

Installation and Instruction Manual for TXT/SCXT Speed Reducer Enhanced Belt Guard Assemblies

These instructions must be read thoroughly before installation or operation. This instruction manual was accurate at the time of printing. Please see dodgeindustrial.com for updated instruction manuals.

WARNING: Remove and lock out power source to prevent unexpected starting. Failure to observe these precautions could result in bodily injury.

WARNING: All products over 25 kg (55 lb) are noted on the shipping package. Proper lifting practices are required for these products.

WARNING: To prevent injury, install all guards prior to connecting to power source and starting machine.

WARNING: Install the belt guard so that there is no direct contact with rotating equipment. Periodic inspection of the mounting bolts is recommended.

WARNING: Inspect the motor installation per OEM instructions and bond exposed metallic parts to adjacent metal parts.

WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided and are neither provided by Dodge nor are the responsibility of Dodge. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device, such as an anti-rotation device, must be an integral part of the driven equipment beyond the speed reducer output shaft.

Installation Instructions

- Figure 1 shows the general layout of components that will come in each enhanced belt guard kit.

NOTE: The belt guards are designed to only be used on TXT and SCXT double reduction reducers with standard motor mount.

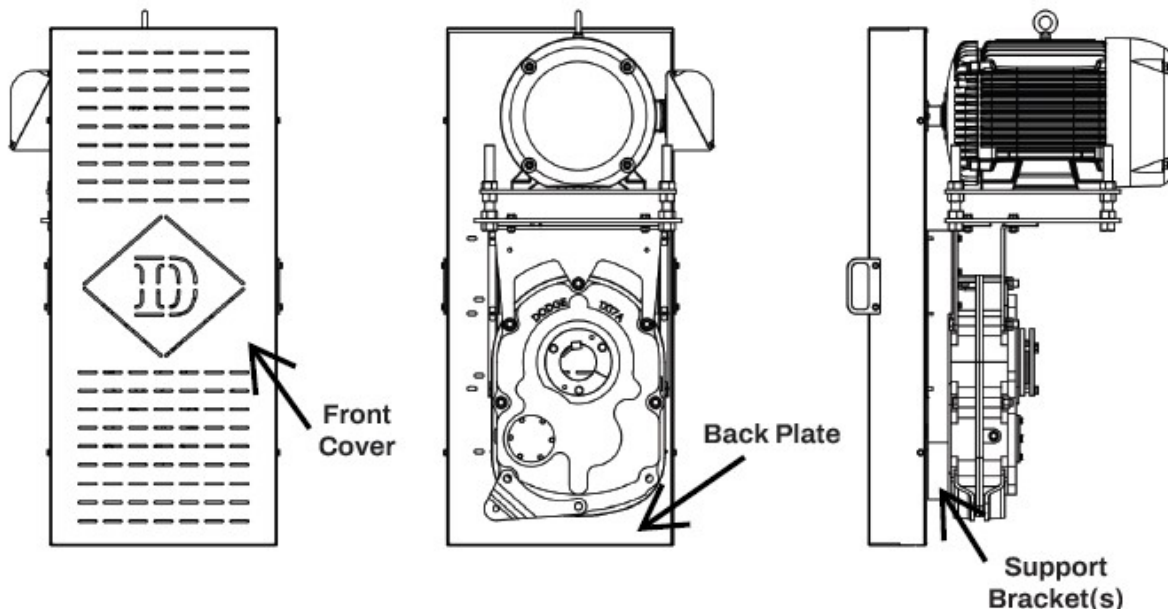


Figure 1 - Enhanced Belt Guard General Layout

2. For TXT/SCXT sizes 1 - 7, attach two front cover lifting handles to the front cover. For TXT sizes 8 - 12, equipped with an inspection cover, attach one handle to the inspection cover as shown in Figure 2. Insert and tighten the two mounting screws on each lifting handle. If equipped with an inspection cover, attach the inspection cover to the front cover and insert and tighten the six screws. See Table 1 for tightening torque of the bolts. Table 1 tightening torque applies to all mounting bolts on the belt guard.

Table 1 - Mounting Bolt Tightening Torque

Bolt Size	Tightening Torque
5/16-18 x 0.625" Grade 5	13 lb-ft
3/8-16 x 1.125" Grade 5	23 lb-ft

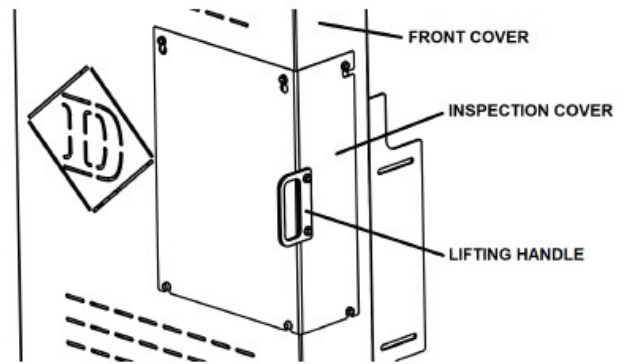


Figure 2 - Attach handle

3. Assemble the belt guard mounting bracket(s) to the motor mount. After bolting the bracket(s) to the motor mount, assemble the belt guard back plate to the mounting brackets. Figures 3 through 20 in the following pages show visual representation on how the bracket(s) and back belt guard plate are mounted to each size gearbox. The back plate, as well the brackets mounting the back plate to the motor mount, are shown translucent to aid in visibility. Circle icons seen as **O**, signify the mounting points from belt guard mounting bracket(s) to the motor mount. Triangle icons seen as **Δ**, signify the mounting points from the back belt guard plate to the mounting bracket(s). Table 2 lays out the page and figure that is associated with each gearbox size.

WARNING: Some sizes have knockouts for provisions to include an input shaft fan assembly. This will be pointed out per size in the following figures. After removing knockout, there may be sharp edges present. Use caution when removing the knockout and deburr all sharp edges.

Gearbox Size	Figure	Page
TXT1	3	3
TXT2	4	3
TXT3	7	4
TXT4	8	4
TXT5	11	5
TXT6	12	5
TXT7	15	6
TXT8	16	6
TXT9	18	7
TXT10	19	7
TXT12	20	7
SCXT1	5	3
SCXT2	6	3
SCXT3	9	4
SCXT4	10	4
SCXT5	13	5
SCXT6	14	5
SCXT7	17	6

Table 2 - Figure and Page per Gearbox Size

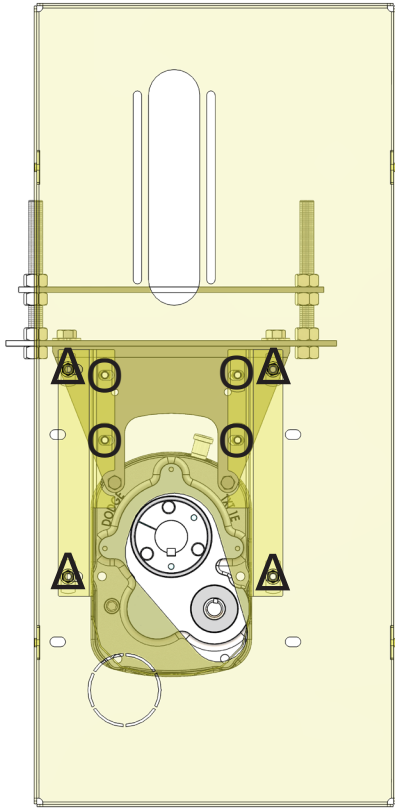


Figure 3 - TXT1 Layout

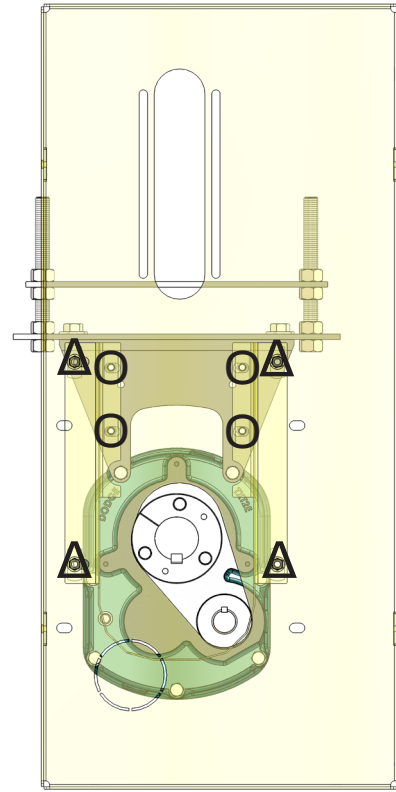


Figure 4 - TXT2 Layout

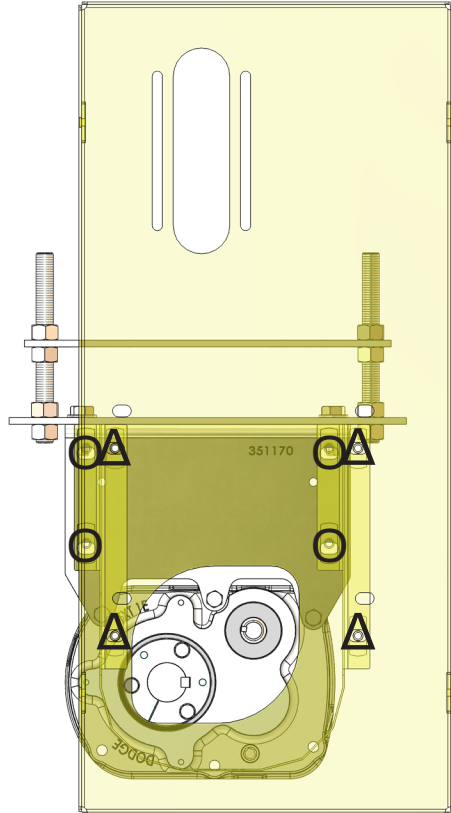


Figure 5 - SCXT1 Layout

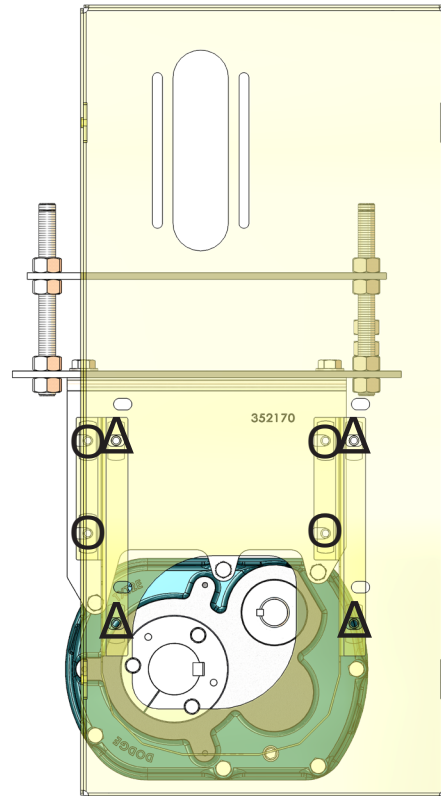


Figure 6 - SCXT2 Layout

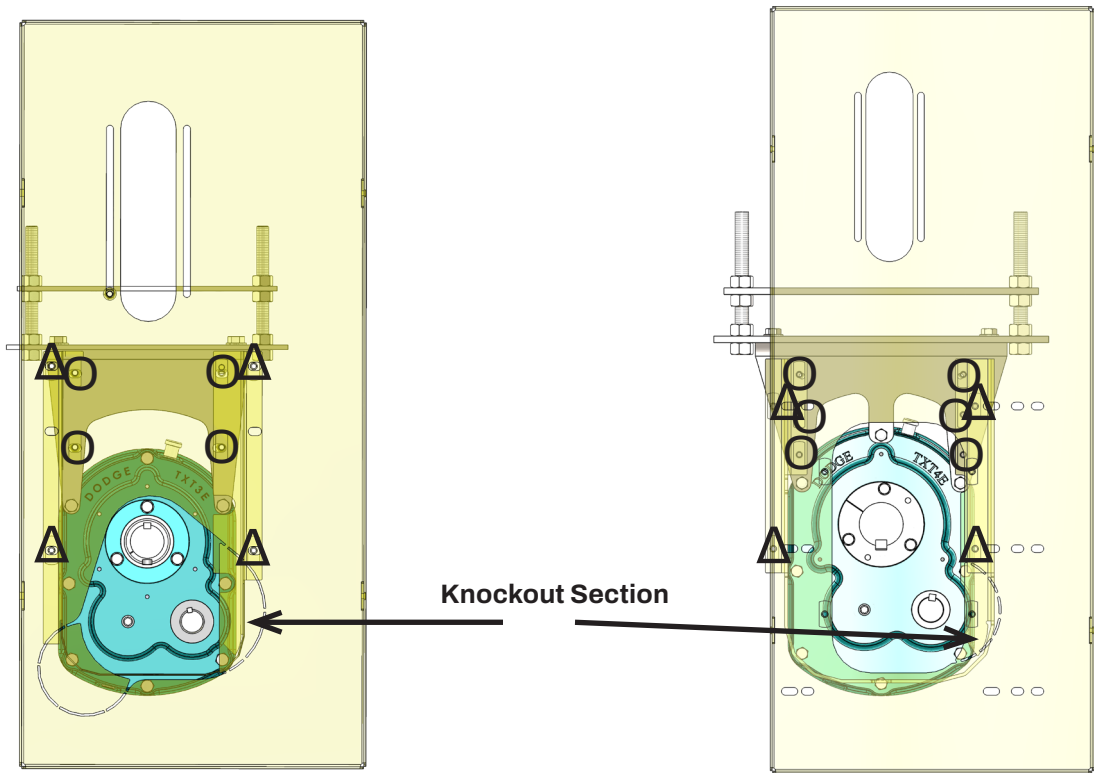


Figure 7 - TXT3 Layout

Figure 8 - TXT4 Layout

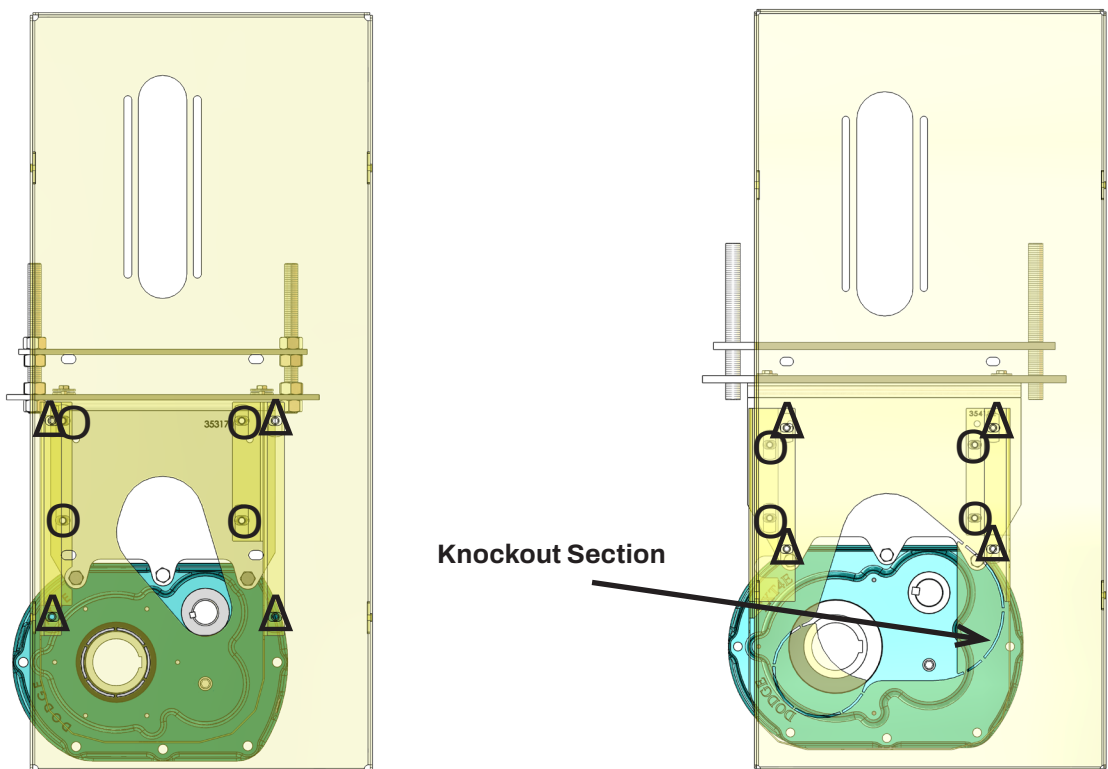


Figure 9 - SCXT3 Layout

Figure 10 - SCXT4 Layout

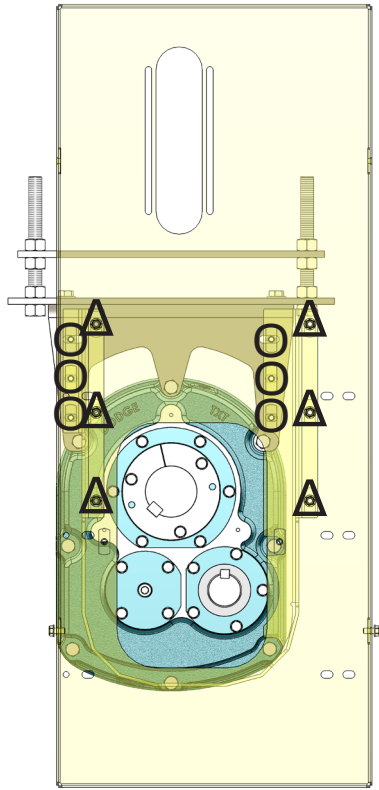


Figure 11 - TXT5 Layout

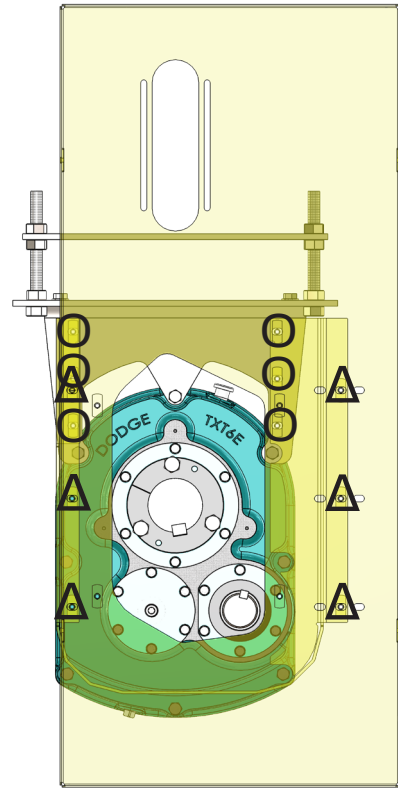


Figure 12 - TXT6 Layout

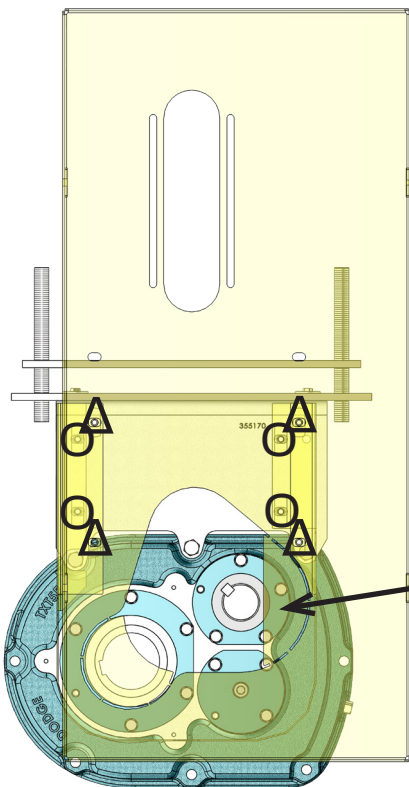


Figure 13 - SCXT5 Layout

Knockout Section

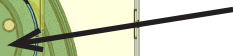
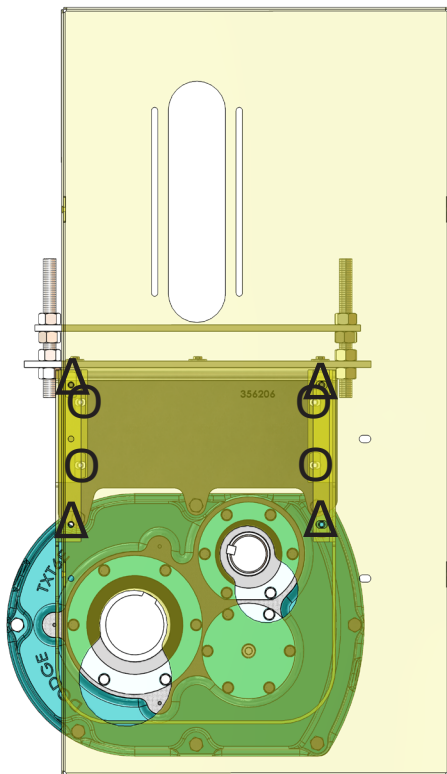


Figure 14 - SCXT6 Layout

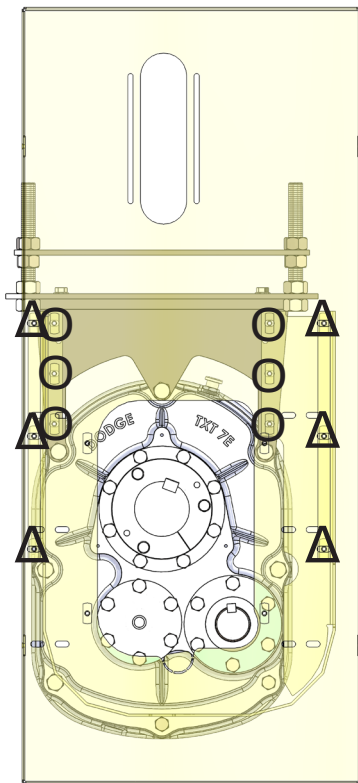


Figure 15 - TXT7 Layout

Knockout Section
(This region of
the bracket, not
back plate)

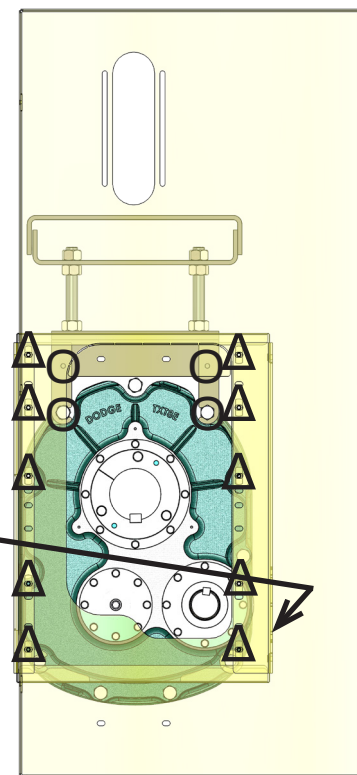


Figure 16 - TXT8 Layout

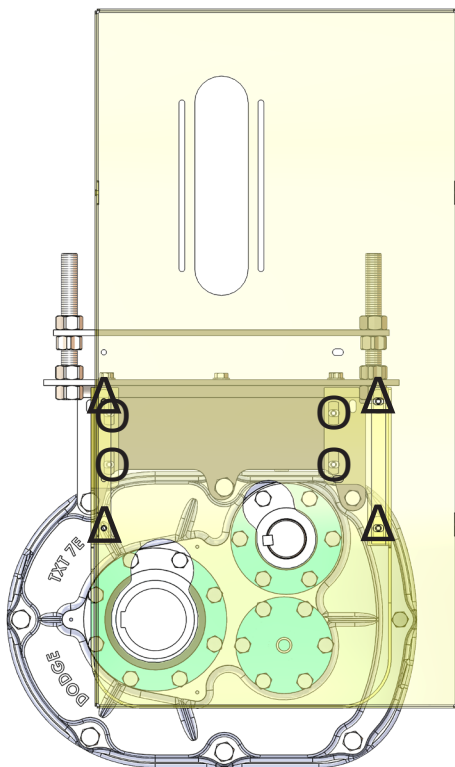


Figure 17 - SCXT7 Layout

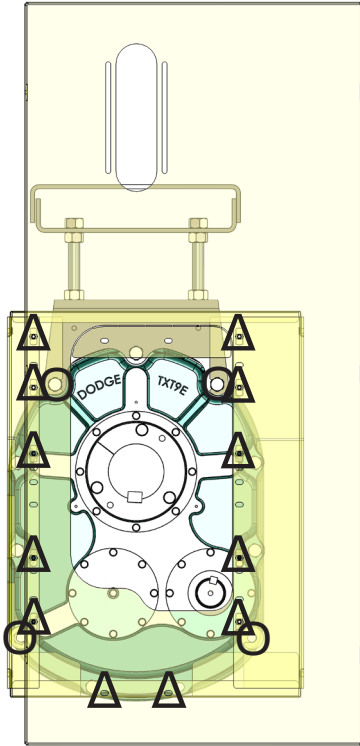


Figure 18 - TXT9 Layout

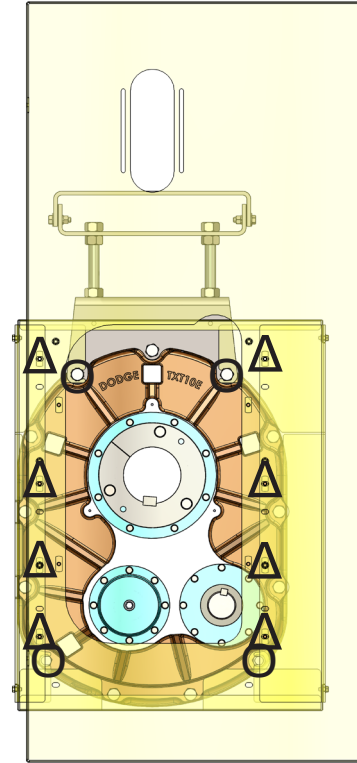


Figure 19 - TXT10 Layout

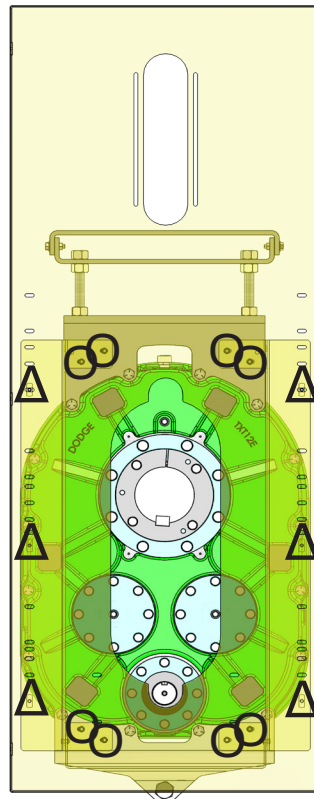


Figure 20 - TXT12 Layout

4. The motor slide plate can be adjusted so the slot is completely covered. Figure 21 shows orientation style "A" with three possible orientations for the slide plate. Figure 22 shows orientation style "B" with two possible orientations for the slide plate. The slide plate will cover the entire range of possible motor to gearbox input shaft center distances. However, the orientation of the slide plate is important and changes through the range of center distances to provide complete coverage.

Table 3 shows center distance range per slide plate orientation for each gearbox size. The view reference point of the slide plate in Figures 21 and 22 follow the same reference views from Figures 3-20, only zoomed in to view the slide plate area.

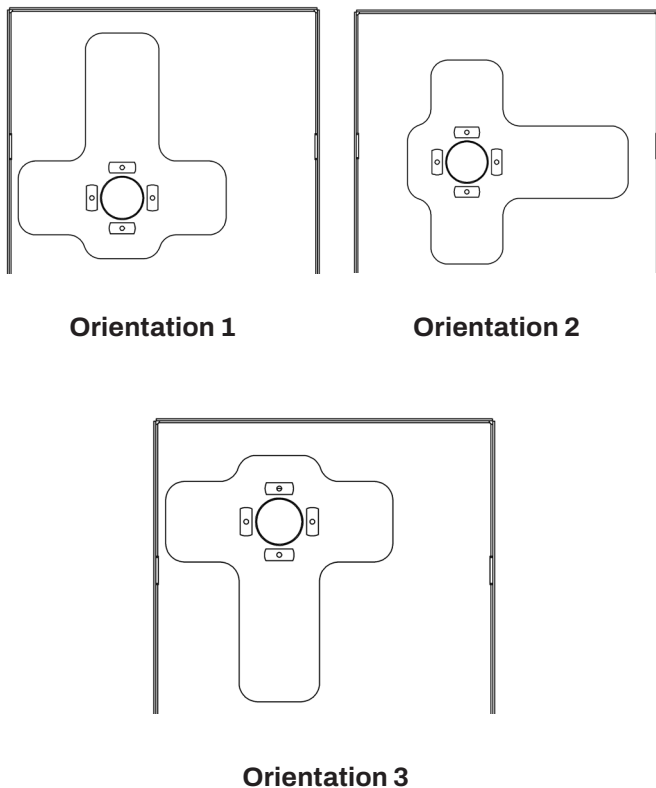


Figure 21 - Motor Slide Plate Orientation Style A

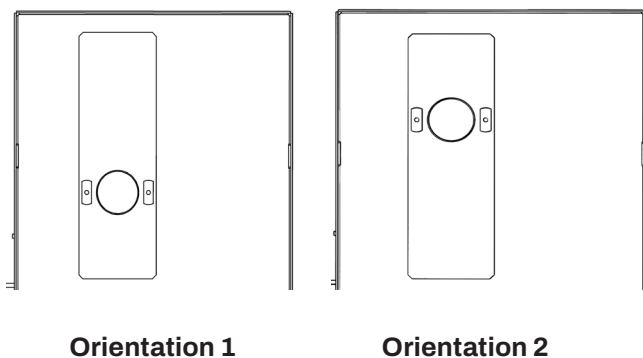


Figure 22 - Motor Slide Plate Orientation Style B

Gearbox Size	Orientation Style	Orientation	Center Distance Range
TXT1	A	2	17.6 - 19.7
	A	3	19.7 - 22.7
TXT2	A	2	18.7 - 21.0
	A	3	21.0 - 24.0
TXT3	B	1	20.2 - 21.3
	B	2	21.3 - 25.3
TXT4	A	1	21.2 - 23.7
	A	2	23.7 - 26.3
	A	3	26.3 - 28.7
TXT5	A	1	22.7 - 24.5
	A	2	24.5 - 27.3
	A	3	27.3 - 30.2
TXT6	A	1	25.9 - 28.3
	A	2	28.3 - 31.6
	A	3	31.6 - 34.9
TXT7	A	1	30.6 - 33.5
	A	2	33.5 - 36.5
	A	3	36.5 - 40.0
TXT8	A	1	36.7 - 40.1
	A	2	40.1 - 42.6
	A	3	42.6 - 46.0
TXT9	A	1	38.0 - 41.5
	A	2	41.5 - 44.0
	A	3	44.0 - 47.4
TXT10	A	1	42.5 - 45.0
	A	2	45.0 - 48.0
	A	3	48.0 - 49.8
TXT12	A	1	57.0 - 62.5
	A	2	62.5 - 66.0
SCXT1	A	1	15.0 - 16.9
	A	2	16.9 - 18.6
	A	3	18.6 - 20.5
SCXT2	A	1	14.9 - 16.8
	A	2	16.8 - 18.5
	A	3	18.5 - 20.0
SCXT3	A	1	15.8 - 19.0
	A	2	19.0 - 21.0
	A	3	21.0 - 24.0
SCXT4	B	1	15.8 - 20.1
	B	2	20.1 - 24.5
SCXT5	B	1	16.6 - 20.9
	B	2	20.9 - 25.2
SCXT6	A	1	15.4 - 19.6
	A	2	19.6 - 21.4
	A	3	21.4 - 25.5
SCXT7	A	1	17.6 - 21.9
	A	2	21.9 - 23.6
	A	3	23.6 - 27.9

Table 3 - Motor Slide Plate Table

5. Install the v-belt sheaves according to the manufacturer's instructions. Slide the motor slide plate as needed during the tensioning of the belts. After the motor has been moved to the final position during belt tensioning, slide the motor slide plate to clear the motor shaft and key equally around the shaft opening in the motor shaft guard. Rotate the motor shaft, if possible, to ensure the key does not contact the guard. See Figure 23. Tighten the motor slide plate mounting screws.

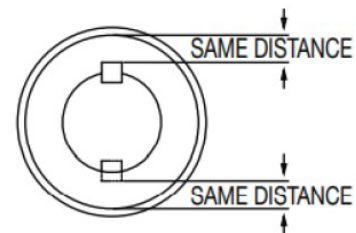


Figure 23 - Motor Slide Installation

6. Install the front cover by lifting the front cover higher than the top of the back plate using the lifting handles or lifting bracket, shown in Figure 24, attached to the front cover. Use an appropriate lifting device when using the lifting bracket, as seen in Figure 25.

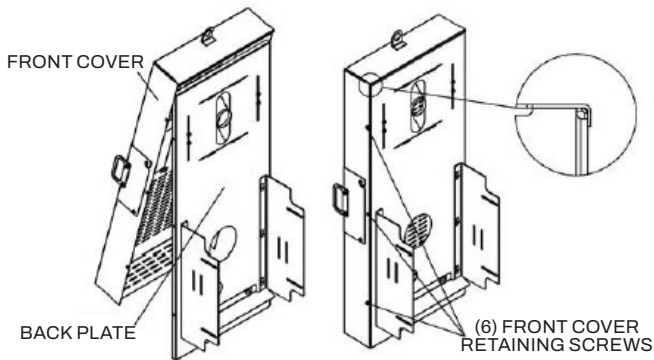


Figure 24 - Installation of the Front Cover

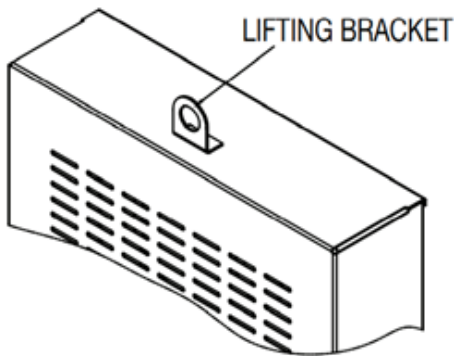


Figure 25 - Use of the Lifting Bracket

Checking V-Belt Tension on Units Equipped without Inspection Cover

1. To gain access to the v-belts on belt guards without an inspection cover, remove the six front cover screws. Use the lifting handles attached to the front cover to lift the front cover up slightly to clear the top of the back cover.
2. After the top of the back cover has been cleared, remove the front cover from the back cover by moving the front cover away from the back cover.
3. Reverse the procedure to install the front cover.

Checking V-Belt Tension on Units Equipped with Inspection Cover

1. To gain access to the v-belts on belt guards with an inspection cover, loosen, but do NOT remove, the six screws that hold the inspection cover onto the front cover. Refer to Figure 26.
2. Slide the inspection cover up to align the larger holes in the slots with the screw heads and then slide the inspection cover away from the front cover. To temporarily store the inspection cover, hang the inspection cover on the lower screws. Refer to Figure 27.
3. To reinstall the inspection cover, line up the large holes on the front of the inspection cover with the screw heads in the front cover and slide the inspection cover onto the screws on the side of the front cover. Tighten the six screws after the inspection cover is in place.

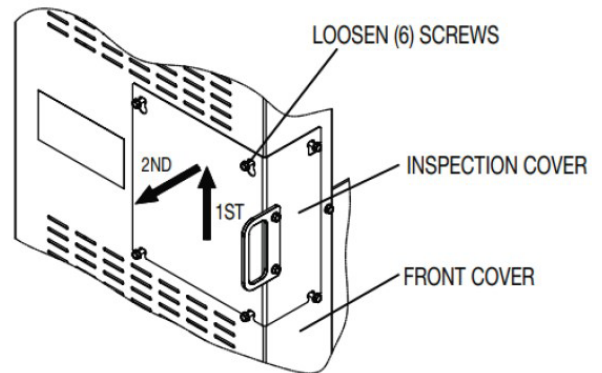


Figure 26 - Equipped with Inspection Cover

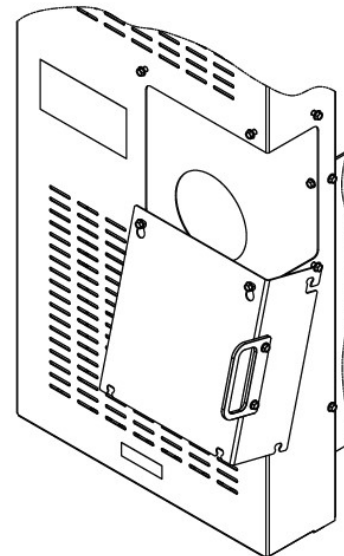


Figure 27 - Storing Inspection Cover

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MN1700 REV-A 04/26