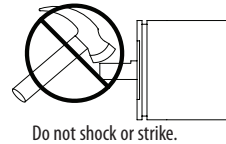


## TB-540: Installation Guide for Models 25T/H, 58T/HP and 58T/HF

*The maximum recommended motor axial endplay is  $\pm 0.030$ ". Maximum shaft TIR is 0.005".*

### Bore Inserts

When installing bore insert (if not already installed), ensure the small lip on the bore insert (see Figure 1) is positioned correctly by inserting bore insert in from the front of the encoder. Incorrect installation, from the back of the encoder, can cause damage to the encoder.



### Installing Encoder Over Shaft

#### Step 1

If needed, clean the motor shaft of any burrs using a fine crocus cloth. Slide the encoder over the motor shaft. Minimum shaft engagement required is 1.2x the bore diameter. Preferred minimum shaft engagement required is 1.5x the bore diameter

#### **DO NOT USE UNDUE FORCE.**

Position the encoder so the flex mount arms just touch the mounting surface. Install screw(s) through the holes in the flex mount and tighten onto the motor securely. (Typical torque range of 115 to 160 oz-in). For additional security, add a drop of Loctite 222 to the threads of the screws.

#### Step 2

Using a 7/64" hex wrench, tighten the screw in the encoder's clamping collar. (Typical torque range of 15 - 25 in-lb). For additional security, add a drop of Loctite 222 to the threads of the screw. Do not allow Loctite to run into the bore or onto the encoder bearings.

**NOTE:** The 3-point SE flex mount (see Figure 2) can accommodate mounting bolt circles from 2.25" to 2.75" by rotating the flex mount.

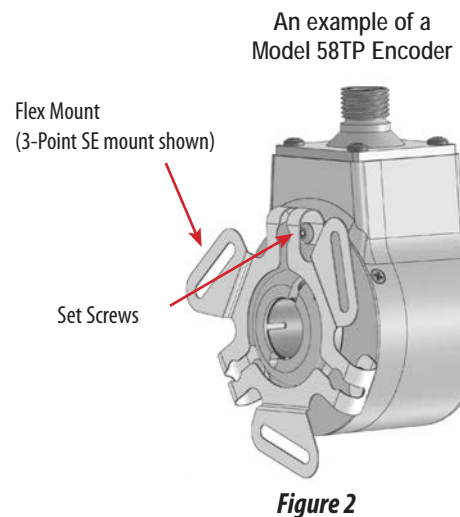
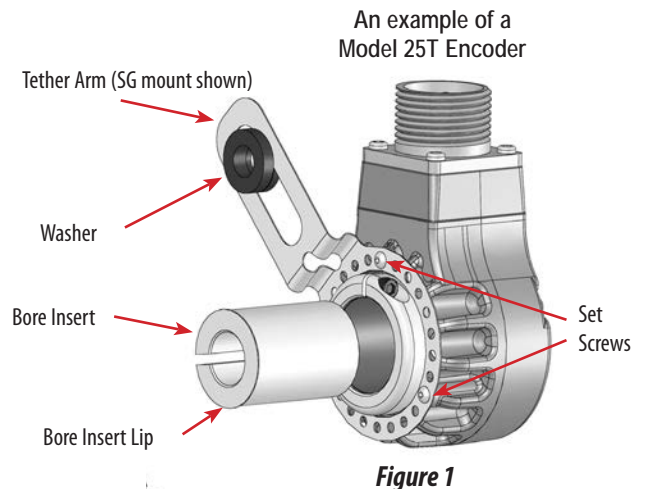
### Alignment Notes

1. When turning the motor shaft by hand, the rocking movement of the encoder should be minimal. If not, loosen the encoder clamping collar screw and rotate the encoder bore relative to the motor shaft to reposition the encoder until this movement is minimized.
2. Ensure that tether arm mount is positioned straight, not bent or bowed. Load applied to the tether arm will cause damage to the encoder.

**When tightening the screws, avoid holding the motor shaft with anything that may scar or burr the shaft.**

### Removal

Loosen (do not remove) the socket head screw in the clamping collar. Then remove the flex mount screws and gently slide the encoder off the motor shaft.



## TB-540: Installation Guide for Models 25T/H, 58T/HP and 58T/HF

### Wiring Table for Models 58TP, 58HP, 58TF and 58HF

For EPC-supplied mating cables, refer to wiring table provided with cable.

Function	Gland Cable <sup>†</sup> Wire Color	5-pin M12**	8-pin M12**	10-pin MS	7-pin MS HV,H5	7-pin MS PU,PP,OC,P5	9-pin D-sub	12-pin M23
Com	Black	3	7	F	F	F	9	10
+VDC	Red	1	2	D	D	D	1	12
A	White	4	1	A	A	A	2	5
A'	Brown	--	3	H	C	--	3	6
B	Blue	2	4	B	B	B	4	8
B'	Violet	--	5	I	E	--	5	1
Z	Orange	5	6	C	--	C	6	3
Z'	Yellow	--	8	J	--	--	7	4
Case	Green	--	--	G	G	G	8	9
Shield	Bare*	--	--	--	--	--	--	--
+VDC Sense	--	--	--	--	--	--	--	2
Com Sense	--	--	--	--	--	--	--	11

\*CE Option: Cable shield (bare wire) is connected to internal case.

†Standard cable is 24 AWG conductors with foil and braid shield.

\*\*CE Option: Use cable cordset with shield connected to M12 connector coupling nut.

### Wiring Table for Models 25T and 25H

For EPC-supplied mating cables, refer to wiring table provided with cable.

Function	Gland Cable <sup>†</sup> Wire Color	5-pin M12**	8-pin M12**	10-pin MS	7-pin MS HV, H5	7-pin MS PU, PP, OC, P5	6-pin MS PU, PP, OC, P5	9-pin D-sub	10-pin Bayonet HV, H5, OD, PU, PP, OC, P5
Com	Black	3	7	F	F	F	A, F	9	F
+VDC	White	1	2	D	D	D	B	1	D
A	Brown	4	1	A	A	A	D	2	A
A'	Yellow	--	3	H	C	--	--	3	H
B	Red	2	4	B	B	B	E	4	B
B'	Green	--	5	I	E	--	--	5	J
Z	Orange	5	6	C	--	C	C	6	C
Z'	Blue	--	8	J	--	--	--	7	K
Case	--	--	--	G	G	G	--	8	G
Shield	Bare*	--	--	--	--	--	--	--	--

\*CE Option: Cable shield (bare wire) is connected to internal case.

†Standard cable is 24 AWG conductors with foil and braid shield.

\*\*CE Option: Use cable cord set with shield connected to M12 connector coupling nut.

If you have questions regarding this Technical Bulletin, please call Technical Support at (800) 366-5412 or email [techsupport@encoder.com](mailto:techsupport@encoder.com).