Operational & Maintenance Manual

Products: Enter Product Category / Model Number

Installation Site

Enter Project Name/Site info

Contractor

Enter Contractor Firm Name here

Architect

Enter Architect Firm Info Here

Distributor

Overhead Door Company of ABC
123 Eagle Street
Eagle Town, TX 75067

Enter Company Name Ex: Overhead Door Company of
Enter Street Address
Enter City, ST zip code

Dear Customer:

Thank you for choosing our company as your custom door installation specialist.

The Operation and Maintenance Manual, which is enclosed, has been supplied by Overhead Door Corporation to meet your needs as our customer. Appropriate information for the products installed has been compiled in this manual for your use. We recommend compliance with all of the safety information provided within the manual.

We strongly recommend implementing a preventative maintenance program. Benefits of properly maintaining your door system include:

- Increased operational efficiency and reliability.
- Extended useful life of your equipment.
- Increased probability of dependable equipment performance.
- Elimination of non-budgeted maintenance cost for door service.

As an Overhead Door distributor, we offer you complete product support for your service and maintenance needs. Do not hesitate to call us for assistance.

We hope that you will also continue to consider our company for your future product and installation needs. We are firmly committed to providing the finest in Overhead Door products, accessories, and a level of customer support unmatched in the industry.

Sincerely,

Enter Company Name Ex: Overhead Door Company of

Operation & Maintenance Manual

Commercial Operators

Table of Contents

GENERAL INFORMATION

OVERHEAD DOOR CORPORATION

Overhead Door Corporation, based in Dallas, Texas, is a leading single-source manufacturer of integrated door and operator systems for commercial and residential applications.

Overhead Door is the door solutions provider that delivers expert service and the highest level of performance and reliability. Our comprehensive product line encompasses a wide variety of commercial door solutions including: commercial operators, commercial sectional and rolling service doors, advanced performance rolling doors, and security grilles.

With our nationwide network of more than 400 authorized distributors, we are a leading provider of overhead and garage door systems, and we continue to lead the way with reliable solutions and unmatched professional installation, service and support that keeps customers coming back. The brand trusted for over 90 years, Overhead Door gives home and business owners confidence and peace of mind.

To locate a distributor:
From the United States, call 1-800-929-3667 (DOOR)
International: 1-717-248-0131
http://www.overheaddoor.com/Pages/distributor-locator.aspx

Contact Information:
Overhead Door Corporation
2501 S. State Hwy. 121, Suite 200
Lewisville, TX 75067
Telephone: 1-800-275-3290
www.overheaddoor.com

PREVENTATIVE MAINTENANCE

BENEFITS OF PREVENTATIVE MAINTENANCE PROGRAM

- **Increase operational efficiency, safety and reliability**
- **Extend useful life of your equipment**
- **Reduce probability of equipment malfunctioning**
- **Decrease costly downtime**
- **Decrease long-term repair expense**
- **Priority scheduling for service**
- **Establish relationship with experienced, service-oriented professionals**

SCOPE OF WORK FOR ELECTRIC OPERATORS

For the period _____, 20__, through _____, 20__, the following services and inspections will be provided as part of the Preventative Maintenance Program for operator(s):

ELECTRIC OPERATORS:

1) Inspect and adjust limit switches.
2) Inspect and adjust belts.
3) Inspect and adjust brake.
4) Inspect gear reducer.
5) Inspect operator mounting.
6) Inspect and test disconnect.
7) Inspect and lubricate roller chain.
8) Inspect and tighten all sprockets.
9) Inspect safety labels, placement and condition.

INSTALLATION INSTRUCTIONS

07-30-09

110930.0001
EN 36221

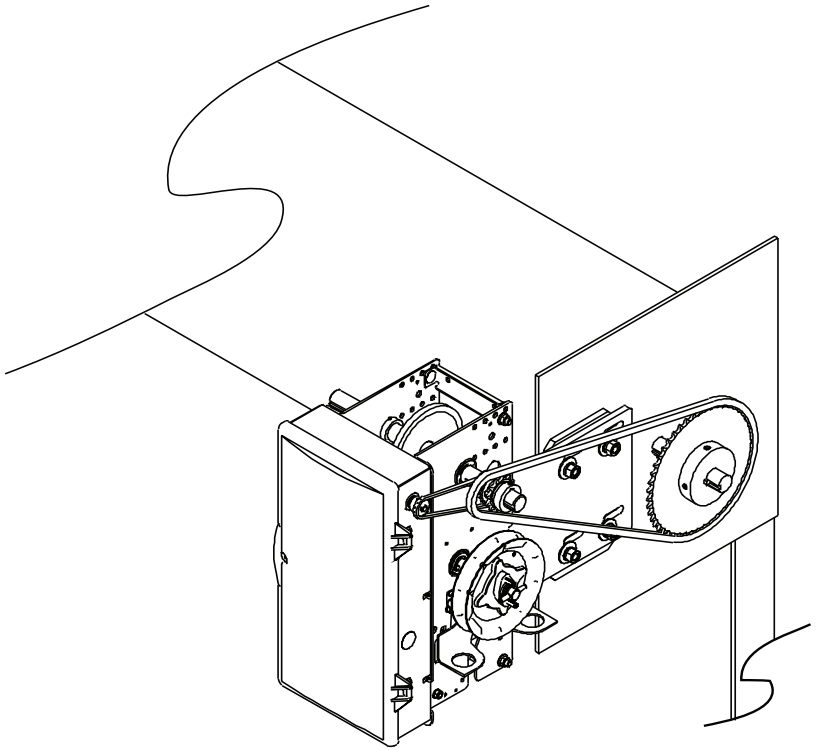
RMX™

MEDIUM DUTY COMMERCIAL OPERATOR

The Genuine. The Original.

OVERHEAD DOOR®

ROLLING STEEL



NOT FOR RESIDENTIAL USE

This Installation Manual provides the information required to install, troubleshoot and maintain an RMX™ Commercial / Industrial Door Operator.

Table of Contents

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.

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.

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 Section and those that follow, 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.*

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. **Do Not** allow children to play with the door operator. **Do Not** change operator control to momentary contact unless an external reversing means is installed. **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. 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. Repairs and adjustments must be made by a 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 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.**

Section 3: General 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.

- Available power supply.
- Type of door.
- 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.
- Size of door for appropriate operator torque and door travel speed selection.
- Operator mounting environment. Items to consider include operator location, dampness of location, dustiness of the location and corrosiveness of the location.
- 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.
- Interlock switches are required under certain conditions for doors with pass doors and door locks. See Section 5.5 below.
- 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 below.

Entrapment Protection Recommendations

Overhead Door Corporation recommends the installation of a fail safe external reversing device (such as a reversing edge or photocell system, etc.) on all electronically operated commercial doors. If such a reversing device is not chosen, then the operator must be installed with only a constant contact control switch for operation.

NOTE: A monitored 2-wire reversing edge or sensing edge can be installed using the optionally available Timer Close Module (TCM) P/N OPABTCX.S.

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

⚠ 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.

Section 4: Installation

Front/Top of Hood

The RMX™ Rolling Steel Operator can be assembled for ***right-hand*** *mounting Top of Hood or Front of Hood* **Fig. 1 & Fig. 2** *. It is possible to mount the RMS® Operator on either side using the optional Wall Mount method (See page 4.3).* **Figure 3**.

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

1) Determine operator mounting location, including desired hoist and release location and release cable routing.
2) Weld the Rolling Door weld plate assembly (provided) to the door headplate, A minimum of <u>two</u> 1" weld beads are required on each side of the weld plate for proper attachment. See **Fig 1 or 2** for proper placement.
3) Install two attachment brackets to operator using the four 5/16"-18 X 3/4"carriage bolts and nuts provided. **Fig 4**.
4) Attach operator to main mounting bracket using the four 5/16"-18 X 1-1/4" carriage bolts, nuts, and lockwashers provided.

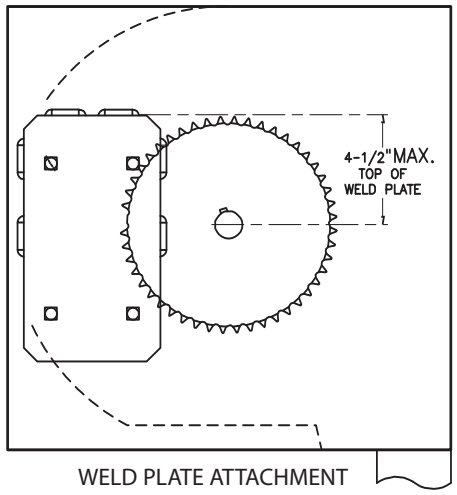


Figure 1

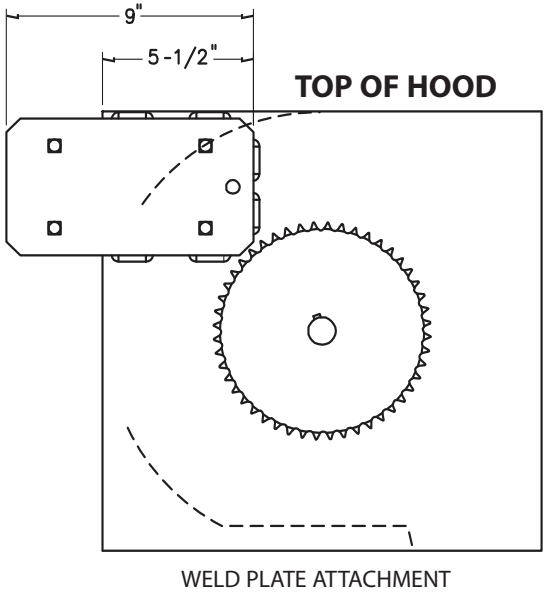
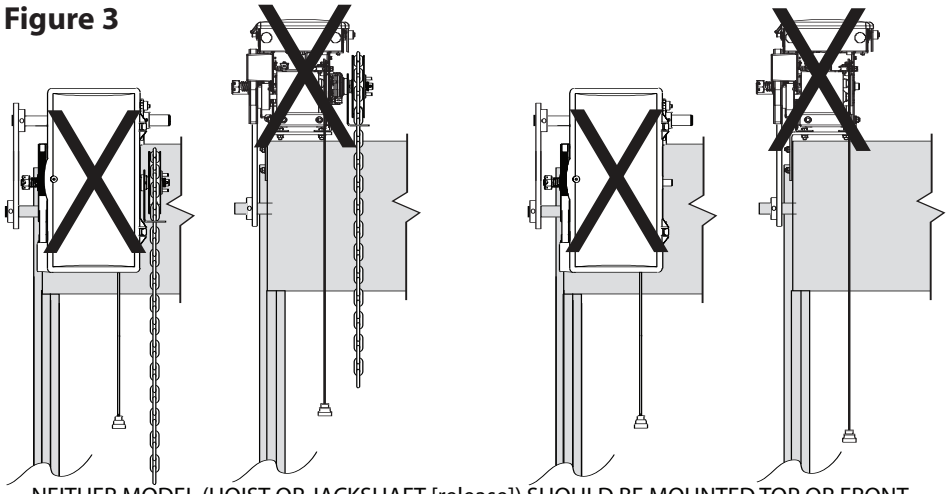


Figure 2

Figure 3



NEITHER MODEL (HOIST OR JACKSHAFT [release]) SHOULD BE MOUNTED TOP OR FRONT OF HOOD ON THE LEFT-HAND SIDE. CHAIN AND/OR RELEASE CORD WILL HANG INTO THE DOOR OPENING.

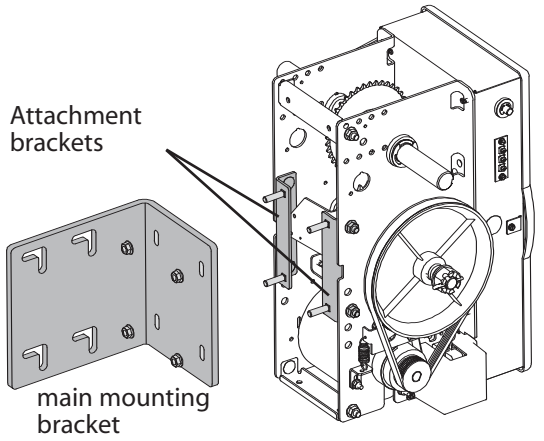


Figure 4

Front/Top of Hood (continued)

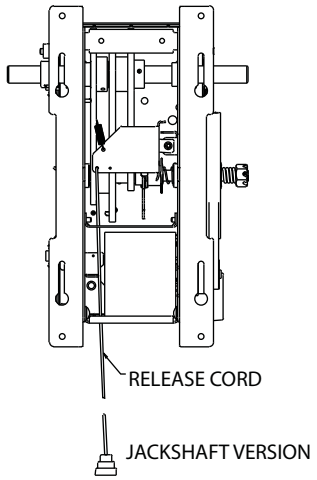
5) Attach operator assembly to weld plate using hardware provided. Note the position of bracket slots for proper bracket orientation. **Fig 5 or 6**.

NOTE: Hand tighten bracket with weld plate nuts. Adjusting the mounting plate position to tension the drive chain will be required later in the installation process.

Attach Operator to Door: Top or Front of Hood.

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 master link.
5) Place assembled chain over door shaft sprocket and around the 12 tooth sprocket.
6) Raise or lower operator to remove slack from the chain. Be certain operator output shaft is parallel with door shaft.
7) Tighten operator mounting bracket nuts.
8) Tighten sprocket set screws.

RELEASE VERSION: The release cable must be installed on the operator before the unit is installed.



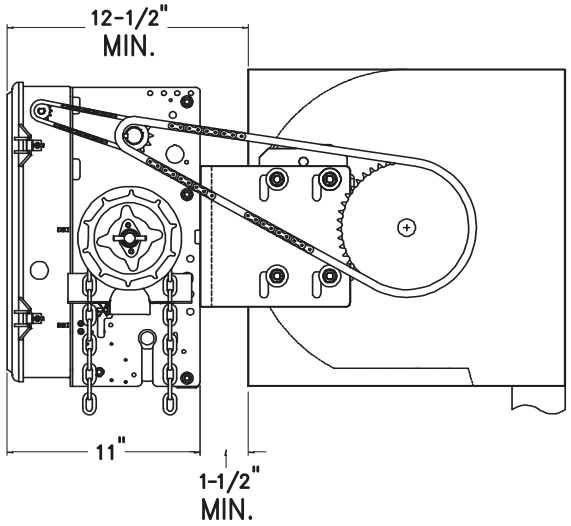


Figure 5

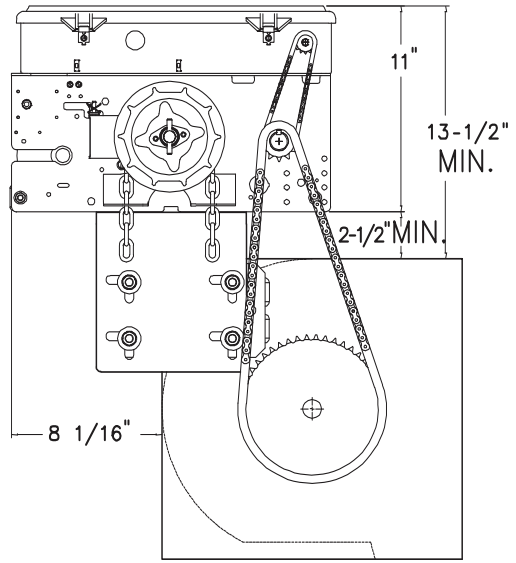


Figure 6

Wall Mount

The RMX™ Rolling Steel unit can be wall mounted in cases where space is critical or where it is necessary to do a left-hand mount, by using an optional "Wall Mount Kit." (P/N 111011.0001.S) **Fig. 7**.

1) Attach wall mount brackets to operator using the 4 mounting bolts and nuts supplied(Hand-tighten until later). Position the operator in the brackets as shown.
2) Attach 12 tooth sprocket to operator output shaft.
3) Align keyways and insert key into sprocket and door shaft keyway. Do not tighten set screw at this time.
4) Attach door sprocket to door shaft. Do not tighten at this time.
5) Assemble chain using chain master link.
6) Place assembled chain over door shaft sprocket.
7) Raise or lower operator to remove slack from the chain. Be certain operator output shaft is parallel with door shaft.
8) Tighten operator mounting bracket nuts.
9) Align chain and secure operator to wall. **Fig. 8**.
10) Tighten operator chain sprocket set screws.
11) Slide operator in the wall bracket mounting holes if necessary for fine adjust of chain tension.

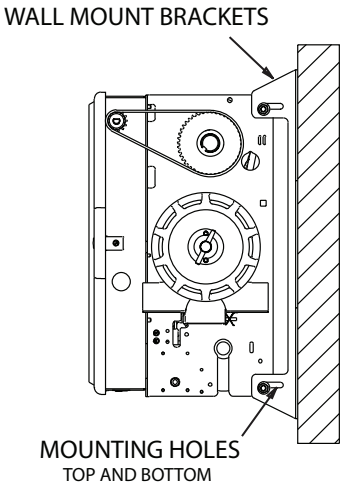
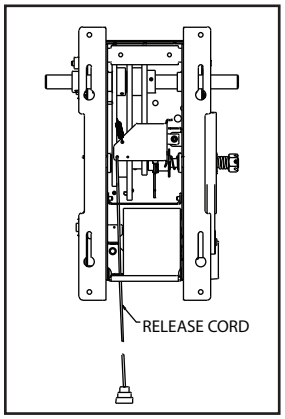


Figure 7

JACKSHAFT VERSION

The release cable must be attached to the operator before the unit is installed.



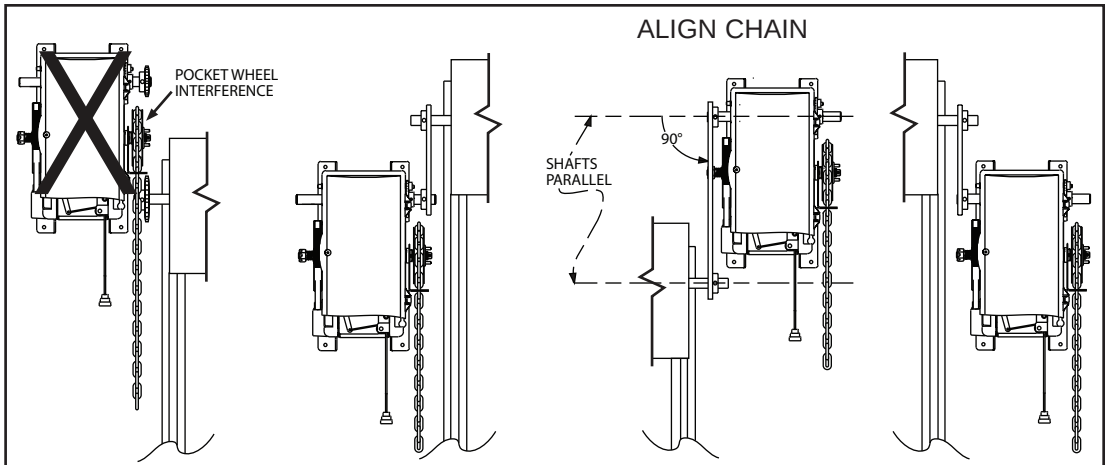


Figure 8 JACKSHAFT MODEL CAN BE MOUNTED ABOVE OR BELOW ON EITHER SIDE.

Clutch Adjustment Fig. 9

The RMX 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.
   - Turn the adjustment castle nut counter-clockwise to decrease tension and clockwise to 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.

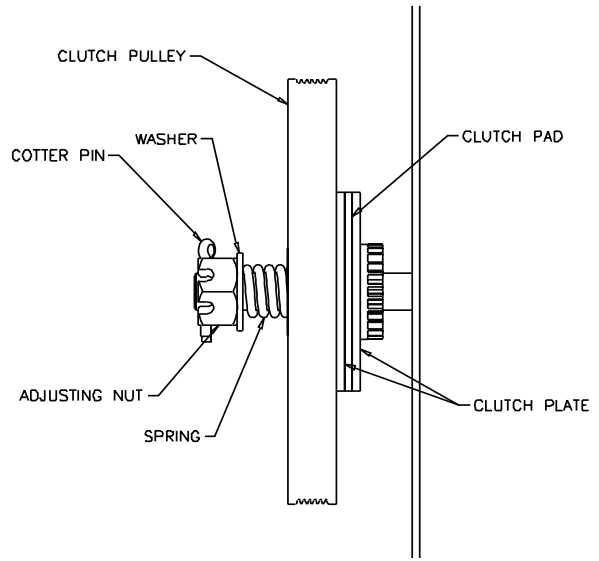


Figure 9

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.

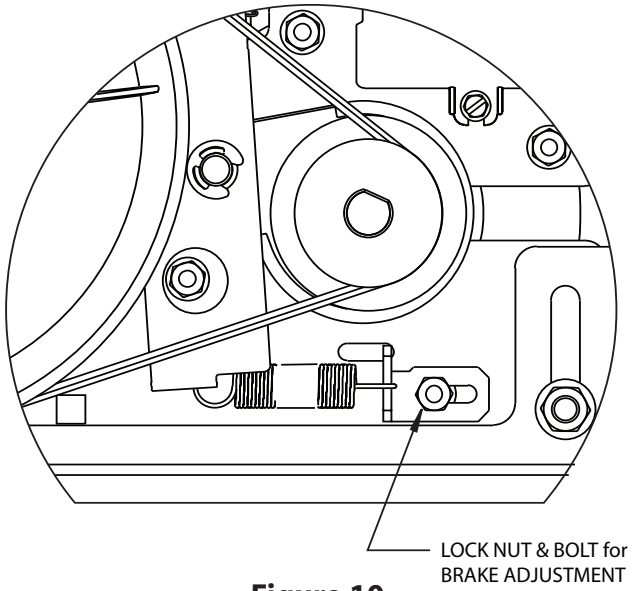


Figure 10

Install Chain Hoist & 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 hoist cable. **Fig. 14**.

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

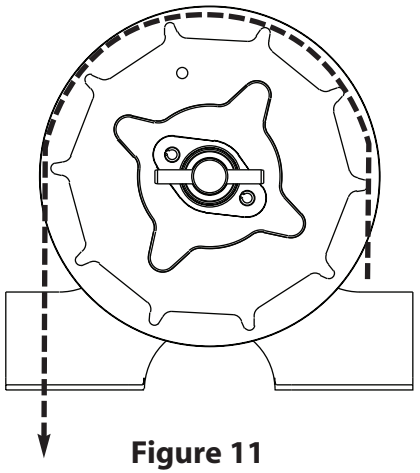


Figure 11

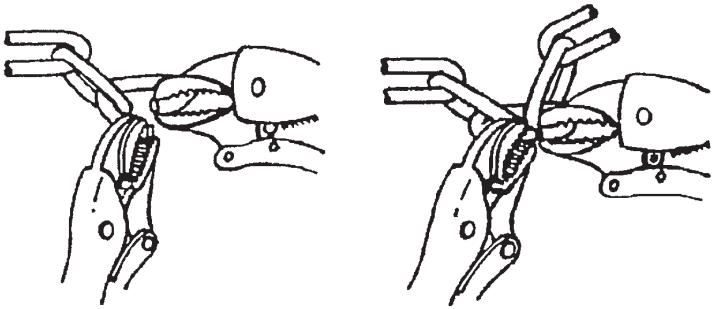


Figure 12

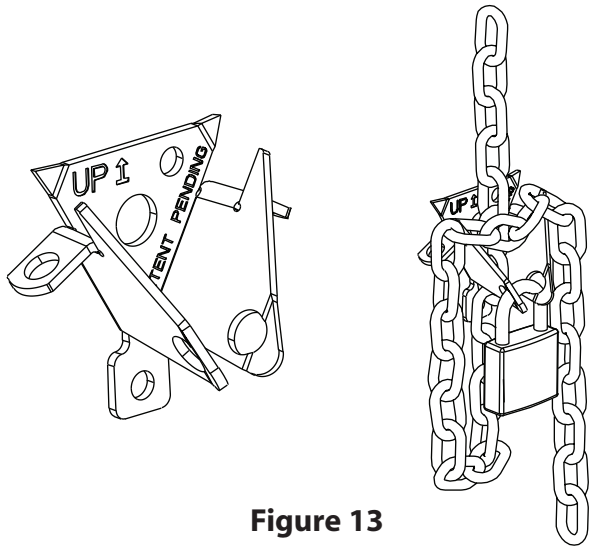


Figure 13

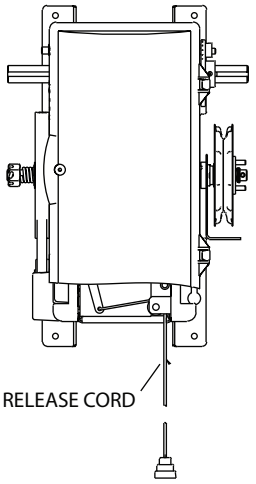


Figure 14

Section 5: Wiring

Line Voltage Wiring Fig. 1

⚠ WARNING

- DO NOT apply power to operator until instructed to do so.
- Overhead Door Corporation recommends 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.

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.

Figure 1

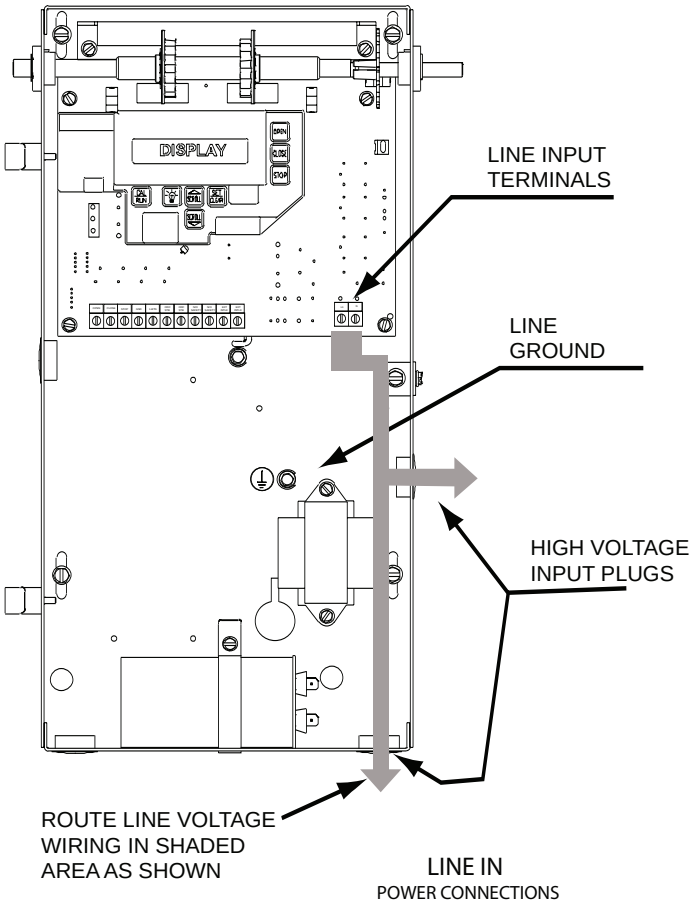
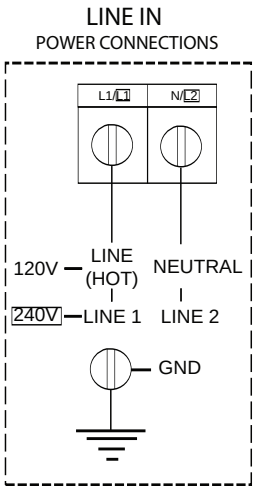


Figure 2



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 2 through 10 in this section.
   - Plug all unused conduit holes.

NOTE: For a detailed description of control wire terminals see Appendix B.

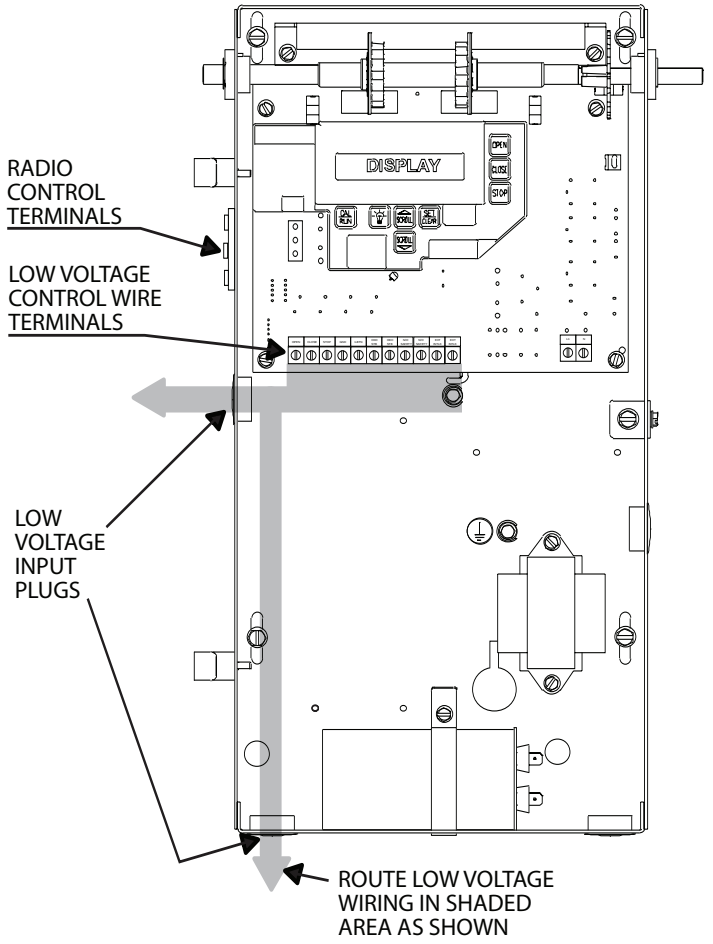
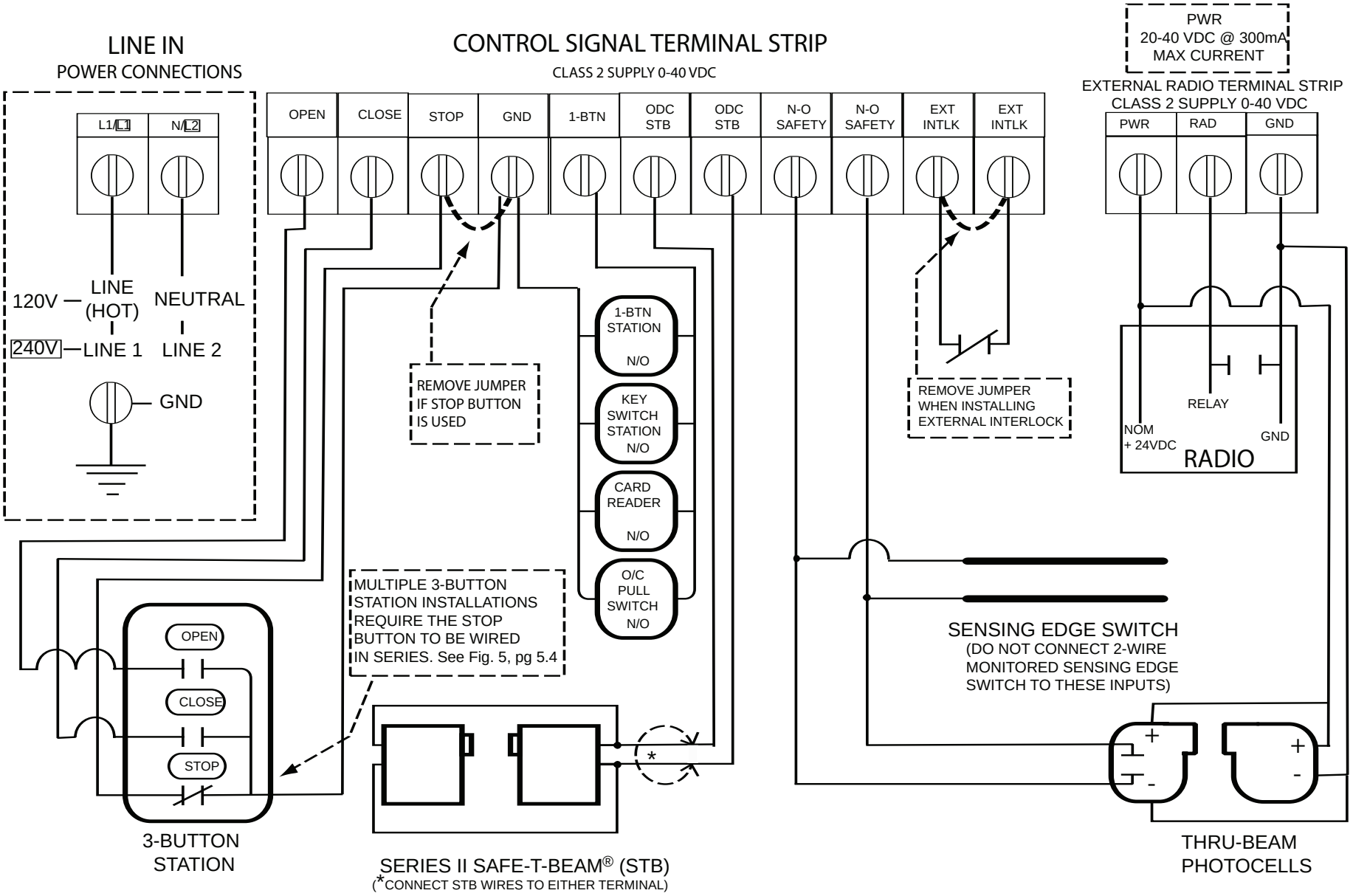


Figure 3

External Wire Diagram

See Appendix B for detailed description of terminals.



Wall Control

1) For a single 3 - button installation, make connections as shown in **Fig. 4**.
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.

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

⚠ WARNING:

- Wall Control(s) must be located so that the door is within sight of the user.
- Attach the Warning placard adjacent to the Wall Control. **Fig. 4A**.
- Attach the Caution label adjacent to the Wall Control. **Fig. 4B**.

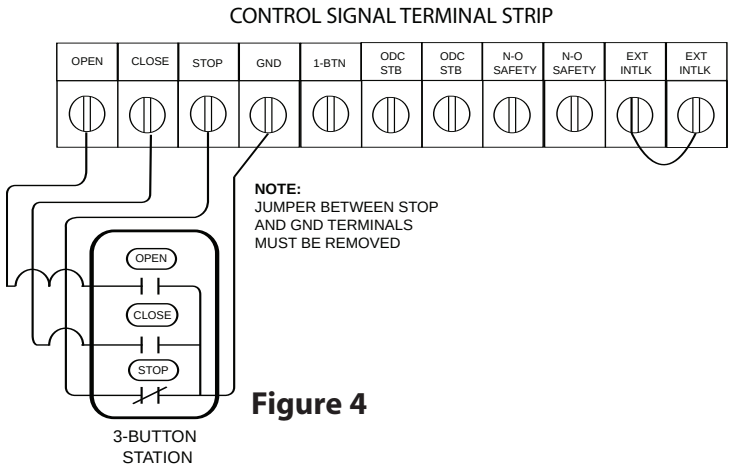


Figure 4

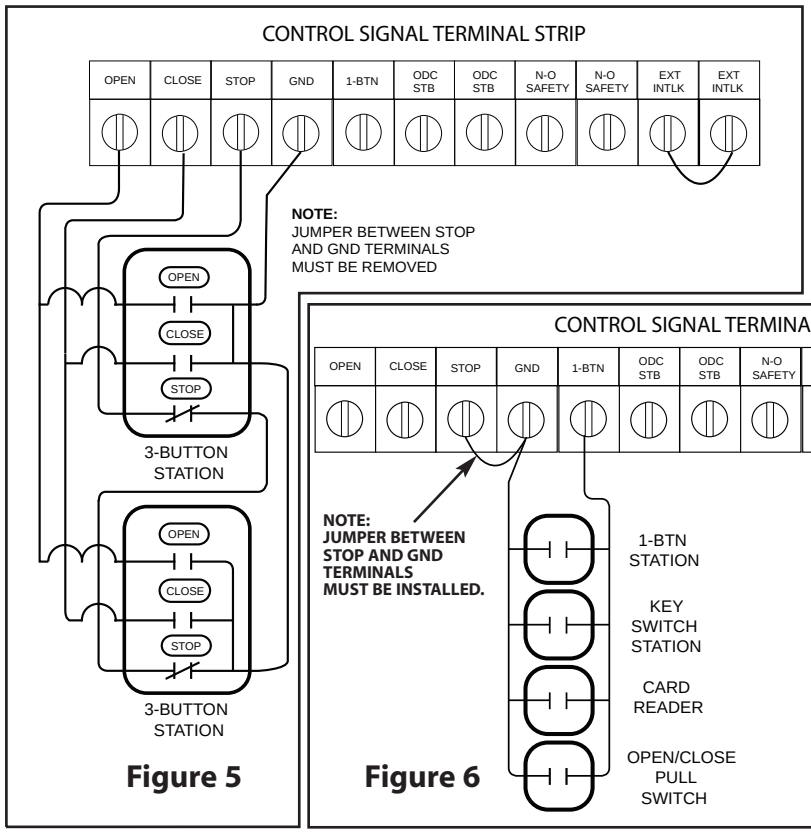


Figure 5

Figure 6

⚠ WARNING:

If momentary contact control is to be used, an external reversing device such as a photocell system or sensing edge switch must be used. See pages 5.6-5.7 for installation of entrapment protection devices.

Entrapment Warning Placard

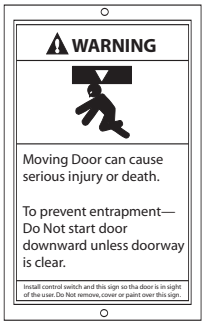


Figure 4A

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

Figure 4B

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.

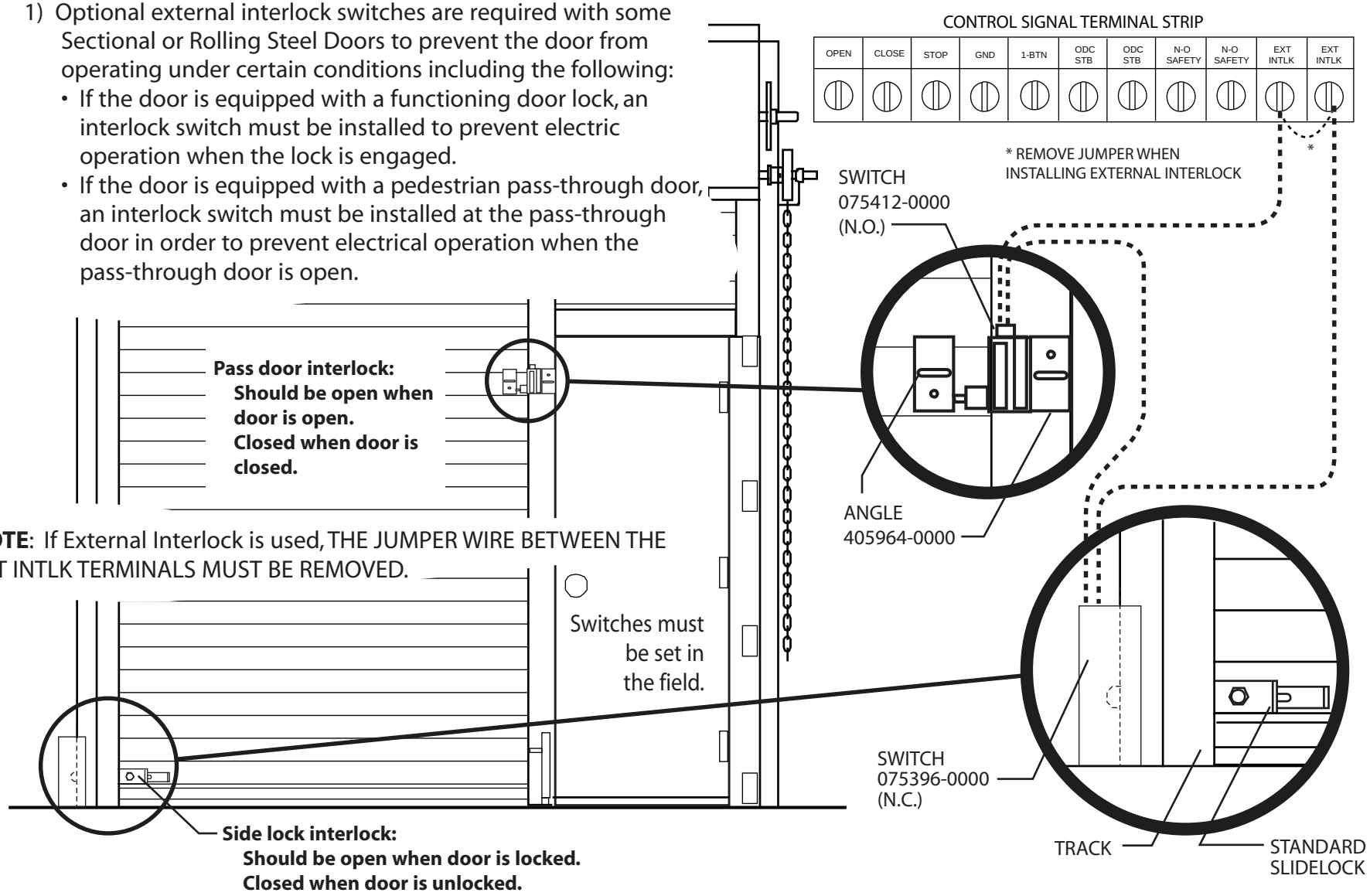


Figure 7

Radio Control and Photocell Wiring

Radio Control

1) For a 3-wire radio control installation, make connections as shown in **Fig. 8**.

NOTE: PWR terminal supplies 20 – 40VDC. Radios used must be compatible with this voltage range.

NOTE: If no voltage is present at PWR terminal, check fuse F1 on control board.

Series II Safe-T-Beam® Monitored Photocells

1) Monitored SERIES II (STB) photocells (P/N 35048R.S) can be installed as shown in **Fig. 9**. Wiring to these photocells can be connected to either terminal (Not polarity sensitive). **(Troubleshooting Sect.-- Appendix D)**.

NOTE: Installer must enable ODC STB in calibration mode. See page 6.5.

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

2) **To Mount Photocells**: (Kit includes detailed Instructions).
   - 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 11**.
   - Screws provided for mounting on soft material (wood, drywall, etc.)
   - They must extend out away from the wall sufficiently that no door hardware breaks the plane of the photo-beam.

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. If an alternative location is chosen it must be approved by the facility owner.

Commercial Non-Monitored Photocells

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

NOTE: PWR terminal supplies 20 – 40VDC. Photocells used must be compatible with this voltage range.

NOTE: If no voltage is present at PWR Terminal, check fuse F-1 on Control board.

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

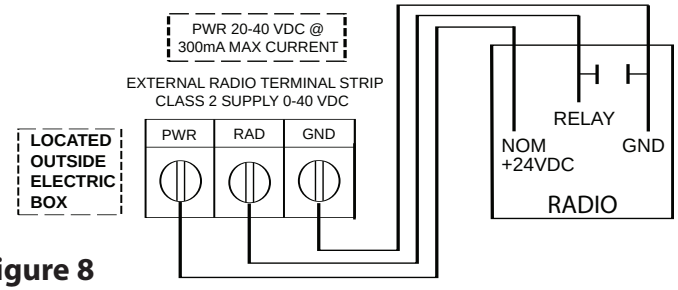


Figure 8

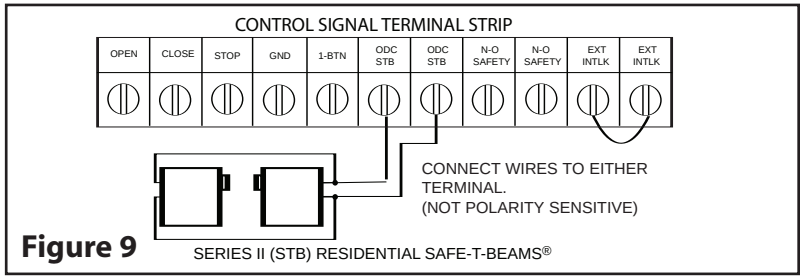


Figure 9

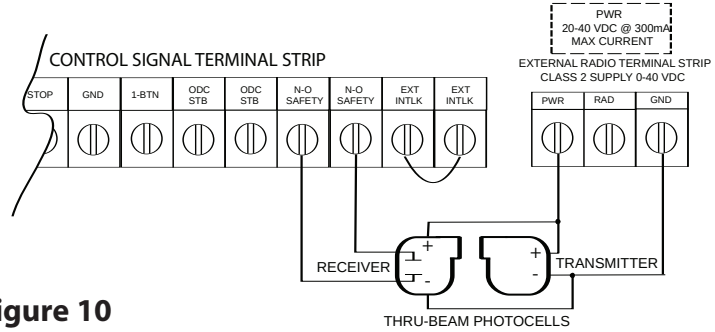


Figure 10

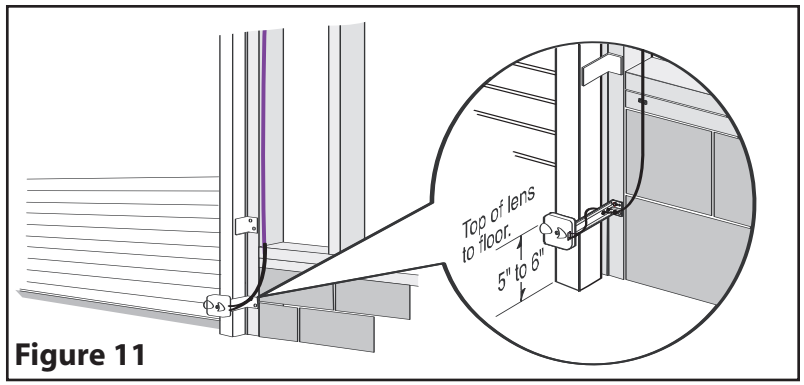


Figure 11

Sensing Edge Switch Installation

NOTE: Do not connect a 2-wire monitored sensing edge switch to these terminals.

Figure 12 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 wiring from sensing edge switch to operator is coiled cord or 2 wire jacketed cord:
- Install junction box 12" above the center of the door opening on same side as sensing switch.
- 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 switch 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.

2) Secure other end of cord (straight, coiled or reel) to sensing edge switch enclosure using a cable clamp.

3) Connect wires of cord to sensing edge switch 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 switch using wire nuts or other suitable wire connectors.

6) Connect to terminal strip using N-O Safety inputs. See **Fig. 13**.

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 switch for proper operation.

⚠ WARNING: Actuating the operator using constant contact on the CLOSE button will override external reversing devices, including sensing edges or reversing edges

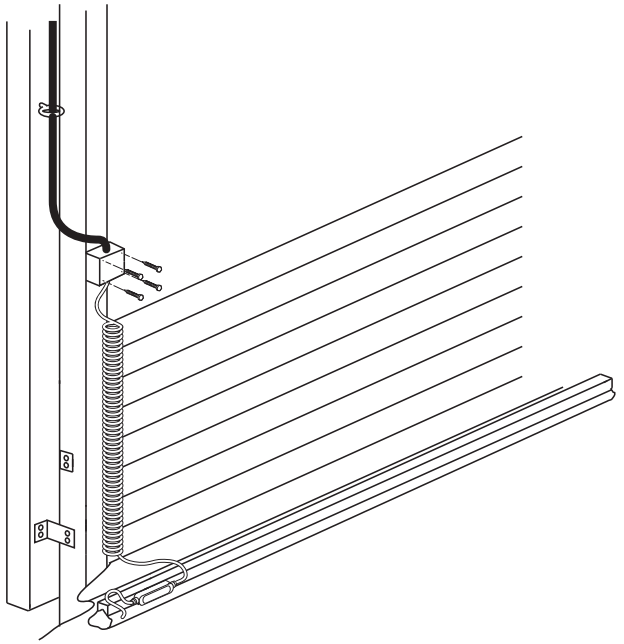


Figure 12

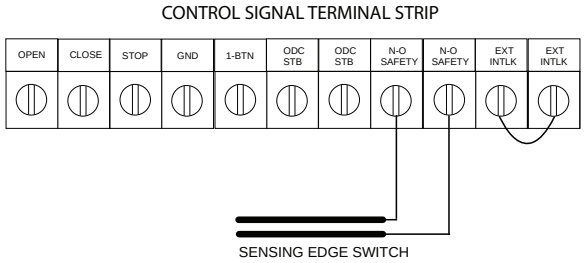


Figure 13

Section 6: Operator Setup Procedure

Control Panel

RMX™ 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. 10.11-10.13) for full display descriptions.

RMX™ Operators include 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 5.4).

⚠ 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**.

Control Operating Modes

RMX™ 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).
- The 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.

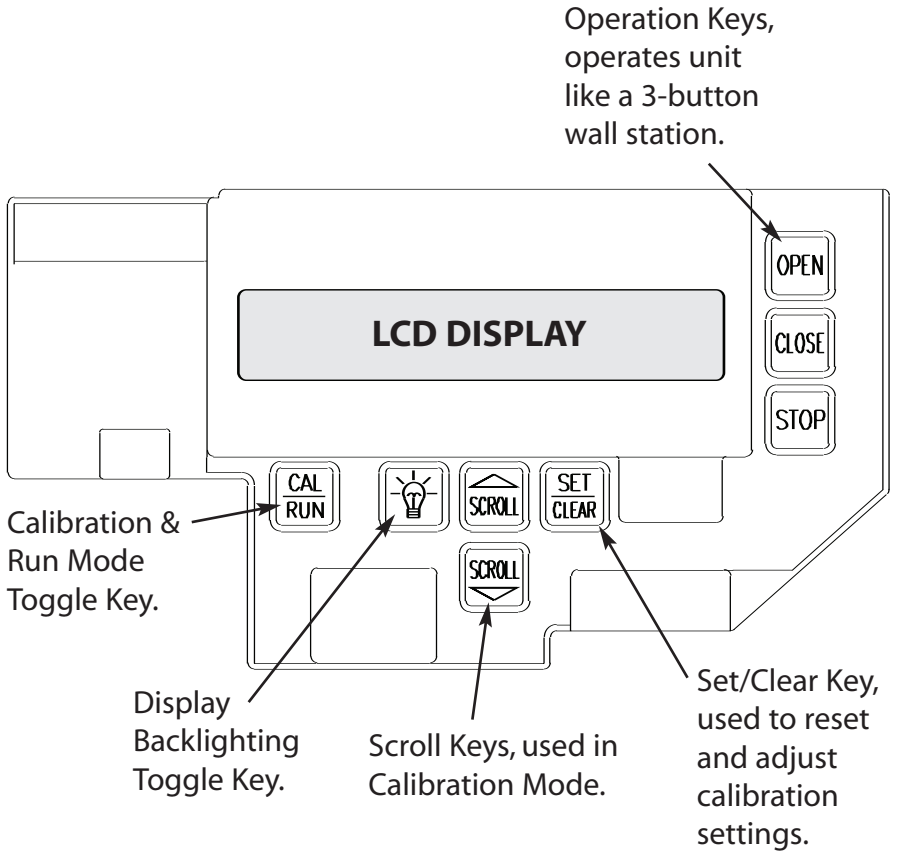


Figure 1

Setting Constant Contact

RMX™ 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**.

> **WARNING:**
>
> If an external reversing device is not used, then the operator must be used with only a Constant Contact Control. Verify close mode is set to "C-STP" and NOT "C-REV" or "MOM" before continuing.

5) Press CAL/RUN to return to run mode.

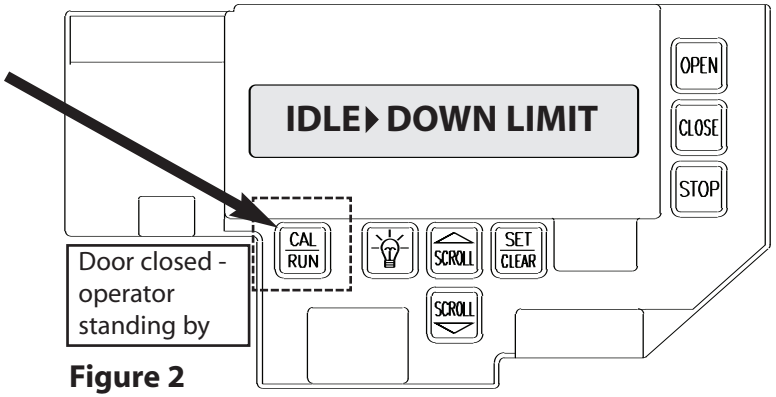


Figure 2

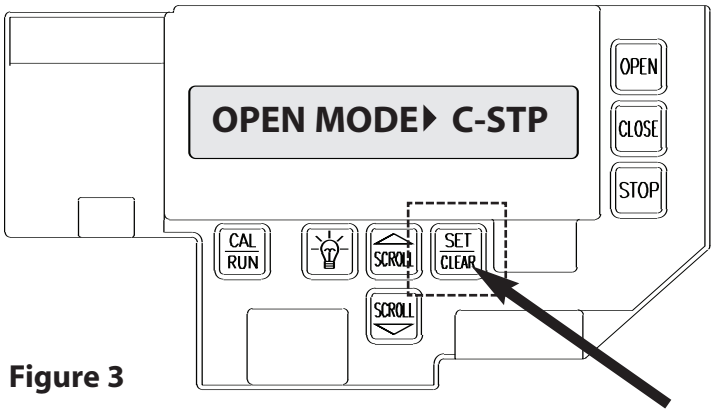


Figure 3

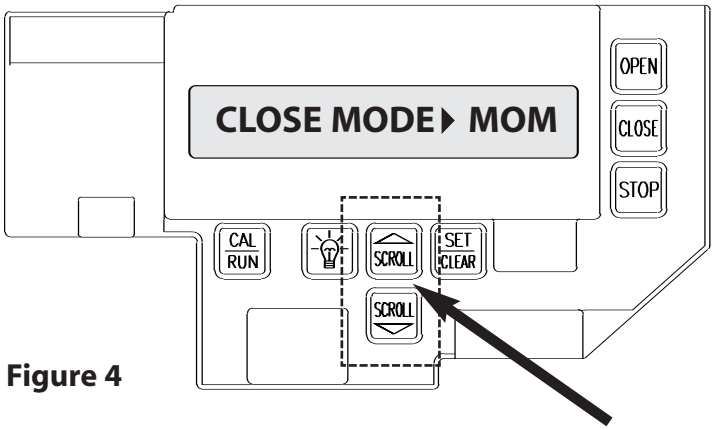


Figure 4

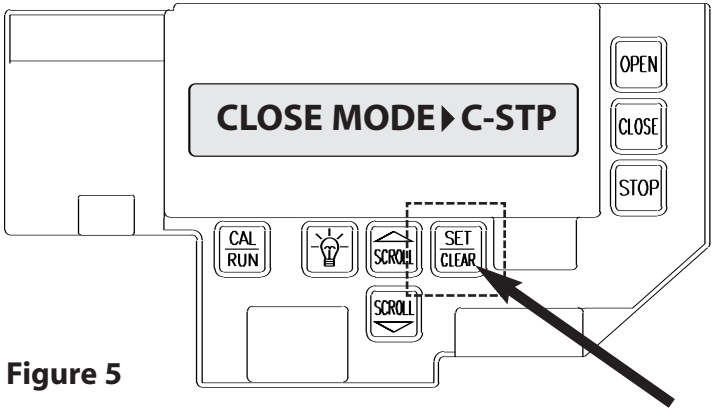


Figure 5

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 6.6 "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.

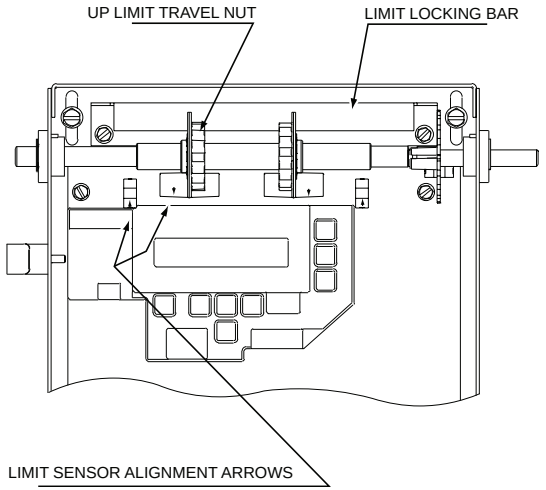


Figure 6

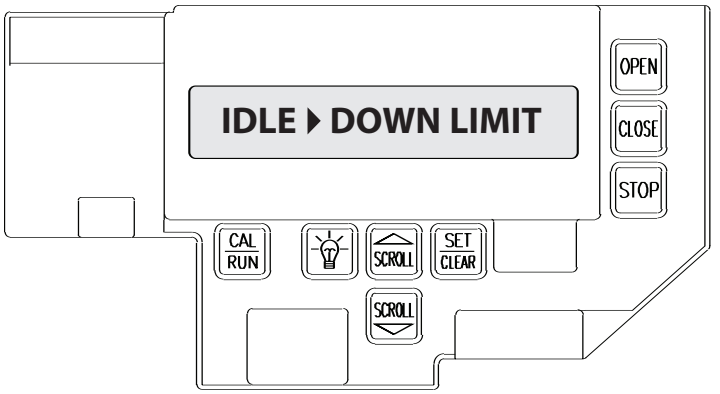


Figure 7

Setting Limit Overrun

WARNING: The Limit Overrun function 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".

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 (DN) until the display reads "LIMIT OVERRUN>(0-9)." **Fig. 8**.
3) Press SET/RUN 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 pg. 6.3. Then adjust the Limit Overrun as instructed above.

7) Press CAL-RUN to return to Run mode.

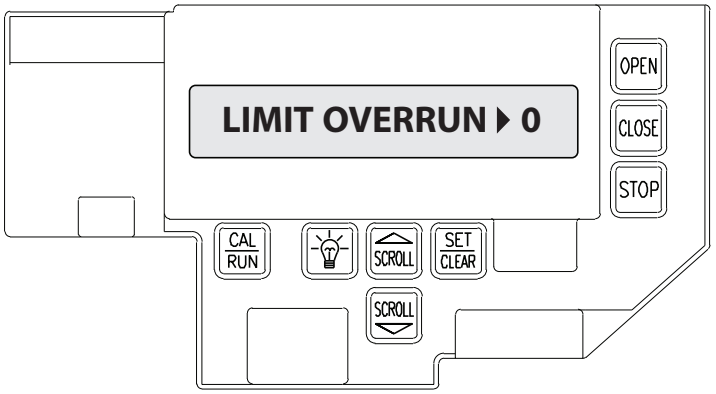


Figure 8

Using Series II Safe-T-Beam® (STB) Monitored Photocells

NOTE: The RMX™ Operator can use monitored SERIES II Photocells (STB). If your application requires these photocells, they must be activated in calibration mode.

1) Press CAL/RUN to enter calibration mode.
2) Press scroll (DN) until display reads "ODC STB> "
3) Press SET/CLEAR) until display reads "ODC STB > ON"
   - The "STB ENAB" LED on the control board should light.
4) Press CAL/RUN to return to run mode.

NOTES

A) To turn series II photocells off, repeat process until display reads "ODC STB > OFF." **Fig 9**.

B) Installation of Series II monitored photocells (STB) does NOT make the RMX™ unit legal for residential installation. Overhead Door does NOT recommend the installation of the RMX™ unit in residentially zoned construction.

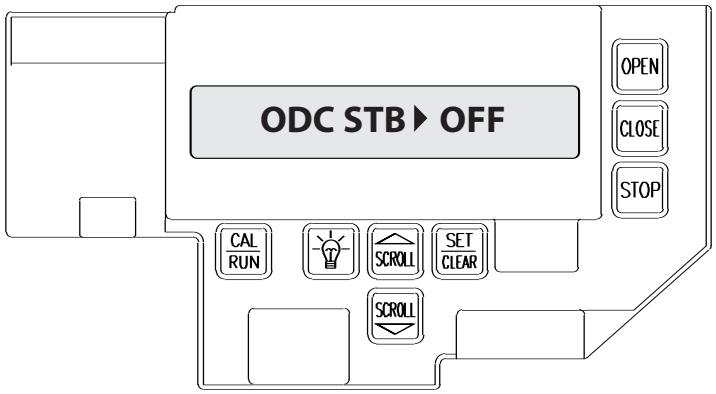


Figure 9

⚠ 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. If an alternative location is chosen it must be approved by the facility owner.

Max Run Timer

The RMX™ Operator will automatically set its maximum run timers (MRT) when the unit is run from limit to limit 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 stops and may reverse (only on a close attempt with trolley unit). The operator will not respond to any command until it is reset by pressing one of the calibration keys or by cycling power to the unit.

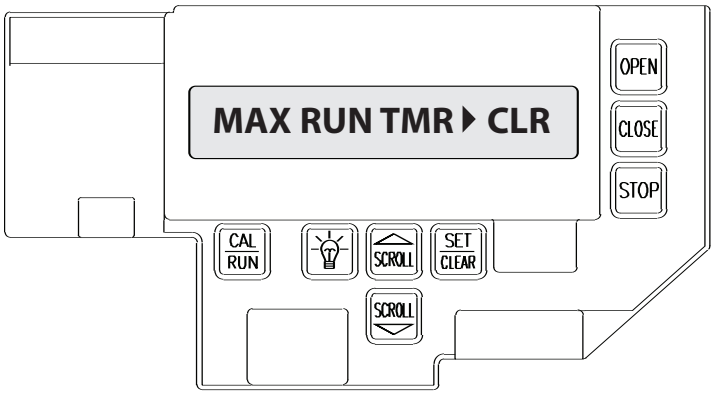


Figure 10

Resetting the Max Run Timers

The Maximum Run timers can be reset to their default values 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." **FIG. 10**.
4) Press CAL/RUN to return to run mode.

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

⚠ CAUTION:

The Mid-Stop feature must be turned off to properly set the maximum run timers.

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." **Fig. 11**.

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.

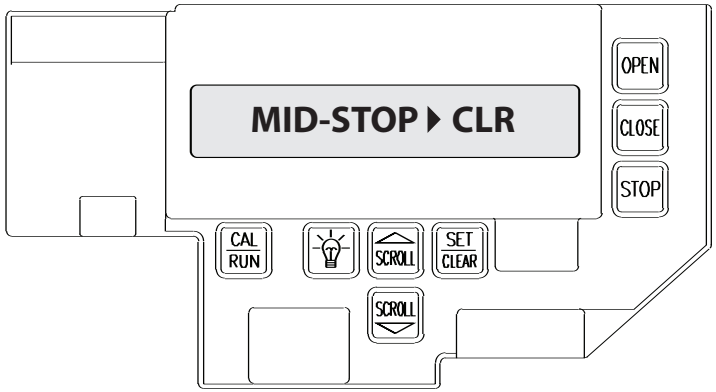


Figure 11

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.

⚠ WARNING

If momentary contact control is to be used, an external reversing device such as a photocell system or sensing edge switch must be used.

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 (DN) or (UP) until display reads "OPEN MODE > ."
   - This displays current setting.
3) Press SET/CLEAR until the display reads the desired operating mode:
   - C-STP = 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.

To set the CLOSE mode: **Fig. 13**.

1) Press CAL/RUN to enter the calibration mode.
2) Press SCROLL (DN) or (UP) 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 stop 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.

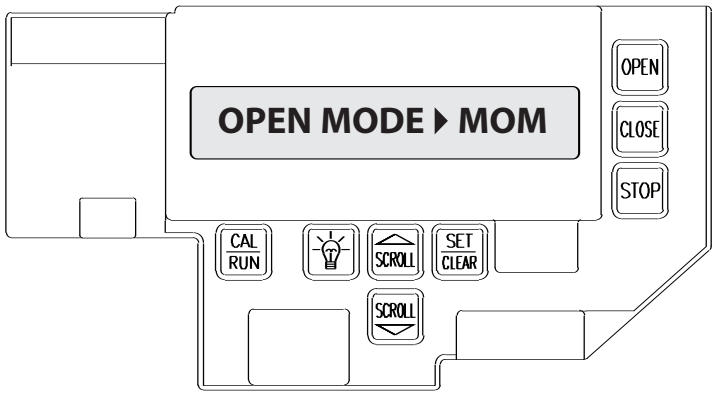


Figure 12

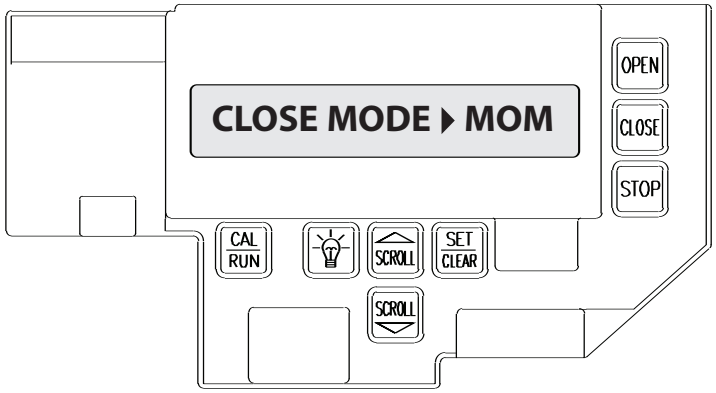


Figure 13

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.

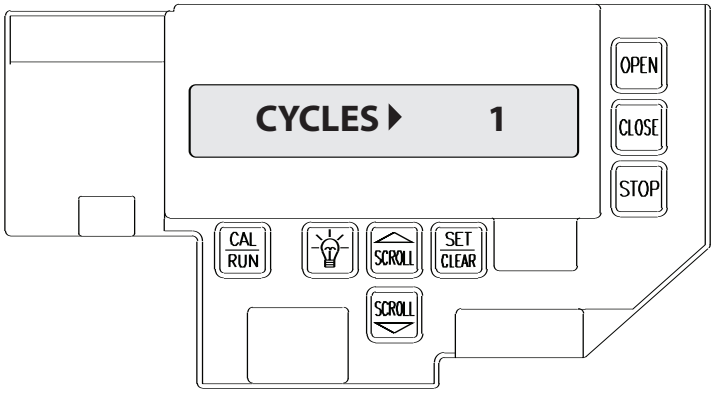


Figure 1

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.

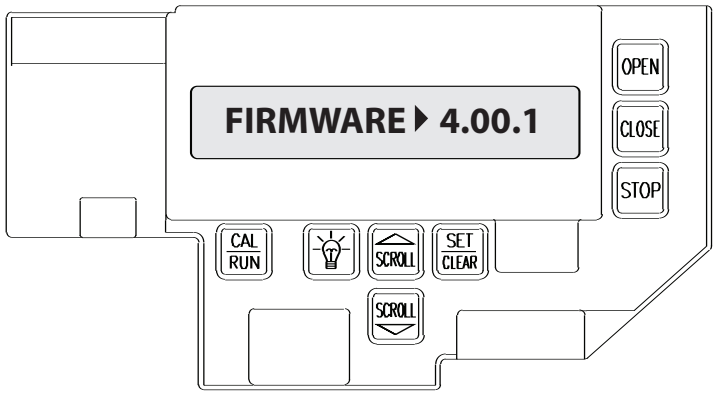


Figure 2

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.

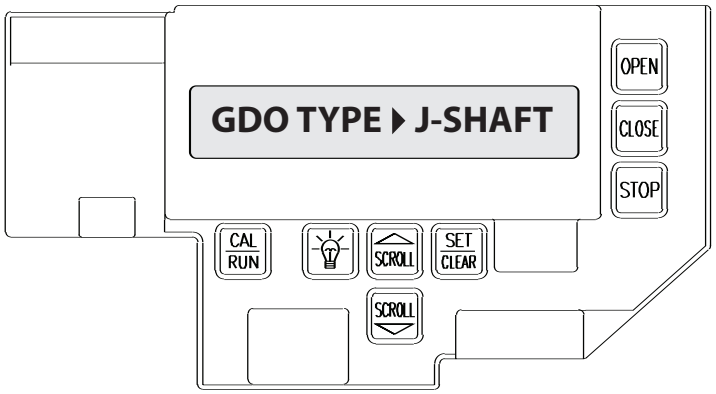


Figure 3

Section 8: Troubleshooting

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.

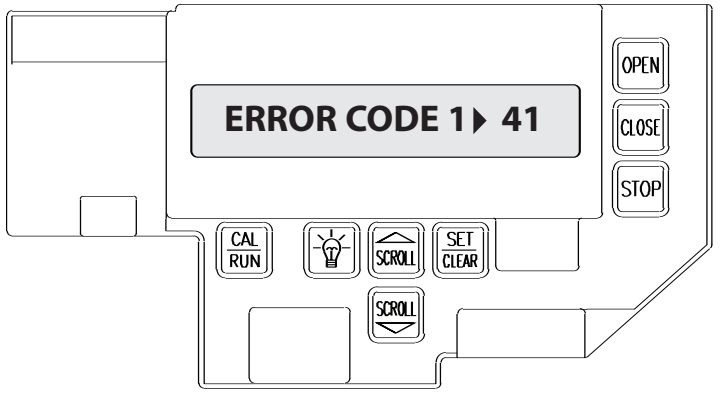


Figure 1

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****.*

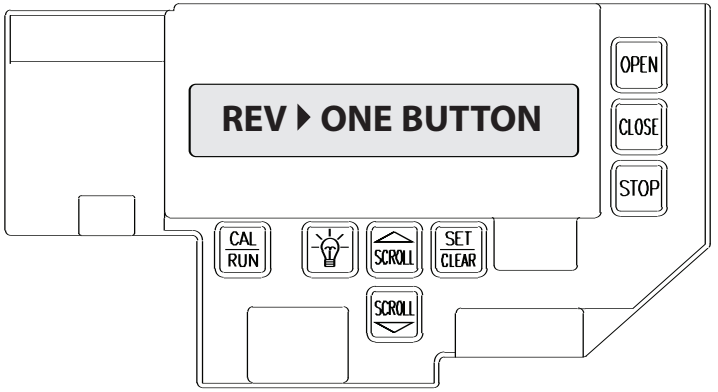


Figure 2

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 10.12 - 10.13.

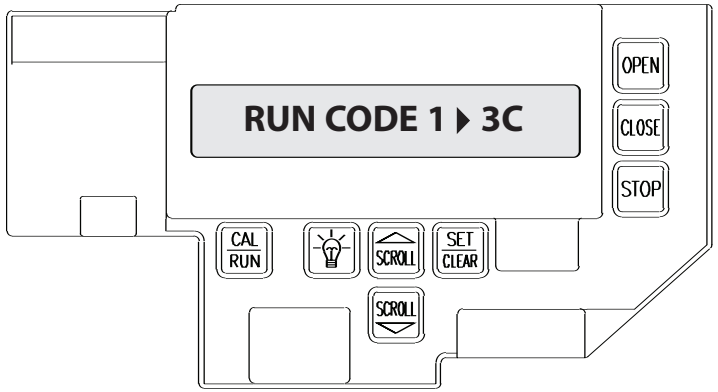


Figure 3

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****.*

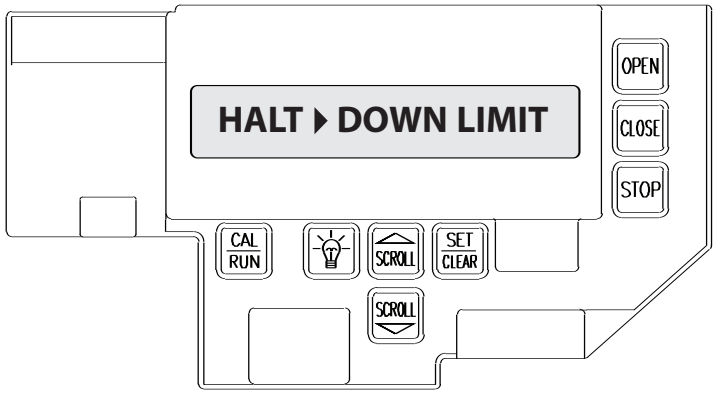


Figure 4

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 10.11.

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.

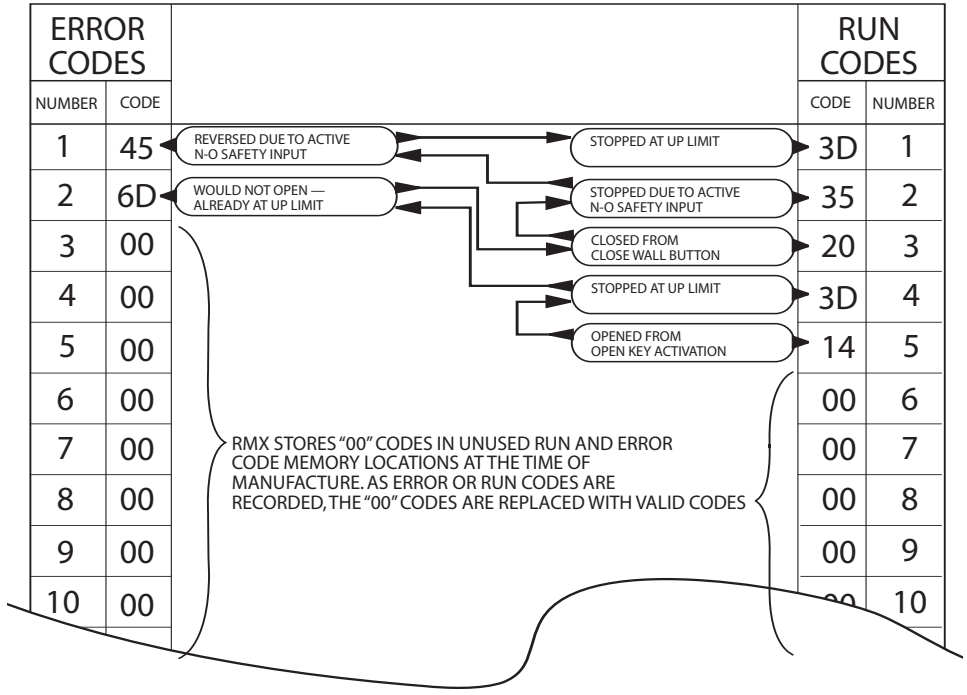


Figure 5

LED Indicators Fig. 6

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

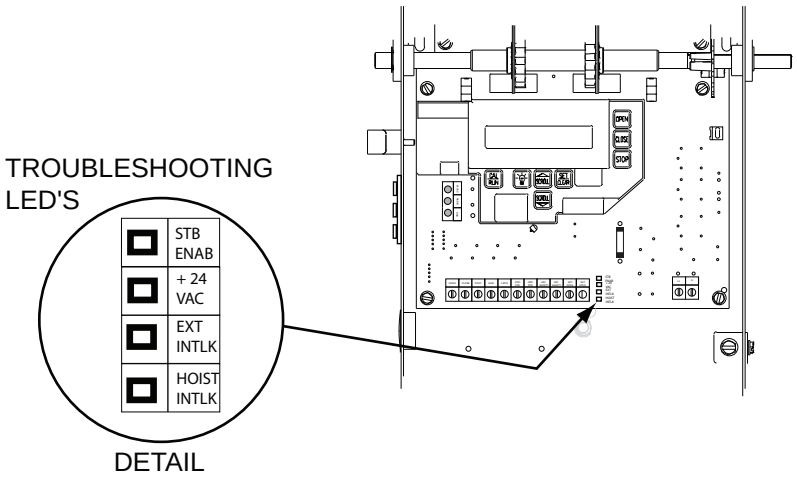


Figure 6

TROUBLESHOOTING LED's				
HOIST INTERLOCK	EXTERNAL INTERLOCK	+ 24 VOLTS DC	STB ENABLE	INDICATION
			OFF	STB DISABLED
			ON	STB ENABLED
ON	ON	ON		NORMAL OPERATING CONDITION
OFF	ON	ON		HOIST INTERLOCK SWITCH OPEN: 1) HOIST RELEASE NEEDS RESET. 2) HOIST INTERLOCK CONNECTOR NOT PLUGGED IN. 3) HOIST INTERLOCK DEFECTIVE.
OFF	OFF	ON		EXTERNAL INTERLOCK OPEN
OFF	OFF	OFF		POWER SUPPLY PROBLEM: 1) CHECK AC POWER SUPPLY. 2) CHECK MAIN POWER FUSE. 3) CHECK SECONDARY FUSE (2A).

Section 9: Service and Maintenance

Maintenance Schedule

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

⚠ CAUTION

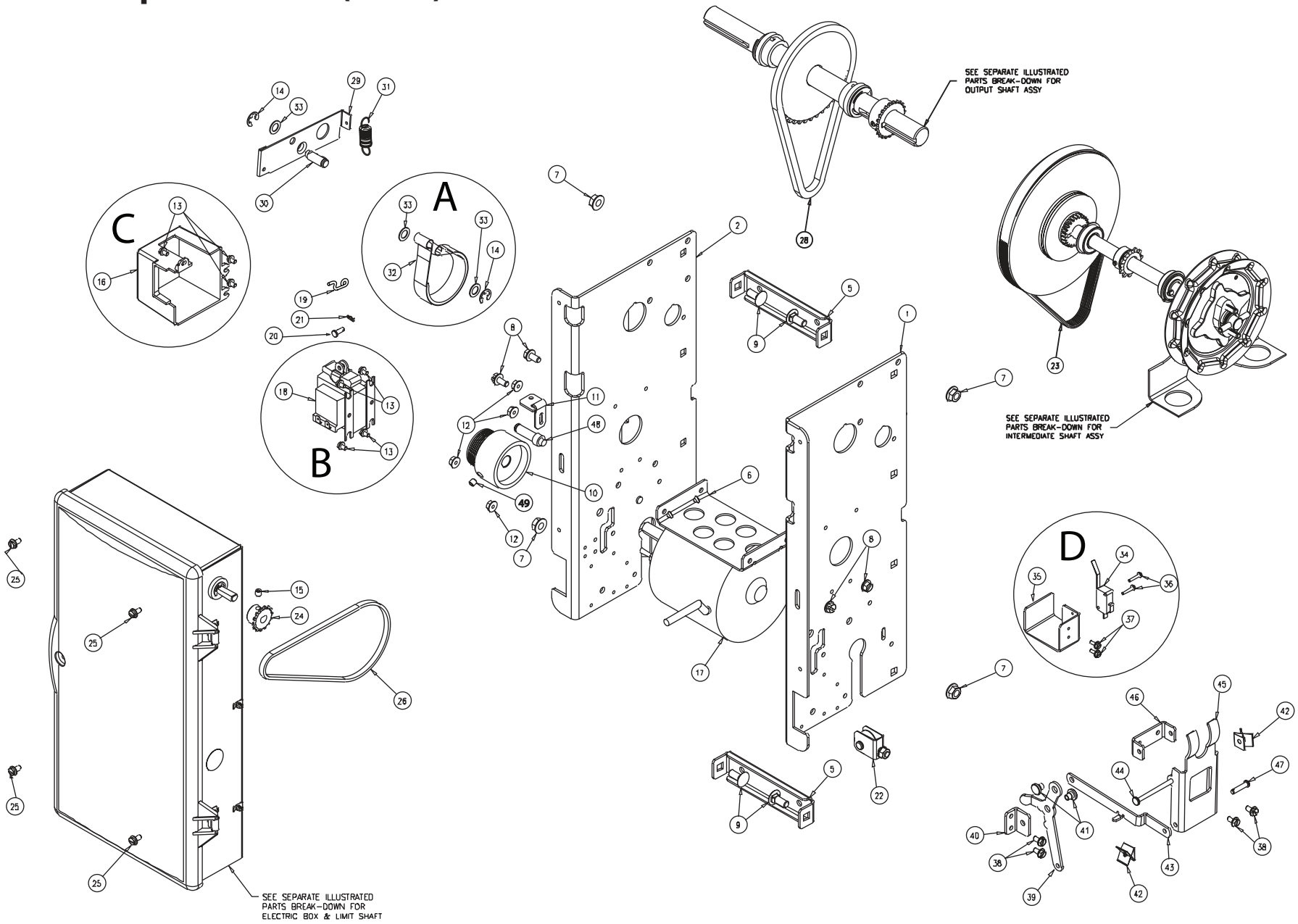
Failure to perform the recommended Service & Maintenance may result in premature failure of the operator.

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

* **ALL EXTERNAL REVERSING DEVICES SHOULD BE CHECKED MONTHLY.**

Section 10: Appendix A

Operator Exploded View (Hoist)



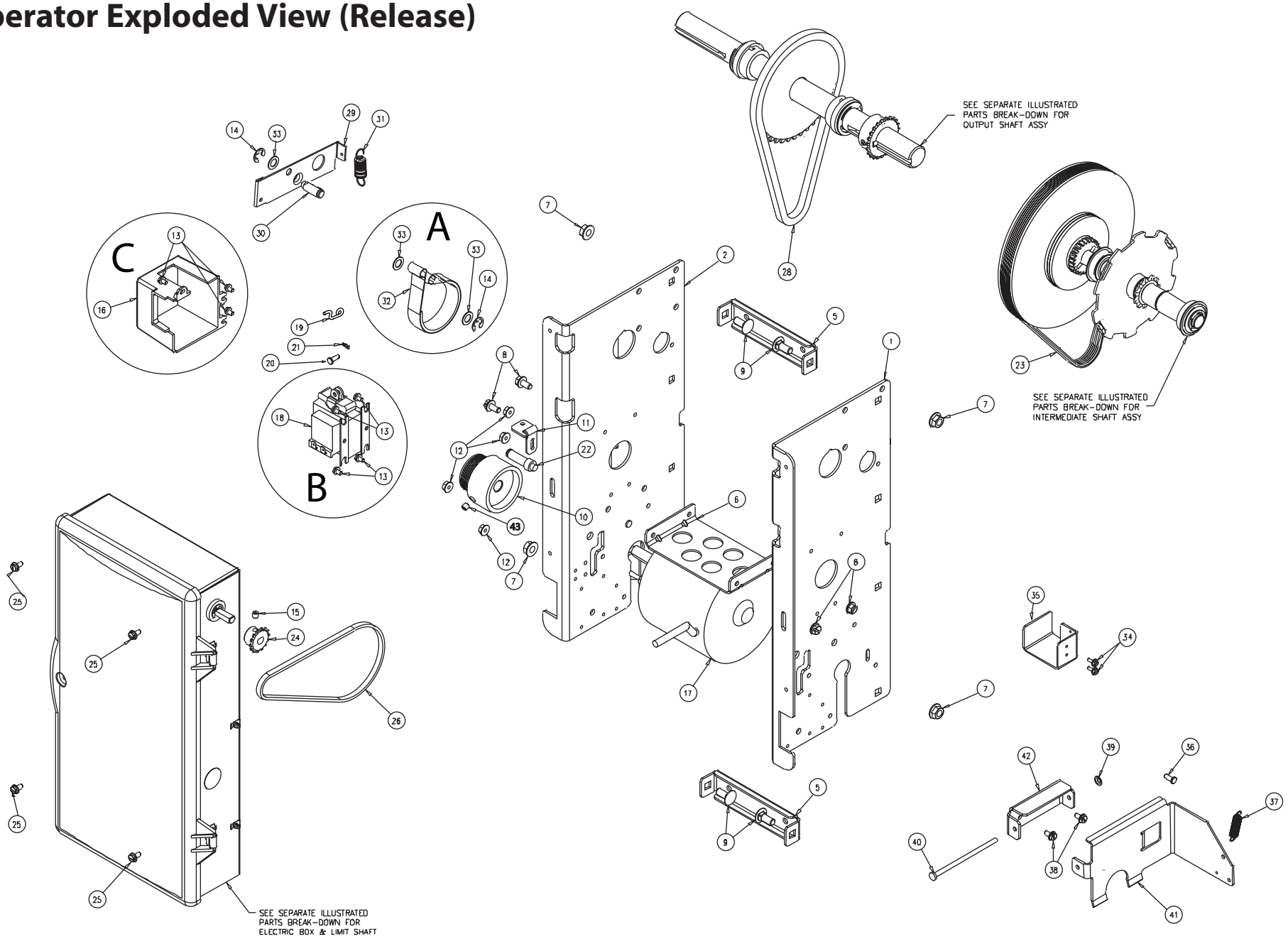
Appendix A (cont')

Operator Parts List (Hoist)

Item	Part Number	Kit Includes	Description	Qty
A	110956-0001		Kit, Brake Band	
		110450.0001	Brake Band, MX	1
		080415.0016	Ring, RTNG, EXT, "E", STL, 5/16"S	1
		106124.0007	WSHR, NYL .375" ID X .625" OD	2
		110960.0001	Instructions (not shown)	1
B	110953.0001		Solenoid Kit 120V	
		110847.0001	Solenoid 120V	1
		86575.0604	Screw	4
	110954.0001		Solenoid Kit 240V	
		110847.0002	Solenoid 240V	1
		086575.0604	Screw	4
C	110952.0001		Solenoid Cover Kit	
		110549.0001	Cover	1
		086575.0604	Screw	3
D	110975-0001		Interlock Switch Kit	
		108190.0001	Switch	1
		110805.0001	Bracket	1
		24173F04	Screw	2
		24173B04	Screw	2
		110976.0001	Instructions	1
1	110421.0002		Enclosure, Right Side	1
2	110421.0001		Enclosure, Left Side	1
5	110803.0001		Brace, Support	2
6	110804.0001		Bracket, Support	1
7	24121C05		Nut, 5/16-18 HX SERR FLG	4
8	086575.1008		SCR, HH, SLTD, TF, 1/4-20 X 1/2"	4
9	086420.0506		Bolt, CRG, SQNK, RDH, 5/16-18 X 3/4"	4
10	110443.0001		Pulley, Band Brake	1
11	110808.0001		Plate, Brake Adjust	1
12	24121E05		Nut, 10-32 HX, SERR FLG	4
13	086575.0604		Screw,THDF, 8-32 X 1/4"	7
14	080415.0016		Ring, RTNG, EXT, "E", STL, 5/16"	2
15	080300.1604		SCR, SET, SCH, KNRLD, 1/4-20 X 1/4"	1
16	110549.0001		Cover, Solenoid	1
17	110380.0001		Motor, 1/2HP, 120VAC	1
	110380.0002		Motor, 1/2HP, 240VAC	1
18	110847.0001		Solenoid, 120VAC	1
	110847.0002		Solenoid, 240VAC	1
19	111001.0001		Hook, Z-bend	1
20	111007.0001		Pin, Clevis, 3/16" X 1/2"	1
21	111004.0001		Cotter, Hairpin	1
22	107979.0001		PulleyAssy, Throwout	1
23	111010.0001		Belt, Poly-V	1
24	601332.0001		Sprkt, 14T, 1/4P, 3/8" Bore	1
25	086575.0806		Screw, THDF, 10-32 X 3/8"	4
26	086565.1013		Chain, RLR, #25 X 62P, Loop	1
28	110877.0058		Chain, #35 X 58P, loop	1
29	110449.0001		Lever, Brake	1
30	110522.0001		Post, Brake, Floating End	1
31	110824.0001		Spring, Brake Release	1
32	110450.0001		Brake Band	1
33	106124.0007		Wsher, Nyn .375 ID X .625 OD	3
34	108190.0001		Switch, Snap, N/O, Interlock	1
35	110805.0001		Bracket, Wire Guard	1
36	24173B04		Scr, #4-40 X 5/8" SLFTPG	2
37	24173F04		Scr, #6-32 X 3/8" SLFTPG	2
38	086575.0806		Screw, THDF 10-32 X 3/8"	4
39	110504.0001		Release Arm, Soleniod	1
40	110807.0001		BRKT, Soleniod Release	1
41	110809.0001		Rivet, Shoulder, Zinc	2
42	8115B17		Nut, Speed, SPEC	2
43	110503.0001		Link, Release	1
44	110481.0001		Pin, .188 DIA. X 2.70	1
45	110502.0001		Release Arm, Handwheel	1
46	110806.0001		Bracket, Hoist Pivot	1
47	086621.0314		Pin, Clevis, 3/16" X 7/8"	1
48	110521.0001		Post, Brake Fixed End	1
49	080300.1608		Scr, Set, 1/4"-20 x 1/2"	1

Appendix A (cont')

Operator Exploded View (Release)



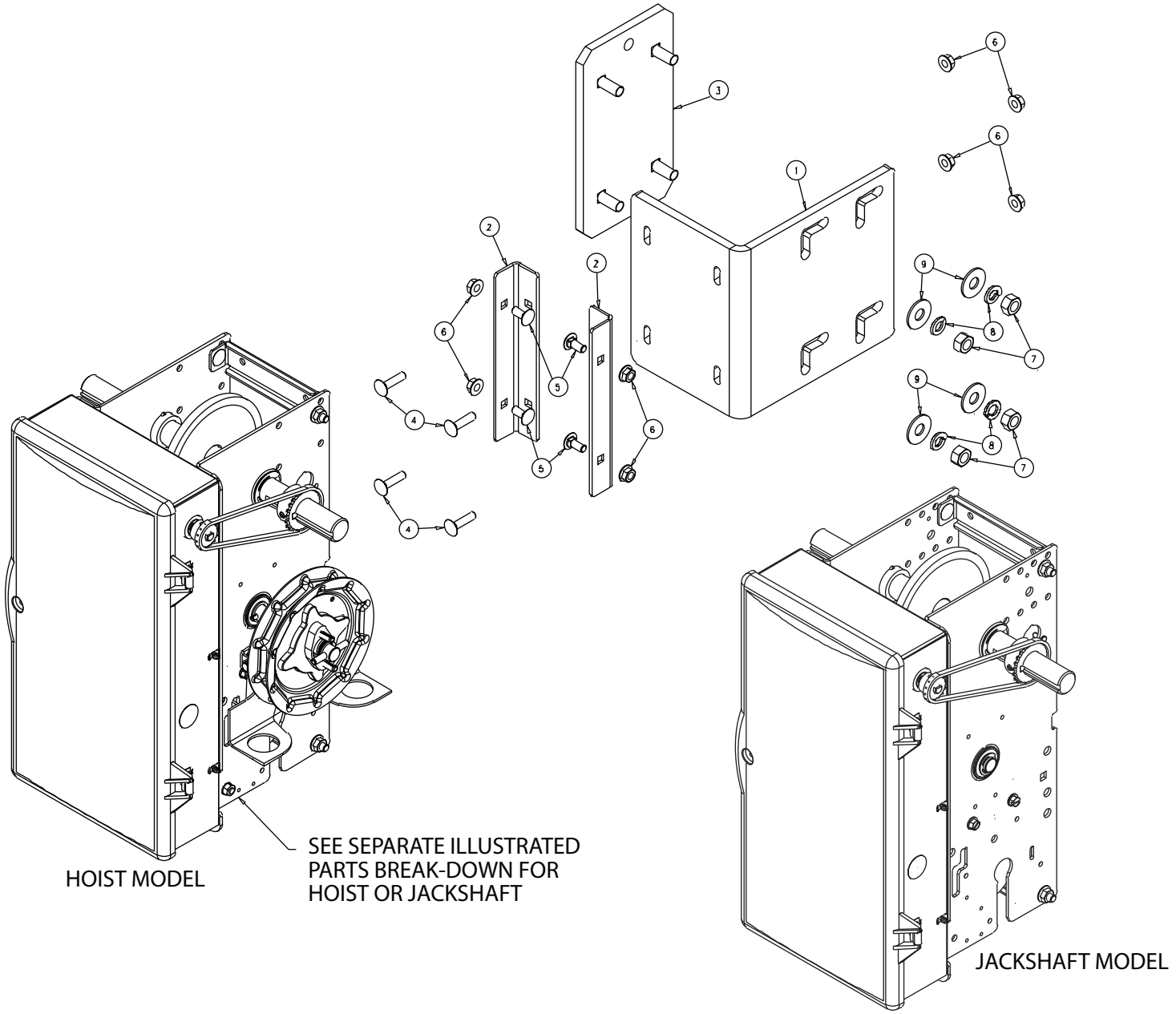
Operator Parts List (Release)

Item	Part Number	Kit Includes	Description	Qty
A	110956-0001		Kit, Brake Band	
		110450.0001	Brake Band, MX	1
		080415.0016	Ring, RTNG, EXT, "E", STL, 5/16"S	1
		106124.0007	Washer, NYL .375" ID X .625" OD	2
		110960.0001	Instructions (not shown)	1
B	110953.0001		Solenoid Kit 120V	
		110847.0001	Solenoid 120V	1
		086575.0604	Screw	4
	110954.0001		Solenoid Kit 240V	
		110847.0002	Solenoid 240V	1
		086575.0604	Screw	4
C	110952.0001		Solenoid Cover Kit	
		110549.0001	Cover	1
		086575.0604	Screw	3
1	110421.0002		Enclosure, Right Side	1
2	110421.0001		Enclosure, Left Side	1
5	110803.0001		Brace, Support	2
6	110804.0001		Bracket, Support	1
7	24121C05		Nut, 5/16"-18 HX SERR FLG	4
8	086575.1008		Screw, HH, SLTD, TF, 1/4"-20 X 1/2"	4
9	086420.0506		Bolt, CRG, SQNK, RDH, 5/16"-18 X 3/4"	4
10	110443.0001		Pulley, Band Brake	1
11	110808.0001		Plate, Brake Adjust	1
12	24121E05		Nut, 10-32 HX, SERR FLG	4
13	086575.0604		Screw,THDF, 8-32 X 1/4"	7
14	080415.0016		Ring, RTNG, EXT, "E", STL, 5/16"	2

Item	Part Number	Kit Includes	Description	Qty
15	080300.1604		Screw, SET, SCH, KNRLD, 1/4" -20 x 1/4"	1
16	110549.0001		Cover, Solenoid	1
17	110380.0001		Motor, 1/2HP, 120VAC	1
	110380.0002		Motor, 1/2HP, 240VAC	1
18	110847.0001		Solenoid, 120VAC	1
	110847.0002		Solenoid, 240VAC	1
19	111001.0001		Hook, Z-bend	1
20	111007.0001		Pin, Clevis, 3/16" X 1/2"	1
21	111004.0001		Cotter, Hairpin	1
22	110521.0001		Post, Brake Fixed End	1
23	111010.0001		Belt, Poly-V	1
24	601332.0001		Sprocket, 14T, 1/4P, 3/8" Bore	1
25	086575.0806		Screw, THDF, 10-32 X 3/8"	4
26	086565.1013		Chain, RLR, #25 X 62P, Loop	1
28	110877.0058		Chain, #35 X 58P, loop	1
29	110449.0001		Lever, Brake	1
30	110522.0001		Post, Brake, Floating End	1
31	110824.0001		Spring, Brake Release	1
32	110450.0001		Brake Band	1
33	106124.0007		Washer, Nyn .375 ID X .625 OD	3
34	24173F04		Screw, *6-32 x 3/8" SLFTPG	2
35	110805.0001		Bracket, Wire Guard	1
36	086621.0308		Pin, Clevis 3/16" x 1/2" L	1
37	110867.0001		Spring, Jackshaft Release	1
38	086575.0806		Screw, THDF 10-32 X 3/8"	2
39	086101.0005		Nut, Push, 3/16"	1
40	18586A04		Pin, Cold Headed	1
41	110814.0001		Bracket, Jackshaft Release	1
42	110815.0001		Bracket, Pivot, Jackshaft	1
43	080300.1608		Screw, Set, 1/4"-20 x 1/2"	1

Appendix A (cont')

Mounting Hardware Exploded View

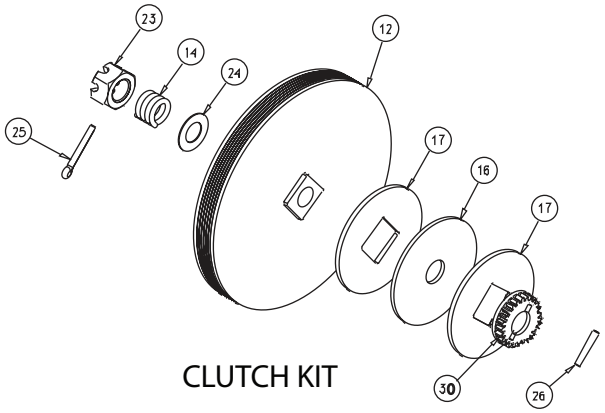


Appendix A (cont')

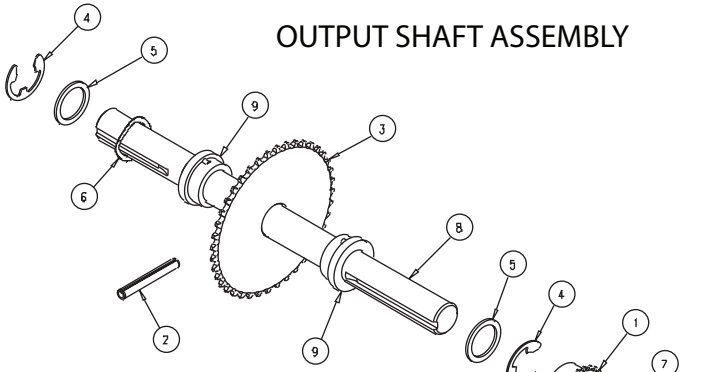
Mounting Hardware Parts List

Item	Part Number	Kit Includes	Description	Qty
1	110855.0001		Bracket, Support	1
2	110854.0001		Bracket, Mounting	2
3	110010.0001		Bracket, Weld	1
4	086420.0510		Bolt, CRG, SQNK, RDH, 5/16-18 X 1-1/4	4
5	086420.0506		Bolt, CRG, SQNK, RDH, 5/16-18 X 3/4	4
6	24121C05		Nut, 5/16-18 HX SERR FLG	8
7	080352.0714		Nut, HEX, PLD, 7/16-14	4
8	080322.0446		WSHR, LOCK, PLD, 7/16 X 25/32 OD	4
9	080302.3240		WSHR, FLAT, PLD, 7/16 X 1-1/4 OD	4

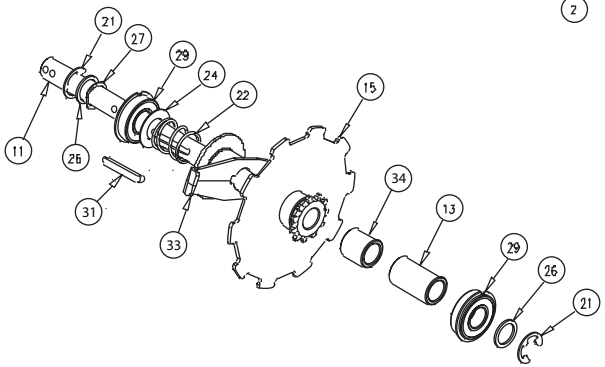
Shaft Assemblies



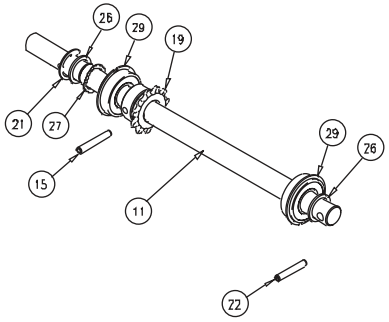
CLUTCH KIT



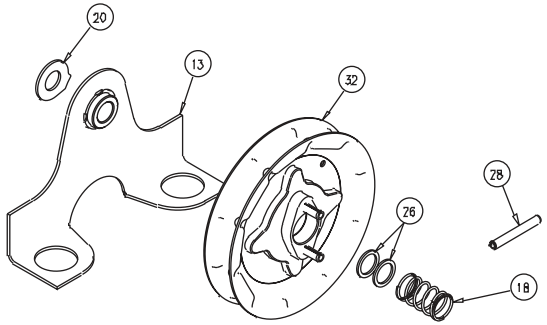
OUTPUT SHAFT ASSEMBLY



INTERMEDIATE SHAFT ASSEMBLY
(RELEASE)



INTERMEDIATE SHAFT ASSEMBLY
(HOIST)



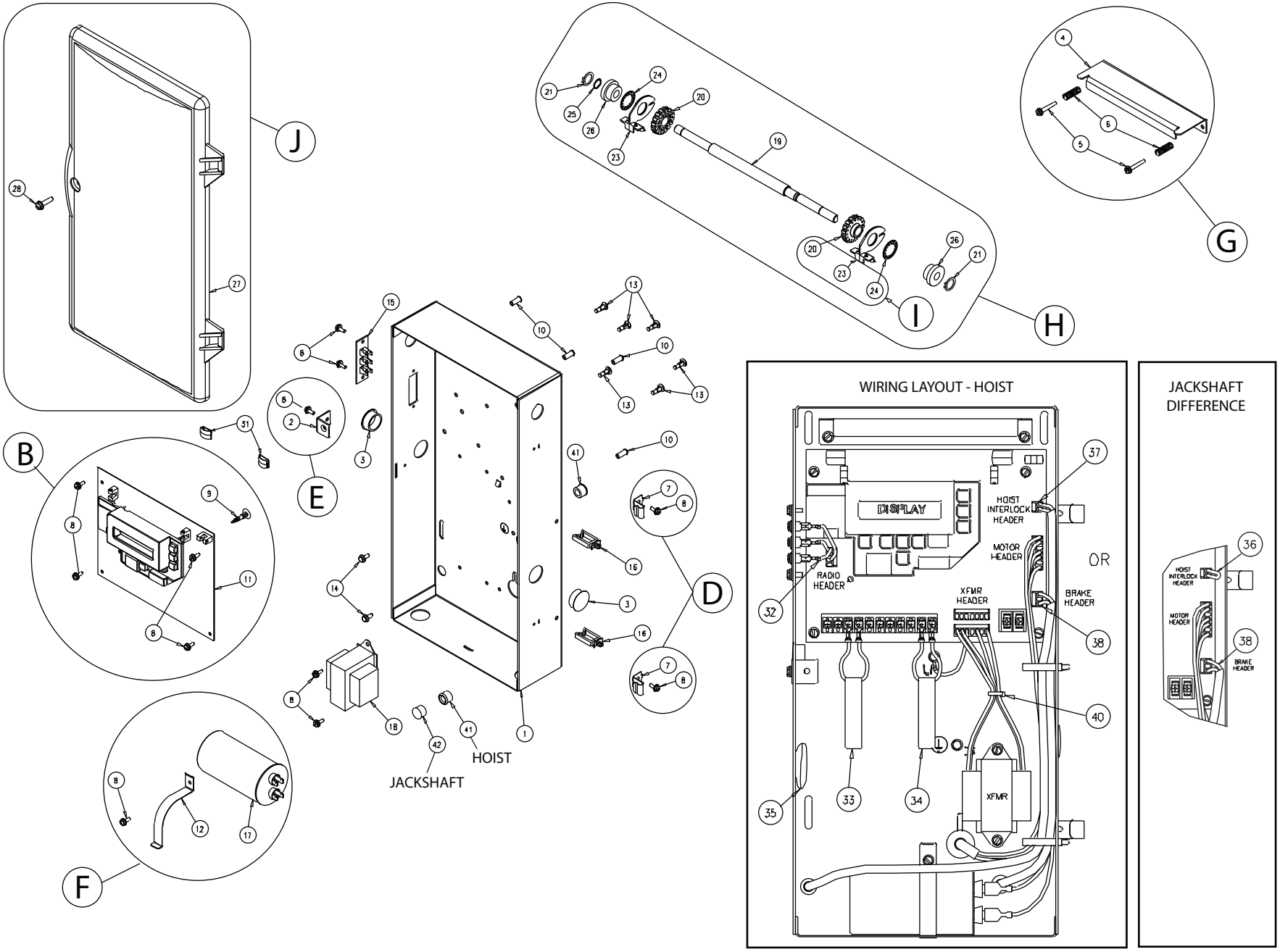
HANDWHEEL KIT

Shaft Parts List

Item	Part Number	Kit Includes	Description	Qty
A	110970.0001		Clutch Kit	
12		110469.0001	Pulley, Clutch	1
14		075197.0000	Spring, Clutch	1
16		075193.0000	Lining, Clutch	1
17		108015.0001	Disc, Clutch Movable	2
23		110472.0001	Nut 5/8-11	1
25		080401.0624	Pin, Cotter	1
30		110874.0001	Insert, Clutch Disc	1
26		110881.0001	Pin, Dowel	1
24		086649.0029	Washer, Thrust	1
N/S		110971.0001	Instructions	1
B	110986.0001		Output Shaft Kit - J/H Indirect	
8		110478.0002	Shaft, Output	1
3		110482.0001	Sprocket 40T #35	1
2		110313.0005	Pin, Spring 5/16 X 2.25	1
4		080415.0025	"E" Ring 63/64	2
5		110819.0002	Washer, Plain	2
6		110818.0002	Washer, Wave	1
7		080300.1604	Set Screw	2
1		110460.0003	Sprocket 23T #25	1
9		106064.0001	Bushing 1"	2
10		080340.0074	Key 1/4 X 7/8	1
N/S		110996.0001	Grease	1
N/S		110987.0001	Instructions	1

Item	Part Number	Kit Includes	Description	Qty
C	110990.0001		Int. Shaft Kit - H Indirect	
11		110463.0001	Int. Shaft	1
22		110313.0003	Pin, Spring	1
15		110313.0008	Pin, Spring	1
19		110465.0001	Sprocket 11T #35	1
21		080415.0021	"E" Ring 5/8"	1
26		110819.0001	Washer, Plain 5/8"	2
27		110818.0001	Washer, Wave 5/8"	1
29		110813.0001	Bearing 5/8"	2
N/S		110313.0007	Pin, Spring	1
N/S		110996.0001	Grease	1
N/S		110991.0001	Instructions	1
D	110973.0001		Handwheel Kit	
13		110411.0001	Chain Guard Assy	1
32		110872.0001	Handwheel Assy	1
18		110545.0001	Spring, Handwheel	1
28		110313.0007	Pin, Spring	1
20		110391.0001	Washer, Spacer 5/8"	1
26		110819.0001	Washer, Plain	2
N/S		110974.0001	Instructions	1
E	110994.0001		Shaft, Intmd, Jackshaft Assy	
11		110392.0001	Shaft, Intmd, Jackshaft	1
13		110821.0001	Bushing, .627 ID x 1.50 L	1
15		110817.0001	Sprocket and Engagement Plate	1
21		080415.0021	Ring, Rtng, Ext, "E", STL, 5/8"	2
22		110389.0001	Spring, Jackshaft Release	1
24		086649.0029	Washer, Thrust	1
26		110819.0001	Washer, Plain, 5/8"	2
27		110818.0001	Washer, Wave, 5/8"	1
29		110813.0001	Bearing, .625 ID	2
31		110816.0001	Key, Round End, .188" x 1.500"	1
33		110387.0001	Slider, Jackshaft, MX	1
34		110820.0001	Bushing, .627" ID x .88" LG	1
N/S		110996.0001	Grease	1
N/S		110995.0001	Instructions	1

Electric Box Exploded View



Electric Box Parts List

Item	Part Number	Kit Includes	Description	Qty
A	110943.0001		Electric Box Assy, Rolling Steel 120V	
A	110944.0001		Electric Box Assy, Rolling Steel 240V	
B	110955-0001		Replacement Board Kit	
		35451R	Board	1
		110825.0001	Standoff, Locking	1
	Not Shown	110922.0001	Jumper Stop	1
	Not Shown	110922.0002	Jumper Ext Interlock	1
	Not Shown	110859.0001	Hoist Interlock Jumper	1
		24173F04	Screw	4
	Not Shown	110959.0001	Instructions	1
C	110957.0001		Fuse Kit (Not Shown)	
		34004C0002	Fuse 2A	10
		34004DR315	Fuse .3A	10
D	110950.0001		Hinge Kit	
		110423.0001	Hinge	2
		24173F04	Screw	2
E	110951.0001		Latch Kit	
		110870.0001	Latch	1
		24173F04	Screw	1
F	110962.0001		Capacitor Kit 79µF	
		110830.0001	Capacitor, 79µF	1
		110868.0001	Clamp	1
		24173F04	Screw	1
F	110963.0001		Capacitor Kit 19.5µF	
		110830.0002	Capacitor, 19.5µF	1
		110868.0001	Clamp	1
		24173F04	Screw	1
G	110958-0001		Limit Retainer Kit	
		110542.0001	Plate, Limit Retainer	1
		110562.0001	Spring, Limit	2
		110827.0001	Screw	2
	Not Shown	110961.0001	Instructions	1
H	110968-0001		Limit Shaft Kit - Sidemount	
		111048.0001	Limit Shaft	1
		110459.0001	Travel Nut	2
		109876.0003	"E" Ring 5/16"	2
		110550.0001	Limit Trigger	2
		110823.0001	Retaining Ring, Push On	2
		110818.0003	Washer	1
		077538.0000	Bushing 3/8"	2
	Not Shown	601332.0001	Sprocket 14T #25 3/8"B	1
	Not Shown	110969.0001	Instructions	1
I	110945.0001	Limit Nut Assy		
		110459.0001	Travel Nut	1
		110550.0001	Limit Trigger	1
		110823.0001	Retaining Ring, Push On	1

Electric Box Parts List (cont')

Item	Part Number	Kit Includes	Description	Qty
J	110869.0002		Cover Assy	
		110505.0002	Cover	1
	Not Shown	100270.0005	Decal	1
	Not Shown	110851.0001	Decal	1
	Not Shown	35571A	Label	1
		086575-0712	Screw	1
1	110429.0001		Box, Electric	1
2	110870.0001		Latch, Electric Box	1
3	603038.0012		Plug, hole, 7/8	2
4	110542.0001		Plate, Limit Retainer	1
5	110827.0001		Screw, THDF, #8-32 X 1, Hex Head	2
6	110562.0001		Spring, Limit	2
7	110423.0001		Hinge, Electric Box	2
8	24173F04		Scr, #6-32 X 3/8, SLFTPG, SEMS	12
9	110825.0001		Standoff, Circuit Board, Locking	1
10	110826.0001		Standoff, PEM, #6-32	4
11	35451R		Circuit Board	1
12	110868.0001		Clamp, Capacitor	1
13	110828.0001		Standoff, Circuit Board, Support	6
14	8706E29		Screw, HHD, SLTD, TAP, #8-32 X 3/8 GN	2
15	110900.0001		Terminal Strip, 3 Position	1
16	605476.0003		Clip, Wire	2
17	110830.0001		Capacitor, 79 µF	1
	110830.0002		Capacitor, 19.5 µF	
18	110846.0001		Transformer, 120VAC	1
	110846.0002		Transformer, 240VAC	
19	111048.0001		Shaft, Limit	1
20	110459.0001		Nut, Travel	2
21	109876.0003		Retaining Ring	2
23	110550.0001		Limit Trigger	2
24	110823.0001		Retaining Ring, Push on	2
25	110818.0003		Washer, Wave Spring, .397 ID	1
26	077538.0000		Bushing, 3/8" ID	2
27	110505.0002		Cover, Electric Box	1
28	086575.0712		Screw, HH, SLTD, TF, #10-24 X 3/4"	1
31	35709A		Limit Ramp	2
32	110892.0001		HSG & Lead Assy., Radio	1
33	110922.0001		Lead & Label Assy, Stop Button	1
34	110922.0002		Lead & Label Assy, Interlock	1
35	110898.0001		Bag Assy, Fuse	1
36	110859.0001		HSG & Lead Assy., Jumper	1
37	110858.0001		HSG & Lead Assy., 2 Pos., Interlock	1
38	110857.0001		HSG & Lead Assy., 3 Pos., Brake	1
40	22327B		Tie, Cable	1
41	107606.0002		Bushing, Snap, .500 (Jackshaft)	1
			Bushing, Snap, .500 (Hoist)	2
42	603038.0006		Plug, 1/2" Hole (Jackshaft Only)	1
	110930.0001		Instructions (not shown)	1

Screw Terminal Assignments

INPUT		FUNCTION	CONNECTION TYPE
11-POSITION TERMINAL BLOCK INSIDE ELECTRIC BOX	OPEN	Causes door to open if not at Up Limit. Causes a closing door to reverse.	Normally-Open Dry Contact to GND.
	CLOSE	Causes door to close if not at Down Limit.	Normally-Open Dry Contact to GND.
	STOP	Causes a moving door to stop. Prevents the operator from running.	Normally-Closed Dry Contact to GND.
	GND	Common ground connection for Open, Close, Stop & 1-Btn Inputs.	
	1-BTN	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.	Normally-Open Dry Contact to GND.
	ODC STB	Reverses a closing door if photocell beam is blocked. NOTE: STB's must be enabled in Calibration Mode.	Connect only ODC Series II Safe-T-Beams® to these inputs. Connect to either terminal (not polarity sensitive).
	ODC STB	Reverses a closing door if photocell beam is blocked. NOTE: STB's must be enabled in Calibration Mode.	Connect only ODC Series II Safe-T-Beams® to these inputs. Connect to either terminal (not polarity sensitive).
	N-O SAFETY	Causes a closing door to reverse. NOTE: Will not open a stopped door.	Normally-Open 2-Wire Non-Monitored Edge Sensor Connect to either terminal (not polarity sensitive)
	N-O SAFETY	Causes a closing door to reverse. NOTE: Will not open a stopped door.	Normally-Open 2-Wire Non-Monitored Edge Sensor Connect to either terminal (not polarity sensitive)
	EXT INTLK	Causes a moving door to stop. Prevents the operator from running when contact is open. Operates even if microcontroller is non-functional.	Normally-Closed dry contacts. (board will energize these contacts at nominal +24VDC).
	EXT INTLK	Causes a moving door to stop. Prevents the operator from running when contact is open. Operates even if microcontroller is non-functional.	Normally-Closed dry contacts. (board will energize these contacts at nominal +24VDC).
2-POSITION TERMINAL BLOCK INSIDE ELECTRIC BOX	L1 / L1	Power to RMX™ operator.	120VAC: Connect to Line (Hot) / 240VAC: Connect to Line 1.
	N / L2	Power to RMX™ operator.	120VAC: Connect to Neutral / 240VAC: Connect to Line 2.
3-POSITION TERMINAL STRIP ON OUTSIDE OF ELECTRIC BOX	PWR	Provides power for radio & other accessories. +20 to +40VDC, fused at 315mA (F1).	Connect to radio or other accessory's power input.
	RAD (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.	
	GND	Common ground connection for PWR and RAD terminals.	Connect to radio or other accessory's ground input.
PLUG CONNECTIONS INSIDE ELECTRIC BOX	EXPANSION PORT	Connects accessory modules to RMX™ operator.	Accessory Module Ribbon Cable.
	TRANSFORMER	Connects main transformer to control board.	Transformer Plug.
	TRANSFORMER	Connects optional second transformer to control board.	Transformer Plug.
	BRAKE	Connects brake solenoid to control board.	Brake Solenoid Plug.
	MOTOR	Connects motor & capacitor to control board.	Motor Plug.
	HOIST INTLK	Causes a moving door to stop. Prevents the operator from running. Operates even if microcontroller is non-functional.	Hoist Interlock Plug or Jumper.

Display Run Codes

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

Display Error Codes

Section 10: Appendix C

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

Display Error Codes (cont')

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

Section 10: Appendix D

Safe-T-Beam® Monitored Photocell Self-diagnostic Troubleshooting Chart

SOURCE (RED LED)	SENSOR (GREEN LED)	INDICATED CONDITION	REQUIRED ACTION
● ON	● ON	NORMAL OPERATION	NONE REQUIRED
○ 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 EXTERNAL REVERSING DEVICES, INCLUDING PHOTOCELLS.

The Genuine. The Original.

Access Systems Division
a Division of Overhead Door Corporation
22790 Lake Park Blvd.
Alliance, Ohio 44601

WARRANTY

The Genuine. The Original.

OVERHEAD DOOR®

RMX®
Commercial Operator Limited Warranty

The authorized distributor of Overhead Door Corporation products, whose name appears below ("Seller") warrants to the original purchaser of model RMX® commercial operators ("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 20,000 cycles*, whichever occurs first.

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 applies only to an operator which is installed in commercial or industrial building applications. 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 EXPRESS 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.

*The number of cycles referred to herein shall be measured by an integrated cycle counter contained in or attached to the Product. If the cycle counter is rendered inoperable Seller shall use other reasonable means to determine cycle count.

ORIGINAL PURCHASER _____

INSTALLATION ADDRESS _____

SELLER: _____

SELLER'S ADDRESS: _____

FACTORY ORDER #: _____

DATE OF INSTALLATION: _____

SIGNATURE OF SELLER: _____

C900-974

Overhead Door Corporation
2501 S. State Hwy 121 Bus., Suite 200
Lewisville, TX 75067
1-800-929-3667(DOOR)
www.overheaddoor.com