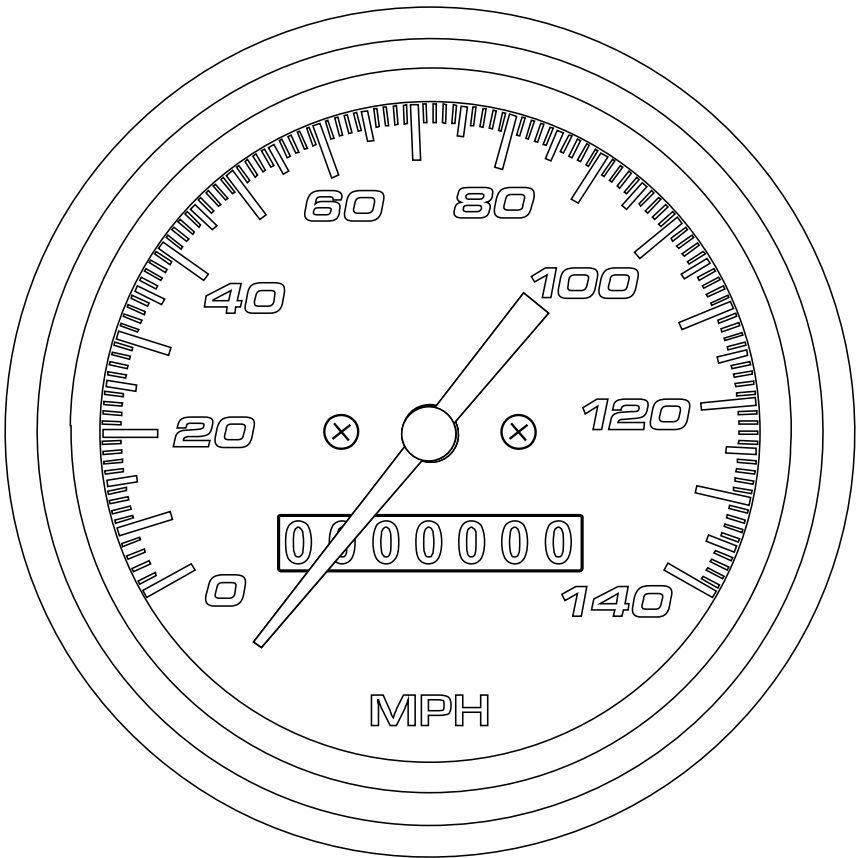




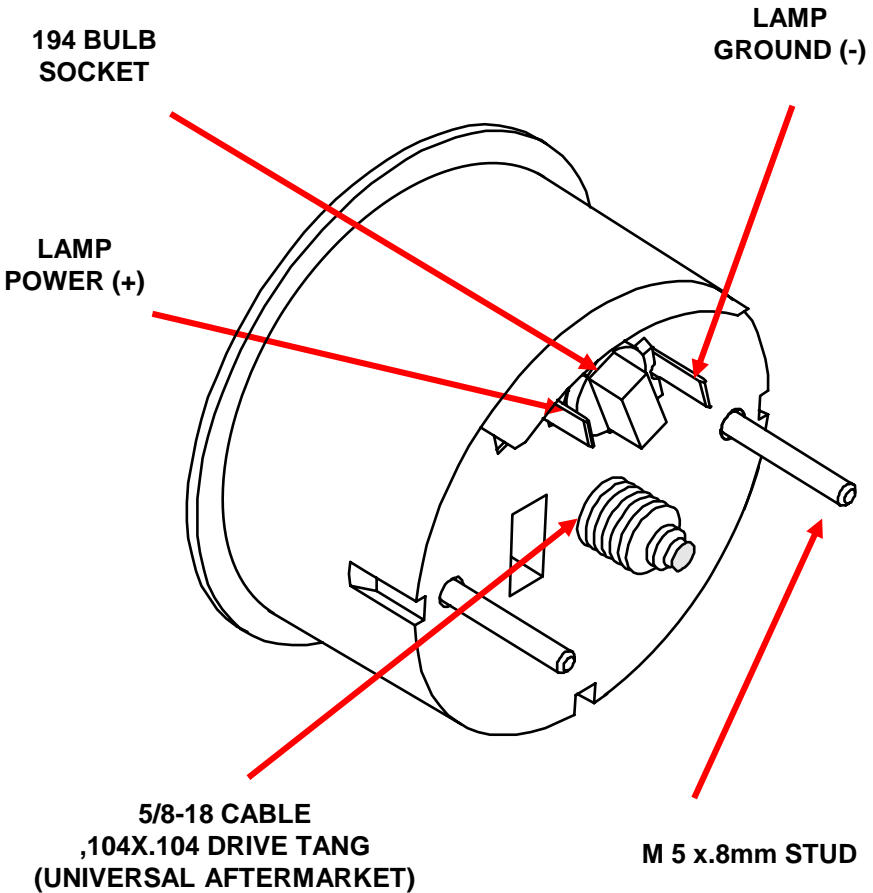
**NEW VINTAGE USA
DETROIT**

MECHANICAL SPEEDOMETER KITS



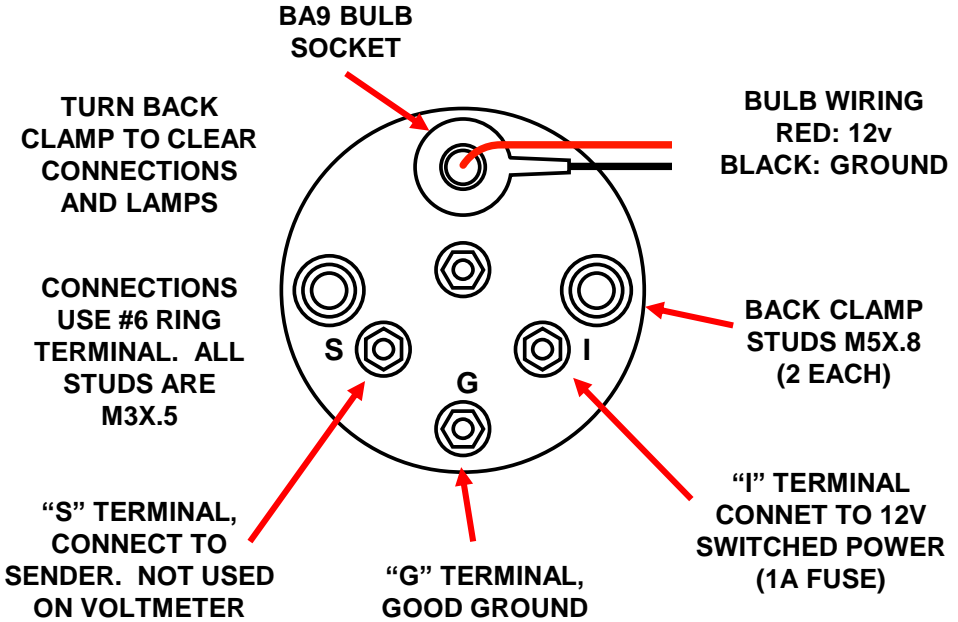
MECHANIAL SPEEDOMETER

Mechanical speedometers operate from a mechanical drive cable connected directly to the transmission or transfer case. The drive ratio is 1:1 and cannot be altered. To change the calibration, the cable drive gear in the transmission must be changed, a variety of gears with different tooth counts are available for this purpose.

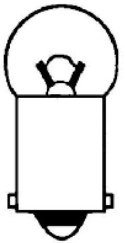


2-1/16" GAUGES-SHORT SWEEP AIRCORE

All NVU short sweep aircore gauges feature rugged movements, shielded metal cases and incandescent lighting. Dial lighting may be perimeter lit (around the dial) or backlit (through the dial). Studded connections require a #6 ring terminal. Always use the proper, matching senders for each gauge. NVU senders for pressure and temperature, factory or aftermarket fuel senders for fuel.



8.8/
11.0



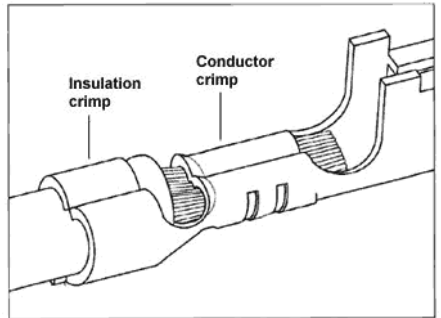
23.5



MCC
Ba9s

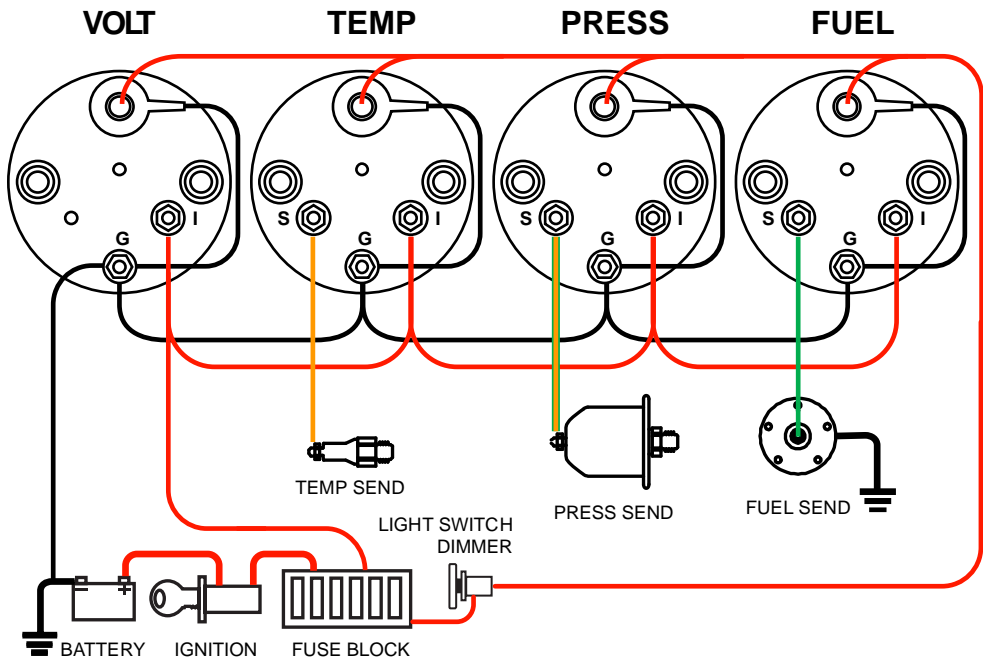
BA 9 BULB

If you wish to convert to LED bulbs, simply replace with a BA9 base LED bulb. Choose a bulb that has a wide spread and is not wider than the socket opening. LED lights are different colors and may not light backlit dials the same way.



CONNECTIONS

Follow proper terminal crimping procedures for a good connection. A bad crimp is the number one cause of gauge issues and the most difficult to diagnose due to an intermittent problem.



WIRING MULTIPLE GAUGES

Above is an example of wiring a grouping of gauges together. The number one thing to remember is to commonize the basic 3 connections (power, ground, lights) and then run the sender wires. To simplify things even further, you can jump the lamp ground to the gauge ground. Use a minimum of 20 gauge stranded automotive grade wire.

Wire the lighting to the stock dash lights unless you are using LED bulbs, then wire them to the parking lamp circuit. An LED dimmer will be required to dim LED lights.

When installing, you must use the matching senders provided by NVU. OE senders for pressure and temperature will not operate the gauges properly. You may use an OE sender for fuel level when using a matching gauge. See chart next page for more information on OE sender ranges

SENDERS AND SIGNALS

Senders are the part of the gauge system that send a signal to the gauge to be read, and then displayed on the dial face. There are 4 types of senders, resistance bases pressure, temperature and level (fuel), voltage input pressure transducers, and pulsed speed inputs.

TEMPERATURE SENDERS Signal type is resistance to ground. Resistance DECREASES as temperature rises. All NVU Phoenix temperature gauges use a High-Match temperature sender. The sender will read between 450-500 ohms at room temperature. Both low and high read gauges use the same sender.

PRESSURE SENDERS are resistance to ground signal. All NVU pressure senders are 240-33 ohm, 0-100 PSI regardless of the pressure range.

PRESSURE TRANSDUCERS Send a voltage signal to the gauge to be read. Typically a linear .5V-4.5V signal can be read by any transducer gauge. There are typically 3 wires to the transducer, signal, ground and 5V power (from the gauge or module).

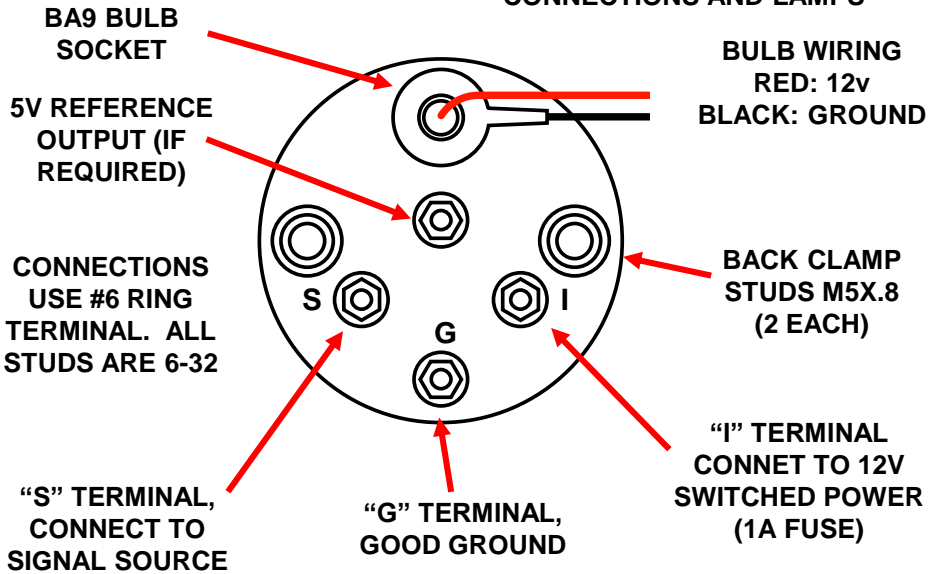
FUEL LEVEL SENDERS are also resistance to ground. A float arm rotates on a rheostat in the fuel tank and changes the resistance as the float arm moves. This is also available in a tube type sender. The ranges can be various depending on the OE manufacturer. You ALWAYS need to match the fuel gauge to the sender. NVU offers a universal fit 240-33 ohm and 0-90 ohm unit for aftermarket applications. The senders are universal and mount from the top of the tank and have a universal 5-hole flange. These are not intended to replace the stock sender for the tank which was specially manufactured for that tank size/shape/orientation. Use a stock sender if at all possible to make things easier on yourself.

TYPE	SW/UNIV	GM LATE	GM EARLY	FORD EARLY	FORD LATE	GM MOD
YEARS	ALL	64/65-90S	PRE-64	64-87	88-UP	90S-UP
RANGE E/F	240-33	0-90	0-30	73-10	20-150	40-250

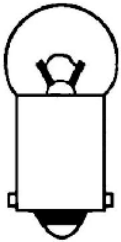
PHOENIX 2-1/16" TRANSDUCER AND 0-5V GAUGES

All voltage input gauges operate on 0-5V or .5-4.5 depending on use. All transducer (pressure) gauges are .5-4.5V and all 0-5 input (AFR) are 0-5V input. All are linear input and sweep. The top stud is used for 5V reference power for transducers and other equipment that may require a reference voltage source. This gauge is a microcontroller controlled steppe motor type, this does not have RTZ function (return to zero). To rest pointer on zero turn the key on and off when at zero.

TURN BACK CLAMP TO CLEAR CONNECTIONS AND LAMPS



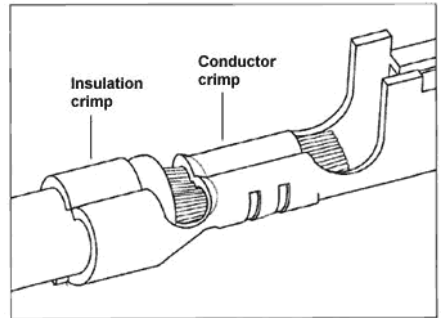
8.8/11.0



23.5



MCC
Ba9s



BA 9 BULB

If you wish to convert to LED bulbs, simply replace with a BA9 base LED bulb. Choose a bulb that has a wide spread and is not wider than the socket opening. LED lights are different colors and may not light backlit dials the same way.

CONNECTIONS

Follow proper terminal crimping procedures for a good connection. A bad crimp is the number one cause of gauge issues and the most difficult to diagnose due to an intermittent problem.

TRANSDUCER GAUGES (.5-4.5V)

Warning: do not cross wire or contact the 5V output with ground or 12V power!

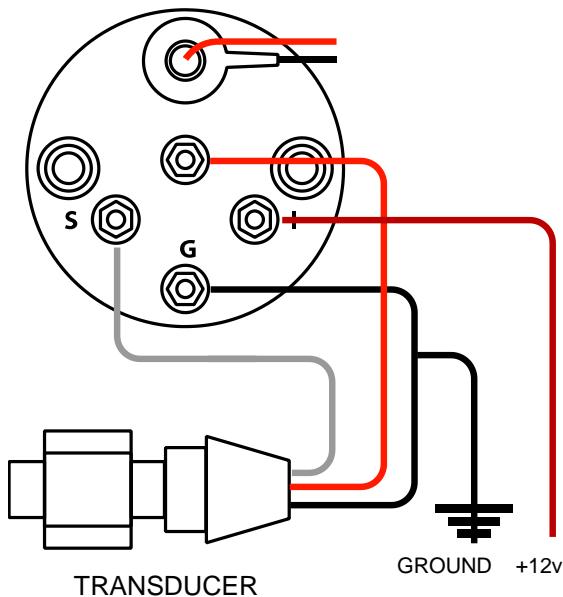
The transducer requires power from the 5V stud, ground and the signal back to the "S" terminal.

+ 12V switched power

G Ground

S signal

Blank top 5V reference output



0-5V INPUT GAUGES

Warning: do not cross wire or contact the 5V output with ground or 12V power!

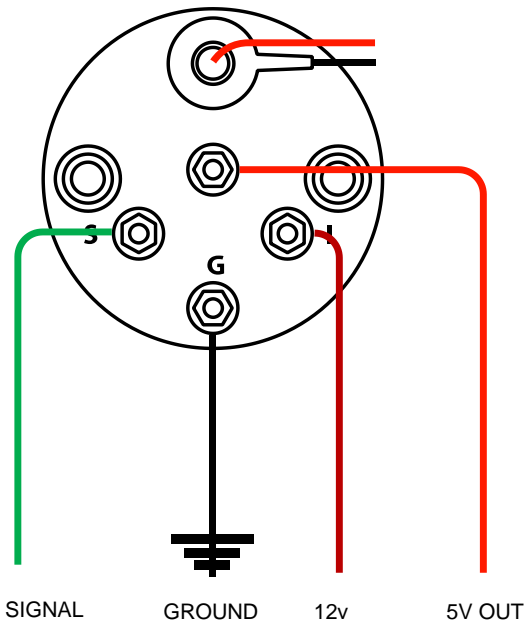
The transducer requires power from the 5V stud, ground and the signal back to the "S" terminal.

+ 12V switched power

G Ground

S signal

Blank top 5V reference output (If required)



Thank you for choosing New Vintage USA products. We strive to provide the finest quality and design components available on the market. If you need technical assistance, please call 248.850.5482 or email service@newvintageusa.com.

New Vintage USA 5-Year Warranty:

New Vintage USA warrants all merchandise against defects in workmanship and materials for 60 months. After the 60 month period, a pro-rated service fee of no more than 50% production costs may be applied. This warranty applies to all instrumentation products, excluding senders. The warranty does not apply to a product used in a manner for which it was not designed, or if it has been altered in any way.; New Vintage USA LLC is not responsible for any damage or costs associated with any product that has been purchased. This is a limited warranty as identified in the Magnuson-Moss Warranty Act of 1975.

Warranty Service

Service can be obtained during the normal warranty period by contacting New Vintage and obtaining a Return Authorization Number (RZA#). New Vintage will repair or replace any item found to be defective and return ship to no cost via ground or post office services. Other shipping/international services will be applied at additional cost. Buyer is responsible for shipping to New Vintage for warranty repair. Return shipping will be the responsibility of the customer if the product is found to be damaged or out of warranty. An RZA number must be obtained and proper return/warranty form accompanied with the product.

Missing items>Returns

Missing items/returns must be processed within 15 days of end user receiving the product. All returned must be shipped back to the place of purchase. Any return shipping costs to New Vintage are the responsibility of the purchaser. An RZA number must be obtained and proper return/warranty form accompanied with the product. A restocking fee not to exceed 10% may be applied to items that must be repackaged. Any item returned in a non-usable condition will be returned or charged to the customer.

Missing items must be reported within 15 days of receiving the product. Items found to be missing will be shipped via ground or postal service at no charge. Expedited/international shipping options are available at an additional charge. It is the policy of New Vintage to quickly replace any items that may be missing in a timely manner but not to overnight or expedite shipping in any way at no cost.



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