UNIVERSAL GAUGE

P/N 553-100 BLACK UNIVERSAL GAUGE
P/N 553-101 CHROME UNIVERSAL GAUGE

These are 2−1/16" diameter gauges designed specifically for use with the Avenger, HP and Dominator EFI systems. They feature a blue numeric LED display as well as a 40 segment multi−color LED bar around the outside of the gauge. They can show any parameter the EFI system monitors such as battery voltage, coolant temp, oil pressure, fuel pressure, nitrous pressure, RPM, air/fuel ratio. They require power and ground, but are wired to a single wire output from the ECU for simple wiring. The gauge can be connected to the vehicle headlight switch to allow dimming for better night time viewing. Each gauge can easily be individually programmed for a specific function and operation eliminating the need for other gauges and expensive dedicated sending units. A "decal sheet" is provided with the most common inputs used, so the gauges can be correctly labeled.

WIRING THE GAUGE:

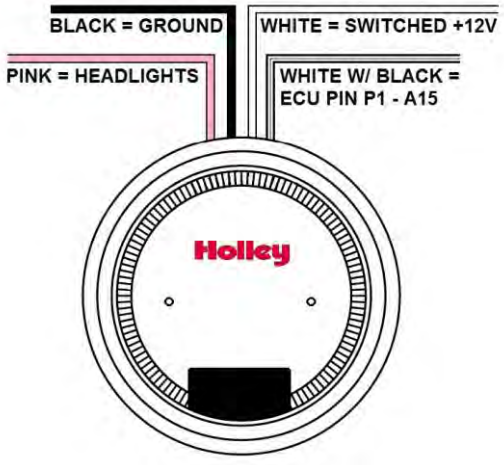

Figure 1

SETTING UP THE GAUGE:

1. There are 5 parameters that you will need to program on your gauge.

2. Push and hold both buttons on the gauge. After a few seconds, "PRO" will appear on the gauge and go directly to "102" with the 1 flashing (**Figure 2**). The right button changes the value. The left button moves to the next digit. For example, if you want to type in 84 (will need to be 084) in **Figure 3**, you will click the right button to

change the first digit to 0. Then click the left button to move to the next digit. Click the right button to get to 8. Click the left button to go to the next digit. Click the right button to get to 4. This will now show "084". Click the left button to move on to the next setting.

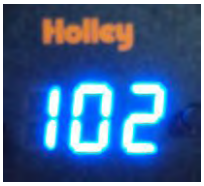

Figure 2

Figure 3

3. **SETTING 1** - This is your first setting that you will need to program. This setting decides what parameter you want the gauge to display. For example, if you want to set up a Fuel Pressure Gauge, the first setting will be 022 (**Figure 4**). The choices are shown in **Table 1** (on the next page):

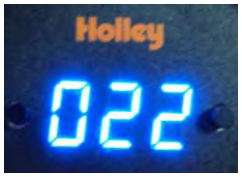

Figure 4

4. **SETTING 2 –** This setting is used for the intensity of the LED lights on the gauge with NO headlights on (0 = dim and 9 = bright). This shows you that you are on the 2nd setting and you chose level 7 for brightness (**Figure 5**).

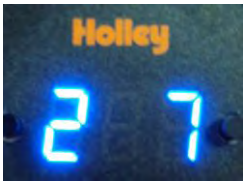

Figure 5

5. **SETTING 3 –** This setting is used for the intensity of the LED lights on the gauge with the headlights on (0 = dim and 9 = bright). This shows that you are on the 3rd setting and the level of brightness is 3 (**Figure 6**).

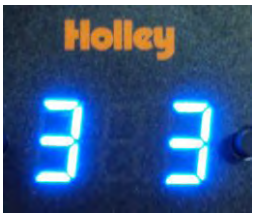

Figure 6

6. **SETTING 4 –** This setting is used for the LED Bar Mode (BLUE – GREEN – YELLOW – RED). You can choose from 8 options - **0** = Dot mode, **1** = Standard Bar, **2** = Split Bar Type #1 (would be used for a Boost/Vacuum display), **3** = Split Bar Type #2, **4** = Split Bar Type #3, **5** = Reverse Bar, **6** = Wide Dot, **7** = Bar/Junction Mode #1 , **8** = Bar/Junction Mode #2. **Figure 7** shows that this is the 4th setting and Dot Mode was chosen.

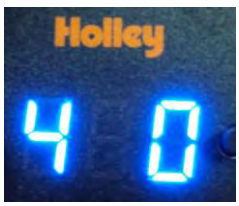

Figure 7

Table 1 Setting Numbers (are shown in gray) and Descriptions (are shown in white)

001	AFR Left (Air/Fuel Ratio Left)
002	AFR Right (Air/Fuel Ratio Right)
003	AFR Average (Air/Fuel Ratio Average)
004	Fuel Economy
005	Fuel Flow
008	Ignition Timing
009	Knock Retard
012	IAC Position
015	MAP (Manifold Air Pressure)
016	TPS (Throttle Position Sensor)
017	MAT (Manifold Air Temperature)
018	CTS (Coolant Temperature Sensor)
019	BARO (Barometric Pressure)
020	Battery Voltage
021	Oil Pressure
022	Fuel Pressure
023	Pedal Position
026	Boost MAP (Boost Pressure – kPa)
027	Boost PSI (Boost Pressure – PSI)
029	Injection Value (Water Methanol Injection Value)
032	Nitrous Stage 1 Percent
033	Nitrous Stage 2 Percent
034	Nitrous Stage 3 Percent
035	Nitrous Stage 4 Percent
038	Gear (Transmission Gear)
039	Vehicle Speed
040	Line Temp (Transmission Temperature)
043	TB Position (Drive-By-Wire Throttle Body 1 Position)
044	TB2 Position (Drive-By-Wire Throttle Body 2 Position)
047	Input #1
048	Input #2
049	Input #3
050	Input #4
051	Input #5
052	Input #6
053	Input #7
054	Input #8
055	Input #9
056	Input #10
057	Input #11
058	Input #12
059	Input #13
060	Input #14
061	Input #15
062	Input #16
063	Input #17
064	Input #18
065	Input #19
066	Input #20
067	Input #21
068	Input #22
069	Input #23
070	Input #24
071	Input #25
072	Input #26
073	Input #27
074	Input #28
075	Input #29
076	Input #30
077	Input #31
078	Input #32
079	Input #33
080	Input #34
081	Input #35
082	Input #36
083	Input #37
084	Input #38
085	Input #39
086	Input #40
087	Input #41
088	Input #42
089	Input #43
090	Input #44
091	Input #45
092	Input #46
093	Input #47
094	Input #48
095	Input #49
096	Input #50
097	Output #1
098	Output #2
099	Output #3
100	Output #4
101	Output #5
102	Output #6
103	Output #7
104	Output #8
105	Output #9
106	Output #10
107	Output #11
108	Output #12
109	Output #13
110	Output #14
111	Output #15
112	Output #16
113	Output #17
114	Output #18
115	Output #19
116	Output #20
117	Output #21
118	Output #22
119	Output #23
120	Output #24
121	Output #25
122	Output #26
123	Output #27
124	Output #28
125	Output #29
126	Output #30
127	Output #31
128	Output #32
129	Output #33
130	Output #34
131	Output #35
132	Output #36

7. **SETTING 5 – The remaining settings are used to define the numerical value range for each LED color segment. Five values need to be assigned.** These values can range from 0.00 to 99,999.99. You will first be asked to choose whether each value is (P) = positive or (-) = negative. There are three screen settings to define the "thousands", "hundredths", and "decimal places" for each value.

   *For example, the first picture in **Figure 8** represents a "positive value" and **Figure 9** shows a "negative value". **Figure 10** defines first two digits (thousandths). **Figure 11** defines the next 3 digits (hundredths). **Figure 12** defines the "decimal places". **Figures 10 – 12** show a setting of 12,345.67.*

This is an example of each step you will have to complete 5 times below:

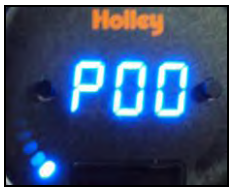

Figure 8

Figure 9

Figure 10

Figure 11

Figure 12

The five positions that need to be assigned are the low value (**Figure 13**), break points between colors (**Figures 14-16),** and the high value (**Figure 17**). These positions are indicated by the position of the single LED on the gauge. The following figures show these positions. Define each one and the setup process will be complete.

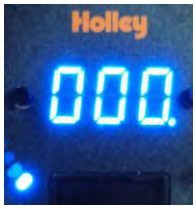

Figure 13

Figure 14

Figure 15

Figure 16

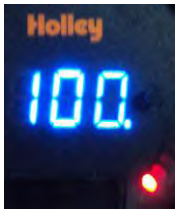

Figure 17

Figure 18

8. After entering the 5th setting, the gauge should read "END". If for some reason the gauge is not functioning properly, the gauge will read "ERR".

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