QM35/QML35 INSTALLATION INSTRUCTIONS FOR 1.812" BOLT CIRCLE

(QM35 Connector shown in illustrations)

STEP 1:
Rotate printed circuit board (PCB) as shown. This is the Lock position.
Note – The outside ring with 1.812" bolt holes may be loose. Mounting/motor surface must be clean and flat.
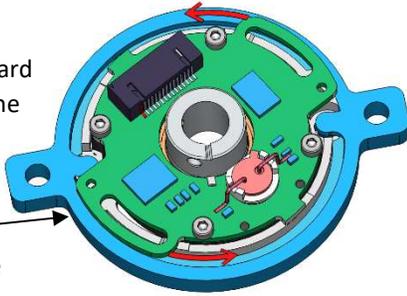
STEP 2:
a.) Install mounting screws through encoder into mounting/motor surface. Insert 1-2 turns. **DO NOT tighten screws.**

b.) Align Z mark on hub to White mark on PCB if commutation U, V and W is used.

Hub Z mark

White mark on PCB
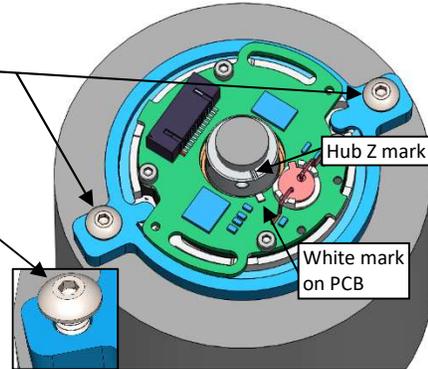
STEP 3:
a.) Press down on the hub with a force between 150 g (0.33 lb) and 700 g (1.5 lb). This will center the encoder assembly to the motor shaft.

b.) Using slight forefinger and thumb force, verify no radial (side-to-side) movement of the encoder occurs.

Illustrated is accessory Q-Scale p/n 2160AG276.
Proper downward force is indicated when pin is between the force lines.
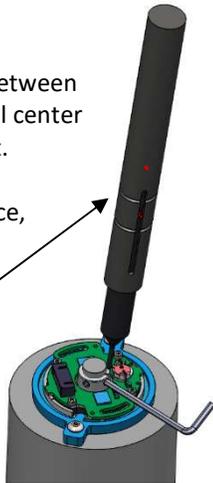
STEP 4:
a.) Tighten hub set screws to motor shaft.
#3-48 x 1/16" screw = 18-22 oz·in
#3-48 x 3/32" screw = 28-32 oz·in

TIP: Place Q-Scale point within the Z mark of hub.

b.) The downward force on the hub can be removed.

c.) Tighten mounting screws to 45-51 oz·in.
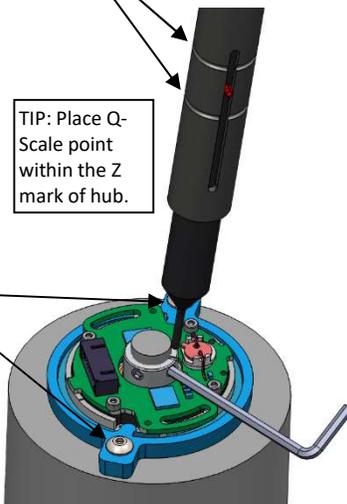
STEP 5:
Place cover on encoder. Observe the cover dowel pins positioned into mating PCB holes.
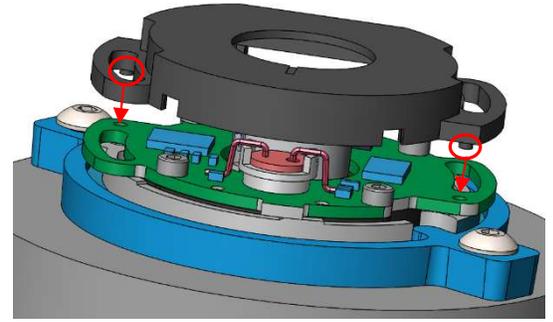
STEP 6:
a.) Twist cover/PCB to expose screw holes for cover screws.
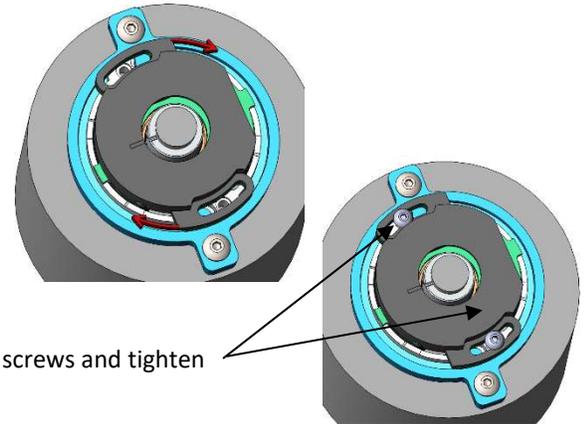
b.) Install cover screws and tighten to 37-43 oz·in.

c.) Install cable to complete installation.
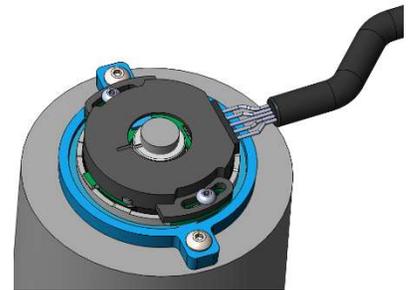
DYNAMIC ALIGNMENT OF U, V, AND W COMMUTATION CHANNELS:

a.) Loosen the cover screws slightly, to allow the encoder body to be rotated.

b.) Maintain a slight downward pressure on the cover.

c.) Rotate encoder to align commutation channels to motor windings. Tighten cover screws to 37-43 oz·in.
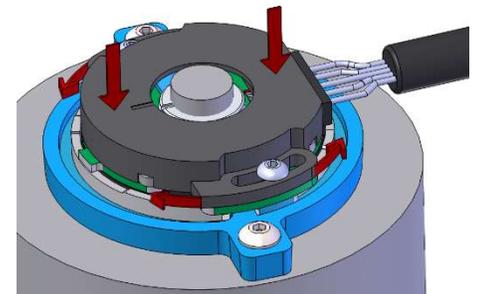
Note: Refer to Hardware Selection Breakout chart for driver sizes.