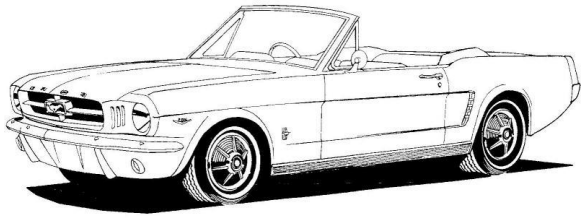
Made in America **Lifetime Guarantee**



Thank you for purchasing this instrument from Intellitronix. We value our customers!

INSTALLATION GUIDE
Ford Mustang Digital Analog Dash Panel
Part Number: AP7001
Year Series: 1965 – 1966

*** Always disconnect the battery *before* attempting any electrical work on your vehicle.***

KIT COMPONENTS

◊ One (1) Digital Analog assemble: Speedo, separate Fuel, Water Temp, Volt, Oil pressure gauges.

◊ **One** (1) Acrylic Lens **** Peel off protective covering from each lens***

◊ **One** (1) Temperature Sending Unit ***(S8013) * 1/8" NPT, 0-255 Deg., 1/2" NPT Bushing***

◊ **One** (1) Pressure Sending Unit ***(S8434) * 1/8" NPT, 0-100 PSI Oil Pressure***

◊ **One** (1) Ford Speedometer Sensor ***(S9024)***

◊ **One** (1)Retaine original hardware to mounting your new cluster

DASH PANEL INSTALLATION INSTRUCTIONS

1. Remove all gauges from the stock bezel and housing. Position the new dash panel into the stock gauge housing. Secure into place with the existing stock screws, spacers, and washers.
2. Turn the stock bezel face down and insert the acrylic lens into place (after removing paper from both sides). Place the included spacers over the existing screw holes. Lay the circuit board face down, aligning the holes with the spacers. Insert and tighten the screws, securing the assembly to the housing.

WIRING INSTRUCTIONS

Note: Automotive circuit connectors are the preferred method of connecting wires. However, you may solder if you prefer.

***Note*: LS Engines or any other computer-based engine systems most use provided sensors and install new wires to new sensors**

Ground – **Black--This is the main ground for the display system. A wire should be run from this board to the vehicle engine block for the best ground**. Use 18 AWG or larger wire to ensure sufficient grounding. Proper vehicle grounding is extremely important for any gauges (or electronics) to operate correctly. The engine block should have heavy ground cables to the battery, frame, and firewall. Failure to properly ground the engine block, senders, or digital dash can cause incorrect or erratic operation.

Power – **Pink**--Connect the power terminal to accessory +12V power from the fuse panel or vehicle wiring harness. This terminal should have power when the key is on or in accessory position. Use 18 AWG wire to ensure the system receives a sufficient power feed.

Battery **Red**--Connect the +12 Volt terminal to constant +12V power from the battery.

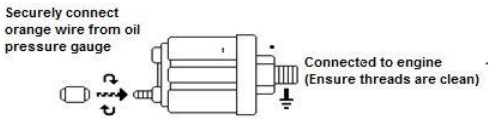
Dimmer—**Purple**--Connect to the parking lights to dim the LEDs 50% when the headlights are on. However, do not connect to the headlight rheostat control wire; the dimming feature will not work properly and could damage bored.

Turn Signals – **Grey**--Two 18-gauge wires, one for each signal. Connect each wire to its corresponding indicator circuit. When looking from front of cluster RIGHT Grey wire is for right turn and LEFT Grey wire is for left turn

High-Beam – **Brown**--Connect the brown wire on the speedometer panel to your high beam headlight switch.

Brake – **Tan**--Connect to the parking brake wire from the dash to negative side of parking beak light switch. **NOTE**--If you are using a one wire switch you may need to switch to a Two wire switch. This wire is an optional wire some vehicles may not require

Oil Pressure – **Orange**--Replace the existing oil pressure sending unit with the unit included or Some models may use factor oil sender check with parts list at pop Do not use Teflon tape or other sealer on the new sending unit's threads to avoid inaccurate ground connections as the sending units get their ground from the threads. The oil sender gets its grounding from the threading into the engine block and it is crucial it is grounded properly. Connect to the sending unit.



Water – **Blue--**Replace the existing water temperature sending unit with the unit included. The gauge is incompatible with other sending units. Do not use Teflon tape or other sealer on the new sending unit's threads to avoid inaccurate readings. Connect the blue wire to the sending unit.

Fuel – **Yellow** The fuel gauge sending unit is not normally supplied because the display system can use the existing fuel level sending unit in the tank in most cases. If your wiring harness already has a single wire routed through the vehicle for the fuel sender-then it may be used. If using a wire from an external harness, make sure that the wire does not have power. Fuel senders reference their ground from the sender mounting plate. Connect the yellow wire to the factory sending unit. Be sure the toggle settings on the switch match those displayed on the panel, as illustrated.

Both switches up is=73 to 10 OHMS

Switch #1 up and Switch # 2 down=16 to 158 OHMS

Both switches down= 240 to 33 OHMS

Switch#1 down Switch#2 up=22 to 145 OHMS

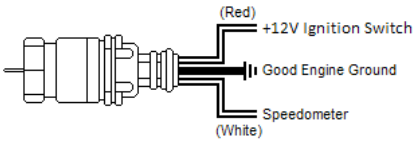
Empty	Full		Switch Position
73	10		UP-UP
16	158		UP-DN
240	33		DN-DN
22	145		DN-UP

Note: FUEL GAUGE TEST
The most common problem with our Fuel Gauge not working is the circuit is not complete. The easiest way to test this is to use a voltmeter and test for continuity on wires going to fuel sender. With wire disconnected from Fuel Gauge check for continuity to ground. Without this the Gauge will not work.

Installation of Digital Performance Speedometer

Speedometer – **White**--Disconnect the mechanical speedometer cable from the transmission and thread the new electronic sensor onto the transmission. This unit comes with a 3-wire sensor. If you are using this sensor, the **white** wire is the speed signal; connect this to the speed signal wire on your gauge. The **red** Wire is switched power (12V) and **Black** is ground and should be on the engine block with rest of the grounds. **Twisting all Three wires around each other will provide an additional level of interference protection. The speed signal wire should not be routed alongside the tachometer, ignition, or any other high-current or high-voltage wires**.

For vehicles which have a vehicle speed signal from a transmission one wire goes to the speedometer, and the other to the ground or **P**ower train **C**ontrol **M**odule. Tap into the **V**ehicle **S**peed **S**ensor wire (consult a vehicle service manual or wiring diagram to determine the correct wire color) and connect it to the white speed sending wire on the dash.



This may not be pitched same as part in kit but wiring same all models

The recall button on the speedometer operates as follows:
Once – cycles between Trip Mode and Odometer Mode.

While in Odometer Mode:
1. Hold LEFT to enter Recall/Setting Mode
2. ¼ Mile Recall
3. 60 Second Time Recall
4. Odometer Setting
5. Calibration

CALIBRATION

Note: If using the unelectronic GPS Sending Unit (not included), the speedometer does not need to be calibrated.

Your unelectronic dash panel is equipped with our Digital Performance Speedometer, which has factory settings that are ***pre-set with the industry standard setting of 8,000 pulses per mile to match your vehicles factory settings***. This electronic speedometer displays speed and includes an odometer, trip meter, high speed recall, 0-60 time, and quarter-mile elapsed time. It can be calibrated with the push-button to adjust the speedometer when you have ***different tire sizes, wheel sizes,*** and ***gear ratios***.

The single push-button is used by a *quick tap* to toggle between odometer and trip meter. The microprocessor distinguishes between a *quick tap* and a *press and hold* which will reset the trip meter in trip mode or display performance data in odometer mode.

CALIBRATION

The Digital Performance Speedometer leaves the factory with a factory pre-set industry standard setting of 8,000 pulses per mile. You should ***not have to recalibrate your speedometer, unless you have changed the original tire size or the rear end gear ratio***.

Also, if using the unelectronic GPS Sending Unit, (S9020 – not included) the speedometer does not need to be calibrated.

NOTE: **DO NOT** attempt to recalibrate your speedometer until after it is working properly, and you have determined that the speed is consistently incorrect. The calibration procedure will NOT correct a faulty installation or improper wiring.

WARNING: If, while in 'CAL' mode, **you do not move the vehicle but press the button again**, the microprocessor will NOT have received any data and the unit will display '**Err**' and will revert to the factory settings. At a minimum, drive some distance and return to the start if necessary. If you miss stopping the display at 'CAL', simply repeat the steps.
To calibrate:

1. **Locate a measured mile or kilometer where you can safely start and stop your vehicle.** By running the vehicle over this measured distance, the speedometer will learn the number of pulses outputted by the speedometer sensor during a specific measured distance. It will then use this acquired data to calibrate itself for accurate reading. There is a small recall pushbutton in the center of the panel used to calibrate and read all of the data stored in the speedometer. After installing your speedometer according to the wiring instructions, when the ignition is on it should immediately display the default screen of **0** MPH, if the vehicle is not moving.

   NOTE: You will then need to drive your vehicle to the predetermined measured mile. During this trip, the speedometer should read something other than 0 MPH. <u>If it does not change, return and</u> <u>locate the problem before continuing.</u> Otherwise, proceed with the calibration.

2. Stop at the beginning of the measured mile with your vehicle running and in odometer mode (NOT trip mode), press and hold the push-button until the odometer displays 'HI-SP'. On its own, the gauge will then cycle through the recorded performance in the following order: '0 – 60', '1/4', 'ODO', and 'CAL'.

3. While 'CAL' is displayed, quickly *tap* the push-button once. This will put the speedometer in Program Mode. If you did not tap while 'CAL' is displayed, the pulses per mile will be displayed on the odometer and the display will go back to MPH mode. Otherwise, you will now see 'CAL' displayed along with the number '0'. This indicates that the microprocessor is now ready for calibration.

4. When you are ready, begin driving on the metered mile. You will notice that the reading will start counting up. The odometer will begin to display the incoming pulse count. Drive

the vehicle through the measured mile (speed is not important, only the distance traveled).

5. At the end of the mile, stop and press the push-button again. The odometer will now display the new number of speedometer pulses that were registered over the distance. The odometer will continue to display the pulse reading for a few seconds. Once it reverts to the default mode, you have successfully calibrated your speedometer.

Setting the Odometer

While scrolling through 'CAL' mode you will see 'ODO' appear. This will allow you to enter the vehicle's actual mileage. Press the trip button again at this point and you will enter the odometer set up mode. Press quickly to change the number of the digit on the right. Press and hold to advance to the next digit. Do this for all 5 digits.

For Example: To enter the mileage 23456 into the odometer, at the 'ODO' prompt, tap the small black button (quickly) two times, until the number 2 is displayed. Then press and hold the button until the numbers 20 are displayed. Tap the button 3 times until 23 is displayed. Press and hold the button until 230 is displayed and continue in this manner until 23456 is displayed. The speedometer will advance to the home screen, five seconds after the last number is entered.

Recording and Viewing Performance Data

Follow these steps to record and recall Performance Data (high speed, ¼ mile ET, and 0- 60 time):

1. Before each run, your car must be at a complete stop at the starting position. Press and hold the push-button as it cycles through the performance data. At the end, the odometer will reset, and all performance data will be cleared. This will not affect your stored calibration value or the odometer reading.

2. Press the push-button until 'HI-SP' is displayed. The gauge will automatically cycle through the performance data.

3. Start the run, pass, session, etc., as mentioned above.

4. When finished, repeat Step 2 to view the data gathered from the run. While stopped, you can view this data as often as you wish. However, once it finishes scrolling one time, the memory is ready to record new data and will begin recording again once the vehicle starts to move. The highest speed measured over multiple runs will be retained in memory.

# # #

Made in America Lifetime Guarantee

Intellitronix
Intelligent Electronics

Technical Support

Monday – Friday
9am to 5 pm EST
(440) 359 7200
support@intellitronix.com

CHECK OUT THE **SUPPORT** PAGE AT
www.intellitronix.com

FOR QUICK ANSWERS (**Q&A**) TO YOUR QUESTIONS

This product carries a limited Lifetime Warranty.
This warranty is limited to replacement or repair of the unit at the discretion of Intellitronix

RETURN POLICY PROCEDURES

Return Policy Instructions

1. Download the Intellection Return/Repair Form and fill in the information on the form about the product.

2. Place the product being returned in the original packaging that it came in and include a copy of the completed Intellection Return/Repair Form.

3. All packages must be accompanied with an RMA Number.

   Please call Technical Support at +1 440-350-7200 to receive an RMA Number.

4. Mail the product being returned with the completed Return/Repair Form and a copy of the original sales invoice.

Request for Product Refund

1. All returns for a refund must have a completed Intellection Return/Repair Form included in the package with the returned product.

2. If the return is for a product that is not defective a 20% restocking fee will be charged. The product must be in the same pristine condition that it was sent to you.

3. Proof of purchase is required. Please include a copy of the original sales order with the returned product.

4. All product must be returned undamaged and in working order in the original packaging including plexiglass, sending units, mounting hardware, or you will be subject to additional charges for product and accessories not returned.

5. All refunds will be reviewed by the Accounting Office.