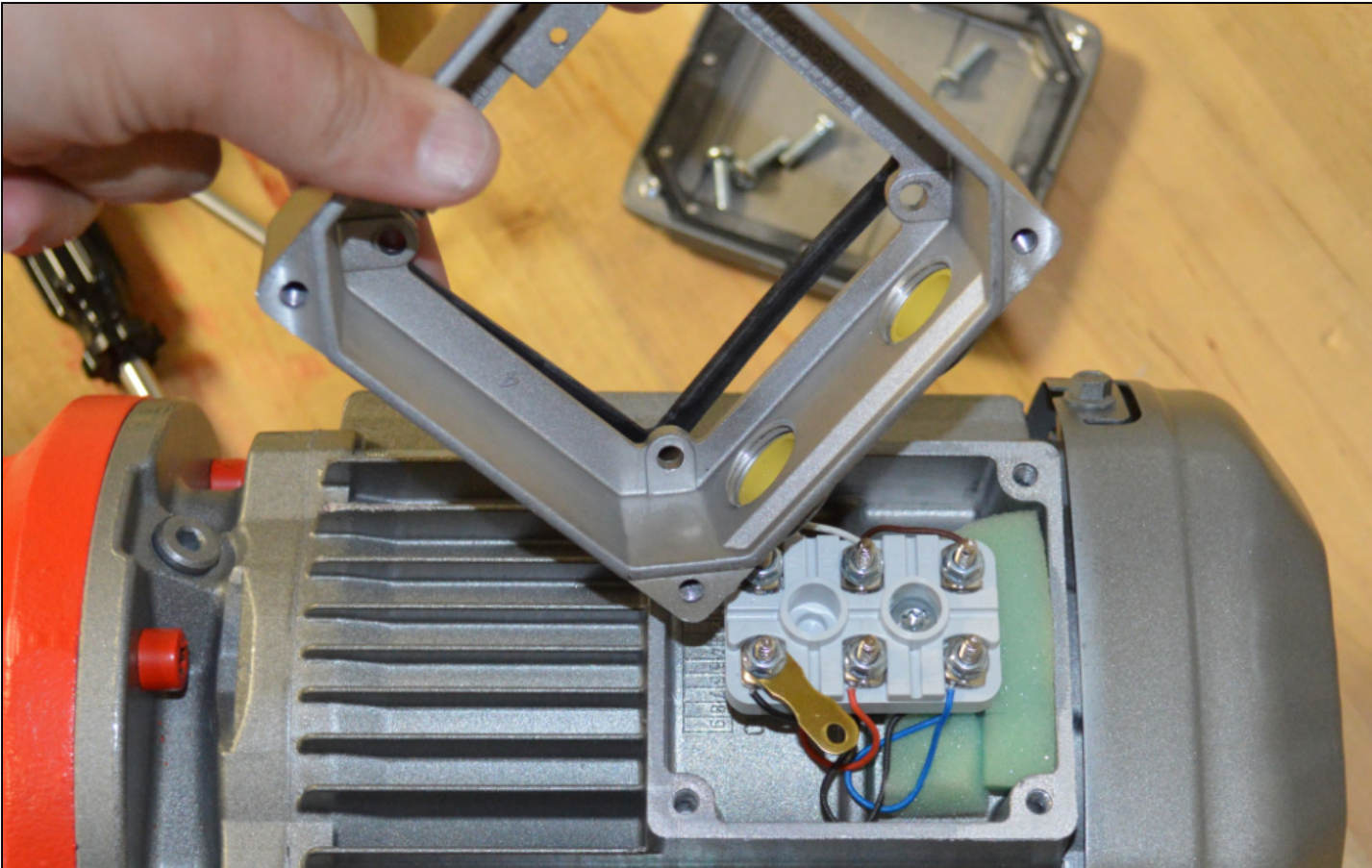
Step 3 – Loosen and remove the 4 Torx screws from the conduit box



Motor Size	Torx Bit
DR.71	TX25
DR.80	
DR.90	
DR.100	
DR.112	
DR.132	

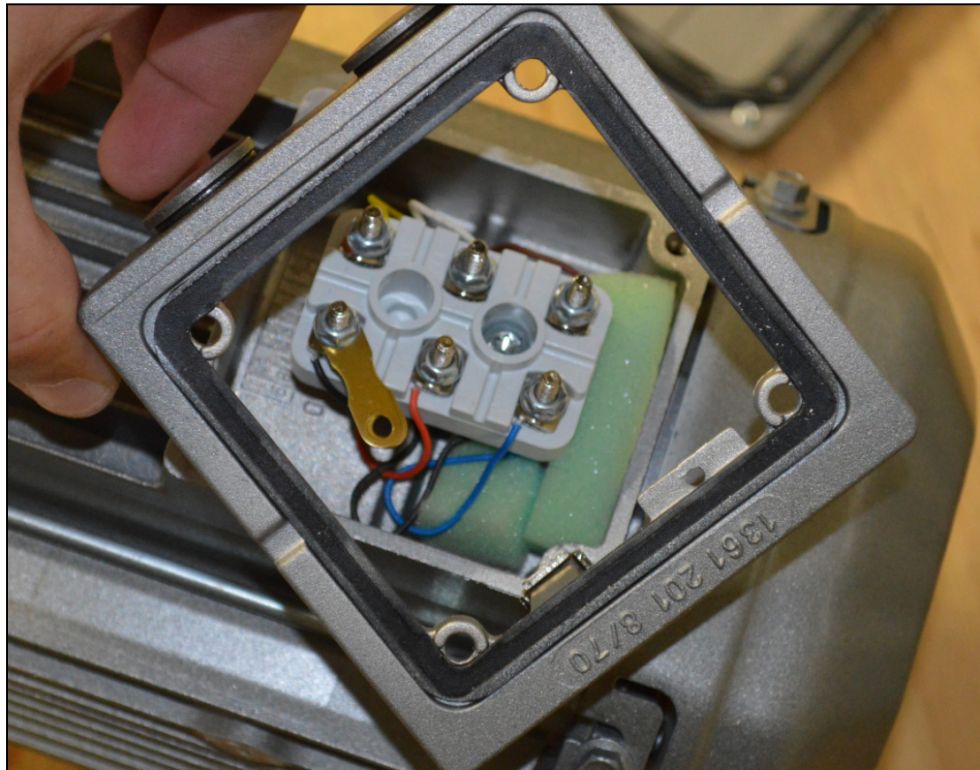
Cable Entry Position Change

Step 4 – Remove the Conduit Box from the motor



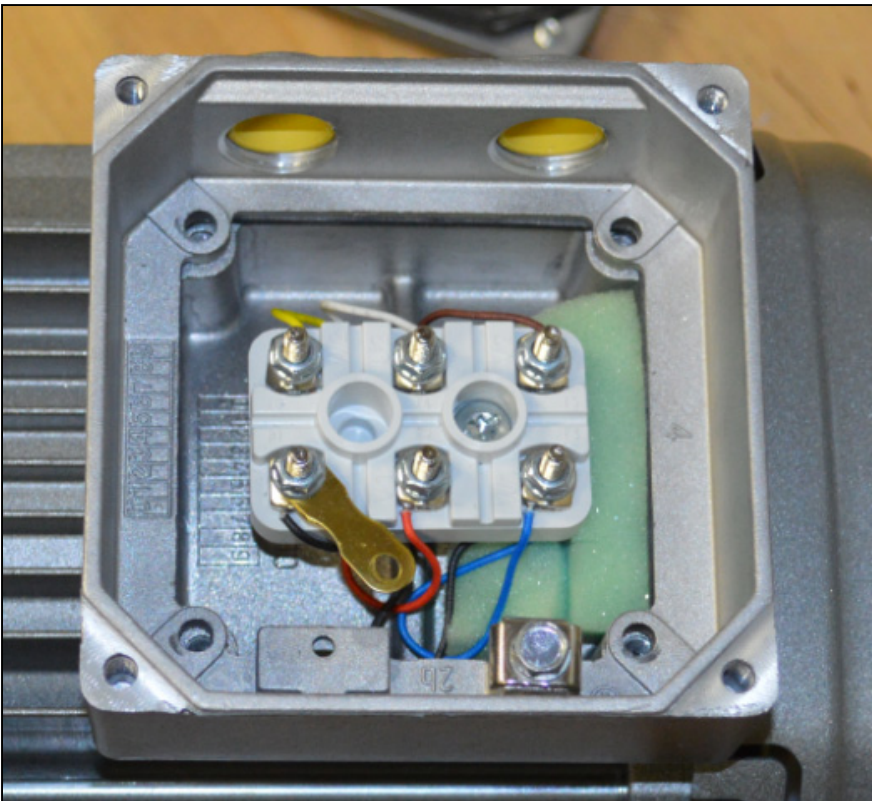
Cable Entry Position Change

Step 5 – Inspect the gaskets for damage and replace if necessary



Cable Entry Position Change

Step 6 – Install the Conduit Box in the desired Cable Entry location

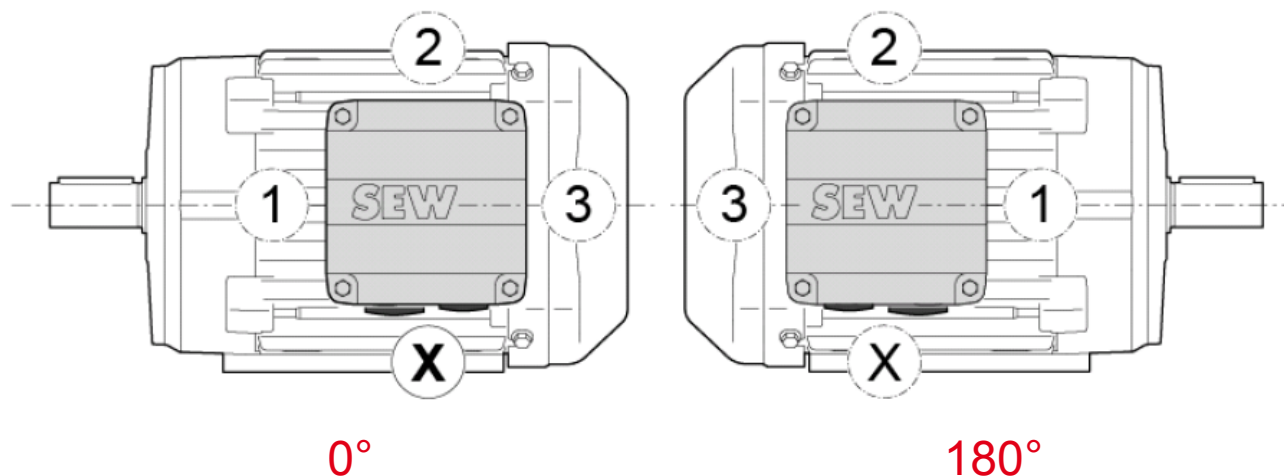


Conduit Box Position Change

Information – SEW Motors allow for 4 different Cable Entry locations

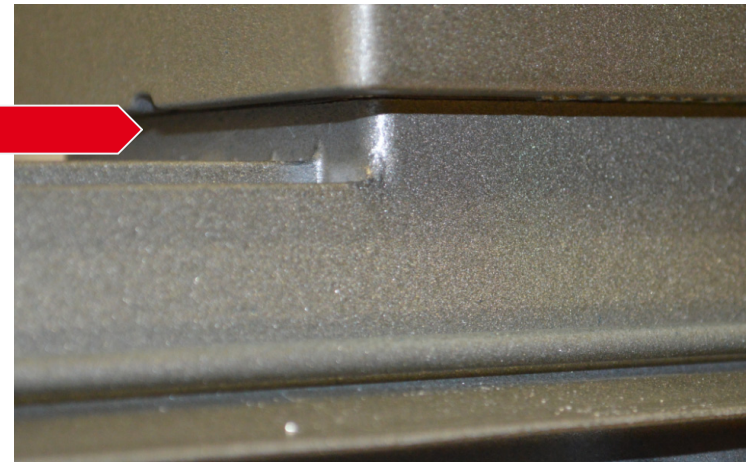
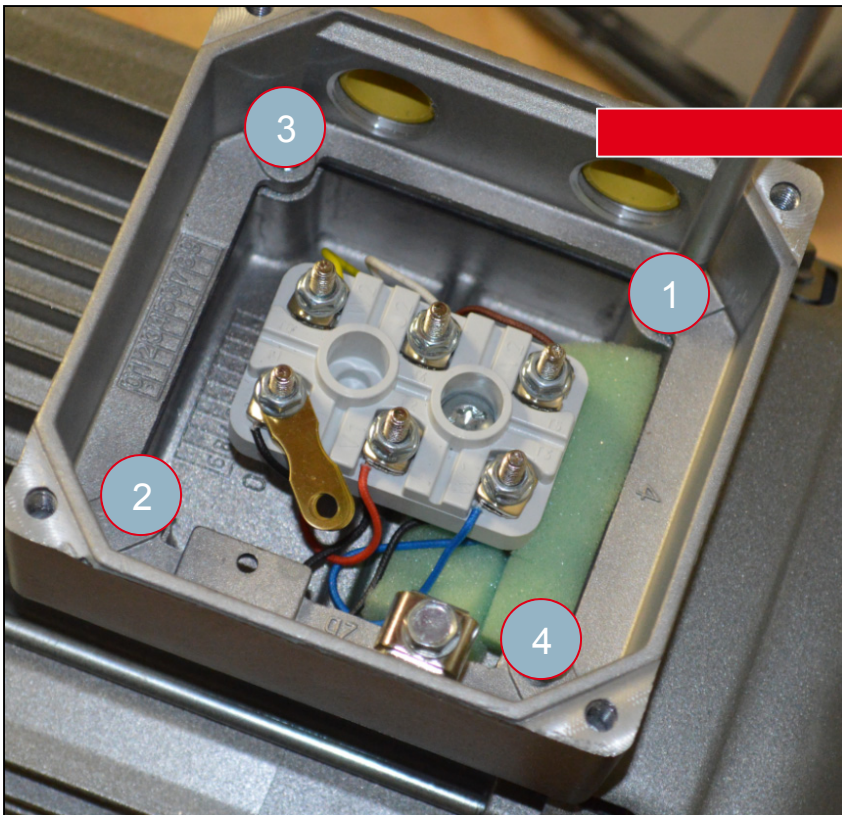
X / 1 / 2 / 3

This position is based on viewing the conduit box face. However positions X and 2 switch with Conduit Box Location 180°



Cable Entry Position Change

Step 7 – Install Torx screws and tighten to the proper torque in a diametric pattern. Verify there are no crimped wires between the seal



Cable Entry Position Change

Information – Tightening Torque (Conduit Box Screws)

Motor Size	Torque [Nm]	Torque [lb.-in]
DR71	6.5	58
DR80		
DR90		
DR100		
DR112		
DR132		

Cable Entry Position Change

Step 8 – Install the Conduit Box lid and tighten the screws for the lid using an 8mm nut driver according to the correct torque value



Cable Entry Position Change

Information – Tightening Torque (Conduit Box Lid Screws)

Motor Size	Torque [Nm]	Torque [lb.-in]
DR71	4	35
DR80		
DR90		
DR100		
DR112		
DR132		

Cable Entry Position Change

Step 9 – Visually inspect the unit to verify all steps are completed and that the motor is ready for use



Conclusion

For more information on this and other service and maintenance topics, please visit our website at —

www.seweurodrive.com/s_service/index.php5

