INTENDED FOR PROFESSIONAL INSTALLATION ONLY
Visit www.LiftMaster.com to locate a professional installing dealer in your area.

2 YEAR WARRANTY

Serial # ____________________________
(located on electrical box cover)

Installation Date _________________

Wiring Type _______________________

NOT FOR RESIDENTIAL USE

A SAFETY DEVICE IS HIGHLY RECOMMENDED
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.
WEIGHTS AND DIMENSIONS

HANGING WEIGHT: 80-110 LBS. (36.29-49.9 kg)

MOTOR

- TYPE: Intermittent duty
- HORSEPOWER: 1/2 Horsepower
- SPEED: 1000 RPM
- VOLTAGE: 115V, 1 Phase, 60Hz
- CURRENT: See motor nameplate

ELECTRICAL

- TRANSFORMER: 24Vac
- CONTROL STATION: NEMA 1 three button station. OPEN/CLOSE/STOP
- WIRING TYPE: C2 (Factory Shipped)
- 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.
  - LIMIT ADJUST: Linear driven, fully adjustable screw type cams.

MECHANICAL

- OUTPUT SHAFT SPEED: 108 R.P.M.
- DOOR SPEED: Approximately 9’ (22.86 cm) 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.

OPERATOR DIMENSIONS

- Door Height Plus 4 feet (1.22 m) (minimum)
- Highest Point of Door Travel
- 4” (10.16 cm)

12-1/2’ (31.75 cm)
9-1/2’ (24.13 cm)
16-3/16’ (41.12 cm)
**TRACK ASSEMBLY**

1. Using the 3/8"-16 x 3/4" bolts and flange hex nuts provided, 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.

3. 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).

2. Loosely install two 3/8"-16 x 3/4" bolts and nuts in 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.

**PREPARATION**

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.

**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 take-up 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” (7.62 cm) at the mid-point. If necessary, remove links from the chain to achieve proper adjustment.
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" (60.96 cm) 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 of the door.

**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 provided.
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.

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.

---

**Header Bracket Drill Pattern**

**Operator Alignment**

---

There are additional illustrations and diagrams that provide visual guidance on the mounting procedures.
HANG THE OPERATOR

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.

3. Check to make sure the track is centered over the door (or in line with the header bracket if the bracket is not centered above the door).

**NOTE:** If the operator is longer than 15' (4.57 m) use of a mid-span support is recommended.

**WARNING**

To avoid possible SERIOUS INJURY from a falling operator, fasten it SECURELY to structural supports of the garage. Concrete anchors MUST be used if installing ANY brackets into masonry.

STRAIGHT ARM ATTACHMENT

1. Fully close the door and move the trolley slider to within 2" (5.08 cm) 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.

**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.

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.

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.

Sensor for Auxiliary Reversing System

OPEN Limit Switch

Retaining Plate

CLOSE Limit Switch

SAFETY
(Aux. Close) Limit Switch

AUX. OPEN Limit Switch
EMERGENCY DISCONNECT SYSTEM

TO DISCONNECT DOOR FROM OPERATOR
The door should be in the fully closed position if possible. Pull down on the emergency release handle (so that the trolley release arm snaps into a vertical position) and lift the door manually. The lockout feature prevents the trolley from reconnecting automatically, and the door can be raised and lowered manually as often as necessary.

TO RECONNECT DOOR ARM TO TROLLEY
Pull the emergency release handle toward the operator at an angle so that the trolley release arm is horizontal. The trolley will reconnect on the next UP or DOWN operation, either manually or by using the door control or remote.

WARNING
To prevent possible SERIOUS INJURY or DEATH from a falling door or arm:
- DO NOT stand under the door arm when pulling the emergency release.
- If possible, use emergency release handle to disengage trolley ONLY when door is CLOSED. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly.
- NEVER use emergency release handle unless doorway is clear of persons and obstructions.
**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

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.

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.

ATTENTION

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.

WARNING

- 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.

Two 7/8" and 1-1/16" Knockouts (1 each side) for Control and Power Wiring
**DETERMINE WIRING TYPE**

Refer to the wiring diagram located on the inside cover of 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.

**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 additional instructions, refer to the wiring diagram(s) indicated in the special control wiring data box. If a replacement wiring diagram is present, wiring diagrams in this manual will not apply. Refer only to the replacement wiring diagram for all connections.

**MOUNT WARNING NOTICE**

**LOCATING THE CONTROL STATION**

All operators are provided 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.

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

**SPECIAL CONTROL WIRING DIAGRAM**

This Operator has Control Wiring.

**SUPPLEMENTAL WIRING DIAGRAM(S)**

**REPLACEMENT WIRING DIAGRAM**

Note: Supplemental Wiring Diagrams are to be used in addition to 1742-1. Replacement Wiring Diagram is to be used in place of 1742-1.
**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 @ 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.
**TESTING AND MAINTENANCE**

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 7 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.

**MAINTENANCE SCHEDULE**

Check at the intervals listed in the following chart:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PROCEDURE</th>
<th>EVERY 3 MONTHS</th>
<th>EVERY 6 MONTHS</th>
<th>EVERY 12 MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Chain</td>
<td>Check for excessive slack. Check and adjust as required. Lubricate.</td>
<td>⬤</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Sprockets</td>
<td>Check set screw tightness.</td>
<td>●</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Clutch</td>
<td>Check and adjust as required.</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Belt</td>
<td>Check condition and tension.</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Fasteners</td>
<td>Check and tighten as required.</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Manual Disconnect</td>
<td>Check and operate.</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Bearings and Shafts</td>
<td>Check for wear and lubricate.</td>
<td>⬤</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**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.
* TO REVERSE MOTOR ROTATION, INTERCHANGE RED AND YELLOW MOTOR WIRES.
TO REVERSE MOTOR DIRECTION, INTERCHANGE RED & YELLOW WIRES.

120VAC

C2 WIRING - Constant Pressure to Close
RED WIRE ON TERMINAL #12 (Shipped from Factory)
B2 WIRING - Momentary Contact to Close
MOVE RED WIRE FROM TERMINAL #12 TO TERMINAL #2
* TO REVERSE MOTOR ROTATION, INTERCHANGE RED AND YELLOW MOTOR WIRES.
**INTERLOCK SWITCH (WHEN SUPPLIED)**

**CLOSE CONTROL WIRING OPTIONS**

*C2 WIRING - Constant Pressure to Close*
RED WIRE ON TERMINAL #12 (Shipped from Factory)
B2 WIRING - Momentary Contact to Close
MOVE RED WIRE FROM TERMINAL #12 TO TERMINAL #2

**WIRED N.O. HELD CLOSED.**
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 13 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

### INDIVIDUAL PARTS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10-10315</td>
<td>MT Electrical Box</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>10-10316</td>
<td>MT Electrical Box Cover</td>
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<tr>
<td>3</td>
<td>23-10916</td>
<td>SPDT Interlock Switch</td>
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<td></td>
<td>29-2</td>
<td>Resistor, 2 Ohm</td>
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<tr>
<td>5</td>
<td>42-10040</td>
<td>Terminal Assembly 3 Lug</td>
<td>1</td>
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<tr>
<td>6</td>
<td>42-110</td>
<td>10 Position Terminal Block</td>
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<tr>
<td>7</td>
<td>71-10345</td>
<td>RPM Sensor Board (MT Only)</td>
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<tr>
<td>8</td>
<td>74-10352</td>
<td>RPM Sensor Board Harness</td>
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<tr>
<td>9</td>
<td>(See Var. Comp.)</td>
<td>Transformer</td>
<td>1</td>
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<tr>
<td>10</td>
<td>(See Var. Comp.)</td>
<td>Relay, 24V</td>
<td>2</td>
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<tr>
<td>11</td>
<td>(See Var. Comp.)</td>
<td>Motor Capacitor</td>
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<td>31-10350</td>
<td>Standoff</td>
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<td></td>
<td>K75-12489</td>
<td>MT Auto Reversal System (ARS) Logic</td>
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### VARIABLE COMPONENT KITS

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<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>MT5011</th>
<th>MT5025</th>
<th>BMT5011</th>
<th>BMT5025</th>
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<tbody>
<tr>
<td>13-10024</td>
<td>Limit Nut</td>
<td>•</td>
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<tr>
<td>23-10041</td>
<td>Limit Switch</td>
<td>•</td>
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<tr>
<td>29-2</td>
<td>Resistor, 2 Ohm</td>
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<tr>
<td>21-10340</td>
<td>Transformer, 115V</td>
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<td>21-5230</td>
<td>Transformer, 230V</td>
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<td>29-10338</td>
<td>Capacitor, 70MFD</td>
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<td>29-12110</td>
<td>Capacitor, 20MFD</td>
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<td>Relay, DPDT</td>
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### K75-12487 • LIMIT SHAFT ASSEMBLY KIT

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<th>DESCRIPTION</th>
<th>QTY</th>
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<tr>
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<td>11-10321</td>
<td>Limit Shaft</td>
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<tr>
<td>S2</td>
<td>13-10024</td>
<td>Flange Bearing 3/8&quot; I.D.</td>
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<tr>
<td>S3</td>
<td>13-10024</td>
<td>Limit Nut</td>
<td>2</td>
</tr>
<tr>
<td>S4</td>
<td>48B9 x 3/8&quot; Powder Metal</td>
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<tr>
<td>S5</td>
<td>RPM Sensor Interrupter Cup</td>
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<tr>
<td>L6</td>
<td>Rollpin 1/8 x 1&quot; Long</td>
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<td>L7</td>
<td>E Ring, 3/8&quot;</td>
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### K75-12493 • LIMIT SWITCH ASSEMBLY KIT

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<thead>
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<th>ITEM</th>
<th>PART #</th>
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<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>23-10041</td>
<td>Limit Switch</td>
<td>4</td>
</tr>
<tr>
<td>S2</td>
<td>Sprocket</td>
<td>Standoff, Limit Switch</td>
<td>8</td>
</tr>
<tr>
<td>S3</td>
<td>Nut, Double Tinnerman</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Motor Kits**
- K20-5150LD Models MT5011, BMT5011
- K20-5250LD Models MT5025, BMT5025
ILLUSTRATED PARTS

Brake Components Model BMT Only

Brake Components - Model BMT Only

MTR

B1

B3

B6

B8

B9

B10

B5

C1

C4

C8

C5

C6

C7

C9

C14

C10

O1

O2

O3

O8

O4

O6

O9

O8

O5

O7

1

C3

Brake Components Model BMT Only
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. Refer to page 13 for all repair part ordering information.

**REPAIR PARTS KITS**

### BRAKE ASSEMBLY KITS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>10-10354</td>
<td>Brake Release Arm</td>
<td>2</td>
</tr>
<tr>
<td>B2</td>
<td>10-10355</td>
<td>Solenoid Link</td>
<td>1</td>
</tr>
<tr>
<td>B3</td>
<td>10-10365</td>
<td>Brake Mounting Plate</td>
<td>1</td>
</tr>
<tr>
<td>B4</td>
<td>10-10357</td>
<td>Solenoid Bracket</td>
<td>1</td>
</tr>
<tr>
<td>B5</td>
<td>17-10363</td>
<td>Pulley &amp; Disc Assembly</td>
<td>1</td>
</tr>
<tr>
<td>B6</td>
<td></td>
<td>Compression Spring .360 O.D. x .045WD</td>
<td>4</td>
</tr>
<tr>
<td>B7</td>
<td>22-120</td>
<td>115V Brake Solenoid</td>
<td>1</td>
</tr>
<tr>
<td>B8</td>
<td>22-240</td>
<td>230V Brake Solenoid</td>
<td>1</td>
</tr>
<tr>
<td>B9</td>
<td>31-10364</td>
<td>Spacer .20 I.D. x .260 OD x 1</td>
<td>2</td>
</tr>
<tr>
<td>B10</td>
<td>75-10359</td>
<td>Brake Plate Pad Assembly</td>
<td>1</td>
</tr>
<tr>
<td>B11</td>
<td>82-NH25-03</td>
<td>1/4-20 x 3/16 S.S. Knurled Cup</td>
<td>1</td>
</tr>
<tr>
<td>B12</td>
<td>86-CP05-108</td>
<td>Cotterpin 5/32&quot; x 1-1/2&quot; Long</td>
<td>1</td>
</tr>
</tbody>
</table>

Brake kits for model BMT only

- K75-12492 Model BMT5011
- K75-12494 Model BMT5025

### K72-12471 CLUTCH SHAFT ASSEMBLY KIT

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>10-10166</td>
<td>Clutch Plate</td>
<td>1</td>
</tr>
<tr>
<td>C2</td>
<td>11-10320</td>
<td>Clutch Shaft</td>
<td>1</td>
</tr>
<tr>
<td>C3</td>
<td>12-10029</td>
<td>Bearing 3/4&quot; I.D.</td>
<td>2</td>
</tr>
<tr>
<td>C4</td>
<td>15-48B10GXX</td>
<td>Sprocket, 48B10 x 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>16-4L290</td>
<td>Cogged Belt</td>
<td>1</td>
</tr>
<tr>
<td>C6</td>
<td>17-10336</td>
<td>4L Motor Pulley 7&quot; O.D.</td>
<td>1</td>
</tr>
<tr>
<td>C7</td>
<td>18-10164</td>
<td>Spring, Clutch (1/3 &amp; 1/2 HP)</td>
<td>1</td>
</tr>
<tr>
<td>C8</td>
<td>39-10167</td>
<td>Clutch Disc</td>
<td>1</td>
</tr>
<tr>
<td>C9</td>
<td>84-SH-76</td>
<td>Castle Nut 3/4-16</td>
<td>1</td>
</tr>
<tr>
<td>C10</td>
<td>86-CP04-112</td>
<td>Cotterpin 1/8&quot; x 1-3/4&quot; Long</td>
<td>1</td>
</tr>
<tr>
<td>C11</td>
<td>86-RP08-102</td>
<td>Roll Pin 1/4&quot; x 1-1/8&quot; Long</td>
<td>1</td>
</tr>
<tr>
<td>C12</td>
<td>86-RP08-200</td>
<td>Roll Pin 1/4&quot; x 2&quot; Long</td>
<td>1</td>
</tr>
<tr>
<td>C13</td>
<td>87-P-075</td>
<td>Turac 3/4&quot; Push on Fastener</td>
<td>2</td>
</tr>
<tr>
<td>C14</td>
<td>85-FW-75</td>
<td>Flatwasher 3/4&quot;</td>
<td>5</td>
</tr>
</tbody>
</table>

### K72-12472 OUTPUT SHAFT KIT

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
<td>11-10319</td>
<td>Output Shaft</td>
<td>1</td>
</tr>
<tr>
<td>O2</td>
<td>12-10029</td>
<td>Bearing 3/4&quot; I.D.</td>
<td>2</td>
</tr>
<tr>
<td>O3</td>
<td>15-48B10GXX</td>
<td>Sprocket, 48B10 x 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>O4</td>
<td>15-48B10G1</td>
<td>Sprocket, 48B10 x 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-48B24GXX</td>
<td>Sprocket, 48B24 x 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>O5</td>
<td>19-48027M</td>
<td>Chain #48 x 27 Links with master link</td>
<td>1</td>
</tr>
<tr>
<td>O6</td>
<td>19-48033M</td>
<td>Chain #48 x 33 Links with master link</td>
<td>1</td>
</tr>
<tr>
<td>O7</td>
<td>86-RP08-102</td>
<td>Roll Pin 1/4&quot; x 1-1/8&quot; Long</td>
<td>3</td>
</tr>
<tr>
<td>O8</td>
<td>87-P-075</td>
<td>Turac 3/4&quot; Push on Fastener</td>
<td>2</td>
</tr>
</tbody>
</table>

### K77-12486 HARDWARE KIT

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>10-10203</td>
<td>Curved Arm</td>
<td>1</td>
</tr>
<tr>
<td>H2</td>
<td>10-10204</td>
<td>Door Bracket</td>
<td>1</td>
</tr>
<tr>
<td>H3</td>
<td>10-10205</td>
<td>Header Bracket</td>
<td>1</td>
</tr>
<tr>
<td>H4</td>
<td>11-10130</td>
<td>Header Pivot Pin</td>
<td>1</td>
</tr>
<tr>
<td>H5</td>
<td>75-10170</td>
<td>Slider Assembly</td>
<td>1</td>
</tr>
<tr>
<td>H6</td>
<td>75-10174</td>
<td>Front Idler Assembly</td>
<td>1</td>
</tr>
<tr>
<td>H8</td>
<td>75-10259</td>
<td>Track Spacer Assembly</td>
<td>2</td>
</tr>
</tbody>
</table>

### K75-12870 STRAIGHT & CURVED ARM ASSEMBLY

- H1 10-10203 Curved Arm 1
- H2 10-10204 Door Bracket 1
- H7 75-10214 Straight Arm Assembly 1

### ELECTRICAL BOX REPLACEMENT KITS

- EB Electrical Box Replacement Kits See page 19

### MOTOR

See page 19 for more information.

### K72-12470 STRAIGHT & CURVED ARM ASSEMBLY

- Heavy Duty Straight Arm
  - PART #  K75-17034 Upgrade Kit

### DOOR TRACK & DRIVE CHAIN

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>19-5810</td>
<td>#48 Chain Doors 8' to 10'</td>
</tr>
<tr>
<td>4</td>
<td>19-5814</td>
<td>#48 Chain Doors to 14'</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Door Track*</td>
</tr>
</tbody>
</table>

*Call for pricing and availability.
**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.

4) When adding accessories, install them one at a time and test each one after it is added to ensure proper installation and operation with the Commercial Door Operator.

5) Attention Electrician: Use 16 gauge or heavier wire for all control circuit wiring.

---

**3 BUTTON STATION OR 3 POSITION KEYSWITCH WITH SPRING RETURN TO CENTER AND STOP BUTTON**

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>2 OR MORE</th>
<th>KEY LOCKOUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
</tbody>
</table>

**2 BUTTON STATION OR 3 POSITION KEYSWITCH WITH SPRING RETURN TO CENTER**

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>2 OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
</tr>
</tbody>
</table>

**1 BUTTON STATION OR ANY AUXILIARY DEVICE**

| ![Diagram](image6) |

**RESIDENTIAL RADIO CONTROLS**

| ![Diagram](image7) |

**SENSING DEVICE TO REVERSE OR STOP**

| ![Diagram](image8) |

**EXTERNAL INTERLOCK**

| ![Diagram](image9) |