CUSTOMER SERVICE

Should you need repair, parts may be sent to:

Laurel Metal Products
3500 W. Touhy Ave.
Lincolnwood, IL 60712

Please include phone number and return address.

LIMITED WARRANTY

Laurel Metal Products warrants that the goods described in this warranty are free from defects in workmanship and materials for the period of one (1) year.

For breach of the express warranty and any implied warranty on this product, you are limited to the following damages:

If within one (1) year from the date of purchase, this product fails due to a defect in materials or workmanship, Laurel Metal will repair or replace it free of charge in no event shall Laurel Metal be liable for incidental or consequential damages. Laurel Metal' liability for any claims arising out of this warranty shall not exceed the purchase price of the product.

NOTE: some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty does not cover damage resulting from accident or from misuse or alteration of the product.

The term of this warranty begins on the date the product is purchased by you, and continues for a period of one (1) year from that date.
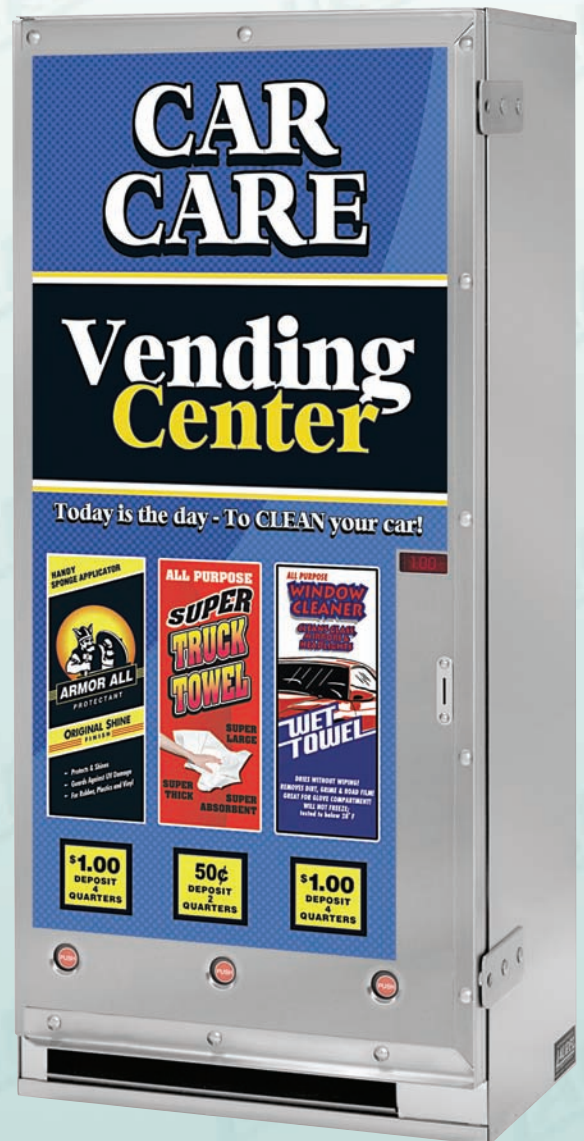
To obtain performance of any obligation under this warranty, you must return the complete product pre-paid, together with a description of the problem, approximate date of purchase, your name, address and telephone number, to the address listed above.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

This warranty covers any electronic vender manufactured by Laurel Metal Products.

LAUREL
METAL PRODUCTS INCORPORATED

3500 W. Touhy Ave.
Lincolnwood, IL 60712
Toll Free (888) 528-7358
(847) 674-0064
Fax # (847) 674-0094
www.laurelmetal.com

MODEL 899
3-COLUMN
ELECTRONIC VENDER

ELECTRICAL HOOK-UP

The 24 volt AC power connection for the machine is on the circuit board of the coin mechanism. The terminal block for incoming power is located on the lower left corner of the circuit board. You will have to lift up the cover/instruction sheet to locate this black terminal block, which requires a small slotted screwdriver for the 2 lugs. Leave at least 24″ of wire inside the vender to simplify future coin mechanism programming.

BE CERTAIN TO SUPPLY 24 VOLTS/AC

TRANSFORMER POWER REQUIREMENTS

The minimum power required for each vender is 1/2 amp (500mA). To run multiple venders on a transformer first determine the total amperage required, taking into account future additions. To determine the amperage output of a 24 volt transformer that is given in VA, divide the VA output by 24. For example, a 100 VA transformer would provide 4.2 amps $(100 \div 24)$ of 24 volts AC power. This would be ample power for 8 venders.

INSTALLATION

Packed inside the carton pad at the top of the vender:
- 1 – Cabinet hangar bracket
- 1 – Bag of fasteners for the security frame
- 1 – Side bar - mounts on right side of cabinet

Mount the hanger bracket securely on the wall and note that the top edge of this bracket will go inside the open area at the back of the cabinet. Two people should lift the vender to hang it on the bracket. Open the door and note the two 3/8″ diameter mounting holes in the lower left and lower right sides of the cabinet. Remove the coin mechanism to expose the right side mounting holes. To remove the coin mechanism, first unplug the white ribbon cable from the red switch pad and then loosen the two mounting screws (you do not need to remove these screws) and lift the coin mechanism upward to detach. There are two wire harnesses to unplug from the back of the coin mechanism. Now select desired mounting holes and mark the holes, remove vender, drill and install appropriate anchors. Re-hang the vender and secure the lower fasteners.

PRODUCT LOADING

The shelves can be easily and quickly reset into the vend position (horizontal) by running a finger or thumb up the shelves from the bottom to the top. This 'fanning' will take only seconds to reset all shelves. When loading any column, if there is not enough product to fill all 24 shelves, then load from top down. This insures that the sold-out switch will activate when the last shelf (the top shelf) drops. If a customer chooses a selection that is empty, the display will flash `SOLD` & `OUT` and return the inserted coins.

TROUBLE SHOOTING

LED display out: power loss, check for 24 volts (+ - 15%) at the terminal block of the Circuit Board. Power down for 5-10 seconds and power back up. If the display is still out then simultaneously press the `UP` & `DOWN` buttons on the Circuit Board to clear any error codes. If this fails the Circuit Board is in need of repair.

LED display is not alternating: this indicates a short in the Switch Pad or the Ribbon Cable. First, disconnect the Ribbon Cable from the Switch Pad and if the LED display returns to alternating, the problem is a short in the Switch Pad. If the display still is not alternating then unplug the Ribbon Cable from the Circuit Board to check if the short is in the Ribbon Cable. Call the factory for information on how to disable a shorted switch, which will get the machine back working, less the bad switch.

Inserted coins rejected: power loss, MA800 acceptor needs reprogramming, wrong type of coin inserted, acceptor not plugged into back of circuit board, change sample coin in Slugbuster. If a column is sold out or the exact amount was not inserted, then coins will be returned to the customer after a selection button is pressed.

`E...1` **displayed:** a vend motor for a column is not working properly. To reset and test, simultaneously press the `UP` & `DOWN` buttons on the Circuit Board. If this fails then remove the column from the machine and visually inspect the motor and wiring. The motor may be out of alignment or lubrication may be needed between the motor cam and the shelf flanges.

`ESC` **displayed:** the coin cup motor is not working properly. Remove the Coin Mechanism to visually inspect the motor for coin jams, etc. The coin cup can be manually rotated to test its operation. To reset and test, simultaneously press the `UP` & `DOWN` buttons on the Circuit Board until CLR appears on the display. Powering down & up will reset the coin cup in the upright position.

ERROR MESSAGES

- `E...1` There is a problem with the vend motor assembly of a column and this column will not function. If this selection button is pressed after coins have been inserted, the coins will be returned to the delivery tray. The other columns will not be affected.

- `ESC` There is a problem with the coin-cup motor (the escrow cup) and the machine will return any inserted coins until the problem is resolved.

To clear any error messages, either press the `UP` & `DOWN` buttons simultaneously and wait for `CLR` to appear on the display or power down the machine for 10 seconds and power back up. Refer to the trouble shooting section to correct the problem.

COLUMN PRICING

To change a vend price for any column, the circuit board must be in the price change mode. To access the price change mode: press **MODE** button twice, the display will show **PRC** , now press the selection button on the switch pad of the desired column to change. The current price will be displayed and now press the **UP** or **DOWN** buttons on the circuit board to change. Wait 20 seconds for the display to return to the 'run' mode or press the **MODE** button one more time to cycle back to the run mode. The new price will be set either way.

VEND COUNTER

Unit vend sales for each column are tracked with the vend counter. The counter is non-resetting and will roll over after 9999 vends. To access the counter: press the **MODE** button once, the display will show **CNT** now press the selection button on the switch pad of any column and the count will be displayed for that column. Press any selection button, in any order, and the count will be displayed for that column. Wait 20 seconds for the display to return to the 'run' mode or press the **MODE** button two more times to cycle back to the 'run' mode.

VEND OPERATION

Exact change is required for a vend to initiate, this machine does not make change. When a selection button is pressed and the credits do not match the vend price of that selection, inserted coins will be returned and the display will show the vend price for that selection. Inserted coins first pass through the coin acceptor, are credited, and then held in a coin cup. Not until the product has vended does the coin cup deposit the coins in the coin box. If there is a failure of the drop shelf motor, the inserted coins will be returned to the delivery tray. There will be 1 audible beep for credited coins and 4 beeps for a vend cycle. If a column is empty and the selection button is pressed, the deposited money will be returned and the display will show **SOLD** & **OUT** .

Any time a selection button is pressed, with or without credits, the display will show the vend price or sold out if the column is empty. You can check the sold out status by pressing the selection buttons at any time.

COIN ACCEPTORS

SLUGBUSTER – SINGLE COIN

This acceptor sends 1 credit pulse to the LED display for every coin or token entered. The factory setting is $0.25 for every credit. This can be changed if quarters are not accepted. For instance, if a token with $0.50 value is only to be accepted, then the base coin credit value (the 'A' value) must be changed to 0.50. To change this value, press and hold the **MODE** button until the LED display reads **A .25** . Now use the **UP** or **DOWN** buttons to change. Press the **MODE** button to return to the run mode.

If dollar coins are only to be accepted, then follow the same steps and change the 'A' value to 1.00. **Remember to insert a sample coin into the coil of the Slugbuster.**

MA-800 – MULTI-COIN

This acceptor will take up to 6 different coins, or tokens, and the value of any coin can be programmed in. Quarters are pre-programmed in switch #6 and dollar coins in #5. Refer to the enclosed MA-800 instruction manual for programming instructions if tokens or any other coins are to be accepted.

When programming in any new coins, it is recommended to remove the acceptor from the coin mechanism frame and drop the 6 sample coins in by hand. Optimal programming will be obtained by dropping the coins in the acceptor by hand rather than by running the sample coins down the metal coin chute.
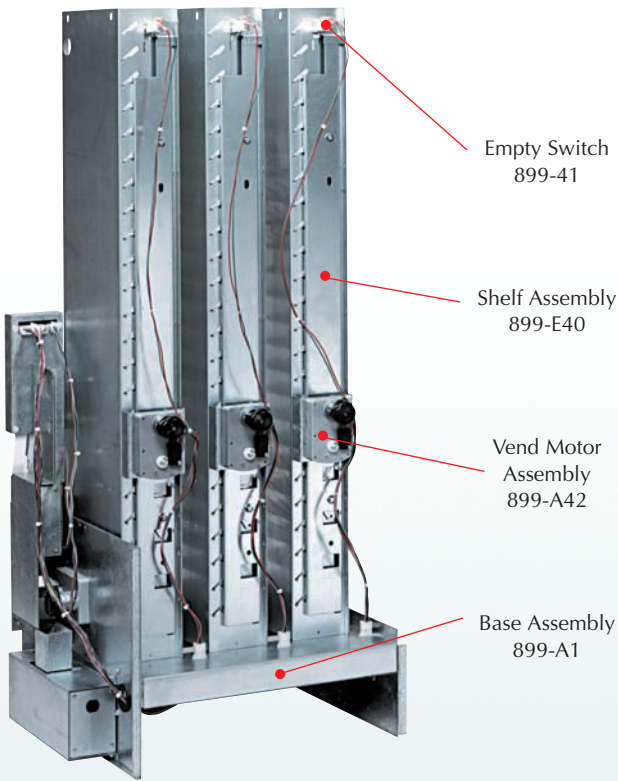
To remove the MA-800 acceptor from the coin mechanism frame, loosen the 2 mounting screws on the front face of the coin mechanism, unplug the white ribbon cable, then lift up the coin mechanism to detach it. Remove the 1 screw holding the MA800 in place and pull it out to begin the programming. *Do not unplug the MA-800 from the circuit board when programming, as it needs power to operate.*
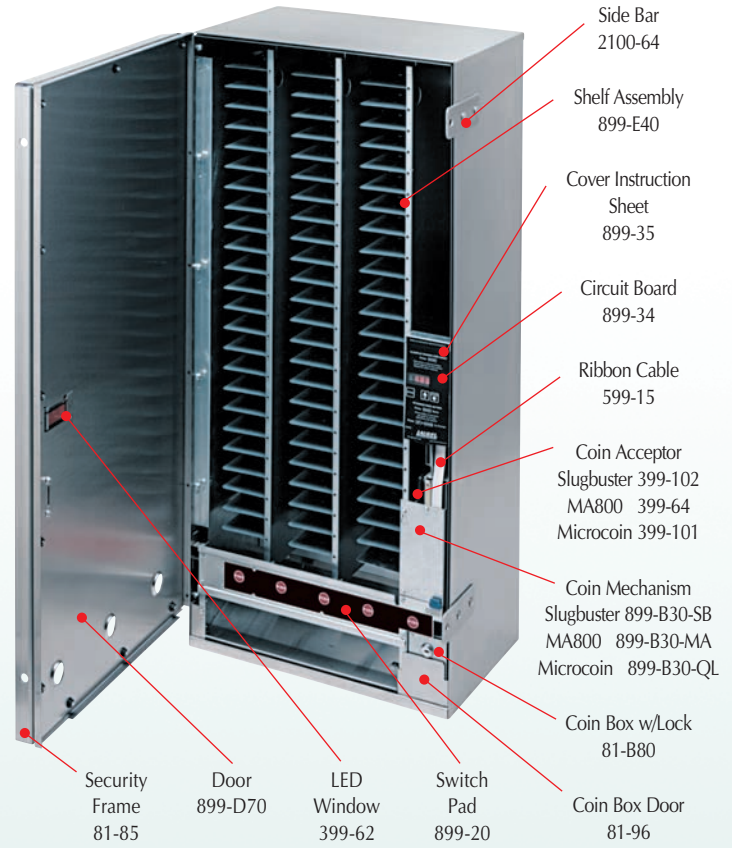
MICROCOIN QL – MULTI-COIN

This acceptor will take up to 12 different coins, or tokens, and the value of any coin can be programmed in. Quarters are pre-programmed in switch #10 and dollar coins are in #11. Refer to the enclosed QL instruction manual for programming instructions if tokens or any other coins are to be accepted. *Do not unplug the QL from the circuit board when programming, as it needs power to operate.*

Empty Switch
899-41

Shelf Assembly
899-E40

Vend Motor
Assembly
899-A42

Base Assembly
899-A1

Side Bar
2100-64

Shelf Assembly
899-E40

Cover Instruction
Sheet
899-35

Circuit Board
899-34

Ribbon Cable
599-15

Coin Acceptor
Slugbuster 399-102
MA800   399-64
Microcoin 399-101

Coin Mechanism
Slugbuster 899-B30-SB
MA800   899-B30-MA
Microcoin   899-B30-QL

Coin Box w/Lock
81-B80

Security
Frame
81-85

Door
899-D70

LED
Window
399-62

Switch
Pad
899-20

Coin Box Door
81-96

COVER/INSTRUCTION SHEET

To access vend count:
Press MODE : **CNT** will be displayed. Press any
selection button for total vend count of that column.

To access column pricing:
Press MODE MODE : **PRC** will be displayed.
Press any selection button and price of that column
will be displayed. Press UP or DOWN to change price.

To access base coin value:
Press and hold MODE button for 5 seconds **A .25**
will be displayed. Press UP or DOWN to change the
base coin value.

TO CLEAR ANY MALFUNCTIONS:
Press: UP & DOWN Together

TO DISPLAY RUNNING VEND COUNT:
Press: MODE
Now press a selection button
Count appears for that column
Repeat for other columns

MODE   UP   DOWN

TO CHANGE COLUMN PRICE SETTING:
Press: MODE Twice
Press button of selection
you wish to change
Vend Price will appear
Press: UP or DOWN To Change

24VAC

LAUREL
METAL PRODUCTS INCORPORATED
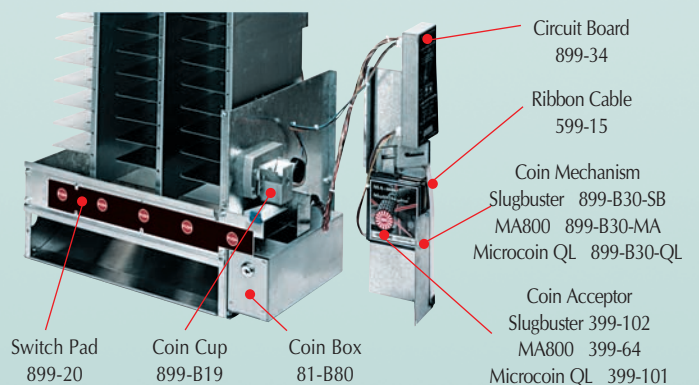TEL 888-528-7358   www.laurelmetal.com

LED DISPLAY OPTION #1

This machine is shipped with the vend pricing preset
at $1.00 for each column. Whenever all selection but-
tons are set at the same vend price, the LED display
will alternate between **PAY** & **1.00** in 1 second
increments. You will notice this upon initial power up.
For display option #1, all 5 selection buttons must be
programmed at the same vend price.

LED DISPLAY OPTION #2

The LED display will alternate between **COIN** &
IN & **8888** if any one of the 5 selection buttons
are programmed at a different price setting. In either
display mode, a touch of any selection button will
bring up on the display the pricing for that selection.
SOLD & **OUT** will be displayed when the column
is empty and the selection button is pressed for that
column.

Circuit Board
899-34

Ribbon Cable
599-15

Coin Mechanism
Slugbuster 899-B30-SB
MA800   899-B30-MA
Microcoin QL   899-B30-QL

Coin Acceptor
Slugbuster 399-102
MA800   399-64
Microcoin QL   399-101

Switch Pad
899-20

Coin Cup
899-B19

Coin Box
81-B80