



# Installation / User Manual

## Air Clutch Kit (100512)



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# CAUTION STATEMENT

Please read entire contents of document before installation. Failure to do so could result in severe injury. Superwinch LLC / Superwinch LTD is not responsible for improper installation of equipment or failure to adhere to cautions and warnings.

## Introduction:

This device is designed to actuate the clutch operation of Superwinch SI Series Winches via the application / release of pressurized air to the ports of the cylinder.

## Installation:

Before beginning installation, ensure that the winch is not under tension and that removal of clutch handle/housing will not cause harm to persons or property.

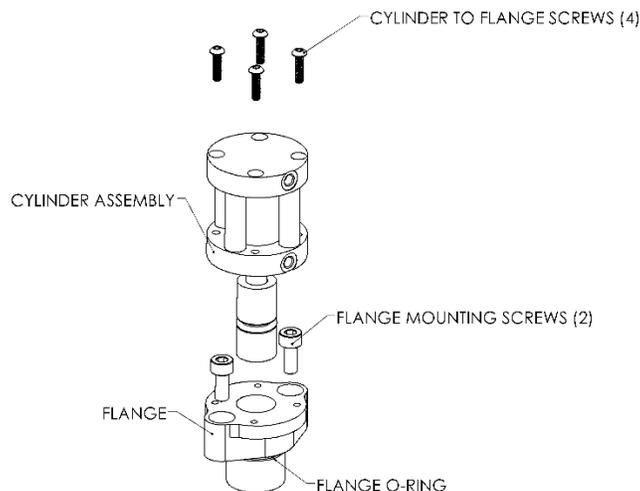
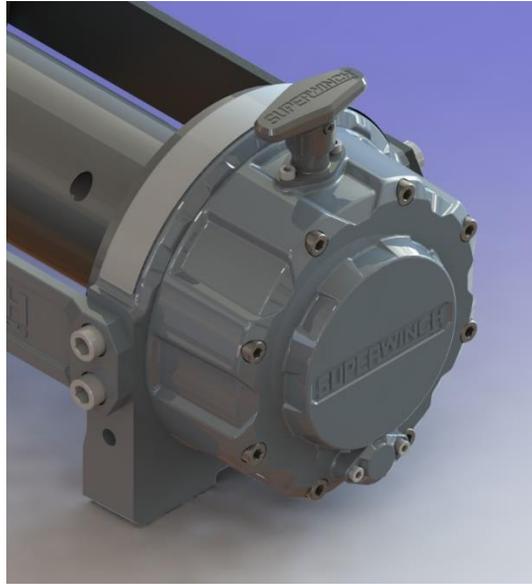


Figure 1 - Assembly Diagram

1. Remove cylinder to flange screws from assembly with #1 phillips driver, and remove cylinder assembly from flange.
2. Remove flange mounting screws from flange and set aside.
3. Place a small bead of grease on the flange O-ring. Spread with finger until O-ring has a complete coating of grease. Use petroleum jelly or generic grease.

4. Remove cover screws from winch housing in desired location for air clutch installation, perpendicular mount (top in figure 2) or axial mount (shown with cover, figure 2).

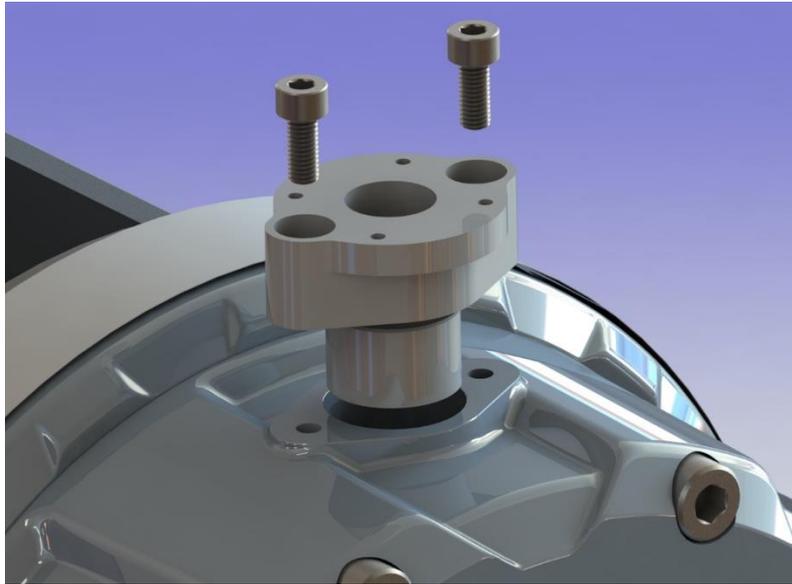


*Figure 2 - Clutch Mount Locations*

5. NOTE: If axial location is desired remove both hand clutch lever from perpendicular location and axial clutch location cover and replace perpendicular mount with cover from axial location.

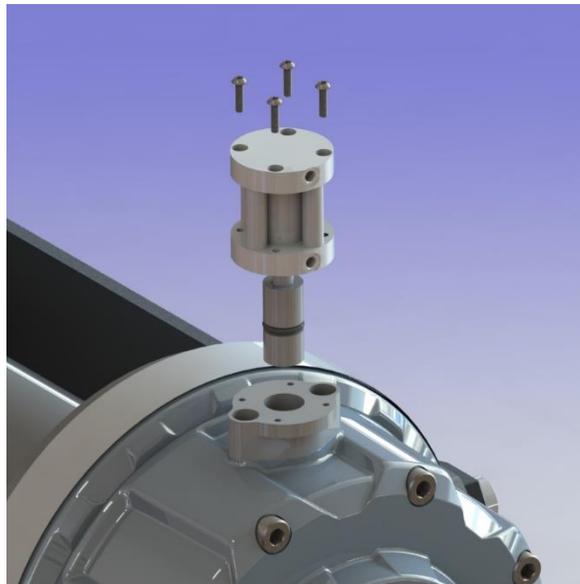
Advice –Use only one Clutch activation device. Do not install multiple clutch activation methods on the same winch.

6. Install flange of air cylinder into desired location (perpendicular position shown in figure 3) and install flange screws to 12 Nm torque ( 8.11 lb\*ft)



*Figure 3 - Air Clutch Flange Install*

7. Install cylinder assembly with piston into flange with cylinder ports away from drum to avoid damage to cylinder ports, cylinder, or air fittings and lines. Install screws and tighten to 248 N-cm ( 21.95 lb\*in).



*Figure 4 - Cylinder Assembly Install*

8. Attach 1/16" NPT quick connect air fittings (included) into cylinder assembly ports with air in connected to port closest to flange.
9. Test winch function to ensure clutch engages.

## Use:

To actuate air clutch apply between 4.14 Bar and 8.27 Bar (60 and 120 PSI) of pressure to lower port (port closest to winch gearbox). Clutch will disengage and clutch can turn freely allowing drum to unspool. Ensure that upper port is free of obstructions for correct operation of piston to engage and disengage. It is recommended that a filter be installed remotely on the exhaust port (port farthest away from gearbox when installed) of the cylinder assembly.

## Maintenance:

The air clutch is designed to be maintenance free, however periodically check the function of clutch by removing any load from winch and ensure that when air is applied and released that clutch still engages properly.

## Parts Diagram:

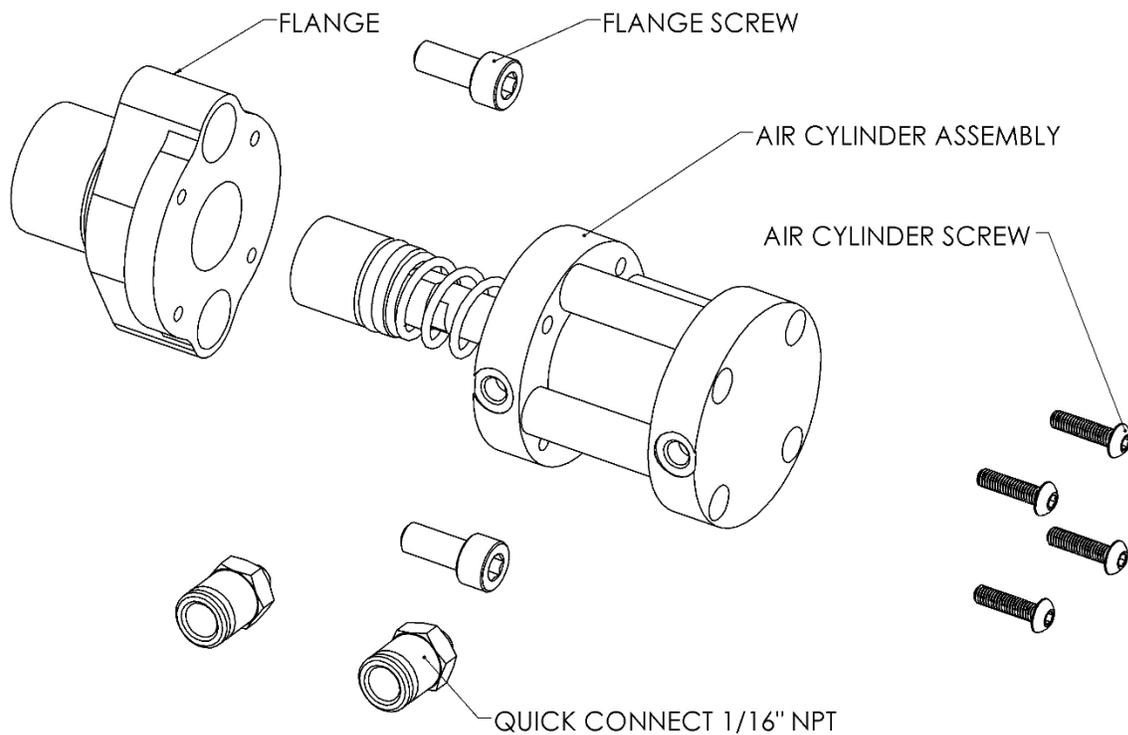


Figure 5 - Parts Diagram

Warranty: