

# iCoin Model CP900U

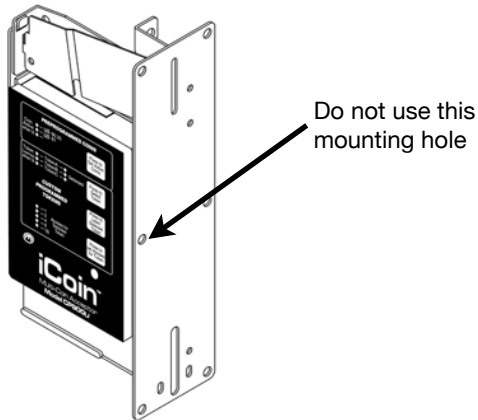


## Electronic Multi-Coin Acceptor Instruction Manual



## 1) MOUNTING

Mount the iCoin to the faceplate of the meter box using the 5 holes on the stainless steel edgemount. Ensure that the iCoin is mounted vertically and is not tilted in any direction.



## 2) ELECTRICAL CONNECTION

The supply voltage for the iCoin is 24 volts AC. Do not connect the iCoin to 120 volts AC. Before connecting power to the iCoin, check the supply voltage with an AC voltmeter. It must be 24 volts AC  $\pm 5$  volts.

When turning power off and on to the iCoin power must remain off for a minimum of 5 seconds before being turned back on to ensure that the iCoin powers up correctly.

The yellow and black wires of the iCoin are for supply voltage of 24VAC. Yellow is + and black is -(ground). Electronic pulsing units have a blue and purple wire. The blue wire is a DC switch used for pulsing that will sink a maximum of 200mA at 5-40VDC to black (ground). The purple wire is an AC switch used for pulsing that will sink a maximum of 500mA up to 600VAC to black (ground). Relay pulsing units have two red wires (non-polarized) that utilize a normally open contact rated at maximum 1A, 125VAC, 60VDC to pulse.

Following are the wiring connections for several brands of timers. If your timer is not listed, consult your supplier for further information.

### **Magikist MagikTimer MT580 or iTimer MT580U**

YELLOW-24VAC HOT #2 terminal

BLACK-COMMON #3 terminal

BLUE-COIN SWITCH+ #6 terminal

### **Grace Timer & PEM7 timer**

YELLOW-#3 terminal

BLACK-#1 terminal

BLUE-#4 terminal

### **Dixmor DigitTimer 3**

YELLOW-red wire on timer

BLACK-green wire on timer

BLUE-brown wire on timer

### **Ginsan GS7 timer**

YELLOW-24VAC #3 terminal

BLACK-24VAC #1 terminal

BLUE-#4 terminal

## **3) DISPLAY PANEL AND BUTTONS**

The iCoin utilizes a display panel and pushbuttons for setup and self-diagnostics. The display panel has several indicator lights that show power status, which coins the iCoin is currently accepting, and setup information regarding tokens. The pushbuttons allow one to change the coins that the are to be accepted and to set the tokens (if any) that the iCoin is to accept.

## **4) DISPLAY DURING POWER UP**

During the initial power up sequence, the iCoin displays the current settings for several options. For the first second after power up, the 5 indicator lights 1, 2, 4, 8, and 16 for #pulses for Selected Token show the current Token Sensitivity setting, the Pulse Speed setting, and the Preprogrammed Coins Number of Pulses Setting. Immediately following this, indicator lights 1 and 2 for #pulses for Selected Token will display for approximately 1 second to show normal power up. Finally, the normal operating display will show the current coin and token settings

For more information on the Token Sensitivity setting, the Pulse Speed setting, and the Preprogrammed Coins Number of Pulses setting, see the appropriate section that follows.

## **5) US QUARTER AND DOLLAR COIN SELECTION**

The iCoin is preprogrammed to accept one or both of the U.S. quarter and \$1 coin (Sacagawea Golden dollar and Susan B. Anthony dollar). Once the iCoin is powered up, the display panel shows which coins the iCoin is activated to accept. For

example, if the indicator lights for US-\$0.25 and US-\$1 are lit as in figure 5.1, then the iCoin will accept both the U.S.

quarter and the \$1 coin. If only the indicator light for US-\$0.25 is lit, as in figure 5.2, then the iCoin will accept only the U.S. quarter.

To change which coins that the iCoin is activated to accept, press the button labeled Press to Set Active Coins. Pressing this button will change the activated coins that the iCoin is to accept as shown by the display panel. By repeatedly pressing the button you will arrive at the setting you wish for coins that the iCoin is to accept.

The iCoin will send 1 pulse to the timer for each U.S. quarter that is accepted, and 4 pulses to the timer for each U.S. \$1 coin that is accepted. Ensure that your timer is setup correctly based on the number of pulses that the iCoin will send for the coins that you have enabled it to accept. It is possible to change the iCoin so that it will send only 1 pulse for each U.S. \$1 coin if the U.S. quarter is disabled. Please see the section Preprogrammed Coins Number of Pulses Setting for more information.

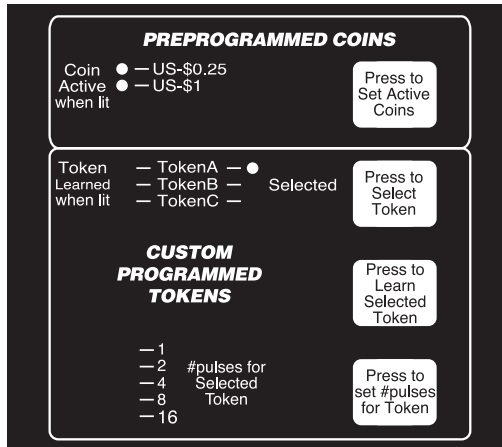


figure 5.1

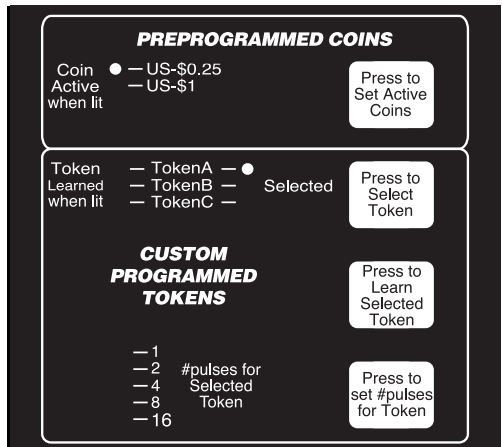


figure 5.2

## 6) TOKEN SETUP

The iCoin can be easily programmed to accept up to 3 different tokens of your choice. Ensure that you have selected good quality tokens, and that other operators in your area are not using a similar size token of the same alloy. The iCoin is compatible with most tokens. Consult your distributor who can then confirm that the token you have selected is compatible with the iCoin .

The tokens that the iCoin learns are stored as TokenA, TokenB, or TokenC. The panel display of the iCoin shows TokenA, TokenB, and TokenC, and which of these tokens is currently learned. If the indicator light under Learned next to TokenA,

TokenB, or TokenC is lit, then that token has already been learned. For example, figure 6.1 shows a setting where TokenA and TokenC have been learned. All learned tokens will be accepted by the iCoin.

The currently lit indicator light under Selected shows which token is currently selected. Pressing the pushbutton labeled Press to Select Token advances the indicator light under Selected to the next token. For example, if the indicator light under Selected and next to TokenB was lit, pressing the Press to Select Token pushbutton would light the indicator light next to TokenC. Pressing the pushbutton again would now move the indicator light to TokenA.

The indicator lights 1, 2, 4, 8, and 16 for #pulses for Selected Token show the total number of pulses that will be sent when the currently selected token is accepted. The total number of pulses that will be sent is the sum of all the indicator lights 1, 2, 4, 8, and 16 for #pulses for Selected Token that are lit. If all indicator lights for #pulses for Selected Token are off for the current learned token, then 32 pulses will be sent. If the currently selected token is not learned, then all the indicator lights 1, 2, 4, 8, and 16 for #pulses for Selected Token will not be lit.

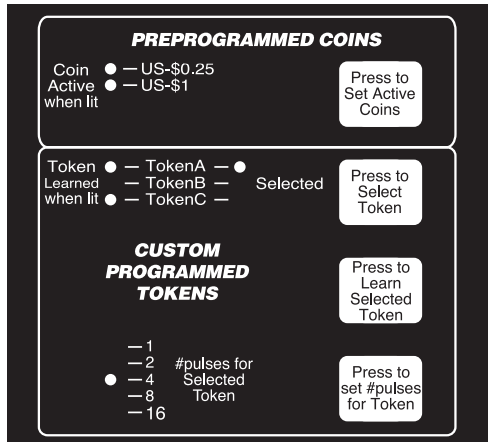


figure 6.1

To learn a token, first decide whether the token is to be stored as TokenA, TokenB, or TokenC. The indicator light for that token under the Selected column must then be lit for that token to be the currently selected token. If necessary, press the Press to Select Token button to sequence the indicator lights under the Selected column until the indicator light next to your choice of TokenA, TokenB, or TokenC is lit.

Press the pushbutton labeled Press to Learn Selected Token to start the learn process. The indicator light under the Learned column next to the currently selected token will begin to flash slowly. At this point you have 10 seconds to drop through the iCoin TWO samples of the token you wish to program, one sample at a time. If the sample is read correctly by the iCoin then it will accept it and make a noticeable “click” of its kicker. After both samples have been accepted by the iCoin, the indicator light under Learned next to the current selected token will be lit, indicating that the token has been learned.

At this time you will need to press the Press to set# pulses for Token pushbutton until the panel display showing the #pulses for Selected Token is set so that your token will give the correct number of pulses (and thus the correct value) to the timer when the token is accepted.

You may at anytime "unlearn" a token. Make sure that the token you wish to erase is the currently selected token. Then press the Press to Learn Selected Token pushbutton. The indicator light under the Learned column next to the currently selected token will begin to flash. Wait for 10 second without dropping any coins, after which the learned indicator light for the selected token will turn off signifying that the token is now erased.

## 7) TOKEN SENSITIVITY

The iCoin provides a means that allows you to adjust how fine it discriminates tokens. For the first second after power up, the indicator lights 2, 4, and 8 for #pulses for Selected Token show the current token sensitivity setting. Low sensitivity, being the least discriminatory, is shown by the 2 indicator light, medium by the 4 indicator light, and high by the 8 indicator light. The higher the sensitivity the more strict the iCoin will be in accepting tokens.

In normal use the sensitivity setting of the iCoin may be left at medium. However, if you find that a particular token of yours has variations in its metallic content which cause the iCoin to accept some tokens while rejecting others, you may wish to adjust the sensitivity setting to low. Likewise, if the iCoin is accepting a token that it has not learned, you may wish to change the sensitivity setting to high (NOTE: The high sensitivity setting may not enable the iCoin to differentiate between 2 tokens of the same metal content that vary only slightly in size).

To change the sensitivity setting:

- i) Power down the iCoin.
- ii) Press and hold the appropriate pushbutton for the desired sensitivity setting:

**Low** - Press to Select Token

**Medium** - Press to Learn Selected Token

**High** - Press to set# pulses for Token

- iii) Power up the iCoin while continuing to hold the pushbutton you have chosen until the indicator lights come on. The new sensitivity setting will be displayed on the indicator lights 2, 4, and 8 for #pulses for Selected Token during this time.

The sensitivity setting applies only to tokens and does not affect how the iCoin evaluates the preprogrammed U.S. quarter or \$1 coin.

## 8) PULSE SPEED

Some older timers may not be fast enough to correctly accept multiple pulses from the iCoin. These timers require a slower pulse speed from the iCoin. The speed at which the iCoin sends pulses to the timer can be easily set to either normal speed or slow speed.

For the first second after power up, the indicator light 1 for #pulses for Selected Token shows the current pulse speed setting. If this light is on, pulse speed is normal. Conversely, if this light is off, pulse speed is slow.

To change the pulse speed setting of the iCoin from its current setting, first verify what the current setting is by examining the indicator light 1 for #pulses for Selected Token at power up. Then if you wish to change the current setting:

- i) Power down the iCoin.
- ii) Press and hold the Press to Set Active Coins pushbutton.
- iii) Power up the iCoin while continuing to hold the pushbutton until the indicator lights come on. The new pulse speed setting will be displayed on the indicator light 1 for #pulses for Selected Token during this time.

## **9) PREPROGRAMMED COINS NUMBER OF PULSES**

Because the U.S. quarter or the U.S. \$1 coin have different values, different number of pulses will be sent to the timer depending on which coin is accepted. Normally the number of pulses sent is fixed: 1 pulse is sent to the timer when a U.S. quarter is accepted, and 4 pulses when the U.S. \$1 coin is accepted. This setting is regardless of whether only one or both coins are enabled. This setting can be changed such that it is dependent on which coins are enabled. In the dependent setting, only 1 pulse will be sent to the timer when the U.S. \$1 coin is accepted if the U.S. quarter is disabled. If the U.S. quarter is enabled then the dependent setting operates the same as the fixed setting.

For the first second after power up, the indicator light 16 for #pulses for Selected Token shows the current preprogrammed coins number of pulses setting. If this light is on, the preprogrammed coins number of pulses is fixed. Conversely, if this light is off, the preprogrammed coins number of pulses is dependent.

To change the preprogrammed coins number of pulses setting:

- i) Power down the iCoin.
- ii) Press and hold both the Press to Set Active Coins pushbutton and Press to Select Token pushbutton.
- iii) Power up the iCoin while continuing to hold the pushbutton until the indicator lights come on. The new preprogrammed coins number of pulses setting will be displayed on the indicator light 16 for #pulses for Selected Token during this time.

Ensure that your timer is setup correctly based on the number of pulses that the iCoin will send for the coins that you have enabled it to accept.

## **10) HINGED DOOR ACCESS**

Should a bent or damaged coin become stuck in the coin acceptor, the iCoin CP900U features full access to the internal coin path. By gently pulling back on the



right side of the display panel as shown in figure 10.1, the hinged door will pull back to allow cleaning and removal of damaged coins.

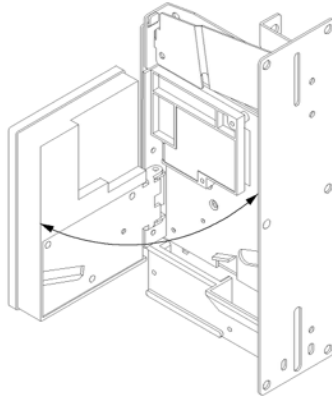


figure 10.1

**A. APPENDIX**

For future reference, write down the serial# located on the bottom of the black box of the coin acceptor. In addition, when learning tokens, record the details of each token on the following lines:

SERIAL# \_\_\_\_\_

TokenA Description \_\_\_\_\_

TokenB Description \_\_\_\_\_

TokenC Description \_\_\_\_\_