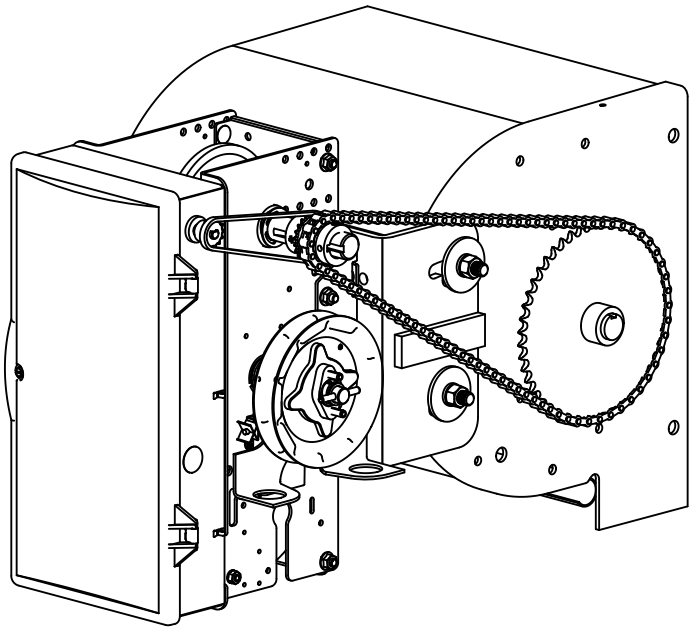
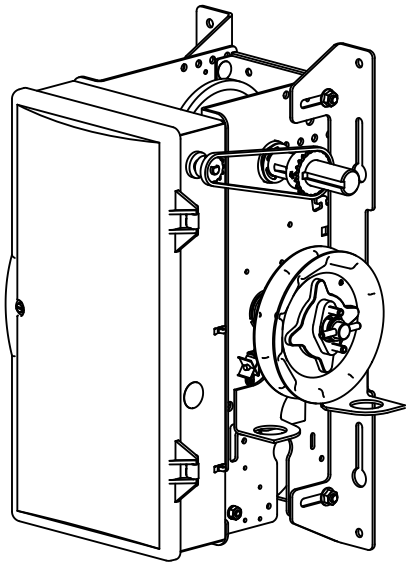
GCL-MJ&MH™
Medium Duty Operator

COMMERCIAL LINE

Jackshaft/Hoist





APPLICATIONS:

Jackshaft/Hoist Operators can be assembled in the following configurations:

- Sidemount
- Chain Couple

Jackshaft/Hoist Operators can be installed on the following types of doors:

- Sectional Doors - Vertical Lift, Lift Clearance Type
- Rolling Steel Doors

HP/Max Door Weight:

- Sectional - 1/2 HP Only - 620lbs.
- Rolling Steel - 1/2 HP Only - 580lbs.

NOT FOR RESIDENTIAL USE

This Manual Provides The Information Required To Install, Program, Troubleshoot And Maintain A GCL-MJ & MH™ Operator.

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Section 1: General Information & Instructions

Job Site Issues to Consider/Concerns

The following list of items should be considered prior to selecting an operator for a given job site.

1. Available power supply.
2. Type of door.
3. Potential operator mounting obstructions. Items to consider include, but are not limited to: side room, room above door shaft, room below door shaft, available mounting surface integrity, power supply location, and convenient chain hoist and release cable positioning.
4. Size of door for appropriate operator torque and door travel speed selection.
5. Operator mounting environment. Items to consider include operator location, dampness of location, dustiness of the location and corrosiveness of the location.
6. Door activation needs/requirements. Examples include 3 button control stations, 1 button control stations, radio controls, pull cords, loop detectors, photoelectric controls, key switches, etc. See "Entrapment Protection" section on page 1.5.
7. Interlock switches are required under certain conditions for doors with pass doors and door locks.
8. Accessory equipment. Examples include reversing edges and/or photocell beams, which are required for doors set to operate as momentary contact, auxiliary control relays, warning lights, etc. See "Entrapment Protection" section.

⚠ CAUTION

Check working condition of door before installing the operator. Door must be free from sticking and binding. If equipped, deactivate any door locking device(s). Door repairs and adjustments, including cables and spring assemblies MUST be made by a trained service representative using proper tools and instructions.

⚠ ATTENTION

Vérifiez l'état de fonctionnement de la porte avant d'installer l'opérateur. La porte doit pouvoir bouger librement et ne pas coincer. Désactivez tous les dispositifs de verrouillage de la porte (si équipés). Les réparations et les réglages de porte, plus particulièrement pour les câbles et les ressorts DOIVENT être effectués par un technicien qualifié qui se sert d'outils appropriés et qui respecte les instructions.

⚠ WARNING

DO NOT apply line voltage until instructed to do so.

⚠ AVERTISSEMENT

NE PAS mettre sous tension tant que l'instruction n'est pas donnée de le faire.

Section 1: Safety Information & Instructions

⚠ WARNING

Overhead Doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injury, your safety and the safety of others depend on you reading the information in this manual. If you have any questions or do not understand the information presented, call your nearest service representative. For the number of your local Genie Dealer, call 800-OK-GENIE, and for **Genie Factory Technical Advice, call 800-843-4084.**

In this manual the words Danger, Warning, and Caution are used to stress important safety information. The word:

- ⚠ **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ **CAUTION** indicates potentially hazardous situation which, if not avoided, may result in injury or property damage.

The word **NOTE**, *is used to indicate important steps to be followed or important considerations.*

POTENTIAL HAZARD	EFFECT	PREVENTION
MOVING DOOR 	⚠ **WARNING** Could result in Serious Injury of Death	Do Not operate unless the doorway is in sight and free of obstructions. Keep people clear of opening while door is moving. Do Not allow children to play with the door operator. Do Not change operator control to momentary contact unless and external reversing means is installed. Do Not operate a door that jambs or one that has a broken spring.
ELECTRICAL SHOCK 	⚠ **WARNING** Could cause Serious Injury or Death	Turn off electrical poser before removing operator cover. When replacing the cover, make sure wires are not pinched or near moving parts. Operator must be electrically grounded.
HIGH SPRING TENSION 	⚠ **WARNING** Could cause Serious Injury or Death	Do Not try to remove, repair or adjust springs or anything to which door spring parts are fastened, such as wood block, steel bracket, cable or any other structure or like item. Repairs and adjustments must be made by trained service representative using proper tools and instructions.

IMPORTANT

READ PRIOR TO ANY DOOR OPERATION

1. Read manual and warnings carefully.
2. Keep the door in good working condition. Periodically lubricate all moving parts of door.
3. If door has a sensing edge, check operations monthly. Make any necessary repairs to keep it functional.
4. AT LEAST twice a year, manually operate the door by disconnecting it from the operator. The Door should open and close freely. If it does not, the door must be taken out of service and a trained service representative must correct the condition causing the malfunction.
5. The Operator Motor is protected against overheating by an internal thermal protector. If the motor protector is tripped, a trained service technical may be needed to correct the condition which caused the overheating. When the motor has cooled, thermal protector will automatically reset and normal operation can be resumed.
6. In case of power failure, the door can be operated manually by pulling the release cable to disconnect the operator drive system.
7. Keep instructions in a prominent location near the pushbutton.

⚠ AVERTISSEMENT

Les portes basculantes sont de gros objets lourds qui fonctionnent à l'aide de ressorts soumis à une haute tension et de moteurs électriques. Dans la mesure où les objets en mouvement, les ressorts sous tension et les moteurs électriques peuvent entraîner des blessures, votre sécurité et celle des autres exigent que vous preniez connaissance des informations stipulées dans ce manuel. Si vous avez des questions ou si vous ne comprenez pas les informations ci-incluses, veuillez contacter le représentant de service le plus près. Pour obtenir le numéro du revendeur Genie local, appelez le +1 (800) OK-GENIE, et pour **obtenir des conseils techniques de l'usine Genie, appelez le +1 (800) -843-4084.**

Dans ce manuel, les mots Danger, Avertissement, et Attention sont utilisés pour faire ressortir d'importantes informations relatives à la sécurité. Le mot :

- ⚠ **DANGER** signale une situation dangereuse imminente qui si elle n'est pas évitée, risque d'entraîner des blessures graves, voire mortelles.
- ⚠ **AVERTISSEMENT** signale une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner la mort ou des blessures graves.
- ⚠ **ATTENTION** signale une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner des blessures ou des dommages matériels.

Le terme **REMARQUE** est utilisé pour signaler les étapes importantes à suivre ou d'importants éléments à prendre en considération.

DANGER POTENTIEL	EFFET	PRÉVENTION
PORTE EN MOUVEMENT 	⚠ **AVERTISSEMENT** Pourrait entraîner des blessures graves voire la mort	Utiliser uniquement si la porte est en vue et libre de tout obstacle. Ne laisser personne se tenir dans l'ouverture de la porte pendant qu'elle est en mouvement. Ne pas permettre aux enfants de jouer avec l'opérateur de la porte. Ne pas modifier la commande de l'opérateur à contact momentané à moins qu'un moyen d'inversion externe soit installé. Ne pas faire fonctionner une porte qui bloque ou dont le ressort est cassé.
CHOC ÉLECTRIQUE 	**AVERTISSEMENT** ⚠ Pourrait entraîner des blessures graves voire la mort	Couper le courant avant d'enlever le couvercle de l'opérateur. Lorsque le couvercle doit être remplacé, s'assurer que les fils ne sont ni coincés ni près des pièces mobiles. L'opérateur doit être correctement mis à la terre.
TENSION ÉLEVÉE RESSORT 	**AVERTISSEMENT** ⚠ Pourrait entraîner des blessures graves voire la mort	Ne pas essayer d'enlever, réparer ni ajuster les ressorts ou toute autre pièce à laquelle le ressort de la porte est attaché, y compris blocs de bois, supports en acier, câbles ou autres articles semblables. Les réparations et les réglages doivent être effectués par technicien qualifié qui se sert d'outils appropriés et qui respecte les instructions.

IMPORTANT INSTALLATION INSTRUCTIONS

⚠ WARNING

To reduce the risk of severe injury or death:

1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
2. Install only on a properly operating and balanced door. A door that is operating improperly could cause severe injury. Have qualified service personnel make repairs to cables, spring assemblies and other hardware before installing the operator.
3. Remove all pull ropes and remove, or make inoperative, all locks (unless mechanically and/or electronically interlocked to the power unit) that are connected to the door before installing the operator.
4. Install the door operator at least 8ft. (2.44m) or more above the floor if operator has exposed moving parts. If the operator must be installed less than 8ft. (2.44m) above the floor, then exposed moving parts must be protected by covers or guarding, provided by the operator manufacturer.
5. Do not connect the door operator to the power source until instructed to do so.
6. Locate the control station: (a) within sight of the door, (b) a minimum of 5 feet above the floor so that small children cannot reach it, and (c) away from all moving parts of the door.
7. Install the Entrapment Warning Placard next to the control station and in a prominent location.
8. For products having a manual release, instruct the end user on the operation of the manual release.

IMPORTANT INSTRUCTIONS D'INSTALLATION

⚠ AVERTISSEMENT

Pour réduire les risques de blessures graves ou de mort:

1. LIRE ET RESPECTER TOUTES LES INSTRUCTIONS D'INSTALLATION.
2. Installez uniquement sur une porte fonctionnant correctement et bien équilibrée. Une porte qui fonctionne mal peut provoquer des blessures graves. Demandez à un technicien qualifié d'effectuer les réparations des câbles, des ressorts et de toute autre quincaillerie avant de procéder à l'installation de l'opérateur.
3. Retirez toutes les cordes de traction ainsi que tous les verrous ou rendez-les inopérants (à moins qu'ils ne soient mécaniquement et/ou électroniquement interverrouillés à l'unité motrices) qui sont connectés à la porte avant de procéderà l'installation de l'opérateur.
4. Installez l'opérateur de porte à une distance de 2,44 m (8 pi) ou plus au-dessus du sol si des pièces en mouvement de l'opérateur sont exposées. Si l'opérateur doit être installé à une distance de moins de 2,44 m (8 pi) au-dessus du sol, les pièces en mouvement exposées doivent être protégées par des couvercles ou systèmes de protection fournis par le fabricant de l'opérateur.
5. Ne pas raccorder l'opérateur de la porte à la source d'alimentation avant que l'instruction ne soit donnée de le faire.
6. Installez la station de commande : (a) en vue de la porte, (b) à 1,5 m minimum au-dessus du sol pour que les jeunes enfants ne puissent pas l'atteindre, et (c) à l'écart de toutes les pièces mobiles de la porte.
7. Installez le poster d'avertissement de pincement à côté de la station de commande à un endroit bien en vue.
8. Pour les produits ayant un déclenchement manuel, indiquez à l'utilisateur comment déclencher manuellement.

IMPORTANT INSTALLATION INFORMATION

ENTRAPMENT PROTECTION:

The installation of a monitored fail safe external reversing device is required on all momentary contact electronically operated commercial doors. If such a reversing device is not installed, the operator will revert to a constant contact control switch for operation (Closing only).

The Reversing Devices currently UL Approved are:

- MillerEdge® ME and MT series monitored edge sensors used in combination with Timer-Close Module (TCM) expansion board. P/N OPABTCGX.
- MillerEdge® ME and MT series monitored edge sensors used in combination with MillerEdge Interface Module OPAKMEIGX.S. (Direct connect through STB inputs.)
- MillerEdge® Wireless (MEL) monitored edge sensor OPAKMMWE2.S. (Direct connect through STB inputs.)
- ASO Sentir GF Series Monitored Sensing Edges used in combination with Edge Expansion Module (ESM) expansion board. P/N OPABESX.S
- Residential Safe-T-Beam® Monitored Photocells - P/N 37220R (GST B-BX) and 38176R.S (includes extension brackets).
- Series II Commercial Safe-T-Beam® Monitored Photocells - P/N OPAKPE2.S and OPAKPEN4GX.S (NEMA 4).
- Monitored Retro-Reflective Photoeye - P/N OPGAKRPEN4X.S
- Monitored MillerEdge Light Curtain -P/N OPAKMLC3.S & OPAKMLC6.S

Monitored Sensing Edges are available in any door width.

NOTE: *DO NOT use take up reels in conjunction with the Monitored Sensing Edge system. Use Coil Cords Only.*

Section 2: Operator Installation

Rolling Steel/Grill Doors
Front of Hood

The Rolling Steel Door Operator can be assembled for right-hand (Hoist & Jackshaft) or left-hand Front of Hood (Jackshaft model only) mounting Front of Hood.
Each model can also be wall mounted (See page **4.3**).

1. Mounting hardware and instruction will be supplied based on door specifications. (Typical mounting arrangements shown.)
2. Remove wall mount brackets from operator. Attach rolling steel mounting brackets to the operator using the fasteners provided. Figure 1.
3. Attach Operator to Powerhead Support bracket using the fasteners provided. Figure 2.

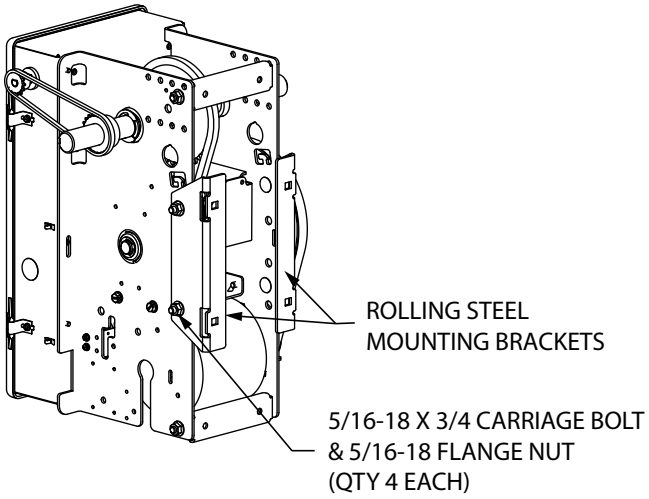


Fig. 1

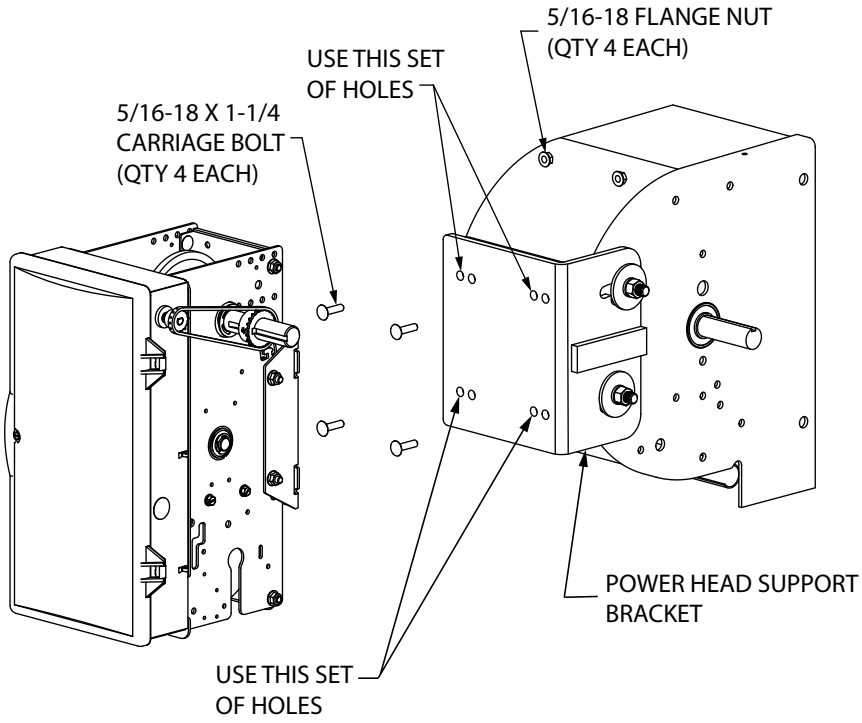


Fig. 2

Section 2: Operator Installation

Chain Installation. Figure 3

1. *Install 1 2 tooth sprocket on operator output shaft.*
2. *Align keyways and insert key into sprocket and output shaft keyway.Do not tighten set screw at this time.*
3. *Install door sprocket on door shaft. Do not tighten at this time.*
4. *Assemble chain using chain master link.*
5. *Place assembled chain over door shaft sprocket and around the 12 tooth sprocket.*
6. *Using the slots in the mounting bracket, adjust the operator to remove slack from the chain. Be certain operator output shaft is parallel with the door shaft.*
7. *Tighten operator mounting bracket nuts.*
8. *Tighten sprocket set screws.*

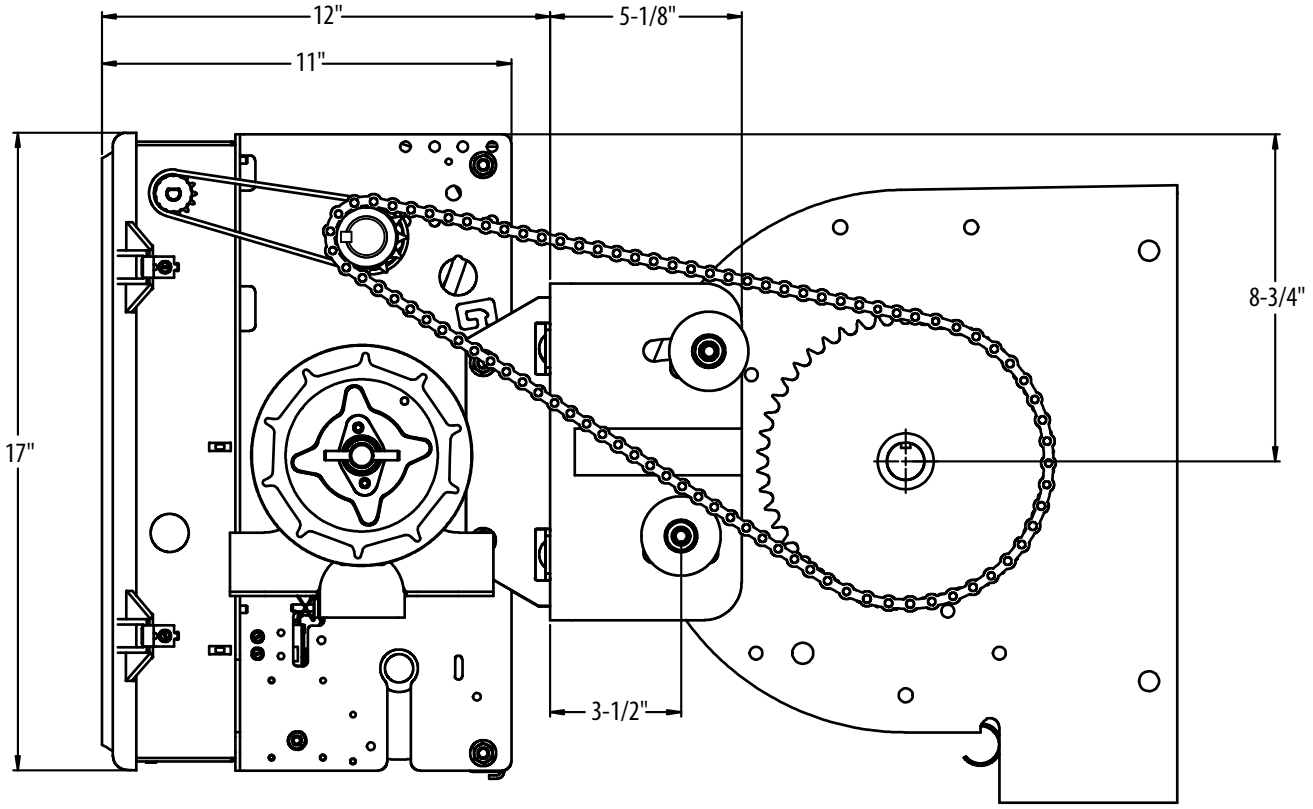


Fig. 3

Section 2: Operator Installation

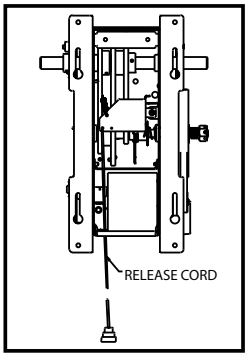
Rolling Steel/Grill Doors
Wall Mount

The GCL-MJ&MH™ Rolling Steel unit can be wall mounted where necessary. Fig.4.

1. Attach 12 tooth sprocket to operator output shaft.
2. Align keyways and insert key into sprocket and output shaft keyway. Do not tighten set screw yet.
3. Attach door sprocket to door shaft. Do not tighten yet.
4. Assemble chain using chain master link.
5. Place assembled chain over door shaft sprocket and
6. Raise or lower operator to remove slack from the chain. Ensure operator output shaft is parallel with door shaft.
7. Align chain and secure operator to wall.
8. Tighten operator chain sprocket set screws.
9. Slide operator in the wall bracket mounting holes if necessary for fine adjust of chain tension.

NOTE: *Operator must be securely fastened to the wall using lock down holes.*

JACKSHAFT VERSION



The release cable must be attached before mounting the unit.

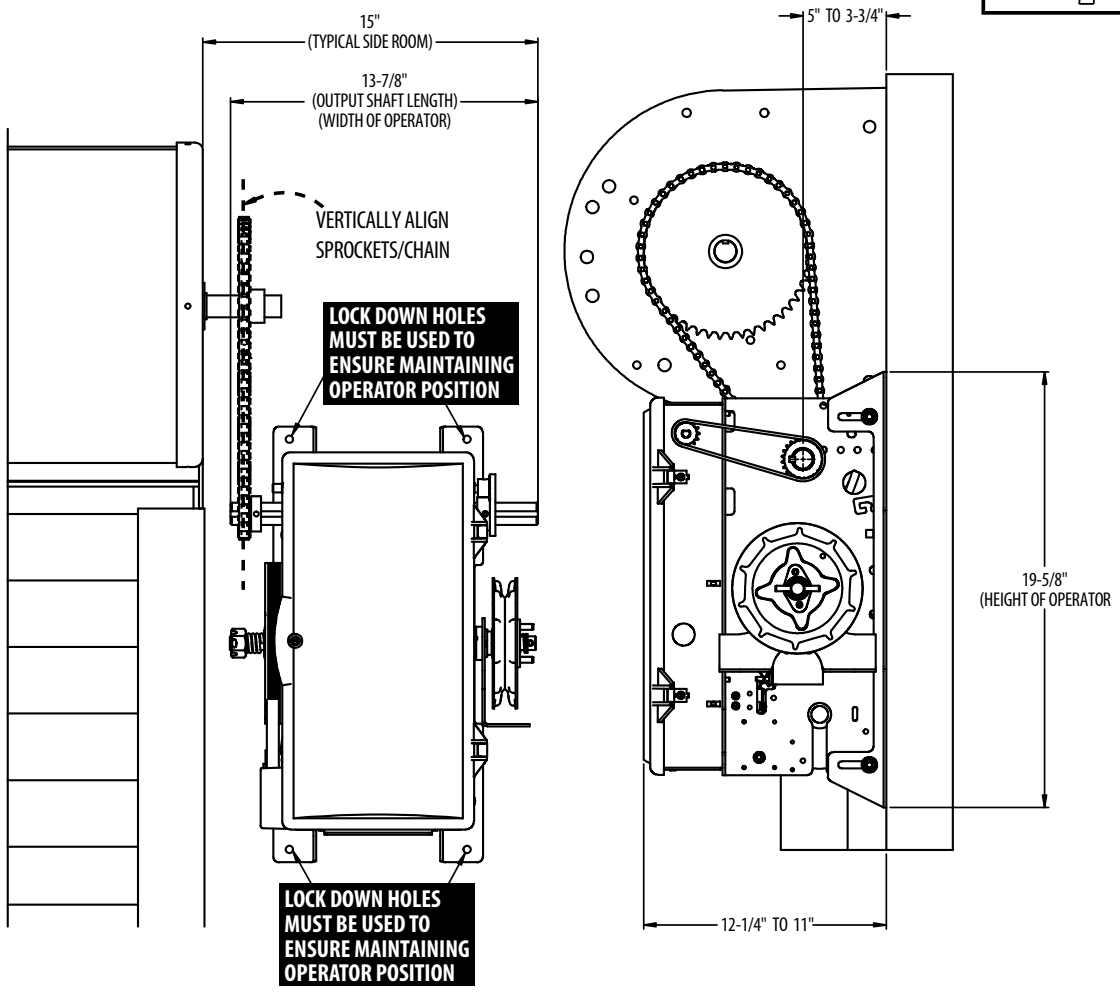


Fig. 4

Section 2: Operator Installation

Sectional Doors
Chain - Couple

The Wall Mount Operator can be assembled for right hand mounting above or below the door shaft. Fig.5A.
NOTE: *The operator output shaft extends 3-7/8" on each side of the operator frame.*

1. Attach 12 tooth sprocket to operator output shaft.
2. Align keyways and insert key into sprocket and output shaft keyway. Do not tighten set screw at this time.
3. Attach door sprocket to door shaft. Do not tighten at this time.
4. Assemble chain using chain connecting link.
5. Place assembled chain over door shaft sprocket and operator sprocket.
6. Raise or lower operator to remove slack from the chain.
7. Be certain operator output shaft is parallel with door shaft.
8. Align chain and secure operator to wall or mounting pad. Fig.5B.
9. Tighten operator sprocket set screws.

INSTALLATION TIP:
While sprocket set screws are loose, if possible, manually operate door to help align chain. A properly tensioned drive chain should deflect no more than 1/2" when thumb pressure is applied mid-way between the 2 sprockets. While there is no hard and fast rule governing chain tension, it must be tight enough to prevent clicking, popping and jumping the teeth of the sprocket.The 1/2" guideline will insure sufficient tension.

NOTE: *If using slotted mounting holes to mount unit, you must use at least 2 lockdown holes in opposite corners to firmly mount unit to wall. Fig. 5B*

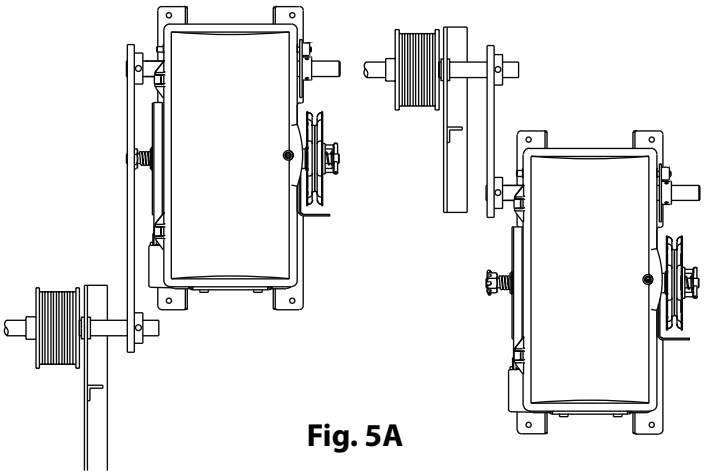


Fig. 5A

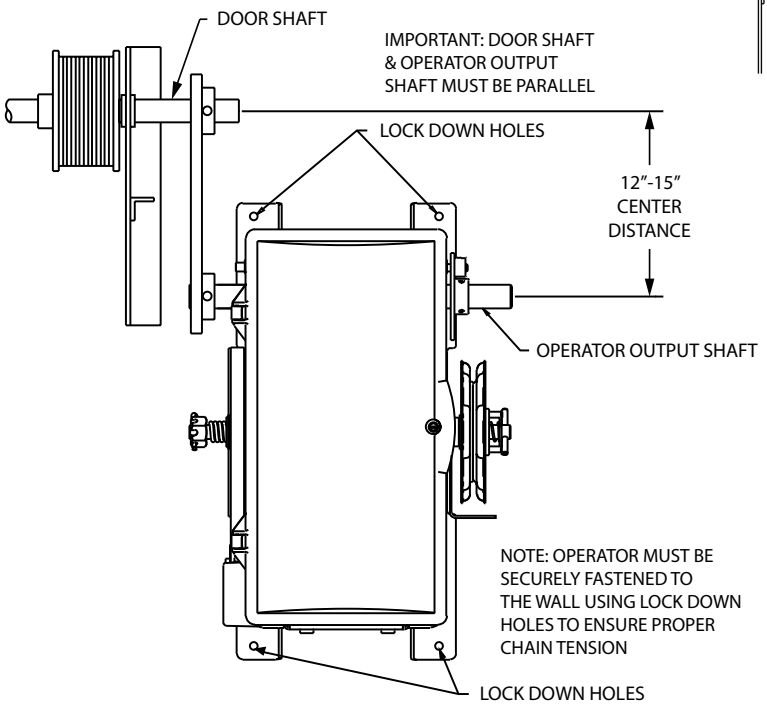


Fig. 5B

Chain - Couple

For Hollow Counterbalance Door Shafts:

1. Use non-threaded hole in door shaft sprocket as a guide and drill a 3/8" diameter hole through one side of the door shaft. Fig. 6A.
2. Insert clevis pin through sprocket and shaft to hold sprocket in position.
3. Drill through opposite side of shaft to obtain proper hole alignment. Fig. 6B.
4. Insert clevis pin through both holes and secure with cotter pin. Fig. 6C.

For Solid Counterbalance Door Shafts:

1. Insert key into door shaft keyway.
2. Slide sprocket into place and secure with set screws. Insert clevis pin through both holes and secure with cotter pin. Fig. 6C.

Complete the Installation
If needed, realign operator sprocket with door sprocket. If you have excessive door shaft movement, an optional chain tension plate is available. Fig. 7A & 7B, pg 4.6.

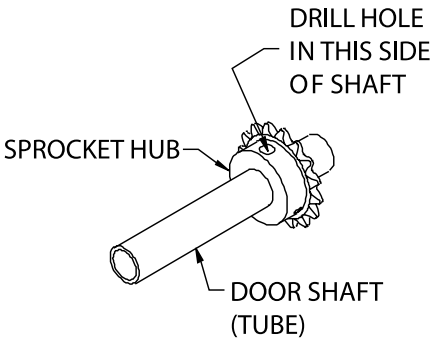


Fig. 6A

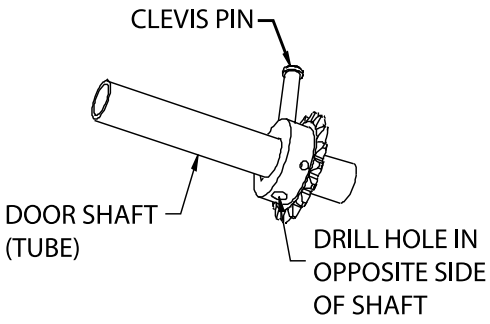


Fig. 6B

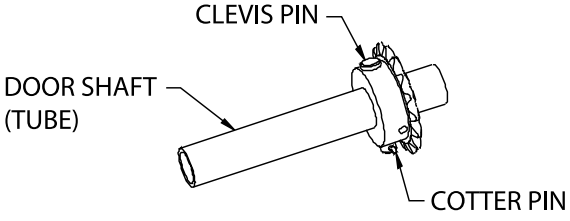


Fig. 6C

Chain - Couple
Spreader Bracket

Bracket is available as an optional kit, P/N 111005.0001.S

Installation of optional chain spreader bracket: Fig 7A & 7B.

1. Place sprocket, upper plate and bearing assembly on door shaft as shown.
2. Place lower plate, bearing assembly and sprocket on operator shaft as shown.
3. Install door and operator sprockets and chain assembly as described on page 4.4.
4. Install bolts and nuts through plates.
5. Tighten and align chain and plate and secure operator to wall.
6. Tighten spreader bracket bolts.

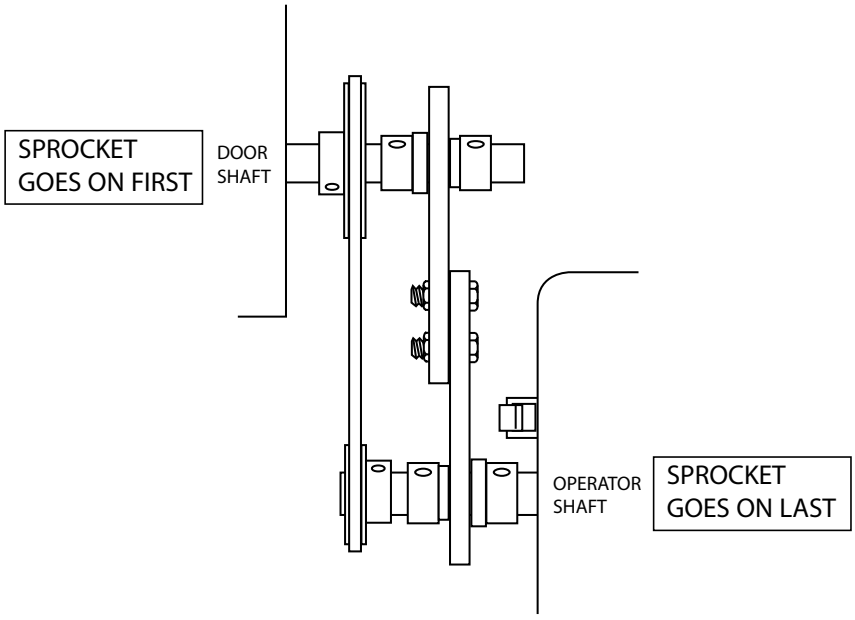
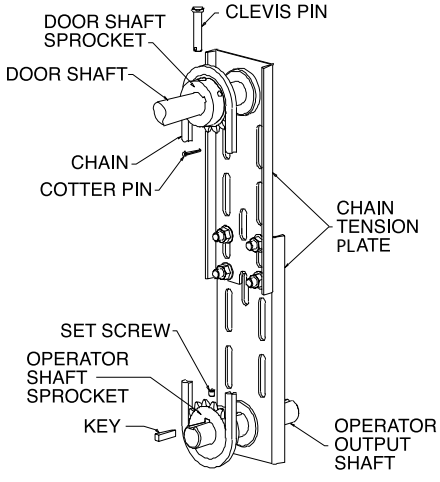
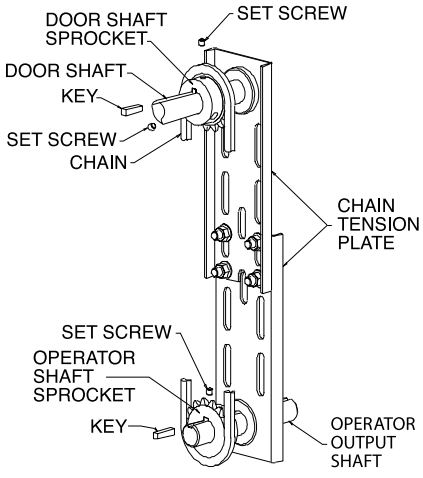


Fig. 7A



HOLLOW COUNTERBALANCE
DOOR SHAFT

Fig. 7B



SOLID COUNTERBALANCE
DOOR SHAFT

Fig. 7C

Clutch Adjustment:

The MX Operators have an adjustable friction clutch which requires adjustment during installation.

NOTE*: The clutch is intended to provide protection for the door, the operator and associated equipment. It is not intended for entrapment protection. MX Operators have a motor reversing feature that is integrated with the clutch assembly. If an obstruction is placed in the pathway of the door during operation the MX motor will stop and reverse when the clutch begins to slip. Therefore, the adjustment of the clutch should be such that the door and operator function in this manner.*

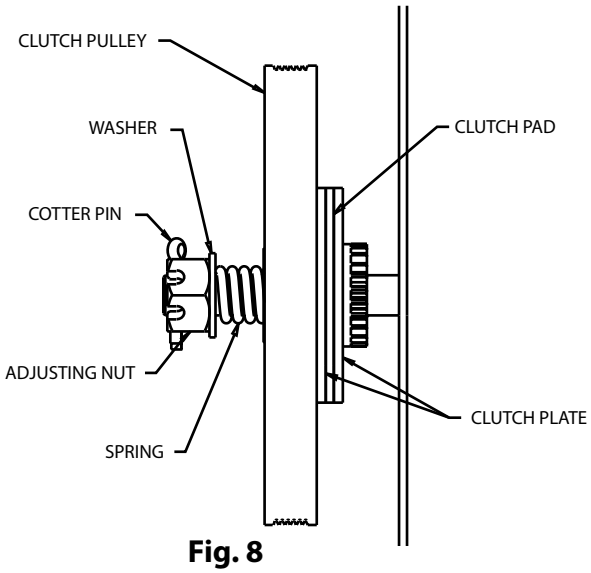


Fig. 8

To Adjust the Clutch:

1. Decrease the tension on the clutch until the operator will not lift the door. Turn the adjusting castle nut counter-clockwise to decrease clutch tension and clockwise to increase clutch tension.
2. After completing step 1, begin to increase tension on the clutch until the operator is capable of lifting the door through the complete cycle without clutch slippage.
3. Test the reversing feature of the operator by placing an obstruction under the door during a close cycle The door should reverse on the obstruction and return to the open position. If the door does not close but comes down part way and reverses without any obstructions in its path, then increase the clutch tension until the door will close fully.
4. Finally, insert the cotter pin through the castle nut and shaft and bend the outer leg of the cotter pin.

NOTE: *Periodically check the system for proper clutch action. If clutch starts to slip after working properly for some time, check manual operation of door BEFORE adjusting clutch. The door may not be operating freely or the counterbalance spring may need adjusting. Repairs and adjustments must be performed by a trained service representative using proper tools and instructions.*

To Adjust the Brake:

1. Loosen the Adjustment Bracket Lock Nut/Bolt.
2. Slide the Adjustment Bracket as needed to reach the desired spring tension. When properly adjusted, the pivot arm should move with very little effort.
3. Re-tighten the Adjustment Bracket Lock Nut/Bolt.

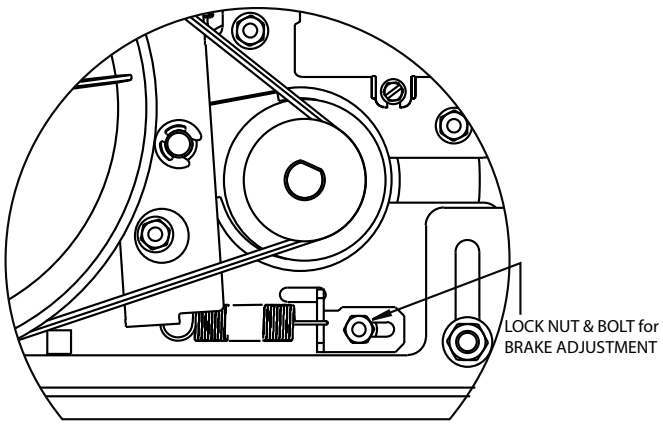


Fig. 9

Section 2: Operator Installation

Hand Chain & Keeper

1. Route the hand chain through the chain guide, around the pocket wheel and back through the chain guide. Fig.10.
2. Connect the hand chain ends together as shown in Fig 11. by twisting open the last link on one end of the chain, and slipping the last link on the opposite end onto the open link.
3. Twist open link closed again.
4. Mount chain keeper to wall in line with chain approximately 4 feet from floor.
5. Loop chain around keeper as shown. Fig. 12. Optional Padlock not provided.
6. Install release cable. Fig. 13.

NOTE: *To insure smooth operation,make sure there are no twist in the hand chain before connecting the link ends together.*

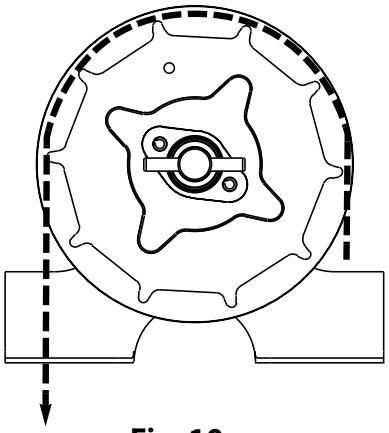


Fig. 10

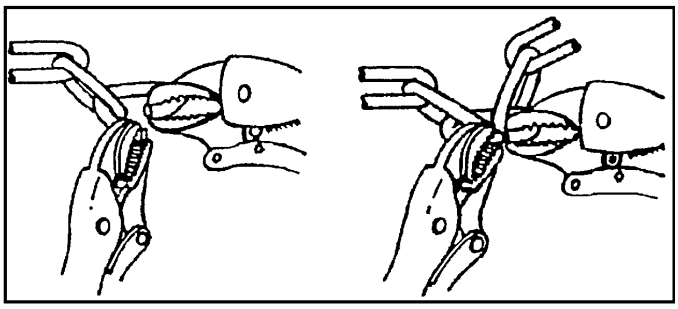
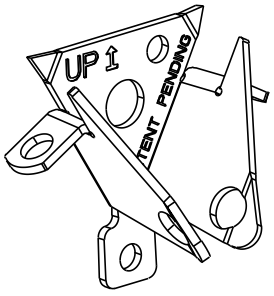


Fig. 11



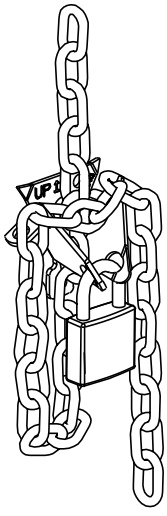


Fig. 12

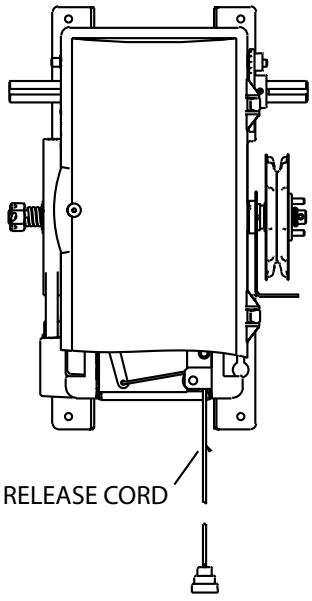


Fig. 13

Section 3: Wiring

⚠ WARNING

- DO NOT apply power to operator until instructed to do so.
- It is strongly recommended, and may be required by law in some areas, that line voltage wiring be performed by a qualified electrician.
- Be sure that electrical power has been disconnected from the input power wires being connected to the operator prior to handling these wires. An appropriate lock-out/tag-out procedure is recommended.
- Line voltage wiring must meet all local building codes.
- Make sure operator voltage, phase and frequency nameplate ratings are identical to the job site line voltage ratings.
- Input power wiring must be properly sized for the operators amperage rating located on the nameplate.
- To reduce the risk of electric shock, make sure the chassis of this unit is properly grounded.

⚠ AVERTISSEMENT

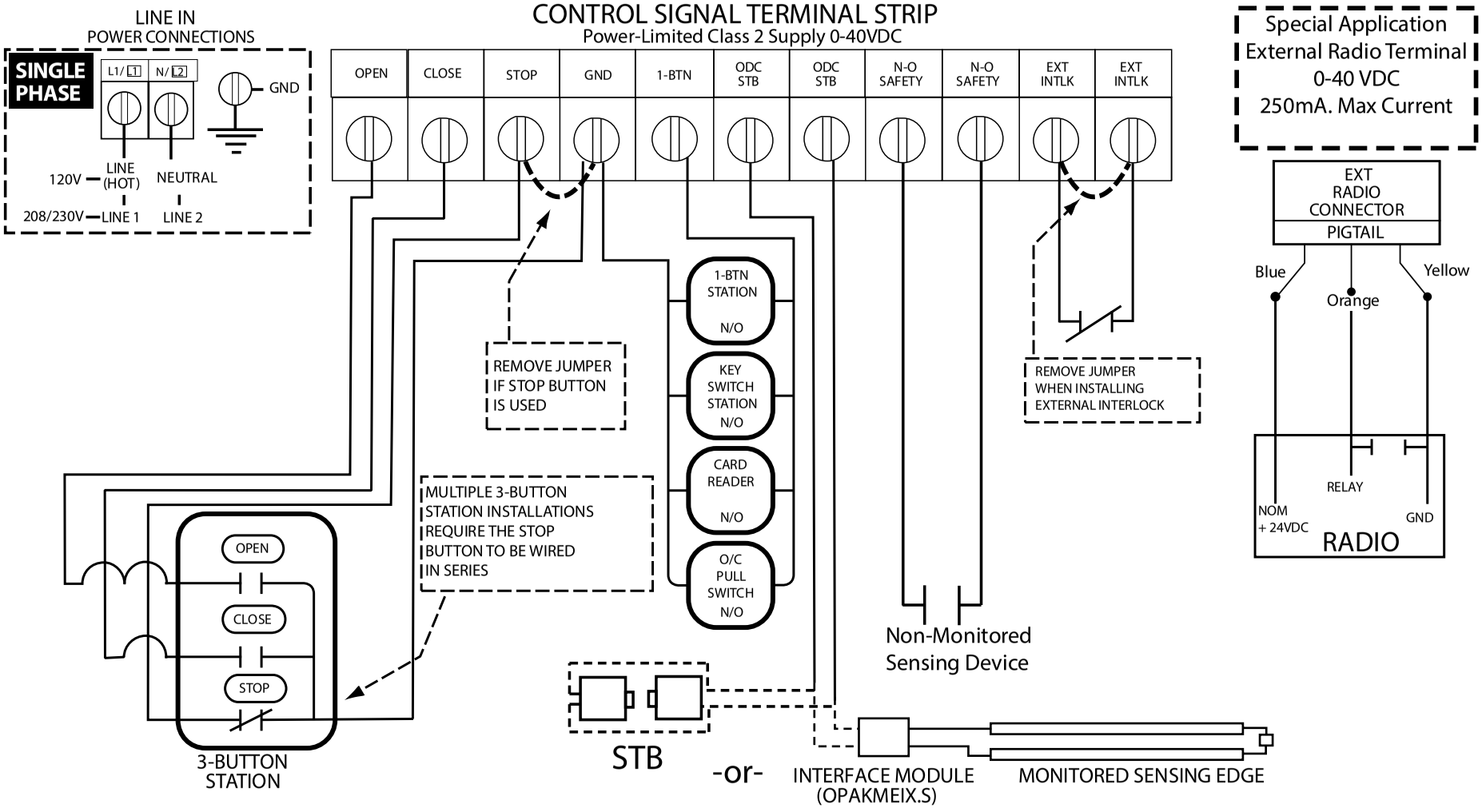
- NE PAS mettre sous tension tant que l'instruction n'est pas donnée de le faire.
- Il est fortement recommandé voire même exigé par la loi dans certaines régions, de contacter un électricien qualifié pour l'acheminement du fil électrique.
- Assurez-vous que l'alimentation électrique a été déconnectée des câbles d'alimentation d'entrée connectés à l'opérateur avant de manipuler ces câbles. Une procédure de verrouillage/étiquetage appropriée est recommandée.
- Le câblage au secteur doit satisfaire à tous les codes de construction locaux.
- Assurez-vous que les valeurs nominales de la plaque signalétique pour tension, phase et fréquence de l'opérateur correspondent à celles des tensions de l'alimentation sur site.
- La capacité d'entrée doit correspondre à la valeur nominale de l'ampérage des opérateurs indiquée sur la plaque signalétique.
- Pour réduire le risque de choc électrique, assurez-vous que le châssis de l'unité est correctement mis à la terre.

NOTE

Installation of all wiring and connections, including Power Limited Class 1 and Class 2 circuits, shall be performed in accordance with, but not limited to, the latest NFPA, UL, and N.E.C. standards and codes.
In addition, all installations subject to Canadian standards shall be performed in accordance with the Canadian Electrical Code, Part 1, with respect to wiring material type, wiring gauge related to power capacity requirements, circuit length and wiring methods.

GENERAL INTERNAL WIRE DIAGRAM

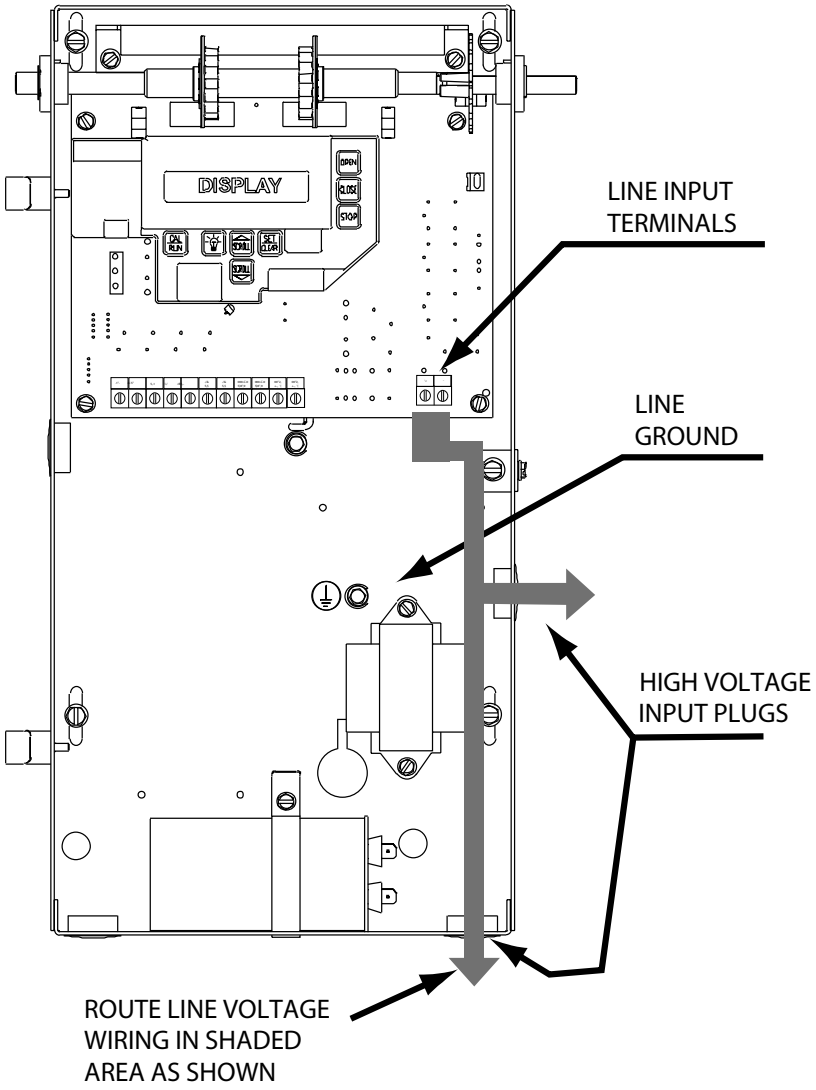
External Radio connections are Non-Power-Limited. All connections are to be made within 20ft. (6.1M), enclosed in conduit and in the same room.

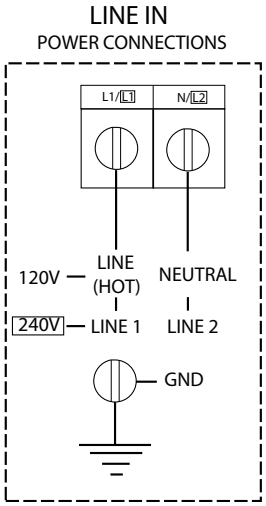


Line Voltage Wiring

1) Remove LINE VOLTAGE INPUT PLUG and install proper fittings and 1/2”conduit.
2) Route proper LINE VOLTAGE wires into operator.
3) Locate LINE INPUT terminals on circuit board. Using correct connectors, attach wires to LINE INPUTS, and GROUND terminal.

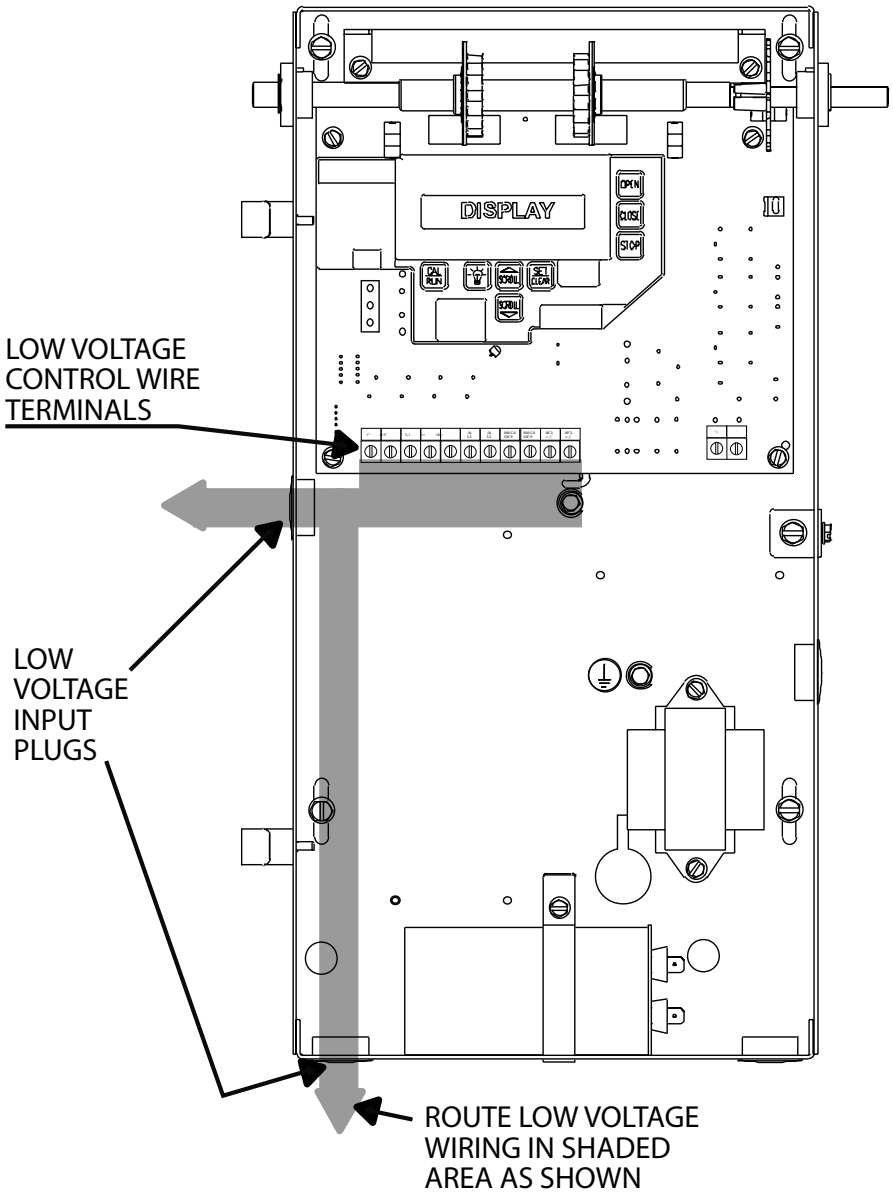
- Keep low voltage and line voltage wires separate.
- Route all line voltage wires as shown.
- Plug all unused conduit holes.





Low Voltage Control Wiring

1) Connect all LOW VOLTAGE control circuit wires using 1/2" conduit or flexible convoluted tubing.
   - Keep low voltage and line voltage wires separate.
   - Route all low voltage control wiring as shown. This includes all control circuit wires such as wall controls, timers and single button input devices as well as safety circuit wiring.
   - Plug all unused conduit holes.



Wall Controls

⚠ WARNING

- Wall Control(s) must be located so that the door is within sight of the user and is far enough from the door, or positioned such that the user is prevented from coming in contact with the door while operating controls.
- Attach the Warning placard adjacent to the Wall Control. Fig. 4A.
- Attach the Caution label adjacent to the Wall Control. Fig. 4B.

⚠ AVERTISSEMENT

- La ou les commandes murales doivent être situées de telle sorte que l'utilisateur puisse voir la porte et positionnées de telle sorte que l'utilisateur ne puisse pas entrer en contact avec la porte lorsqu'il se sert des commandes.
- Fixez le poster d'avertissement à côté de la commande murale. Fig. 4A
- Fixer l'étiquette de mise en garde (Attention) à côté de la commande murale. Fig. 4B.

⚠ WARNING

Before momentary contact control can be used on the CLOSE button, a monitored external reversing device such as a photocell system or sensing edge switch must be used.
See ENTRAPMENT SECTION for installation of entrapment protection devices.

⚠ AVERTISSEMENT

Avant d'utiliser la commande à contact momentané sur le bouton FERMETURE, un dispositif d'inversion externe surveillée tel qu'un système de cellule photoélectrique ou un commutateur de détection de bord doit être utilisé.
Voir l'installation des dispositifs de protection contre le coincement en.

Section 3: Wiring

1) For a single 3 - button installation, make connections as shown in Fig. 1.
2) For single button accessory controls, make connections as shown in Fig. 2.
3) For a multiple 3 - button installations, make connections as shown in Fig. 3.
4) Install WARNING placard next to control station. Fig. 4

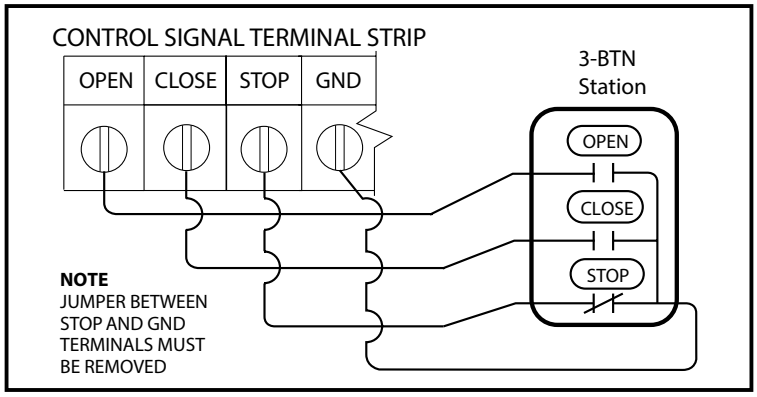


Fig. 1

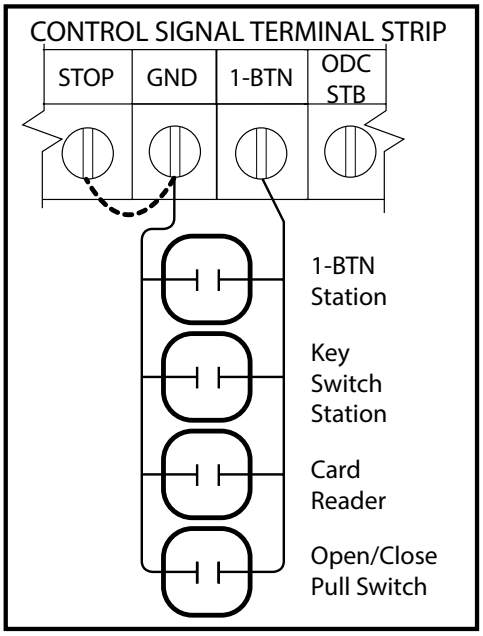


Fig. 2

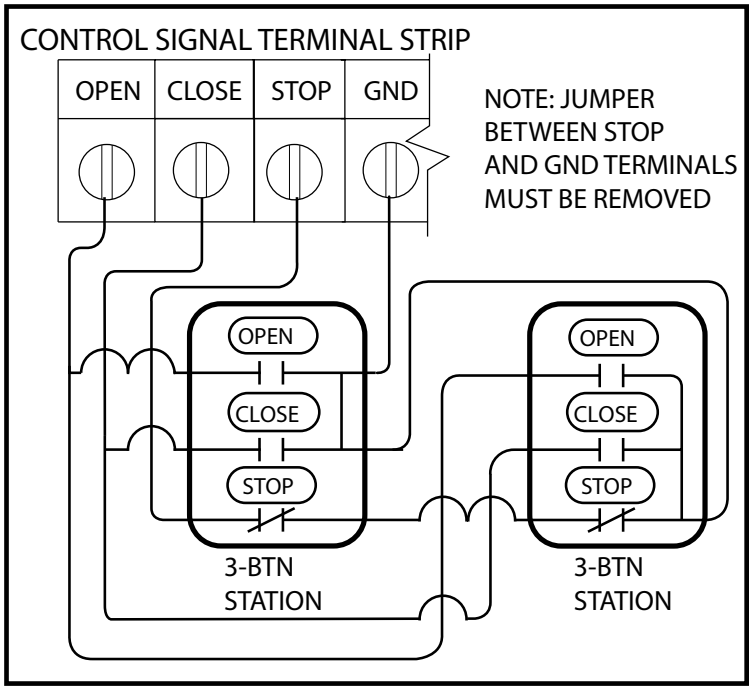
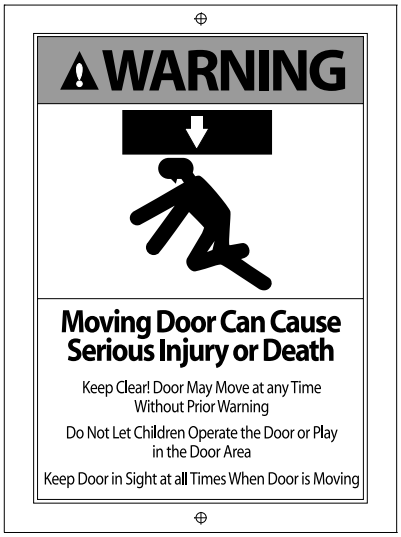


Fig. 3



Entrapment Warning Placard

Fig. 4

NOTE: *If an External STOP button is NOT being installed, a jumper wire must be installed between the "STOP" and "GND" terminals as shown in Fig. 2.*

NOTE: *Low voltage wiring can be run a maximum of 1000 feet. DO NOT use long distance wiring kits on this operator.*

External Accessories

Interlock Switches, Sectional Doors

If a slide lock is required on the door for pass through doors or other requirements, an interlock will be required to prevent the opener from running when engaged. Install a Normally Closed interlock switch and wire directly to the operator. Remove the jumper between the EXT-INTK terminals on the control board and install wiring to these terminals.

Photocells, Monitored

See ENTRAPMENT page 1.5 for a list of approved monitored photoelectric devices. See instructions included with the photocell kit for detailed installation and programming instructions.
Wire directly to the control board at the ODC-STB terminals.
NOTE: *The ODC-STB must be programmed to ON on the control board. See programming section in this manual for details.*

Photocells, Non-Monitored

Non-Monitored reversing device must be Normally Open relay type. See instructions included with the photocell kit for detailed installation and programming instructions.
Wire directly to the control board at the N.O-SAFE terminals.
NOTE: *The use of Non-Monitored photoelectric devices will NOT provide Monitored Entrapment Protection. Use of Non-Monitored devices only will require the user to maintain constant contact to close.*

Sensing Edges, Monitored

See ENTRAPMENT page 1.5 for a list of approved monitored safety edge devices. See instructions included with the sensing edge for detailed installation and programming instructions.
Wire directly to the control board at the ODC-STB terminals.
NOTE: *The ODC-STB must be programmed to ON on the control board. See programming section in this manual for details.*
NOTE: *Monitored Sensing Edges can be used with the Timer Control Module (TCM) or External Sensing Module (ESM). See ACCESSORY MODULE section below.*

Sensing Edges, Non-Monitored

Non-Monitored reversing device must be Normally Open relay type. See instructions included with the sensing edge for detailed installation and programming instructions.
Wire directly to the control board at the N.O-SAFE terminals.
NOTE: *The use of Non-Monitored edge sensing devices will NOT provide Monitored Entrapment Protection. Use of Non-Monitored devices only will require the user to maintain constant contact to close.*

Sensing Edges, Wireless

See ENTRAPMENT page 1.5 for a list of approved monitored safety edge devices. See instructions included with the sensing edge for detailed installation and programming instructions.
Wire directly to the control board at the ODC-STB terminals.
NOTE: *The ODC-STB must be programmed to ON on the control board. See programming section in this manual for details.*
NOTE: *Monitored Sensing Edges can be used with the Timer Control Module (TCM) or External Sensing Module (ESM). See ACCESSORY MODULE section below.*

Accessory Modules

The MX series operators can accommodate, up to, 2 (two) accessory module board for expanded features. See instructions included with the Accessory Module for detailed features, installation and programming instructions.

Interlock Switches, Sectional Doors

Optional external interlock switches are required with some Sectional or Rolling Steel Doors to prevent the door from operating under certain conditions including the following: Fig. 5

- If the door is equipped with a functioning door lock, an interlock switch (A) must be installed to prevent electric operation when the lock is engaged.
- If the door is equipped with a pedestrian pass-through door, an interlock switch (B) must be installed at the pass-through door in order to prevent electrical operation when the pass-through door is open.
- The Switches must be set in the field.

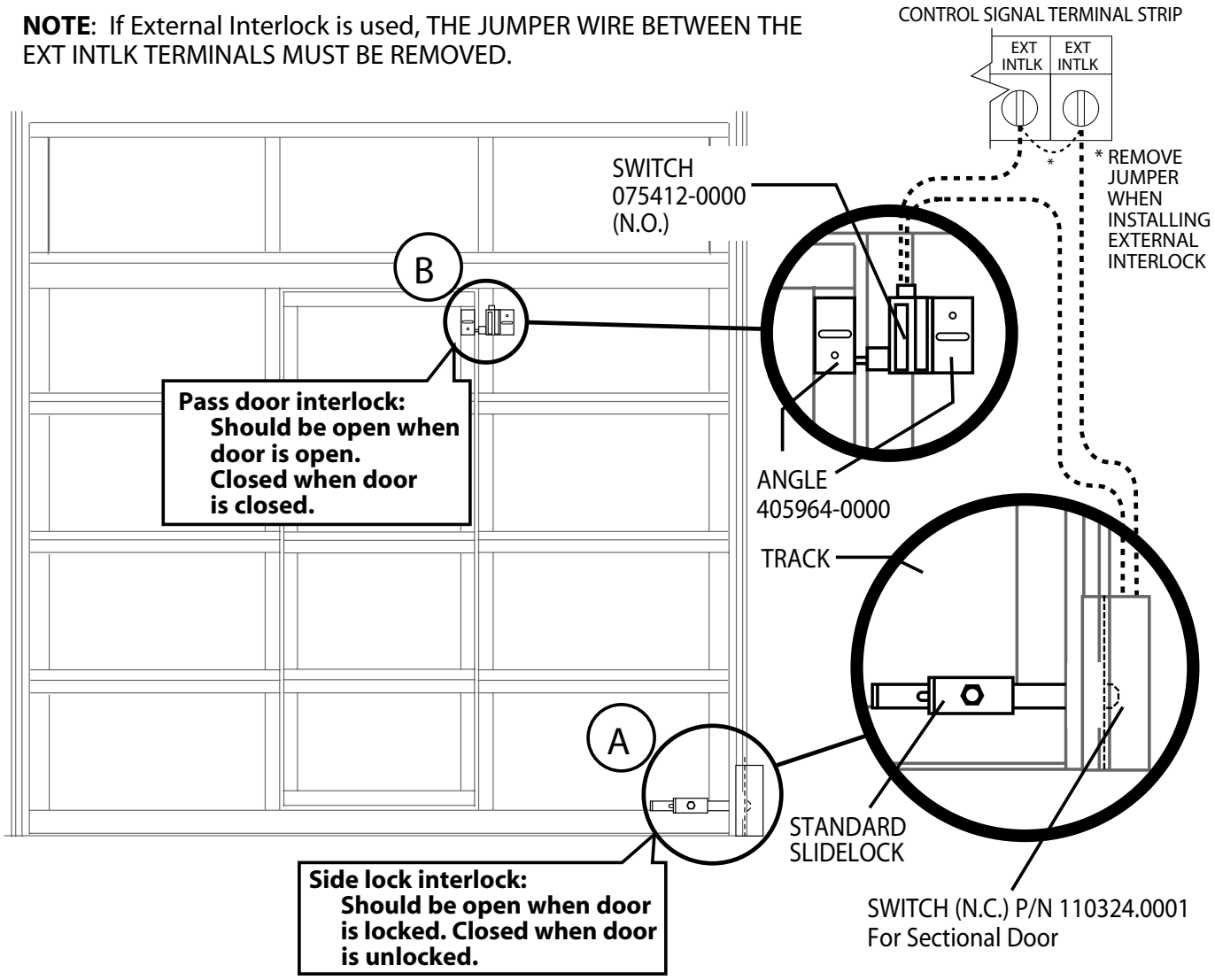


Fig. 5

Photocells

⚠ WARNING

Actuating the operator by using constant contact on the CLOSE button will override non-functioning external reversing devices, including photocells.

⚠ AVERTISSEMENT

L'activation de l'operateur en util isant un contact constant sur le bouton FERMER annulera les dispositifs d'inversions externes, y compris les cellules photoelectriques.

⚠ WARNING

Photocell systems provide entrapment protection when mounted near the doorway in such a way that the lower portion of an individual's leg will break the photocell beam during normal walking conditions.

⚠ AVERTISSEMENT

Les systèmes de cellules photoélectriques fournissent une protection contre le coincement pour le montage à proximité de la porte de manière à ce que la partie inférieure de la jambe d'un individu ne puisse pas rompre le faisceau de la cellule photoélectrique lors de passages normaux par la porte.

SERIES II MONITORED PHOTOCELLS:
Monitored SERIES II (STB) photocells and Residential Safe-T-Beam® Monitored Photocells Fig. 6. Wiring to these photocells can be connected to either terminal (they are not polarity sensitive.)
See ENTRAPMENT PROTECTION (page 1.5) for approved reversing devices.

NOTE: *Installer must enable ODC STB in calibration mode. (See Programming Section)*

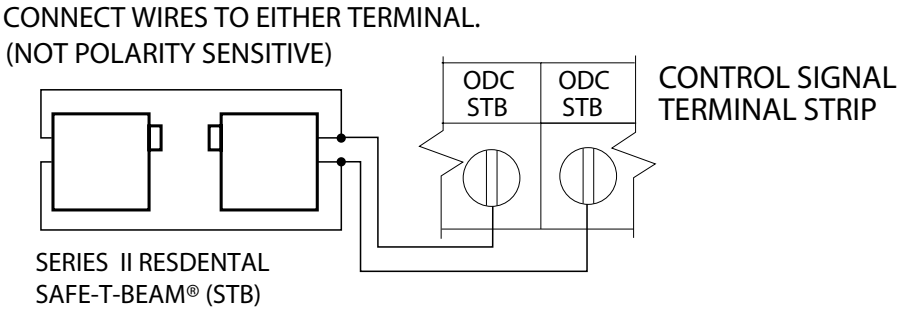
NON-MONITORED PHOTOCELLS:
Nominal 24 Volt DC Commercial photocells with normally open contacts can be connected as shown. Fig. 7. Any Normally Open (N/O) safety reversing device can be used.

NOTE: *Use of a N/O type reversing device without the addition of a Monitored Device will result in Constant Contact close only.*

NOTE: *Blue wire supplies 20 – 40VDC. Photocells used must be compatible with this voltage range.*
NOTE: *If no voltage is present at Blue wire, check fuse F-1 on Control board.*

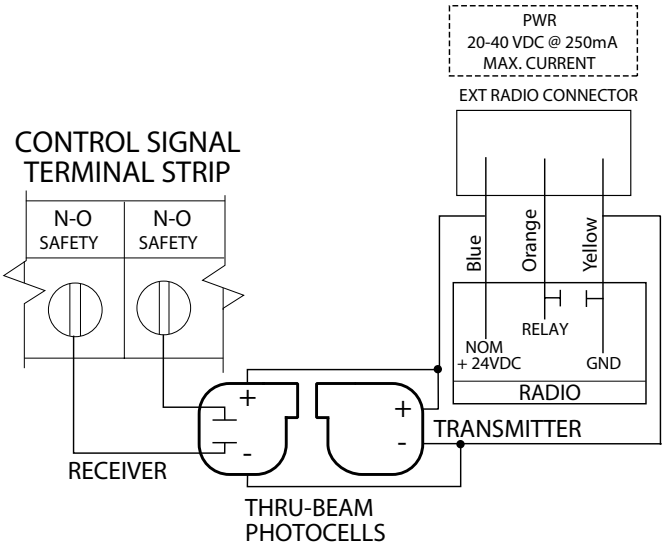
MOUNTING PHOTOCELLS:
1. Determine location for mounting. They do not need to be directly adjacent to the door but must be somewhere along the wall where there will be an unobstructed line between them. Fig. 8.
2. Photocells must extend out away from the wall sufficiently that no door hardware breaks the plane of the photo-beam.
3. Photocell should be mounted with its lens 5 to 6 inches from floor.

Photocells



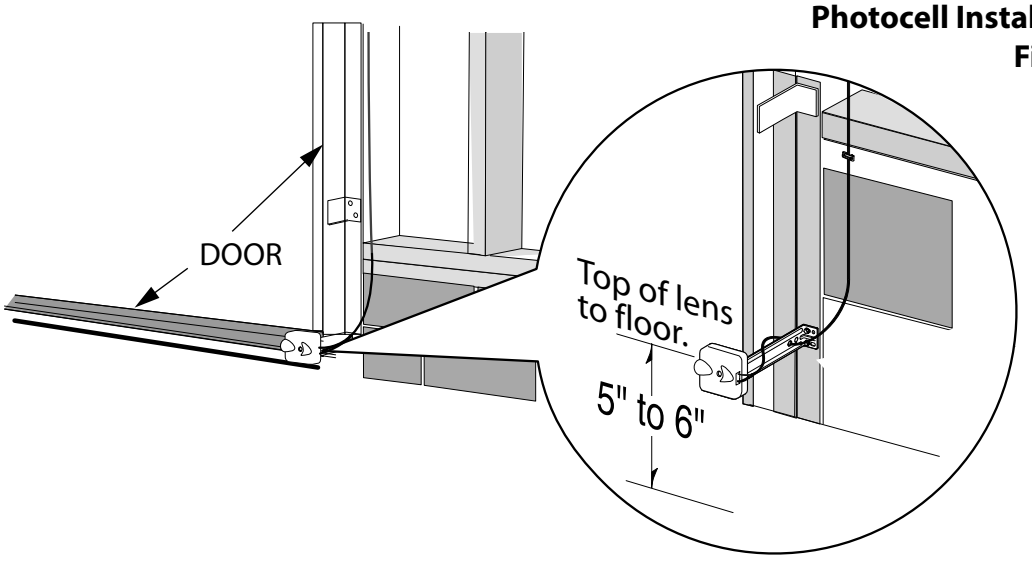
Monitored Type Photocells

Fig. 6



Non-Monitored Type Photocells

Fig. 7



Photocell Installation

Fig. 8

Sensing Edges, Hardwired

⚠ WARNING

Actuating the operator by using constant contact on the CLOSE button will override non-functioning external reversing devices, including sensing edges.

⚠ AVERTISSEMENT

L'activation de l'operateur en util isant un contact constant sur le bouton FERMER annulera les dispositifs d'inversions externes, y compris les systèmes de détection des bords.

MillerEdge® Wired "DC" ME or MT Series Monitored Sensing Edge Installation with Interface Module.

Right hand installation shown, Left hand installation mirrored. Fig. 9

1) Mount junction box to wall One half the door height plus 12 inches from floor.
2) Install Hard-wiring from operator and coil cord to junction box and secure with conduit clamps.
3) Connect hard-wiring from operator to coil cord with wire nuts and install junction box cover plate. These are not polarity sensitive.
4) Install hard-wires to ***ODC STB*** terminals in operator.
5) Attach coil cord to Monitored Edge Interface Module junction box and secure with conduit clamps.
6) Install wires to Monitored Interface Module as shown.
7) Install cover plate.

NOTE: *DO NOT use take up reels with Monitored Edge systems*
NOTE: *Installer must enable ODC STB in Calibration mode (see programming section)*

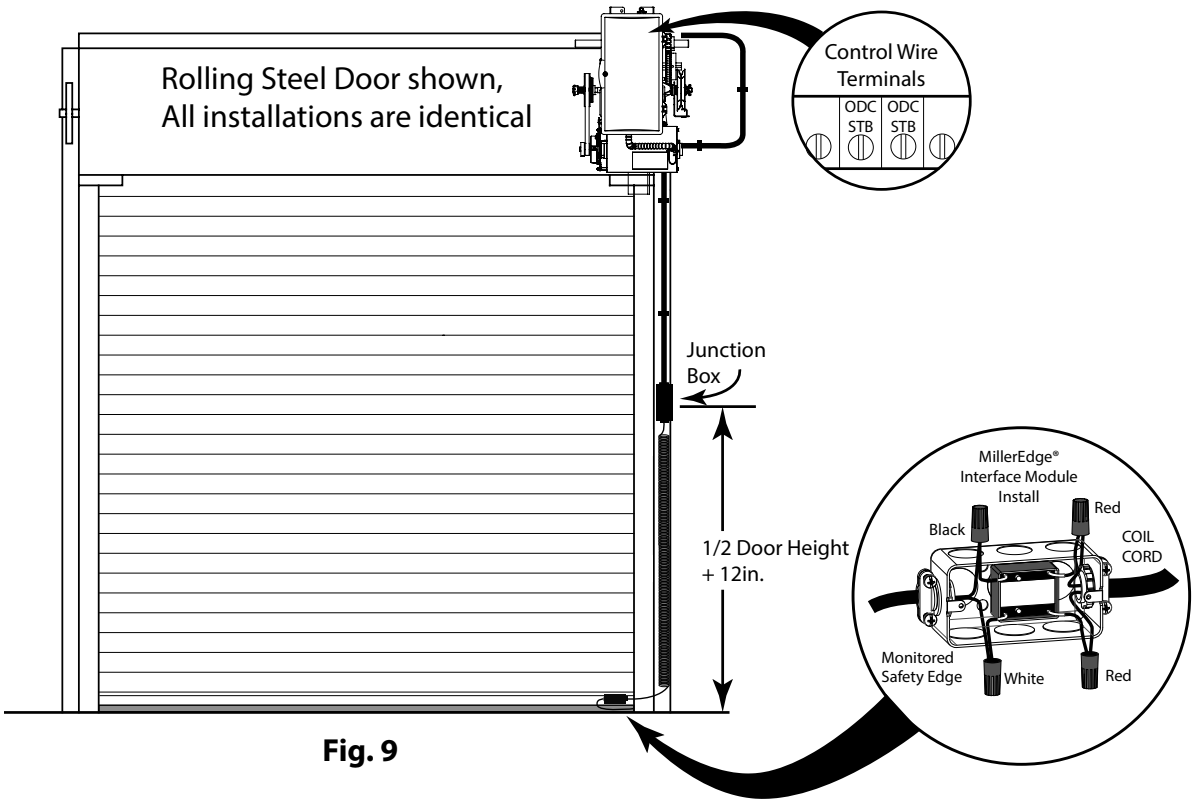


Fig. 9

Sensing Edges, Wireless

⚠ WARNING

Actuating the operator by using constant contact on the CLOSE button will override non-functioning external reversing devices, including sensing edges.

⚠ AVERTISSEMENT

L'activation de l'operateur en util isant un contact constant sur le bouton FERMER annulera les dispositifs d'inversions externes, y compris les systèmes de détection des bords.

MillerEdge® Wireless Monitored Sensing Edge Installation

Right hand installation shown, Left hand installation mirrored. Fig 10

1) Mount Wireless Edge Receiver adjacent to operator. Fig. 7
2) Route MEL wireless receiver wires into operator electric box using suitable conduit and clamp systems.
3) Attach MEL wireless receiver power wires (red/black) to external radio plug as shown.
4) Attach MEL wireless receiver trip wires (green/white) to ODC STB terminals* on control wire terminal strip.
5) Mount MEL wireless transmitter to bottom edge of door per MEL instructions.

NOTE: *To obtain proper operation of MEL edge sensor, each transmitter/receiver set must be set to a unique address. Follow instructions provided with the MillerEdge® MEL kit to set the address.*

NOTE: *Installer must enable ODC STB in Calibration mode (see programming section)*

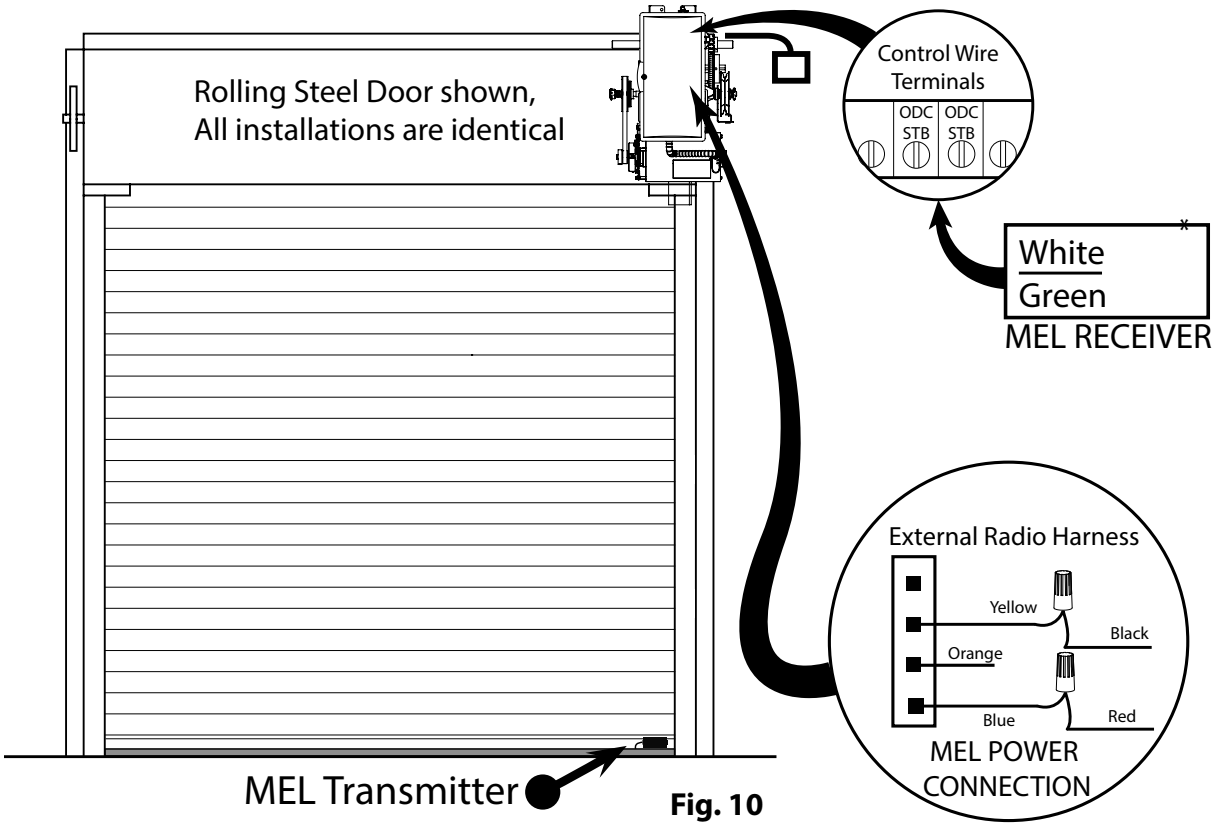


Fig. 10

Sensing Edges, Hardwired with Expansion Board

⚠ WARNING

Actuating the operator by using constant contact on the CLOSE button will override non-functioning external reversing devices, including sensing edges.

⚠ AVERTISSEMENT

L'activation de l'operateur en util isant un contact constant sur le bouton FERMER annulera les dispositifs d'inversions externes, y compris les systèmes de détection des bords.

MillerEdge® Wired "DC" ME or MT Series Monitored Sensing Edge Installation with Timer Control Module (TCM) or Edge Sensing Module (ESM).

ASO Sentir, GF Series Wired Monitored Sensing Edge Installation with Edge Sensing Module (ESM).

1) Mount junction box to wall one half the door height plus 12 inches from floor. Fig. 11
2) Install Hard-wiring from operator and coil cord to junction box and secure with conduit clamps.
3) Connect hard-wiring from operator to coil cord with wire nuts and install junction box cover plate. These are not polarity sensitive.
4) Connect coil cord to sensing edge with wire nuts.
5) Install hard-wires to ***TCM or ESM*** in operator. (See instructions included with expansion boards for detailed installation and wiring)

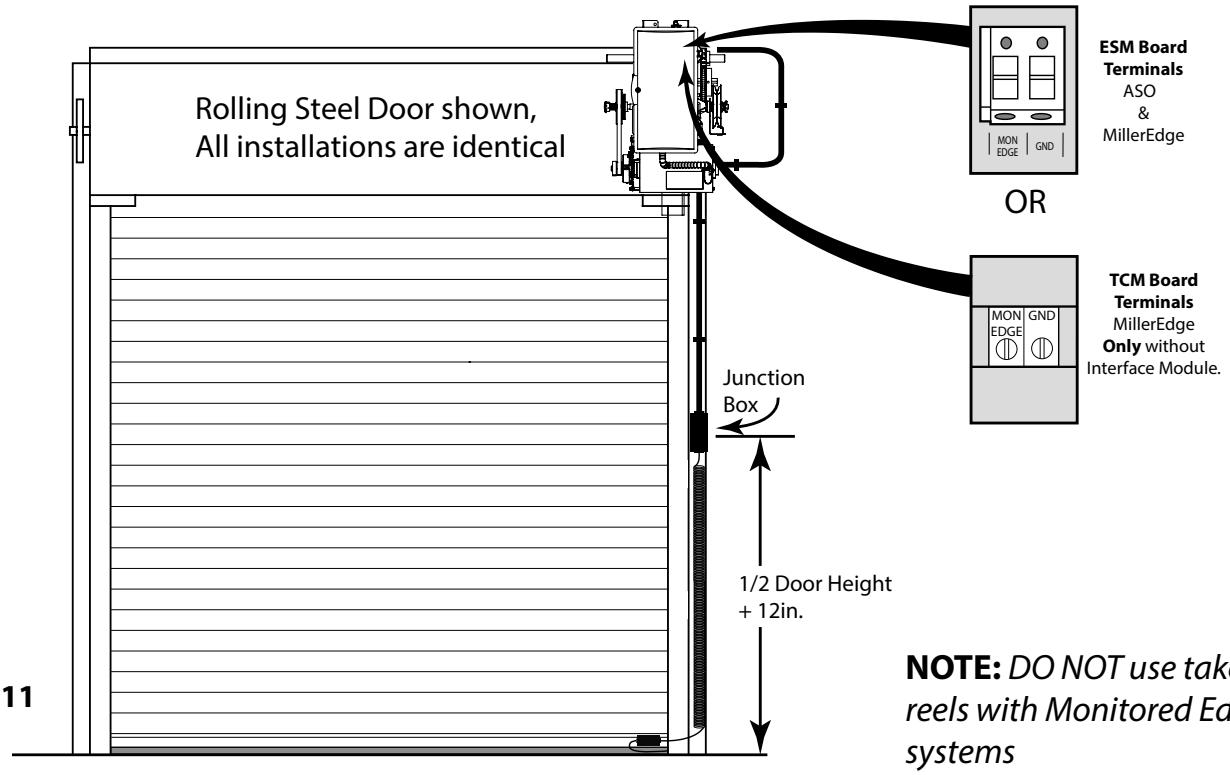


Fig. 11

NOTE: *DO NOT use take up reels with Monitored Edge systems*

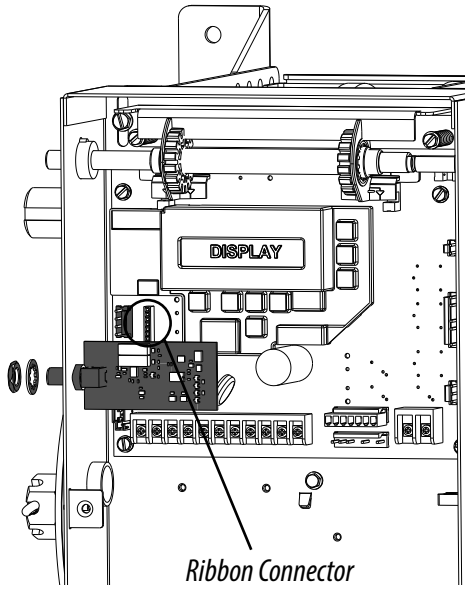
Internal Radio Installation (Optional)

- Optional Radio kit, P/N 111397.0001 can be used to internally mount a radio kit.

1. Remove plug from operator electric box.
2. Install nylon washer onto radio coax and insert into hole.
3. Install lock washer and nut.
4. Plug ribbon harness onto main control board.
5. Install antenna onto radio coax connector.

NOTE: *A monitored safety device must be used when installing an external radio for remote operation. Operator controls must be set for Momentary Contact for remote operation.*

NOTE: *Additional menu items will appear during programming. See programming section for details.*



External Radio Installation (Optional)

Installing external radio for remote operation. Fig. 12

1) Make wire connections to External Radio harness (provided) as shown.
2) Install harness to external radio harness plug on control board as shown.

NOTE: *A monitored safety device must be used when installing an external radio for remote operation. Operator controls must be set for Momentary Contact for remote operation.*

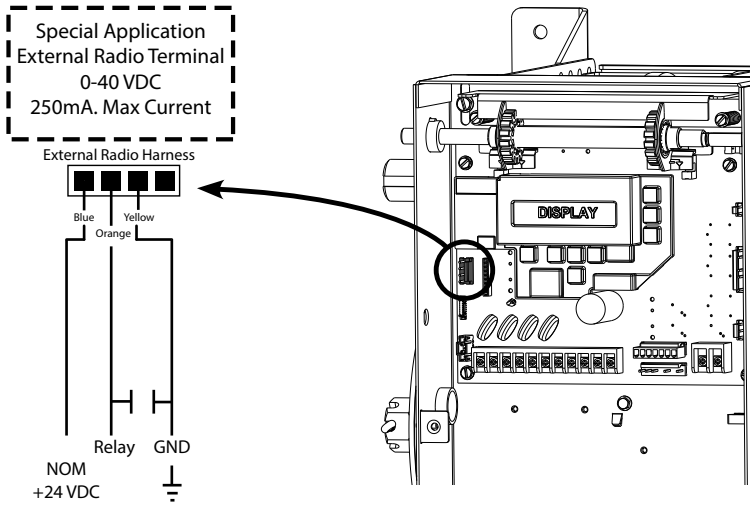


Fig. 12

Section 4: Programming

⚠ DANGER

After power is supplied to the operator, Do Not make contact with components inside the control panel except for the Keypad Keys.

⚠ DANGER

Après avoir mis l'opérateur sous tension, NE PAS entrer en contact avec des composants à l'intérieur du panneau de commande, sauf pour les touches du pavé numérique.

⚠ WARNING

DO NOT calibrate operator or operate door unless doorway is in sight and free of obstructions. Door will move during setup. Keep people clear of opening while door is moving.

⚠ AVERTISSEMENT

Calibrer l'opérateur et utiliser la porte uniquement si la porte est en vue et libre de tout obstacle.
La porte se déplacera pendant la programmation. Ne laisser personne se tenir dans l'ouverture de la porte pendant qu'elle est en mouvement

⚠ CAUTION

This door is operated by a limited-duty operator. To prevent the motor protector from tripping, do not exceed 15 cycles of opening and closing per hour.
NOT FOR RESIDENTIAL USE

⚠ ATTENTION

Cette porte est actionnée par un opérateur de service limité. Pour éviter que la protection du moteur ne se déclenche pas, ne pas dépasser 15 cycles d'ouverture et de fermeture à l'heure.
NON DESTINÉ POUR USAGE RÉSIDENTIEL.

Section 4: Programming

Control Panel

These operators include a full function control panel including a liquid crystal display (LCD), calibration keys and Open, Close and Stop keys for on board operator control. See Fig.1. The open, close and stop keys function as a 3-button wall control. The Display will show current operator conditions and calibration information. Due to limited character space,some displays will be abbreviated.
Operator includes a non-volatile memory. The unit will remember all calibration settings plus error code and run code logs, if power is removed from unit.

AFTER WIRING HAS BEEN COMPLETED, TURN ON POWER TO THE OPERATOR.
Control Operating Modes:
Operator control boards operate in two modes: Run Mode and Calibration Mode. The control board should normally operate in the Run Mode.
The operator is calibrated in Calibration Mode.

With the operator standing idle:
PRESS CAL/RUN TO TOGGLE BETWEEN OPERATING MODES.

- The first display in CALIBRATION MODE is "OPEN MODE> ***" (*** = Current operating mode).
- Display in run mode will be one of the condition codes listed in the Troubleshooting Section.

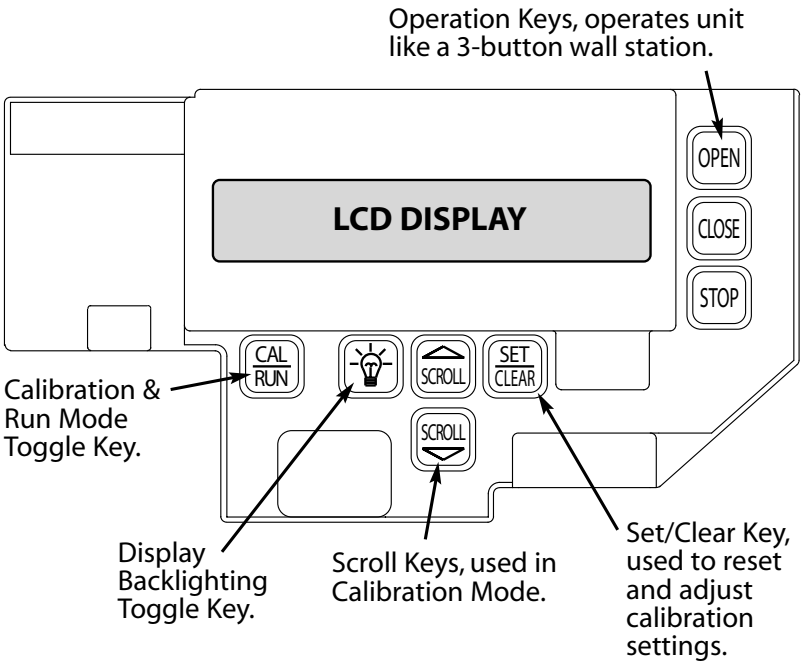


Fig. 1

Setting Constant Contact

These operators are shipped from the factory with both open and close operating modes set to constant contact – stop (C – STP) If your unit is set to Momentary Contact (MOM) Open and/or CLOSE, reset the operating modes by taking the following steps:

1. Press CAL/RUN to enter calibration mode. Fig. 2.
2. Press SET/CLEAR until display reads "OPEN MODE > C-STP." Fig. 3.
3. Press SCROLL (DN) until display reads "CLOSE MODE." Fig. 4.
4. Press SET/CLEAR until display reads "CLOSE MODE > C-STP." Fig. 5.
5. Press CAL/RUN to return to run mode.

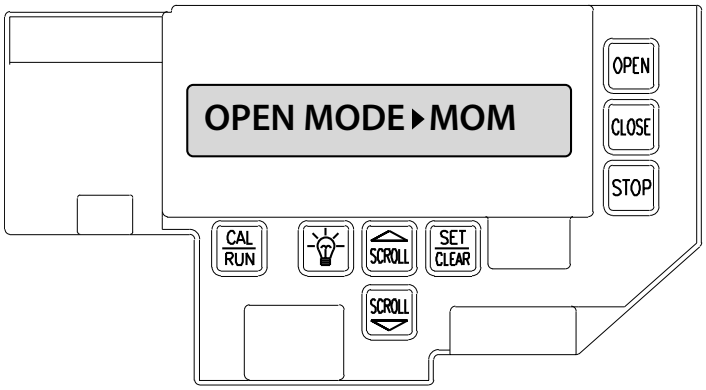


Fig. 2

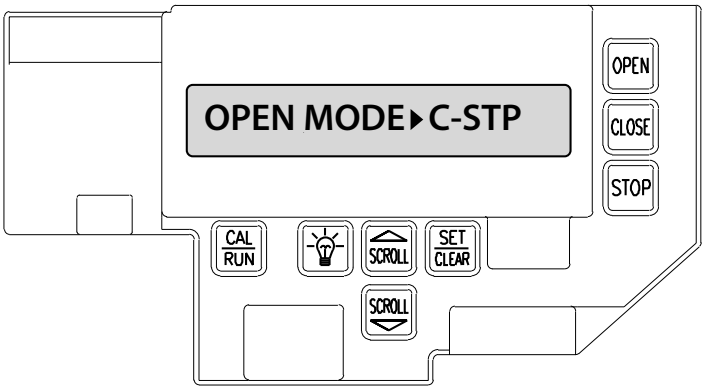


Fig. 3

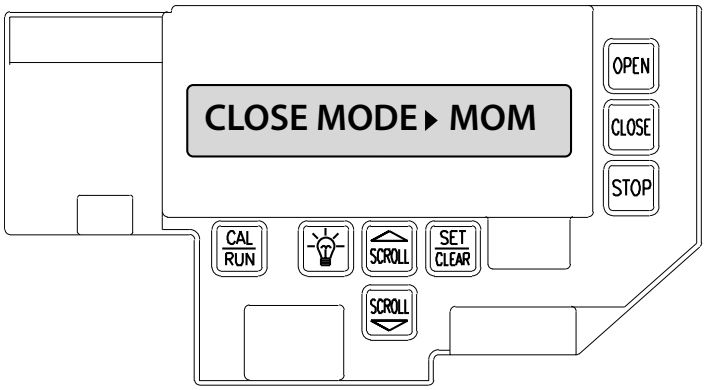


Fig. 4

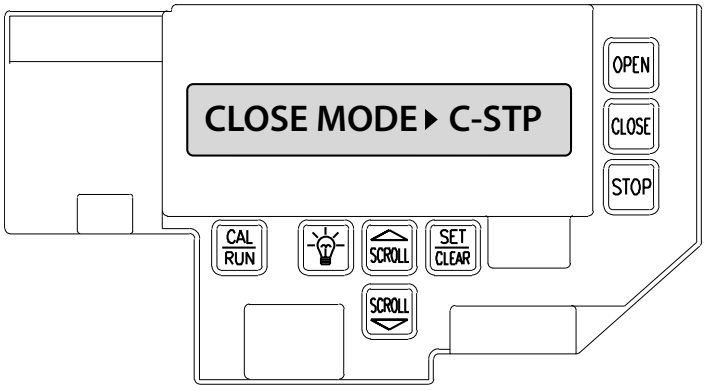


Fig. 5

Setting Travel Limits

1. Engage door to Operator.

NOTE: *Verify open and close operating modes are set to constant contact – Stop (C-STP). See page 4.3 for details.*

2. If unit is in calibration mode, press CAL/RUN to return to run mode.
3. Press and hold OPEN Key on Control Panel. Run door to desired open position, release OPEN Key.
4. Push LIMIT LOCKING BAR away from Limit Sensors and turn Open Limit Travel Nut until travel nut arrow and open limit sensor arrow are aligned and the display reads "IDLE>UP LIMIT."
5. Release the LIMIT LOCKING BAR and make sure bar seats completely into both Travel Nuts. Fig. 6.
6. Press and hold CLOSE key on Control Panel. Run door to within 2" above floor, release Close button.

NOTE: *If the operator stops while trying to set limits and the display reads "STOP - OPEN MRT or STOP - CLOSE MRT," see page 4.7 "Resetting Max Run Timers".*

7. Push LIMIT LOCKING BAR away from Limit Sensors and turn Close Limit Travel Nut until travel nut arrow and close limit sensor arrow are aligned and the display reads "IDLE > DOWN LIMIT." Fig. 7.
8. 8) Run door fully Open and Closed with Open & Close Keys on control panel and make final adjustments as necessary to make sure that door opens fully and closes no more than 2" above the floor.

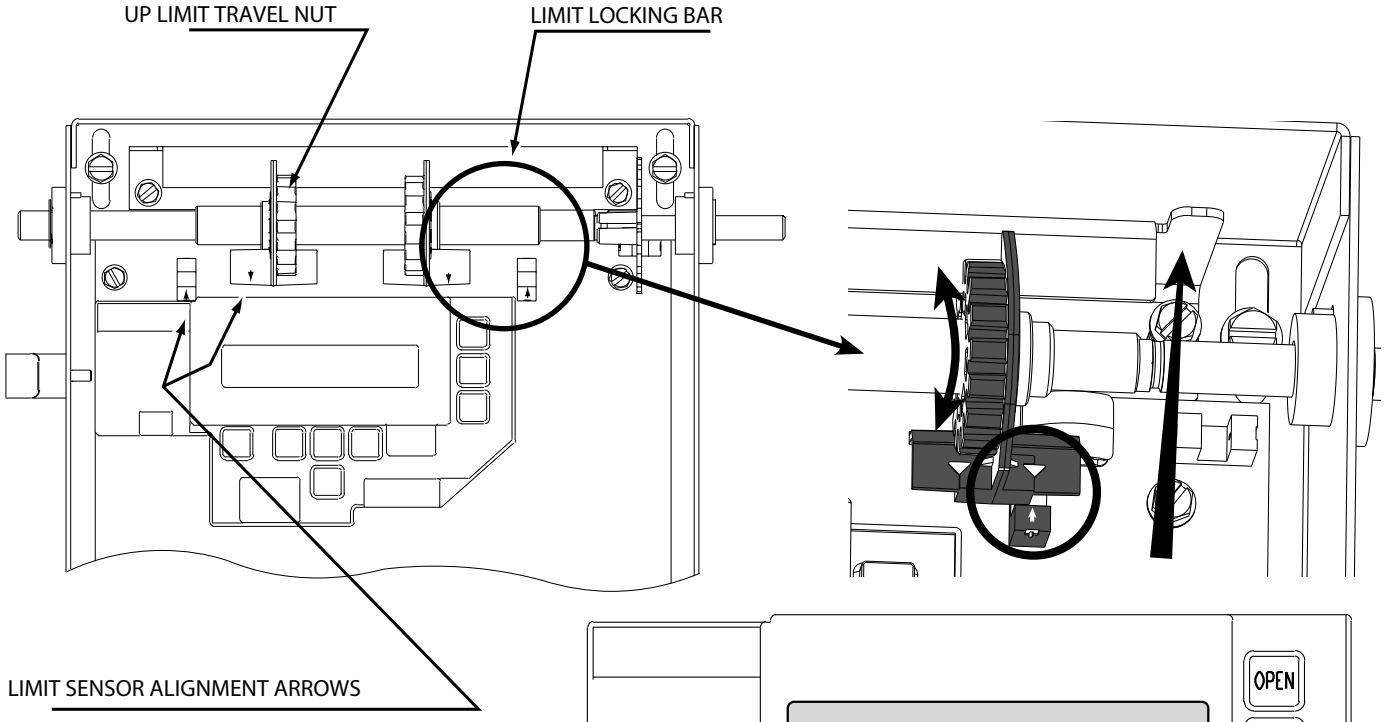


Fig. 6

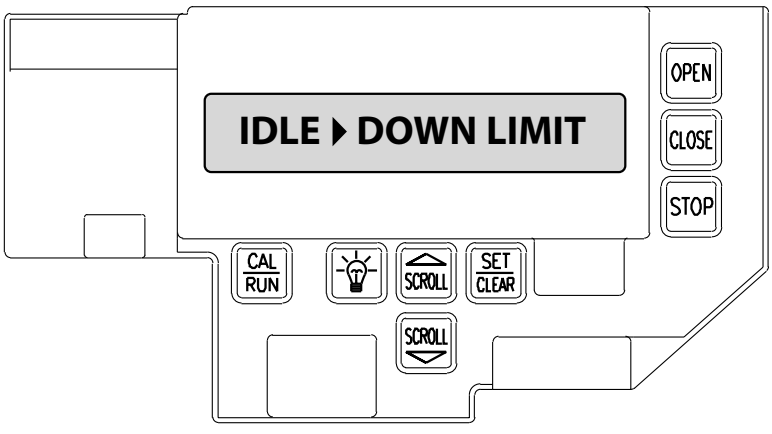


Fig. 7

Setting Limit Overrun

⚠ WARNING

The Limit Overrun will override external reversing devices, including photocells and sensing edges or reversing edges. Therefore, any externally connected devices will be disabled during that portion of the door travel controlled by the Limit Overrun function.
The Down Limit Overrun function should be used to close the door no more than the final 2".

⚠ AVERTISSEMENT

La fonction de dépassement de limite annulera les dispositifs de renversement externes, y compris les cellules photoélectriques et des systèmes de détection ou d'inversion aux bords. En conséquence, tous les dispositifs externes connectés seront désactivés pendant la partie de la course de la porte qui est contrôlée par la fonction de dépassement de limite.
La fonction de dépassement de limite inférieure doit être utilisée pour fermer la porte uniquement aux derniers 5 cm.

A) The Limit Overrun setting is a matter of trial and error. The goal is to adjust the Limit Overrun until an appropriate seal is obtained between the bottom edge of the door and the floor.
B) The Limit Overrun setting can be varied between 0 and 9. 0 - disables the Limit Overrun so that the door stops at the down limit switch setting. 9 - causes the greatest amount of door travel beyond the limit switch setting. Door should close gently with light tension on door cables,or minimal stacking on rolling steel slats.

1) Press SET/CLEAR until the display reads the desired value (1-9). Fig. 8
2) Press the OPEN key to open the door a few feet,then release
3) Press the CLOSE key to close the door and hold until the operator stops.
4) Check the door seal and repeat steps 3-5 until the appropriate seal is obtained between the door and the floor.
5) Press SCROLL DN key until display reads "ODC STB OFF".

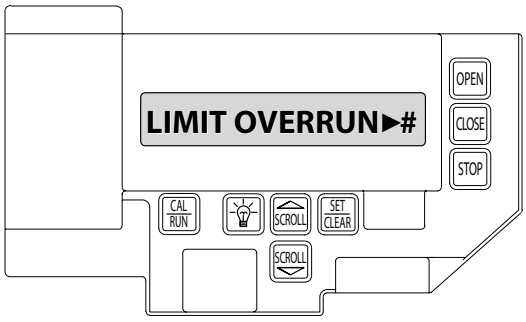


Fig. 8

⚠ CAUTION

If proper seal cannot be obtained at a setting of 9, Reset the Limit Overrun back to 0 and reset the Down Limit position as described on 4.4. Then adjust the Limit Overrun as instructed above.

⚠ ATTENTION

Si une adhésion appropriée ne peut être obtenue à un réglage de 9, réinitialiser le dépassement de limite à 0 puis la position de déplacement de la limite inférieure selon les instructions de la page 4.4. Régler ensuite le dépassement de limite tel qu'indiqué ci-dessus.

Monitored Reversing Devices

⚠ WARNING

Photocell systems provide entrapment protection when mounted near the doorway in such a way that the lower portion of an individuals leg will break the photocell beam during normal walking through the doorway.

⚠ AVERTISSEMENT

Les systèmes de cellules photoélectriques fournissent une protection contre le coincement s'ils sont installés à proximité de la porte de manière à ce que la partie inférieure de la jambe d'un individu puisse rompre le faisceau de la cellule photoélectrique lors de passages normaux par la porte.

1) Press SET/CLEAR key to toggle to "ODC STB > ON". Fig. 9
2) Press CAL/RUN to return to run mode.

NOTE: *See section 1 for approved monitored reversing devices. See section 3 for wiring of approved monitored sensing devices that can be installed onto the **ODC STB** operator terminals.*

NOTE: *Turn this feature ON if monitored reversing device is connected to the operators **ODC STB** terminals. If using an expansion board for reversing devices, see instructions included with expansion board for additional menu items.*

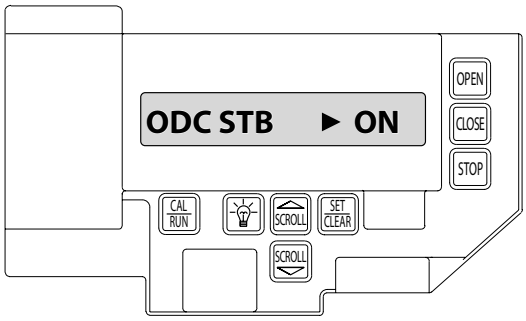


Fig. 9

NOTE: *Installation of Series II Monitored Photocells DOES NOT make the MX unit legal for residential use. This strictly prohibits any installation of an MX unit in any residentially zoned construction.*

Resetting the MRT (Max Run Timer)

⚠ CAUTION
The MID-STOP feature must be turned off in order to properly set the Max Run Timer.
⚠ ATTENTION
La fonction MID-STOP doit être désactivée afin de régler correctement la minuterie de course maximum.

The Max Run Timer is set automatically once the unit is cycled between Limits (2 full cycles).
The Max Run Timer prevents the unit from running continuously in the event of a problem. The MRT is set to the time required to run from one limit to the other, plus 5 seconds (nominal). When the MRT is exceeded, the operator stops and will not respond to any command until it is reset by pressing one of the calibration keys or by cycling power to the unit.

TO RESET

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (up or down) until display reads "MAX RUN TMR > SET." Fig. 10
3) Press SET/CLEAR until display reads "MAX RUN TMR > CLR."
4) Press CAL/RUN to return to RUN mode.
5) Cycle the door between limits.

NOTE*: The Max Run Timer must be reset any time the Travel Limits are adjusted.*

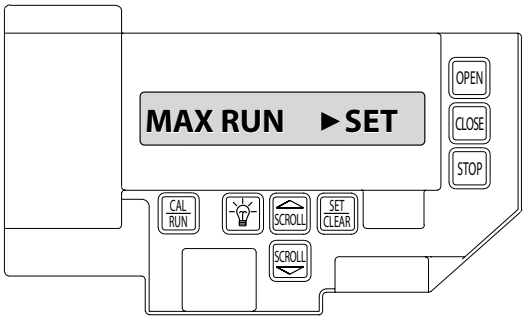


Fig. 10

Mid-Stop Limit (Optional)

NOTE: *Setting of the MID-STOP should only be performed AFTER the Travel Limits and Max Run Timer settings have been made.*

1. If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press the CLOSE key to close the door to the down limit.
3. Press SCROLL (up or down) until display reads "MID-STOP > CLR " Fig.11
   - If display reads "MID-STOP > SET, Press the SET/CLEAR key to reset to "CLR"
4. Press the OPEN key to open door to desired height.
5. Press SET/CLEAR key to set mid-stop. Display will show "MID-STOP > SET"
6. Press CAL/RUN key to return to RUN mode.

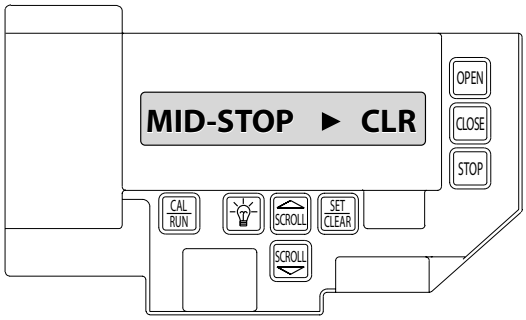


Fig. 11

⚠ CAUTION

The MID-STOP feature must be turned off in order to properly set the Max Run Timer.

⚠ ATTENTION

La fonction MID-STOP doit être désactivée afin de régler correctement la minuterie de course maximum.

Setting Open and Close Modes (Constant vs. Momentary Contact)

⚠ WARNING

Before momentary contact control can be used on the CLOSE button, a monitored external reversing device such as a photocell system or sensing edge switch must be used.
See WIRING SECTION for installation of entrapment protection devices.

⚠ AVERTISSEMENT

Avant d'utiliser la commande à contact momentané sur le bouton FERMETURE, un dispositif d'inversion externe surveillée tel qu'un système de cellule photoélectrique ou un commutateur de détection de bord doit être utilisé.
Voir la section CÂBLAGE pour l'installation des dispositifs de protection contre les piégeages.

OPEN

1. If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press SCROLL (up or down) until display reads "OPEN MODE>MOM" or "OPEN MODE>C-STP." Fig. 12
   • MOM=momentary contact, meaning you press and release the OPEN key and the door will continue to move until it reaches its travel limit.
   • C-STP=constant contact-stop, meaning if you release the key prior to the door reaching its travel limit, the door will stop.
3. Press SET/CLEAR key to toggle between "OPEN MODE>C-STP" or "OPEN MODE>MOM" on the display.
4. Press CAL/RUN to return to run mode.

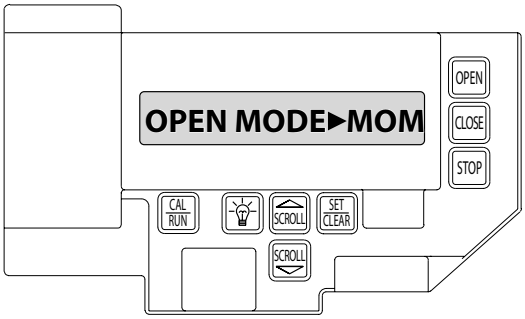


Fig. 12

CLOSE

1. If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press SCROLL (up or down) until display reads "CLOSE MODE>MOM," "CLOSE MODE>C-STP" or "CLOSE MODE>C-REV."
   • MOM=momentary contact, meaning you press and release the CLOSE key and the door will continue to move until it reaches its travel limit.
   • C-STP=constant contact-stop, meaning if you release the key prior to the door reaching its travel limit, the door will stop.
   • C-REV=constant contact-reverse, meaning if you release the key prior to the door reaching its travel limit, the door will reverse direction.
3. Press SET/CLEAR key to toggle between "CLOSE MODE>C-STP" or "CLOSE MODE>C-REV" or "CLOSE MODE>MOM" on the display.
4. Press CAL/RUN to return to run mode.

Section 4: Special Features

Operator Cycle Count

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL until display reads "CYCLES>1,2,3 etc. where the number is the number of open/close cycles the operator has performed. Fig. 1
3) Press CAL/RUN to return to run mode.

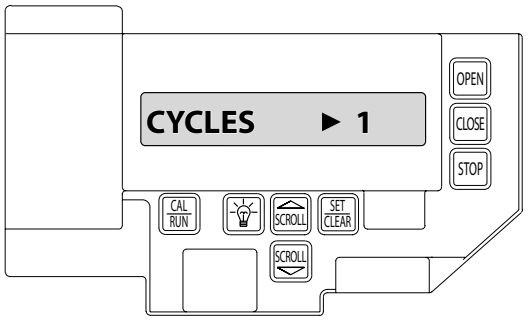


Fig.1

GDO Version, Display Firmware

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL until display reads "GDO V# > #####." Fig. 2
3) This display will cycle between the version number of the current GDO firmware and the current Display Firmware.
4) Press CAL/RUN to return to run mode.

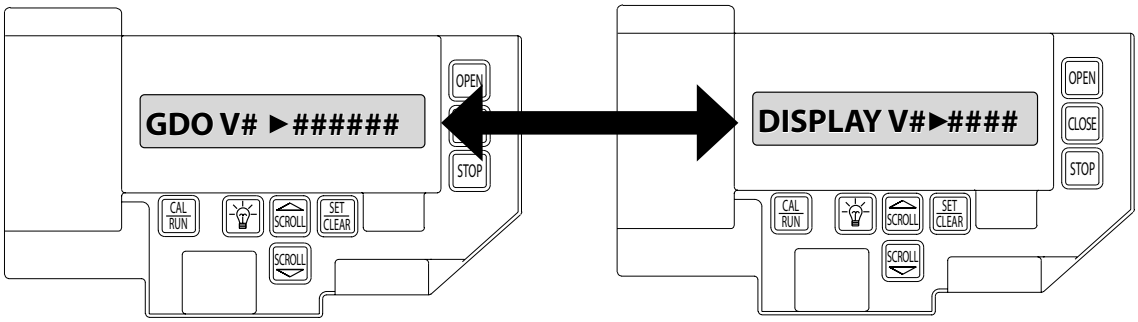


Fig. 2

GDO Type

This Operator is available for use in TROLLEY configuration only. However, the same control board is used for Jackshaft and Trolley configurations. The control board must be set for the appropriate GDO configuration. A board set for trolley mode will not work in a jackshaft operator and vice-versa.

NOTE: *The GDO type is factory set. The installer should not have to set this feature. However, if the GDO type is inadvertently changed, or if a board needs to be replaced in the field, follow these instructions to set GDO type.*

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL until display reads "GDO TYPE > ." Fig. 3
   - This will display the current GDO type.
3) Press SET/CLEAR until display indicates correct GDO type (TROLLEY)
4) Press CAL/RUN to return to run mode.

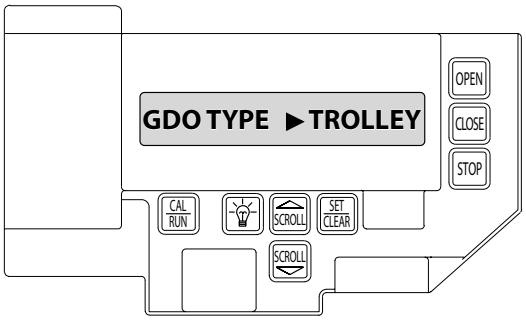


Fig. 3

Section 4: Special Features

Transmitter Programming (Optional with addition of internal radio)

Adding a Transmitter

1. If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press SCROLL (up or down) until display reads "LEARN NEW XMTR? " Fig.1
   - This question along with the instruction "HIT SET FOR YES" will continuously pan across the display window. (Pressing SCROLL or CAL/RUN will cancel the operation.)
3. Press SET/CLEAR .
   - Display will read "PUSH XMTR BUTTON TWO TIMES TO LEARN XMTR."
4. Press Transmitter button two times.
   - The display will read "XMTR ___LEARNED." Where it assigns a random number to the transmitter. That transmitter is entered and ready to operate the door. (Label/mark the transmitter.)
5. Press SCROLL (up or down) to move on to another menu item, or CAL/RUN to exit the CAL mode.

Removing Individual Transmitter

1. 1) If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press SCROLL (up or down) until display reads "REMOVE XMTR? " Fig.2
   - This question along with the instruction "HIT SET FOR YES" will continuously pan across the display window. (Pressing SCROLL or CAL/RUN will cancel the operation.)
3. Press SET/CLEAR
   - A menu displaying the available transmitter numbers will appear.
   - Press SCROLL (up or down) to cycle through the menu to the number of the transmitter to be removed. (Pressing CAL/RUN will cancel the operation.)
4. Press SET/CLEAR
   - The transmitter is removed.
5. Press SCROLL (up or down) to move on to another menu item, or CAL/RUN to exit the CAL mode.

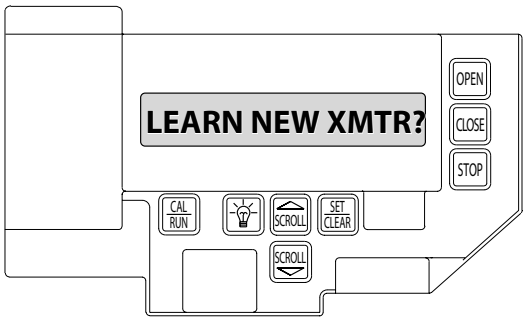


Fig. 1

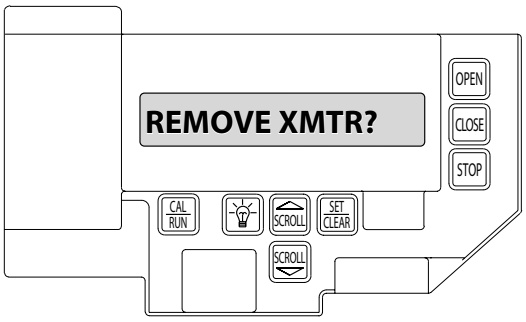


Fig. 2

Removing All Transmitters

1. If operator is in RUN mode, press CAL/RUN to enter calibration mode.
2. Press SCROLL (up or down) until display reads "REMOVE ALL XMTRS" Fig.3
   - This question along with the instruction "HIT SET FOR YES" will continuously pan across the display window. (Pressing SCROLL or CAL/RUN will cancel the operation.)
3. Press the SET/CLEAR key.
   - The display will read "ARE YOU SURE."
4. Press SET/CLEAR key.
   - All transmitters are removed.
5. Press SCROLL (up or down) to move on to another menu item, or CAL/RUN to exit the cal mode.

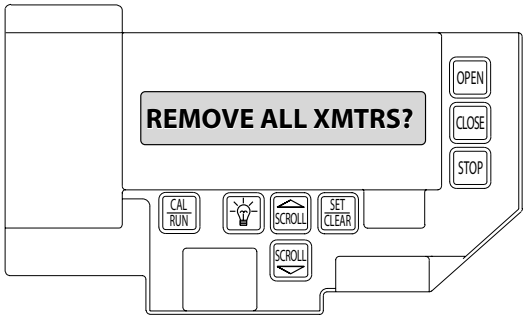
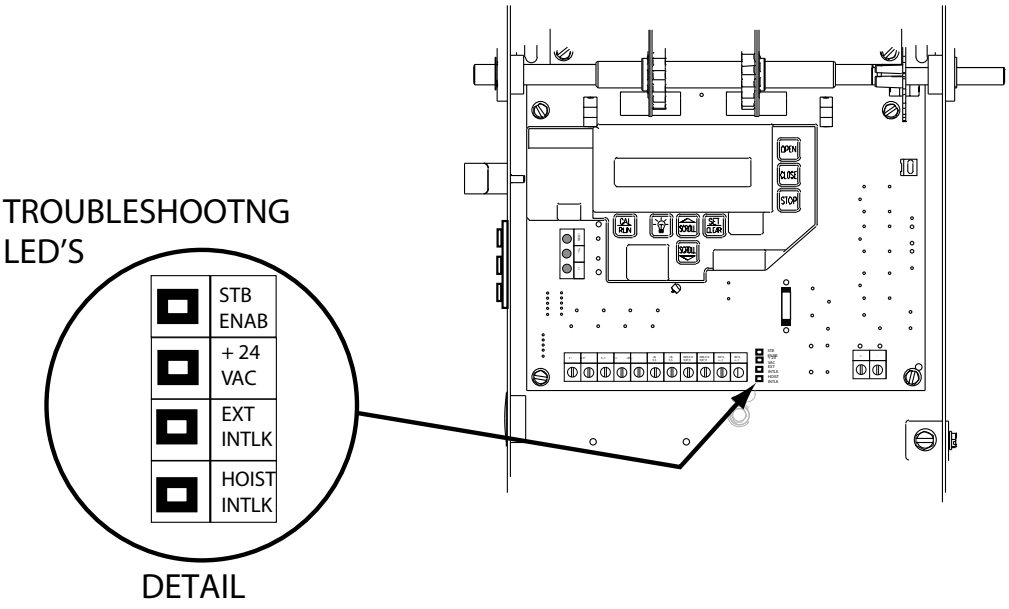


Fig. 3

Section 5: Troubleshooting

MX operators include a self-diagnostic circuit board using troubleshooting LED indicators to signal the technician of a problem.



TROUBLESHOOTING LED's				
HOIST INTERLOCK	EXTERNAL INTERLOCK	+24VDC	STB ENABLE	INDICATION
			OFF	**STB Disabled**
			ON	**STB Enabled**
ON	ON	ON		**Normal Operating Condition**
OFF	ON	ON		**Hoist Interlock Switch Open:** • Hoist release requires reset • Hoist interlock connector not plugged in • Hoist interlock defective
OFF	OFF	ON		**External Interlock Open**
OFF	OFF	OFF		**Power Supply Problem:** • Check AC power supply • Check main power fuse • Check secondary fuse (2A)

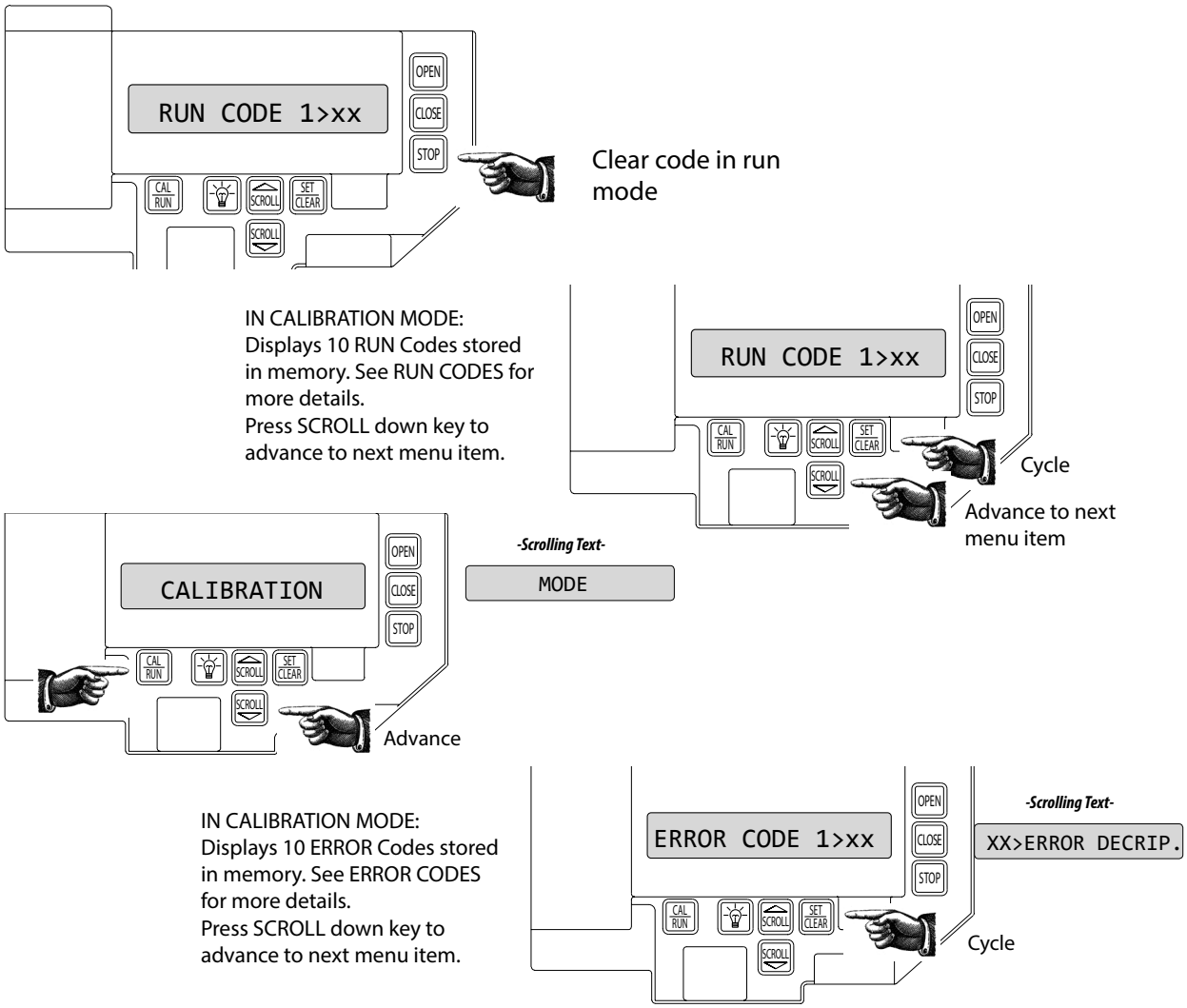
Section 5: Troubleshooting

Display Operation in RUN Mode

This operator will display its status on the integrated display. Each time the operator runs, stops, reverses or refuses to run, the display will indicate why the action did, or did not, take place.
Once an error code has been generated, the Operator will continue to display the error code while the operator is not running. This error code can be cleared by pressing the STOP button or STOP key on the keypad. The error code will automatically clear when the operator stops at the down limit. Error codes will continue to be stored in the Operator's Error Code Memory after they have been cleared from the display in the Run Mode.
The Operator will display any uncleared trouble codes, in turn, on the integrated display, alternating with the active condition (error or run) code, until all of the trouble codes have been cleared. Trouble Codes can only be cleared after the condition causing the code has been resolved. Trouble Codes are not cleared by pressing the STOP button or STOP key on the keypad. Trouble Codes are stored in the Operator's memory.

Run Codes

To aid in troubleshooting problems, this operator includes a Run Code Memory that stores the most recent 10 events. These codes are stored with or without power. Each time the operator runs or stops, it generates a code that it stores in this memory, Used together with the error code memory, it becomes a powerful troubleshooting aid.
The run code memory stores the last 10 codes in sequence. Once 10 codes are stored, the oldest code is erased to make room for the newest code. These codes are displayed in calibration mode. The display will flash the number of the run code and the 2-digit run code followed by a description of the run code.



Run Codes

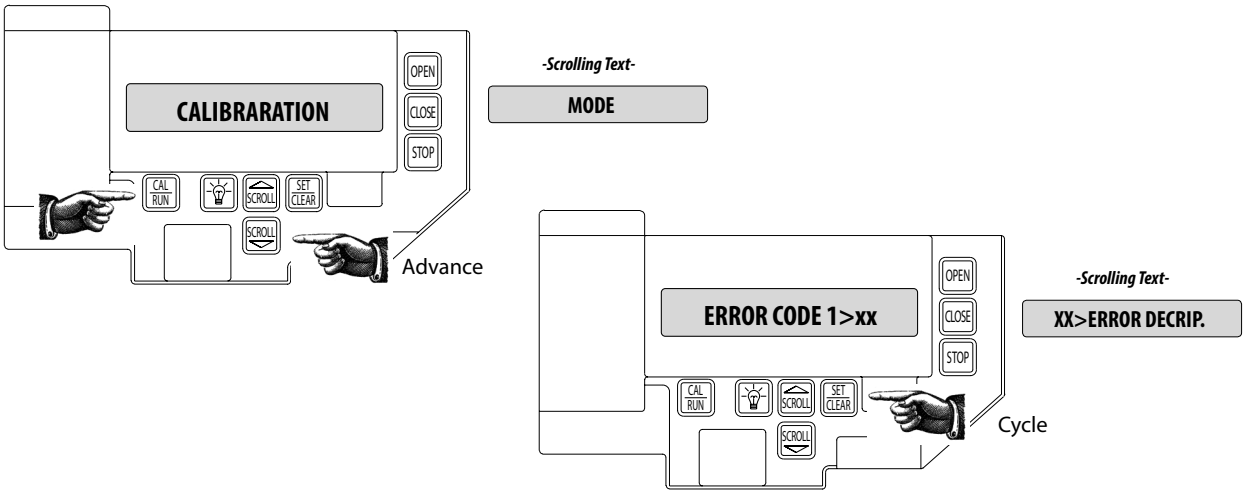
Code	Display	Detailed/Expanded Description	Corrective Action
0C	IDLE > DOWN LIMIT	The door is at the Down Limit position.	None
0D	IDLE > UP LIMIT	The door is at the Up Limit position.	None
0E	IDLE > MID STOP	The door is at the Mid-Stop Limit position.	None
0F	IDLE > NO LIMIT	The door is at no established limit position.	None
10	OPENING > OPEN BTN	The Open Pushbutton input was activated causing the door to move in the opening direction.	None
11	OPENING > ONE BTN	The 1- Button input was activated causing the door to move in the open direction.	None
12	OPENING > RADIO	The External Radio input was activated causing the door to move in the open direction.	None
13	OPENING > AUX OPEN	The Auxiliary Open input (on the TCM Module) was activated causing the door to move in the open direction.	None
14	OPENING > OPEN KEY	The Open Key (on the circuit board) was activated causing the door to move in the open direction.	None
20	CLOSING > CLOSE PB	The Close Pushbutton input was activated causing the door to move in the close direction.	None
21	CLOSING > ONE BTN	The 1- Button input was activated causing the door to move in the close direction.	None
22	CLOSING > RADIO	The External Radio input was activated causing the door to move in the close direction.	None
24	CLOSING > CLOSE KP	The Close Key (on the circuit board) was activated causing the door to move in the close direction.	None
2A	CLOSING > TCM CLS	The TCM Module sent a close signal causing the door to move in the close direction.	None
2B	CLOSING > FDM CLS	The Fire Door Module sent a signal causing the door to move in the close direction.	None
30	HALT > WALL BUTTON	The door stopped because the Stop Pushbutton was activated.	None
31	HALT > ONE BUTTON	The door stopped (and /or reversed) because the 1-Button input was activated.	None
32	HALT > RADIO	The door stopped and reversed because the Radio input was activated.	None
33	HALT > AUX. OPEN	The door stopped (and /or reversed) because the Auxiliary Open input on the TCM Module was activated.	None
34	HALT > KEYPAD KEY	The door stopped because the Stop Key was activated.	None
35	HALT > N-O SAFETY	The door stopped and reversed because the Normally Open Reverse input was activated.	None
36	HALT > ODC STB	The door stopped and reversed because the Safety Beam or Monitored Edge with the Monitored Edge Interface Module was activated.	None
37	HALT > N-C SAFETY	The door stopped and reversed because the Normally Close Reverse input on the TCM Module was activated.	None
38	HALT > MON. EDGE	The door stopped and reversed because the Monitored Edge input on the TCM Module was activated.	None
39	HALT > DOOR FORCE	The door stopped because the Speed of the Limit Assembly slowed down (Trolley Models only).	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board.
3A	HALT > LOSS OF C/C	The door stopped (and /or reversed) because the constant contact activation was removed before the door reached a limit.	None. User input was removed.
3B	HALT > SHUTDOWN	The door stopped because the Hoist Interlock, External Interlock circuit became active (opened) or the motor overheated.	Check the Hoist Interlock switch and wires. Check an External Interlock switch and wires. If no External Interlock is use check the gray jumper between the two EXT INTLK terminals. Check for a hot motor.
3C	HALT > DOWN LIMIT	The door stopped because it reached the Down limit position.	None
3D	HALT > UP LIMIT	The door stopped because it reached the Up limit position.	None
3E	HALT > MID STOP	The door stopped because it reached the Mid-Stop limit position.	None

Section 5: Troubleshooting

Error Codes

To aid in troubleshooting problems, this operator includes an Error Code Memory that stores the most recent 10 error events. These codes are stored with or without power. The latest error code detected is also displayed on the LCD until the STOP button or key is pressed or the operator stops at the down limit.

The error code memory stores its codes in time sequence. Once 10 codes are stored, the oldest code will be erased to make room for the next newest code. These codes are displayed in Calibration Mode. The display will flash the number of the code in the sequence and the 2 digit code ID, followed by a description of the code.



Code	Display	Detailed/Expanded Description	Corrective Action
3F	HALT > MODULE FAIL	The door stopped because it determined there was a problem with an Expansion Module. (Timer Close or Auxiliary Output Module)	Check Expansion Module LED Status. Power the operator off, remove the module and re-apply power, if the operator starts working replace the module.
40	REV > OPEN BUTTON	The door stopped traveling down and reversed and is now traveling open because the Open Pushbutton was activated.	Check the Open Pushbutton and Open Pushbutton wires for a closed circuit.
41	REV > ONE BUTTON	The door stopped traveling down and reversed and is now traveling open because the 1-Button input was activated.	Check the 1-Button and 1-Button wires for a closed circuit.
42	REV > RADIO	The door stopped traveling down and reversed and is now traveling open because the External Radio input was activated.	Check the External Radio for a short circuit.
43	REV > AUX OPEN	The door stopped traveling down and reversed and is now traveling open because the Auxiliary Open input on the Timer Close Module was activated.	Check the Auxiliary Open Input on the Timer Close Module and the Auxiliary Open Input wires for a closed circuit.
44	REV > OPEN KEY	The door stopped traveling down and reversed and is now traveling open because the Open Key (on the circuit board) was activated.	Power the unit down and back up. If the error persist then replace the main circuit board.
45	REV > N-O SAFETY	The door stopped traveling down and reversed and is now traveling open because the Normally Open Reverse input was activated.	Check the N-O Reverse input and N-O Reverse wires for a closed circuit.
46	REV > ODC STB	The door stopped traveling down and reversed and is now traveling open because the Monitored Safety Beam (STB) or Monitored Edged with the Monitored Edge Interface Module input was activated.	Check the ODC STB input and ODC STB wires for a open or shorted (closed) circuit.
47	REV > N-C SAFETY	The door stopped traveling down and reversed and is now traveling open because the Normally Close Safety Input on the Timer Close Module was activated.	Check the Normally Closed Safety Input on the Timer Close Module and the Normally Closed Safety Input wires for a open circuit.
48	REV > MON. EDGE	The door stopped traveling down and reversed and is now traveling open because the Monitored Edge Input on the Timer Close Module was activated.	Check the Monitored Edge Input on the Timer Close Module and the Monitored Edge Input wires for a Open or shorted (closed) circuit.
49	REV > DOOR FORCE	The door stopped traveling down and reversed because the Speed of the Limit Assembly slowed down (Trolley Models only).	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board.
4A	REV > LOSS OF C/C	The door stopped traveling down and reversed because the constant contact activation was removed before the door reached the down limit.	User input was removed.

Section 5: Troubleshooting

Code	Display	Detailed/Expanded Description	Corrective Action
4B	REV > MAX RUN TMR	The door stopped traveling down and reversed because the Maximum Run Time between Limits was exceeded.	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.
4F	REV > EXP MOD FAIL	The door stopped traveling down because it determined there was a problem with an Expansion Module.	Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limit setting information in the menu.
50	STOP > HOT MOTOR	The door stopped moving because the motor overheated.	Check for a hot motor. Check the motor plug on the main board making sure the plug and wires are seated.
51	STOP > OPEN MRT	The door stopped traveling open because the Maximum Run Time between Limits was exceeded.	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.
52	STOP > CLOSE MRT	The door stopped traveling close because the Maximum Run Time between Limits was exceeded.	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Re-record the Max Run Timer values in both directions.
57	STOP > OPEN INTLK	The door stopped because the Hoist Interlock or the External Interlock circuit became active (open).	Check the Hoist Interlock switch and wires. Check an External Interlock switch and wires. If no External Interlock is use check the gray jumper between the two EXT INTLK terminals
58	STOP > WRONG GDO	The door stopped because it determined the circuit board is set as a J-Shaft (side-mounted unit) but is installed on a Trolley unit.	Review the "GDO TYPE" in the calibration setting of the unit.
59	STOP > DOOR FORCE	The door stopped traveling up because the Speed of the Limit Assembly slowed down (Trolley Models only).	Check the door balance. Check the Clutch adjustment to make sure it's not slipping. Check the GDO Type in the set-up menu for the proper setting for the model installed (Trolley or J-Shaft). Check for mechanical issues. Replace the Limit Module. Replace the Main Control Board.
5A	STOP > WRONG LIMIT	The door stopped traveling because the unit was looking for the Up Limit and the Down Limit became active or the unit was looking for the Down Limit and the UP limit became active.	Review the calibration setting. Reset motor direction and limits.
5B	STOP > WRONG DIR	The door stopped traveling because the unit was looking for Limit direction input in one direction but received input in the opposite direction.	Review the calibration setting. Reset motor direction and limits.
5C	STALL > DOWN LIMIT	The door stopped traveling because it expected the Down Limit to clear (door moved off the down limit position) but it did not receive that signal.	Check door balance. Review the calibration setting. Reset motor direction and limits.
5D	STALL > UP LIMIT	The door stopped traveling because it expected the Up Limit to clear (door moved off the up limit position) but it did not receive that signal.	Check door balance. Review the calibration setting. Reset motor direction and limits.
5E	STALL > MID-STOP	The door stopped traveling because it expected the Mid Stop Limit to clear (door moved off the mid stop limit position) but it did not receive that signal.	Check door balance. Review the calibration setting. Reset motor direction and limits.
60	CHECK STOP BTN	The door will not move because the Stop Circuit (normally closed circuit) in not completed.	Check the Stop Pushbutton and Stop Pushbutton wires.
61	TCM DISABLED	The door will not time out and close because there are no Monitored Sensing/Safety devices enabled and/or not working.	Check the ODC STB and ODC STB wires. Chaeck the Monitored Edge, review the set-up in the menu to ensure the proper setting for the installed safety input.
62	NO RADIO >> C/C	The door will not move with a radio input (transmitters) because the unit is set for Constant Contact in the Open and/or Close Modes.	Review the calibration setting. Reset Open and Close Modes to Momentary
63	CHECK AUX OPEN	The unit determined the Auxiliary Open input on the Timer Close Module is active. This input will be ignored until it changes state.	Check the Auxiliary Input device wired into the Timer Close Module and Auxiliary Input device wires for a closed circuit.
64	CHECK STOP KEY	The unit will not run because it determined the Stop Key input on the circuit board is active.	Power the unit down and back up. If the error persist then replace the main circuit board.
65	CHECK N-O SAFETY	The unit will not close because it determined the Normally Open Reverse input on the circuit board is active (shorted).	Check the N-O Reverse device wired into the main board and the N-O Reverse Input device wires for a closed circuit.
66	CHECK ODC STB	The unit will not close because it determined the ODC Safe-T-Beam input on the circuit board is active.	Check the ODC STB and ODC STB wires.

Code	Display	Detailed/Expanded Description	Corrective Action
67	CHECK N-C SAFETY	The unit will not close because it determined the Normally Closed Reverse input on the Timer Close Module is active (Open circuit).	Check the Normally Close (N-C Safe) Input device wired into the Timer Close Module and device wires for a open circuit.
68	CHECK MON. EDGE	The unit will not close because it determined the Monitored Edge (MON EDGE) input on the Timer Close Module is active.	Check the Monitored Edge (MON EDGE) Input device wired into the Timer Close Module and device wires.
69	OVERHEATED MOTOR	The unit will not run because it determined the Thermal Overload in the motor is active.	Check the door balance. Check the wires in the motor connector that plugs into the circuit board. Replace the motor.
6C	NO RUN > DOWN LIM	The unit will not run because the Down/close input was activated but the unit was already at the Down Limit position.	User input error
6D	NO RUN > UP LIMIT	The unit will not run because the Up/open input was activated but the unit was already at the Up Limit position.	User input error
6E	NO RUN > MID STOP	The unit will not run because the Up/open input was activated but the unit was already at or beyond the Mid Stop Limit position. This active input is preventing the unit from closing as well.	User input error
6F	EXP MODULE FAIL	The unit may not run because it had lost communication with one or more Expansion Modules (Limit Module, On-board Radio, Timer Close Module and/or Auxiliary Output Module)	Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limt setting information in the menu.
85	EXP PORT PROBLEM	The unit may not run because it has determined that is has lost communication with one or more Expansion Modules (Limit Module, On-board Radio, Timer Close Module and/or Auxiliary Output Module)	Review the menu looking for a missing menu item. For example, if the limit module is defective there will not be any limt setting information in the menu.
88	TCM FAILURE	The unit has determined that the Timer Close Module has stopped communicating.	Check the ribbon cable connection. Power the unit down and back up. If the error persist then replace the Timer Close Module.
89	FDM FAILURE	The unit has determined that the Fire Door Module has stopped communicating.	Check the ribbon cable connection. Power the unit down and back up. If the error persist then replace the Fire Door Module.
8A	AOM FAILURE	The unit has determined that the Auxiliary Output Module has stopped communicating.	Check the ribbon cable connection. Power the unit down and back up. If the error persist then replace the Auxiliary Output Module.
8B	SPARE MOD FAILURE	Not Used	Contact Technical Services
8C	LOW SYSTEM VOLTS	The unit has determined that the secondary voltage is less than acceptable.	Check supply voltage to the unit. Make sure the Motor Connector is plugged into the correct socket for the voltage supplied.
8D	HI SYSTEM VOLTS	The unit has determined that the Line Voltage input to the unit is too high for the configuration of the unit.	Check supply voltage to the unit. Make sure the Motor Connector is plugged into the correct socket for the voltage supplied. Contact an Electrician
8E	REV INTERRUPTED	The unit did not complete a 2 second reversal before it had encountered a issue and stopped.	None

Section 5: Troubleshooting

Code	Display	Detailed/Expanded Description	Corrective Action
8F	LIMIT MOD. FAIL	The unit has determined that the Limit Module has stopped communicating.	Check the limit cable connection. Power the unit down and back up. If the error persist then replace the Limit Module.
A0	OPEN BTN BAD > PU	The unit determined that the Open Pushbutton input was active (shorted) when power was applied. This input will be ignored until it changes state.	Check the Open Pushbutton and Open Pushbutton wires for a closed circuit.
A1	CLOSE BTN BAD > PU	The unit determined that the Close Pushbutton input was active (shorted) when power was applied. This input will be ignored until it changes state.	Check the Closed Pushbutton and Close Pushbutton wires for a closed circuit.
A2	ONE BTN BAD > PU	The unit determined that the 1- Button input was active (shorted) when power was applied. This input will be ignored until it changes state.	Check the 1-Button and 1-Button wires for a closed circuit.
A3	RADIO BAD > PWR UP	The unit determined that the External Radio input was active when power was applied. This input will be ignored until it changes state.	Check the External Radio for a short circuit.
A4	AUX OPEN BAD > PU	The unit determined that the Auxiliary Open input on the Timer Close Module was active (shorted) when power was applied. This input will be ignored until it changes state.	Check the Auxiliary Input device wired into the Timer Close Module and Auxiliary Input device wires for a closed circuit.
A5	OPEN KEY BAD > PU	The unit determined that the Open Key input on the circuit board was active (shorted) when power was applied. This input will be ignored until it changes state.	Power the unit down and back up. If the error persist then replace the Main Circuit Board.
A6	CLOSE KEY BAD > PU	The unit determined that the Close Key input on the circuit board was active (shorted) when power was applied. This input will be ignored until it changes state.	Power the unit down and back up. If the error persist then replace the Main Circuit Board.
A7	MULT KEYS BAD > PU	The unit determined that more than one input on the circuit board keypad was active (shorted) when power was applied. These inputs will be ignored until they change state.	Power the unit down and back up. If the error persist then replace the Main Circuit Board.
B0	OPENING > XMTR #	The unit received a valid input from a "Learned" transmitter and the door is traveling open. The transmitter ID is displayed.	None
B1	CLOSING > XMTR #	The unit received a valid input from a "Learned" transmitter and the door is traveling close. The transmitter ID is displayed.	None
B2	HALT > XMTR #	The unit received a valid input from a "Learned" transmitter and has stopped the door. The transmitter ID is displayed.	None
B3	"Rev > XMTR# NO XMTR > CC"	The unit received a valid input from a "Learned" transmitter and the closing door stopped and reversed and is now traveling open	None
I2C Comm Error	I2C Comm Error	The system can not communicate on the I2C communication line.	While the operator is powered start unplugging the expansion devices one at a time (Timer Close Module, Auxiliary Output Module, On-board Radio, Limit Module), allow the unit to try to re-initiate, if the operator is able to re-initiate the LCD will update with the current status. If this happens then the last device you have unplugged is defective and needs to be replaced. if all devices have been unplugged and the operator still displays I2C Comm Error, replace the main control board.

Section 6: Service & Maintenance

The following table provides a schedule of recommended Service and Maintenance items to be completed by qualified service personnel.

⚠ CAUTION

Failure to perform the recommended Service & Maintenance may result in premature failure of the operator.

⚠ ATTENTION

Si les instructions de service et de maintenance recommandés ne sont pas suivies, l'opérateur pourrait tomber en panne prématurément.

⚠ WARNING

To avoid SERIOUS INJURY or DEATH:

- Disconnect power BEFORE performing ANY adjustment or maintenance.
- ALL maintenance MUST be performed by qualified service personnel.

⚠ AVERTISSEMENT

Pour éviter LES BLESSURES GRAVES OU MORTELLES :

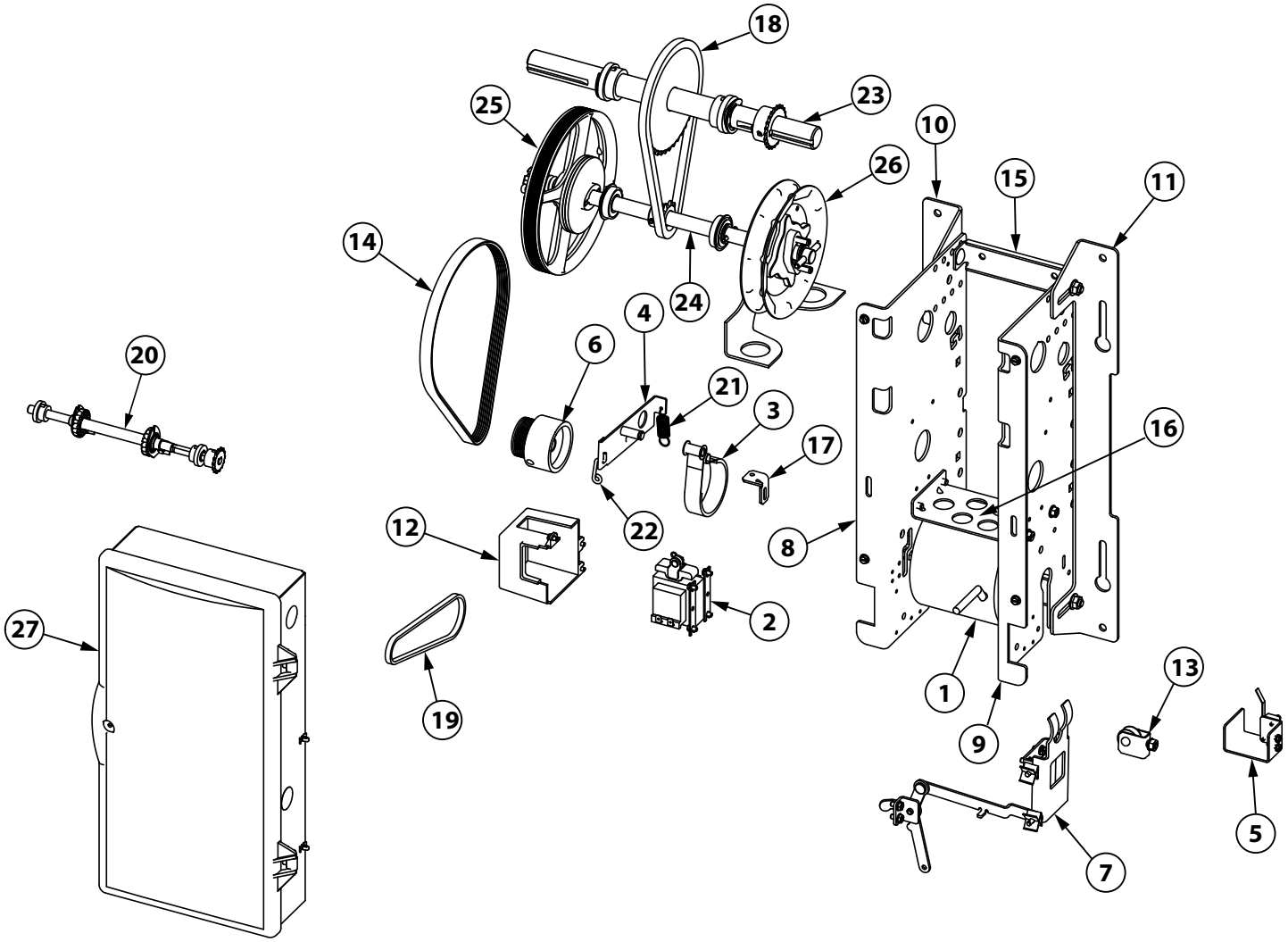
- Coupez l'alimentation avant d'effectuer toute opération de réglage ou d'entretien.
- Les opérations d'entretien doivent obligatoirement être effectuées par un personnel qualifié.

Maintenance Schedule

SERVICE ITEM	**SERVICE INTERVAL**		
	MONTHLY	EVERY 3 MO. OR 5000 CYCLES	EVERY 6 MO. OR 5000 CYCLES
SENSING EDGE OPERATION	**X**		
CHECK BRAKE SYSTEM		**X**	
SPROCKET SET SCREWS		**X**	
MANUAL OPERATION			**X**

SERVICE ITEM	**SERVICE INTERVAL**		
	EVERY 12 MO. OR 10000 CYCLES	EVERY 24 MO. OR TROUBLE INDICATOR	EVERY 36 MO. OR 30000 CYCLES
CHECK DRIVE CHAINS AND LUBRICATE	**X**		
CLUTCH ADJUSTMENT	**X**		
CHECK FOR LOOSE OR MISSING HARDWARE	**X**		
CHECK LIMIT POSITIONS			**X**
CHECK GEAR TRAIN WEAR			**X**

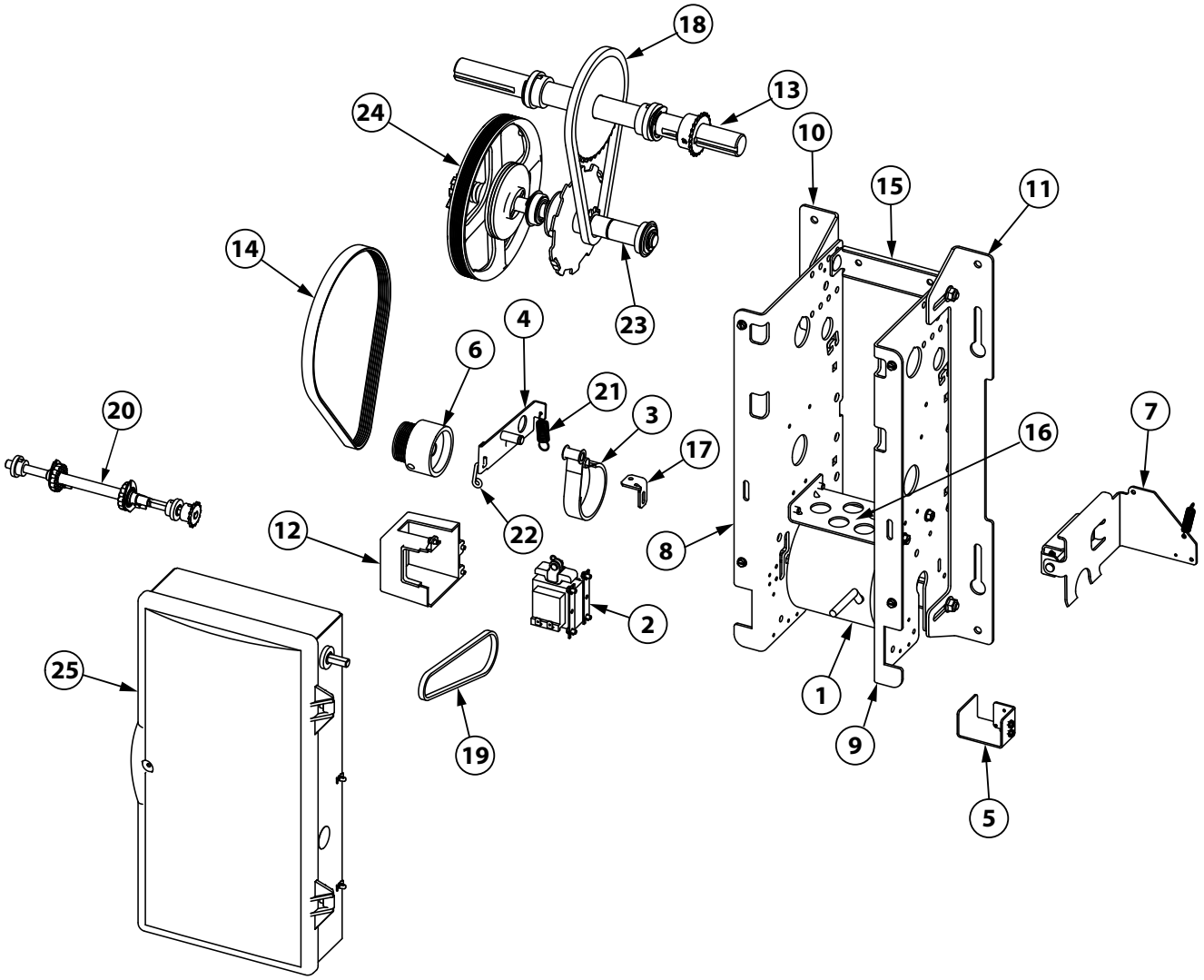
Service Parts: Hoist Parts



Item	Part Number	Description
1	110380.0001	Motor, 1/2Hp, 120Vac
	110380.0002	Motor, 1/2Hp, 230Vac
2	110953.0001	Brake Solenoid, 120Vac
	110954.0001	Brake Solenoid, 230Vac
3	110956.0001	Brake Band
4	110833.0001	Brake Release Lever
5	110975.0001	Interlock Switch
6	110443.0002	Brake Pulley
7	110977.0001	Hoist Release
8	110835.0001	Operator Chassis, Left
9	111051.0002	Operator Chassis, Right
10	110425.0001	Left Mounting Bracket
11	110425.0002	Right Mounting Bracket
12	110952.0001	Brake Solenoid Cover
13	107979.0001	Release Pulley

14	111010.0001	Belt, Poly-V
15	110803.0001	Support Brace
16	110804.0001	Support Bracket
17	110808.0001	Brake Adjustment Plate
18	110877.0058	Chain, #35 X 58P
19	086565.1013	Chain, #25 X 62P
20	110968.0001	Limit Shaft Kit
21	110824.0001	Brake Release Spring
22	111001.0001	Hook, Z-Bend
23	110986.0001	Output Shaft Assy
24	110990.0001	Clutch Shaft Assy
25	110970.0001	Clutch Kit
26	110973.0001	Handwheel Kit
27		Electric Box (Page 6.6)

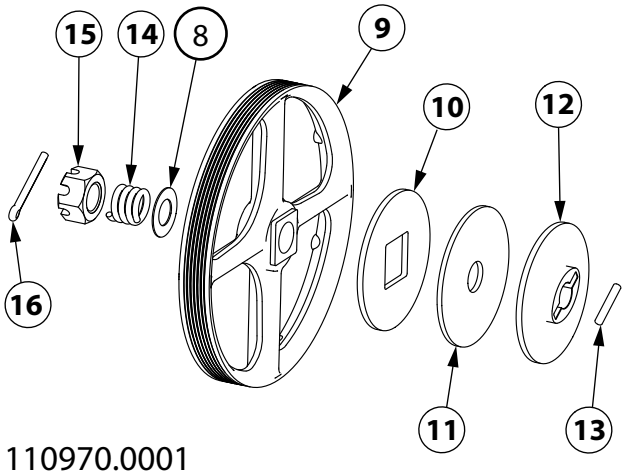
Service Parts: Jackshaft Parts



Item	Part Number	Description
1	110380.0001	Motor, 1/2Hp, 120Vac
	110380.0002	Motor, 1/2Hp, 230Vac
2	110953.0001	Brake Solenoid, 120Vac
	110954.0001	Brake Solenoid, 230Vac
3	110956.0001	Brake Band
4	110833.0001	Brake Release Lever
5	110805.0001	Bracket, Wire Guard
6	110443.0002	Brake Pulley
7	110979.0001	Jackshaft Release
8	110835.0001	Operator Chassis, Left
9	111051.0002	Operator Chassis, Right
10	110425.0001	Left Mounting Bracket
11	110425.0002	Right Mounting Bracket

Item	Part Number	Description
12	110952.0001	Brake Solenoid Cover
13	110986.0001	Output Shaft Assy
14	111010.0001	Belt, Poly-V
15	110803.0001	Support Brace
16	110804.0001	Support Bracket
17	110808.0001	Brake Adjustment Plate
18	110877.0058	Chain, #35 X 58P
19	086565.1013	Chain, #25 X 62P
20	110968.0001	Limit Shaft Kit
21	110824.0001	Brake Release Spring
22	111001.0001	Hook, Z-Bend
23	110994.0001	Clutch Shaft Assy
24	110970.0001	Clutch Kit
25		Electric Box (Page 6.6)

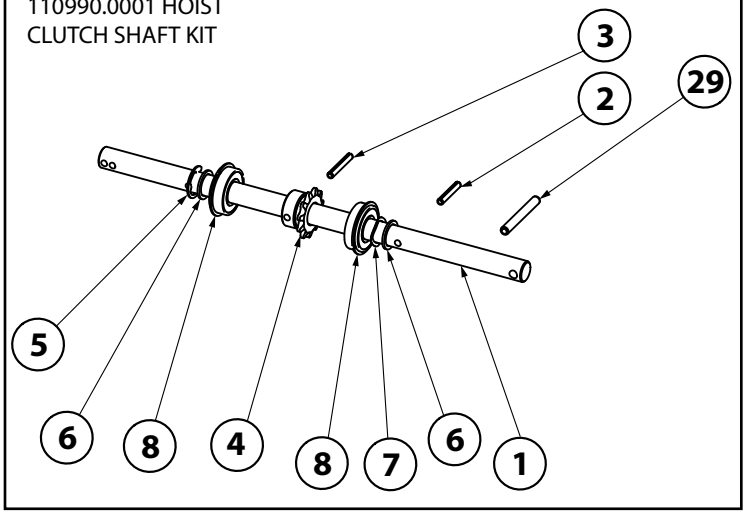
Service Parts: Shaft Assemblies



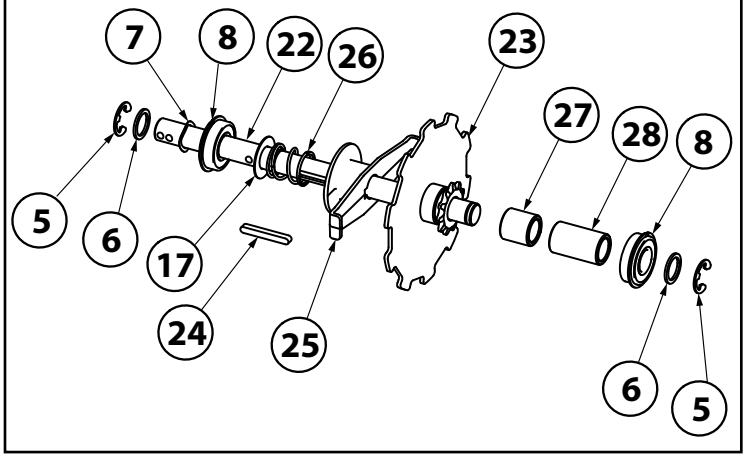
110970.0001
CLUTCH KIT

Item	Part Number	Description
1	110463.0001	Shaft, Clutch, Hoist
2	110313.0003	Pin, Spring, .188 Dia X 1.13
3	110313.0008	Pin, Spring, .188 Dia X 1.38
4	110465.0001	Sprkt, 11T, #35
5	080415.0021	Ring, Rtng, 5/8"
6	110819.0001	Washer, Plain, .651 Id
7	110818.0001	Washer, Wave Spring, .650
8	110813.0001	Bearing, .625 Id
9	111324.0001	Pulley Assy, Clutch
10	108015.0001	Movable Clutch Plate
11	075193.0000	Clutch Lining
12	111037.0001	Clutch Disc
13	110881.0001	Dowel Pin
14	075197.0000	Spring, Clutch
15	110472.0001	Nut, Hex, Slotted, 5/8-11
16	080401.0624	Pin, Cotter, 3/16 X 1-1/2"
17	086649.0029	Washer, Thrust .64
18	110872.0001	Handwheel
19	110411.0001	Chain Guard
20	110391.0001	Washer, Spacer
21	112389.0001	Handwheel Spring
22	110392.0001	Shaft, Jackshaft Clutch
23	110817.0001	Sprkt & Engagement Plate
24	110816.0001	Key, Round End, .188 X 1.50
25	110387.0001	Slider, Jackshaft, Mx
26	110389.0001	Spring, Jackshaft Release
27	110820.0001	Bushing, .627 Id X .88
28	110821.0001	Bushing
29	110313.0010	Pin, Spring, 1/4 X 2

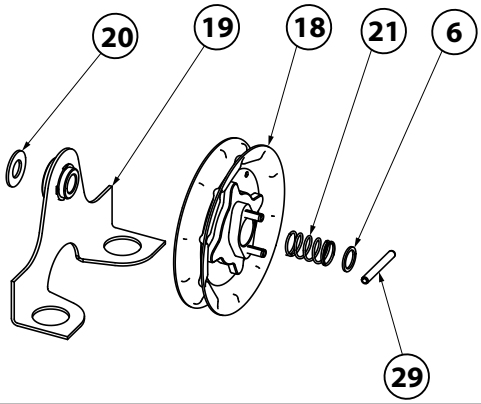
110990.0001 HOIST
CLUTCH SHAFT KIT



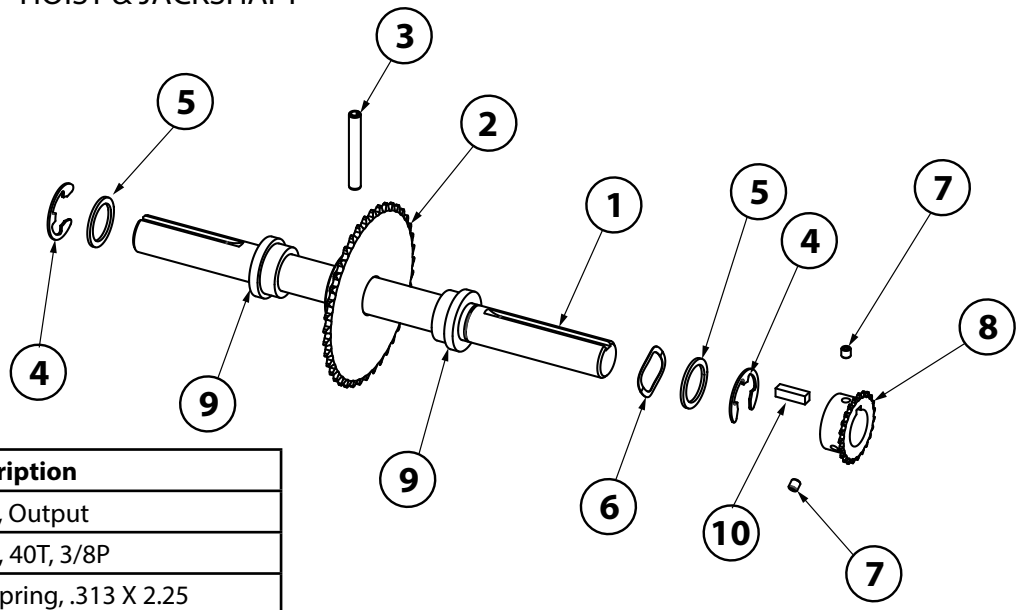
110994.0001 JACKSHAFT
CLUTCH SHAFT KIT



110973.0001
HANDWHEEL KIT

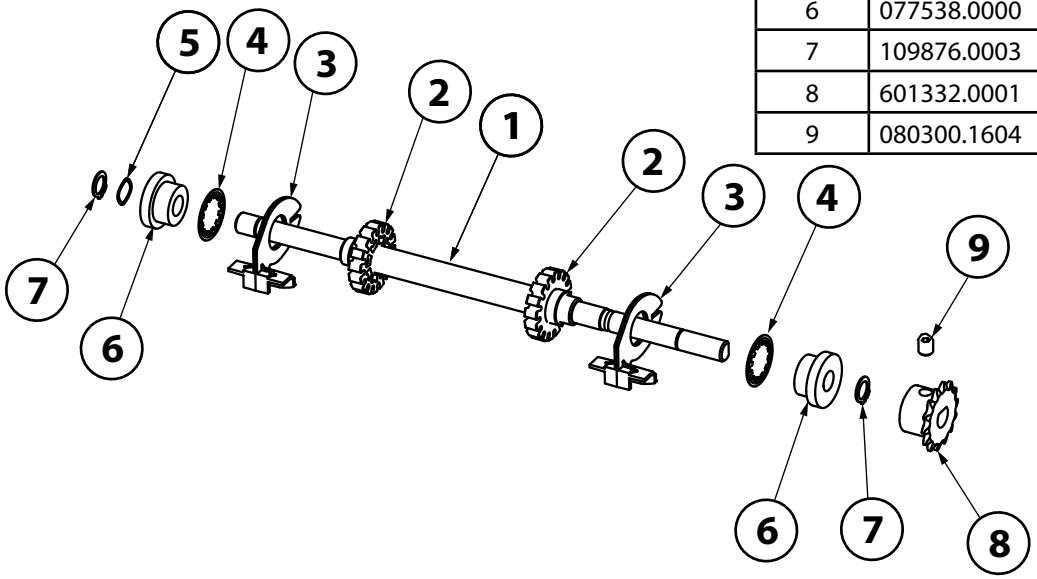


110986.0001
OUTPUT SHAFT ASSEMBLY
HOIST & JACKSHAFT



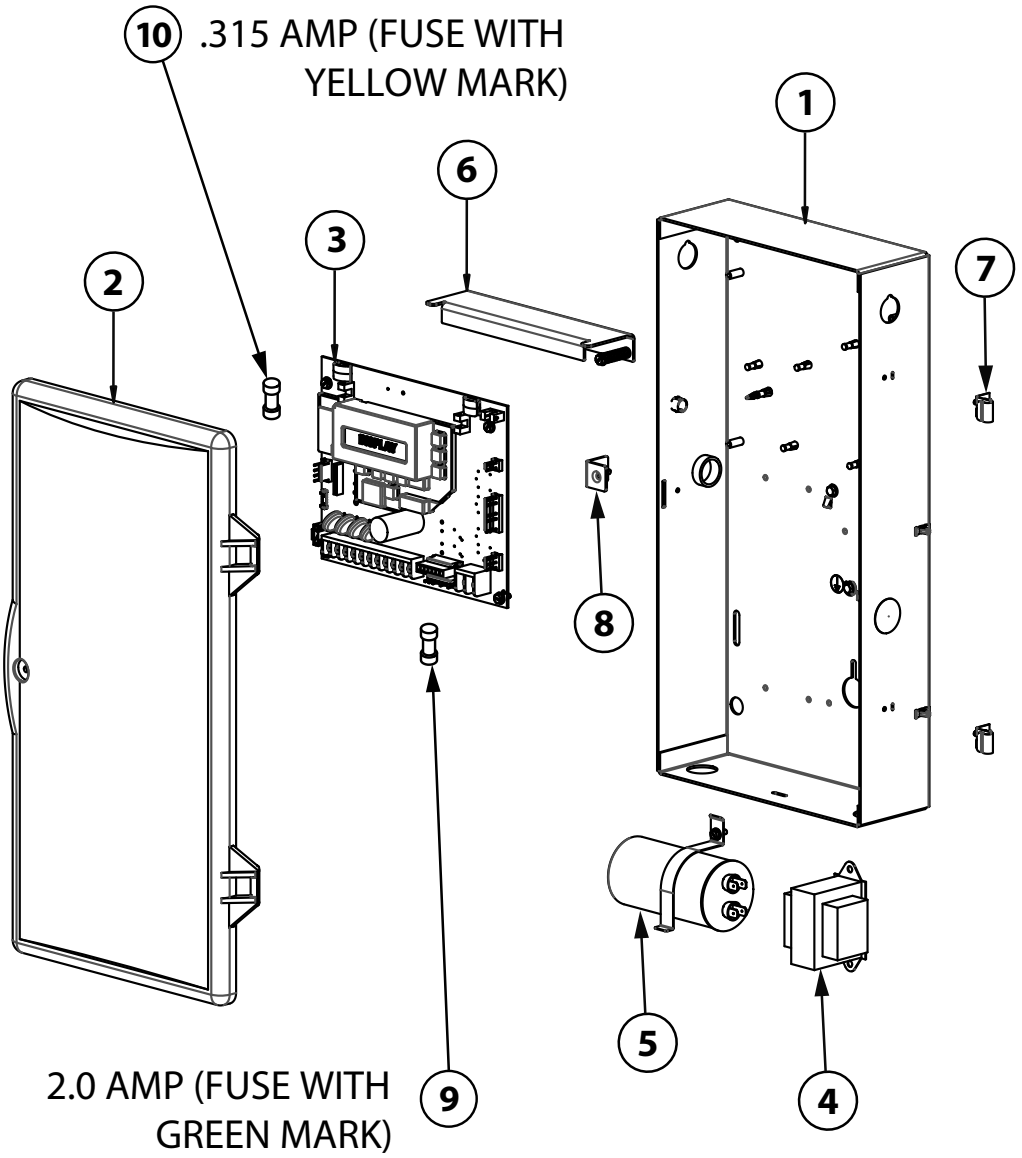
Item	Part Number	Description
1	110478.0002	Shaft, Output
2	110482.0001	Sprkt, 40T, 3/8P
3	110313.0005	Pin, Spring, .313 X 2.25
4	080415.0025	Ring, Rtng, 63/64
5	110819.0002	Washer, Plain, 1.026 Id
6	110818.0002	Washer, Wave, Spring, 1.051ID
7	080300.1604	Set Screw, 1/4-20
8	110460.0003	Sprkt, 23T, 1/4P
9	106064.0001	Bushing, 1"
10	080340.0074	Key, Sq, 1/4 X 7/8

110968.0001
LIMIT SHAFT ASSEMBLY
HOIST & JACKSHAFT



Item	Part Number	Description
1	111048.0001	Shaft, Limit
2	110459.0001	Nut, Travel
3	110550.0001	Limit Trigger
4	110823.0001	Retaining Ring, Push-On
5	110818.0003	Washer, Wave Spring, .397ID
6	077538.0000	Bushing, 3/8" ID
7	109876.0003	Ring, Rtng, .338 Dia.
8	601332.0001	Sprocket, 14T
9	080300.1604	Set Screw, 1/4-20

Service Parts: Electric Box



Item	Part Number	Description
1	110429.0002	Elec Box
2	110869.0002	Cover
3	112365.0001	Kit, PCB
4	110846.0001	Transformer, 120V
	110846.0002	Transformer, 240V
5	110962.0001	Capacitor, 115V
5	110963.0001	Capacitor, 230V
6	110958.0001	Limit Retainer
7	110950.0001	Hinge
8	110951.0001	Latch
9	34004C0002	Fuse, 2A
10	34004DR315	Fuse, .315 A
N/S	110957.0001	Fuse Kit, 10pcs ea. (9&10)

BLANK

COMMERCIAL LINE

Commercial Operator Limited Warranty

The Genie Company ("Seller") warrants to the original purchaser of this commercial door operator ("Product"), subject to all of the terms and conditions hereof, that the Product and all components thereof will be free from defects in materials and workmanship under normal use for the following period(s), measured from the date of installation.

Two (2) years or When the Operator exceeds 20,000 cycles of operation, as measured by the integrated cycle counter contained in the Operator.

Seller's obligation under this warranty is specifically limited to repairing or replacing, at its option, any part which is determined by Seller to be defective during the applicable warranty period. Any labor charges are excluded and will be the responsibility of the purchaser.

This warranty is made to the original purchaser of the Product only, and is not transferable or assignable.
This warranty does not apply to any unauthorized alteration or repair of the Product, or to any Product or component which has been damaged or deteriorated due to misuse, neglect, accident, failure to provide necessary maintenance, normal wear and tear, or acts of God or any other cause beyond the reasonable control of Seller.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SELLER BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, even if Seller has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of goodwill, loss of profits, loss of use, cost of any substitute product, interruption of business, or other similar indirect financial loss.

Claims under this warranty must be made promptly after discovery, within the applicable warranty period, and in writing to the Seller or to the authorized distributor or installer whose name and address appear below.

The purchaser must allow Seller a reasonable opportunity to inspect any Product claimed to be defective prior to removal or any alteration of its condition. Proof of the purchase and/or installation date, and identification as the original purchaser, may be required.

Model Number:_____ Serial Number:_____

Original Purchaser:_____ Installation Address:_____

Seller:_____ Date of Installation:_____

COMMERCIAL LINE

1 Door Drive
Mt. Hope OHIO 44660
1-800-843-4084