

FACTORYSET

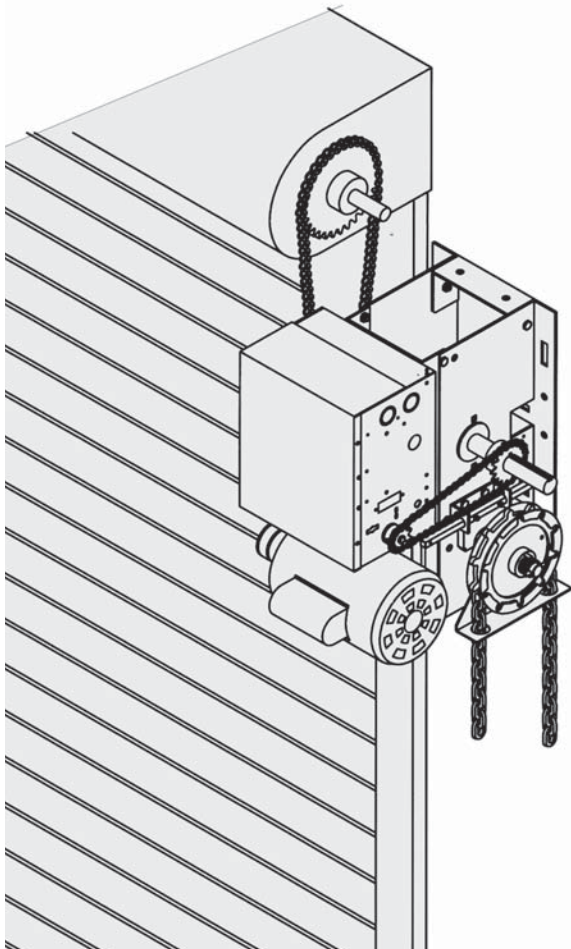
C2 Wiring

See page 8 for
other wiring
configurations

OWNER'S MANUAL

J H H J

INDUSTRIAL DUTY COMMERCIAL DOOR OPERATOR



2 YEAR WARRANTY

Serial # Box _____

Installation Date _____

NOT FOR RESIDENTIAL USE



TABLE OF CONTENTS

SPECIFICATIONS

Carton Inventory	3
Operator Dimensions	3
Operator Specifications	4

PREPARATION

Hand Chain Handling	5
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INSTALLATION

Mount the Operator.	6
Manual Operation	7
Entrapment Protection Accessories	8

ADJUSTMENT

Limit Switch Adjustment.	8
Brake Adjustment	9
Clutch Adjustment and Auxiliary Reversal System	9

POWER WIRING CONNECTIONS

Safety Warnings	10
Power Wiring Connections	10
Ground Wiring Connections	10

CONTROL WIRING

Determine Wiring Type	11
Special Control Wiring	11
Mounting Instructions.	11

DIAGRAMS

Single Phase Wiring Diagram – 10118-1	12
Single Phase Schematic Diagram – 10118-1	13
Three Phase Wiring Diagram – 10118-1.	14
Three Phase Schematic Diagram – 10118-1.	15

TEST THE SYSTEM 16

MAINTENANCE SCHEDULE 16

Operator Notes	17
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REPLACEMENT PARTS

Electrical Box	18
Replacement Parts Kits	19 – 20
Operator Notes	21
Repair Parts Kits - Model J.	22 – 23
Repair Parts Kits - Model H	24 – 25
Repair Parts Kits - Model HJ	26 – 27
Control Connection Diagram.	28

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.*

CARTON INVENTORY

Before beginning your installation check that all components were provided.

DESCRIPTION

Powerhead Assembly
 Owner's Manual and Caution Labels
 Hardware Box (Includes Fasteners, Disconnect and Chain Hoist Wall Bracket)
 3-Button Control Station
 Hoist Hand Chain (Models H & HJ Only)
 Door Sprocket
 Door/Operator Drive Chain

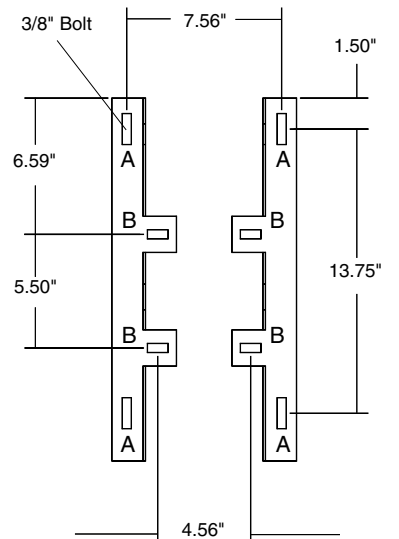
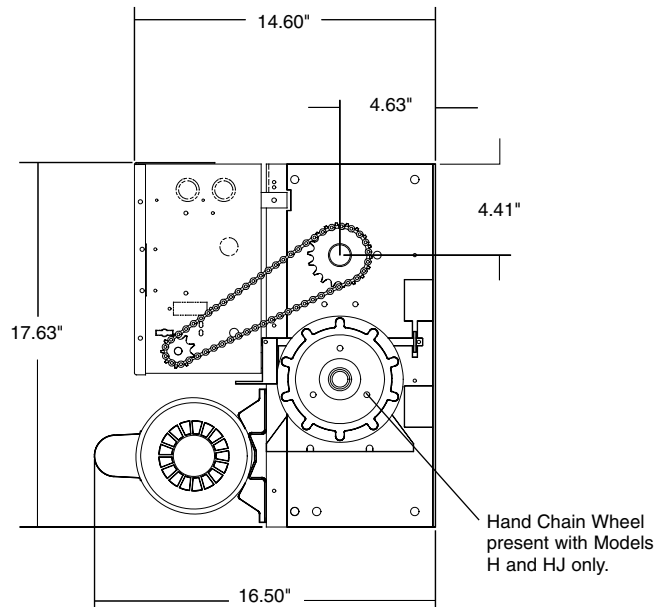
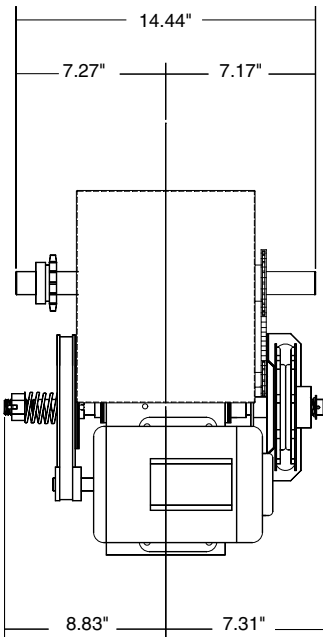
OPERATOR DIMENSIONS

WEIGHTS AND DIMENSIONS

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

MOUNTING DIMENSIONS

A - Wall Mounting
 B - Bracket Mounting (rolling door)



OPERATOR SPECIFICATIONS

MOTOR

TYPE: Continuous Duty
HORSEPOWER: 1/3, 1/2, 3/4 and 1 HP
Single or Three Phase
SPEED: 1725 RPM
VOLTAGE: 115, 220, 230 Single Phase
208, 230, 460, 575 Three Phase
CURRENT: See Motor Nameplate

ELECTRICAL

TRANSFORMER: 24Vac
CONTROL STATION: NEMA Three-Button Station
Open/Close/Stop
WIRING TYPE: C2 (Standard)
Momentary contact to OPEN & STOP, constant pressure to
CLOSE, open override plus wiring for sensing device to
reverse. (Other types available. See chart, Pg. 11)
LIMIT ADJUST: Linear driven, fully adjustable screw type
cams. Adjustable to 30 feet.

MECHANICAL

DRIVE REDUCTION: Primary: Heavy duty (5L) V-Belt
Secondary: #48 chain/sprocket; Output: #50 chain
OUTPUT SHAFT SPEED: 36 RPM
DOOR SPEED: 6-7" (15.24-17.78 cm) per second
depending on door
BRAKE (Optional): Solenoid actuated disc brake
BEARINGS: Output Shaft Shielded ball bearing;
Clutch Shaft: Iron Copper sintered and oil impregnated
HAND CHAIN WHEEL: Left or right handing
Models H and HJ ONLY

SAFETY

DISCONNECT:
Model J Floor level disconnect for emergency
manual door operation.
Model H Floor level chain hoist with electrical
interlock for manual door operation.
Model HJ Includes both floor level disconnect
systems stated above.
Reversing Edge: (Optional) Electric or pneumatic sensing
device attached to the bottom edge of door.

PREPARATION

It is imperative that the wall or mounting surface provide adequate support for the operator.

This surface must:

- Be rigid to prevent play between operator and door shaft.
- Provide a level base.
- Permit the operator to be fastened securely and with the drive shaft parallel to the door shaft.

The safety and wear of the operator will be adversely affected if any of the above requirements are not met. For metal buildings, fasten 2" x 2" x 3/16" (or larger) angle iron frames to the building purlins. Retain 5-1/2" (13.97 cm) between frames.

Both J and H series operators have dual output shafts and may be mounted on either the right (standard) or left side of door, and in either a vertical (standard) or horizontal mounting position. If you need to move the drive sprocket, loosen BOTH set screws, remove the sprocket and key, and place on the opposite side of the drive shaft. Be sure to tighten BOTH set screws securely.

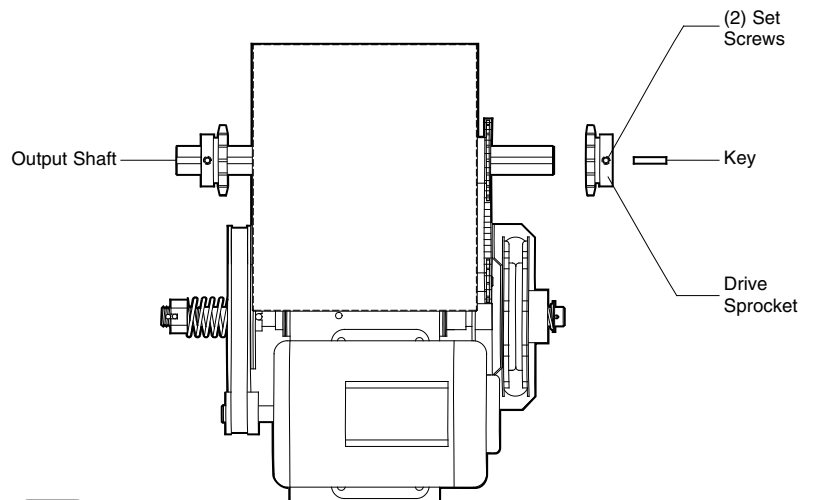
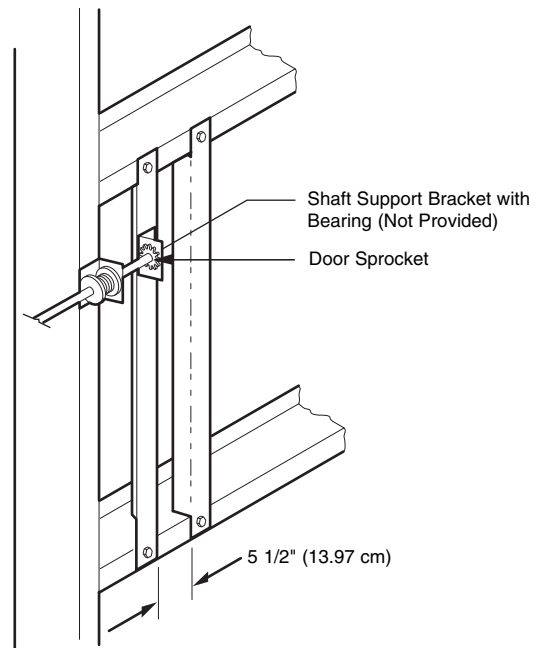
HAND CHAIN HANDING

For models H and HJ with manual hoist hand chain systems, the handing of the operator must be determined at the time of order. The handing is indicated by last letter of the model name (R or L). The hand chain wheel can not be switched on site. If your installation causes the hand chain to hang in the door opening, hook the chain off to the side near the top of the door jamb.

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.



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 5. Refer to the illustrations and instructions below that suit your application.

MOUNT THE OPERATOR

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

Bracket Shelf Mounting: The operator may be mounted either above or below the door shaft (Figure 2).

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. Place drive sprocket on the appropriate side of the operator. Do not insert the key at this time.
4. Wrap drive chain around door sprocket and join roller chain ends together with master link.
5. Raise operator to approximate mounting position and position chain over operator sprocket.
6. 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.
7. Align sprockets and secure (Figure 3).
8. **Install Hand Chain (Models H and HJ only)**
Place hand chain around hand chain wheel. Be sure to pass it through both openings in the chain guide. Remove enough links so chain hangs approximately 2' (.61 m) above the floor.
9. **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. Remove excess links if necessary.

Figure 1

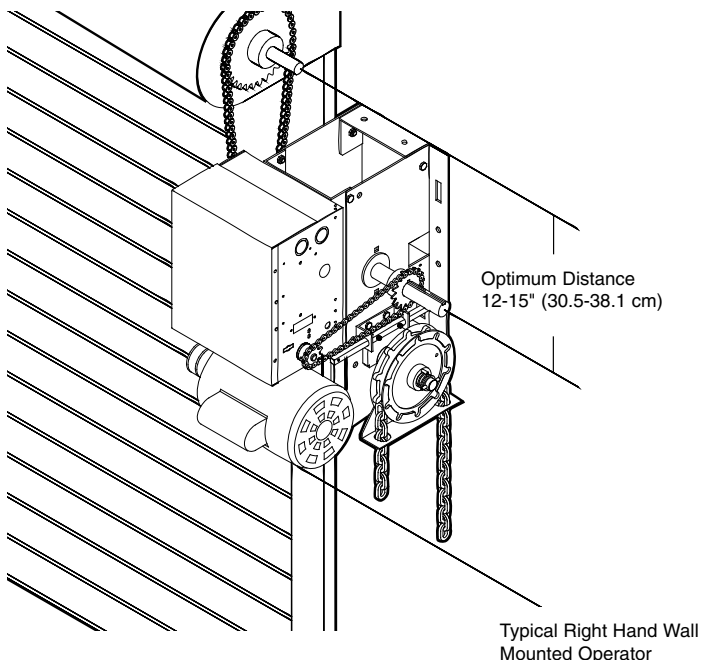


Figure 2

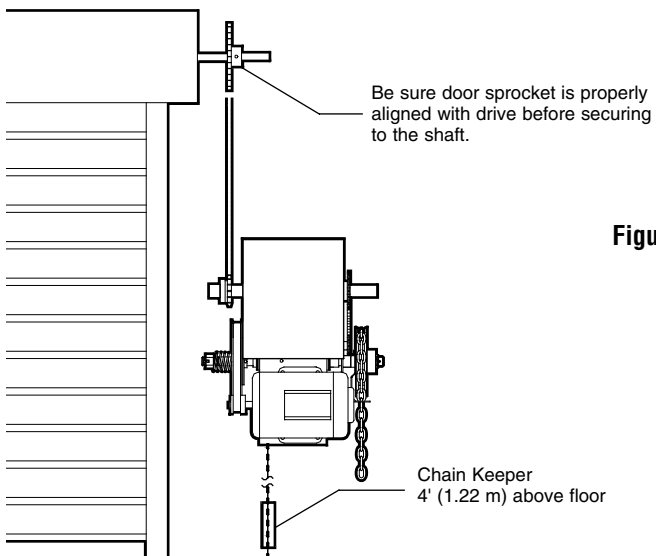
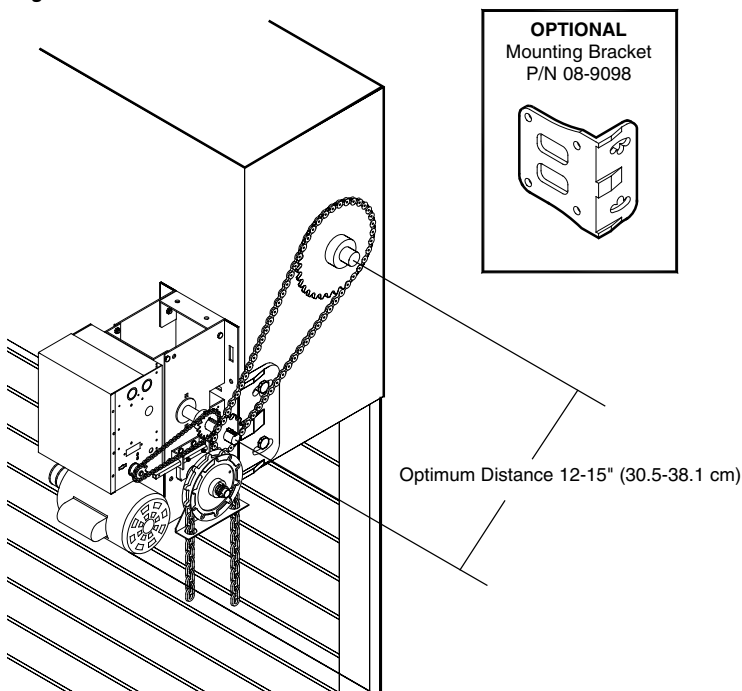


Figure 3

INSTALLATION

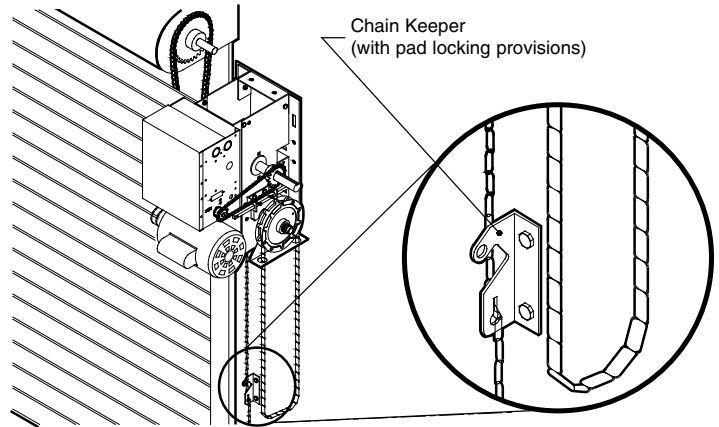
MANUAL OPERATION

This operator has provisions for manually operating the door in case of emergency or power failure. Refer to the appropriate instructions below for your model operator.

MODEL H

These operators are equipped with a manual hoist. An electrical interlock will disable the electrical controls when the hoist is used. To operate the hoist:

1. Pull the disconnect chain (small chain) to engage the hoist mechanism. The disconnect chain may be locked in position by slipping the end through the keyhole of the chain keeper mounted on the wall.
2. Operate the door in the desired direction by pulling on one side or the other of the continuous loop hoist chain (large chain).
3. The disconnect chain must be released from the chain keeper before the door will operate again electrically.

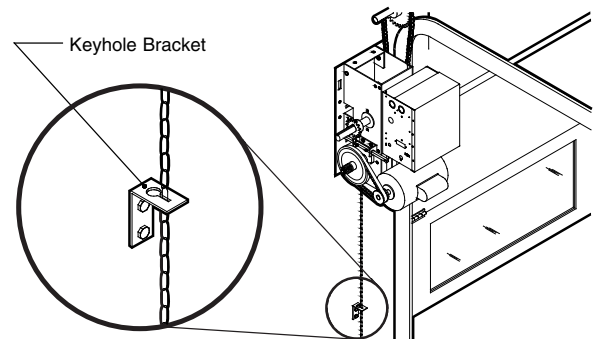


Electrical Interlock with Hoist for Models H and HJ

MODEL J

This operator has a floor level disconnect chain to disconnect the door from the door operator.

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.



Manual Disconnect for Models J and HJ

MODEL HJ

This operator includes both a floor level disconnect chain to disconnect the door from the door operator and a disconnect chain with manual hoist to electrically disable the operator controls.

1. Refer to Model H instructions for hoist operation.
2. Refer to Model J instructions for manual operation.

INSTALLATION

ENTRAPMENT PROTECTION ACCESSORIES (OPTIONAL)

SENSING EDGES & PHOTO EYES

Sensing devices provided for door industry type operators with an isolated normally open (N.O.) output are compatible with your operator. This includes pneumatic and electric edges, and through beam and retro reflective photo eyes. If your door does not have a bottom sensing edge or safety photo eyes and you wish to add a safety device to your application, please contact your local LiftMaster 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. Refer to the steps below.

Important Notes:

- a. Proceed with Limit Switch Adjustments described below before making any sensing edge wiring connections to operator as described below.
- 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.

WIRING

For wiring of your sensing device to the operator, refer to the wiring diagrams provided with your operator. See field connection terminals identified as a Sensing Device or Safety Edge.

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.

ADJUSTMENT

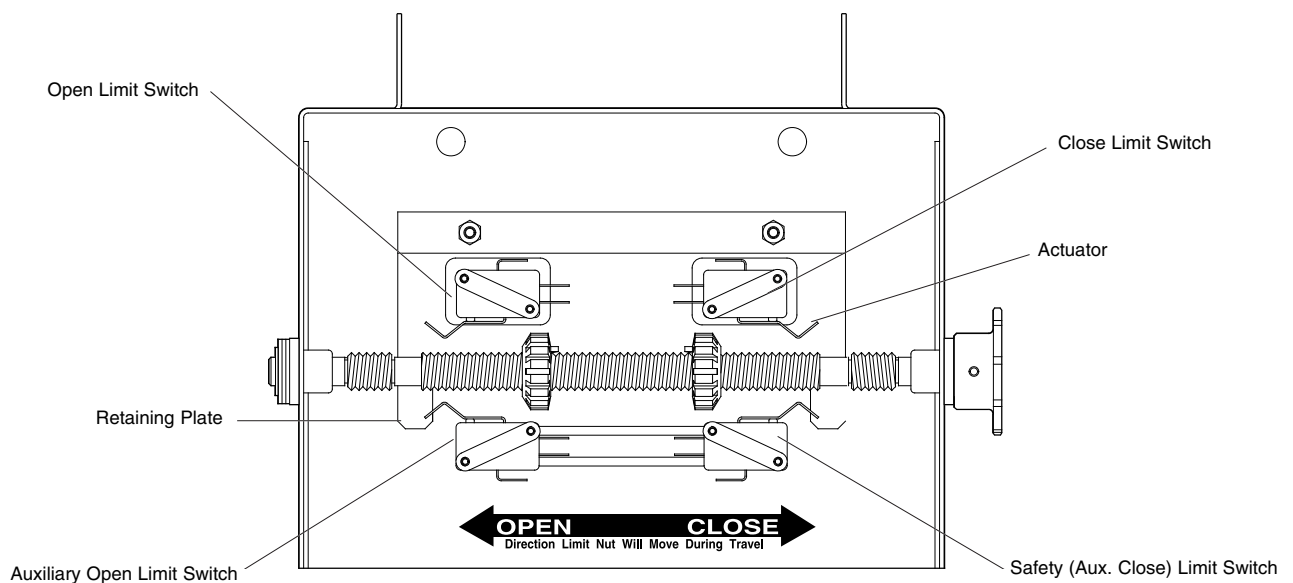
LIMIT SWITCH ADJUSTMENT

NOTE: Make sure the limit nuts are positioned between the limit switches before proceeding with adjustments.

1. Depress retaining plate to allow nut to spin freely. After adjustment, release plate and move nut back and forth to ensure it is fully seated in slot.
2. To **increase** door travel, spin nut **away** from limit switch. To **decrease** door travel, spin limit nut **toward** limit switch.
3. Adjust open limit nut so that door will stop in open position with the bottom of the door even with top of door opening.
4. Repeat steps 1 and 2 for close cycle. Adjust close limit nut so that the limit switch is engaged as door fully seats at the floor.

⚠ ⚡ WARNING

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

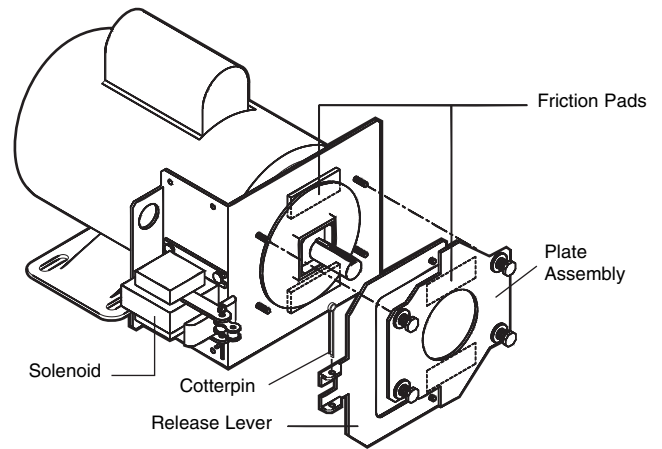


ADJUSTMENT

BRAKE ADJUSTMENT

A solenoid brake is available as an option (not included as a standard feature). The brake is adjusted at the factory and should not need additional adjustment for the the life of the brake assembly.

Replace brake assembly when necessary. Refer to the illustration for identification of components for the solenoid type brake system.



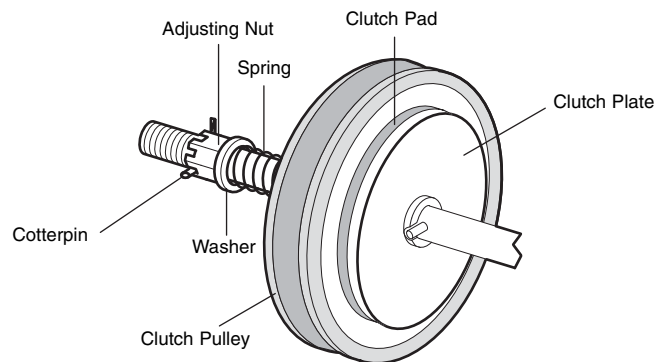
CLUTCH ADJUSTMENT AND AUXILIARY REVERSAL SYSTEM

The **Auxiliary Reversal System** is designed to protect the door and motorized operator. It is NOT a substitute for a safety sensing device. The Auxiliary Reversal System works in tandem with the adjustable clutch to detect if a closing door runs into or comes across an obstruction. If an obstruction is met and causes the clutch to slip, the Auxiliary Reversal System will return the door to the full open position when closing or stops the door when opening.

1. Remove cotterpin from nut on the clutch shaft.
2. Back off clutch nut until there is very little tension on the clutch spring.
3. Tighten clutch nut gradually until there is just enough tension to permit the operator to move the door smoothly but to allow the clutch to slip if the door is obstructed. When the clutch is properly adjusted, it should generally be possible to stop the door by hand during travel.
4. Reinstall cotterpin.

⚠ 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.



POWER WIRING CONNECTIONS

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

- ANY maintenance to the operator or in the area near the operator MUST NOT be performed until disconnecting the electrical power and locking-out the power via the operator power switch. Upon completion of maintenance the area MUST be cleared and secured, at that time the unit may be returned to service.
- Disconnect power at the fuse box BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with local electrical codes. The operator should be on a separate fused line of adequate capacity.
- ALL electrical connections MUST be made by a qualified individual.
- DO NOT install ANY wiring or attempt to run the operator without consulting the wiring diagram. We recommend that you install an optional reversing edge BEFORE proceeding with the control station installation.
- ALL power wiring should be on a dedicated circuit and well protected. The location of the power disconnect should be visible and clearly labeled.
- ALL power and control wiring MUST be run in separate conduit.

POWER WIRING CONNECTIONS

1. Connect power wires coming from the main to the captive terminal block in the electrical box enclosure marked with the label. All power and control wiring must be run in separate conduit in accordance with local electrical codes.
2. Be sure to run all power wires through the conduit hole in the electrical box enclosure marked with the label shown below.

NOTE: Must use #14 AWG or thicker wire for power wiring.

POWER WIRING

USE COPPER WIRE ONLY 40-10031B

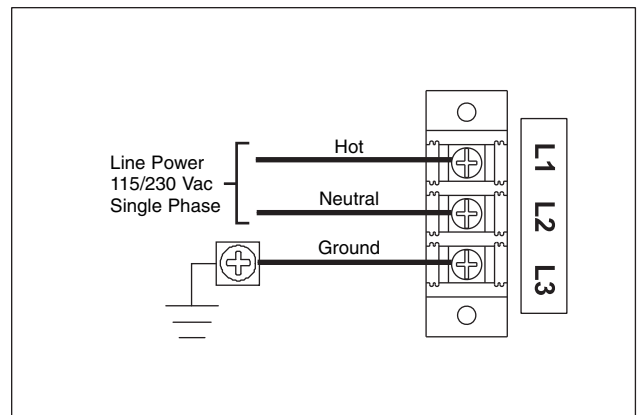
ON THREE PHASE MACHINES ONLY: Incorrect phasing of the power supply will cause the motor to rotate in the wrong direction. To change motor rotation, exchange incoming power leads L1 and L2.

GROUND WIRING CONNECTIONS

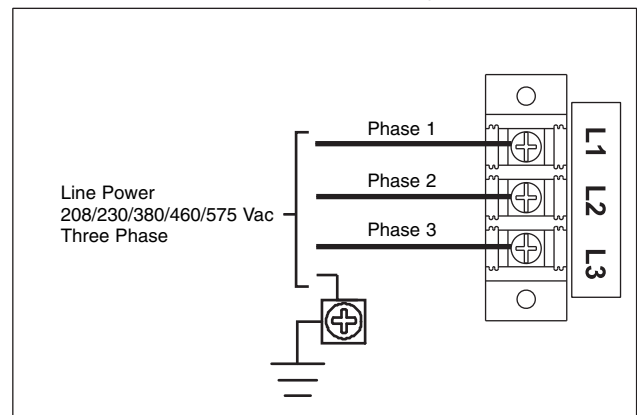
1. Connect earth ground to the chassis ground screw in the electrical box enclosure.
2. Use same conduit entry into the electrical box as the power wiring.

IMPORTANT NOTE: This unit must be properly grounded. Failure to properly ground this unit could result in electric shock and serious injury.

Single Phase Power Wiring



Three Phase Power Wiring



CONTROL WIRING

DETERMINE WIRING TYPE

Refer to the wiring diagram located on the inside cover the electrical box to determine the type of control wiring.

STANDARD C2 OR B2 WIRING

Standard operators are shipped from the factory with jumper set for C2 wiring, which requires constant pressure on button to close the door. If momentary contact on close direction is desired (B2 wiring) you must include an entrapment protection device. See close control jumper setting below.

CONSTANT PRESSURE ON CLOSE (C2 WIRING)

Red jumper wire was placed on terminal #2 in electrical enclosure. The operator will require constant pressure on close control in order to keep door moving in the close direction.

MOMENTARY CONTACT ON CLOSE (B2 WIRING)

Move red jumper wire from terminal #2 to terminal #3. The operator will require only momentary contact to close the door.

SPECIAL CONTROL WIRING

If your operator was shipped from the factory with non-standard control wiring or with optional accessories that require addition instructions, refer to the wiring diagram(s) indicated in the special control wiring data box. When a replacement wiring diagram is present, wiring diagrams in this manual will not apply. Refer only to the replacement wiring diagram for all connections.

RADIO CONTROLS

On all models with type B2 control wiring, a terminal bracket marked R1 R2 R3 is located on the outside of the electrical enclosure. All standard radio control receivers (single channel residential type) may be mounted to this bracket. The operator will then open a fully closed door, close a fully open door, and reverse a closing door from the radio transmitter. However, for complete door control from a transmitter, a commercial three-channel radio set (with connections for Open/Close/Stop) is recommended.

ADDITIONAL ACCESS CONTROL EQUIPMENT

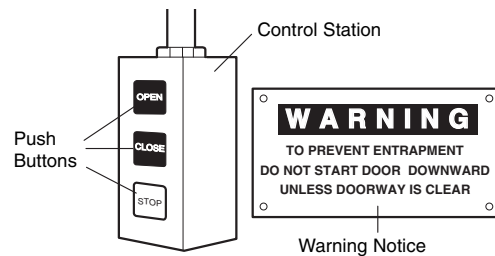
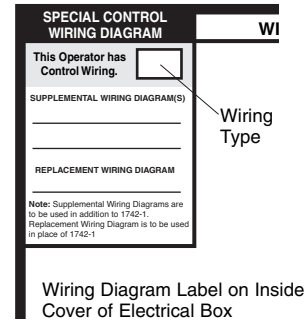
Locate any additional access control equipment as desired (but so that the door will be in clear sight of the person operating the equipment), and connect to the terminal block in the electrical enclosure as shown on the Field Wiring Connections diagram. Any control with a normally (N.O.) isolated output contact may be connected in parallel with the OPEN button. More than one device may be connected in this manner. Use 16 gauge wire or larger for all controls. Do not use the Control Circuit Transformer (24Vac) in the Operator to power any access control equipment other than a standard residential type radio receiver.

EXTERNAL INTERLOCK SWITCH

The operator has a terminal connection for an external interlock switch. This switch must be a normally closed (N.C.) two-wire device with a contact rating of at least 3 amps at 24Vac. When such a switch is connected as shown on the Field Wiring Connections diagram, the control circuit will be disabled when the switch is actuated, thereby preventing electrical operation of the door from the control devices.

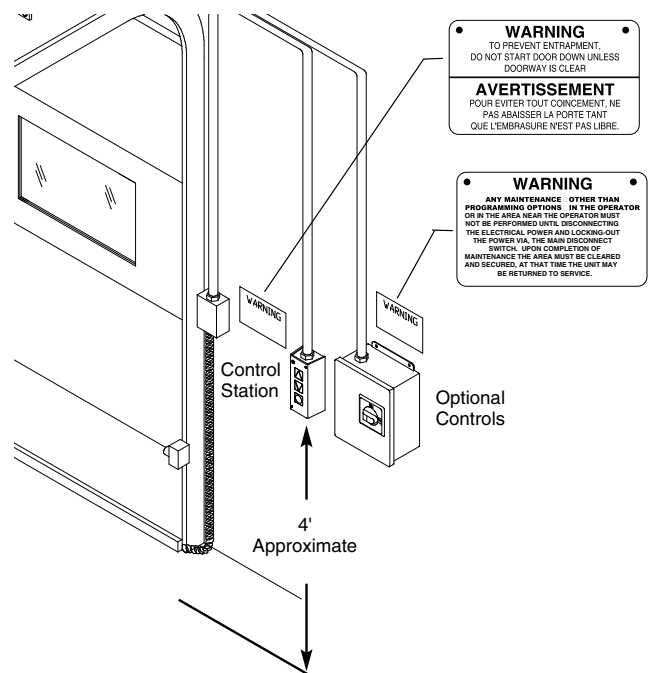
WARNING

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.



MOUNTING INSTRUCTIONS

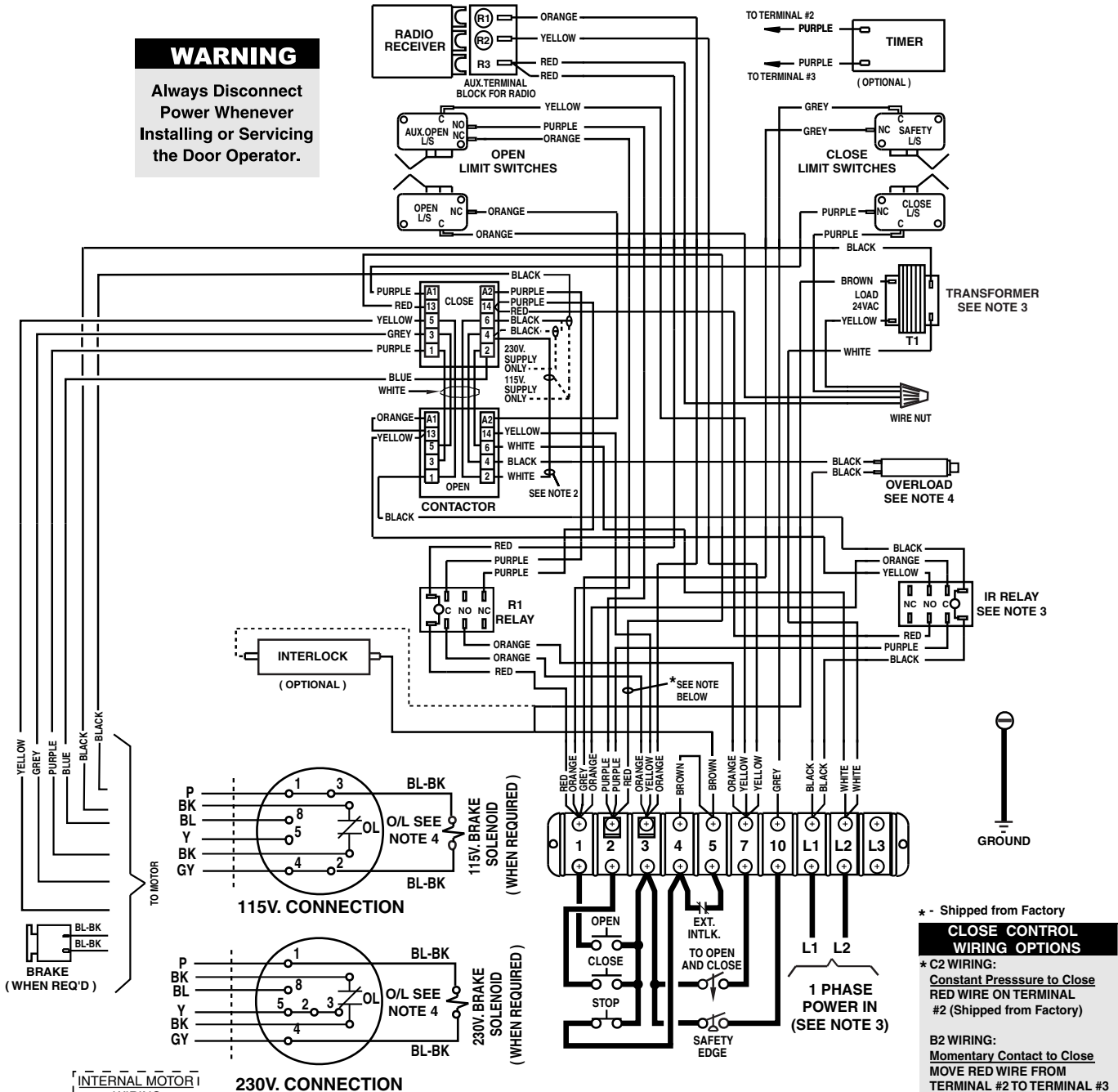
1. Mount **WARNING NOTICE** beside or below the control station.
2. Mount **MAINTENANCE ALERT** label to either side of control station.
3. Mount control station(s) within line of sight of door(s).



SINGLE PHASE WIRING DIAGRAMS - 10118-1

WARNING

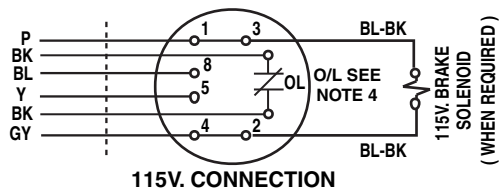
Always Disconnect Power Whenever Installing or Servicing the Door Operator.



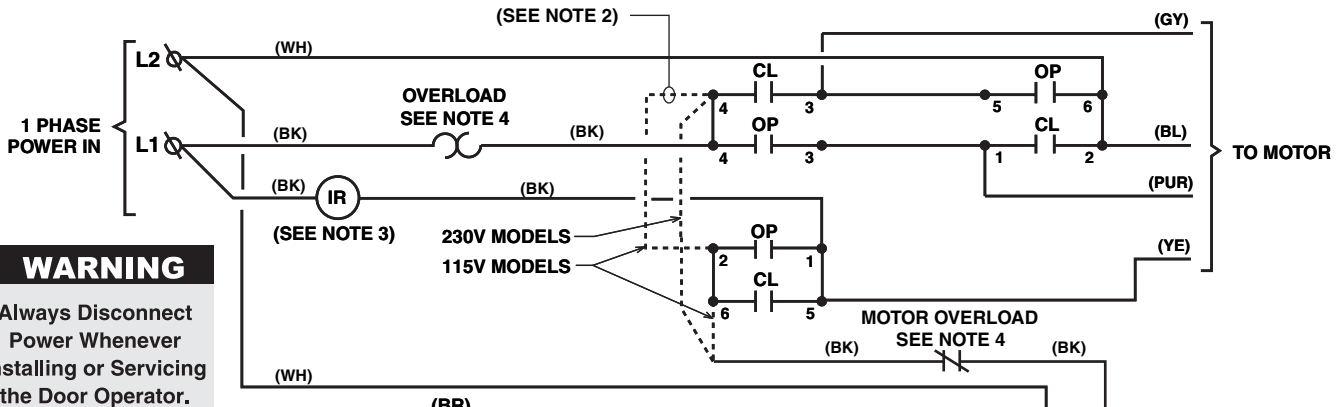
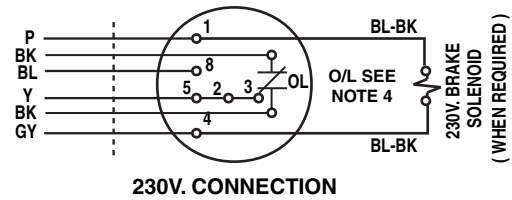
NOTES:

- 1) TO REVERSE MOTOR DIRECTION: INTERCHANGE PURPLE & GRAY MOTOR LEADS AT CONTACTOR 1 & 3.
- 2) WIRE MUST BE REMOVED FOR 230V 1PH OPERATION.
- 3) TRANSFORMER PRIMARY & RELAY VOLTAGE SAME AS LINE VOLTAGE.
- 4) SINGLE PHASE UNITS ARE EQUIPPED WITH AN EXTERNAL LINE BREAK DEVICE, AND MAY BE EQUIPPED WITH AN ADDITIONAL INTERNAL PILOT DUTY THERMAL O/L DEVICE.

SINGLE PHASE SCHEMATIC DIAGRAM - 10118-1

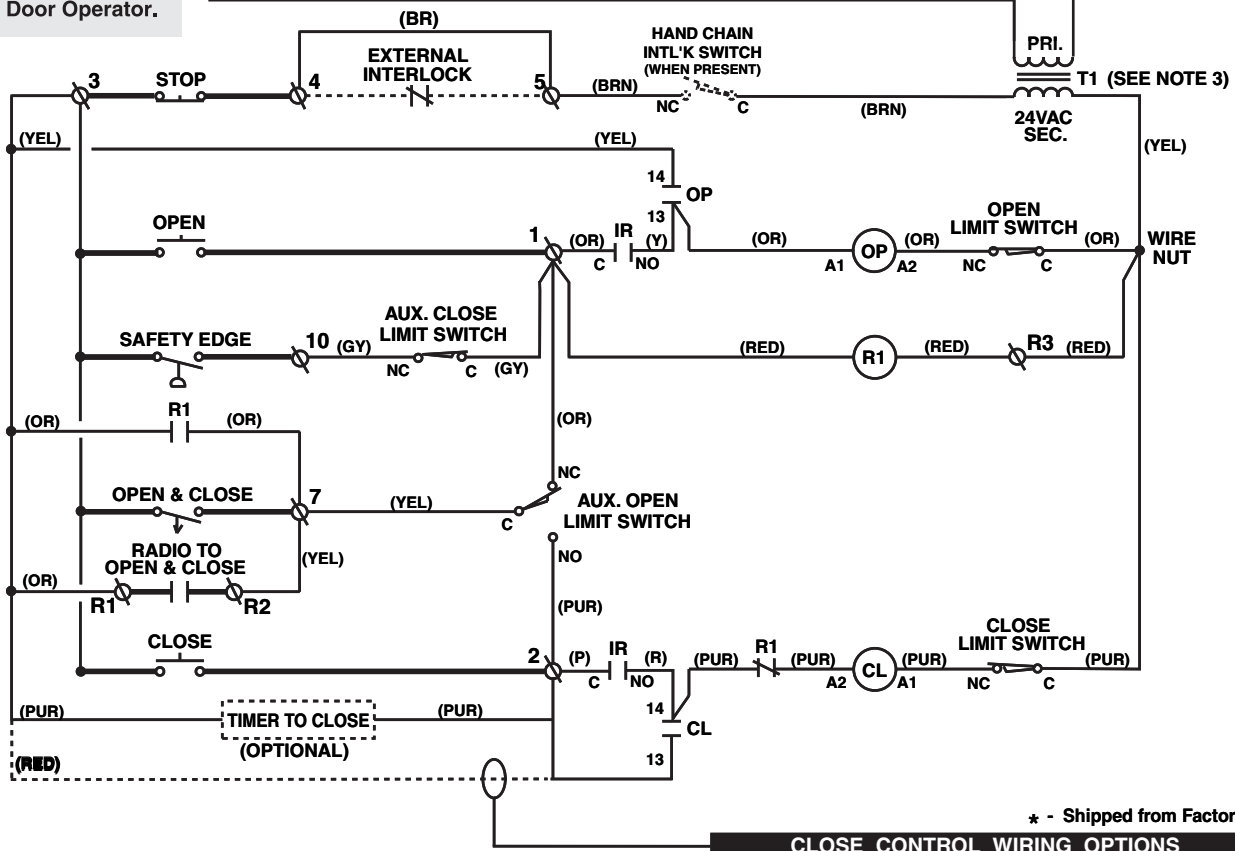


INTERNAL MOTOR WIRING	
1	BLUE
2	WHITE
3	ORANGE
4	YELLOW
5	BLACK
8	RED
O/L	BROWN



WARNING

Always Disconnect Power Whenever Installing or Servicing the Door Operator.



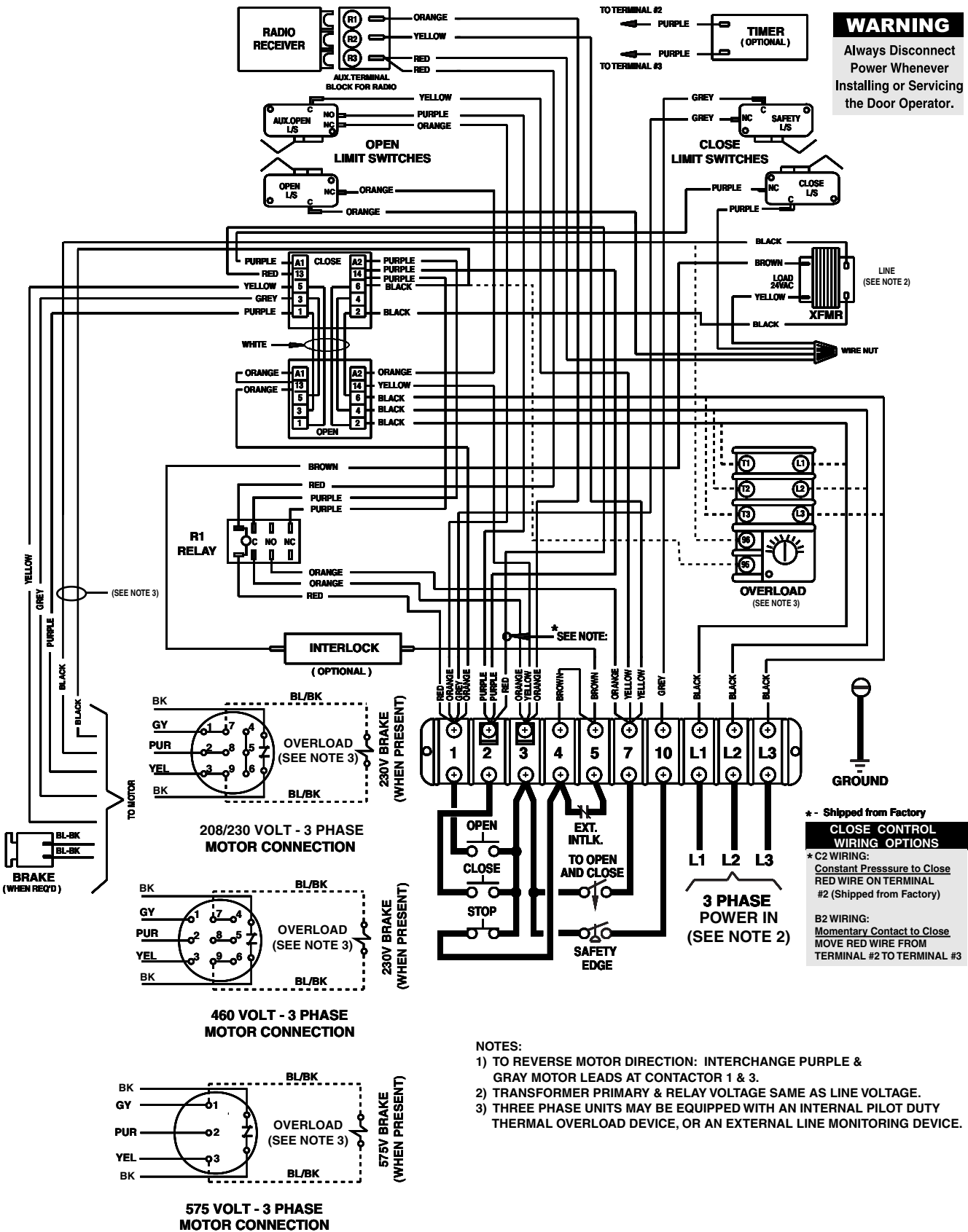
CLOSE CONTROL WIRING OPTIONS

*C2 WIRING - Constant Pressure to Close
RED WIRE ON TERMINAL #2 (Shipped from Factory)
B2 WIRING - Momentary Contact to Close
MOVE RED WIRE FROM TERMINAL #2 TO TERMINAL #3

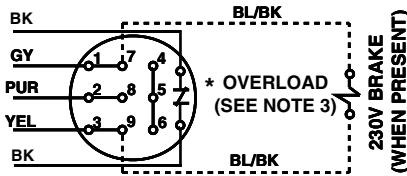
NOTES:

- 1) TO REVERSE MOTOR DIRECTION: INTERCHANGE PURPLE & GRAY MOTOR LEADS AT CONTACTOR 1 & 3.
- 2) WIRE MUST BE REMOVED FOR 230V 1PH OPERATION.
- 3) TRANSFORMER PRIMARY & RELAY VOLTAGE SAME AS LINE VOLTAGE.
- 4) SINGLE PHASE UNITS ARE EQUIPPED WITH AN EXTERNAL LINE BREAK DEVICE, AND MAY BE EQUIPPED WITH AN ADDITIONAL INTERNAL PILOT DUTY THERMAL O/L DEVICE.

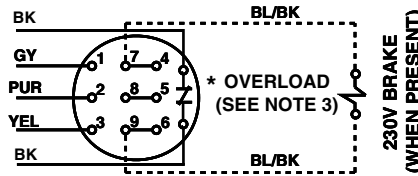
THREE PHASE WIRING DIAGRAM - 10118-3



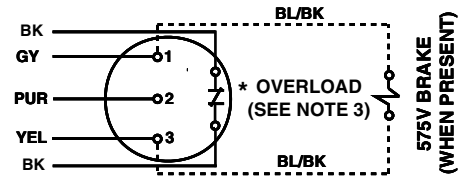
THREE PHASE SCHEMATIC DIAGRAM - 10118-3



208/230 VOLT - 3 PHASE
MOTOR CONNECTION



460 VOLT - 3 PHASE
MOTOR CONNECTION

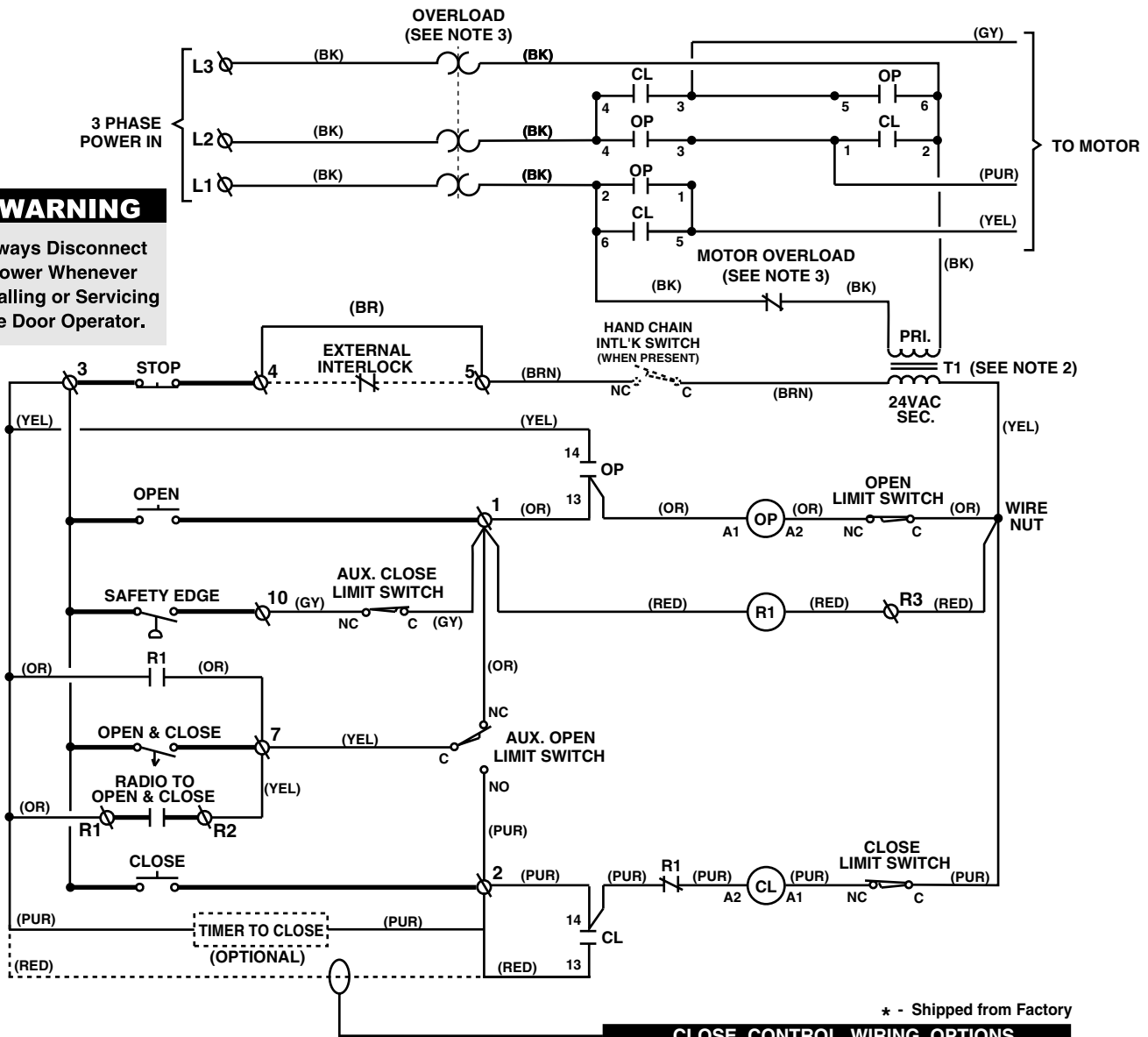


575 VOLT - 3 PHASE
MOTOR CONNECTION

* MOTOR O/L LEAD COLOR BROWN

WARNING

Always Disconnect
Power Whenever
Installing or Servicing
the Door Operator.



* - Shipped from Factory

CLOSE CONTROL WIRING OPTIONS

- * C2 WIRING - Constant Pressure to Close
RED WIRE ON TERMINAL #2 (Shipped from Factory)
- B2 WIRING - Momentary Contact to Close
MOVE RED WIRE FROM TERMINAL #2 TO TERMINAL #3

NOTES:

- 1) TO REVERSE MOTOR DIRECTION: INTERCHANGE PURPLE & GRAY MOTOR LEADS AT CONTACTOR 1 & 3.
- 2) TRANSFORMER PRIMARY & RELAY VOLTAGE SAME AS LINE VOLTAGE.
- 3) THREE PHASE UNITS MAY BE EQUIPPED WITH AN INTERNAL PILOT DUTY THERMAL OVERLOAD DEVICE, OR AN EXTERNAL LINE MONITORING DEVICE.

TEST THE SYSTEM

TEST THE SYSTEM

Turn on power. Test all controls and safety devices to make sure they are working properly. It will be necessary to refer back to page 8 for fine adjustment of the limit switches.

IMPORTANT NOTES:

- Do not leave operator power on unless all safety and entrapment protection devices have been tested and are working properly.
- Be sure you have read and understand all Safety Instructions included in this manual.
- Be sure the owner or person(s) responsible for operation of the door have read and understand the Safety Instructions, know how to electrically operate the door in a safe manner, and know how to use the manual disconnect operation of the door operating system.

WARNING

Do not place hands or tools in or near the operator when the power is on or when testing control or safety devices. Always disconnect power before servicing or adjusting the operator.

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.	●		◆
Clutch	Check and adjust as required.		●	◆
Belt	Check condition and tension.		●	◆
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

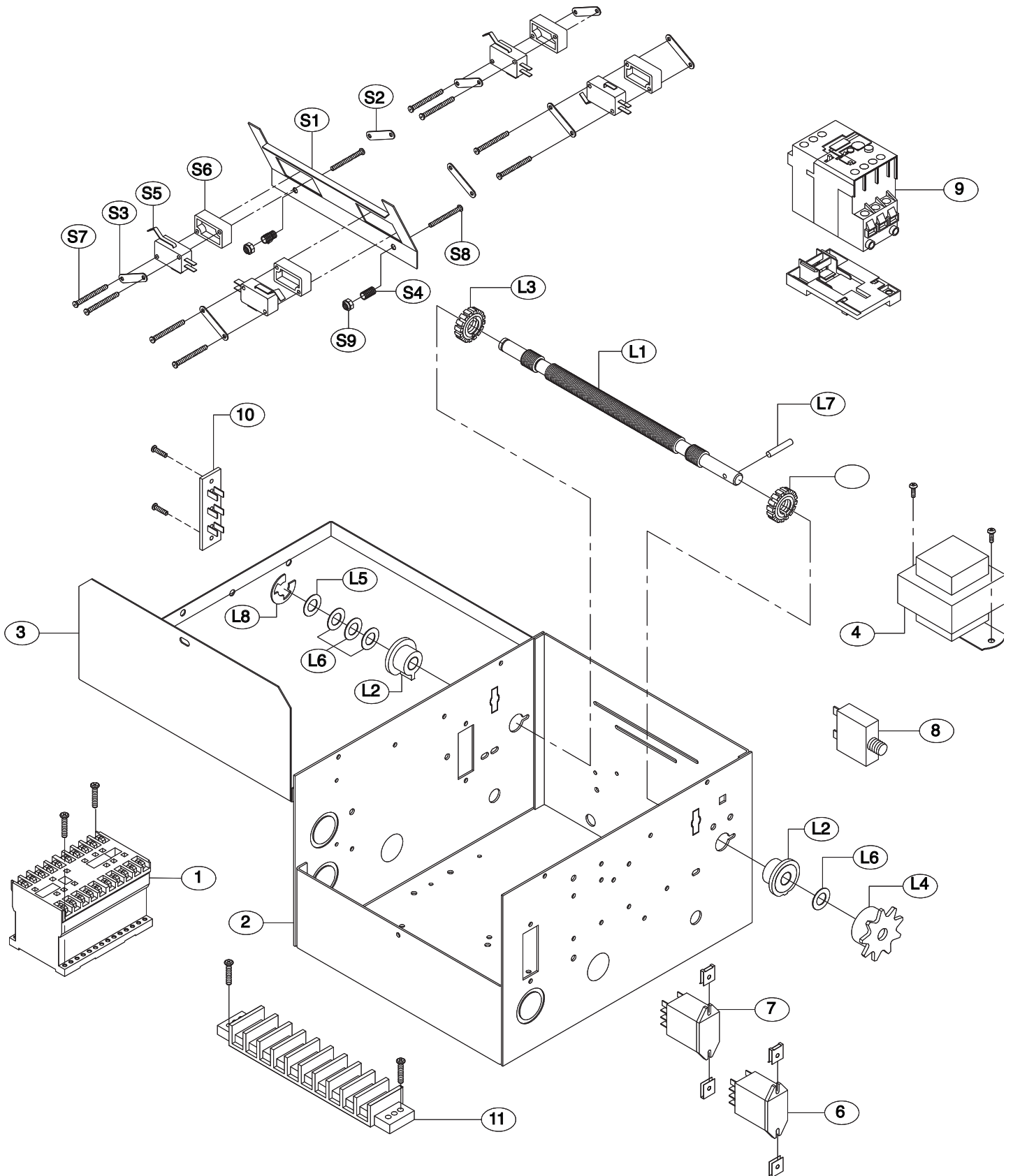
OUR LARGE SERVICE ORGANIZATION SPANS AMERICA

Installation and service information are available.
Call our TOLL FREE number:

1-800-528-2806

www.liftmaster.com

ELECTRICAL BOX - ILLUSTRATED PARTS



REPLACEMENT PARTS KITS

Below are replacement kits available for your operator. For replacement of electrical box, motor or brake components be sure to match model number of your unit to kit number below to ensure proper voltage requirements. Optional modifications and/or accessories included with your operator may add or remove certain components from these lists. Please consult a parts and service representative regarding availability of individual components of kits specified below. Refer to page 11 for all repair part ordering information.

To order a complete electrical box replacement kit, add a K- prefix to the model number of your operator. For example: J5011M (Operator) = K-J5011M (Electrical Box Replacement Kit)

Notes:

- Single phase units are equipped with an external line break device, and may be equipped with an additional internal pilot duty thermal O/L device.
- Three phase units may be equipped with an internal pilot duty thermal O/L device, or an external line break device.

COMPLETE ELECTRICAL BOX REPLACEMENT KITS

COMPLETE FRAME REPLACEMENT KITS

K73-JFRAME	Frame Model J
K73-HFRAME-R	Frame Model H (Right Hand)
K73-HFRAME-L	Frame Model H (Left Hand)
K73-HJFRAME-R	Frame Model H (Right Hand)
K73-HJFRAME-L	Frame Model H (Left Hand)

MOTOR KITS

K20-1033B2	Models H/J3311M, H/J3321M
K20-3033B4	Models H/J3323M, H/J3338M, H/J3343M
K20-3033M5	Model H/J3353M
K20-51033B	Model H/J3325M
K20-1050B2	Models H/J5011M, H/J5021M
K20-3050B4	Models H/J5023M, H/J5038M, H/J5043M
K20-3050M5	Model H/J5053M
K20-51050B	Model H/J5025M

K20-1075B2	Model H/J7511M, H/J7521M
K20-3075B4	Models H/J7523M, H/J7538M, H/J7543M
K20-3075B5	Model H/J7553M
K20-51075B	Model H/J7525M
K20-1100B2T	Models H/J1011M, H/J1021M
K20-3100B4T	Models H/J1023M, H/J1043M
K20-3100B5T	Model H/J1053M

BRAKE KITS

71-B120J	115 Volt Model J
71-B240J	230 – 460 Volt Model J
71-B575J	575 Volt Model J
71-B120H	115 Volt Model H
71-B240H	230 – 460 Volt Model H
71-B575H	575 Volt Model H

K72-14130 – LIMIT SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
L1	11-13361	Limit Shaft, Cube Style	1
L2	12-10028	Flange Bearing, 3/8" I.D.	2
L3	13-10024	Limit Nut	2
L4	15-48B9AXX	Sprocket 48B9 x 3/8" Bore	1
L5	80-10025	Washer, Shim 3/8" I.D. x .050 THK.	1
L6	80-10026	Washer, Shim 3/8" I.D. x .010 THK.	4
L7	86-RP04-100	Roll Pin, 1/8 DIA. x 1" Long	1
L8	87-E-038	E Ring, 3/8"	1

K72-14130 – LIMIT SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
S1	10-10013	Depress Plate	1
S2	10-12553	Nut Plate	4
S3	10-12806	Backup Plate	2
S4	18-10036	Spring, Depress Plate	2
S5	23-10041	Limit Switch	4
S6	31-12542	Standoff, Limit Switch	4
S7	82-PX04-20	Screw, #4-40 x 1-3/8" Pan Head Ph	8
S8	82-PX06-16	Screw, #6-32 x 1" Pan Hd Phil	2
S9	84-LH-06	Locknut, #6-32 Nylon Hex	2

REPLACEMENT PARTS KITS

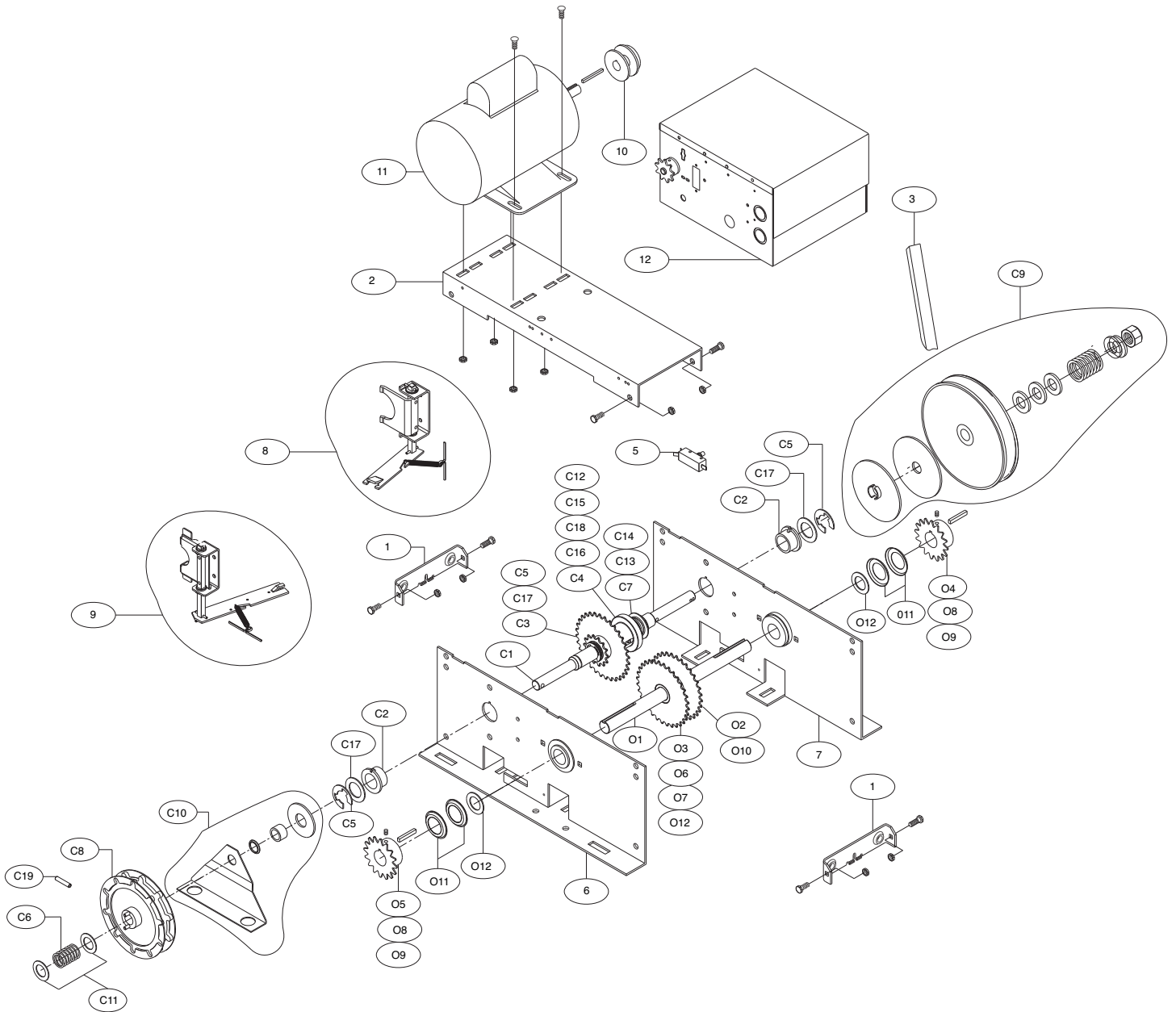
COMPLETE ELECTRICAL BOX KITS

ITEM	PART #	DESCRIPTION	QTY
1	03-8024-K	Contactors	1
2	10-13792M1	Electrical Box	1
3	10-13899	Electrical Box Cover	1
4	21-5xxx	(See Variable Components)	1
6	24-xxx-x	(See Variable Components)	1
7	24-24-1	24Vac DPDT Relay	1
8	25-2xxx	(See Variable Components)	1
9	25-4xxx	(See Variable Components)	1
10	42-10040	Terminal Block, Radio	1
11	42-110	Terminal Block, 10 Position	1

VARIABLE COMPONENTS

ITEM	PART NO.	DESCRIPTION	H/J3311M	H/J3321M	H/J3323M	H/J3343M	H/J3353M	H/J3325M	H/J3338M	H/J5011M	H/J5021M	H/J5023M	H/J5043M	H/J5053M	H/J5025M	H/J5038M	H/J7511M	H/J7521M	H/J7523M	H/J7543M	H/J7553M	H/J7525M	H/J7538M	H/J1011M	H/J1021M	H/J1023M	H/J1043M	H/J1053M
4	21-5115	Transformer, 115 Volts	●							●							●							●				
	21-5230	Transformer, 230 Volts		●	●			●			●	●			●				●	●			●		●	●		
	21-5460	Transformer, 460 Volts				●			●				●			●				●			●					●
	21-5575	Transformer, 575 Volts					●							●							●							●
6	24-115-1	Relay, 115 Volts	●							●							●							●				
	24-230-5	Relay, 230 Volts		●				●			●			●				●				●			●			
8	25-2006	Overload, 6 Amp		●				●			●			●														
	25-2008	Overload, 8 Amp	●															●				●			●			
	25-2010	Overload 10 Amp								●																		
	25-2015	Overload 15 Amp																	●									
	25-2020	Overload 20 Amp																							●			
9	25-4001-8K	Overload 1.2-1.8 Amp																										●
	25-4002-5K	Overload 1.6-2.5 Amp																									●	
	25-4004-K	Overload 2.5-4.0 Amp																								●		

ILLUSTRATED PARTS – MODEL J



REPLACEMENT PARTS – MODEL J

Refer to the parts lists below for replacement parts 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. Refer to page 16 for all repair part ordering information.

INDIVIDUAL PARTS

ITEM	PART #	DESCRIPTION	QTY
1	10-10874	Connecting Bracket	2
2	10-15569	Motor Plate H, J-Paint	1
3	16-5L304	V Belt Cogged 30.4"	1
N/S	19-48047M	Chain, #48 x 47 w/Master	4
6	K75-19978-L	Svc. Kit, Frame. (LH)	1
7	K75-19978-R	Svc. Kit, Frame, (RH)	1
8	K75-19977	Svc. Kit, J Arm	1
9	17-6014	Motor Pulley	1
10	See Pgs 18 – 19	Motor Kits	1
11	See Pgs 18 – 19	Electrical Box Kits	1

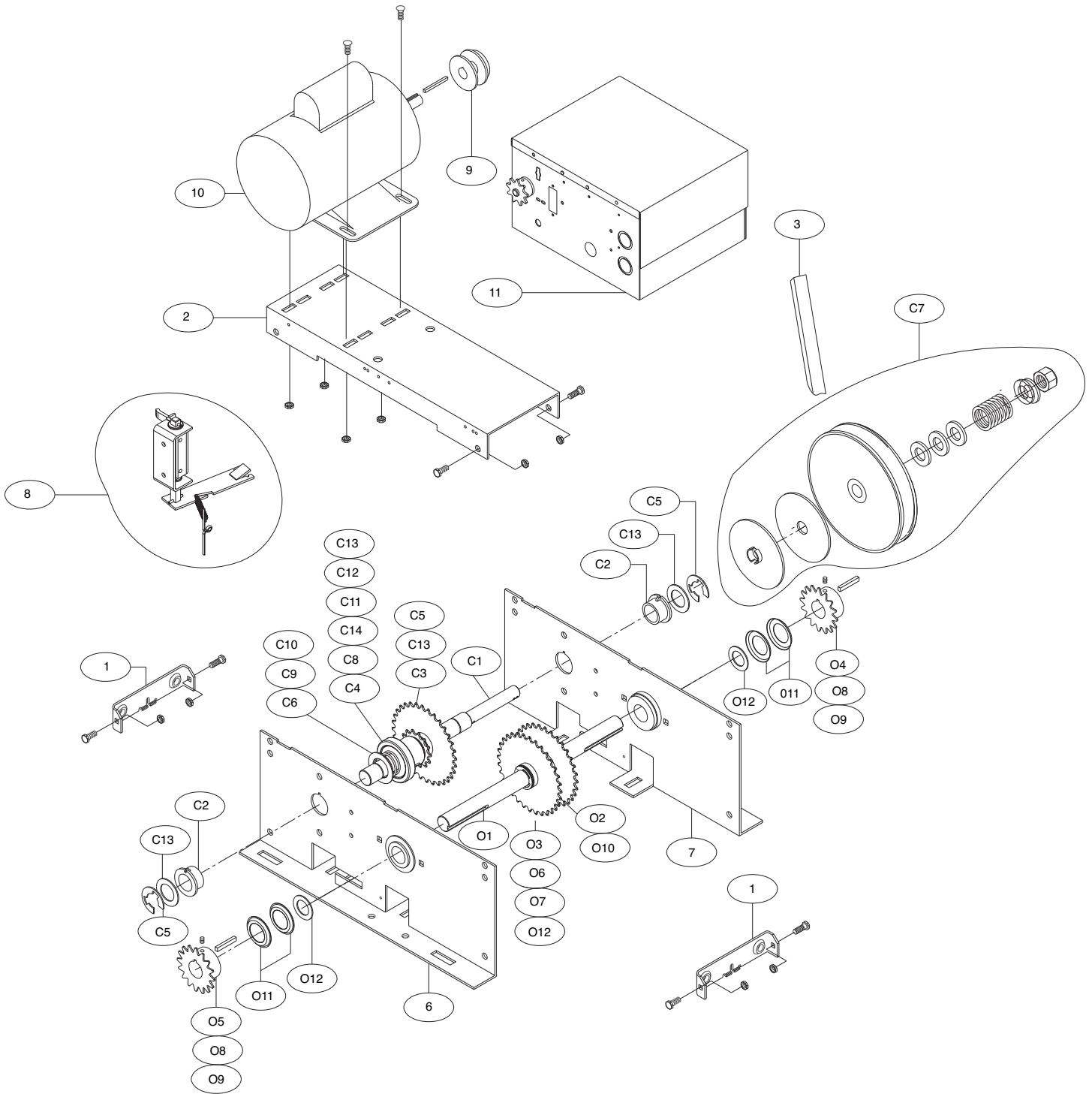
K72-19974 OUTPUT SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
01	11-19485	Shaft, H/J Output	1
02	15-19478	Sprocket Assembly	1
03	15-19480	Dual Sprocket 32/14	1
04	15-48B18LGE	Sprocket 48B18 x 1" Boresprkt	1
05	15-50B12LGH	50B12 x 1" Bore	1
06	158A0056	E Ring, 1" Plated	1
07	80-206-11	Washer 1" ID x 1/16" TH	1
08	80-207-19	Key 1/4 x 1-1/2" Long	2
09	82-NH31-06	Set Screw, 5/16" – 18	3
010	86-RP10-112	Roll Pin, 5/16" x 1.75"	1
011	87-P-100S	Thin Walled Receiver	4
012	80-206-12	Spacer	3

K72-19975 CLUTCH SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
C1	11-19470	Shaft, J Clutch	1
C2	12-19504	1" Keyed Flange Bearing	2
C3	15-19480	Dual Sprocket 32/14	1
C4	15-19484	Splined Core Sprocket	1
C5	158A0056	E-Ring, 1" Plated	4
C6	18-19487	Compression Ring	1
C7	75-19985	Assembly Pulley	1
C8	80-19473	Washer, .048 Thick	1
C9	80-19474	Thrust Bearing, 1.02" ID	1
C10	80-19475	Thrust Bearing, 1.26" ID	1
C11	80-19476	Retaining Ring	1
C12	80-19846	Splined Hub, J Disconnect	1
C13	80-206-11	Washer 1" ID x 1/16" TH	5
C14	86-RP10-112	Roll Pin, 5/16" x 1.75"	1

ILLUSTRATED PARTS – MODEL H



REPLACEMENT PARTS – MODEL H

Refer to the parts lists below for replacement parts 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. Refer to page 16 for all repair part ordering information.

INDIVIDUAL PARTS

ITEM	PART #	DESCRIPTION	QTY
1	10-10874	Connecting Bracket	2
2	10-15569	Motor Plate H, J-Paint	1
3	16-5L304	V Belt Cogged 30.4"	1
N/S	19-48047M	Chain, #48 x 47 w/Master	4
5	K74-19987	Svc. Kit, Interlock SW.	1
6	K75-19978-L	Svc. Kit, Frame. (LH)	1
7	K75-19978-R	Svc. Kit, Frame, (RH)	1
8	K75-19981	Svc. Kit, H Arm	1
9	17-6014	Motor Pulley	1
10	See Pgs 18 – 19	Motor Kits	1
11	See Pgs 18 – 19	Electrical Box Kits	1

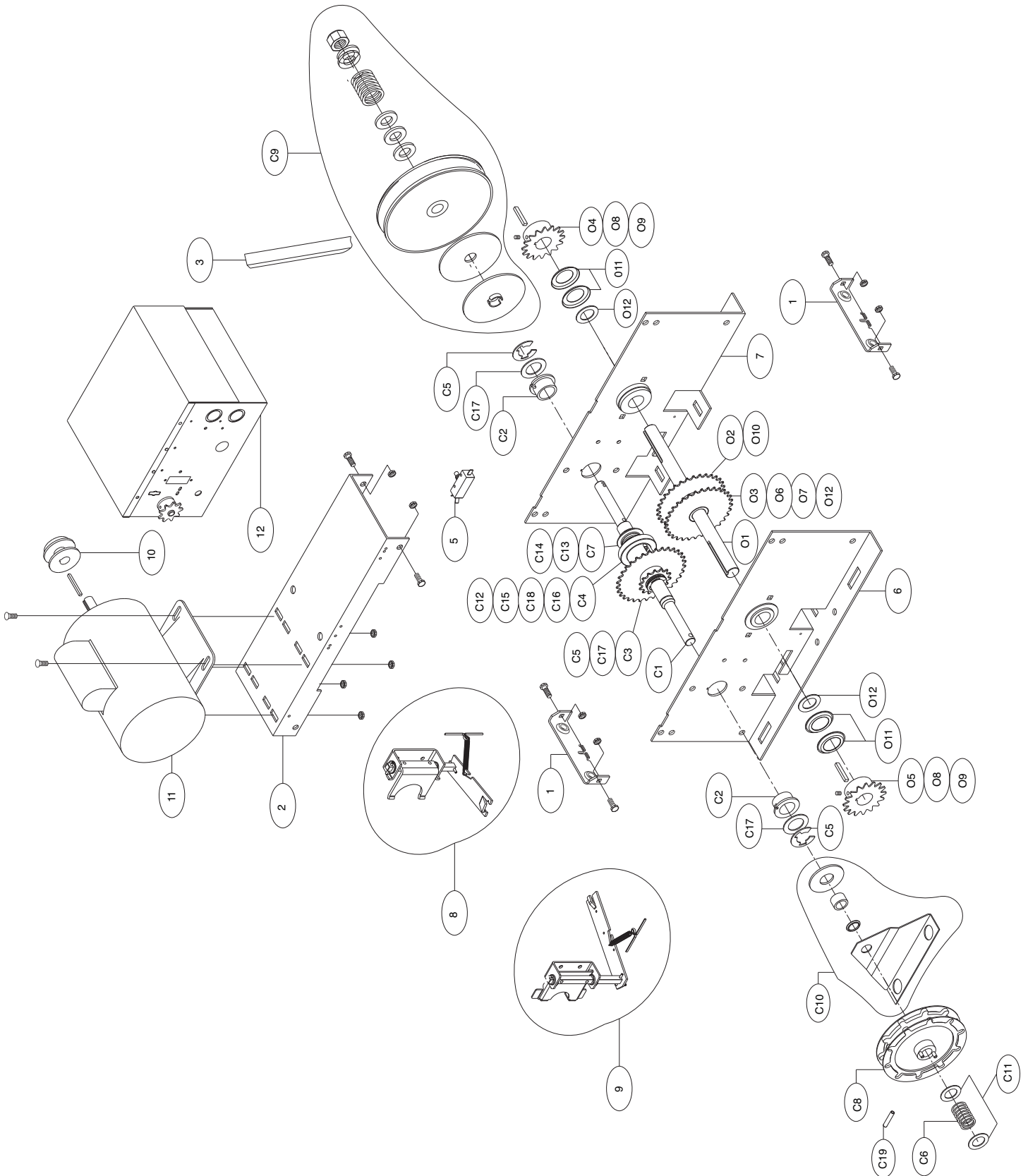
K72-19974 OUTPUT SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
01	11-19485	Shaft, H/J Output	1
02	15-19478	Sprocket Assembly	1
03	15-19480	Dual Sprocket 32/14	1
04	15-48B18LGE	Sprkt 48B18 x 1" Boresprkt	1
05	15-50B12LGH	50B12 x 1 Bore	1
06	158A0056	E Ring, 1" Plated	1
07	80-206-11	Washer 1" ID x 1/16" TH	1
08	80-207-19	Key 1/4 x 1-1/2" Long	2
09	82-NH31-06	Set Screw, 5/16" – 18	3
010	86-RP10-112	Roll Pin, 5/16" x 1.75"	1
011	87-P-100S	Thin Walled Receiver	4
012	80-206-11	Spacer	3

K72-19975 CLUTCH SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
C1	11-19471	Shaft, H Clutch	1
C2	12-19504	1" Keyed Flange Bearing	2
C3	15-19480	Dual Sprocket 32/14	1
C4	15-19481	Sprocket 14 Tooth	1
C5	158A0056	E-Ring, 1" Plated	3
C6	18-11379	Spring Compression	1
C7	75-10884	Assembly, Chain Wheel	1
C8	75-19985	Assembly, Pulley	1
C9	75-19986	Assembly, Chain Guide	1
C10	80-10022	Shim Washer	2
C11	80-206-11	Washer 1" ID x 1/16" TH	3
C12	80-19418	Thrust Washer, 1" ID 1.5" OD	1
C13	80-RP10-112	Roll Pin, 5/16" x 1.75"	1
C14	86-RP10-112	Roll Pin, 5/16" x 2 1/2"	1

ILLUSTRATED PARTS – MODEL HJ



REPLACEMENT PARTS – MODEL HJ

Refer to the parts lists below for replacement parts 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. Refer to page 16 for all repair part ordering information.

INDIVIDUAL PARTS

ITEM	PART #	DESCRIPTION	QTY
1	10-10874	Connecting Bracket	2
2	10-15569	Motor Plate H, J-Paint	1
3	16-5L304	V Belt Cogged 30.4"	1
N/S	19-48047M	Chain, #48 x 47 w/Master	4
5	K74-19987	Svc. Kit, Interlock SW.	1
6	K75-19978-L	Svc. Kit, Frame. (LH)	1
7	K75-19978-R	Svc. Kit, Frame, (RH)	1
8	K75-19977	Svc. Kit, J Arm	1
9	K75-19981	Svc. Kit, H Arm	1
10	17-6014	Motor Pulley	1
11	See Pgs 18 – 19	Motor Kits	1
12	See Pgs 18 – 19	Electrical Box Kits	1

K72-19974 OUTPUT SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
01	11-19485	Shaft, H/J Output	1
02	15-19478	Sprocket Assembly	1
03	15-19480	Dual Sprocket 32/14	1
04	15-48B18LGE	Sprkt 48B18 x 1" Boresprkt	1
05	15-50B12LGH	50B12 x 1 Bore	1
06	158A0056	E Ring, 1" Plated	1
07	80-206-11	Washer 1" ID x 1/16" TH	1
08	80-207-19	Key 1/4 x 1-1/2" Long	2
09	82-NH31-06	Set Screw, 5/16" – 18	3
010	86-RP10-112	Roll Pin, 5/16" x 1.75"	1
011	87-P-100S	Thin Walled Receiver	4
012	80-206-12	Spacer	3

K72-19982 CLUTCH SHAFT ASSEMBLY KIT

ITEM	PART #	DESCRIPTION	QTY
C1	11-19473	Shaft, HJ Clutch	1
C2	12-19504	1" Keyed Flange Bearing	2
C3	15-19480	Dual Sprocket 32/14	1
C4	15-19484	Splined Core Sprocket	1
C5	158A0056	E-Ring, 1" Plated	4
C6	18-11379	Spring Compression	1
C7	18-19487	Compression Spring	2
C8	75-10884	Assembly, Chain Wheel	1
C9	75-19985	Assembly, Pulley	1
C10	75-19986	Assembly, Chain Guide	1
C11	80-10022	Shim Washer, .80 ID	2
C12	80-19473	Washer 1" ID	1
C13	80-19474	Thrust Bearing, 1.02" ID	1
C14	80-19475	Thrust Bearing, 1.26" ID	1
C15	80-19476	Retaining Ring .887" ID	1
C16	80-19846	Splined Hub, J Disconnect	1
C17	80-206-11	Washer 1" ID x 1/16" TH	5
C18	86-RP10-112	Roll Pin, 5/16" x 1.75"	1
C19	80-RP10-208	Roll Pin, 5/16" x 2 1/2"	1

CONTROL CONNECTION DIAGRAM

IMPORTANT NOTES:

- 1) The 3-Button Control Station provided must be connected for operation.
- 2) If a STOP button is not used, a jumper must be placed between terminals 3 and 4.
- 3) Auxiliary control equipment may be any normally open two wire device such as pullswitch, single button, loop detector, card key or such device.

ATTENTION ELECTRICIAN:
USE 16 GAUGE OR HEAVIER WIRE
FOR ALL CONTROL CIRCUIT WIRING.

3 BUTTON STATION or 3 POSITION KEYSWITCH w/ SPRING RETURN TO CENTER AND STOP BUTTON		
<p style="text-align: center;">STANDARD</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>	<p style="text-align: center;">2 OR MORE</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>	<p style="text-align: center;">KEY LOCKOUT</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>
2 BUTTON STATION or 3 POSITION KEYSWITCH w/ SPRING RETURN TO CENTER		
<p style="text-align: center;">STANDARD</p> <p style="text-align: right;">SEE NOTE #2</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>	<p style="text-align: center;">2 OR MORE</p> <p style="text-align: right;">SEE NOTE #2</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>	<p style="text-align: center;">1 BUTTON STATION or ANY AUXILIARY DEVICE</p> <p style="text-align: right;">SEE NOTES #2 AND #3</p> <p style="text-align: center;">OPEN / CLOSE</p> <p style="text-align: center;">B2 or T1 WIRING TYPES ONLY</p>
SENSING DEVICE TO REVERSE OR STOP		RESIDENTIAL RADIO CONTROLS
<p style="text-align: center;">Sensing Device</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>		<p style="text-align: center;">*OPEN TIMER TO CLOSE</p> <p style="text-align: center;">RADIO CONTROL</p> <p style="text-align: center;">EXTERNAL TERMINAL BLOCK</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES *T1 WIRING - RADIO TO OPEN ONLY</p>
TIMER TO CLOSE w/ WARNING LIGHT		EXTERNAL INTERLOCK
<p>Warning Light will activate 15 sec. before door closes.</p> <p style="text-align: right;">Auxiliary Terminal Block</p> <p style="text-align: center;">Timer Defeat Switch</p> <p style="text-align: center;">Power Supply for Warning Light</p> <p style="text-align: center;">T1 CONTROL WIRING ONLY</p>		<p style="text-align: center;">Remove Jumper When Interlock is Used</p> <p style="text-align: center;">ONE</p> <p style="text-align: center;">2 OR MORE</p> <p style="text-align: center;">ALL CONTROL WIRING TYPES</p>