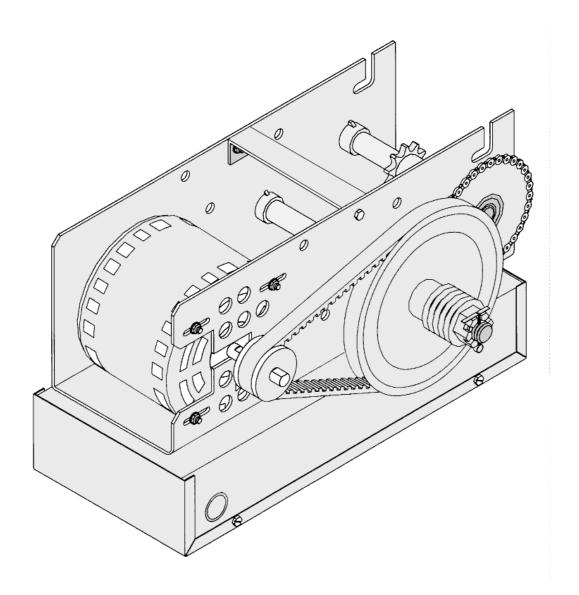


OWNER'S MANUAL MODEL MT

MEDIUM DUTY DOOR OPERATOR



2 YEAR WARRANTY

Serial #

(located on electrical box cover)

Installation Date_

Wiring Type___

NOT FOR RESIDENTIAL USE



SPECIFICATIONS

MOTOR

TYPE:Intermittent duty

HORSEPOWER:1/2 Horsepower

SPEED:.....1000 RPM

VOLTAGE:115V, 1 Phase, 60Hz

230V, 1 Phase, 50Hz

CURRENT:See motor nameplate

ELECTRICAL

TRANSFORMER:.....24VAC

CONTROL STATION:NEMA 1 three button station.

OPEN/CLOSE/STOP

Momentary contact to OPEN & STOP, constant pressure to CLOSE, plus wiring for sensing device to

reverse. See page 8 for control wiring options.

LIMIT ADJUST:....Linear driven, fully

adjustable screw type cams.

MECHANICAL

DRIVE REDUCTION:......Primary: Heavy duty (4L) V-Belt. Secondary: #48 chain/sprocket. Output: #48 chain

#40 CHaili

OUTPUT SHAFT SPEED:108 R.P.M.

DOOR SPEED:approx. 9" per sec.

depending on door

BRAKE (Optional):Solenoid actuated disc

brake

BEARINGS:IronCopper sintered and

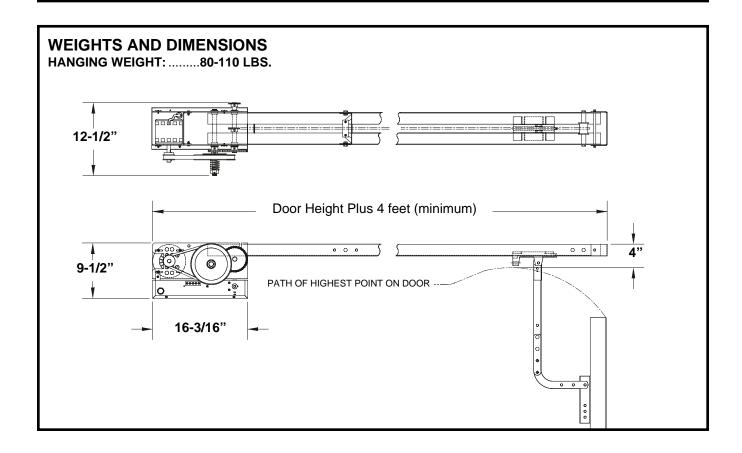
oil impregnated.

SAFETY

DISCONNECT:Quick disconnect door arm for emergency manual door operation.

SENSING DEVICE:Accepts photo electric controls such as CPS, or an electric / pneumatic sensing edge can be attached to the bottom edge of door.

A SENSING DEVICE 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.



PREPARATION



WARNING

KEEP DOOR BALANCED. STICKING OR BINDING DOORS MUST BE REPAIRED. DOORS, DOOR SPRINGS, CABLES, PULLEYS, BRACKETS AND THEIR HARDWARE MAY BE UNDER EXTREME TENSION AND CAN CAUSE SERIOUS PERSONAL INJURY OR DEATH. CALL A PROFESSIONAL DOOR SERVICEMAN TO MOVE OR ADJUST DOOR SPRINGS OR HARDWARE.

TRACK ASSEMBLY

- 1. Using the 3/8"-16 x 3/4 " bolts and flange hex nuts supplied, assemble the operator track by installing and tightening the track spacer brackets. Position the spacers evenly over the length of the track. NOTE: The nylon pad on the spacer bracket should face up.
- 2. Using (2) 3/8"-16 x 1" bolts and lock washers, install the front idler assembly to the second set of holes of one end of the track. Refer to the illustration below.
- Slide the trolley carriage onto the track so that the take-up bolt will be toward the operator.

POWERHEAD ATTACHMENT

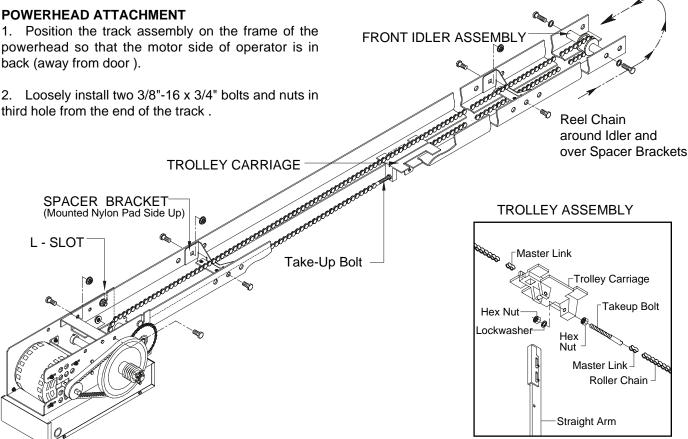
- 1. Position the track assembly on the frame of the powerhead so that the motor side of operator is in back (away from door).
- third hole from the end of the track.

- 3. Align the track so that the bolts inserted in step 2 line up with the L-Slots in the frame.
- 4. Connect the track to the powerhead by fastening two 3/8"-16 x 3/4" bolts and nuts through the frame and the end holes in track. Tighten all four bolts to secure the track to the powerhead.

TROLLEY CARRIAGE / CHAIN ATTACHMENT

- 1. Attach the take-up bolt to the trolley carriage using 3/8-16 hex nuts and lock washer, as shown below.
- 2. Using one of the master links, attach the chain to the other end of the trolley carriage. Reel the chain around the front idler shaft, over the spacer brackets, back to the drive shaft sprocket, and then to the takeup bolt on the carriage.
- 3. Using the other master link, attach the chain to the take-up bolt and tighten to the desired chain tension.

Chain Tension: With trolley positioned at either end of the track, a properly adjusted chain will sag about 3" at the mid-point. If necessary, remove links from the chain to achieve proper adjustment.



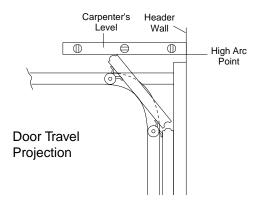
INSTALLATION INSTRUCTIONS

IMPORTANT NOTE: Before the operator is installed, be sure the door has been properly aligned and is working smoothly. Although each installation will vary due to particular building characteristics, refer to the following general procedures to install the operator.

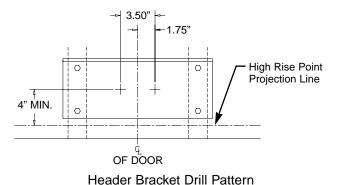
MOUNT HEADER BRACKET

The trolley operator is generally mounted over the center of the door. However, off center mounting may be required due to interfering structures or location of door stile / top section support. In such cases, the operator may be mounted up to 24" off center on torsion spring doors. Extension springs require center mounting.

- 1. Locate the center of the door and mark a line on the wall directly above the door. Extend this line up the wall.
- 2. Determine the highest point of door travel. Slowly raise the door and observe the action of the top section. When the top section reaches its highest point, use a level and project a line from this point to the center line the of the door.

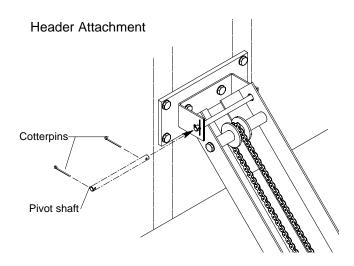


3. Using the projected lines for location, mount a suitable wood block or length of angle iron to the wall above the door opening. Refer to the illustration below. This will provide a mounting pad for the front header bracket of the operator. If necessary reinforce the wall with suitable mounting brackets to ensure adequate support of mounting pad. Using suitable hardware, mount the (U shaped) front header bracket to the pad.

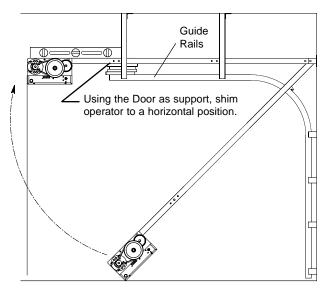


MOUNT OPERATOR

1. Allowing the motor to rest on the floor, raise the front end of the track assembly to the front header bracket and fasten using the 3/8"dia. x 6.40" long pivot shaft and cotterpins supplied.



2. Swing the operator to a horizontal position above the guide rails and temporarily secure with a suitable rope, chain, or support from the floor. Now open garage door slowly, being careful not to dislodge the temporary support. Using the door as a support, place a level against the rail and shim the operator until it is horizontal. Make sure that the operator is aligned with the center line of the door.



Operator Alignment

INSTALLATION INSTRUCTIONS

OPERATOR SUPPORT

- 1. The illustration below shows a typical method of hanging the operator from the ceiling. Each installation may vary, but in all cases side braces should be used for additional strength.
- 2. For mounting of the support brace(s) to the powerhead, Four holes (clearance up to 3/8" bolts) are located on each side of frame.

NOTE: If the operator is longer than 15 feet, use of a mid-span support is recommended.

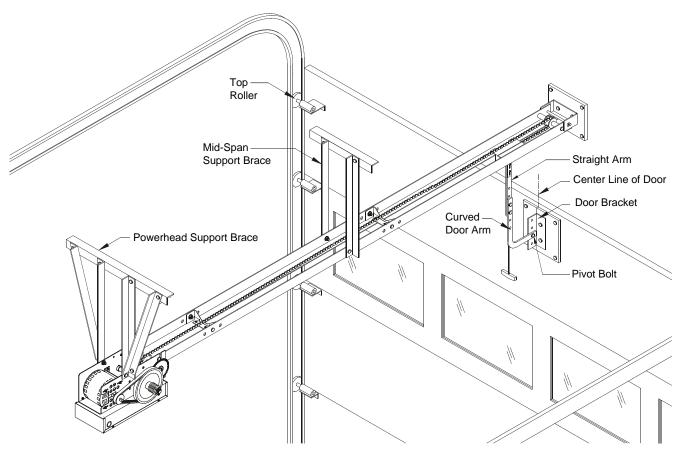


FAILURE TO SUSPEND THE OPERATOR SECURELY MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH, AND/OR PROPERTY DAMAGE.

STRAIGHT ARM ATTACHMENT

- 1. Fully close the door and move the trolley slider to within (2") two inches of the front idler.
- 2. Latch the straight door arm to the fixed roll pin in the trolley carriage. Make sure the open side of notch on the arm faces the doorway.
- 3. Attach the door bracket to the door arm using the 3/8"-16 x 1" bolt and nylon locking nut provided. Leave the nut and bolt loose enough to allow the two pieces to pivot freely.
- 4. Using 3/8" hardware provided, bolt the curved door arm to the straight arm, aligning the mounting holes in such a way that the door bracket pivot bolt will be in line with the top rollers on the door.
- 5. Position the door bracket to the center line on the door. Using suitable hardware, attach the door bracket to the door. Many installations, except solid wood doors, will require additional support for the door. Refer to the illustration below.

IMPORTANT NOTE: At this time, ensure all bolts and lag screws are properly secured.



ENTRAPMENT PROTECTION ACCESSORIES (OPTIONAL)

SENSING EDGES

All types of sensing edges with an isolated normally open (N.O.) output are compatible with your operator. This includes pneumatic and electric edges. If your door does not have a bottom sensing edge and you wish to purchase one, contact the supplier of your operator.

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 before making any sensing edge wiring connections to operator as described below.
- Electrician must hardwire the junction box to the operator electrical box in accordance with local codes.



THIS OPERATOR CONTAINS AN AUTO-REVERSE CIRCUIT THAT REQUIRES PROPER CLUTCH ADJUSTMENT IN ORDER TO FUNCTION. AN IMPROPERLY ADJUSTED CLUTCH MAY REDUCE THE LIFE OF THE OPERATOR OR ITS COMPONENTS.

The Auto-Reverse circuit is NOT intended and may not be used as an entrapment protection device. A safety reversing edge or infrared sensor should be added to door if necessary.

TAKE-UP REEL: Take-up reel should be installed 12" above the top of the door.

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

LIMIT SWITCH ADJUSTMENT

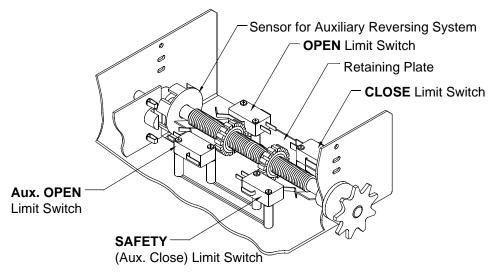
MAKE SURE THE LIMIT NUTS ARE POSITIONED BETWEEN THE LIMIT SWITCH ACTUATORS BEFORE PROCEEDING WITH ADJUSTMENTS.

- 1. To adjust limit nuts depress retaining plate to allow nut to spin freely. After adjustment, release plate and ensure it seats fully in slots of both nuts.
- 2. To **increase** door travel, spin nut **away** from actuator. To **decrease** door travel, spin limit nut **toward** actuator.
- 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 actuator is engaged as door fully seats at the floor.



TO AVOID SERIOUS PERSONAL INJURY OR DEATH FROM ELECTROCUTION, DISCONNECT ELECTRIC POWER BEFORE MANUALLY MOVING LIMIT NUTS.

If other problems persist, call our toll-free number for assistance - 1-800-528-2806.



POWER WIRING CONNECTIONS

Remove the cover from the electrical enclosure. Inside this enclosure you will find the wiring diagram(s) for your unit. Refer to the diagram (glued on the inside of the cover) for all connections described below. If this diagram is missing, call the number on the back of this manual. DO NOT INSTALL ANY WIRING OR ATTEMPT TO RUN THIS OPERATOR WITHOUT CONSULTING THE WIRING DIAGRAM.

MARNING

DISCONNECT POWER AT THE FUSE BOX BEFORE PROCEEDING.

OPERATOR MUST BE PROPERLY GROUNDED AND PERMANENTLY WIRED IN ACCORDANCE WITH LOCAL ELECTRICAL CODES. NOTE: THE OPERATOR SHOULD BE ON A SEPARATE FUSED LINE OF ADEQUATE CAPACITY.

ALL ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED INDIVIDUAL.



TO AVOID DAMAGE TO DOOR AND OPERATOR, MAKE ALL DOOR LOCKS INOPERATIVE. SECURE LOCK(S) IN "OPEN" POSITION.

IF THE DOOR LOCK NEEDS TO REMAIN FUNCTIONAL, INSTALL AN INTERLOCK SWITCH.

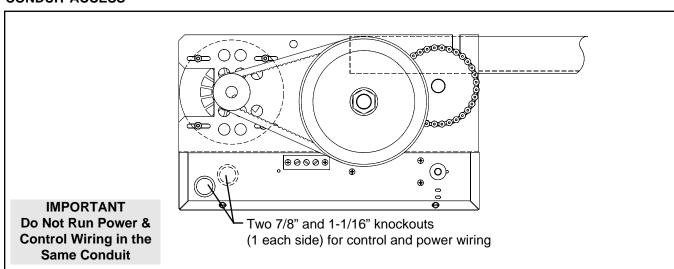
POWER WIRING

- 1. Be sure that the power supply is of the correct voltage, phase, frequency, and amperage to supply the operator. Refer to the operator nameplate on the cover.
- 2. Using the 1-1/16" dia conduit access hole as shown below, bring supply lines to the operator and connect wires to the terminals indicated on the WIRING CONNECTIONS DIAGRAM.

DO NOT TURN POWER ON UNTIL YOU HAVE FINISHED MAKING ALL POWER AND CONTROL WIRING CONNECTIONS AND HAVE COMPLETED THE LIMIT SWITCH ADJUSTMENT PROCEDURE.

IMPORTANT: THIS UNIT MUST BE PROPERLY GROUNDED. A GROUND SCREW IS SUPPLIED IN THE ELECTRICAL BOX FOR CONNECTION OF THE POWER SUPPLY GROUND WIRE. FAILURE TO PROPERLY GROUND THIS UNIT COULD RESULT IN ELECTRIC SHOCK AND SERIOUS INJURY.

CONDUIT ACCESS



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 settings to the right.

Constant pressure on close (C2 wiring)

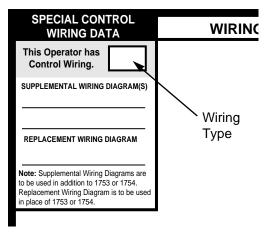
In the electrical enclosure, a RED wire was placed on terminal block #12. With this setting, the operator will require constant pressure on close control in order to keep door moving in the close direction.

Momentary contact on close (B2 wiring)

Move RED wire from terminal block #12 to terminal #2. 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.



Wiring Diagram label on inside cover of electrical box

LOCATING THE CONTROL STATION

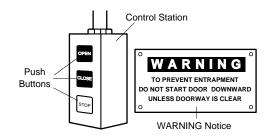
All operators are supplied with some type of control station. Generally a three button station (OPEN/CLOSE/STOP) is provided. A two-position key switch or control station (OPEN/CLOSE) may be added or substituted when requested at the time of order. Mount the control station near the door.



INSTALL THE CONTROL STATION WHERE THE DOOR IS VISIBLE, BUT AWAY FROM THE DOOR AND ITS HARDWARE. IF CONTROL STATION CANNOT BE INSTALLED WHERE DOOR IS VISIBLE, OR IF ANY DEVICE OTHER THAN THE CONTROL STATION IS USED TO ACTIVATE THE DOOR, A REVERSING EDGE MUST BE INSTALLED ON THE BOTTOM OF THE DOOR. FAILURE TO INSTALL A REVERSING EDGE UNDER THESE CIRCUMSTANCES MAY RESULT IN SERIOUS INJURY OR DEATH TO PERSONS TRAPPED BENEATH THE DOOR.

MOUNT WARNING NOTICE

IMPORTANT: Mount WARNING NOTICE beside or below the push button station.



CONTROL WIRING

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.



DO NOT USE RADIO CONTROLS WITH YOUR OPERATOR UNLESS YOU HAVE INSTALLED SOME TYPE OF ENTRAPMENT PROTECTION DEVICE. THE USE OF RADIO CONTROLS PRESENTS POTENTIAL HAZARDS DUE TO THE USER'S ABILITY TO OPEN OR CLOSE THE DOOR WHEN OUT OF SIGHT OF THE DOOR. IN ADDITION, IF A SINGLE CHANNEL CONTROL IS USED, THE USER WILL NOT BE ABLE TO STOP THE DOOR FROM THE TRANSMITTER.

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 @ 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.

CLUTCH ADJUSTMENT



WARNING

THIS OPERATOR CONTAINS AN AUXILIARY REVERSE SYSTEM THAT REQUIRES PROPER CLUTCH ADJUSTMENT IN ORDER TO FUNCTION. AN IMPROPERLY ADJUSTED CLUTCH MAY REDUCE THE LIFE OF THE OPERATOR OR ITS COMPONENTS.

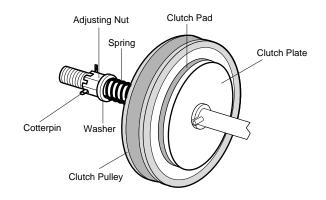
The Auxiliary Reverse System (A.R.S.) is NOT intended and may not be used as an entrapment protection device. A safety reversing edge or infrared sensor should be added to door if necessary.

- 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.

AUXILIARY REVERSE SYSTEM

This operator has A.R.S., an auxiliary reverse system to protect the door operator and its components. This circuit recognizes change in speed of door in the down direction caused by binding or obstructions. Upon detection, the door will stop and return to fully open position.

Friction Clutch Components



4. Reinstall Cotterpin.

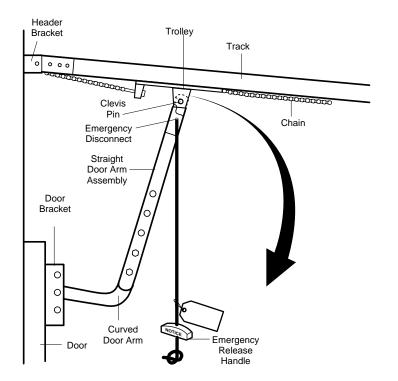
EMERGENCY DISCONNECT SYSTEM



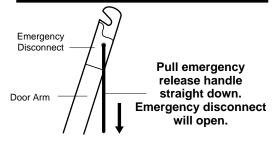
WARNING

DOOR ARM IS RELEASED FROM TROLLEY WHEN EMERGENCY DISCONNECT OPENS.

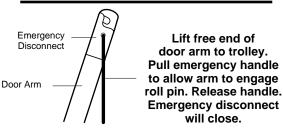
TO AVOID BEING STRUCK BY DOOR ARM, DO NOT STAND UNDER THE ROPE OR DOOR ARM WHEN PULLING THE EMERGENCY RELEASE.



TO DISCONNECT DOOR FROM OPENER



TO RECONNECT DOOR ARM TO TROLLEY



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 6 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.

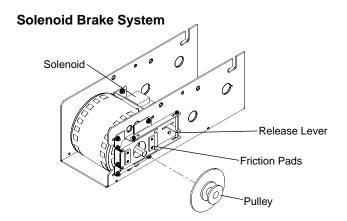


DO NOT PLACE HANDS OR TOOLS IN OR NEAR THE OPERATOR WHEN THE POWER IS ON OR WHEN TESTING CONTROL OR SAFETY DEVICES. ALWAYS DISCONNECT POWER BEFORE SERVICING OR ADJUSTING THE OPERATOR.

BRAKE ADJUSTMENT

A solenoid brake is an optional modification. If supplied, the brake is adjusted at the factory and should not need additional adjustment for the the life of the friction pad.

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



MAINTENANCE SCHEDULE

Check at the intervals listed in the following chart.

ITEM	PROCEDURE	EVERY 3 MONTHS	EVERY 6 MONTHS	EVERY 12 MONTHS
Drive Chain	Check for excessive slack. Check & adjust as required. Lubricate.*	•		v
Sprockets	Check set screw tightness	•		V
Clutch	Check & adjust as required		•	v
Belt Check condition & tension			•	V
Fasteners	Check & tighten as required		•	✓
Manual Disconnect Check & Operate			•	✓
Bearings & Shafts	Check for wear & lubricate	•		•

- * Use SAE 30 Oil (Never use grease or silicone spray).
- Repeat ALL procedures.
- Do not lubricate motor. Motor bearings are rated for continuous operation.
- Do not lubricate clutch or V-belt.
- Inspect and service whenever a malfunction is observed or suspected.
- CAUTION: BEFORE SERVICING, ALWAYS DISCONNECT OPERATOR FROM POWER SUPPLY.

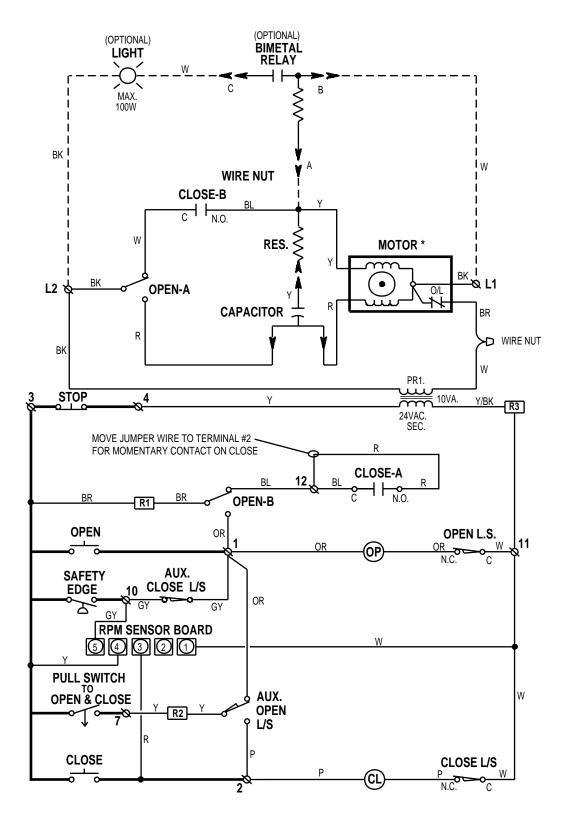
HOW TO ORDER REPAIR PARTS

OUR LARGE SERVICE ORGANIZATION
SPANS AMERICA
INSTALLATION AND SERVICE INFORMATION
ARE AVAILABLE 6 DAYS A WEEK
CALL OUR TOLL FREE NUMBER - 1-800-528-2806
HOURS 7:00 TO 3:30 p.m. (Mountain Std. Time)
MONDAY Through SATURDAY

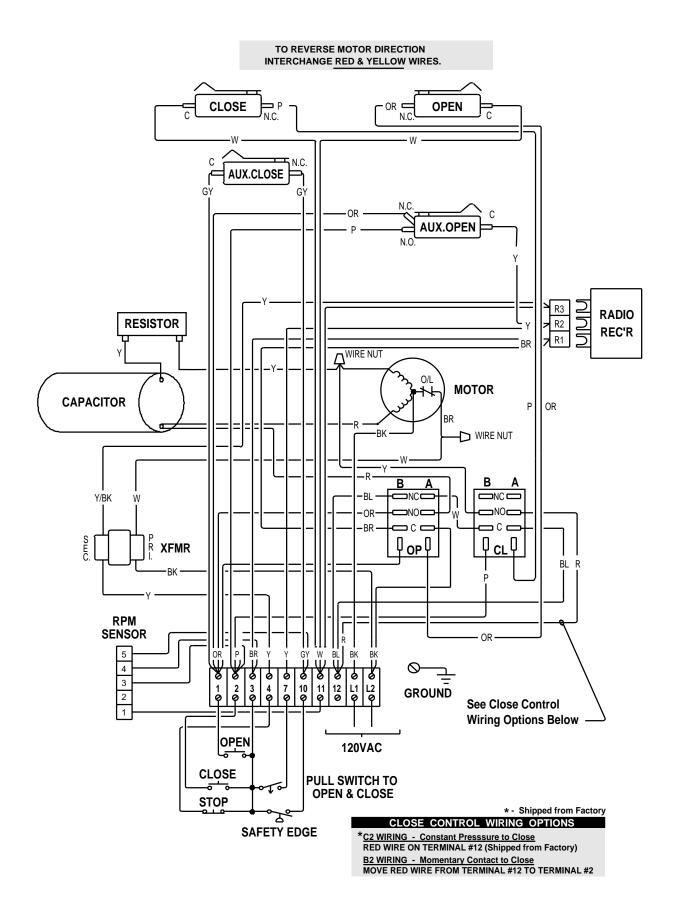
WHEN ORDERING REPAIR PARTS
PLEASE SUPPLY THE FOLLOWING INFORMATION:
PART NUMBER DESCRIPTION MODEL NUMBER

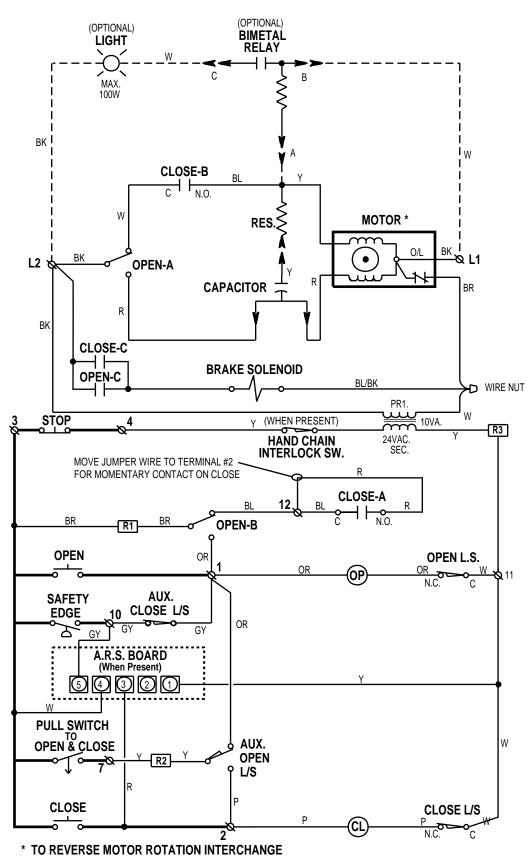
ADDRESS ORDER TO:

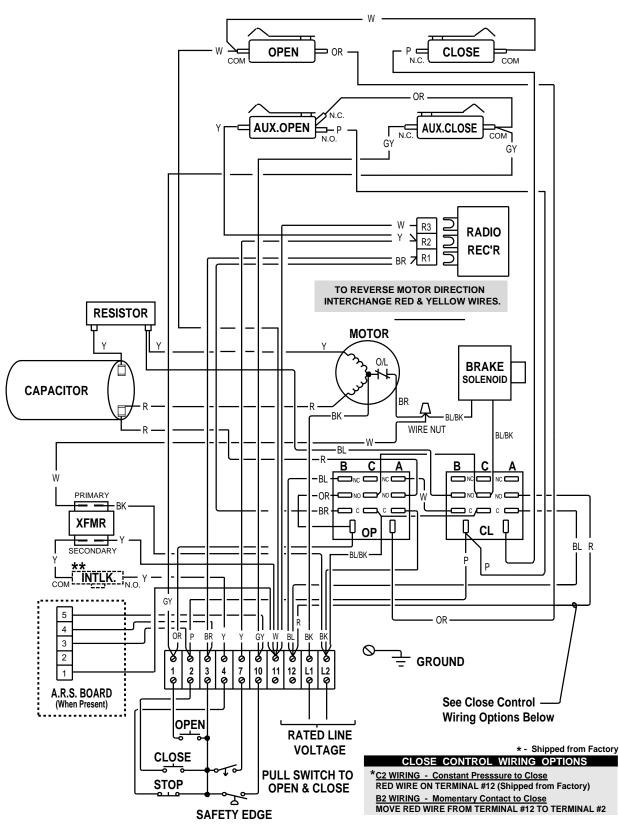
THE CHAMBERLAIN GROUP, INC. Electronic Parts & Service Dept. 2301 N. Forbes Blvd., Suite 104 Tucson, AZ 85745



* TO REVERSE MOTOR ROTATION INTERCHANGE RED AND YELLOW MOTOR WIRES.

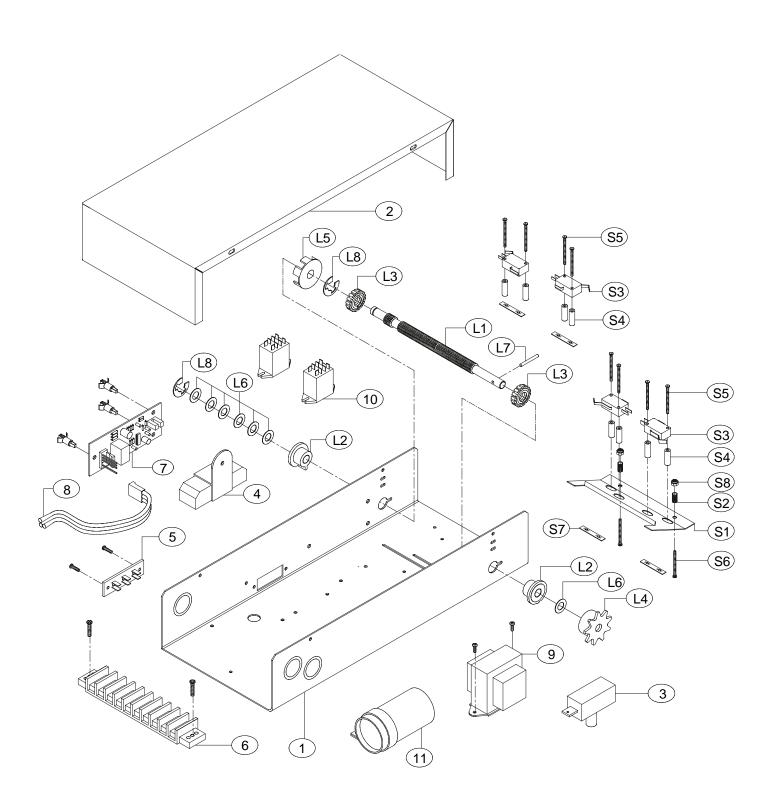






** - INTERLOCK SWITCH (WHEN SUPPLIED) WIRED N.O. HELD CLOSED.

ELECTRICAL BOX - ILLUSTRATED PARTS



REPLACEMENT PART 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.

Complete Electrical Box

K-MT5011 Model MT5011, 115V Single Phase K-MT5025 Model MT5025, 230V 50Hz K-BMT5011 Model BMT5011, 115V Single Phase

K-BMT5025 Model BMT5025, 230V 50Hz

Electrical Box Sub-Assemblies

K72-12487 Limit Shaft Assembly K75-12493 Limit Switch Assembly

K75-12489 Auto Reversal System(ARS) PCB

Motor Kits

K20-5150LD Models MT5011, BMT5011 K20-5250LD Models MT5025, BMT5025

Shaft Assemblies

K72-12471 Clutch Shaft Assembly K72-12472 Output Shaft Assembly

Hardware, Track, and Drive Chain Kits

K75-12491 Hardware Kit See pg. 19 Drive Chain See pg. 19 Track

Brake Kits

K75-12492 Model BMT5011 Brake Assembly K75-12494 Model BMT5025 Brake Assembly

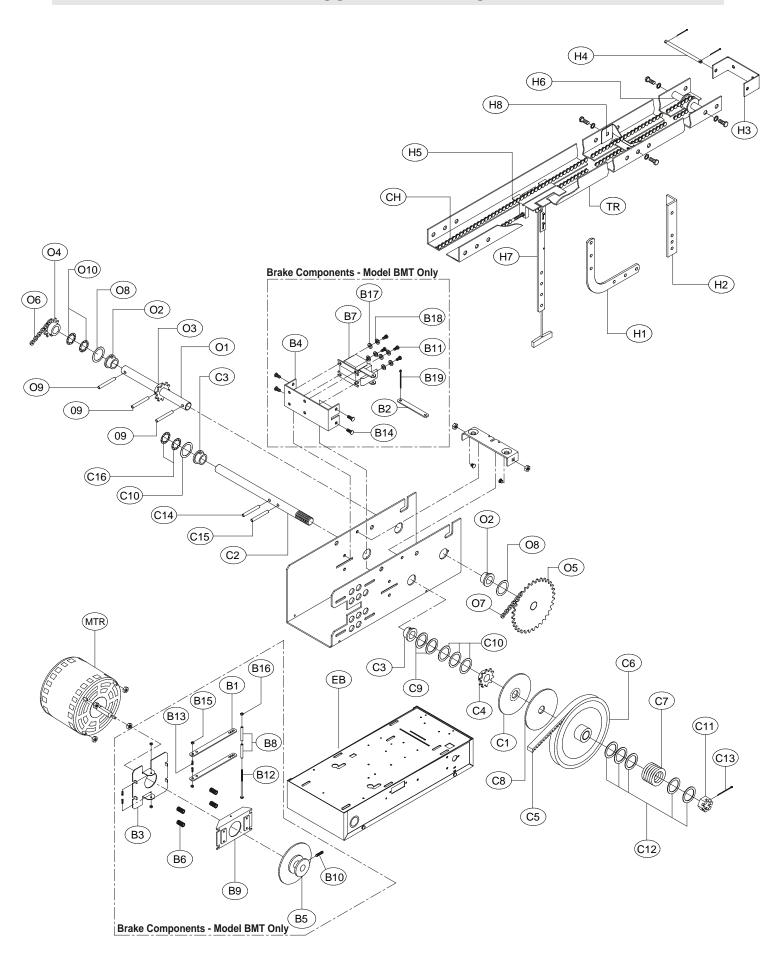
	IND	DIVIDUAL PARTS	
ITEM	PART #	DESCRIPTION	QTY
1	10-10315	MT Electrical Box	1
2	10-10316	MT Electrical Box Cover	1
3	23-10916	SPDT Interlock Switch (Not on MT)	1
4	29-2	Resistor, 20hm	1
5	42-10040	Terminal Assembly 3 Lug	1
6	42-110	10 Position Terminal Block	1
7	001A5834	RPM Sensor Board (MT Only)	1
8	74-10352	RPM Sensor Board Harness	1
9	(See Var. Comp.)		1
10	(See Var. Comp.)		2
11	(See Var. Comp.)	Motor Capacitor	1

VARIABLE COMPONENT KITS					
Part Number	Component	MT5011	MT5025	BMT5011	BMT5025
13-10024	Limit Nut	•	•	•	•
23-10041	Limit Switch	•	•	•	•
29-2	Resistor, 20hm	•	•	•	•
21-10340	Transformer, 115V	•		•	
21-5230	Transformer, 230V		•		•
29-10338	Capacitor, 70MFD	•		•	
29-12110	Capacitor, 20MFD		•		•
24-24-1	Relay, DPDT	•	•		
24-24-6	Relay, 3PDT			•	•

	K75-12493	LIMIT SWITCH ASSEMBLY K	IT
ITEM	PART #	DESCRIPTION	QTY
S1	10-10318	Depress Plate	1
S2	18-10036	Spring, Depress Plate	2
S3	23-10041	Limit Switch	4
S4	31-10043	Standoff, Limit Switch	8
S5	82-PX04-19	Screw, #4-40 x 1-3/8" Pan Hd Phil	8
S6	82-PX06-16	Screw, #6-32 x 1" Pan Hd Phil	2
S7	84-DT-04	Nut, Double Tinnerman	4
S8	84-LN-06	Locknut, #6-32 Nylon Hex	2

	K72-12487	LIMIT SHAFT ASSEMBLY KIT	
ITEM	PART#	DESCRIPTION	QTY
L1	11-10321	MT Limit Shaft	1
L2	12-10028	Flange Bearing 3/8" I.D.	2
L3	13-10024	Limit Nut	2
L4	15-48B9A1	Sprocket 48B9 x 3/8" Powder Metal	1
L5	29-10344B	RPM Sensor Rotating Cup	1
L6	80-10026	Washer, Shim 3/8" I.D. x .010 THK.	7
L7	86-RP04-100	Rollpin 1/8 x 1" Long	1
L8	87-E-038	E Ring, 3/8"	2

ILLUSTRATED PARTS



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 remove from these lists. Individual components of each kit may not be available. Please consult a parts and service representive regarding availability of individual components. Refer to page 11 for all repair part ordering information.

	BRA	KE ASSEMBLY KITS	
	(IT PART #	FOR OPERATOR(S)	
	K75-12492	Model BMT5011	
	K75-12494	Model BMT5025	
		kits for models BMT only	
ITEM		DESCRIPTION	QTY
B1	10-10354	Brake Release Arm	2
B2	10-10355	Solenoid Link	1
В3	10-10356	Brake Mounting Plate	1
B4	10-10357	Solenoid Bracket	1
B5	17-10363	Pully & Disc Assembly	1
В6	18-10362	Comp. Spring .360 O.D. x .045WD	4
B7	22-120	115V Brake Solenoid	1
	22-240	230V Brake Solenoid	1
B8	31-10364	Spacer .20 I.D. x .260 OD x 1	2
В9	75-10359	Brake Plate Pad Assembly	1
B10	82-NH25-03	1/4-20 x 3/16 S.S. Knurled Cup	1
B11	82-PX10-06T	Phillips Pan Self Tap Type ZP	4
B12	82-PX10-28	10-32 x 3" SLTD PN HD ZP	1
B13	82-SH06-065	SH Cap Screw #6-32 W/Knrld Cup	4
B14	83-HS08-04	Sheet Metal Screw AB Hex Slot	4
B15	84-LH-06	Locknut #6-32	2
B16	84-LH-10	Nylon Locknut 10-32 ZP	1
B17	85-FW-10	Flatwasher #10 ZP	4
B18	85-LS-10	Lock Washer ZP	4
B19	86-CP05-108	Cotterpin 5/32" x 1-1/2" Long	1

	K77-12	486 HARDWARE KIT	
ITEM	PART#	DESCRIPTION	QTY
H1	10-10203	Curved Arm	1
H2	10-10204	Door Bracket	1
H3	10-10205	Header Bracket	1
H4	11-10130	Header Pivot Pin	1
H5	75-10170	Slider Assembly	1
H6	75-10174	Front Idler Assembly	1
H7	75-10214	Straight Arm Assembly	1
H8	75-10259	Track Spacer Assembly	2
K75-	12870 STR	AIGHT & CURVED ARM	M ASSY
H1	10-10203	Curved Arm	1
H7	75-10214	Straight Arm Assembly	1

MOTOR
See Page 17 For More Information

ŀ	K72-12471 CI	LUTCH SHAFT ASSEMBLY	KIT
ITEM	PART#	DESCRIPTION	QTY
C1	10-10166	Clutch Plate	1
C2	11-10320	Clutch Shaft	1
C3	12-10029	Bearing 3/4" I.D.	2
C4	15-48B10GXX	Sprocket, 48B10 x 3/4"	1
C5	16-4L290	Cogged Belt	1
C6	17-10336	4L Motor Pulley 7" O.D.	1
C7	18-10164	Spring, Clutch (1/3 & 1/2 HP)	1
C8	39-10167	Clutch Disc	1
C9	80-10022	Shim Washer Thick	2
C10	80-10023	Shim Washer Thin	4
C11	84-SH-76	Nut 3/4-16 Castle	1
C12	85-FW-75	Flatwasher 3/4" I.D.	5
C13	86-CP04-112	Cotterpin 1/8" x 1-3/4" Long	1
C14	86-RP08-102	Roll Pin 1/4" x 1-1/8" Long	1
C15	86-RP08-200	Roll Pin 1/4" x 2" Long	1
C16	87-P-025	Turac 3/4" Push on Fastener	2

	K72-12472	OUTPUT SHAFT ASSEMBLY KIT	Г
ITEM	PART#	DESCRIPTION G)TY
01	11-10319	Output Shaft	1
02	12-10029	Bearing 3/4" I.D.	2
03	15-48B10GXX	Sprocket, 48B10 x 3/4"	1
04	15-48B10G1	Sprocket, 48B10 x 3/4" Powder Metal	1
O5	15-48B24GXX	Sprocket, 48B24 x 3/4"	1
06	19-48027M	Chain #48 x 27 Links with master link	1
07	19-48033M	Chain #48 x 33 Links with master link	. 1
08	80-10023	Shim Washer Thin	2
09	86-RP08-102	Roll Pin 1/4" x 1-1/8" Long	3
010	87-P-025	Turac 3/4" Push on Fastener	2

DOOR TRACK & DRIVE CHAIN			
ITEM	PART#	DESCRIPTION	
l _{TR}	10-5810	Track for up to 10' door height	
''`	10-5812	Track for 12' door height	
СН	19-5810	#48 Chain for up to 10' door height	
	19-5812	#48 Chain for 12' door height	

ELECTRICAL BOX REPLACEMENT KITS				
ITEM	DESCRIPTION	KIT#		
EB	Electrical Box Replacement Kits	See Page 17		

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 termianls 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.

