This Installation Manual provides the information required to install, troubleshoot and maintain an RMX® Commercial/Industrial Door Operator.
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Section 1: How to use this manual

The 11 sections of this Installation Manual provide the information required to install, troubleshoot and maintain an RMX® commercial/industrial door operator.

Section 2
Provides important defining information related to safety terminology used throughout this manual, as well as safety related instructions which must be followed at all times while doing any steps/tasks/instructions detailed in this manual.

Section 3
Details pre-installation concerns/issues/decisions that are recommended to be considered and/or resolved prior to beginning any commercial door operator installation.

⚠️ WARNING

Failure to correctly perform all steps in sections 4-6 can result in serious injury or death.

⚠️ AVERTISSEMENT

Ne pas effectuer correctement toutes les étapes dans les sections 4-6 peut entraîner des blessures graves voire la mort.

Sections 4-6
Provide step by step installation and set-up instructions for the RMX® commercial door operator. Each section is written such that it must be followed in a step by step order to complete a successful installation.

Sections 7-8
Detail important features and troubleshooting information for typical installation and normal operations that may occur.

Sections 9-11
Provide related information on service and maintenance items, operator drawings for use in troubleshooting and service activities, along with important warranty and returned goods policy information.

FOR ASSISTANCE CALL 1-800-275-6187

www.overheaddoor.com
## Section 2: 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 injuries, 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 Overhead Door Dealer, call 800-929-3667, and for Overhead Door Factory Technical Advice, call 800-275-6187.

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 a 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.

---

### 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 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 operator ceases to function because motor protector has tripped, a trained service technician may need to correct the condition which caused the overheating. When 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.**

---

### POTENTIAL HAZARD | EFFECT | PREVENTION
---|---|---
**MOVING DOOR** | **WARNING** Could result in Serious Injury or Death | Do **Not** operate unless the doorway is in sight and free of obstructions. Keep people clear of opening while door is moving. <br>Do **Not** allow children to play with the door operator. <br>Do **Not** change operator control to momentary contact unless an external reversing means is installed. <br>Do **Not** operate a door that jams or one that has a broken spring.

**ELECTRICAL SHOCK** | **WARNING** Could result in Serious Injury or Death | Turn off electrical power before removing operator cover. When replacing the cover, make sure wires are not pinched or near moving parts. <br>Operator must be electrically grounded.

**HIGH SPRING TENSION** | **WARNING** Could result in 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. <br>Repairs and adjustments must be made by a trained service representative using proper tools and instructions.
Section 2: Safety Information & Instructions

⚠️ 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 Overhead Door local, appelez le +1 (800) 929-3667, et pour obtenir des conseils techniques de l’usine Overhead Door, appelez le +1 (800) -275-6187.

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.

<table>
<thead>
<tr>
<th>DANGER POTENTIEL</th>
<th>EFFET</th>
<th>PRÉVENTION</th>
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<tr>
<td>PORTÉE EN MOUVEMENT</td>
<td>⚠️ AVERTISSEMENT  Pourrait entraîner des blessures graves voire la mort</td>
<td>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.</td>
</tr>
<tr>
<td>CHOC ÉLECTRIQUE</td>
<td>⚠️ AVERTISSEMENT  Pourrait entraîner des blessures graves voire la mort</td>
<td>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.</td>
</tr>
<tr>
<td>TENSION ÉLEVÉE DU RESSORT</td>
<td>⚠️ AVERTISSEMENT  Pourrait entraîner des blessures graves voire la mort</td>
<td>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.</td>
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Section 3: Critical Installation Information

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 below. 7. Interlock switches are required under certain conditions for doors with pass doors and door locks. See Section 5.7 below. 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.

WARNING: DO NOT apply line voltage until instructed to do so.

ENTRAPMENT PROTECTION
The installation of a fail safe external reversing device (such as a monitored reversing edge or photocell system, etc.) 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:
1) MillerEdge ME and MT series monitored edge sensors used in combination with Timer-Close Module P/N OPABTCX.S
2) MillerEdge ME and MT series monitored edge sensors used in combination with MillerEdge Interface Module OPAKMEIGX.S. (Direct connect through STB inputs.)
3) MillerEdge Wireless monitored edge sensor OPAMMWE.S.
4) Residential Safe-T-Beam® Monitored Photocells - P/N 37221R (OSTB-BX) and 38176R.S (includes extension brackets).
5) Series II Commercial Safe-T-Beam® Monitored Photocells - P/N OPAKPE.S and OPAKPEN4GX.S (NEMA 4).
6) Monitored Retro-Reflective Photoeye - P/N OPRAKRPEN4X.S

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

New Features:

SuperBelt® — Features patent pending automatic self-adjusting belt tension.
Section 3: Critical Installation Information

ENTRAPMENT PROTECTION
The RMX® can be used with the following UL Listed entrapment devices in compliance with UL325 requirements active starting August 29, 2010.

UNTIL ONE OF THESE MONITORED EXTERNAL ENTRAPMENT DEVICES IS INSTALLED, THE RMX® WILL NOT ALLOW MOMENTARY CONTACT OPERATION IN THE CLOSE DIRECTION.

LISTED DEVICES
- MillerEdge ME & MT series monitored edge sensors used in combination with OPABTCX.S Timer-Close Module or MillerEdge Interface Module OPAKMEIGX.S. MillerEdge Wireless monitored edge sensor OPAKMMWE.S
- Residential Safe-T-Beams® P/N 37221R (OSTB-BX) and 38176R.S (includes ext. brkt’s)
- Commercial Photoeye Kit P/N OPAKPE.S and OPAKPEN4GX.S (NEMA 4)
- Monitored Retro-Reflective Photoeye Kit P/N OPRAKRPEN4X.S

### RMX® Rolling Steel Door Chart (Sq. Ft.)

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<th>Rolling Fire Doors / Fire Shutters</th>
<th>Counter Doors</th>
<th>Grilles</th>
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* Operator must be wall mounted, order wall mount kit #111011.0001.S

### RMX® Sectional Door Chart (Sq. Ft.)

<table>
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<tr>
<th>RMX® Operator</th>
<th>Door Series -&gt;</th>
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<th>Thermacore</th>
<th>Aluminum</th>
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<td>Max. Door Height 16ft.</td>
<td>620</td>
<td>160</td>
<td>124</td>
<td>250</td>
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<tr>
<td>Side &amp; Trolley</td>
<td>620</td>
<td>160</td>
<td>124</td>
<td>250</td>
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Note: Doors that require special wind loading and wide doors normally require increased strutting (reinforcement). Strutting doors can significantly increase door weight beyond max. weight shown. Consult factory personnel in these situations.

www.overheaddoor.com 06-14 3.3
Section 3: Critical Installation Information

**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 8 feet above the floor if the operator has exposed moving parts.
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 procéder à l’installation de l’opérateur.
4) Installez l’opérateur de la porte à 2,4 m minimum au-dessus du sol lorsque des pièces mobiles de l’opérateur sont exposées.
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.
Section 4: Installation

**NOTE**: The Model RMX® Side Mount is designed to be mounted on either side of the door with the motor down and the cover to the front. Fig. 1. An alternate position is horizontal with the motor to the back and the cover facing up. No other mounting position is acceptable.

**NOTE**: Hoist versions will only have the hoist mounted on the right hand side and cannot be reversed.

**NOTE**: Units without Hoist will not have a pocket wheel as shown in the following diagrams.

**RELEASE VERSION**

The release cable must be installed on the operator before the unit is installed, Fig. 1A.
Direct Couple

1) The RMX® side mount can be directly coupled to the door shaft when the centerline of shaft is 3-3/4” OR 5”, however, some installations will require chain and sprocket coupling to the door shaft. **Fig 6**, page 4.4.

**Some reasons for chain coupling are**
- Insufficient side room or other interference.
- Change door speed for standard lift doors or full vertical doors.
- Centerline of door shaft different than 3-3/4” or 5”.

2) Determine if centerline of door shaft is 3-3/4” or 5”.
3) Adjust mounting feet on operator to required centerline distance. **Fig. 2**.
4) Slide coupling onto operator shaft on desired side (**Do Not** mount hoist model on left). **Fig. 3**.
5) Raise operator into position.
6) Slide coupling onto door counterbalance shaft. Do NOT secure coupling at this time.
7) Make certain operator and door shafts are in alignment.
8) Secure operator to the wall or mounting pads using 4 outer most mounting holes.
9) Secure Coupler

**NOTE**: The output shaft of the RMX® can be moved from side to side to increase/decrease the effective shaft length for direct coupling. This is done by loosening the set screws in the limit sprocket and shaft set collars, moving the shaft and retightening all the set screws. **Fig. 4**.
Direct Couple

**Hollow Door Shaft:**
1) Use coupling as a drill guide and drill a 3/8" diameter hole through door shaft and other side of coupling. **Fig. 5.**
2) Secure coupling to door shaft with 3/8" x 1-3/4" clevis pin and 1/16" x 3/4" cotter pin from hardware kit.

**Solid Door Shaft:**
1) Raise door until keyway of door shaft is in line with keyway of operator coupling.
2) Insert key. If keyway on door shaft restricts insertion, move coupling toward operator, insert key and return.

**Operator Output Shaft:**
1) Secure coupling to operator with set screws provided.

**NOTE:** Hoist models include an interlock switch to prevent electrical operation when hoist is engaged. See Section 5.7 below.
Chain Couple (optional)

The RMX® Side Mount Operator can be assembled for right hand mounting above or below the door shaft. Fig. 6A.

NOTE: The operator output shaft extends 3-7/8" on each side of the RMX® operator frame.

1) Attach 16 tooth sprocket to operator output shaft.
2) Align keyways and insert key into sprocket and door shaft keyway. Do not tighten set screw at this time.
3) Attach 16 tooth 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.
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. 6B.
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. 6B.

<table>
<thead>
<tr>
<th>KIT P/N</th>
<th>RATIO</th>
<th>OPENER SHAFT SPROCKET</th>
<th>DOOR SHAFT SPROCKET</th>
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<td>109049.0001</td>
<td>1:1</td>
<td>109047.0001 16T</td>
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<td>21:16</td>
<td>109048.0001 21T</td>
<td>109047.0002 16T</td>
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</table>

**Chain Coupling Kit Chart**

**Figure 6A**

**Figure 6B**

**IMPORTANT: DOOR SHAFT & OPERATOR OUTPUT SHAFT MUST BE PARALLEL.**

12"-15" CENTER DISTANCE

LOCK DOWN HOLES

NOTE: OPERATOR MUST BE SECURELY FASTENED TO THE WALL USING LOCK DOWN HOLES TO ENSURE PROPER CHAIN TENSION.

LOCK DOWN HOLES
Chain Couple (optional)

For Hollow Counterbalance Door Shaft:
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. 7A.
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. 7B.
4) Insert clevis pin through both holes and secure with cotter pin. Fig. 7C.

For Solid Counterbalance Door Shaft:
1) Insert key into door shaft keyway.
2) Slide sprocket into place and secure with set screws.

To 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. 8, pg 4.6.
Chain Couple (optional)  
Spreader Bracket
Bracket is available as an optional kit, P/N 111005.0001.S

Installation of optional chain spreader bracket: Fig 8A & 8B
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 in steps 2 through 4 in preceding instructions.
4) Install bolts and nuts through plates.
5) Tighten and align chain and plate and secure operator to wall.
6) Tighten spreader bracket bolts.

Figure 8A
Figure 8B
**Clutch Adjustment**  Fig. 9

*The MX Operators have a friction style clutch that can be adjusted.*

**NOTE:** The clutch is intended to provide protection for the door, the operator and associated equipment. It is not intended for entrapment protection.

**To Adjust the Clutch**

1) Decrease the tension on the clutch until the operator will not lift the door.
   - Turning the adjustment castle nut counter-clockwise will decrease tension and clockwise will increase tension.
2) Gradually increase tension until the operator will perform a complete open and close cycle without clutch slippage.
3) Insert a cotter pin through the adjustment castle nut and bend a leg of the cotter pin to hold it in place.

**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.

---

**Brake Adjustment**  Fig. 10

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.
Hand Chain & Keeper

1) Route the hand chain through the chain guide, around the pocket wheel and back through the chain guide. Fig. 11.

2) Connect the hand chain ends together as shown in Fig 12. 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. 13. Optional Padlock not provided.

6) Install release cable. Fig. 14.

NOTE: To insure smooth operation, make sure there are no twist in the hand chain before connecting the link ends together.
Section 5: 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.
**Line Voltage Wiring  Fig. 1**

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. **Fig. 2.**
   - Keep low voltage and line voltage wires separate.
   - Route all line voltage wires as shown.
   - Plug all unused conduit holes.

![Diagram of line voltage wiring](image-url)
Low Voltage Control Wiring (general)  Fig. 3

1) Connect all LOW VOLTAGE control circuit wires to this side of unit 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 radio control and safety circuit wiring. See Figs 4 through 14 in this section.
   - Plug all unused conduit holes.

**NOTE:** For a detailed description of control wire terminals see Appendix B.
External Wire Diagram

See Appendix B for detailed description of terminals.

CONTROL SIGNAL TERMINAL STRIP

POWER CONNECTIONS

LINE IN
120V LINE (HOT)
240V LINE 1
LINE 2
NEUTRAL
GND

OPEN CLOSE STOP GND 1-BTN ODC STB ODC STB N-O SAFETY N-O SAFETY EXT INTLK EXT INTLK

PWR
20-40 VDC @ 315mA
MAX CURRENT

EXTERNAL RADIO HARNESS

PWR
LINE IN
CLASS 2 SUPPLY 0-40 VDC

1-BTN STATION N/O
KEY SWITCH STATION N/O
CARD READER N/O
O/C PULL SWITCH N/O

REMEN JUMPER IF STOP BUTTON IS USED

MULTIPLE 3-BUTTON STATION INSTALLATIONS REQUIRE THE STOP BUTTON TO BE WIRED IN SERIES. See Fig. 5, pg 5.5

SERIES II SAFE-T-BEAM® (STB)
(CONNECT STB WIRES TO EITHER TERMINAL)

INTERFACE MODULE
(OPAKMEIGX.S)

2-WIRE MONITORED SENSING EDGE SWITCH

THRU-BEAM PHOTOCELLS

www.overheaddoor.com 06-14

5.4
Wall Control
1) For one 3-button installation, make connections as shown in Fig. 4.

⚠️ 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 pages 5.8-5.10 for installation of entrapment protection devices.

AVERTISSEMENT: Avant d’utiliser la commande à contact momentané sur le bouton FERMETURE, un dispositif d’inversion externe surveillé 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 coinement en pages 5.8-5.10.

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.
Wall Control (cont.)

2) For a multiple 3 - button installations, make connections as shown in Fig. 5.
3) For single button accessory controls, make connections as shown in Fig. 6.

**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. 6.

**NOTE:** Long Distance Relay Kit wiring is not required for long distance control runs and should not be used.

Radio Control Installation

1) For 3-wire radio control installation, make connections as shown in Fig. 7.

**NOTE:** An External Harness supplies 20-40VDC. Radios used must be compatible with this voltage range.
Interlock Switches

1) 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:
   - If the door is equipped with a functioning door lock, an interlock switch 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 must be installed at the pass-through door in order to prevent electrical operation when the pass-through door is open.

   Pass door interlock:
   Should be open when door is open.
   Closed when door is closed.

   Side lock interlock:
   Should be open when door is locked.
   Closed when door is unlocked.

   NOTE: If External Interlock is used, THE JUMPER WIRE BETWEEN THE EXT INTLK TERMINALS MUST BE REMOVED.
Photocell Wiring

Series II Safe-T-Beam® Monitored Photocells

1) Monitored SERIES II (STB) photocells (P/N OPAKPE.S) and Residential Safe-T-Beam® Monitored Photocells from Overhead Door® (P/N 37221R & 38176R.S). Fig. 9. Wiring to these photocells can be connected to either terminal (they are not polarity sensitive.) (Troubleshooting in Section 8)

NOTE: Monitored Sensing device must be installed or unit will be Constant Contact Close.

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

⚠️ 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.

Commercial Non-Monitored Photocells

1) Nominal 24 Volt DC Commercial photocells with normally open contacts can be connected as shown in Fig. 10.

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.
Sensing Edge Installation

Figure 13 shows an example of a typical sensing edge installation. Left hand side is shown but right hand is a mirror image of this.

1A) If the wiring from the sensing edge enclosure to the operator is a coiled cord or 2 wire jacketed cord:
   • Install junction box 12” above the center of the door opening on same side as sensing edge enclosure.
   • Secure one end of cord to junction box using a cable clamp.

1B) If connection is to be made through a take up reel cord:
   • Install on same side as sensing edge enclosure and above door opening and slightly to the side.
   • Install junction box adjacent to take up reel and route the stationary cord from the reel to the box and secure with a cable clamp.

NOTE: DO NOT USE TAKE UP REEL IF INSTALLING A 2 WIRE MONITORED EDGE.

2) Secure other end of cord (straight, coiled or reel) to sensing edge enclosure using a cable clamp.
3) Connect wires of cord to sensing edge using wire nuts or other suitable wire connectors.
4) Run a straight 2 wire cord from the junction box (Step 1) to the operator electrical box.
   • Secure using cable clamp on each end.
5) Join wires in cord from operator to wires in cord from junction box using wire nuts or other suitable wire connectors.

6A) Non-Monitored sensing edge connects to terminal strip on main board using (N-O SAFETY) terminals. See Fig. 12A.
6B) Monitored sensing edge connects to Timer-Close Module terminals (MON EDGE and GND) or to (ODC STB) terminals on main board through a Miller Edge Interface Module as shown in Fig. 12B.

NOTE: 2-wire Monitored Sensing Edge can also be used in combination with a Timer-Close Module.

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

AVERTISSEMENT: L’activation de l’opérateur avec un contact constant sur le bouton FERMER annulera les dispositifs de renversement externes non fonctionnels, y compris les systèmes de détection des bords.
Sensing Edge Installation (continued)

7) Operate the door to make certain cord is free to travel and does not become snared during door opening or closing.
   • Check sensing edge for proper operation.

8) While the door is closing actuate the sensing edge to verify the door reverses to open limit.

Figure 14 shows the connection of OPAKMMWES MEL Miller Edge Monitored Wireless Sensing Edge.

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

**AVERTISSEMENT:** Pour obtenir un fonctionnement correct du capteur de bord MEL, reglez chaque ensemble émetteur/récepteur sur une adresse unique. Suivez les instructions fournies avec le kit Miller Edge MEL pour définir l'adresse.
Safety Instructions

1) READ AND FOLLOW ALL INSTRUCTIONS.
2) Never let children operate or play with door controls. Keep the remote control (where provided) away from children.
3) Personnel should keep away from a door in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
4) Test the door’s safety features at least once a month. After adjusting either the force or the limit of travel, retest the door operator’s safety features. Failure to adjust the operator properly may cause severe injury or death.
5) For products having a manual release, if possible, use the manual release only when the door is closed. Use caution when operating the release while the door is open. Weak or broken springs may cause the door to fall rapidly, causing severe injury or death.
6) KEEP DOOR PROPERLY OPERATING AND BALANCED. See Door Manufacturer’s Owner’s Manual. An improperly operating or improperly balanced door could cause severe injury or death. Have only trained door systems technicians make repairs to cables, spring assemblies, other hardware and any wooden blocks or like items to which they may be attached.
7) SAVE THESE INSTRUCTIONS.

IMPORTANT SAFETY INSTRUCTIONS

WARNING-
To reduce the risk of severe injury or death:

1) READ AND FOLLOW ALL INSTRUCTIONS.
2) Never let children operate or play with door controls. Keep the remote control (where provided) away from children.
3) Personnel should keep away from a door in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
4) Test the door’s safety features at least once a month. After adjusting either the force or the limit of travel, retest the door operator’s safety features. Failure to adjust the operator properly may cause severe injury or death.
5) For products having a manual release, if possible, use the manual release only when the door is closed. Use caution when operating the release while the door is open. Weak or broken springs may cause the door to fall rapidly, causing severe injury or death.
6) KEEP DOOR PROPERLY OPERATING AND BALANCED. See Door Manufacturer’s Owner’s Manual. An improperly operating or improperly balanced door could cause severe injury or death. Have only trained door systems technicians make repairs to cables, spring assemblies, other hardware and any wooden blocks or like items to which they may be attached.
7) SAVE THESE INSTRUCTIONS.
CONSIGNES DE SÉCURITÉ IMPORTANTES

AVERTISSEMENT-
Pour réduire les risques de blessures graves ou de mort :

1) LIRE ET RESPECTER TOUTES LES INSTRUCTIONS.
2) Ne jamais permettre aux enfants d’actionner ni de jouer avec les commandes de la porte.
   Tenir les télécommandes (si fournies) hors de la portée des enfants.
3) Le personnel doit se tenir à l’écart d’une porte en mouvement et garder bien en vue une porte en mouvement jusqu’à ce qu’elle soit complètement fermée ou ouverte. PERSONNE NE DOIT TRAVERSER LA TRAJECTOIRE D’UNE PORTE EN MOUVEMENT.
4) Testez les fonctionnalités de sécurité de la porte au moins une fois par mois. Après avoir réglé la force ou la limite de la course, retestez les éléments de sécurité de l’opérateur de la porte. Un mauvais réglage de l’ouvre-porte peut entraîner des blessures graves voire la mort.
5) Pour les produits ayant un déclenchement manuel, dans la mesure du possible, utilisez le déclenchement manuel uniquement lorsque la porte est fermée. Prenez toutes les précautions nécessaires lors de l’utilisation du déclenchement manuel alors que la porte est ouverte. Des ressorts faibles ou brisés peuvent faire descendre la porte rapidement ce qui peut entraîner des blessures graves voire la mort.
6) VEILLER À CE QUE LA PORTE SOIT CORRECTEMENT ÉQUILIBRÉE ET FONCTIONNE BIEN. Consultez le manuel de l’utilisateur du fabricant de la porte. Une porte déséquilibrée ou fonctionnant incorrectement pourrait entraîner de graves blessures voire la mort. Seuls des techniciens formés sur systèmes de portes peuvent effectuer des réparations aux câbles, aux ressorts, aux autres matériels et aux blocs de bois ou éléments semblables auxquels ces éléments peuvent être attachés.
7) CONSERVER CES CONSIGNES.
Section 6: Operator Setup Procedure

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. See Appendix C (pgs. 10.7-10.9) for full display descriptions.

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.

NOTE: During Setup, refer to Caution Label for limited use (pictured on page 5.5)

⚠️ DANGER: After power is supplied to the operator, Do Not make contact with components inside the control panel except for the Keypad Keys. Fig. 1.

⚠️ 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. Fig. 1.

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 Appendix C.

NOTE: The CAL/RUN key will not toggle between operator modes while the operator is running.

⚠️ WARNING: DO NOT calibrate operator or operate door unless doorway is in sight and free 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.
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-STOP.” Fig. 3.
3) Press SCROLL (DN) until display reads “CLOSE MODE.” Fig. 4.

Continued on next page.
4) Press SET/CLEAR until display reads “CLOSE MODE > C-STP.”

**Fig. 5.**

**WARNING:** If a monitored external reversing device is not used, then the operator will run Constant Contact Close. Verify close mode is set to “C-STP” and NOT “C-REV” or “MOM” before continuing.

**AVERTISSEMENT:** Si un dispositif d'inversion externe contrôlé n'est pas utilisé, l'opérateur enclenchera la fermeture au contact constant. Vérifier que le mode de fermeture est réglé sur « C-STP » et NON PAS « C-REV » ou « MOM » avant de continuer.

5) Press CAL/RUN to return to run mode.
Setting Limit Travel

1) Engage door to Operator.

**NOTE:** Verify open and close operating modes are set to constant contact – Stop (C-STP). See page 6.2 for details.

2) Press CAL/RUN until operator is in 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 “GDO shutdown> MRT / Hit key to reset,” see page 6.7 “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) 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.
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 CAL-RUN to enter calibration mode
2) Press scroll (▼) until the display reads “LIMIT OVERRUN >0-9).” Fig. 8.
3) Press SET/CLEAR until the display reads the desired value.
4) Press the OPEN key to open the door a few feet, then release
5) Press the CLOSE key to close the door and hold until the operator stops.
6) Check the door seal and repeat steps 3-5 until the appropriate seal is obtained between the door and the floor.

⚠️ 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 6.4. 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 6.4. Régler ensuite le dépassement de limite tel qu’indiqué ci-dessus.

7) Press CAL-RUN to return to run mode.
Monitored Reversing Devices

**ODC Safe-T-Beams® (OPTIONAL)**

1) If operator is in RUN mode, press CAL/RUN \[ \] to enter calibration mode.
2) Press SCROLL \[ \] (up or down) until display reads “ODC STB>ON” or “ODC STB>OFF” Figure 9.
3) Press SET/CLEAR \[ \] key to toggle between ON and OFF.
4) Press SCROLL \[ \] (up or down) to shift to a new function and lock setting.
5) Press CAL/RUN \[ \] to return to run mode.

**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 through the doorway.

**AVERTISSEMENT:** Les systèmes de cellules photoélectriques fournissent une protection contre le coinement 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.

**NOTE:** Installation of Series II Monitored Photocells DOES NOT make the RMX® unit legal for residential use. The Overhead Door Corporation strictly prohibits any installation of an RMX® unit in any residentially zoned construction.

**Current UL Approved Monitored Reversing Devices**

1) MillerEdge ME and MT series monitored edge sensors used in combination with Timer-Close Module P/N OPABTCKX.S.
2) MillerEdge ME and MT series monitored edge sensors used in combination with MillerEdge Interface Module OPAKMEIGX.S. (Direct connect through STB inputs).
3) MillerEdge Wireless monitored edge sensor OPAKMMWE.S.
4) Residential Safe-T-Beam® Monitored Photocells - P/N 37221R (OSTB-BX) and 38176R.S (includes extension brackets)
5) Series II Commercial Safe-T-Beam® Monitored Photocells - P/N OPAKPE.S and OPAKPEN4GX.S (NEMA 4).
6) Monitored Retro-Reflective Photoeye - P/N OPRAKRPEN4X.S

![Figure 9](image-url)
Max Run Timer

This operator will automatically set its maximum run timers (MRT) when the unit is run two full cycles from limit to limit, without stopping, in the run mode. The Max Run Timer is a feature that prevents the unit from running continuously in the event of a slipping clutch, etc.

**NOTE:** The MRT’s are set to the time required to run from one limit to the other, plus 5 seconds (nominal). When the MRT is exceeded, the operator shuts down.

The operator will not respond to any command until the error is cleared by pressing one of the calibration keys or by cycling power to the unit.

Resetting the Max Run Timers

The Maximum Run timers can be reset using this procedure:

1) Press CAL/RUN to enter calibration mode.
2) Press Scroll (DN) until display reads “MAX RUN TMR > SET.”
3) Press SET/CLEAR until display reads “MAX RUN TMR > CLEAR.”
4) Press CAL/RUN to return to run mode.
5) Run the door two full cycles from limit to limit, without stopping, in the run mode.

**NOTE:** The Max Run Timers must be reset each and every time the travel limits are adjusted.

![MAX RUN TMR CLR](image)
Setting the Mid-Stop

The RMX® Operator includes a programmable Mid-Stop. This feature allows the operator stop at a user selectable point when opening. It is used when operating very tall doors that only open to their full height occasionally. The Mid-Stop does not effect the operator when closing.

1) To operate door to full open position from mid-stop, press open button again.

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

**To set the Mid-Stop:**

1) Press CAL/RUN to enter calibration mode.
2) Press the CLOSE key to close the door to the down limit.
3) Press SCROLL (DN) until the display reads “MID-STOP > CLEAR.”

![Figure 11](image)

**NOTE**: If the display reads MID-STOP > SET at this point, first clear the MID-STOP as described below then repeat steps 1-3 and continue.

4) Press the OPEN key to open the door and release the key when the door is at the desired Mid-Stop height.
5) Press the SET/CLEAR until the display reads “MID-STOP > SET.”
6) Press CAL/RUN to return to run mode.

**To clear the Mid-Stop:**

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (DN) until the display reads MID-STOP > SET.
3) Press SET/CLEAR until the display reads MID-STOP > CLR
4) Press CAL/RUN to return to run mode.
Changing Open and Close Modes

**NOTE:** Once the travel limit and safety modes have been set, the OPEN and CLOSE modes may be set for Momentary Contact if desired.

**NOTE:** The radio control input will not operate when the open or close mode is set in the Constant Contact mode. Operating modes affect all control inputs and keys.

**To set the OPEN mode: Fig. 12**

1. Press CAL/RUN to enter the calibration mode.
2. Press SCROLL (▲) or (▼) until display reads “OPEN MODE > .”
   - This displays current setting.
3. Press SET/CLEAR until the display reads the desired operating mode:
   - C-STOP = Constant contact is required to open door. Door will stop if button or key is released before operator reaches its limit.
   - MOM = Momentary contact will cause door to open to limit.
4. Press CAL/RUN to return to run mode.

**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 pages 5.8-5.10 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 coinement en pages 5.8-5.10.

Continued on next page.
Changing Open and Close Modes (cont.)

To set the CLOSE mode: Fig. 13.

1) Press CAL/RUN to enter the calibration mode.
2) Press SCROLL (▲) or (▼) until display reads “CLOSE MODE > “. This displays current setting.
3) Press SET/CLEAR until the display reads the desired operating mode:
   • C-STP = Constant contact is required to close door. Door will stop if button or key is released before operator reaches its limit.
   • C-REV = Constant contact is required to close the door. Door will reverse automatically if close button or key is released before door reaches down limit.
   • MOM = Momentary contact will cause door to close to limit.
4) Press CAL/RUN to return to run mode.
Section 7: Special Operator Features

Operator Cycle Count  Fig. 1

RMX® operators include a built-in cycle counter that store the count with or without power to the operator.

To view the Cycle Count:

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (DN) or (UP) until display reads “CYCLES > .” This will display current cycle count.
3) Press CAL/RUN to return to run mode.

Circuit Board Firmware Version  Fig. 2

RMX® operators can display the version number of the firmware used in the on-board micro-controller.

To view this version number:

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (DN) or (UP) until the display reads “FIRMWARE > .” This will display the current firmware version number.
3) Press CAL/RUN to return to run mode.
**Operator Type  Fig. 3**

RMX® operators are available for use in jackshaft or trolley configurations. The same control board is used for either configuration, however 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 (DN) or (UP) until display reads “GDO TYPE >.” This will display the current GDO type.

3) Press SET/CLEAR until display indicates correct GDO type (J-SHAFT or TROLLEY)

4) Press CAL/RUN to return to run mode.
Display Operation in Run Mode

RMX® operators display their status on the integral 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 RMX® 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 RMX® operator’s Error Code Memory after they have been cleared from the display in the Run Mode.

Error Codes

To aid in troubleshooting problems, RMX® operators include an error code memory that stores the last 10 error events. These codes are stored with or without power. The last 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 the last 10 error 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 error code and the 2-digit error code followed by a description of the error code. Fig. 1 & 2.
Error Codes (cont’)

To view the error code memory: (Fig. 1 & 2)
1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (UP) or (DN) until display reads “ERROR CODE 1 >.”
   - The display will begin flashing the error code number and 2-digit error code followed by its description.
   - Reminder: Error code number 1 is the latest code generated.
3) Press SET/CLEAR. The display will now read “ERROR CODE 2 >.”
   (This is the error code which was generated before error code 1.)
4) Repeat step 3 until all 10 error codes have been displayed or move on to step 5 when ready.
5) Press CAL/RUN to return to run mode.

NOTE: For all error codes see Appendix C, Sections 10.8 - 10.9.

Run Codes

RMX® operators also include a run code memory that stores the last 10 run 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 (Why the operator ran or stopped). Used together with the error code memory, it becomes a powerful troubleshooting aid.

The run code memory stores the last 10 error 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. Fig. 3 & 4.
Run Codes (cont')

To view the run code memory: (Fig. 3 & 4)

1) Press CAL/RUN to enter calibration mode.
2) Press SCROLL (UP) or (DN) until display reads “RUN CODE 1 > .”
   • The display will begin flashing the run code number and code followed by its description.
   • Remember: run code number 1 is the latest code generated.
3) Press SET/CLEAR. The display will now read “RUN CODE 2 > .”
   (This is the run code which was generated before run code 1.)
4) Repeat step 3 until all 10 run codes have been displayed or move on to step 5 when ready.
5) Press CAL/RUN to return to run mode.

NOTE: For all run codes see Appendix C, Section 10.7.

TROUBLESHOOTING EXAMPLE USING RUN AND ERROR CODE MEMORIES. Fig. 5.

1. In Calibration Mode, display and write down each Run Code and Error Code stored in memory.
2. List as shown below.
3. Refer to Appendix C to interpret the codes.

In this example, the operator was opened using the OPEN key on the keypad and stopped at the up limit. The OPEN wall button was then activated, causing the “6D” code to be generated since the operator could not open when it is already at the up limit. The CLOSE wall button was then activated, causing the operator to close. While closing, the Normally-Open (N-O) Safety Input was activated, causing the operator to stop and then reverse, stopping at the up limit.

Figure 5

<table>
<thead>
<tr>
<th>ERROR CODES</th>
<th>RUN CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER</td>
<td>CODE</td>
</tr>
<tr>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>6D</td>
</tr>
<tr>
<td>3</td>
<td>00</td>
</tr>
<tr>
<td>4</td>
<td>00</td>
</tr>
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<td>5</td>
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<td>00</td>
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<tr>
<td>10</td>
<td>00</td>
</tr>
</tbody>
</table>

RMX STORES “00” CODES IN UNUSED RUN AND ERROR CODE MEMORY LOCATIONS AT THE TIME OF MANUFACTURE. AS ERROR OR RUN CODES ARE RECORDED, THE “00” CODES ARE REPLACED WITH VALID CODES.

www.overheaddoor.com 06-14 8.3
**LED Indicators**  Fig. 6

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

![Diagram of LED indicators](image)

### Troubleshooting LED’s

<table>
<thead>
<tr>
<th>STB ENABLED</th>
<th>HOIST INTERLOCK</th>
<th>EXTERNAL INTERLOCK</th>
<th>+24 VOLTS DC</th>
<th>INDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>STB DISABLED</td>
</tr>
<tr>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>STB ENABLED</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>NORMAL OPERATING CONDITION</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>EXTERNAL INTERLOCK OPEN</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>POWER SUPPLY PROBLEM: 1) CHECK AC POWER SUPPLY. 2) CHECK MAIN POWER FUSE. 3) CHECK SECONDARY FUSE (2A).</td>
</tr>
</tbody>
</table>

**Figure 6**
### Safe-T-Beam® Monitored Photocell Self-diagnostic Troubleshooting Chart

<table>
<thead>
<tr>
<th>SOURCE (RED LED)</th>
<th>SENSOR (GREEN LED)</th>
<th>INDICATED CONDITION</th>
<th>REQUIRED ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>● ON</td>
<td>● ON</td>
<td>NORMAL OPERATION</td>
<td>NONE REQUIRED</td>
</tr>
</tbody>
</table>
| ○ OFF           | ○ OFF              | 1. POWER HEAD NOT POWERED  
2. WIRING FROM POWER HEAD BAD | 1. CHECK BREAKERS, FUSES, PLUGS  
2. CHECK WIRING FOR OBVIOUS SHORTS |
| ○ OFF           | ● ON               | 1. WIRING TO SOURCE MISSING OR BAD  
2. POWER HAS BEEN INTERRUPTED | 1. CHECK WIRING  
2. REMOVE POWER AND REAPPLY |
| 2 BLINKS, PAUSE (REPEAT) | ● ON            | 1. BEAM NOT ALIGNED  
2. BEAM OBSTRUCTED  
3. SENSOR DEFECTIVE | 1. CHECK ALIGNMENT  
2. CHECK FOR OBSTRUCTION  
3. CALL CUSTOMER SERVICE |
| 2 BLINKS, PAUSE (REPEAT) | ○ OFF           | 1. WIRE TO SENSOR MISSING OR BAD  
2. SENSOR DEFECTIVE | 1. CHECK WIRING  
2. CALL CUSTOMER SERVICE |
| 3 BLINKS, PAUSE (REPEAT) | ● ON            | 1. SENSOR RECEIVING INTERFERENCE | 1. ATTEMPT TO DETERMINE SOURCE OF INTERFERENCE  
2. CALL CUSTOMER SERVICE |
| 4 BLINKS, PAUSE (REPEAT) | ● ON            | 1. SOURCE NOT SENDING PULSES  
2. SOURCE DEFECTIVE | 1. CALL CUSTOMER SERVICE  
2. CALL CUSTOMER SERVICE |

⚠️ **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 UTILISANT UN CONTACT CONSTANT SUR LE BOUTON FERMER ANNULERA LES DISPOSITIFS D’INVERSIONS EXTERNES, Y COMPRIS LES CELLULES PHOTOELECTRIQUES.

⚠️ **WARNING:** Overhead Door Corporation recommends that line voltage wiring be performed by qualified electrician. See Section 5 for additional wiring instructions.

⚠️ **AVERTISSEMENT:** Overhead Door Corporation recommande que le câblage au secteur soit effectué par un électricien qualifié. Voir la section 5 pour des instructions supplémentaires sur le câblage.
Section 9: Service and Maintenance

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

<table>
<thead>
<tr>
<th>SERVICE ITEM</th>
<th>SERVICE INTERVAL (FREQUENCY)</th>
<th>EVERY 6 MO. OR 5,000 CYCLES</th>
<th>EVERY 12 MO. OR 10,000 CYCLES</th>
<th>EVERY 36 MO. OR 30,000 CYCLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUAL OPERATION OF DOOR</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>DRIVE CHAIN TENSION</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>* PHOTOCELL/SENSING EDGE</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>OPERATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLUTCH ADJUSTMENT</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>BRAKE ADJUSTMENT</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>CHECK FOR LOSE OR MISSING</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>HARDWARE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHECK LIMIT POSITION</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>GEAR TRAIN WEAR</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
</tbody>
</table>

* ALL EXTERNAL REVERSING DEVICES SHOULD BE CHECKED MONTHLY.

⚠️ CAUTION: Failure to perform the recommended Service and 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.
# Basic Hoist Operator Parts

## PARTS LIST

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>110380.0001</td>
<td>ELECTRIC MOTOR, 1/2HP, 120V</td>
</tr>
<tr>
<td>2</td>
<td>110380.0002</td>
<td>ELECTRIC MOTOR, 1/2HP, 240V</td>
</tr>
<tr>
<td>3</td>
<td>110953.0001</td>
<td>BRAKE SOLENOID, 115V</td>
</tr>
<tr>
<td>4</td>
<td>110954.0001</td>
<td>BRAKE SOLENOID, 230V</td>
</tr>
<tr>
<td>5</td>
<td>110956.0001</td>
<td>BRAKE BAND</td>
</tr>
<tr>
<td>6</td>
<td>110875.0001</td>
<td>INTERLOCK SWITCH</td>
</tr>
<tr>
<td>7</td>
<td>110803.0001</td>
<td>OPERATOR CHASSIS, RIGHT</td>
</tr>
<tr>
<td>8</td>
<td>110804.0001</td>
<td>BRAKE RELEASE LEVER</td>
</tr>
<tr>
<td>9</td>
<td>110877.0058</td>
<td>RELEASE PULLEY</td>
</tr>
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<td>10</td>
<td>110970.0001</td>
<td>HOIST RELEASE</td>
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<tr>
<td>11</td>
<td>110973.0001</td>
<td>OPERATOR CHASSIS, LEFT</td>
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<tr>
<td>12</td>
<td>110952.0001</td>
<td>CLUTCH KIT</td>
</tr>
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<td>13</td>
<td>110977.0001</td>
<td>BRAKE SOLENOID COVER</td>
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<tr>
<td>14</td>
<td>110833.0001</td>
<td>BRUSHED MOTOR, 1/2HP, 240V</td>
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<tr>
<td>15</td>
<td>110979.0001</td>
<td>OUTPUT PULLEY</td>
</tr>
<tr>
<td>16</td>
<td>111010.0001</td>
<td>BELT, POLY-V</td>
</tr>
<tr>
<td>17</td>
<td>110803.0001</td>
<td>SUPPORT BRACE</td>
</tr>
<tr>
<td>18</td>
<td>110804.0001</td>
<td>SUPPORT BRACKET</td>
</tr>
<tr>
<td>19</td>
<td>110808.0001</td>
<td>BRAKE ADJUSTMENT PLATE</td>
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<td>20</td>
<td>110887.0008</td>
<td>CHAIN, #35 X 58P</td>
</tr>
<tr>
<td>21</td>
<td>110865.1006</td>
<td>CHAIN, #35 X 74P</td>
</tr>
<tr>
<td>22</td>
<td>110898.0001</td>
<td>LIMIT SWITCH</td>
</tr>
<tr>
<td>23</td>
<td>110984.0001</td>
<td>BRUSHED MOTOR, 1/2HP, 240V</td>
</tr>
<tr>
<td>24</td>
<td>110998.0001</td>
<td>CLUTCH ASSY</td>
</tr>
<tr>
<td>25</td>
<td>110877.0064</td>
<td>CHAIN, #35 X 58P</td>
</tr>
<tr>
<td>26</td>
<td>110988.0001</td>
<td>ELECTRIC BOX (SEE PAGE 10.5)</td>
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Basic Jackshaft Operator Parts

Section 10: Appendix A

<table>
<thead>
<tr>
<th>PARTS LIST</th>
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# Appendix A (cont’)

## Basic Clutch Shaft Assembly Parts

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</tbody>
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---

110970.0001 CLUTCH KIT

110988.0001 HOIST CLUTCH SHAFT KIT

110973.0001 HANDWHEEL KIT

110992.0001 JACKSHAFT CLUTCH SHAFT KIT
Appendix A (cont’)

Basic Output Shaft Parts
110984.0001
OUTPUT SHAFT ASSEMBLY
HOIST & JACKSHAFT

Basic Limit Shaft Parts
110968.0001
LIMIT SHAFT ASSEMBLY
HOIST & JACKSHAFT
Appendix A (cont’)

Basic Electric Box Parts

<table>
<thead>
<tr>
<th>PART NO.</th>
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<tr>
<td>110429.0002</td>
<td>ELEC BOX</td>
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<tr>
<td>110869.0002</td>
<td>COVER</td>
</tr>
<tr>
<td>111883.0001</td>
<td>KIT, PCB</td>
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<tr>
<td>110846.0001</td>
<td>TRANSFORMER, 120V</td>
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<tr>
<td>110846.0002</td>
<td>TRANSFORMER, 240V</td>
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<tr>
<td>110962.0001</td>
<td>CAPACITOR, 115V</td>
</tr>
<tr>
<td>110963.0001</td>
<td>CAPACITOR, 230V</td>
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<tr>
<td>110958.0001</td>
<td>LIMIT RETAINER</td>
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<td>110950.0001</td>
<td>HINGE</td>
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<tr>
<td>110951.0001</td>
<td>LATCH</td>
</tr>
<tr>
<td>34004C0002</td>
<td>FUSE, 2A</td>
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<tr>
<td>34004DR315</td>
<td>FUSE, 315 A</td>
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## Screw Terminal Assignments

### Section 10: Appendix B

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<thead>
<tr>
<th>INPUT</th>
<th>FUNCTION</th>
<th>CONNECTION TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11-POSITION TERMINAL BLOCK</strong> &lt;br&gt;INSIDE ELECTRIC BOX</td>
<td><strong>OPEN</strong>&lt;br&gt;Causes door to open if not at Up Limit. Causes a closing door to reverse.</td>
<td>Normally-Open Dry Contact to GND.</td>
</tr>
<tr>
<td></td>
<td><strong>CLOSE</strong>&lt;br&gt;Causes door to close if not at Down Limit.</td>
<td>Normally-Open Dry Contact to GND.</td>
</tr>
<tr>
<td></td>
<td><strong>STOP</strong>&lt;br&gt;Causes a moving door to stop. Prevents the operator from running.</td>
<td>Normally-Closed Dry Contact to GND.</td>
</tr>
<tr>
<td></td>
<td><strong>GND</strong>&lt;br&gt;Common ground connection for Open, Close, Stop &amp; 1-Btn Inputs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>1-BTN</strong>&lt;br&gt;Causes door to open if not at Up Limit or Mid-Stop Limit. Causes door to close if at Up Limit or Mid-Stop Limit. Causes door to stop if opening. Causes a closing door to reverse.</td>
<td>Normally-Open Dry Contact to GND.</td>
</tr>
<tr>
<td></td>
<td><strong>ODC STB</strong>&lt;br&gt;Reverses a closing door if photocell beam is blocked. NOTE: STB’s must be enabled in Calibration Mode.</td>
<td>ODC Series II Safe-T-Beams® ONLY to these inputs. (not polarity sensitive)</td>
</tr>
<tr>
<td></td>
<td><strong>N-O SAFETY</strong>&lt;br&gt;Causes a closing door to reverse. NOTE: Will not open a stopped door.</td>
<td>Normally-Open 2-Wire Non-Monitored Edge Sensor. (not polarity sensitive)</td>
</tr>
<tr>
<td></td>
<td><strong>N-O SAFETY</strong>&lt;br&gt;Causes a closing door to reverse. NOTE: Will not open a stopped door.</td>
<td>Normally-Open 2-Wire Non-Monitored Edge Sensor. (not polarity sensitive)</td>
</tr>
<tr>
<td></td>
<td><strong>EXT INTLK</strong>&lt;br&gt;Causes a moving door to stop. Prevents the operator from running when contact is open. Operates even if microcontroller is non-functional.</td>
<td>Normally-Closed dry contacts. (board will energize these contacts at nominal +24VDC).</td>
</tr>
<tr>
<td></td>
<td><strong>EXT INTLK</strong>&lt;br&gt;Causes a moving door to stop. Prevents the operator from running when contact is open. Operates even if microcontroller is non-functional.</td>
<td>Normally-Closed dry contacts. (board will energize these contacts at nominal +24VDC).</td>
</tr>
</tbody>
</table>

| **2-POSITION TERMINAL BLOCK** <br>INSIDE ELECTRIC BOX | **L1 / L1**<br>Power to operator. | 120VAC: Connect to Line (Hot) / 240VAC: Connect to Line 1. |
| | **N / L2**<br>Power to operator. | 120VAC: Connect to Neutral / 240VAC: Connect to Line 2. |

### Other Connections

| RADIO AND ACCESSORIES PIGTAIL | **PWR**<br>Power for radio & other accessories. +20 to +40VDC, fused at 315mA (F1). | Connect to radio or other accessory’s power input. |
| | **RAD**<br>(Radio Input Control) Causes door to open if not at Up Limit or Mid-Stop Limit. Causes door to close if at Up Limit or Mid-Stop Limit. Causes a closing door to reverse. | Connect to radio or other accessory’s signal (output). |
| | **GND**<br>Common ground connection for PWR and RAD terminals. | Connect to radio or other accessory’s ground input. |

| CONNECTOR INSIDE ELECTRIC BOX | **EXPANSION PORT**<br>Connects accessory modules to operator. | Accessory Module Ribbon Cable. |
| | **TRANSFORMER**<br>Connects main transformer to control board. | Transformer Plug. |
| | **TRANSFORMER**<br>Connects secondary transformer to control board. | Transformer Plug. |
| | **MOTOR**<br>Connects motor and capacitor to control board. | Motor Plug. |
| | **HOIST INTLK**<br>Causes moving door to stop. Prevents the operator from running. Operates even if microcontroller is non-functional. | Hoist Interlock Plug or Jumper. |
| | **BRAKE**<br>Connects brake solenoid to control board. | Brake Solenoid Plug. |
## Display Run Codes

<table>
<thead>
<tr>
<th>Condition Code</th>
<th>DISPLAY</th>
<th>Condition Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0C</td>
<td>IDLE &gt; DOWN LIMIT</td>
<td>STANDING BY AT DOWN LIMIT (NOTE: THIS MESSAGE IS DISPLAYED IF BOTH LIMITS ARE ACTIVE)</td>
</tr>
<tr>
<td>0D</td>
<td>IDLE &gt; UP LIMIT</td>
<td>STANDING BY AT UP LIMIT</td>
</tr>
<tr>
<td>0E</td>
<td>IDLE &gt; MID STOP</td>
<td>STANDING BY AT MID-STOP LIMIT</td>
</tr>
<tr>
<td>0F</td>
<td>IDLE &gt; NO LIMIT</td>
<td>STANDING BY BETWEEN LIMITS</td>
</tr>
<tr>
<td>10</td>
<td>OPENING &gt; OPEN BTN</td>
<td>OPENING FROM OPEN BUTTON</td>
</tr>
<tr>
<td>11</td>
<td>OPENING &gt; ONE BTN</td>
<td>OPENING FROM 1 BUTTON</td>
</tr>
<tr>
<td>12</td>
<td>OPENING &gt; RADIO</td>
<td>OPENING FROM RADIO</td>
</tr>
<tr>
<td>13</td>
<td>OPENING &gt; AUX OPEN</td>
<td>OPENING FROM AUXILIARY OPEN INPUT</td>
</tr>
<tr>
<td>14</td>
<td>OPENING &gt; OPEN KEY</td>
<td>OPENING FROM KEYPAD OPEN KEY</td>
</tr>
<tr>
<td>20</td>
<td>CLOSING &gt; CLOSE PB</td>
<td>CLOSING FROM CLOSE BUTTON</td>
</tr>
<tr>
<td>21</td>
<td>CLOSING &gt; ONE BTN</td>
<td>CLOSING FROM 1 BUTTON</td>
</tr>
<tr>
<td>22</td>
<td>CLOSING &gt; RADIO</td>
<td>CLOSING FROM RADIO</td>
</tr>
<tr>
<td>24</td>
<td>CLOSING &gt; CLOSE KP</td>
<td>CLOSING FROM KEYPAD CLOSE KEY</td>
</tr>
<tr>
<td>2A</td>
<td>CLOSING &gt; TCM CLS</td>
<td>CLOSING FROM TIMER CLOSE MODULE</td>
</tr>
<tr>
<td>30</td>
<td>HALT &gt; WALL BUTTON</td>
<td>GDO STOPPED BECAUSE STOP OR OPEN BUTTON WAS ACTIVATED, POSSIBLY STARTING A REVERSAL</td>
</tr>
<tr>
<td>31</td>
<td>HALT &gt; ONE BUTTON</td>
<td>GDO STOPPED BECAUSE 1 BUTTON WAS ACTIVATED, POSSIBLY STARTING A REVERSAL</td>
</tr>
<tr>
<td>32</td>
<td>HALT &gt; RADIO</td>
<td>GDO STOPPED BECAUSE RADIO INPUT WAS ACTIVATED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>33</td>
<td>HALT &gt; AUX. OPEN</td>
<td>GDO STOPPED BECAUSE AUXILIARY OPEN INPUT WAS ACTIVATED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>34</td>
<td>HALT &gt; KEYPAD KEY</td>
<td>GDO STOPPED BECAUSE KEYPAD STOP OR OPEN KEY WAS ACTIVATED, POSSIBLY STARTING A REVERSAL</td>
</tr>
<tr>
<td>35</td>
<td>HALT &gt; N-O SAFETY</td>
<td>GDO STOPPED BECAUSE N-O REVERSING INPUT WAS ACTIVATED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>36</td>
<td>HALT &gt; ODC STB</td>
<td>GDO STOPPED BECAUSE ODC STB WAS BLOCKED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>37</td>
<td>HALT &gt; N-C SAFETY</td>
<td>GDO STOPPED BECAUSE N-C REVERSING INPUT WAS ACTIVATED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>38</td>
<td>HALT &gt; MON. EDGE</td>
<td>GDO STOPPED BECAUSE MONITORED EDGE SENSOR INPUT WAS ACTIVATED, STARTING A REVERSAL</td>
</tr>
<tr>
<td>39</td>
<td>HALT &gt; DOOR FORCE</td>
<td>GDO STOPPED BECAUSE THE FORCE REQUIRED TO OPERATE THE DOOR WAS TOO HIGH, POSSIBLY STARTING A REVERSAL</td>
</tr>
<tr>
<td>3A</td>
<td>HALT &gt; LOSS OF C/C</td>
<td>GDO STOPPED BECAUSE CONSTANT CONTACT ON THE CONTROL WAS REMOVED BEFORE REACHING A LIMIT, POSSIBLY STARTING A REVERSAL</td>
</tr>
<tr>
<td>3B</td>
<td>HALT &gt; SHUTDOWN</td>
<td>GDO STOPPED BECAUSE THE GDO DETECTED A FAULT SUCH AS AN OPEN INTERLOCK, OVERHEATED MOTOR, ETC.</td>
</tr>
<tr>
<td>3C</td>
<td>HALT &gt; DOWN LIMIT</td>
<td>GDO STOPPED BECAUSE IT REACHED THE DOWN LIMIT</td>
</tr>
<tr>
<td>3D</td>
<td>HALT &gt; UP LIMIT</td>
<td>GDO STOPPED BECAUSE IT REACHED THE UP LIMIT</td>
</tr>
<tr>
<td>3E</td>
<td>HALT &gt; MID STOP</td>
<td>GDO STOPPED BECAUSE IT REACHED THE MID-STOP LIMIT</td>
</tr>
<tr>
<td>3F</td>
<td>HALT &gt; MODULE FAIL</td>
<td>GDO STOPPED BECAUSE AN EXPANSION MODULE WAS NOT WORKING PROPERLY</td>
</tr>
</tbody>
</table>
## Section 10: Appendix C

### Display Error Codes

<table>
<thead>
<tr>
<th>Condition Code</th>
<th>Display</th>
<th>Condition Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>REV &gt; OPEN BUTTON</td>
<td>GDO REVERSED BECAUSE THE OPEN BUTTON WAS ACTIVATED</td>
</tr>
<tr>
<td>41</td>
<td>REV &gt; ONE BUTTON</td>
<td>GDO REVERSED BECAUSE THE 1 BUTTON WAS ACTIVATED</td>
</tr>
<tr>
<td>42</td>
<td>REV &gt; RADIO</td>
<td>GDO REVERSED BECAUSE THE RADIO INPUT WAS ACTIVATED</td>
</tr>
<tr>
<td>43</td>
<td>REV &gt; AUX OPEN</td>
<td>GDO REVERSED BECAUSE THE AUXILIARY OPEN INPUT WAS ACTIVATED</td>
</tr>
<tr>
<td>44</td>
<td>REV &gt; OPEN KEY</td>
<td>GDO REVERSED BECAUSE THE KEYPAD OPEN KEY WAS ACTIVATED</td>
</tr>
<tr>
<td>45</td>
<td>REV &gt; N-O SAFETY</td>
<td>GDO REVERSED BECAUSE THE N-O REVERSING INPUT WAS ACTIVATED</td>
</tr>
<tr>
<td>46</td>
<td>REV &gt;  ODC STB</td>
<td>GDO REVERSED BECAUSE THE ODC STB WAS BLOCKED</td>
</tr>
<tr>
<td>47</td>
<td>REV &gt; N-C SAFETY</td>
<td>GDO REVERSED BECAUSE THE N-C REVERSING INPUT WAS ACTIVATED</td>
</tr>
<tr>
<td>48</td>
<td>REV &gt; MON. EDGE</td>
<td>GDO REVERSED BECAUSE THE MONITORED EDGE SENSOR WAS ACTIVATED</td>
</tr>
<tr>
<td>49</td>
<td>REV &gt; DOOR FORCE</td>
<td>GDO REVERSED BECAUSE THE FORCE REQUIRED TO CLOSE THE DOOR WAS TOO HIGH</td>
</tr>
<tr>
<td>4A</td>
<td>REV &gt; LOSS OF C/C</td>
<td>GDO REVERSED BECAUSE CONSTANT CONTACT ON THE CONTROL WAS REMOVED BEFORE REACHING THE DOWN LIMIT</td>
</tr>
<tr>
<td>4B</td>
<td>REV &gt; MAX RUN THM</td>
<td>GDO REVERSED BECAUSE THE CLUTCH SLIPPED OR SOME OTHER FAULT OCCURRED THAT ALLOWED THE GDO TO RUN TOO LONG</td>
</tr>
<tr>
<td>4F</td>
<td>REV &gt; EXP MOD FAIL</td>
<td>GDO REVERSED BECAUSE AN EXPANSION MODULE WAS NOT WORKING PROPERLY</td>
</tr>
<tr>
<td>50</td>
<td>STOP &gt; HOT MOTOR</td>
<td>GDO STOPPED BECAUSE THE MOTOR WAS OVERHEATED</td>
</tr>
<tr>
<td>51</td>
<td>STOP &gt; OPEN MRT</td>
<td>GDO STOPPED BECAUSE THE CLUTCH SLIPPED OR SOME OTHER FAULT OCCURRED THAT ALLOWED THE GDO TO RUN OPEN TOO LONG</td>
</tr>
<tr>
<td>52</td>
<td>STOP &gt; CLOSE MRT</td>
<td>GDO STOPPED BECAUSE THE CLUTCH SLIPPED OR SOME OTHER FAULT OCCURRED THAT ALLOWED THE GDO TO RUN DOWN TOO LONG</td>
</tr>
<tr>
<td>57</td>
<td>STOP &gt; OPEN INTLK</td>
<td>GDO STOPPED BECAUSE THE HOIST INTERLOCK OR EXTERNAL INTERLOCK IS OPEN</td>
</tr>
<tr>
<td>58</td>
<td>STOP &gt; WRONG GDO</td>
<td>GDO STOPPED BECAUSE THE BOARD IS SET FOR JACKSHAFT MODE, BUT INSTALLED IN A TROLLEY OPERATOR</td>
</tr>
<tr>
<td>59</td>
<td>STOP &gt; DOOR FORCE</td>
<td>GDO STOPPED BECAUSE THE FORCE REQUIRED TO OPEN THE DOOR WAS TOO HIGH</td>
</tr>
<tr>
<td>5A</td>
<td>STOP &gt; WRONG LIMIT</td>
<td>GDO STOPPED BECAUSE THE UP LIMIT ACTIVATED WHEN CLOSING OR THE DOWN LIMIT ACTIVATED WHEN OPENING</td>
</tr>
<tr>
<td>5C</td>
<td>STALL &gt; DOWN LIMIT</td>
<td>GDO STOPPED BECAUSE IT COULDN'T LEAVE THE DOWN LIMIT DUE TO A SLIPPING CLUTCH OR OTHER PROBLEM</td>
</tr>
<tr>
<td>5D</td>
<td>STALL &gt; UP LIMIT</td>
<td>GDO STOPPED BECAUSE IT COULDN'T LEAVE THE UP LIMIT DUE TO A SLIPPING CLUTCH OR OTHER PROBLEM</td>
</tr>
<tr>
<td>60</td>
<td>CHECK STOP BTN</td>
<td>GDO WON'T RUN BECAUSE THE STOP BUTTON IS ACTIVE</td>
</tr>
<tr>
<td>61</td>
<td>TCM DISABLED</td>
<td>TIMER CLOSE WON'T WORK BECAUSE NO SAFETIES ARE ENABLED</td>
</tr>
<tr>
<td>62</td>
<td>NO RADIO &gt; &gt; C/C</td>
<td>RADIO INPUT WON'T WORK WITH OPEN OR CLOSE FUNCTION IN CONSTANT CONTACT MODE</td>
</tr>
<tr>
<td>63</td>
<td>CHECK AUX OPEN</td>
<td>GDO WON'T CLOSE BECAUSE AUXILIARY OPEN INPUT IS ACTIVE</td>
</tr>
<tr>
<td>64</td>
<td>CHECK STOP KEY</td>
<td>GDO WON'T RUN BECAUSE THE KEYPAD STOP KEY IS ACTIVE</td>
</tr>
<tr>
<td>65</td>
<td>CHECK N-O SAFETY</td>
<td>GDO WON'T CLOSE BECAUSE THE N-O REVERSING IS ACTIVE</td>
</tr>
<tr>
<td>66</td>
<td>CHECK ODC STB</td>
<td>GDO WON'T CLOSE BECAUSE THE ODC STB IS BLOCKED</td>
</tr>
<tr>
<td>67</td>
<td>CHECK N-C SAFETY</td>
<td>GDO WON'T CLOSE BECAUSE THE N-C REVERSING INPUT IS ACTIVE</td>
</tr>
<tr>
<td>68</td>
<td>CHECK MON. EDGE</td>
<td>GDO WON'T CLOSE BECAUSE THE MONITORED EDGE SENSOR IS ACTIVE</td>
</tr>
<tr>
<td>69</td>
<td>OVERHEATED MOTOR</td>
<td>GDO WON'T RUN BECAUSE THE MOTOR IS OVERHEATED</td>
</tr>
<tr>
<td>6C</td>
<td>NO RUN &gt; DOWN LMT</td>
<td>GDO WON'T CLOSE BECAUSE ITS ALREADY AT THE DOWN LIMIT</td>
</tr>
<tr>
<td>6D</td>
<td>NO RUN &gt; UP LMT</td>
<td>GDO WON'T OPEN BECAUSE ITS ALREADY AT THE UP LIMIT</td>
</tr>
<tr>
<td>6E</td>
<td>NO RUN &gt; MID STOP</td>
<td>GDO WON'T RUN BECAUSE ITS AT OR ABOVE THE MID-STOP LIMIT &amp; CAN'T RUN UP &amp; A REVERSING INPUT IS PREVENTING IT FROM CLOSING</td>
</tr>
<tr>
<td>6F</td>
<td>EXP MODULE FAIL</td>
<td>GDO WON'T RUN BECAUSE AN EXPANSION MODULE FAILURE IS PREVENTING IT</td>
</tr>
</tbody>
</table>
## Section 10: Appendix C

### Display Error Codes (cont’)

<table>
<thead>
<tr>
<th>Condition Code</th>
<th>DISPLAY</th>
<th>Condition Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>BOARD FAILURE 70</td>
<td>CONTROL BOARD FAILURE 70, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>71</td>
<td>BOARD FAILURE 71</td>
<td>CONTROL BOARD FAILURE 71, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>74</td>
<td>BOARD FAILURE 74</td>
<td>CONTROL BOARD FAILURE 74, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>75</td>
<td>BOARD FAILURE 75</td>
<td>CONTROL BOARD FAILURE 75, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>76</td>
<td>BOARD FAILURE 76</td>
<td>CONTROL BOARD FAILURE 76, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>77</td>
<td>BOARD FAILURE 77</td>
<td>CONTROL BOARD FAILURE 77, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>80</td>
<td>BOARD FAILURE 80</td>
<td>CONTROL BOARD FAILURE 80, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>81</td>
<td>BOARD FAILURE 81</td>
<td>CONTROL BOARD FAILURE 81, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>82</td>
<td>BOARD FAILURE 82</td>
<td>CONTROL BOARD FAILURE 82, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>83</td>
<td>BOARD FAILURE 83</td>
<td>CONTROL BOARD FAILURE 83, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>84</td>
<td>BOARD FAILURE 84</td>
<td>CONTROL BOARD FAILURE 84, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>85</td>
<td>EXP PORT PROBLEM</td>
<td>EXPANSION PORT IS SHORT CIRCUITED, TRY DISCONNECTING EXPANSION MODULES OR CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>86</td>
<td>BOARD FAILURE 86</td>
<td>CONTROL BOARD FAILURE 86, DISCONNECT EXPANSION MODULES. IF NO CHANGE, CONTACT FACTORY TECHNICAL SERVICE DEPT.</td>
</tr>
<tr>
<td>88</td>
<td>TCM FAILURE</td>
<td>TIMER CLOSE MODULE (TCM) HAS FAILED</td>
</tr>
<tr>
<td>8A</td>
<td>AOM FAILURE</td>
<td>AUXILIARY OUTPUT MODULE (AOM) HAS FAILED</td>
</tr>
<tr>
<td>8E</td>
<td>REV INTERRUPTED</td>
<td>GDO LOST POWER OR ENCOUNTERED ANOTHER PROBLEM DURING THE REVERSAL PROCESS, REVERSAL IS COMPLETING NOW</td>
</tr>
<tr>
<td>8F</td>
<td>LIMIT MOD. FAIL</td>
<td>GDO WON'T RUN, LIMIT MODULE HAS FAILED</td>
</tr>
<tr>
<td>90</td>
<td>DIAGNOSTIC MODE</td>
<td>GDO IS IN DIAGNOSTIC MODE, NORMAL FUNCTIONS ARE NOT ALLOWED</td>
</tr>
<tr>
<td>A0</td>
<td>OPEN BTN BAD &gt; PU</td>
<td>OPEN &amp; CLOSE BUTTONS WON'T WORK, THE OPEN BUTTON WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A1</td>
<td>CLOSE BTN BAD &gt; PU</td>
<td>OPEN &amp; CLOSE BUTTONS WON'T WORK, THE CLOSE BUTTON WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A2</td>
<td>ONE BTN BAD &gt; PU</td>
<td>1 BUTTON WON'T WORK, THE 1 BUTTON WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A3</td>
<td>RADIO BAD &gt; PWR UP</td>
<td>RADIO INPUT WON'T WORK, THE RADIO INPUT WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A4</td>
<td>AUX OPEN BAD &gt; PU</td>
<td>AUXILIARY OPEN INPUT WON'T WORK, THE AUXILIARY OPEN INPUT WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A5</td>
<td>OPEN KEY BAD &gt; PU</td>
<td>KEYPAD OPEN &amp; CLOSE KEYS WON'T WORK, THE KEYPAD WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A6</td>
<td>CLOSE KEY BAD &gt; PU</td>
<td>KEYPAD OPEN &amp; CLOSE KEYS WON'T WORK, THE CLOSE KEY WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>A7</td>
<td>MULTI KEYS BAD &gt; PU</td>
<td>1 OR MORE KEYPAD CALIBRATION KEYS WON'T WORK, 1 OR MORE WERE ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
<tr>
<td>AA</td>
<td>TCM BAD &gt; POWER UP</td>
<td>TIMER CLOSE MODULE WON'T CLOSE DOOR, IT WAS ACTIVE WHEN THE GDO WAS POWERED-UP</td>
</tr>
</tbody>
</table>
Section 11: Warranty

The authorized distributor of Overhead Door Corporation products whose name appears below (“Seller”) warrants to the original purchaser of the Operator specified below (“Operator”), subject to all the terms and conditions hereof, that the Operator will be free from defects in material and workmanship under normal use and service until the earlier of the following to occur:

1. Two (2) years after the date of installation
or

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

Sellers sole obligation under this warranty is specifically limited to repairing or replacing, at its option, any parts which shall be determined by Seller to be defective during the warranty period. Any labor charges are excluded and will be the responsibility of the owner.

This warranty applies only to an operator which is installed in commercial or industrial building applications. This warranty does not apply if the Operator has been altered or repaired by any person not authorized by Overhead Door Corporation to do so, or if it has been damaged due to misuse, accident or failure to provide necessary maintenance. This warranty is made only to the original purchaser of the Operator and is not transferrable or assignable.

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 OVERHEAD DOOR CORPORATION BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, even if Overhead Door Corporation 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, interruption of business, or other similar indirect financial loss.

Claims under this warranty must be made in writing promptly to the Seller whose name and address appears to the right, and must be made within the warranty period. (Proof of purchase and identification as the original purchaser may be required.)

Overhead Door Corporation’s Operator Division will only accept returned materials that are in warranty. Products being returned must be accompanied by a Return Authorization (RA) Tag. To obtain a Return Authorization Tag please use the following guidelines.

- Complete Operators will not be replaced without prior approval from the Operator Division.
- To return an Operator part during the warranty period, the Seller must contact the Technical Service Group of the Operator Division at 1-800-275-6187. The following information is required: Operator Model Number, Date Code, Voltage, Phase & Horsepower, and a description of the malfunction. The Technical Service Group will issue, via mail, an RA Tag for the part.
- Upon receipt of the part, the Operator Division will evaluate the part for a defect in material and/or workmanship. If it is determined there is a defect, the Seller will be credited the cost of the part. If it is determined there is not a defect in material and/or workmanship, no credit will be issued.

Model # (On electric box cover)_______________________________________
Serial # (On electric box cover)________________________________________
Date Code _________________________________________________________
Original Purchaser__________________________________________________
Installation Address__________________________________________________
Door Number (Multiple door installations)_______________________________
Door Type ________________________________________________________
Seller______________________________________________________________
Sellers Address_____________________________________________________
Date of Installation__________________________________________________
Signature of Seller___________________________________________________
The Genuine. The Original.

OVERHEAD DOOR

1 DOOR DRIVE
MT. HOPE, OHIO 44660

CODE 128 BARCODE
LOCATION
110929.502554