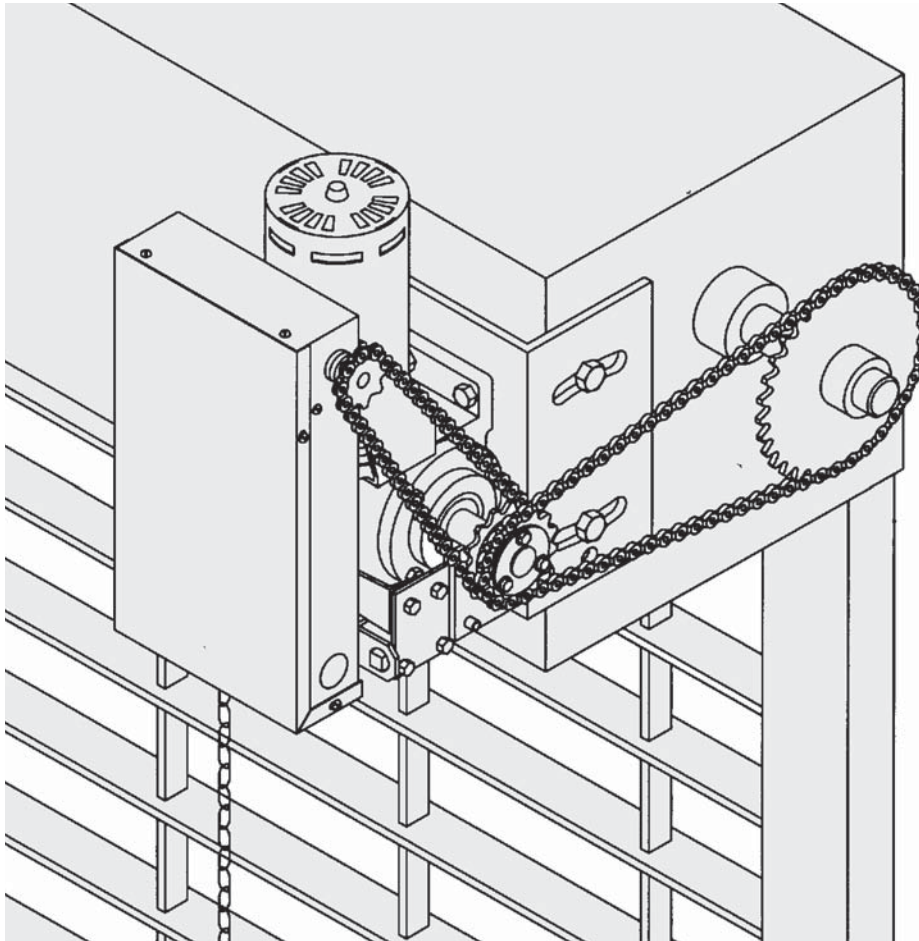


OWNER'S MANUAL

LGJ LIGHT DUTY DOOR OPERATOR



2 YEAR WARRANTY

Serial # Box _____
(located on electrical box cover)

Installation Date _____

Wiring Type _____

NOT FOR RESIDENTIAL USE

41B6



LISTED

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 **WARNING**

Mechanical

 **WARNING**

Electrical

CAUTION

When you see these Safety Symbols and Signal Words on the following pages, they will alert you to the possibility of **serious injury** or **death** if you do not comply with the warnings that accompany them. The hazard may come from something mechanical or from electric shock. Read the warnings carefully. When you see this Signal Word on the following pages, it will alert you to the possibility of damage to your door and/or the door operator if you do not comply with the cautionary statements that accompany it. Read them carefully.

IMPORTANT NOTES:

- *BEFORE attempting to install, operate or maintain the operator, you must read and fully understand this manual and follow all safety instructions.*
- *DO NOT attempt repair or service of your commercial door and gate operator unless you are an Authorized Service Technician.*

OPERATOR SPECIFICATIONS

MOTOR

TYPE: Limited Duty
HORSEPOWER: 1/4 HP 1 Phase
SPEED: 1725 RPM
VOLTAGE: 115V, 60Hz, 1 Phase
CURRENT: See Motor Nameplate

ELECTRICAL

TRANSFORMER:24Vac
CONTROL STATION: NEMA 1 3-Button Station
 Open/Close/Stop
WIRING TYPE: G2 (Standard)
 See page 9 for optional control settings and operating modes.
LIMIT ADJUST: Linear driven, fully adjustable screw type
 cams. Adjustable to 24'.

MECHANICAL

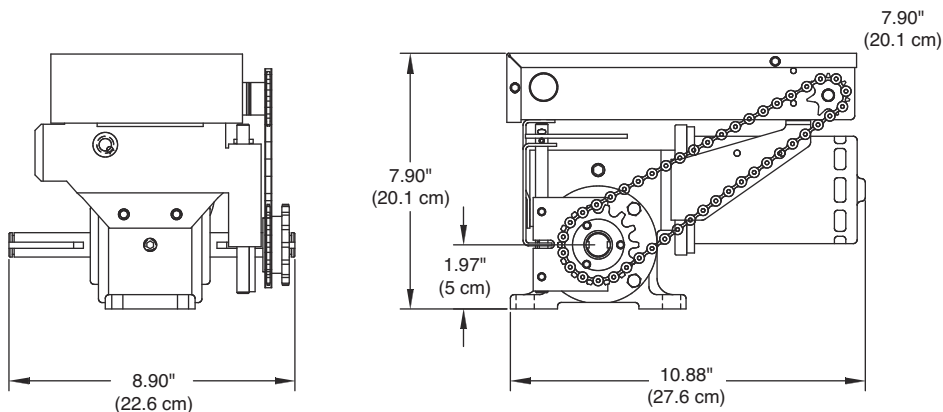
DRIVE REDUCTION: 40:1 Reduction
 (Heavy duty wormgear-in-oil bath speed reducer)
OUTPUT SPROCKET: Size #41
DOOR SPEED: 9" per second, typical, depending on door.
BEARINGS: Heavy duty wormgear-in-oil-bath
 speed reducer.
DUTY: 7 Cycles per hour max

SAFETY

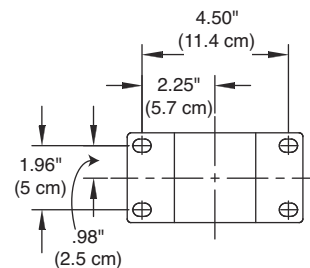
DISCONNECT: Floor level disconnect
 for emergency manual door operation.
REVERSING EDGE (Optional): Electric or pneumatic
 sensing device attached to the bottom edge of door.
 A reversing edge is strongly recommended for all commercial
 operator installations. Required when the 3-button control
 station is out of sight of door or any other control (automatic or
 manual) is used.

WEIGHTS AND DIMENSIONS

HANGING WEIGHT: 80-110 LBS. (36.3-49.9 kg)



MOUNTING DIMENSIONS



PREPARATION

WARNING

To prevent possible **SERIOUS INJURY** or **DEATH**:

- **DO NOT** connect electric power until instructed to do so.
- If the door lock needs to remain functional, install an interlock switch.
- **ALWAYS** call a trained professional door serviceman if door binds, sticks or is out of balance. An unbalanced door may not reverse when required.

- **NEVER** try to loosen, move or adjust doors, door springs, cables, pulleys, brackets or their hardware, **ALL** of which are under **EXTREME** tension and can cause **SERIOUS PERSONAL INJURY**.
- Disable **ALL** locks and remove **ALL** ropes connected to door **BEFORE** installing and operating door operator to avoid entanglement.

LGJ Operators are assembled at the factory to be installed in a right hand (motor side up) configuration. To install an LGJ Operator on the left hand side of your door (motor side down), complete the three steps described below.

1. Reconfigure Disconnect Chain Assembly

The default configuration for the disconnect chain assembly is shown in Figure 1. This configuration allows the chain to hang freely when the operator is mounted on right side only. To insure smooth operation of the disconnect chain assembly when mounted motor side down, reconfigure as described below and as shown in figures 2 and 3.

1. Disconnect the key ring from the release cable.
2. Thread the release cable through the slot on the outermost edge of the support bracket, as shown in Figure 2.
3. Re-attach the key ring and sash chain to the end of the loop of release cable.

2. Set Limit Switch Direction

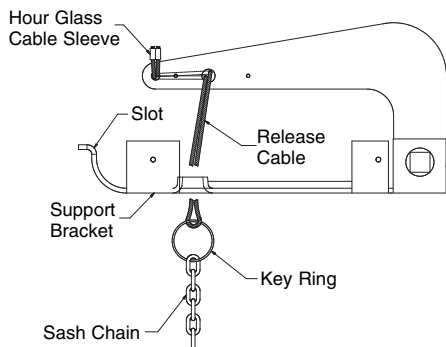
Locate Switch #1 on PCB in the electrical box. Place pole #2 of Switch #1 in the "OFF" position. With this setting limit switch labeled "A" is the close switch, limit switch labeled "B" is the open switch.

Important: Refer to page 7 for for complete instructions on setting of limit switches.

3. Affix Electrical Box Cover Caution Label

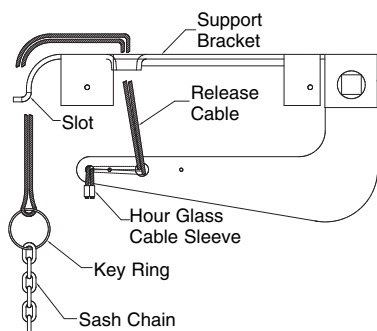
Place the caution label on electrical box cover such that the text is read in the opposite direction of silkscreen.

Figure 1



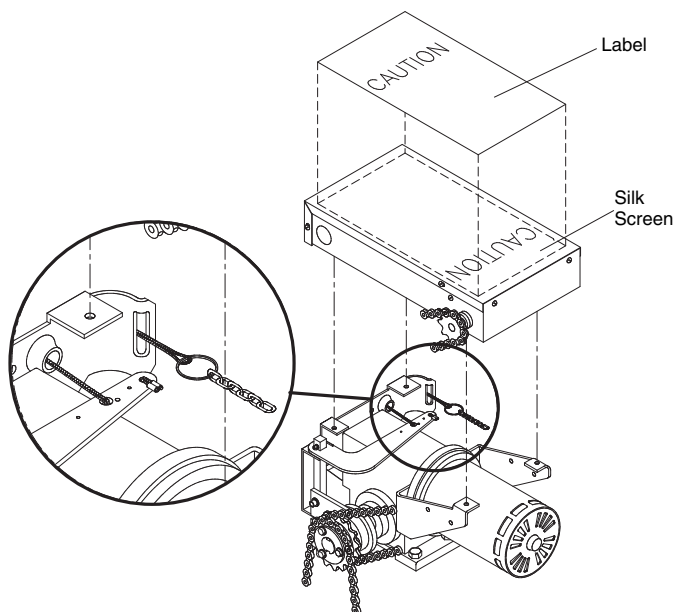
Disconnect cable as shipped from the factory

Figure 2



Disconnect cable re-routed for left hand mounting

Figure 3



INSTALLATION

IMPORTANT NOTE: Before your operator is installed, be sure the door has been properly aligned and is working smoothly. The operator may be wall mounted or mounted on a bracket or shelf. If necessary, refer to the preparation on page 4. Refer to the illustrations and instructions below that suit your application.

MOUNT THE OPERATOR

1. **Wall Mount:** The operator should generally be installed below the door shaft, and as close to the door as possible (Figure 3).

Bracket Shelf Mounting: The operator may be mounted either above or below the door shaft (Figure 1).

IMPORTANT: The shelf or bracket must provide adequate support, prevent play between operator and door shaft, and permit operator to be fastened securely and with the drive shaft parallel to the door shaft.

NOTE: The optimum distance between the door shaft and operator drive shaft is between 12-15" (30.5-38.1 cm).

2. Place door sprocket on the door shaft. Do not insert the key at this time.
3. Wrap drive chain around door sprocket and join roller chain ends together with master link.
4. Raise operator to approximate mounting position and position chain over operator sprocket.
5. Raise or lower operator until the chain is taut (not tight). Make sure the operator output shaft is parallel to door shaft and sprockets are aligned. When in position, secure the operator to wall or mounting bracket.
6. Insert key in the door sprocket and secure with the set screws (Figure 2)

7. **Mount Chain Keeper / Keyhole Bracket**

Using suitable hardware mount the chain keeper approximately 4' (1.22 m) above the floor, near the free hanging chain.

Remove disconnect sash chain from bag and place the end through the keyhole in the the chain keeper (Figure 3). Remove excess links if necessary.

Figure 1

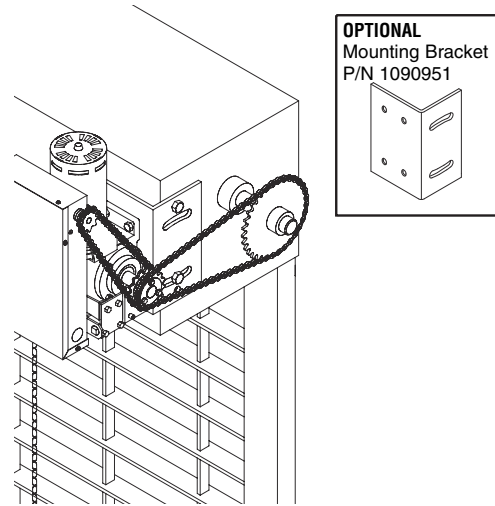


Figure 2

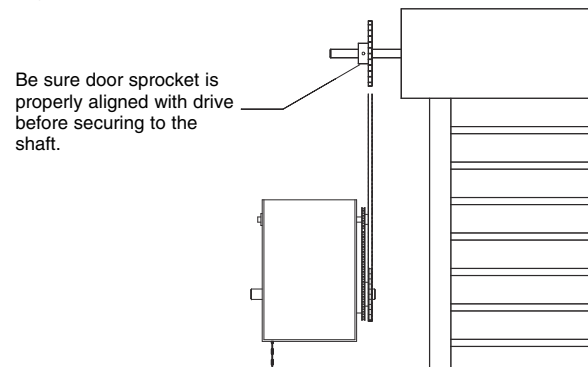
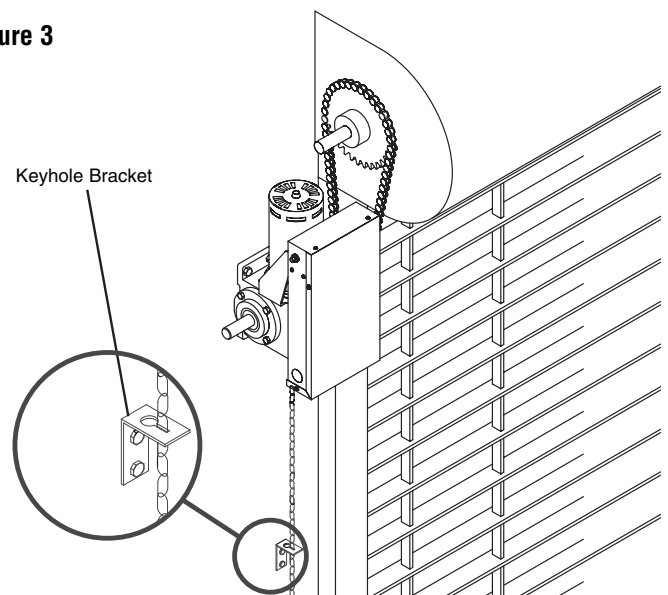


Figure 3



INSTALLATION

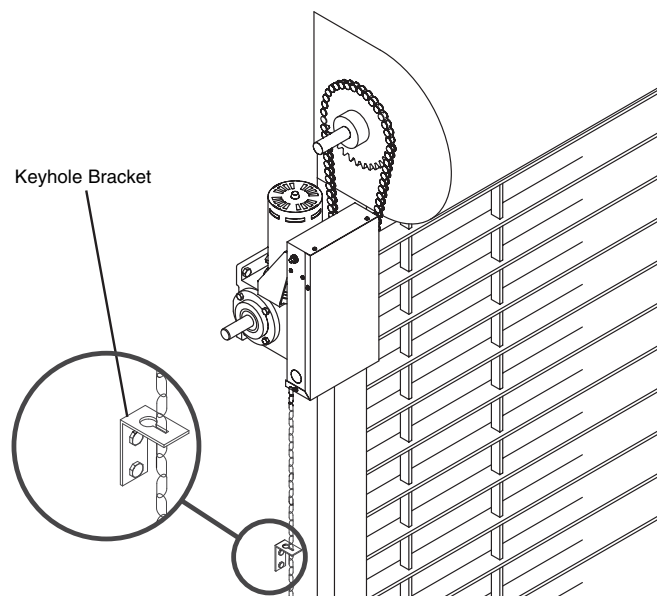
EMERGENCY MANUAL OPERATION

This operator has a floor level disconnect chain to disconnect the door from the door operator allowing for manual operation of the door in case of emergency or power failure.

1. To disengage, pull the chain and secure in the disengaged position by slipping the end through the keyhole bracket mounted on the wall. Or if emergency egress device is used, pull handle to disengage operator from door.
2. The door may now be pushed up or pulled down manually. Release the disconnect chain to operate the door again electrically.

! WARNING

To prevent possible **SERIOUS INJURY** from a moving chain, disconnect electric power to the operator **BEFORE** manually operating your door.



ADJUSTMENT

LIMIT SWITCH ADJUSTMENT

IMPORTANT NOTE: To avoid danger of possible damage to the door and operator, limit switches must be adjusted to their approximate positions before applying power to the operator.

1. Set Limit Direction Switch

Open the cover on the electrical box and locate dip switch SW1 on circuit board. The direction of the limit travel is determined by the switch SW1 - pole #2 setting.

If your operator is mounted Motor Side Up:

Set dip switch SW1 - pole #2 to "ON" position.

If your operator is mounted Motor Side Down:

Set dip switch SW1 - pole #2 to "OFF" position.

NOTE: See Mounting Options on page 5 to verify the correct mounting application.

As determined by SW1 - pole 2 setting above, locate your OPEN and CLOSE limit switches. See the figure below for switch layout.

For Motor Side Up Mounting:

Limit switch -A- is the OPEN limit. Limit switch -B- is the CLOSE limit.

For Motor Side Down Mounting:

Limit switch -A- is the CLOSE limit. Limit switch -B- is the OPEN limit.

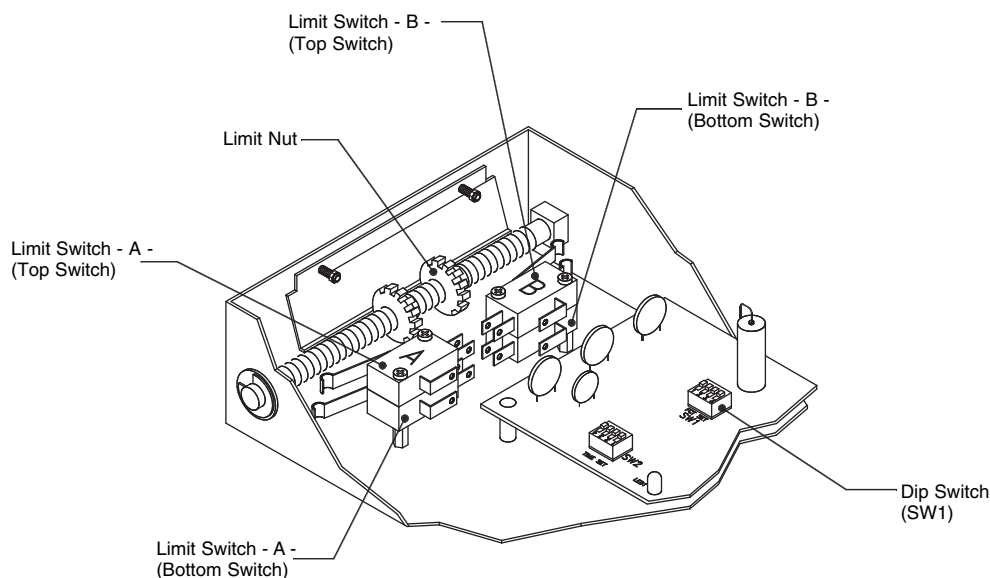
Auxiliary limit switches to control other functions are also present and should not be confused with the -A- and -B- limit switches.

There are two(2) limit nuts on the threaded shaft that transverse the shaft as the operator opens and closes the door. When a limit nut nears the end of the shaft, it activates a switch(es).

⚠️ ⚠️ WARNING

To avoid SERIOUS PERSONAL INJURY or DEATH from electrocution, disconnect electric power BEFORE manually moving limit nuts.

2. Manually raise the door to a nearly open position (see page 6, Manual Operation)
3. Depress the limit nut retaining bracket away from the slots in the limit nuts, and manually rotate to the OPEN limit nut until it depresses the OPEN limit switch lever (you can hear the switch click when the switch contacts transfer). Release the retaining bracket and be sure it engages in the slots of both limit nuts.
4. Manually lower the door to a nearly closed position, and repeat step 3 with the CLOSE (right) limit nut.
5. Test Limit Travel
Manually move the door to a half-open position to avoid damage due to incorrect (dip switch setting) limit travel. When power is applied, it will cause the door to OPEN when the limit nuts are traveling in the direction of the CLOSE limit switch or vice versa. In either instance, the limit nuts will travel past the limit switch and may cause damage to both the door and operator. See Step 1 for correct setting.
6. After completing the wiring connections on pages 9-11, refer back to step 3 above for adjustment of limit switches to their final, exact position.



If your operator is mounted Motor Side Up: Set dip switch SW1 - pole #2 to "ON" position

If your operator is mounted Motor Side Down: Set dip switch SW1 - pole #2 to "OFF" position.

When SW1 - pole 2 position is "ON":
Limit switch -A- is the OPEN limit.
Limit switch -B- is the close limit.

When SW1 - pole 2 position is "OFF":
Limit switch -A- is the CLOSE limit.
Limit Switch -B- is the OPEN limit.

ADJUSTMENT

ENTRAPMENT PROTECTION ACCESSORIES (OPTIONAL)

SAFETY SENSORS AND SENSING EDGES

Sensing devices provided for door industry type operators with an isolated normally open (N.O.) dry contact output are compatible with your operator. This includes pneumatic and electric edges, and through beam and retro reflective photo eyes. If you would like to order or receive more information on safety devices, please contact your local Authorized Dealer.

If not pre-installed by the door manufacturer, mount the sensing edge on the door according to the instructions provided with the edge. The sensing edge may be electrically connected by either coiled cord or take-up reel.

IMPORTANT NOTES:

- a. Proceed with Limit Switch Adjustments described before making any sensing edge wiring connections to operator.
- b. Electrician must hardwire the junction box to the operator electrical box in accordance with local codes.

WARNING

To reduce the risk of SEVERE INJURY or DEATH, ALWAYS install reversing sensors when the 3-button control station is out of sight of door or ANY other control (automatic or manual) is used. Reversing devices are recommended for ALL installations.

TAKE-UP REEL

Take-up reel should be installed 12" (30.48 cm) above the top of the door.

COIL CORD

Connect operator end of coil cord to junction box (not provided) fastened to the wall approximately halfway up the door opening.

MAINTENANCE

MAINTENANCE SCHEDULE

Check at the intervals listed in the following chart:

ITEM	PROCEDURE	EVERY 3 MONTHS OR 5,000 CYCLES	EVERY 6 MONTHS OR 10,000 CYCLES	EVERY 12 MONTHS OR 20,000 CYCLES
Drive Chain	Check for excessive slack. Check and adjust as required. Lubricate.	●●		◆
Sprockets	Check set screw tightness.	●		◆
Fasteners	Check and tighten as required.		●	◆
Manual Disconnect	Check and operate.		●	◆
Bearings and Shafts	Check for wear and lubricate.	●●		◆

WARNING

To avoid SERIOUS PERSONAL INJURY or DEATH from electrocution, disconnect ALL electric power BEFORE performing ANY maintenance.

- ◆ **Use SAE 30 Oil (Never use grease or silicone spray).**
 - Do not lubricate motor. Motor bearings are rated for continuous operation.
 - Do not lubricate clutch or V-belt.
- ◆ **Repeat ALL procedures.**
- **Inspect and service whenever a malfunction is observed or suspected.**

HOW TO ORDER REPAIR PARTS

OUR LARGE SERVICE ORGANIZATION SPANS AMERICA

Installation and service information are available.

Call our TOLL FREE number:

1-800-528-2806

www.liftmaster.com

CONTROL WIRING

STANDARD G2 WIRING

Model LGJ operators are supplied with type G2 control wiring. Study the control features list below to determine the features and type of control equipment that may be used with your operator.

ENTRY CONTROLS

OPEN control requiring maintained contact.

OPEN control requiring only momentary contact.

CLOSE control requiring maintained contact.

CLOSE control requiring only momentary contact.

OPEN/CLOSE single control requiring momentary contact.

STOP control requiring momentary contact.

SAFETY DEVICES

External Interlock switch to disable all control pneumatic safety (N.C.) to STOP while closing Safety Device to REVERSE while closing Door Lock Sensing Circuit.

OPERATIONAL FEATURES

REVERSE (if closing) with momentary contact on OPEN.

AUTOMATIC TIMER to CLOSE from any device.

AUTOMATIC TIMER to CLOSE from selected devices.

DELAY REVERSE in either direction for 1 second.

STOP after maximum run time is exceeded.

NOTE: Refer to control connection diagram on page 11.

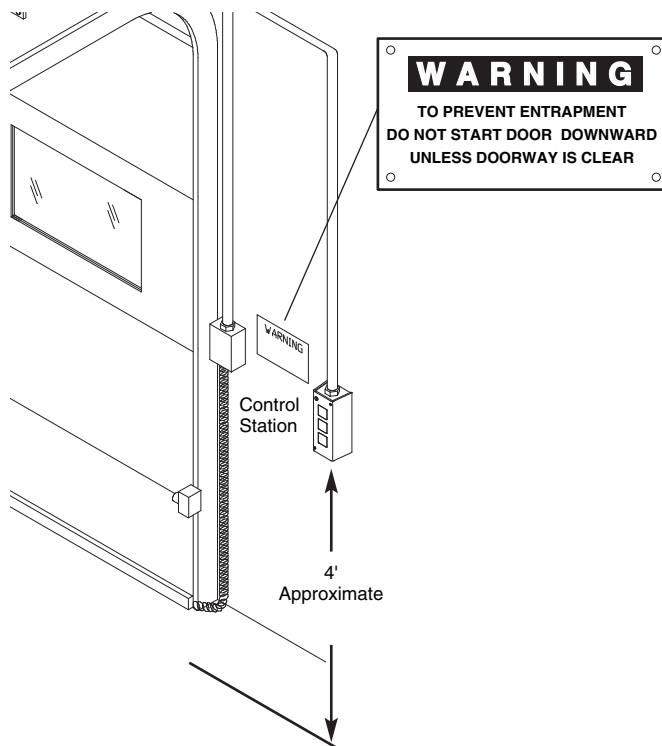
MOUNTING INSTRUCTIONS

All operators are supplied with some type of control station. Generally a 3-button station (OPEN/CLOSE/STOP) is provided. A two-position key switch or control station (OPEN/CLOSE) may be added or substituted when requested at the time of order.

1. Mount WARNING NOTICE beside or below the control station.
2. Mount control station(s) within line of sight of door(s).

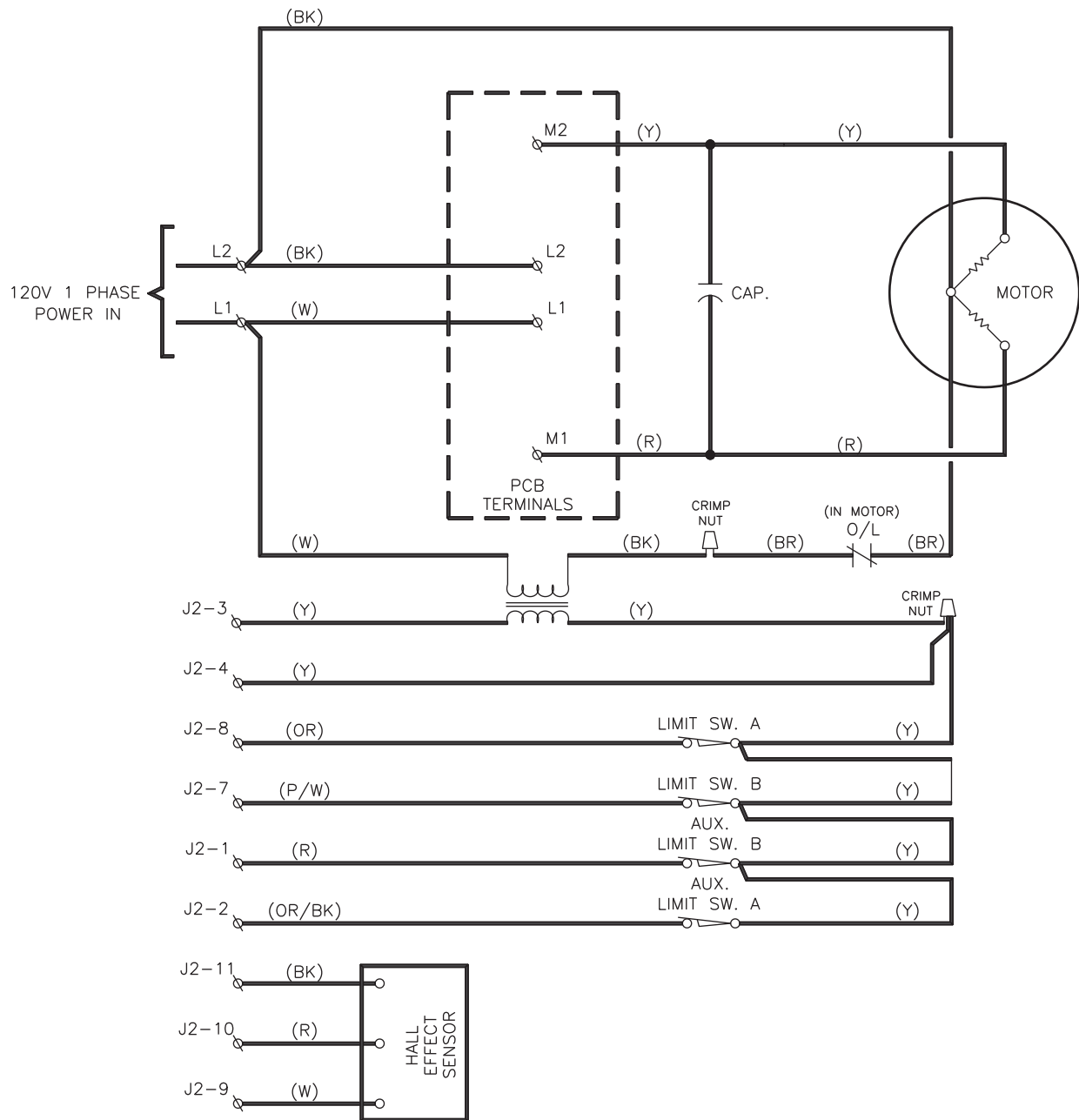
WARNING

To prevent possible **SERIOUS INJURY** or **DEATH**, install reversing sensors when the 3-button control station is out of sight of the door or **ANY** other control (automatic or manual) is used. Reversing devices are recommended for **ALL** installations.



SINGLE PHASE SCHEMATIC DIAGRAM

1666

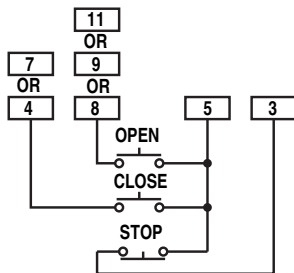


CONTROL CONNECTION DIAGRAM

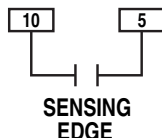
NUMBERED BOXES CORRESPOND WITH TERMINALS ON J1 CONNECTOR STRIP

If Necessary, Remove The Connector Block From The Board To Secure Each Wire Connection

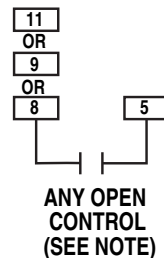
Connect field wires to any terminal number shown in the respective column. See control options below for explanation of how field control will function for each terminal number.



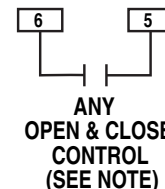
STANDARD
3 BUTTON CONTROL



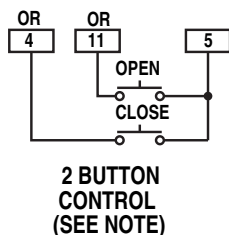
SENSING
EDGE



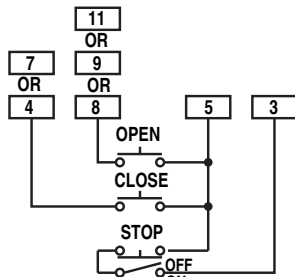
ANY OPEN
CONTROL
(SEE NOTE)



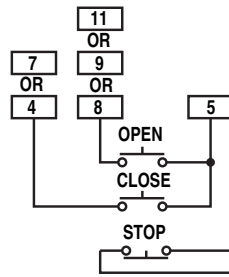
ANY
OPEN & CLOSE
CONTROL
(SEE NOTE)



2 BUTTON
CONTROL
(SEE NOTE)



3 BUTTON CONTROL
WITH
KEYED LOCK-OUT



3 BUTTON CONTROL
WITH
MULTIPLE CONTROL STATIONS

IMPORTANT NOTE: WHEN STOP BUTTON IS NOT USED, ADD A JUMPER FROM TERMINAL 3 TO TERMINAL 5.



OPEN AND CLOSE CONTROL OPTIONS

WHEN CONNECTING AN OPEN CONTROL TO:

- 11** - Open control will require constant pressure to keep door moving.
- 9** - Open control will only require momentary contact and will set or reset timer to close.
- 8** - Open control will only require momentary contact and will NOT set or reset timer to close.

WHEN CONNECTING AN CLOSE CONTROL TO:

- 4** - Close control will require constant pressure to keep door moving.
- 7** - Close control will only require momentary contact. DO NOT add unless using an entrapment Protection device.

SWITCH ADJUSTMENTS

SWITCH #1 SETTINGS

MAXIMUM RUN TIME: 1 - ON: Maximum run time is 90 seconds.
OFF: Maximum run time is 45 seconds.

MAXIMUM RUN TIME: 2 - ON: CLOSE limit switch B
OFF: CLOSE limit switch A

3 - OFF: (DO NOT ADJUST)

4 - OFF: (DO NOT ADJUST)

CONSULT FACTORY FOR ADJUSTEMENT

SWITCH #2 SETTINGS

TIMER TO CLOSE SWITCH SETTING:

O = ON F = OFF

SETTING	TIME	SETTING	TIME
1 2 3 4		1 2 3 4	
0 0 0 0	= Disabled	0 0 0 F	= 72 sec
F 0 0 0	= 2 sec	F 0 0 F	= 88 sec
O F 0 0	= 3 sec	O F 0 F	= 107 sec
F F 0 0	= 13 sec	F F 0 F	= 126sec
O O F O	= 15 sec	O O F F	= 148 sec
F O F O	= 23 sec	F O F F	= 172 sec
O F F O	= 32.5 sec	O F F F	= 198 sec
F F F O	= 43.6 sec	F F F F	= 224 sec

REPLACEMENT PARTS LISTS

Below are replacement kits available for your operator. Optional modifications and/or accessories included with your operator may add or remove certain components from these lists.

Complete Electrical Box Replacement Kit

K-LGJ2511

Model LGJ2511

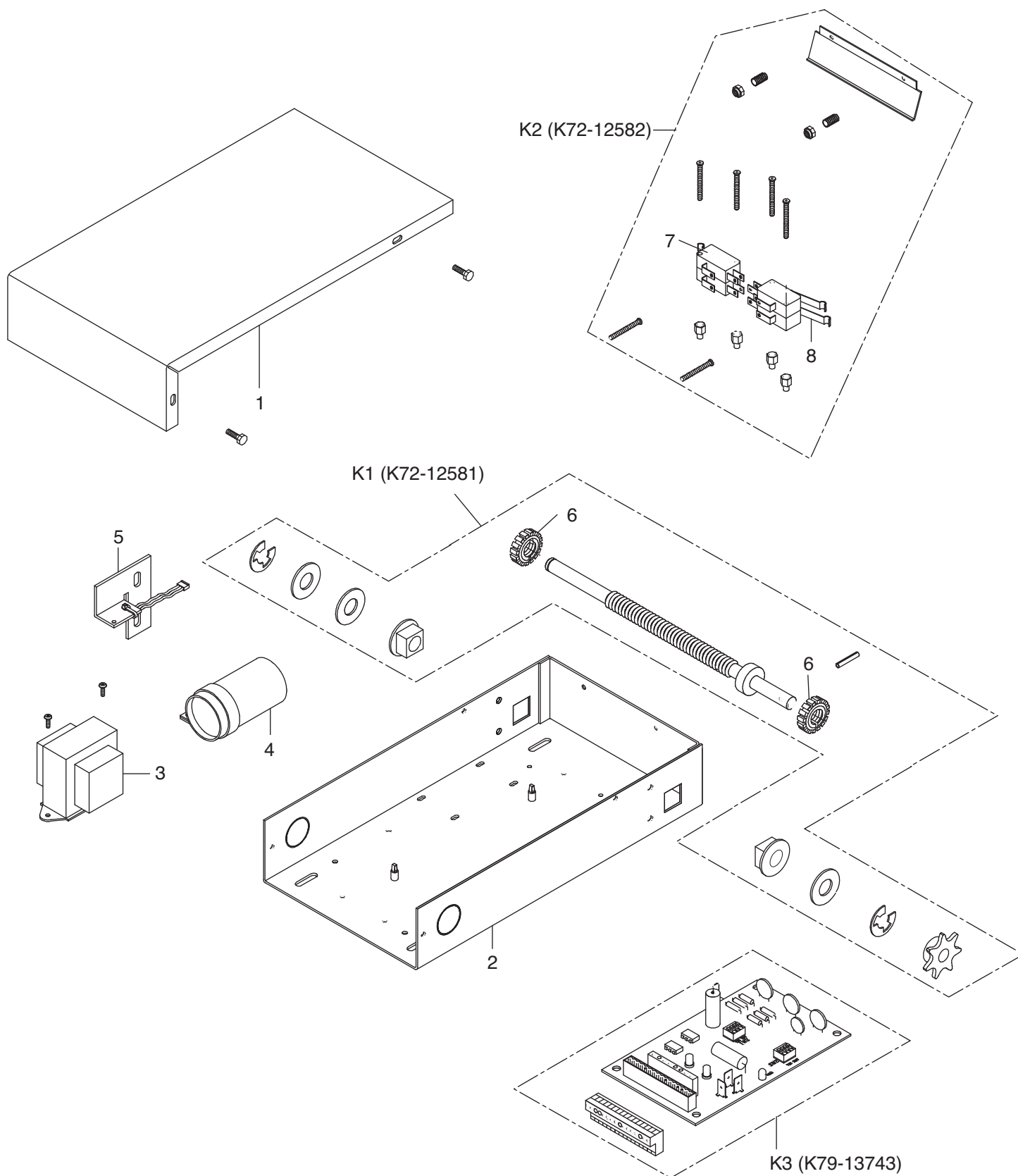
SERVICE KITS

ITEM	PART #	DESCRIPTION
K1	K72-12581	Limit shaft assembly Complete with: Bearing 3/8", plastic flange, limit nuts, sprocket, rotor, washer, shim washers, roll pin, e-rings
K2	K75-12582	Limit switch assembly Complete with: Depress plate, depress plate spring, limit switch, standoffs, pan head screws and lock nuts
K3	K79-13743	Logic board assembly

INDIVIDUAL PARTS

ITEM	PART #	DESCRIPTION
1	10-11390M1	Electrical box cover
2	10-11392M1	Electrical box
3	21-13395	Transformer, 115V-24Vac
4	29-7642	Capacitor 220V 42MFD
5	75-11395	Hall effect assembly
6	13-10024	Limit nut
7	23-10041	Limit switch
8	23-11442	Limit switch

ELECTRICAL BOX



REPLACEMENT PARTS LISTS

Refer to the parts lists below for replacement kits available for your operator. If optional modifications and/or accessories are included with your operator, certain components may be added or removed from these lists. Individual components of each kit may not be available. Please consult a parts and service representative regarding availability of individual components.

SERVICE KITS

ITEM	PART #	DESCRIPTION
K1	K75-12583	Disconnect assembly Complete with: Bevel gear yoke, disconnect, release lever, retaining plate, disconnect shaft sprocket, compression spring, key, screws, flatwasher, cotter pin, roll pin, e-ring

INDIVIDUAL PARTS

ITEM	PART #	DESCRIPTION
1	32-11435	Gear reducer, 40:1
2	K20-1025C1	Motor kit

