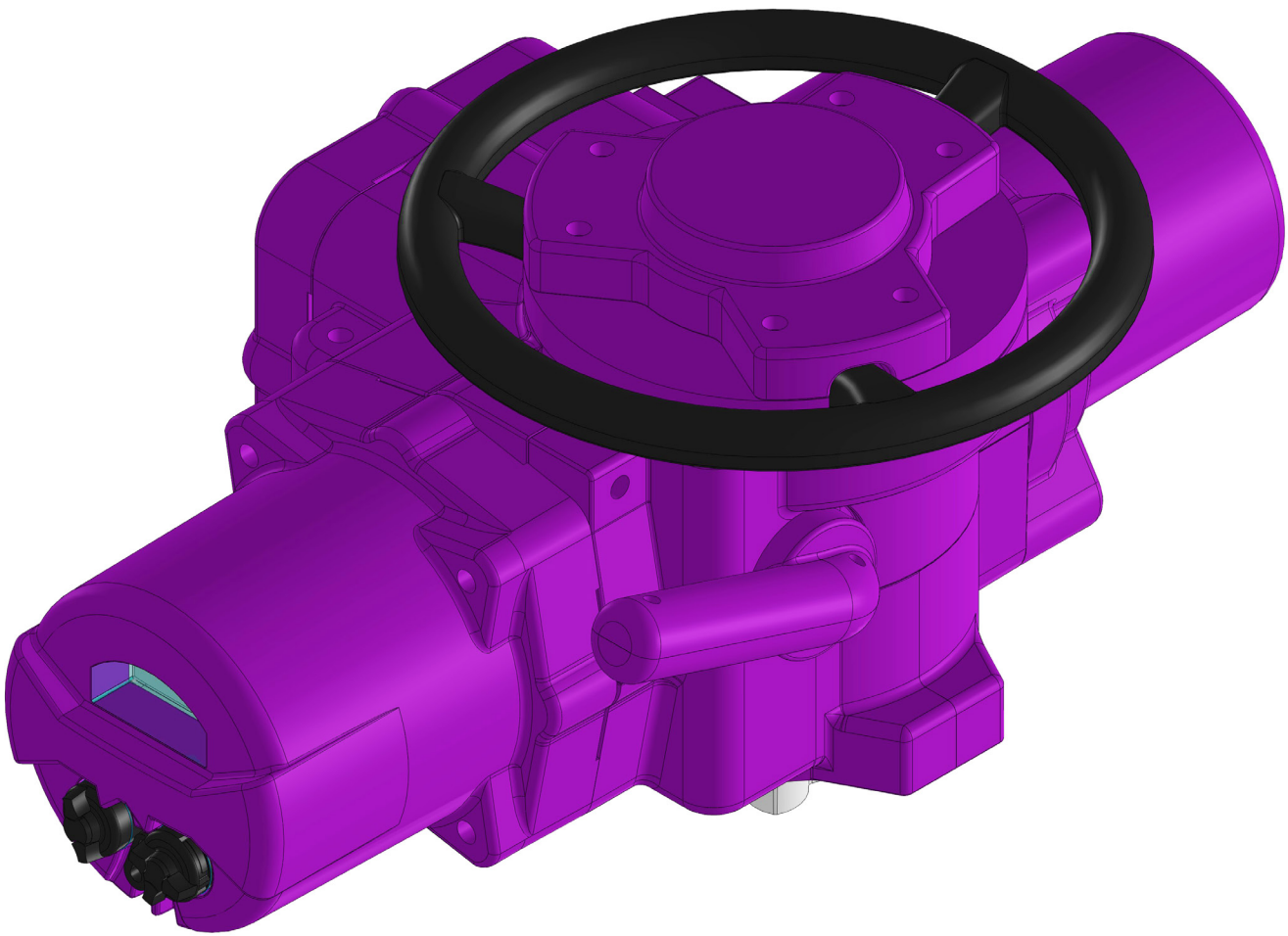




Field or Factory Installable **K-MASS**[®] Intumescent
Epoxy Covers for New or Installed Actuators



K-MASS *FI*
INSTALLATION MANUAL

ROTORK IQ MK3 SIZE 1
TOP HANDWHEEL ACTUATORS

ROTORK IQ MK3 Size 1

Top Handwheel

PART NUMBERS			
Item	Description	Part Number	Qty
	K-MASS FI Kit for IQ MK3 Size 1 Top Handwheel	FRIQ1T-2000	
1	Lower Handwheel Plate	FRIQ1T-2401	3
2	Upper Gearcase Cover - Declutch/ Handwheel Side	FRIQ1T-2100	1
3	Upper Gearcase Cover - Terminal Side	FRIQ1T-2101	1
4	Motor Cover	FRIQ1S-2701	1
5	Lower Gearcase Cover - Motor Side	FRIQ1S-2102	1
6	Lower Gearcase Cover - Control Cover Side	FRIQ1S-2103	1
7	Extended Knob Shaft	FRIQ1S-2403	2
8	K-MASS Knob Spacer - Open/ Closed	FRIQ1S-2405	1
9	K-MASS Knob Spacer - Local/ Stop/ Remote	FRIQ1S-2408	1
10	New Knob - Open/ Closed	FRIQ1S-2406	1
11	New Knob - Local/ Stop/ Remote	FRIQ1S-2409	1
12	Spare "C" Clip	FRIQ1S-2407	1
13	Control Cover	FRIQ1S-2702	1
14	Terminal Cover	FRIQ1S-2703	1
15	Top Handwheel Cover - Open	FRIQ1T-2704	1
16	Top Handwheel Cover - Closed	FRIQ1T-2705	1
17	Single Conduit Cover - Open	FRIQ1S-2500	1
18	Single Conduit Cover - Closed	FRIQ1S-2501	1
19	Triple Conduit Cover	KMCP2	1
20	Declutch Lever Cover	FRIQ1S-2503	1
21	Thrust Base Cover	FRIQ1T-2504	1
	3M Fire Barrier Caulk (Tube)	FI-0001	1
	Loctite Blue Thread Locker	FI-0002	1
	Box Primary/ Spare Fasteners	FRIQ2T-2003	1
	USB Drive (Installation Manual)	FRIQ2T-2004	1
	Installation Manual	FRIQ2T-2005	1

ROTORK IQ MK3 Size 1

Top Handwheel

TOOLS and HARDWARE REQUIRED

ITEM	QTY
5 mm Hex-Key Wrench	1
6 mm Hex-Key Wrench	1
Torx T-30 Tamper Resistant Wrench (included) - <i>to remove knob lockout tab</i>	1
1/8" Flat Screwdriver - <i>to remove small "C"Clip</i>	1
1/8" Drift Punch - <i>to remove and install knob shafts</i>	1

FASTENERS and PARTS INCLUDED WITH KIT

SOCKET HEAD CAP SCREWS	
SIZE	QTY
M6-20	2
M6-30	8
M6-60	1
M8-30	4
M8-40	12
M6-25	4

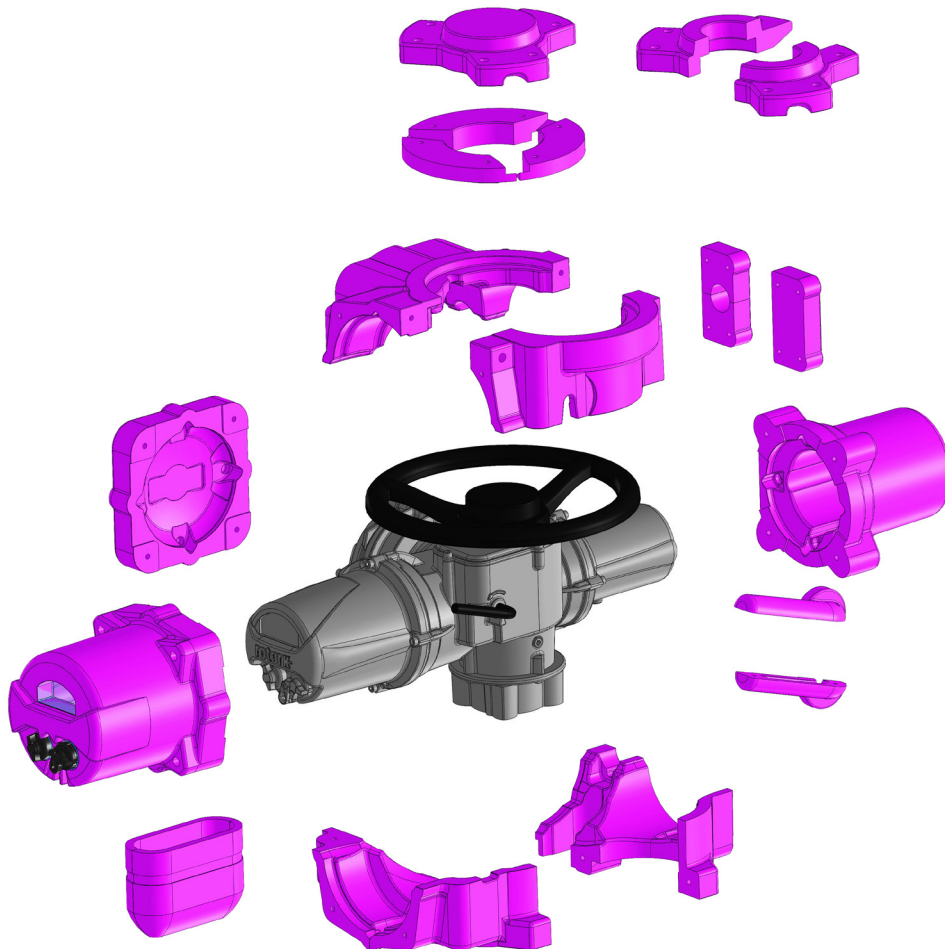
KNOB PARTS INCLUDED WITH KIT

ITEM	QTY
Extended Knob Shaft and "C" Clips	2
Extended Knob Lock-Out Bolt (M6 x 60) and Washers 6mm Flat Washers (6mm)	1
OEM Plastic Knob	2
K-MASS Knob Spacers	2

ROTORK IQ MK3 Size 1

Top Handwheel

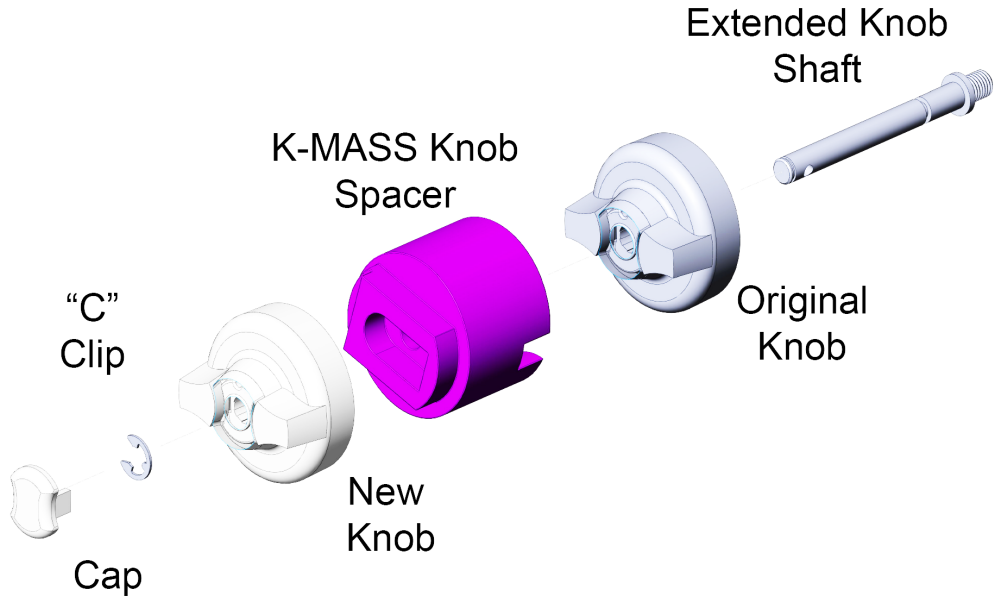
Modular Intumescent Epoxy Fireproofing that can be installed in about 30 minutes in the factory or in the field.



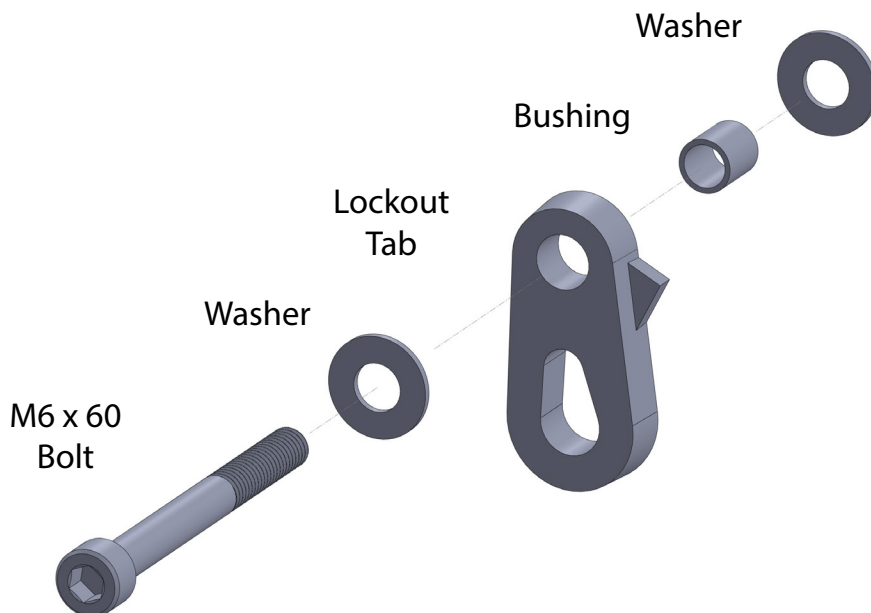
ROTORK IQ MK3 Size 1

Top Handwheel

K-MASS Knob Spacers and Knobs

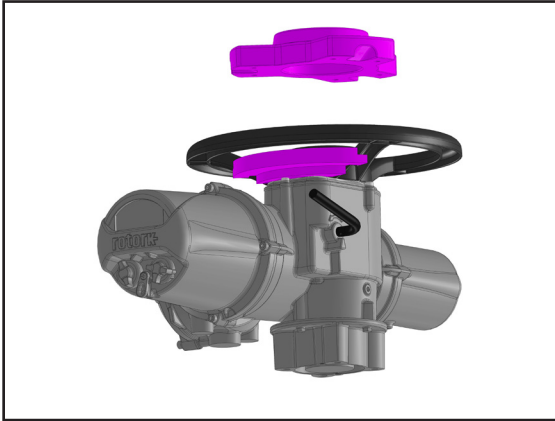


New Lockout Tab Assembly



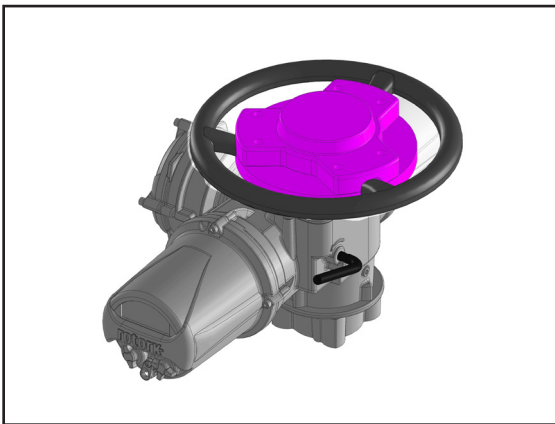
ROTORK IQ MK3 Size 1

Top Handwheel Actuator



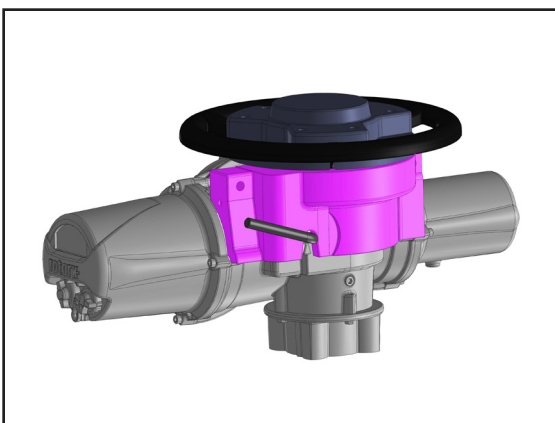
Step 1

Fit first of three lower handwheel plates (FRIQ1T-2401). Place top Handwheel Cover (FRIQ1T-2704-Open) or (FRIQ1T-2705 - Closed) over handwheel and loosely secure to lower handwheel plates with (2) M6 x 30 socket head cap screws.



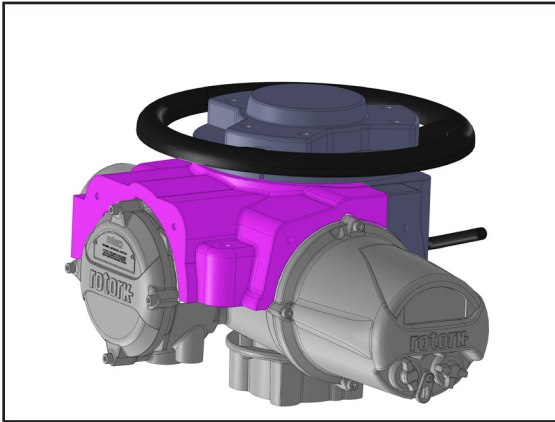
Step 2

Fit second and third lower handwheel plates (FRIQ1T-2401) to Top Handwheel Cover using (4) M6 x 30 socket head cap screws.



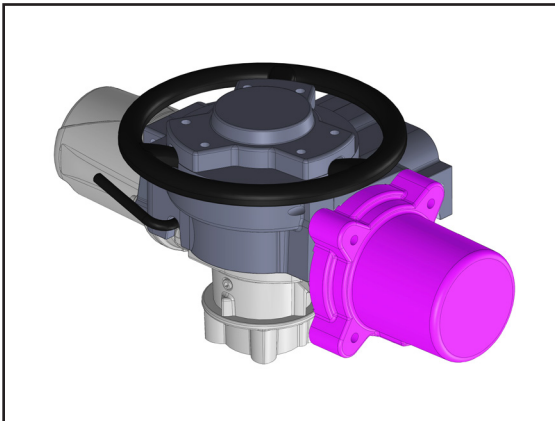
Step 3

Fit upper handwheel/ declutch lever side Gearcase Cover (FRIQ1T-2100).



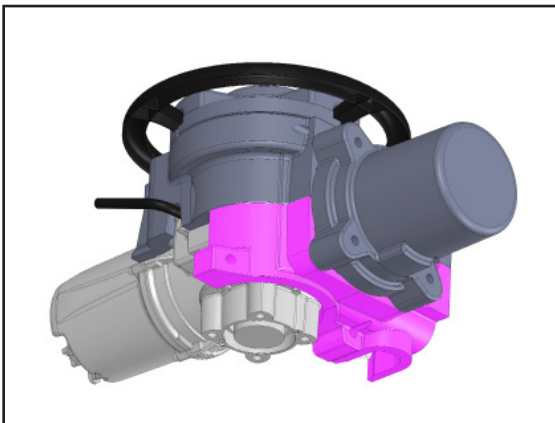
Step 4

Attach the terminal side of the upper Gearcase Cover (FRIQ1T-2101) next to motor with (2) - M8 x 40 socket head cap screws.



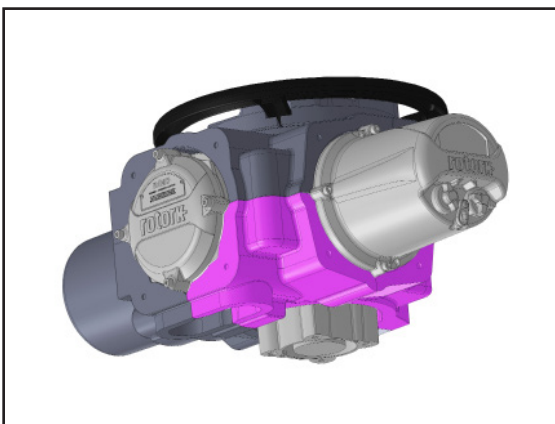
Step 5

Fit Motor Cover (FRIQ1T-2701) and loosely bolt to upper gearcase covers with (2) - M8 x 40 socket head cap screws.



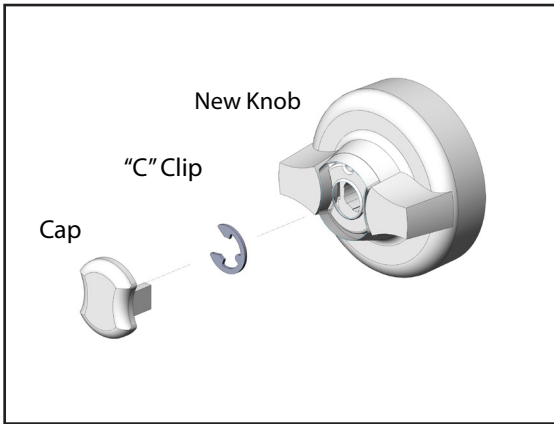
Step 6

Fit the motor side Lower Gearcase Cover (FRIQ1T-2102) and loosely bolt to Motor Cover using (2) - M8 x 40 socket head cap screws.



Step 7

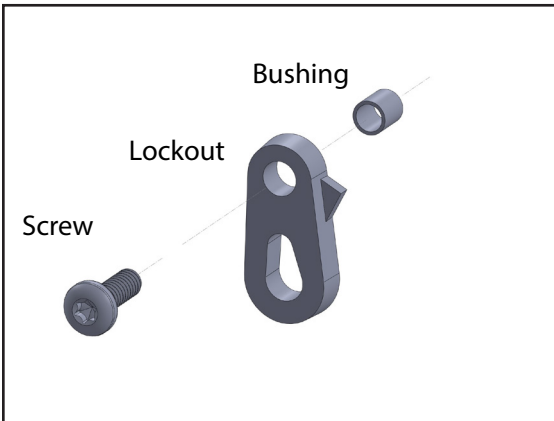
Fit the lower electronics side Gearcase Cover (FRIQ1T-2103) and loosely bolt to the motor side Gearcase Cover using (2) - M8 x 40 socket head cap screws.



Step 8

Remove center caps from existing plastic knobs. Remove “C” clips and actuator knobs and retain for re-installation. Remove knob shafts and plastic washers.

Note: Knobs are different. Mark them as left or right and reinstall in original location.



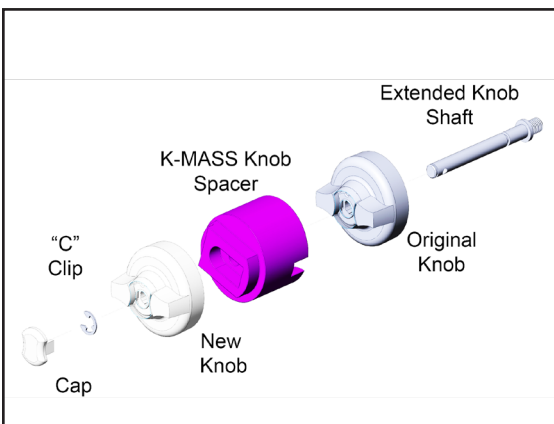
Step 9

Remove lockout plate screw and retain short stainless bushing and lockout plate for re-installation. Install extended knob shafts and original plastic washers



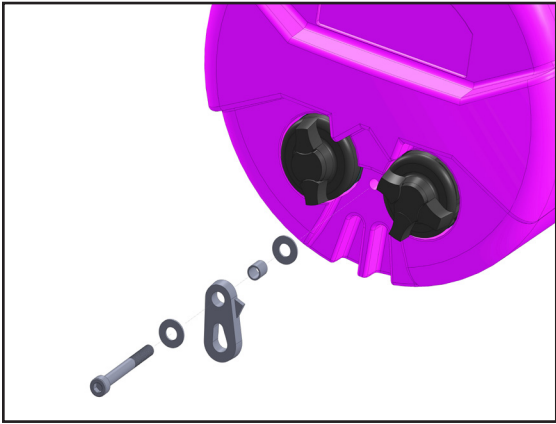
Step 10

Install Electronics Cover (FRIQ1T-2702) and loosely bolt to upper and lower Gear-case Covers with(4) - M8 x 40 socket head cap screws.



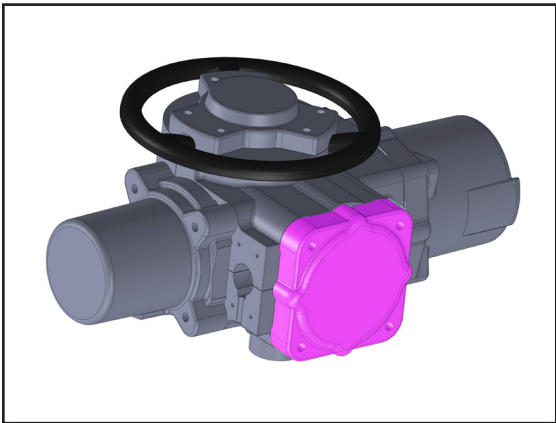
Step 11

Install original plastic knobs, stacked with **K-MASS** knob spacers and new outer knobs (included) onto the Electronics Cover. Install “C” clips and center caps.



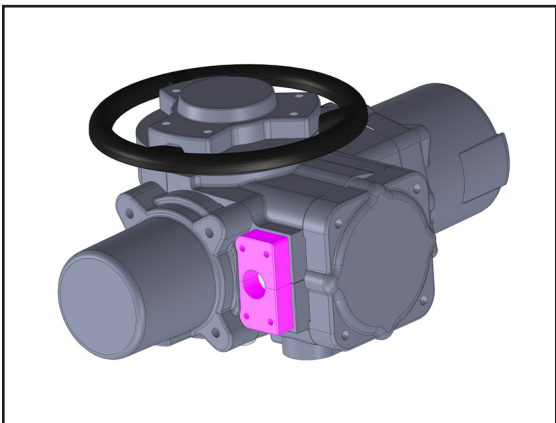
Step 12

Install lockout plate with original bushing, washers and (1) - M6 x 60 screw to the K-MASS Electronics Cover. Apply blue Loc-tite thread locker (included) to this bolt only (important).



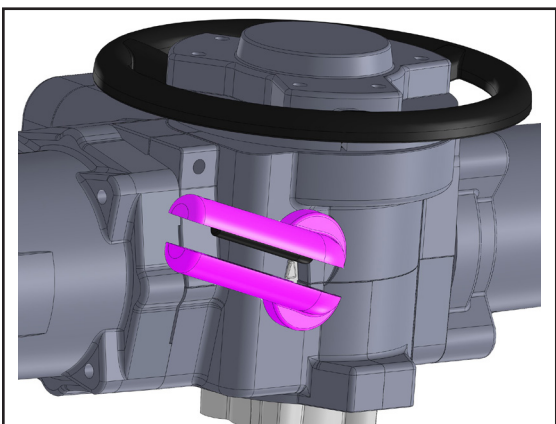
Step 13

Install the Terminal Cover (FRIQ1S-2703) and loosely bolt to the Gearcase Covers with (4) - M8 x 30 socket head cap screws.



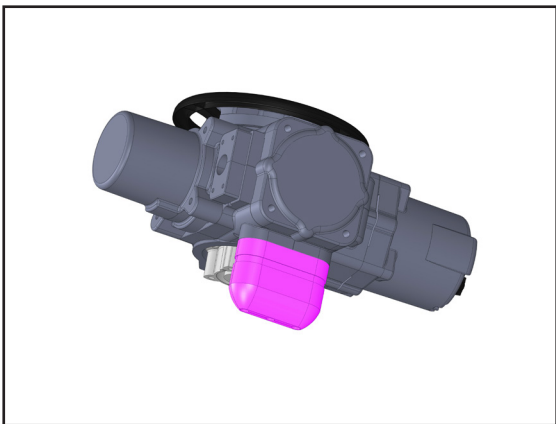
Step 14

Install the Single Conduit Cover (FRIQ1S-2500 - Open) or (FRIQ1S-2501 - Closed) with (4) - M6 x 25 socket head cap screws.



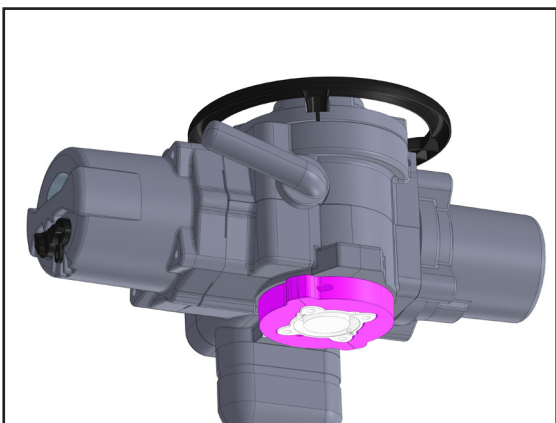
Step 15

Install De-clutch Lever Cover (FRIQ1S-2503) using (2) - M6 x 20 socket head cap screws.



Step 16

Install the triple conduit cover (KMCP2). Use internal clamps to attach to cables. Place second half and use band clamp to secure. Use 3M Caulk to fill unused holes in cover.



Step 17

Install Thrust Base Cover (FRIQ1T-2504) using (2) - M6 x 30 socket head cap screws.

IMPORTANT! FINAL STEPS

1. Hand tighten all socket head bolts to 15 ft/ lbs. Do not over-torque.
2. Completely fill all bolt holes with 3M CP-25WB Fire Barrier Caulk (included).



K-MASS[®] Fireproofing

By Thermal Designs[®]



ROTORK IQ MK3 Size 1
Top Handwheel
Installation Manual

Safety is our top priority. Ensure all safety measures are adhered to in accordance with the site, location and regulatory standards. Assemble all fasteners loosely at first, and hand-tighten upon completion of assembly. Do NOT over torque any fasteners, doing so could damage the threaded insert or K-MASS.

Thermal Designs, Inc. - United States
5352 Prudence Street
Houston, Texas 77045 USA
Phone: +1 713-433-8110
ussales@tdikmass.com

Thermal Designs LTD UK - United Kingdom
The Broadway Market Lavington Devizes
Wiltshire, England UK SN10 5RQ
Phone: +44 (0) 1380 816079
uksales@tdikmass.com

Thermal Designs, Inc. - Canada
Unit 1, 5220 Duncan Ave
Blackfalds, Alberta T0M 0J0
Phone: +1 403-391-1578
casales@tdikmass.com