

# MT610

## ELECTRONIC BAY TIMER



### **1.0 INSTALLATION**

Use the 4 mounting holes on each corner to secure the timer to a solid surface. It is recommended that you use nylon PCB supports, as shown to the right, to mount the timer. These are available as part number MT610-55. Do not use metal fasteners as they may come in contact with the electrical components on the timer.



Wire the timer as shown in the MT610 wiring diagram. Not all connections shown may be applicable to your installation. **IMPORTANT:** Ensure that all wire connections to the timer do not pass over or under the timer. All wire connections must pass around the timer.

### **2.0 SWITCH SETTINGS**

To set a switch ON, depress the side of the switch with numbers 1, 2, 3, etc. until it clicks into position down. To turn a switch OFF, depress the side of the switch labelled OPEN until it clicks into position up. The switch to the right shows positions 1, 2, and 4 off and position 3 on.



#### **2.1 COIN SETTING**

Set the switches labelled COINS TO START such that they total the number of coins required to start the timer. For example, to start the timer on 3 coins, set switches 1 and 2 on. To start the timer on 6 coins, set switches 2 and 4 on. If all the coin switches are off, the timer will require 16 coins to start. When using multi-coin acceptors such as the CP900 iCoin or the CP690 Mcoin, this setting is equivalent to the number of pulses to start.

#### **2.2 TIME SETTING**

Set the switches labelled SECONDS PER COIN such that they total the number of seconds per coin that the timer is to operate for. For example, to configure the timer for 30 seconds per coin, set switches 2, 4, 8, and 16 ON. To configure the timer for 40 seconds per coin, set switches 8 and 32 ON. If all the time switches are OFF, the timer will be set for 1 second per coin. The total time that the timer will operate for, once started, is equal to the seconds per coin multiplied by the coins to start. Coins deposited while the timer is operating will result in additional time being added to the total time (each pulse will add the value of the seconds per coin to the time left). The maximum time that may be accumulated is 9 hours, 6 minutes, and 7 seconds (timers with serial numbers previous to 5380 have a maximum accumulated time of 68 minutes and 15 seconds).

#### **2.3 3-SECOND START DELAY**

When the switch labelled 3secStartDelay is set ON, the timer will wait for 3 seconds after the required number of coins have been deposited before starting. If this switch is OFF, the timer will start immediately when the required number of coins have been deposited.

#### **2.4 1-COIN RESTART**

When the switch labelled 1CoinRestart is set ON, the timer can be restarted with a single coin by depositing a coin at any time within the 20 second time period after time has expired. Once the 20 second time period has finished, the full number of coins to start the timer is required. The timer will flash a light if attached to the 1COIN RESTART terminal during the 20 second time period to indicate that the timer can be restarted with a single coin. If this switch is OFF, the full number of coins to start the timer will be required once time has expired.

#### **2.5 LAST MINUTE ALERT**

The switch labelled LMA/1minCont and LMA/5secPulse determines how a horn or light attached to the LAST MINUTE ALERT terminal functions. When set to LMA/5secPulse, the timer pulses the LAST MINUTE ALERT terminal for 5 seconds when there is 1 minute of time remaining (this setting is typically chosen when a horn is connected to the LAST MINUTE ALERT terminal). When set to LMA/1minCont, the timer turns the LAST MINUTE ALERT terminal on continuously for the last minute of time (this setting is typically chosen when a light is connected to the LAST MINUTE ALERT terminal).

### **3.0 INDICATOR LIGHTS**

The green POWER light on the timer shows that power is being supplied to the timer. The red LOAD light indicates that the required number of coins to start the load have been received by the timer and that the output to the load is currently being timed.

#### **4.0 POWER-UP/RESET STATUS**

When power is applied to the timer or the timer is reset by pressing the TIMER RESET button, the timer indicates that it is operating correctly by sounding the Last Minute Alert horn and flashing the 1 Coin Restart light for 1 second (provided that either a horn or a light are installed).

#### **5.0 COIN COUNT & HOUR METER DISPLAY**

The 6 digit display functions as both a coin/pulse count and hour meter. The leftmost digit will display either the letter C for coin count or the letter H for hour meter. Momentarily pressing the COUNT RESET button toggles the remaining 5 digits from displaying either the current accumulated count of the number of pulses/coins received, or the current accumulated hours of time accumulated.

To reset the accumulated coin count to 0, set the display so that it is showing the hour meter (H). Next press and *HOLD* the COUNT RESET button. The display will change to coin count (C) and after 10 seconds the coin count will reset to 0. At this point you can release the COUNT RESET button.

Likewise to reset accumulated hour meter to 0, set the display so that it is showing the coin count meter (C). Next press and *HOLD* the COUNT RESET button. The display will change to hour meter (H) and after 10 seconds the hour meter will reset to 0. At this point you can release the COUNT RESET button.

Please note that MT610 timers prior to Rev#4 do not have the hour meter function. These versions can be identified by the fact that they have a 5 digit display and not a 6 digit display.

#### **6.0 TIMER RESET**

The button labelled TIMER RESET issues a reset to the timer and cancels any existing time.

#### **7.0 COIN VERIFICATION**

A horn connected to the LAST MINUTE ALERT terminal will also provide coin verification. When a coin is accepted, the timer will beep the horn to acknowledge that a coin has been accepted. For electronic coin acceptors that give multiple pulses for a single coin, the horn will beep for each pulse received.

#### **8.0 FUSE PROTECTION**

Both a POWER and LOAD fuse are provided to protect the timer in case of short or overload conditions. The POWER fuse protects all terminals from short or overload conditions. The LOAD fuse protects only the OUTPUT LOAD terminal from short or overload conditions. If the green POWER light will not light with power applied to the timer, carefully remove and check the POWER fuse with an ohm meter for continuity. If the red LOAD light will not light when the timer has received the correct number of coins/pulses to start, then carefully remove and check the LOAD fuse with an ohm meter for continuity.

# TYPICAL BAY CAR WASH WIRING

## 24 VAC LOADS

- This diagram represents the wiring for a typical installation. However, due to differences in equipment, your installation may not follow this diagram exactly. Contact your supplier should you require further information.
- Field wiring shown in dotted lines. Minimum field wire size is #16. Wire colour codes shown are optional and are for reference only.
- Motor starter coils, solenoid coils, relay coils, and other equipment to be controlled through the selector switch in the coin meter are assumed to operate on 24 vac.
- All field installations must meet applicable codes. Always disconnect power before servicing.

