Standalone tachometers with AMP plugs are incandescent perimeter, backlit or LED backlit. Incandescent bulbs will be in the access holes installed into the circuit board. DIP-switch settings are not required on tachometers. 3-3/8” and 4-3/8” are the same configuration. Programming/button wiring is different for tachometers with and without OLED display screen.

### 12-PIN AMP PLUG

**PIN** | **COLOR** | **FUNCTION**
---|---|---
1 | RED | 12V+ SWITCHED 1A
2 | GR/YEL | NOT USED
3 | ORANGE | NOT USED
4 | YELLOW | NOT USED
5 | TAN | NOT USED
6 | WHITE | LIGHTING
7 | BLACK | GROUND
8 | VIOLET | TACH SIGNAL
9 | GREY | NOT USED
10 | BLUE | NOT USED
11 | GREEN | NOT USED
12 | BROWN | NOT USED

**PCM/CDI**

PCM/CDI may require pull up resistor (see later in this book).

**Ignition Coil**

Connect to negative side of the coil.

**Lights/Dimmer**

Ground
Programmable tachometers feature easy to set up operation and are ready to run on 4-cycle engines. With 1 (COP Coil On Plug), 4, 6 and 8 cylinder settings. Your tachometer can be pre-set to any pulse configuration (contact the factory for more details). Signals typically are from the negative side of the coil, CDI box or PCM (computer). You may require a pull-up resistor on GM PCMs, see later in this book. All tachometers are shipped from the factory set at 8 cylinder selection and signal filter off (most applications).

**CYLINDER SELECTION**

Power down the unit, settings will not take effect until the power is cycled off. Remove the black cover on the back of the unit. The first 3 DIP switches are for setting the number of cylinders, the last one adjust the filtering (next segment). Follow the chart and select the proper settings for your application. 1 cylinder is used for COP (Coil On Plug) ignitions where a separate tachometer signal is not available. Use a small pointer object to change the switch settings if required. Check that the switch is fully engaged in the “ON” or “OFF” position. If cylinder setting is not available for your application, contact the factory and your setting can be custom programmed for a nominal charge.

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<tbody>
<tr>
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<td>12</td>
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**FILTER SETTINGS**

Tachometers are shipped with the signal filter off (DIP-Switch #4 in the OFF position). This will be appropriate for most applications that use a 12V square wave or coil signal. To use on a lower power signal, with the power off, place switch #4 in the “ON” position.

For additional filtering options, contact the factory we can bypass the internal filter of adjust to suit your custom input.
IGNITION COIL Even today the most common ignition source is the traditional coil. Use the negative side of the coil when using a distributor style with traditional points or electronic ignition. The signal is a high-voltage pulsed signal.

COIL ON PLUG (COP) Is essentially the same as a traditional coil with the exception of each cylinder having its own individually fired coil. This setup is used in conjunctions with PCMs. If you use the trigger on a COP the tachometer should be set to 1 cylinder (2PPR) operation.

HEI/INTEGRATED CDI DISTRIBUTOR incorporates the coil and either points or electronic ignition all into the distributor. There is either a high voltage or 12V square wave signal TACH output labelled on the side of the tach.

CDI/ELECTRONIC IGNITION/MSD BOX. This type of ignition box provides a multiple spark to each cylinder to improve performance. The unit will have a tach output terminal that sends a 12V square wave signal. Do not connect your tachometer to the coil or it will react erratically with the multiple sparks per cylinder.

GM PCM have an open collector signal tach output, consult your PCM documentation for exact pin. You will need a 10K-ohm pullup resistor to change the open collector signal to a square wave (see diagram). This is installed to pull up the signal between the power and tach signal from the PCM. All GM PCMs output a 4 cylinder signal regardless of number of cylinders or if it is gas or diesel.

CRANK TRIGGER type generates an AC sinewave signal by using a magnetic sender to “count” the number of teeth. Your NVU tachometer may require bypassing of the internal filter call for more information. You will also need to calibrate the PPR (programmable models with OLED) (pulse per revolution) to the number of teeth or magnets on the flywheel.

ALTERNATOR “W” TERMINAL also outputs an AC sinewave like the above crank trigger, a reference tachometer is the best way to determine the exact RPM, then the tach can be properly calibrated by setting the PPR (programmable models with OLED)
THANK YOU
Thank you for choosing NVU products. We strive to provide the finest quality and designed products available on the market.

TECH SUPPORT
DO NOT contact the retailer for tech/installation assistance. The retailer will not have the technical expertise to know the contents of the kit or the nuances of installing in your specific vehicle. We are here to help!
Contact NVU directly, our qualified installation technicians have the knowledge of the product and its installation to help you get going right away.
If you need technical assistance please feel free to call us at 248.850.5482 or email us at service@newvintageusa.com

NVU 5-YEAR WARRANTY
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
Hey, we all make mistakes, no problem just give us a call if you believe that you are missing something in the box. DO NOT CONTACT THE RETAILER, as they will not have the complete packing list or the pertinent information to properly help you. We will take care of it for you.
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.