QM22 ASSEMBLY INSTRUCTIONS FOR 1.024” BOLT CIRCLE – Pilot Option

Step 1:

a) Mounting surface must be clean and flat. Fasten ring to mounting/motor surface by installing mounting screws and tighten to 45-51oz-in. **Illustration 1**

Step 2:

a) Before putting base and printed circuit board (PCB) assembly on to the shaft, align the Z slot on the hub with the white mark on the PCB. **Illustration 2**

b) Place the base and PCB assembly on the ring and shaft as illustrated in **Illustration 2**.

Step 3:

a) Press down on the hub with the Q-Scale to a force between 150gr (.33lbs) and 700gr (1.5lbs). **Illustration 3** shows the appropriate zone for the pin on the Q-Scale to achieve the specified force range.

b) Rotate the assembly Clockwise - as indicated by the white arrows on the PCB - to the installation position. Proper installation position is achieved when rotation is at limit and the two cover mounting holes are exposed as indicated in **Illustration 4**.

c) Confirm the Z slot and white mark alignment; realign if necessary.

Step 4:

a) Tighten hub set screw to motor shaft to 18-22oz-in.

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

Step 5:

a) Place cover on encoder, ensuring alignment of base dowel pins into mating cover holes. **Illustration 5**

b) Rotate encoder so cover and PCB mounting slots align with the cover mounting holes in the ring. **Illustration 6**

c) Install cover screws and tighten to 37-43oz-in.

DYNAMIC ALIGNMENT OF U, V, AND W COMMUTATION CHANNELS:

a) Install cable.

b) Loosen the cover screws slightly, allowing the encoder body to be rotated. **Illustration 7**

c) While maintain a slight downward pressure on the cover, rotate encoder to align commutation channels to motor windings.

d) Tighten cover screws to 37-43oz-in.

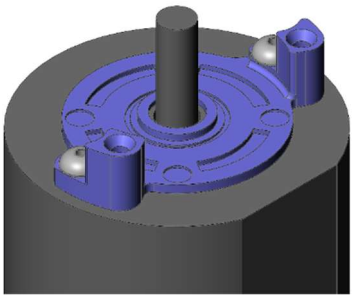

Illustration 1

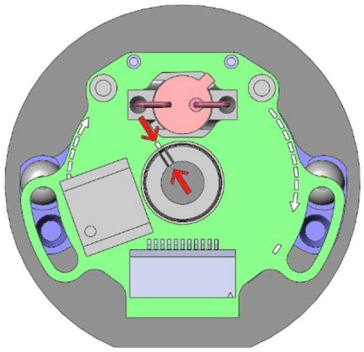

Illustration 2

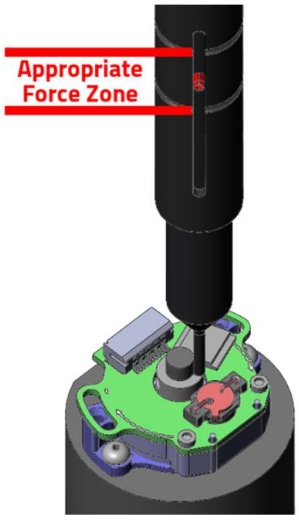

Illustration 3

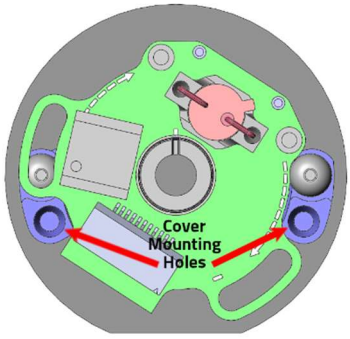

Illustration 4

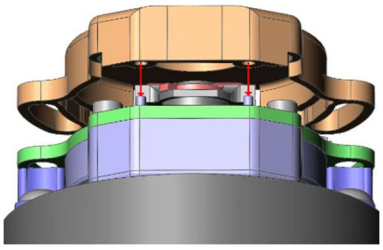

Illustration 5

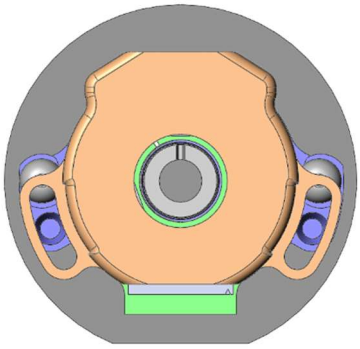

Illustration 6

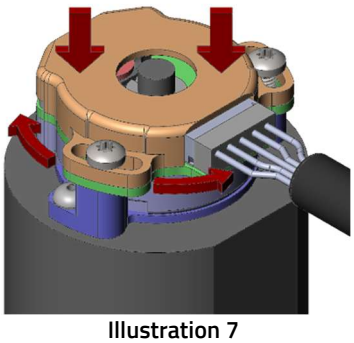

Illustration 7

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