

Installation and Instruction Manual for TAIL Speed Reducer 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 lbs) 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

1. Remove the belt guard components from the box and compare the contents to parts list to ensure all parts were included.

NOTE: The belt guards are designed to only be used on Dodge TAIL gearboxes and motors mounts for Position B and C. Position B shown in Figure 1.

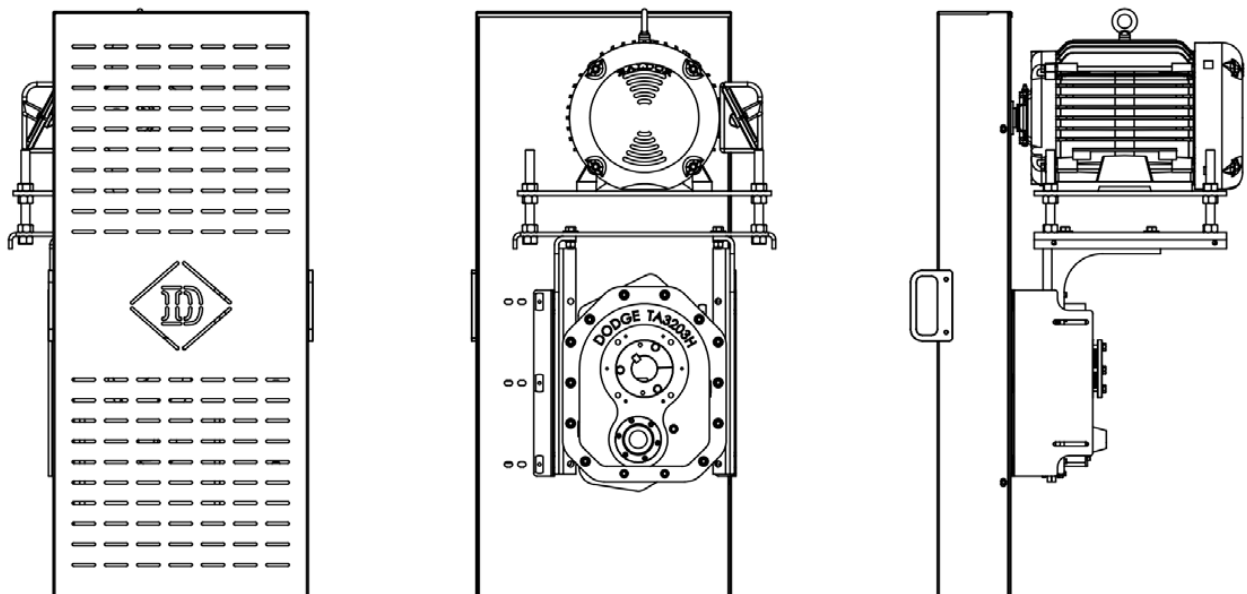
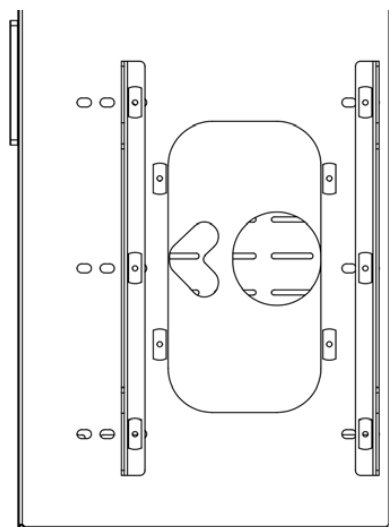


Figure 1 - For Position B Mounting

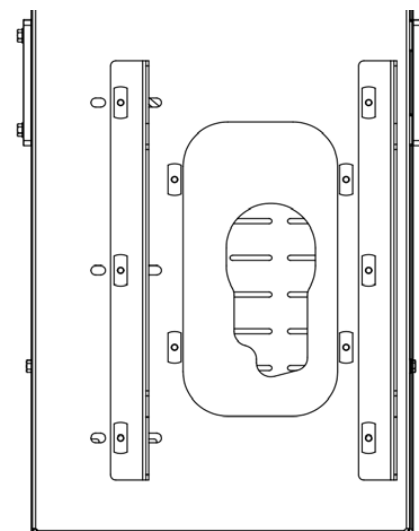
2. Attach two front cover lifting handles to the front cover on small guards. On larger belt guards equipped with an inspection cover, attach one handle to the inspection cover as shown in Figure 2. Insert and tighten the two mounting screws on each lifting handle. If equipped with an inspection cover, 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

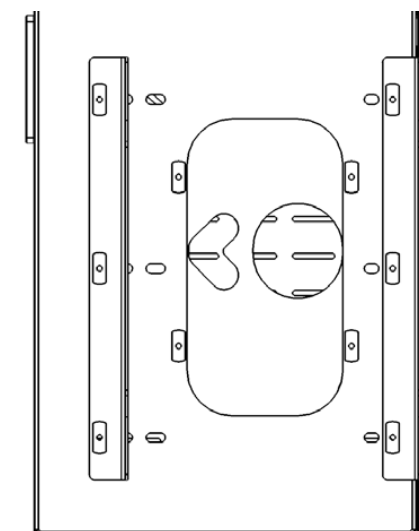
Bolt Size	Tightening Torque
5/16-18 x 0.625" Grade 5	13 ft-lbs
3/8-16 x 1.125" Grade 5	23 ft-lbs



TA0 C



TA1 B



TA1 C

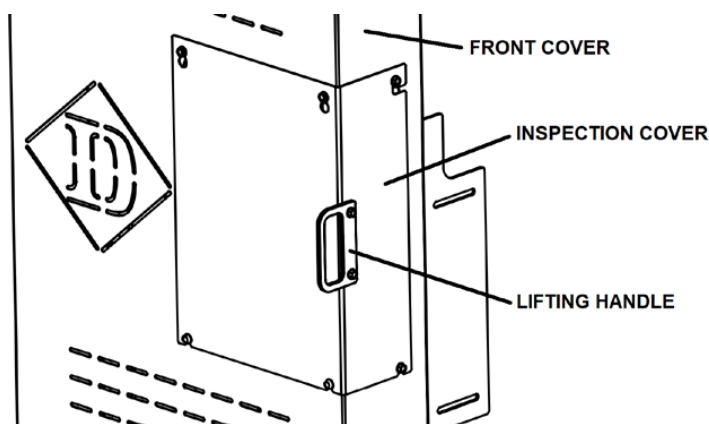
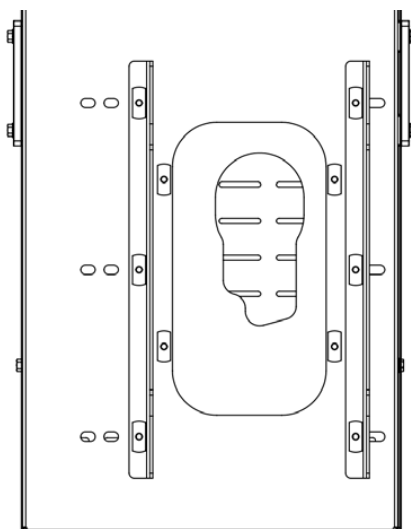


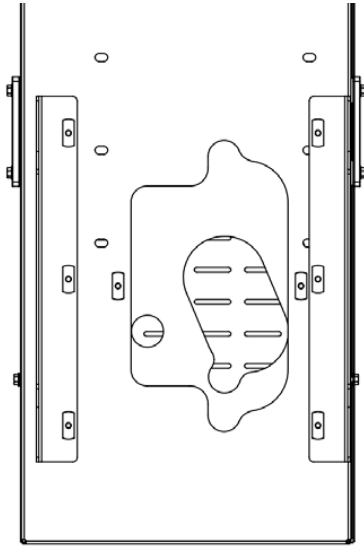
Figure 2 - Attach handle

3. Assemble the mounting brackets to the back cover. See Figure 3 for mounting bolt locations of the mounting brackets. For TALL size 10 and 12 belt guard assembly, assemble the mounting brackets & lower baffle to the back cover.

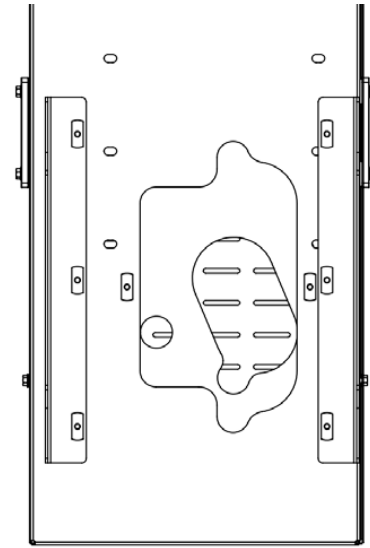
Figure 3 - Mounting Bracket Mounting Bolt Locations and Reducer Slide Plate Orientation



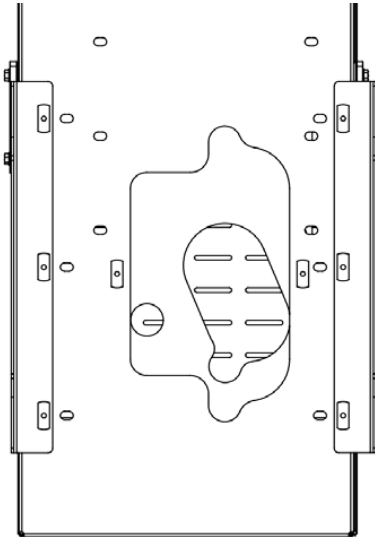
TA0 B



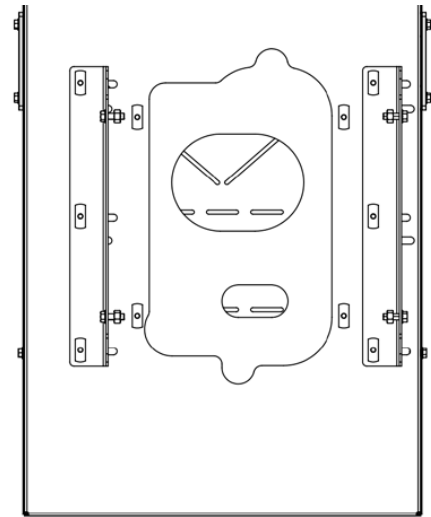
TA2 B



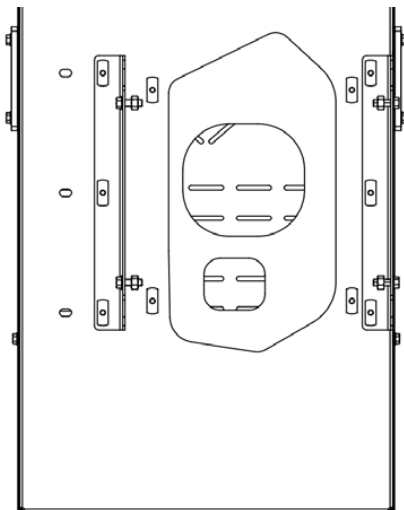
TA3 C



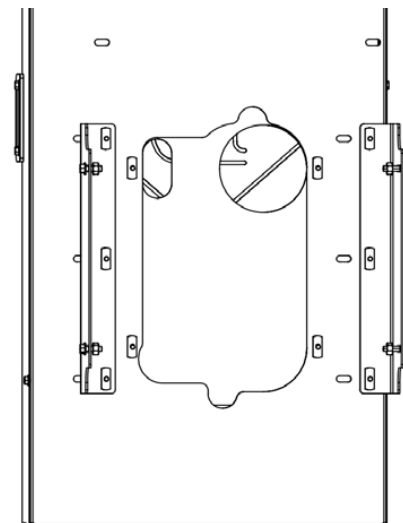
TA2 C



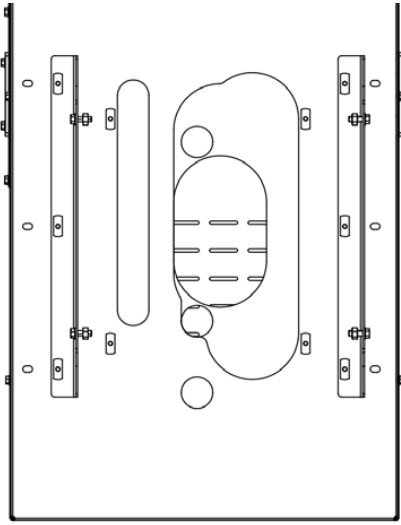
TA4 B



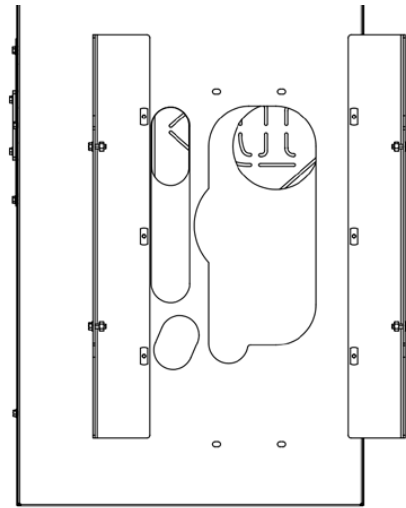
TA3 B



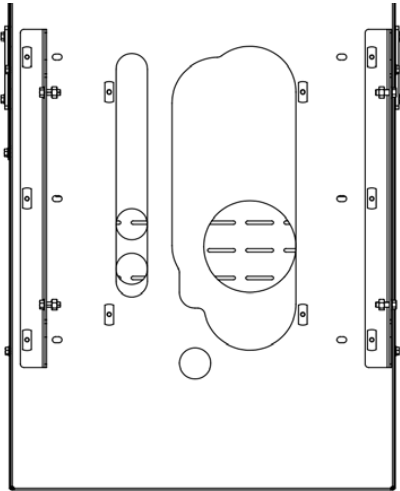
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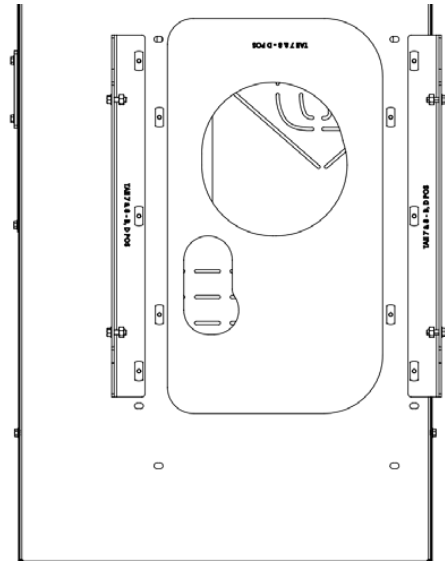
TA5 B



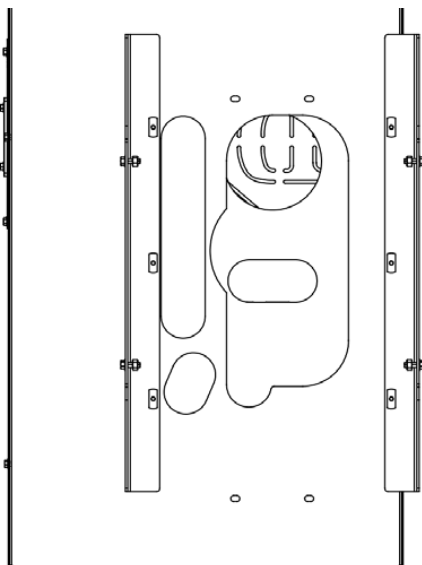
TA6 C



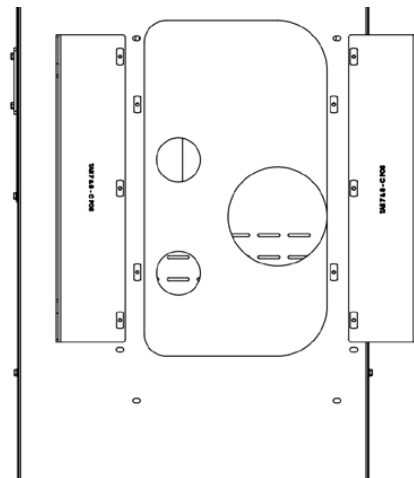
TA5 C



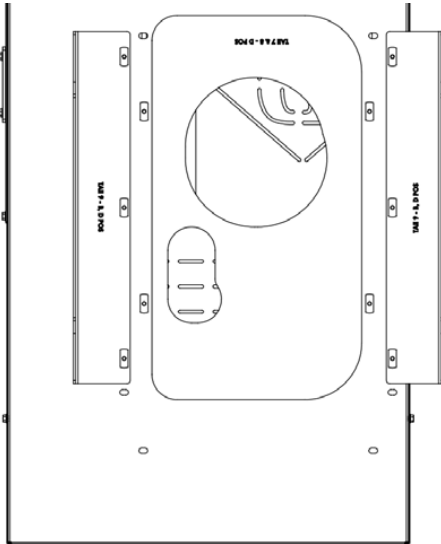
TA7,8 B



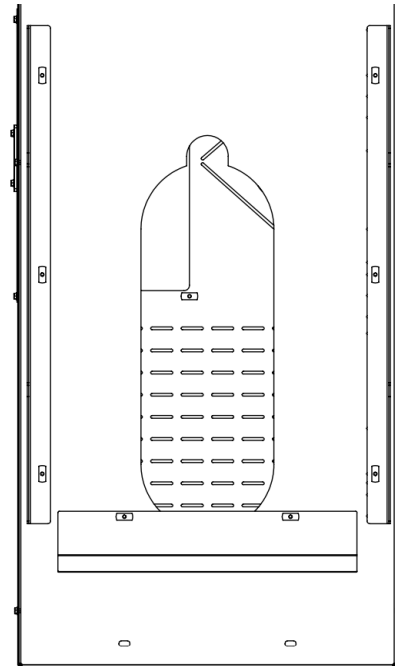
TA6 B



TA7,8 C

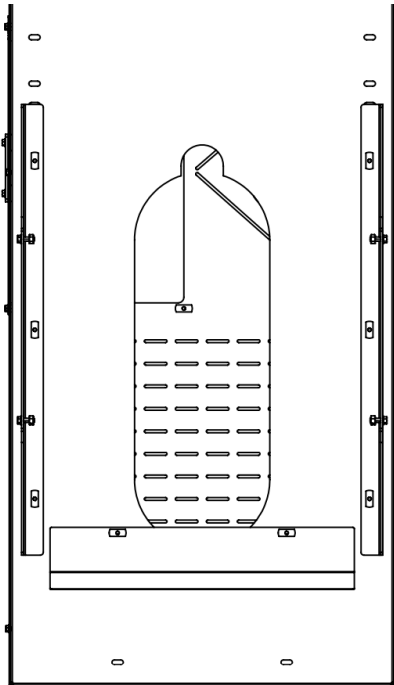


TA9 B



TA12 B

Slide the back cover assembly as close as possible to the gear reducer and motor. Install the reducer slide plate onto the back plate into position to ensure the output bushing and input shaft, and their respected keys, is clear with the opening in the slide plate. See Figure 4. Insert and tighten the long screws and nuts on each mounting bracket and reducer slide plate.



TA10 B

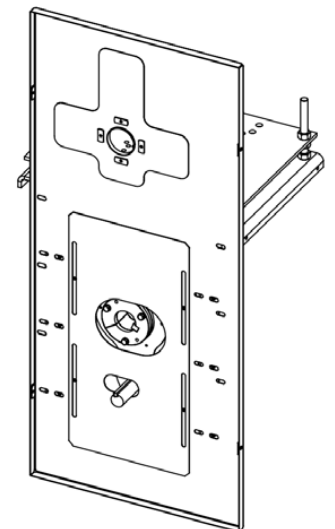
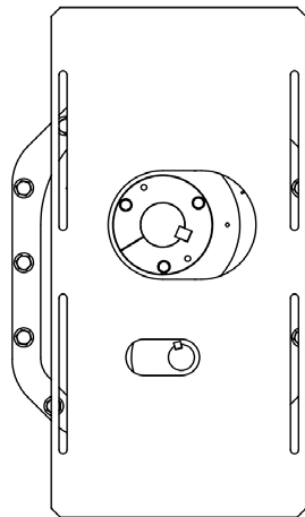
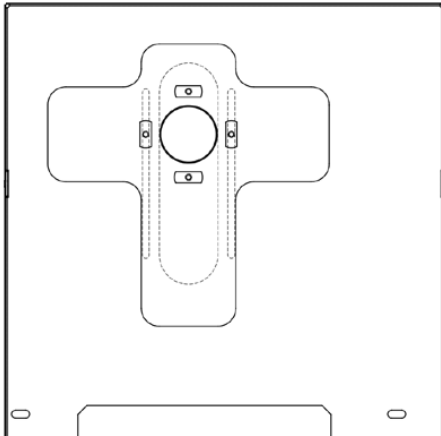


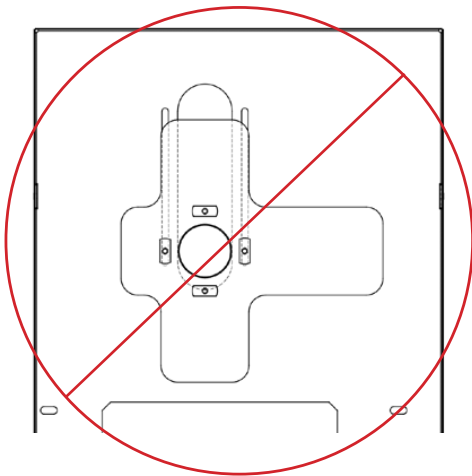
Figure 4 - Reducer Slide Plate Installation

4. Position the motor slide plate onto the belt guard back plate to ensure the slot is fully covered. See Figure 5. The motor slide plate is designed to cover the entire motor shaft slot in two distinct positions. Position 1 covers positions where the motor shaft is between the top of the slot and the center line of the slot. Position 2 covers positions where the motor shaft is between the bottom of the slot and the center line of the slot. Install the motor slide plate to the back plate of the belt guard by tightening the 2 screws and nuts.

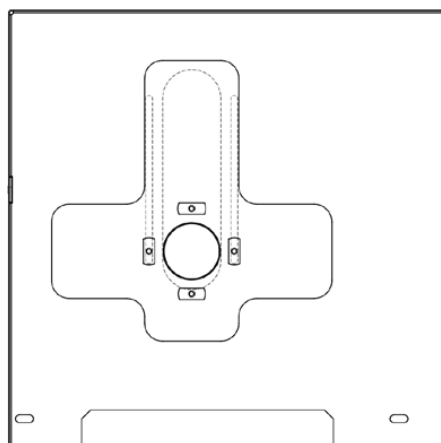
Figure 5 - Motor Slide Plate Positions



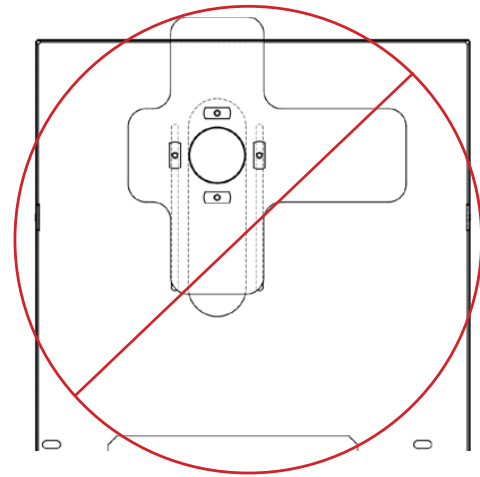
Position 1 - Correct



Position 1 - Incorrect



Position 2 - Correct



Position 2 - Incorrect

5. Install the v-belts and sheaves according to the manufacturer's instructions. Slide the motor slide plate as needed during 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 6. Tighten the motor slide plate mounting screws.

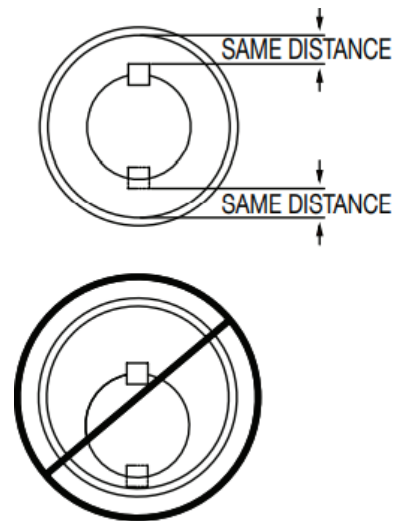


Figure 6 - Motor Slide Installation

6. Install the front cover by lifting the front cover higher than the top of the back cover using the lifting handles or lifting bracket, shown in Figure 7, attached to the front cover. Use an appropriate lifting device when using the lifting bracket.

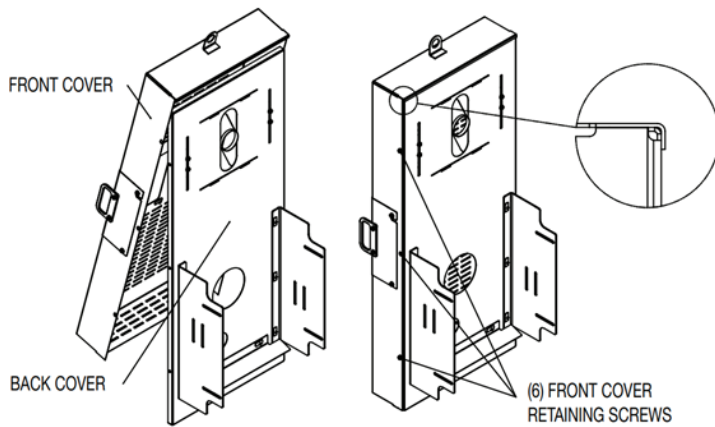


Figure 7 - Installation of the Front Cover

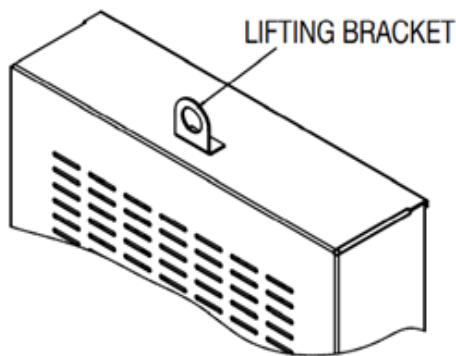


Figure 8 - Use of the Lifting Bracket

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 9.
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 10.

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.

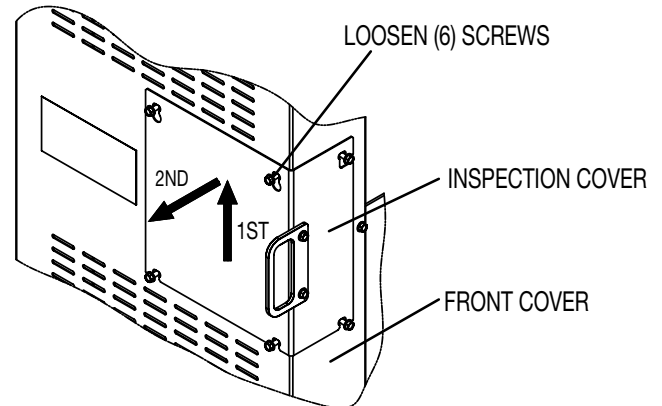


Figure 9 - Equipped with Inspection cover

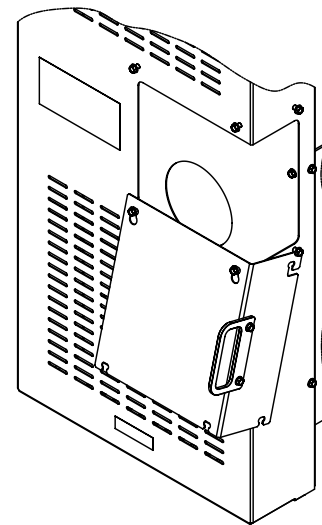


Figure 10 - Storing Inspection Cover

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