

## GS-400 Digital Display Timer



Purple \_\_\_\_\_ 24VAC Common  
 Red \_\_\_\_\_ 24VAC Hot  
 Red/Green \_\_\_\_\_ Coin Pulse  
 Red/Yellow \_\_\_\_\_ Aux Pulse  
 Yellow \_\_\_\_\_ Timed Hot  
 Red/White \_\_\_\_\_ Beeper Positive  
 Black \_\_\_\_\_ Beeper Negative  
 Press any button on the timer to cancel the time while it's counting down.

### Entering the Report and Setup Screens

**Mode** After power is applied, the display is alternating between the "Welcome" screen and "Insert Coins" screen. Press "Mode" button on the back of the GS-400 and hold for 4 seconds until the version screen is displayed then release. To get out of the program mode, press "Mode" button until the startup screen is displayed, then release.

**Mode** Press "Mode" button to go to next screen

**Back** Press "Back" button to go to previous screen

### Reports

Can be reset by selecting the report you want and pressing the UP and BACK buttons at the same time.

**Total Coins** The total amount of coins that the GS-400 has received from the Coin Pulse wire.

**Total Aux** The amount of pulses that the timer has received on the Aux Pulse wire.

**Total Washes** The number of times the timer turned on.

**Total Wash Time** The total accumulated time the timer has been on for.

**Total Express** The number of times the ExpressKey has been used.

**Total Exp Time** The total accumulated time the ExpressKey has been used for.

### Setting Up Your GS-400

**Mode** Press the Mode Button to go to next screen.

**Back** Press the Back button to go to the previous screen.

**Up** Press the Up button to increase the value. Holding the Up button will increase the value at a faster rate.

**Down** Press the Down button to decrease the value. Holding the Down button will decrease the value at a faster rate.

**Time Per Pulse** This is how much time is given per coin pulse. It is adjustable from 1 second to 8 minutes and 31 seconds.

**Pulses To Start** The number of coin pulses it takes to start the timer. It is adjustable from 1-31 pulses (\$.25-\$7.75).

**Aux Multiplier** Multiplies a single pulse on the Aux wire by this setting. Example: Aux multiplier is set to 6, therefore 1 pulse on the Aux input is worth 6 coin pulses. It is adjustable from 1-31 pulses.

**Low Time Alert** The amount of time remaining when the Low Time Alarm activates. This is adjustable from 1 second to 2 minutes. The beeper will beep once per second during the low time alert.

**Quick Restart Time** Allows the customer to restart the timer with one coin. This is adjustable in one second increments from disabled to 1 minute.

**Start Up Delay** Allows you to adjust, from 1 to 20 seconds, how long the start of the timer is delayed to notify the customer to insert more money for more time. This will also allow the customer time to get ready to wash.

**Free Wash Cycles** The number of wash cycles the timer will run before it gives a free wash. It is adjustable from disabled to 200 cycles. The free wash is given after the first coin is deposited.

**Free Wash Time** Allows you to set how long the free wash will last. This is adjustable from 1-30 minutes.

**Bonus 1 Pulses** Sets the number of coins that need to be deposited to reach the first bonus level and is adjustable from 1 to 63, the timer will flash "BONUS ## Minutes". The minutes are adjustable in the bonus time section.

**Bonus 1 Time** Adjustable from 1 to 20 minutes. The Bonus time is added to the startup time when the timer starts counting down. Repeat the last 2 steps for Bonus Levels 2 & 3.

## GS-400 Digital Display Timer

### Setting Up Your GS-400 (continued)

**Event 1 Day** Allows you to give your customers extra time on certain day(s) and between certain times. Settable from: None, Mon, Tue, Wed, Thu, Fri, Sat, Sun, Wkdy, Wknd, All

**Event 1 Start** This is the time when the event starts.

**Event 1 End** This is the time when the event ends.

**Event 1 Time** This is how much time is going to be added to the start time. Adjustable from 0-8:31. Repeat the last 4 steps for Event 2.

**Beeper Volume** Adjustable from 1 to 10, 10 being loudest.

**Screen Type** Allows you to adjust the location of the screen by pressing the Up and Down buttons for the different door setups.

**Business Name** Allows you to program in the name of your wash. If the first character is a "\*" no name will be displayed. Business name is displayed while timer is idle. Program up to 16 characters. Press the Back button to advance to the next character. Press the Mode button to go back a character. Press the Up or Down buttons to change the selected character.

**ExpressKEY** The timer can count up when ExpressKEY is used. Enable or Disable using the Up and Down buttons.

**Set Time** Sets current day and time. Press the Mode button to advance to the next character. Press the Back button to go back a character. Press the Up or Down buttons to change the selected character.

### GS-400 Timer Basics

#### **Checking Power to the Timer**

Using a voltmeter, check the AC voltage to the timer. There should be 24 to 28 volts AC across the red and purple wires at all times; the same voltage should be across the yellow and purple wire when the timer is running.

#### **Bypassing the Timer**

In order to bypass the timer connect a jumper wire between the red and yellow wire while the timer is connected. This will mimic the timer being on.

#### **Starting the Timer**

Disconnect the red/green wire (while the red wire is still connected). Tap the red/green wire to the red. Each touch and release simulates a coin being put in to the coin acceptor. The timer should start when the number of touch and releases equals your Pulses to start.

#### **Stopping the Timer**

Pushing any of the buttons the on the back of the GS-400 will stop the timer. Shorting the timed hot to the common will also stop the timer.

### Troubleshooting Your GS-400

#### **Timer counts down but wash doesn't start**

Check the wire connection of the Yellow Timed Hot and make sure its appropriately connected.

#### **Timer will not start**

1) Check Coin Mechanism and make sure it is working properly. Try swapping or replacing coin mechanism.  
2) Follow the Pulses to Start Instructions and verify that it is set correctly for your installation. The Pulses to start may be set higher than desired amount.

#### **Timer timed out but the equipment still runs**

There may be a short. With the timer timed out and the equipment running, disconnect the Yellow Timed Hot wire. If the equipment stops, the timer is bad. If the equipment is still running, check for a shorted wire.

### Timer Specifications

**Input Power:** 20-32 Volts AC, 50/60 Hz

**Loads Timed Hot:** 3 Amps AC Continuous,  
4 Amps AC Max

**Temp Range:** -40° to +65° C, -40° to +149° F

**Input Pulse:** ≥ 25ms

**Time between Pulses:** ≥ 30 ms

**Time per Coin:** 1-511 Seconds

**Coin to Start:** 1-31 Pulses

**Aux Input:** 1-31 Pulses Per Coin

**Quick Restart Time:** 1-60 Seconds

**Start Up Delay:** 1-20 Seconds

**Free Wash Cycles:** 0-200 Cycles

**Free Wash Time:** 1-30 Minutes

**Bonus 1, 2, & 3 Pulses:** 1-63 Pulses

**Bonus 1,2, & 3 Time:** 1-20 Minutes

**Event 1 & 2 Day:** Mon, Tue, Wed, Thu, Fri, Sat, Sun, Wkdy, Wknd, All, None

**Event 1 & 2 Start:** Any Time of the Day

**Event 1 & 2 End:** Any Time of the Day

**Event 1 & 2 Time:** 0 to 8 minutes and 31 seconds

**Beeper Volume:** 1-10

**Low Time Alarm:** 1-120 Seconds

**Screen Type:** 4 different positions

**Business Name:** Up to 16 different characters

**ExpressKEY:** Enabled or Disabled

**Set Time:** Mon, Tue, Wed, Thu, Fri, Sat, Sun; Current Time