

# EC-TO-MC SERIES CONVERSION KITS

Covers the following:

Part **#4K07500-FI-01** for the EC100 to MC100 Conversion Kit

Part **#4K07500-FI-02** for the EC200 to MC200 Conversion Kit

Part **#4K07500-FI-03** for the EC300-RL to MC300RL Conversion Kit

Part **#4K07500-FI-04** for the EC400-RL to MC400RL Conversion Kit

Part **#4K07500-FI-05** for the EC500-RL-DA to MC500RL-DA Conversion Kit



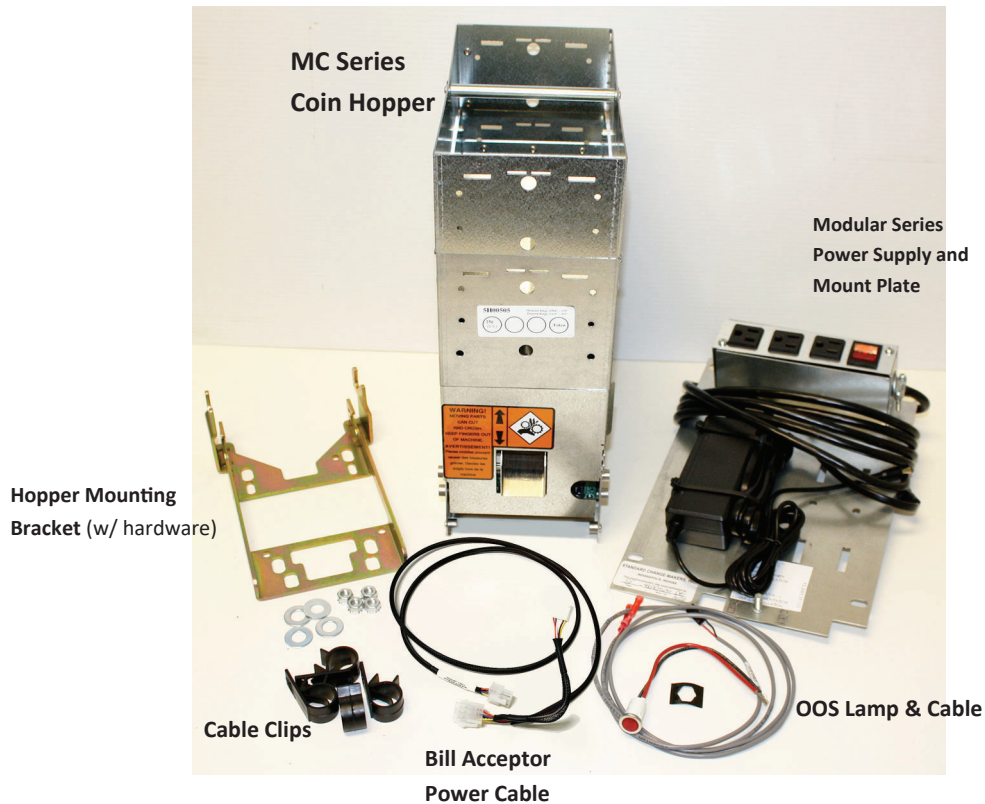
EC100—Shown Above



## A word regarding the EC-to-MC kits...

These kits provide all the components needed to convert an original EC Series change machine to a modern changer using the new MC hopper and power supply assemblies (less the bill acceptor). There are a total of 5 kits currently designed for a specific model of machine. For example: Kit #4K07500-FI-01 is designed for an EC100, and the 4K07500-FI-02 would be for an EC200, etc. Each kit includes the components, mounts, cables, and hardware needed for that specific machine and its original configuration.

Although this manual covers the installation for the EC100, the instruction will apply to the other kits. There will be drawings in the back to cover the extra cables in machines using two hoppers.



### MC CONVERSION KIT FOR ONE HOPPER KITS —Kit #4K07500-FI-01

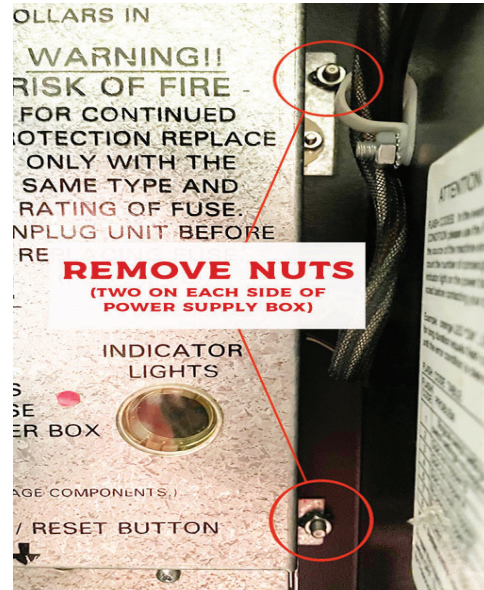
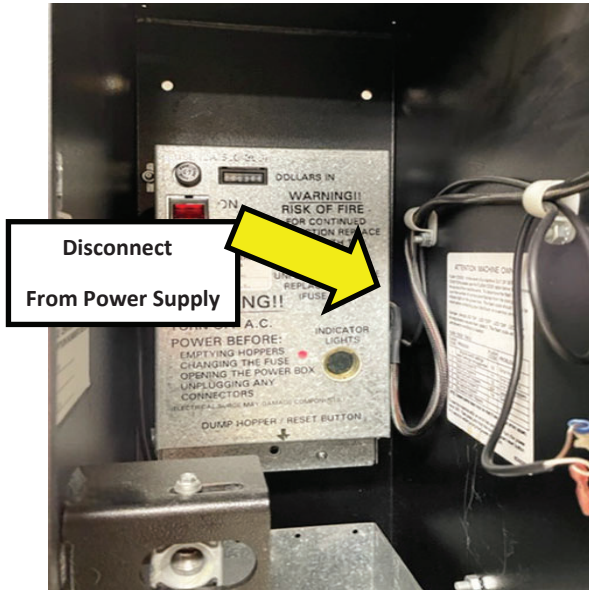
- (1) MC Front Load Quarter Hopper —Part #5H00510
- (1) Hopper Platform and Hardware— Part #4M00730
- (1) Out of Service Lamp, Cable, and Clip—Part #1L00133, #4C00300, #3M00255
- (1) Power Supply Assembly—Part #4K00524-FI
- (1) Universal Bill Acceptor Power Cable—Part #4C00269
- Cable clamps and hardware

### TWO HOPPER KITS WILL ALSO INCLUDE TWO HOPPERS AND (not shown):

- (1) Control BUS Cable—Part #4C00299
- (1) Power BUS Cable—Part #4C00303

## STEP 1: REMOVE THE EC CONTROL PANEL

- Turn off the power and unplug all the cables currently plugged into the EC Control Panel.
- Remove Power Supply/Control Panel from back wall (4 nuts on each corner). Save hardware to mount the new Power Supply Assembly . **NOTE:** EC500-RL-DA has TWO Pwr. Supply/Control Panels that must be removed



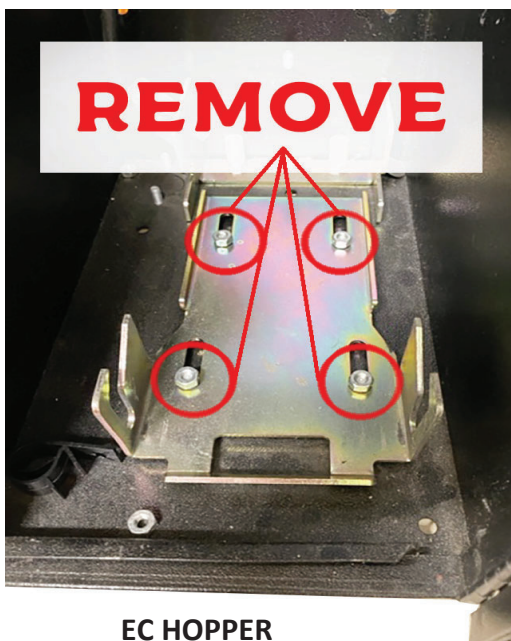
EC Power Supply/Control Panel—Located on back wall with Red ON/OFF Switch

## STEP 2: REMOVE EC HOPPER AND MOUNTING HARDWARE

- Remove Hopper from mounting platform; and then Sliding Hopper Platform by removing the 4 nuts.
- Cabinet should now be completely empty other than the original bill acceptor and cables..



EC HOPPER IN SLIDING HOPPER PLATFORM



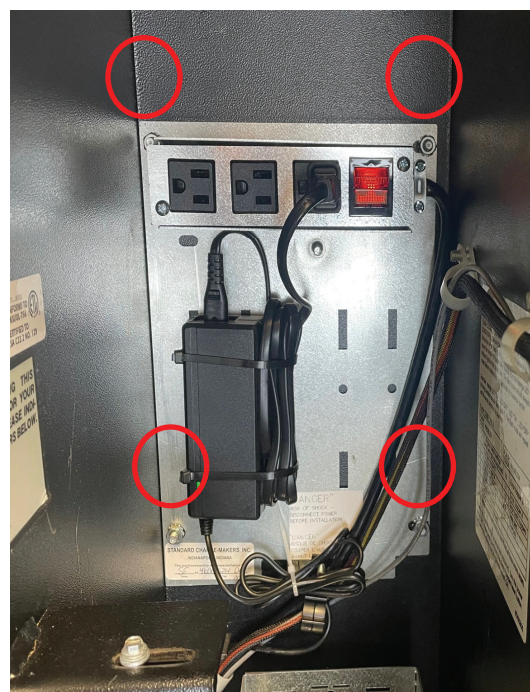
EC HOPPER SLIDING PLATFORM



EC100 CABINET—After removal of all EC technology. Only original Bill Acceptor remains.

### STEP 3: INSTALL MC HOPPER MOUNT AND POWER SUPPLY ASSEMBLY

- Install the new hopper mount and hand tighten the nuts so the bracket can slide.
- **IMPORTANT:** Proper alignment will be covered on the following page.
- Install the new MC Power Supply assembly in the same location on the back wall, as the old EC power supply/control panel using the hardware included. **NOTE:** The MC500RL-DA will have TWO Power Supplies attached to the same mounting plate.



MC POWER SUPPLY INSTALLED ON THE SAME MOUNTING STUDS ON BACK WALL

#### **\*IMPORTANT NOTE\***

The new hopper will attach by setting the hopper on the mount at an angle as shown. The new hopper mount will allow you to tilt the hopper down to dump coins without it falling out of the mount. Once the front rollers are set in place, the hopper will tilt back into place.



## HOPPER INSTALLATION ADJUSTMENT



To insure that all coins are dispensed from the hopper and make it into the coin cup, proper care in adjusting the hopper platform is required. For all front load machines, once the hopper is installed on the loosened platform, pull it completely forward— as far as the bracket will allow. Then , slowly shut the door of the machine and allow the door to “push” the hopper into place. Make sure the door is fully shut, by turning the T-handle until it stops to set the hopper position. Then, carefully open the door. You can make a mark on the bottom of the cabinet to show where the mounting bracket is on located (just in case). Next, slowly tilt the hopper forward enough to be able to reach your hand into the cabinet and hand-tighten the two back mounting nuts. Once the two on the back are secured, tilt the hopper all the way forward, and tighten the two remaining nuts.

### REAR LOAD HOPPER MOUNTS

For a rear load machine, set the hopper on the platform with the mounting nuts loose. Slowly push the hopper forward (toward the coin cup) until it “hits” the coin cup. Slowly tilt the hopper towards you to make sure there is enough clearance when you tilt the hopper without the coin chute catching on the top of the coin cup. If you have some resistance, pull the hopper & bracket back just a very small amount and repeat. Having the hopper as close to the coin cup as possible will prevent coins from dropping be-

tween the hopper and the coin cup. Once you have the hopper in position, carefully tilt the hopper back and tighten the two front nuts.

Once the two on the front are tightened, tilt the hopper all the way towards you to tighten the remaining two nuts.

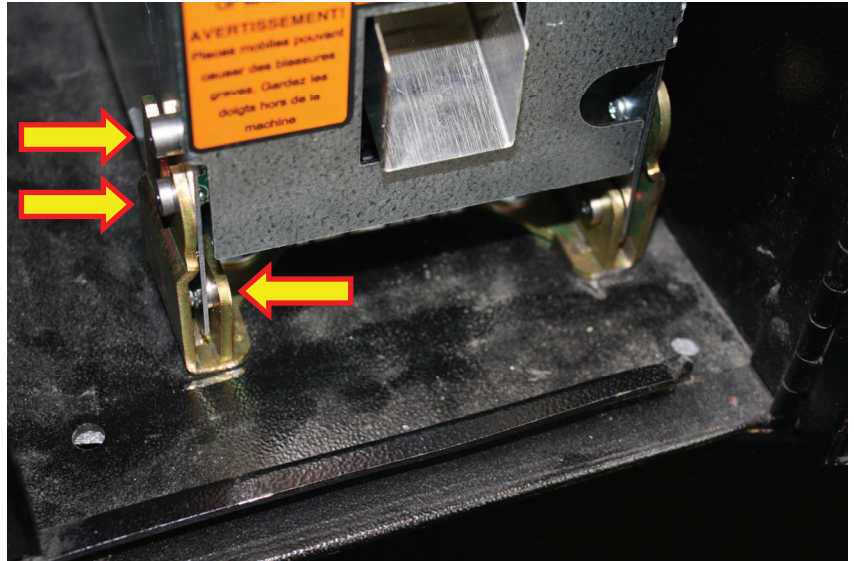
**AFTER PROPER INSTALL OF THE BRACKET:** Photo shows the cables routed through the retainer bracket to keep the cables out of harms way.

The platform mounting holes are slotted to allow the platform to move front to back to set the hopper position.



**PROPER MC HOPPER MOUNTING:**

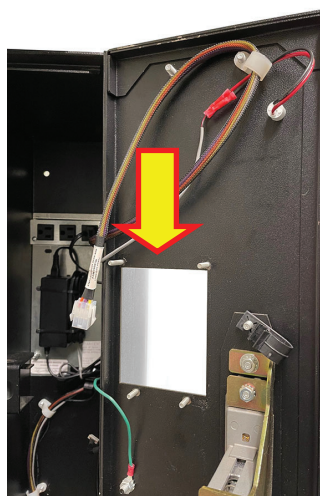
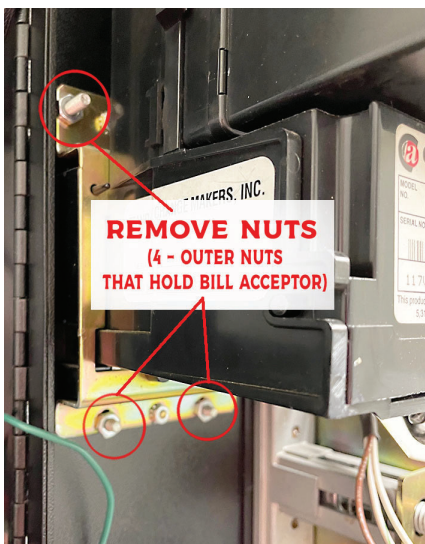
The MC Series Hopper uses three sets of rollers (one on the inside and two on the outside) of the hopper housing. When setting the hopper the bottom-outside roller and inside rollers sit in the curved openings of the bracket. The top-outside roller rides along the top of the bracket when tilting. This should prevent the hopper from jumping out of the bracket during dumping operations.



**STEP 4: INSTALLING A NEW BILL ACCEPTOR (Not Included in the Kit)**

Most EC machines were sold with obsolete Coinco Mag50 and BillPro bill acceptors. These bill acceptors are obsolete (no longer manufactured). If yours is in working order, and you choose to continue using it—skip to STEP 5.

If you wish to update your Bill Acceptor—you can use either the **Pyramid APEX-7000** Series or **CPI Talos Series (MDB ONLY)** products (Consult factory for pricing). Simply remove the old bill acceptor by removing the four 3/8” nuts holding it in place. The top two nuts will require a deep well 3/8” socket with a thin wall in order to reach it. You can also use an open 3/8” wrench—but the nuts are hard to get to that way. Insert the new Bill Acceptor in the same opening and secure with the same four nuts on the same studs. The new MDB Bill Acceptor comes with the harness with a White/6-PIN connector that will plug into the same type connector on your Universal Bill Acceptor Power Cable.



Bill Acceptor removed

A new MDB Bill Acceptor will fit in the same opening, and attach to the same PEM studs around the bill acceptor opening.



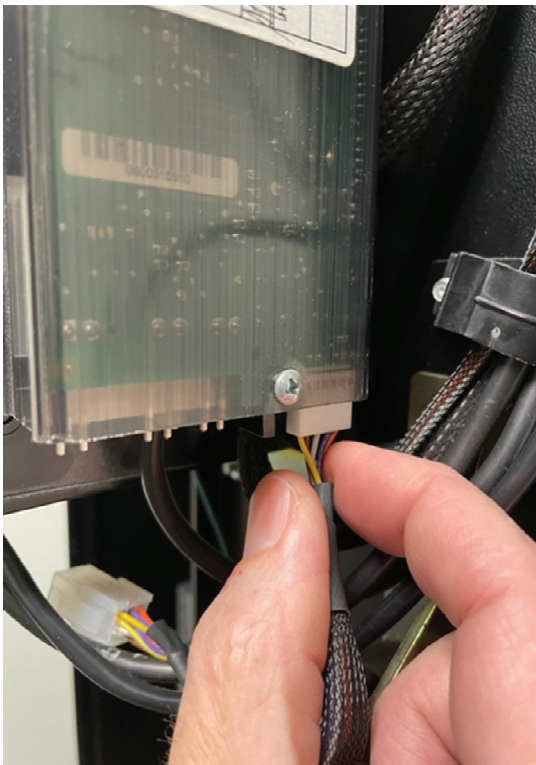
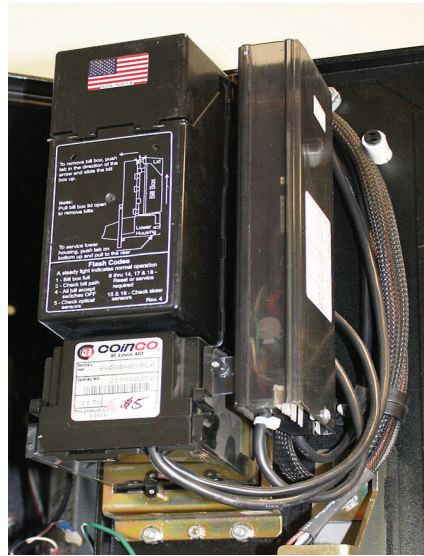
## STEP 5: CONNECTING THE BILL ACCEPTOR(S)

Most EC machines were sold with obsolete Coinco Mag50 and BillPro bill acceptors. These original bill acceptors will work with Pulse (EC) or MDB (EC+) communication. The kit includes a new **Bill Acceptor Power Cable** (4C00269) that will plug into the Coinco Control board, or into the MDB pigtail of a newer model bill acceptor, or other MDB-enabled bill acceptors. If you already have a MDB style acceptor and cable, you will not need to replace the cable.

The photo to the right shows an original Coinco BA50 used in most EC machines.

The photo directly below shows the small connector that the 4C00269 five pin connector fits in to a Coinco BA50.

The photo on the bottom right shows the 6-PIN MDB connector plugged into a MDB Pyramid bill acceptor



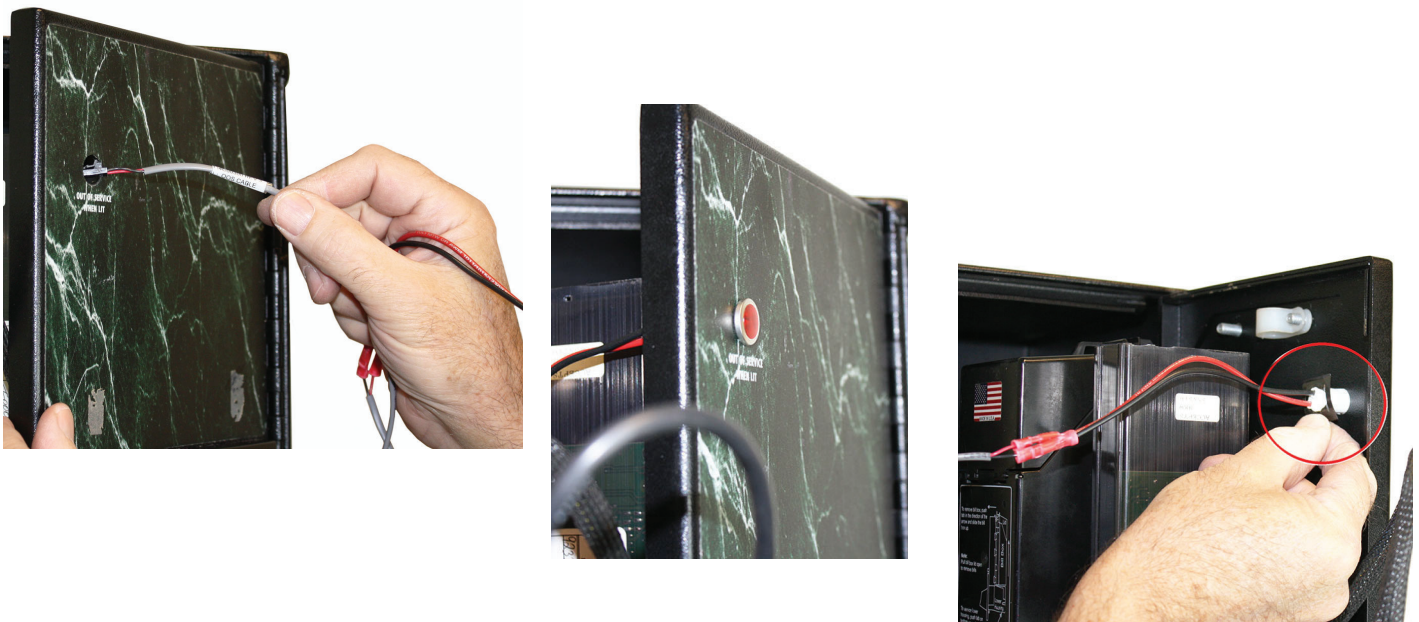
Connecting to old Coinco BA50 or Bill Pro Bill Acceptor MDB Interface Module



Connecting to a new Pyramid APEX-7000 or CPI T7 Talos Series acceptor

## STEP 6: INSTALL OOS LAMP & CONNECT ALL CABLES

- Insert the new Out Of Service (OOS) Lamp through the cabinet door and secure with provided retaining clip. Insert the two ends of the lamp into the out of service cable (4C00300) connectors matching the wire colors, and secure the wires by squeezing the connectors with a pair of pliers. Run the other end of the cable to the bottom of the Hopper Control Board—to the OOS connection.
- Connect the Bill Acceptor Power Cable (4C00269), with 6-pin White Connector, into the bill acceptor harness or control board. (See Section 4—Bill Acceptors). Note you could have one connector on the bill acceptor harness left unplugged depending on the bill acceptor model you are using. Run the other end of the bill acceptor harness to the bottom of the cabinet and plug into the MDB connector on the Hopper Control Board.
- Run the 24 volt D.C. Power Supply Cable (Barrel Connector) from the Power Supply to the bottom of the cabinet and plug into the Hopper Control Board.

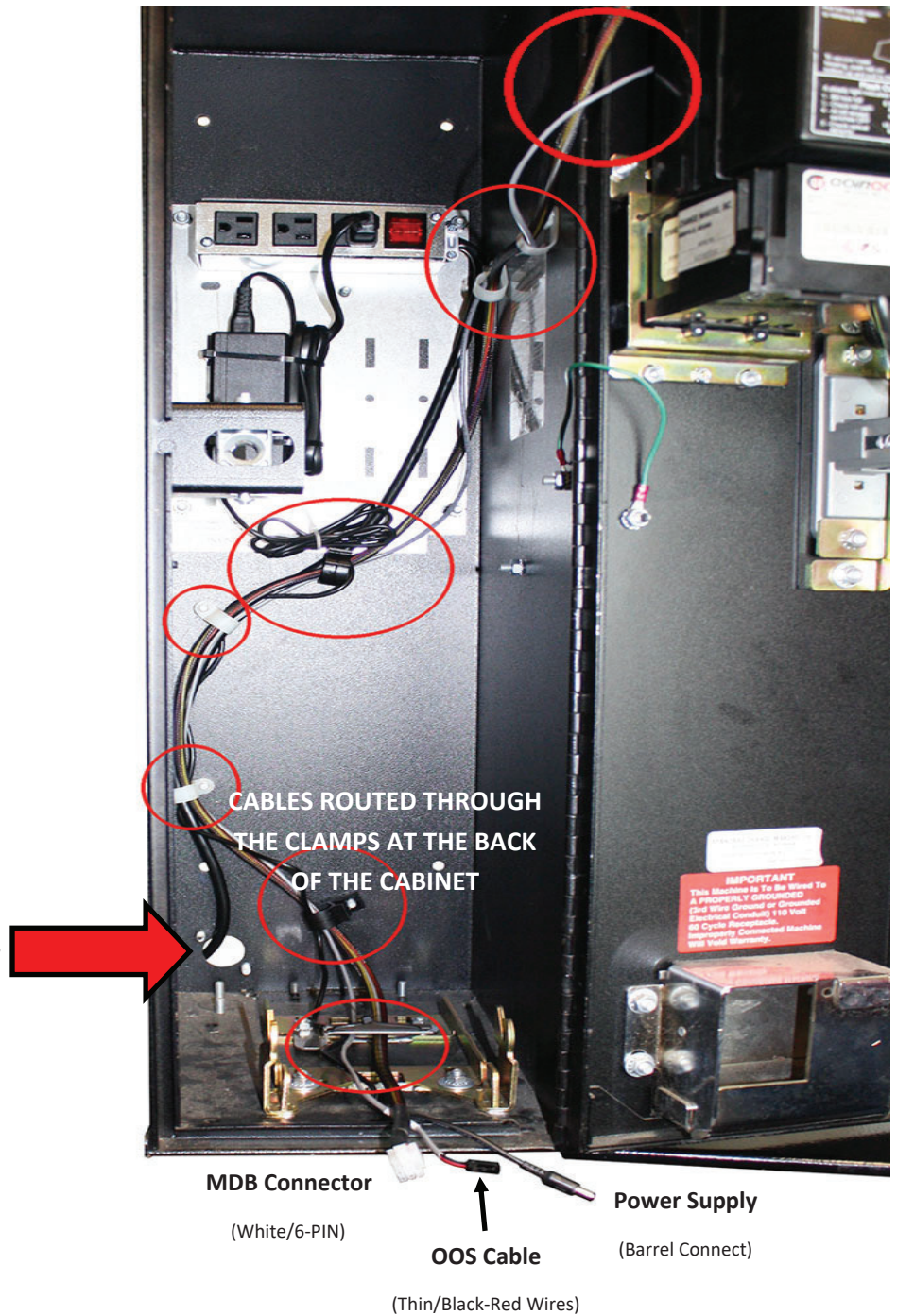


Insert the cable in the open OOS hole from outside the machine, and push the cable through. Slide the OOS lamp until flush against the door or faceplate. Inside the machine secure the lamp by slide the black metal clip over the cable and onto the back of the lamp. You must push on both sides of the clip to get it over the lamp and secure it properly.

## STEP 7: SECURE CABLES AND TEST FOR PROPER OPERATION

- Use the Cable Clamps provided to secure to the threaded PEM studs inside the cabinet.
- Route the wires through the clamps, making sure not to pinch any cables.
- Run the 3-prong Power Plug through the hole in the back of the cabinet. Plug the Power Supply AC cord into a grounded 120VAC outlet.
- Turn ON the Power Supply Switch (Red Switch) and test the machine for proper operation.

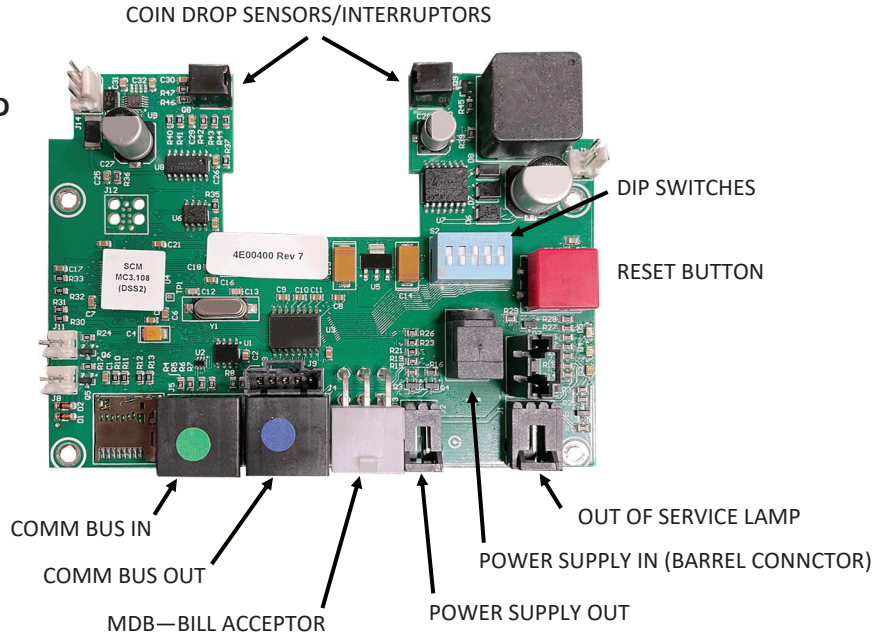
Power Supply Plug runs out the large hole in the back of the cabinet.



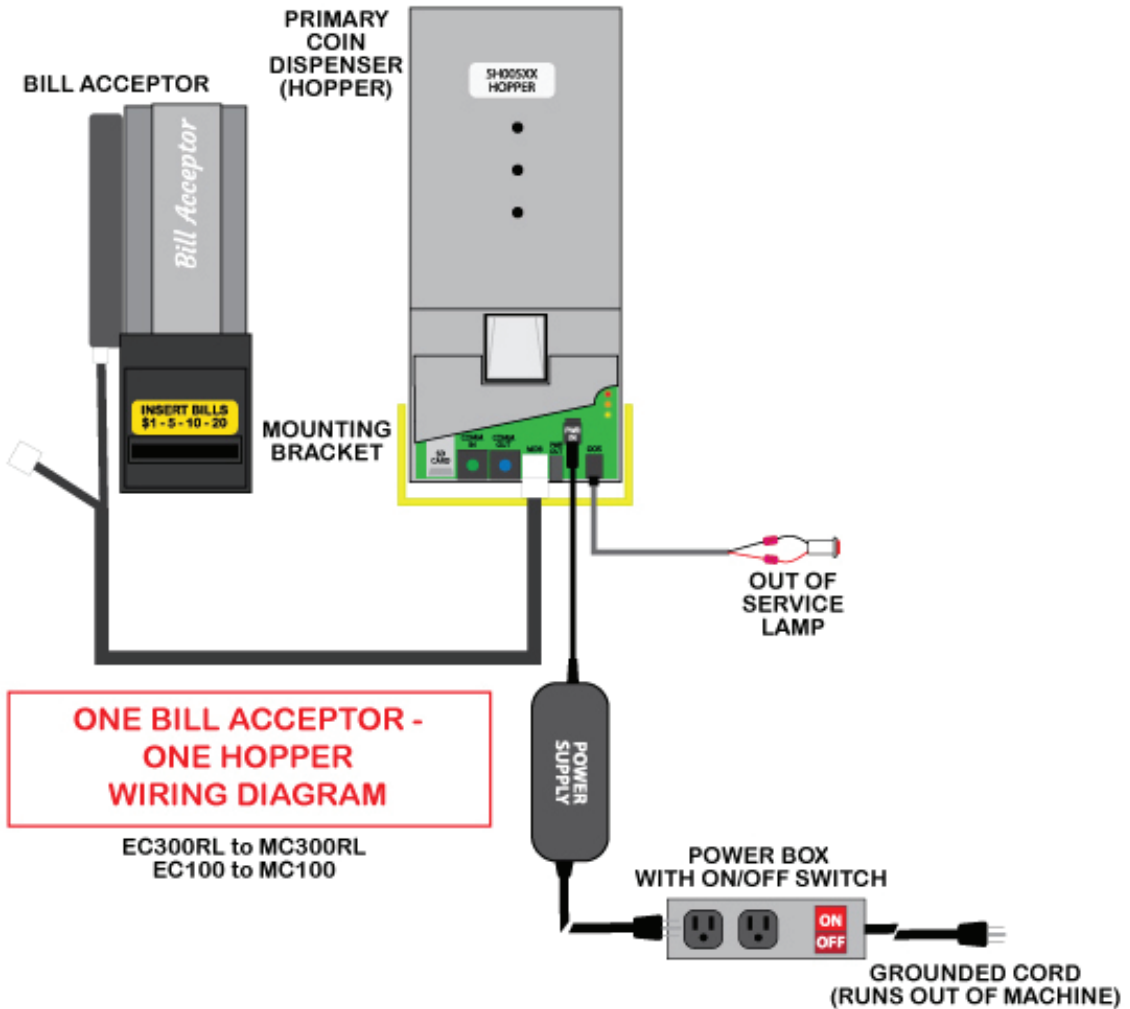
# CONNECTIONS—CABLES TO HOPPER CONTROL BOARDS

## MC HOPPER CONTROL BOARD

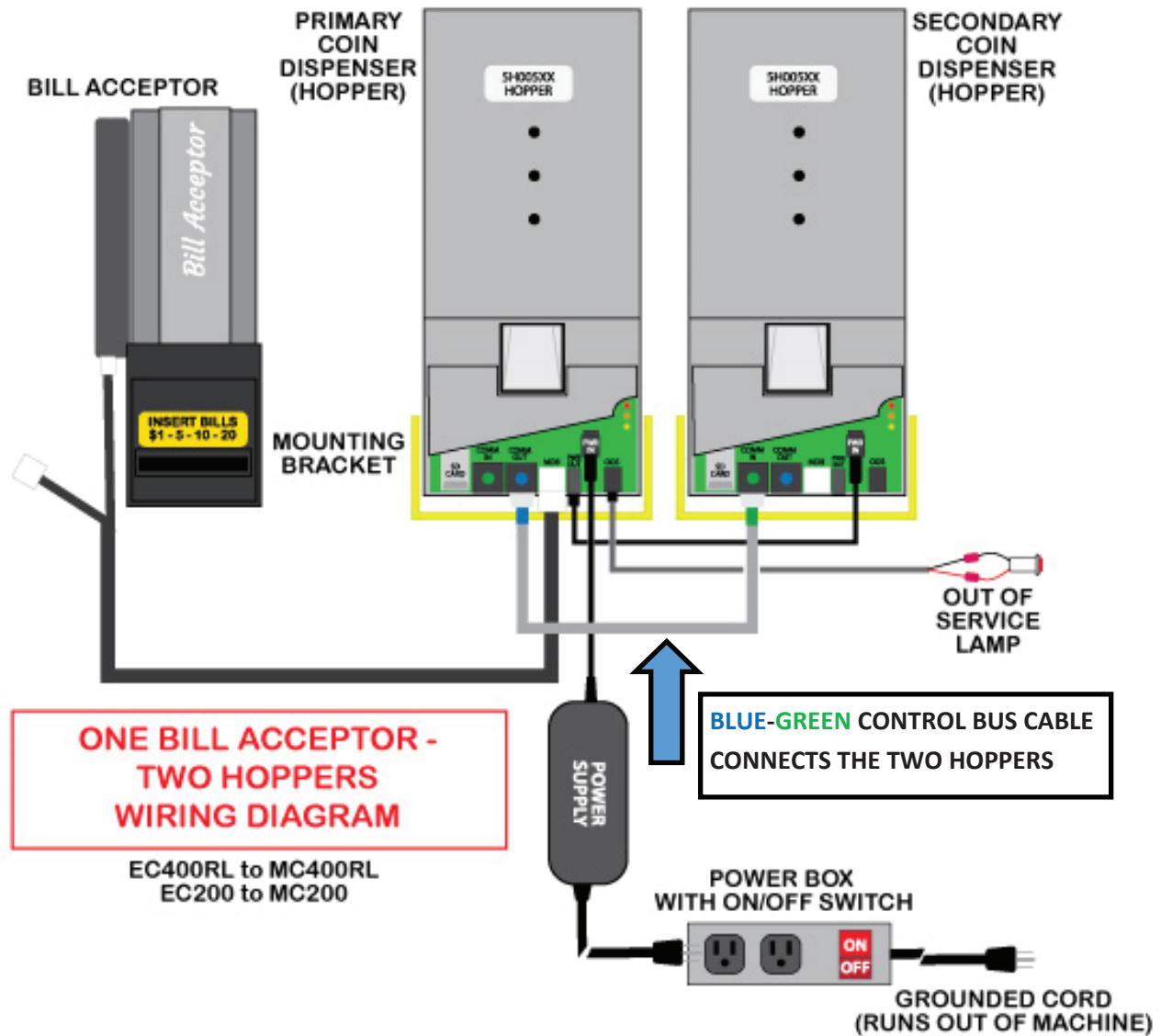
(Installed in all MC Hoppers)



## MC100 / MC300RL WIRING:



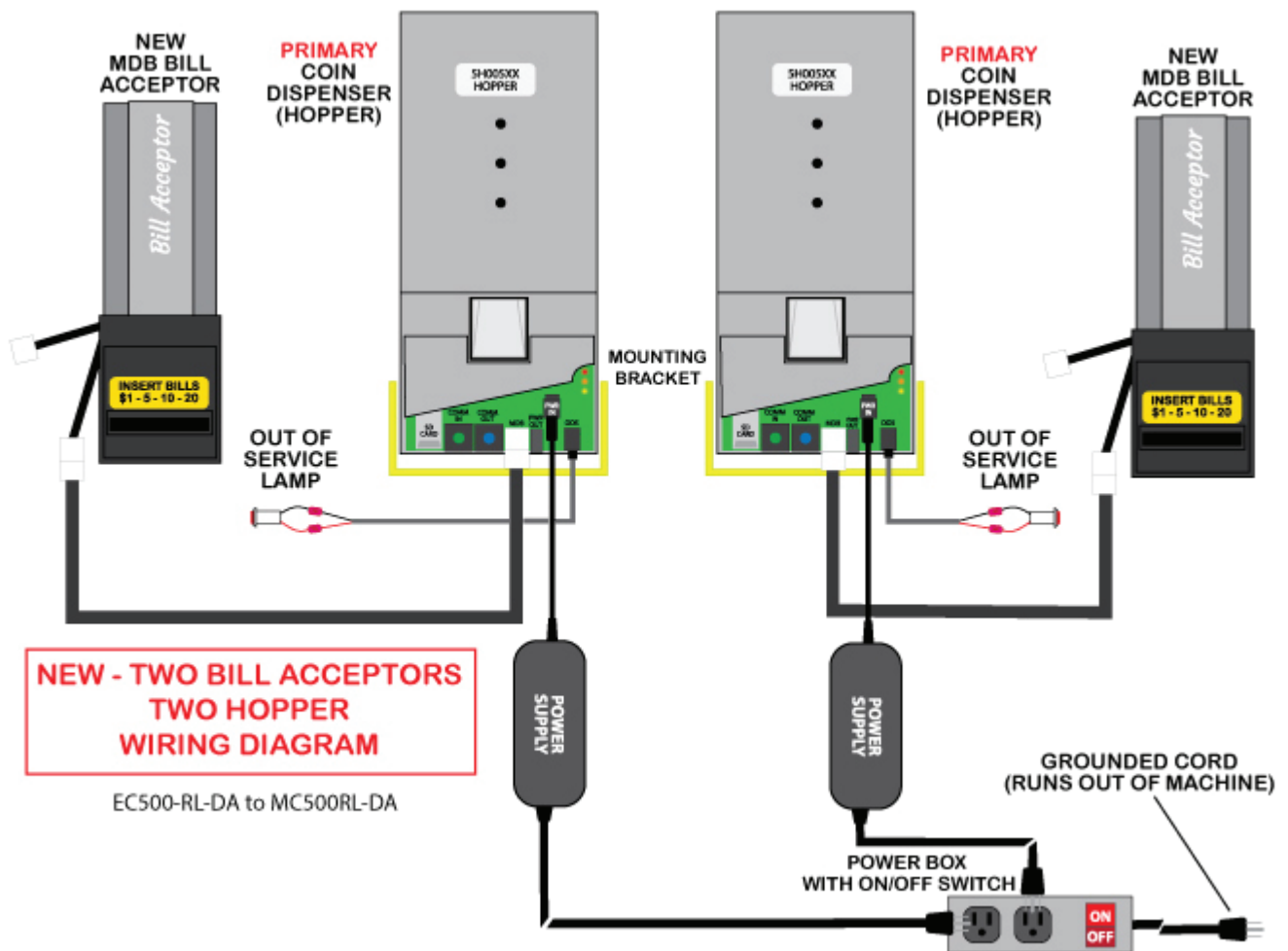
## MC200 / MC400RL WIRING:



**PLEASE NOTE:** The MC200 and MC400RL configurations have two hoppers with one bill acceptor. There is the addition of a Control Bus Cable (Part #4C00299) and Power Bus Cable (4C00303). This allows for the daisy chain of communication and power from the Primary Hopper to the Secondary Hopper.

**IMPORTANT:** The Out of Service (OOS) Lamp must be plugged into the Primary Hopper

## MC500RL-DA WIRING:



**PLEASE NOTE:** The MC500RL-DA operates as two independent machines in one cabinet. There is no communication between the two hoppers, nor the two bill acceptors. The only communication is from Bill Acceptor #1 to its connected Hopper, and Bill Acceptor #2 only communicates with its connected hopper. This is the same function as the EC500RL-DA.

## EC to MC Conversion Kit



Thank you for purchasing this kit for your existing change machine. You will find more owners information on our web site:

[www.standardchange.com/owners-manuals/](http://www.standardchange.com/owners-manuals/)

You can also find the MC Series Owners Manual Page under the SUPPORT tab on our HOME PAGE. In the pull-down menu, click on the OWNER'S MANUALS link. You are looking for the manual labeled **Modular Series Owners Manual (#4M00420)**

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