Wiring Installation Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

SPEK™ MONITOR AND CONTROL PERFORMANCE GAUGE TACHOMETER-

PACKAGE CONTAINS:
• Tachometer Gauge 5” INCH • Wiring Harness • Mounting Cup (Not required for pod installation) • (2) Neoprene EDPM Grommets

OPTIONAL:
• Output Control Module, Part #’s 14820, 14826, 14829

FEATURES:

TACHOMETER FEATURES:

• FIVE INCH (5”) TACHOMETER INCLUDES PROGRAMMABLE “HEADS-UP-REDLINE” ™ SHIFT LIGHTS THAT CHANGE FROM HEADS-UP **YELLOW** TO RED-LINE **RED** AT SET SHIFT POINT.

• GAUGES ARE PROGRAMMED THROUGH WATER RESISTANT STAINLESS STEEL SEALED COMMAND KEYS LOCATED ON THE FACEPLATE. NO CONTROL BOXES OR HAND HELD REMOTE CONTROL NEEDED.

• FIVE (5”) INCH TACHOMETER IS DESIGNED WITH A 2 1/16, 52MM CUP. THE GAUGE ATTACHES TO GAUGE MOUNTING BRACKET (PART # 81105) FOR EASY PILLAR POD MOUNTING. NO NEED TO DRILL HOLES IN YOUR DASH.

INSTALLATION INSTRUCTIONS:

1 DISCONNECT NEGATIVE (-) BATTERY TERMINAL.

2 VARIOUS MOUNTING SOLUTIONS ARE PRESENTED BY PROPARTS, LLC ON THEIR WEBSITE AT **www.ProPartsLLc.com**
DASH INSTALLATION: SELECT LOCATION IN THE DASH TO MOUNT GAUGE AND CUT A 2 1/16” HOLE. USE A FILE TO INCREASE THE HOLE SIZE IF REQUIRED. BE SURE THERE IS SUFFICIENT ROOM BEHIND THE HOLE FOR THE METER CASE AND THE CONNECTORS YOU WILL USE.

3 IF A SUITABLE HOLE IN THE FIRE WALL IS NOT AVAILABLE, CUT AN 11/16 HOLE.

4 TWO GROMMETS MUST BE CUT TO PERMIT INSTALLATION OF WIRING HARNESS. (**SEE DIAGRAM 1**)

5 INSTALL THE TWO (2) GROMMETS AND MOUNTING CUP ON THE WIRING HARNESS AS SHOWN IN **DIAGRAM 1**. ONE GROMMET IS FOR THE HOLE IN THE FIREWALL AND THE SECOND IS FOR THE BACK OF THE GAUGE MOUNTING CUP.

Wiring Installation Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

6 DO NOT CONNECT WIRING HARNESS TO THE GAUGE UNTIL THE OTHER CONNECTIONS HAVE BEEN MADE AND TESTED.

7 CONNECT THE **RED** (+ 12 VOLT SUPPLY) WIRE TO “ON” CIRCUITS THAT GET POWER WHEN THE IGNITION IS TURNED-ON. THIS CIRCUIT MUST BE FUSED BE

8 CONNECT THE **BLACK** WIRE TO A GOOD GROUNDING POINT ON THE CAR’S CHASSIS.

9 CONNECT THE **WHITE** WIRE TO THE DIMMER VOLTAGE GOING TO THE DASH LIGHTS. THIS WILL CAUSE THE METER BRIGHTNESS TO TRACK THE BRIGHTNESS OF THE REST OF THE INDICATORS. THIS CIRCUIT MUST PRODUCE 3 TO 12VDC BEFORE THE PULSES PER REVOLUTION (PPR) CAN BE PROGRAMMED. **DO NOT INSTALL THE WHITE/DIMMER WIRE IF PROGRAMMING PIT ROAD APPLICATION.**

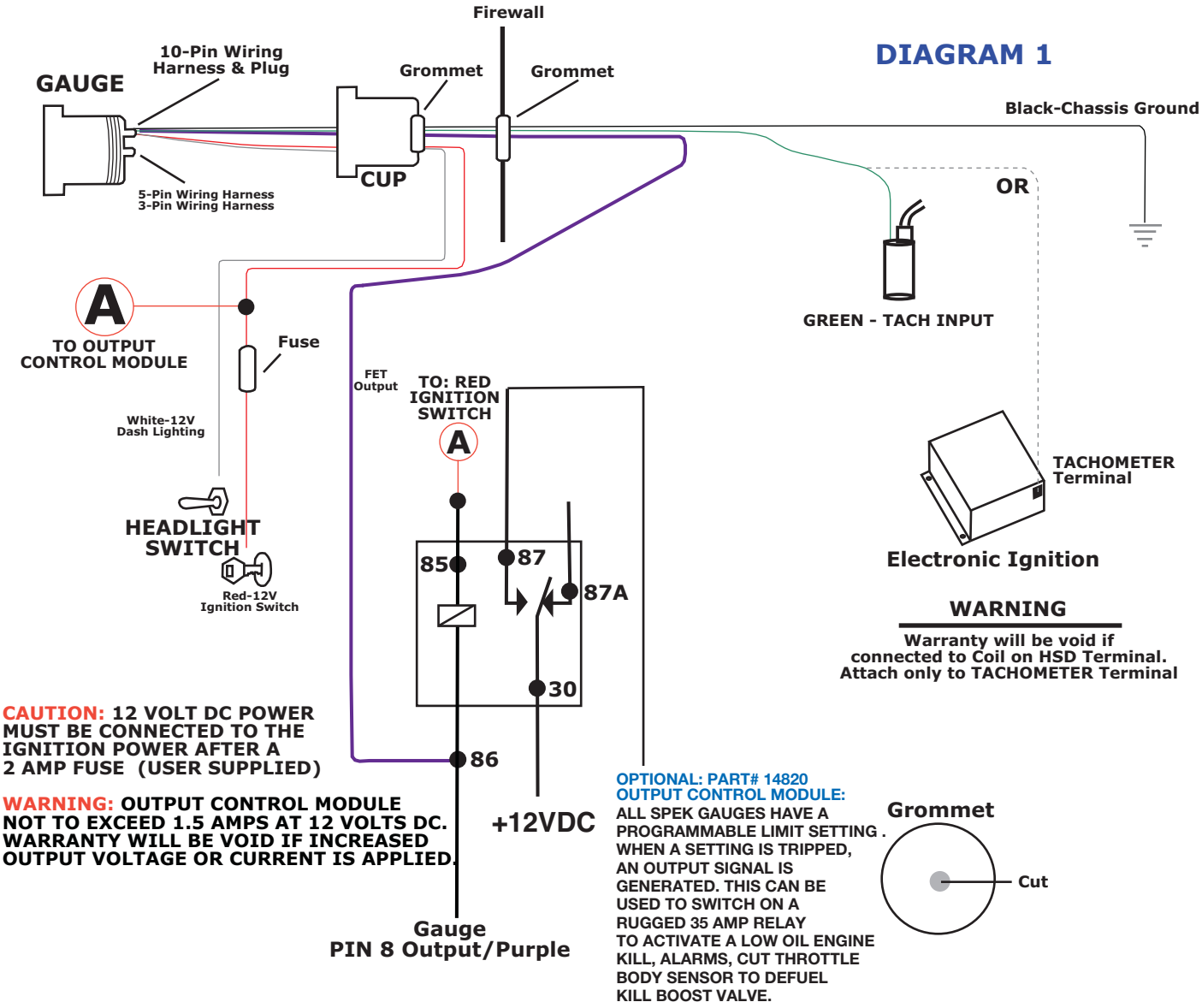
10 CONNECT THE **GREEN** SENSING WIRE TO THE PRIMARY TERMINAL ON THE IGNITION COIL (STANDARD-TYPE COIL) OR TO THE AUXILIARY TERMINAL MEANT FOR THE TACH WIRE (AFTER MARKET, HIGH PERFORMANCE COIL). DO NOT CONNECT TO COIL ON MSD IGNITION. ATTACH ONLY TO TACH TERMINAL.

11 PLUG THE WIRING HARNESSES INTO THE GAUGE AND MOUNT IN POD OR DASH.

12 IF DASH INSTALLATION, ATTACH MOUNTING CUP OVER THE BACK OF THE GAUGE AND HAND TIGHTEN. DO NOT OVER TIGHTEN. MOUNT CUP BEFORE INSTALLING GROMMET. FAILURE TO DO SO WILL TWIST WIRES CAUSING A SHORT CIRCUIT.

13 POWER UP THE GAUGE AND INSPECT ALL CONNECTIONS. IF GAUGE IS OPERATING NORMALLY, PROCEED TO “PROGRAMMING MANUAL”.

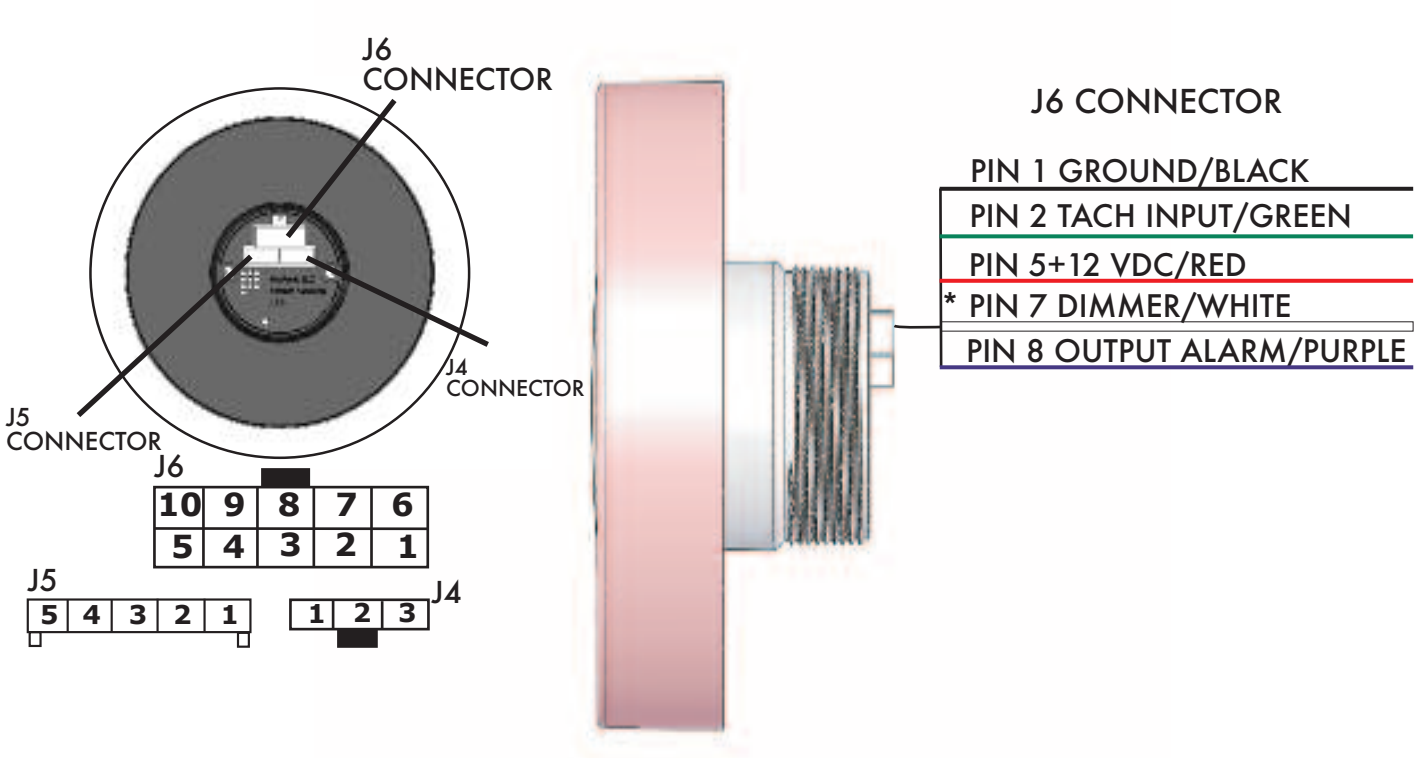
Wiring Installation Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge



CAUTION: DO NOT INSTALL THE WHITE/DIMMER WIRE , OR PURPLE OUTPUT WIRE IF USING PIT ROAD APPLICATION

PATENTED WIDE ANGLE DIAL FOR SUPERIOR VISIBILITY
U.S PATENT #7,278,749

WIRING FOR 5” SPEK™ TACHOMETER CONTROLLER



CAUTION: DO NOT INSTALL WHITE/DIMMER WIRE OR PURPLE OUTPUT WIRE IF USING PIT ROAD APPLICATION

Caution:

1. Never disconnect the main battery while gauge panel is energized. It could cause a voltage dump and damage the gauge.

2. It is highly recommended that a MSD Noise Capacitor, P/N 8830, be installed to filter against voltage spikes. The filter prevents the electronics from receiv ing a voltage dump up to 60 volts.

Wiring Installation Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

THERE ARE THREE SECTIONS TO THIS MANUAL: WIRING INSTRUCTIONS, PROGRAMMING INSTRUCTIONS AND FLOW CHART PROGRAMMING INSTRUCTIONS. PLEASE READ EACH SECTION CAREFULLY BEFORE ATTEMPTING TO INSTALL OR OPERATE THIS PRODUCT.

WARNING:

• ALL INSTRUCTIONS IN THIS MANUAL MUST BE FOLLOWED TO INSURE SAFE INSTALLATION AND OPERATION OF THIS PRODUCT.
• NEVER DISASSEMBLE MODIFY OR TAMPER WITH THIS PRODUCT. THIS COULD CAUSE DAMAGE AND MAKE THEM UNSAFE TO USE. TAMPERING WITH THE PRODUCT WILL VOID THE LIMITED WARRANTY.
• INSTALLATION MUST BE PERFORMED BY AN EXPERIENCED AUTOMOTIVE TECHNICIAN.
• INSTALLER MUST USE SAFETY GLASSES.
• DISCONNECT THE NEGATIVE BATTERY TERMINAL BEFORE BEGINNING INSTALLATION. PROPARTS LLC IS NOT RESPONSIBLE FOR DAMAGE TO ENGINE, VEHICLE OR UNIT CAUSED BY ELECTRICAL SHORTS.
• DURING INSTALLATION, DO NOT INTERFERE WITH ANY EXISTING CONNECTIONS OR WIRES.
• ALL ELECTRICAL CONNECTIONS USE SOLDER LESS CONNECTORS AND INSULATE ALL CONNECTIONS WITH ELECTRICAL TAPE.
• AVOID WIRING NEAR ENGINE, EXHAUST SYSTEM, TURBINE OR ANY AREA THAT MAY RESULT IN DAMAGE.
• DISCONTINUE USE OF THE PRODUCT IF SMOKE OR A STRANGE ODOR IN PRESENT.

CAUTION

• PROPARTS LLC IS NOT RESPONSIBLE FOR INCORRECT INSTALLATION OR PROGRAMMING OF SPEK™ GAUGES OR CONTROLLERS.
• SPEK™ GAUGES AND CONTROLLERS ARE DESIGNED FOR 12V DC ELECTRICAL SYSTEMS WITH A NEGATIVE GROUND.
• DO NOT ADJUST THE GAUGES OR GAUGE PROGRAM WHILE DRIVING
• OBEY ALL RULES AND REGULATIONS OF HIGHWAY AND STREET DRIVING.
• INSTALL SENSOR AND WIRE AWAY FROM HIGH HEAT AND / OR VIBRATION AREAS.
• USE CARE WHEN CONNECTING OR DISCONNECTING THE WIRING HARNESS. PULL OUT EACH CONNECTOR WHILE PRESSING THE LOCK OF THE CONNECTOR FIRMLY.
• IF THE BATTERY TERMINAL IS DISCONNECTED, THE AUDIO, CLOCK AND OTHER MEMORY DATA MAY BE LOST. THE NECESSARY DATA WILL HAVE TO BE RESET AFTER INSTALLATION.

Wiring Installation Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

ProParts, LLC Limited Warranty:

ProParts, LLC warrants all merchandise against defects in factory workmanship and material for 12 months from date of original purchase. Proof of purchase is required: otherwise the warranty period shall default to 12 months from date of manufacture as indicated by the date code on the product. This warranty applies to the first retail purchaser and covers only those products exposed to normal use or service. This warranty excludes items used for a purpose for which it is not designed, or which has been altered in any way that would be detrimental to the performance or life of the product or misapplication, misuse, negligence or accident. When it is determined by ProParts, LLC after examination that a product is defective, ProParts, LLC will repair, replace or issues credit for any defective product through the original selling dealer or on a direct bases. In no event shall this warranty exceed the original price of the product. ProParts, LLC assumes no responsibility for diagnosis, removal and/ or installation labor, loss of vehicles use, loss of time, inconvenience or any other consequential expense. ProParts, LLC disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by ProParts LLC. Warranty is valid only for original purchaser and is not transferable. This Warranty gives you specific legal rights, and may also have other rights which may vary from state to state. Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to ProParts, and to use the original shipping container or equivalent.

Important Disclaimer:
This product may not be lawful for use on public roadway. No warranty is made or implied regarding the legality of offered products when they are installed in a motor vehicle in any particular state, province or municipality. It is the user’s responsibility to determine the legality of any automotive alterations made in connection to products made by, obtained from or distributed by ProParts, LLC.

The purchaser or user of any products, sold or manufactured by ProParts, LLC assumes all risk related to and/ or arising from the ownership or use of said product and agrees to indemnify and hold ProParts, LLC harmless from any and all claims brought by any person or entity against ProParts, LLC related to and/or arising from ownership and/or use of said products.

Return Goods Authorization:
Warranty returns will only be accepted by ProParts, LLC when accompanied by a valid Return Goods Authorization (RGA) number. Products must be received by ProParts, LLC within 30 days of the date the RGA is issued. Before a RGA can be issued, the installer or end user must contact ProParts, LLC Technical Department to discuss the problem. Any out of warranty ProParts, LLC products can be returned for repair. There is a minimum charge of $50.00 dollars for inspection and diagnosis. ProParts, LLC will provide an estimate of repairs and receive written authorization before repairs are made to the product.

Disclaimer:
Performance products are designed to increase engine power and create stress not engineered by the Original Equipment Manufacture (OEM). This could result in damage to the engine and related systems. Purchaser uses this product at his own risk. ProParts, LLC, its agents, employees, and owners shall not be under any liability whether or not resulting from any negligence or content of information supplied for any damage or loss resulting from this information.

Non-Warranty Repair/Retest
Products returned due to damage or misuse and Product retested with no problem found are subject to repair/retest charges. A purchase order or credit card number and authorization must be provided in order to obtain an RMA (Return Merchandise Authorization) number prior to returning product.

Programming Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge - Software Revision 24

The SPEK™ RPM Tachometer can be programmed to monitor, display and control precision engines to meet the customer’s expectations and surpass industry standards. The following programming instructions are divided in to two sections. please select only that section that meets your require-ments.

SPEK™ MONITOR AND CONTROL PERFORMANCE GAUGE TACHOMETER

Refer to the “Flow Chart Programming Instructions” while reviewing this guide.

Gauge is field programmable by the operator while installed in the vehicle. This programming is accessed by pressing the control buttons located on the face or the meter dial, **ONE AT A TIME**. The “Down” and “Up” buttons move the pointer to a desired setting or controls the faceplate illumination.

5” Spek Pro™ Professional Racing Tachometer with the PIT ROAD APPLCATION is the DEFAULT program setting. In order to program normal Spek Pro™ Professional Racing Tachometer, the DEFAULT must be changed. Follow the directions in the FLOW CHART PROGRAMMING INSTRUCTIONS.

Programming Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge - Software Revision 24

MAIN MENU	SUBMENU
PRESS “MODE” BUTTON TO PROGRAM LEVEL. THEN PRESS BOTH CENTER AND LEFT OR CENTER AND RIGHT BUTTONS FOR FIVE SECONDS TO ENTER SUBMENU	
NORMAL/PEAK/PEAK RESET	OPTION: SELECT PPR (PULSES PER REVOLUTION)
PEAK PLAYBACK	OPTION:RESTORE FACTORY DEFAULT
HIGH RED-LINE SETTING	OPTION: PROGRAM HIGH RED-LINE SHIFT LIGHTS
LOW YELLOW-LINE SETTING	OPTION:PROGRAM RED LINE SHIFT-LIGHTS
COLOR SCHEME	OPTION A:DEMO MODE OR OPTION B:POINTER BRIGHTNESS
SHIFT LIGHT BRIGHTNESS	OPTION: SET DIAL BACKGROUND BRIGHTNESS OPTION: ADJUST POINTER TO ZERO (0)

PROGRAMMING STARTS IN

MAIN MENU

PRESS PROGRAM BUTTON ONE (1) AT A TIME IN THE MAIN MENU MODE.

1 NORMAL/PEAK/PEAK RESET:

On power up, the meter usually starts in **NORMAL** operating mode. The Tachometer will read engine’s RPM. Press the center “mode” button to advance to **2 PEAK PLAYBACK**

2 PEAK PLAYBACK:

Reads the highest value displayed on the meter since the last time the “**Peak**” value was displayed. PEAK WILL TIME-OUT AFTER 4 SECONDS. IF YOU NEED ADDITIONAL TIME, PRESS THE CENTER BUTTON TO RE-ENTER PEAK. PRESS THE LEFT BUTTON TO ERASE PEAK. Press the center “Mode” button to advance to **3 HIGH RACING RED-LINE SETTING**

3 HIGH RACING RED-LINE SETTING:

Sets the point at which “**HIGH**” warning RED-LINE is reached for that specific gauge. The “Down and “Up” buttons will move the dial pointer to select “RED-LINE”. During normal operation the gauge

constantly monitors the sensor value and compares it to the “**HIGH**” RED-LINE. If the threshold is exceeded, The SHIFT-LIGHT and the red “**HI**” indicator is turned on and an output signal generated. Press the center “Mode” button to save the setting and advance to **4 LOW RACING YELLOW-LINE SETTING**

4 LOW RACING YELLOW-LINE SETTING:

There is no programming necessary at this level . Press the center “Mode” button save the setting and advance to **5 COLOR SCHEME**

5 COLOR SCHEME:

Set Faceplate Color Scheme: Operator can select the color of the gauge dial illumination. Each time you press the “Down” control button you scroll through dial color selection until the dial light goes off. Then press the “Up” button to reverse the scroll. Select your dial color illumination by pressing the center “Mode” button to save the setting and advance to **6 SHIFT LIGHT BRIGHTNESS**

6 SHIFT LIGHT BRIGHTNESS:

In this mode, the entire band of LEDS will flash yellow. the “Down” and “UP” buttons will control the Shift Light brightness. Press the center “Mode” button to return to **1 NORMAL/ DIAL BRIGHTNESS**

SUBMENU

SUBMENU IS ACCESSED THROUGH THE MAIN MENU. FIRST GO TO THE APPROPRIATE LEVEL OF THE-MAIN MENU AND THEN FOLLOW THE INSTRUCTIONS IN THE PROGRAMMING FLOW DIAGRAM TO ENTER THE SUBMENU. PRESS THE “MODE” AND “UP” OR “MODE” AND “DOWN” BUTTONS SIMULTANEOUSLY FOR 5 SECONDS TO ENTER THE SUBMENU AND ONE BUTTON AT A TIME WHILE IN THAT SUBMENU.

OPTION: Deactivate Pit Road Lights and program HIGH RED-LINE SHIFT LIGHTS. Follow the directions on the FLOW CHART PROGRAMMING INSTRUCTIONS.

OPTION: DEACTIVATE PIT ROAD LIGHTS AND PROGRAM THE YELLOW AND RED SHIFT LIGHTS. Follow the directions on the FLOW CHART PROGRAMMING INSTRUCTIONS.

OPTION:SELECT PPR: (Pulses Per Revolution) Select the PPR value by pressing “Down or “Up” button to move dial pointer to corresponding RPM. For additional information see the Tachometer Sense Line Attachment and Meter Scaling section on page 4.

OPTION: RESTORE FACTORY DEFAULT: Activation of the Default will erase all field calibration setup settings that are programmed. Factory calibrations will not be affected.

OPTION: DEMO MODE: Displays the features of the meter. The pointer goes up and down the scale, the dial colors change and the **HI**, **LOW** and **PEAK** warning indicators light. The Demo mode does not time out. If the gauge is turned off in the Demo mode, it will start up in the Demo Mode. Press the “Mode” button to return the gauge to NORMAL operation.

Programming Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

OPTION: POINTER BRIGHTNESS MODE: The “Down” and “Up” buttons adjust the dial pointer brightness to blend in with original manufacturer’s gauges and the owner’s requirements.

OPTION: DIAL BACKGROUND BRIGHTNESS MODE: Press and hold the CENTER and LEFT button for five seconds. Pointer will stop at the current brightness level. Press the LEFT or RIGHT button to adjust brightness. Press the CENTER button to save the setting and return to **NORMAL OPERATION.**

OPTION: ADJUST DIAL POINTER TO ZERO (0): NOTE: TO PREVENT ACCIDENTIAL CHANGES, + 12 VDC IS REQUIRED ON THE DIMMER INPUT BEFORE PROGRAMMING THIS OPTION. Press and hold the center and left buttons for 5 seconds. The pointer will stop at the current zero (0) setting. Use the right or left button to move the pointer to the middle of the “0” tick mark.

PROGRAMMING INFORMATION:

• TO RESET THE PROGRAM TO NORMAL OPERATION FROM ANY MODE PRESS THE “UP” AND “DOWN” BUTTONS SIMULTANEOUSLY. THIS SOFT RESET CANCELS THE INFORMATION YOU PROGRAMMED IN THAT MODE ONLY AND RETURN YOU TO NORMAL OPERATION.

• THE FACEPLATE WILL “FLASH” WHEN BUTTONS ARE DEPRESSED TO ACKNOWLEDGE COMMANDS.

• PROGRAMMING ERRORS WILL BE SIGNALLED BY FLASHING THE FACEPLATE LIGHTING “**PURPLE**”, “**BLUE**”, “**GREEN**” THEN “**ORANGE**”.

• IF PROGRAMMING IS INACTIVE FOR 120 SECONDS THE MODE WILL TIME OUT AND THE GAUGE WILL RETURN TO NORMAL OPERATION, EXCEPT FOR THE DEMO MODE. THE DEMO MODE WILL NOT TIME OUT UNTIL THE CENTER MODE BUTTON IS DEPRESSED. IF THE GAUGE IS TURNED OFF IN THE DEMO MODE IT WILL START UP IN THE DEMO MODE.

• TO RESTORE FACTORY DEFAULTS, PRESS THE “MODE” BUTTON ONCE TO ENTER THE **PEAK PLAYBACK**. THEN PRESS AND HOLD THE “MODE” AND “UP” BUTTONS FOR FIVE SECONDS. YOUR PROGRAMMING WILL BE ERASED BUT FACTORY PROGRAM WILL NOT BE AFFECTED.

TACHOMETER SENSE LINE ATTACHMENTS AND METER SCALING

THE WHITE/DIMMER CIRCUIT MUST BE INSTALLED AND SUPPLIED WITH 3 TO 12VDC BEFORE PPR CAN BE PROGRAMMED.

GASOLINE ENGINES

Attach the sensing line to the primary side of a spark coil, and then set the calibration PPR value for your spark configuration, using directions for the CALIBRATION option. The default setting is 4000 RPM. This is an eight cylinder engine with 4 PPR

Programming Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

Once upon a time, there was just one configuration: a spark coil, a distributor, and then wires from the distributor cap to the individual sparkplugs. If your car is like this, use the table below.

# PLUG	PULSES PER REVOLUTION (PPR)	METER SETTING
2	1	1000
4	2	2000
6	3	3000
8	4	4000
10	5	5000
12	6	6000

FOR "CLASSIC" ONE-IGNITION-COIL ENGINES

# PLUG	PULSES PER REVOLUTION (PPR)	METER SETTING
Any	1/2	500

# PLUG	PULSES PER REVOLUTION (PPR)	METER SETTING
Any	1	1000

IF YOU HAVE ONE COIL PER PLUG CONNECT TO ANY SPARK COIL PRIMARY
IF YOU HAVE ONE COIL PER TWO PLUGS CONNECT TO ANY SPARK COIL PRIMARY

DIESEL ENGINES

Modern diesel engines usually have camshaft sensors or electronic injector pumps. If there is one injector per cylinder, the signal from the pump drive will be 1/2 PPR. Similarly, if there is a camshaft sensor signal the signal will be ½ PPR. Set the calibration at a reading of 500.

If there is no electronic cam sensing or fuel injection in your diesel engine, the procedure is more complex. A signal can be obtained from the alternator by attaching a wire directly to the winding of the stator before it goes to one of the rectifier diodes. This signal will be proportional to engine speed, but the proportionality must be learned. See the TACH CALIBRATION procedure for details, using meter setting 0 to force learning.

SPECIAL SCALING FUNCTIONS

Several Proparts meters require a setup procedure to define the kind of input they are looking at. These are:
Tachometer – the user needs to tell it the number of “pulses per revolution” (PPR) coming into its

Programming Instructions for : RPM Tachometer
5” Spek Pro Professional Racing Gauge

TO SET UP SCALING

Turn the ignition off and on again to assure that the meter is in a reset state.
If it starts up with the face changing color and the pointer going up and down continuously, the meter is in demo mode. Press the center button before continuing.

TACH CALIBRATION

Connect the dimmer wire (WHITE) to the dimmer switch or 12VDC this allows the gauge to enter the PPR mode programming menu.First read the section on TACHOMETER SENSE LINE ATTACHMENTS AND METER SCALING in order to find out how you need to set the meter. When you have figured out what PPR setting you are to use, press the Mode and Up buttons simultaneously for five (5) seconds.

The dial will flash blue rapidly. This places the meter in the scale-setting mode. Use the Down and Up buttons to move the meter pointer to the appropriate RPM reading according to the table. If you have selected an “RPM” reading of 1000 or up, just press the center button to leave the scale setting mode and resume normal operation with the selected scaling.

Once the meter is hooked up, the procedures are relatively painless.
If you were forced to use the alternator as a signal source, you selected an RPM of “0.” Now you must tell the motor when it is operating at 2000 RPM. Using a strobe light, slowly increase the engine speed till you hit 2000 RPM. The meter will read some non-zero value that increases and decreases with engine speed, but it will not be accurate. While the engine is running steadily at 2000 RPM, press the mode button. Your meter is calibrated.

You can verify the setting by turning the ignition switch off and on again, starting the car, and checking whether the idle speed on your tachometer is the same as the speed you measure with a strobe light.

PROGRAMMING IS COMPLETE FOR NORMAL TACHOMETER!

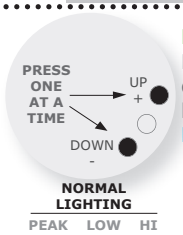
Flow Chart Programming Instructions for : Spek Pro 5" Professional Racing Tachometer

Go to HIGH RED-LINE SETTING to Deactivate Pit Road lights

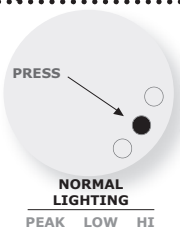
PROGRAM MAIN MENU

(Press one button at a time)

MAIN MENU



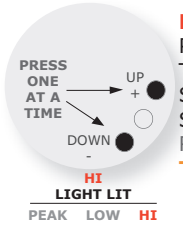
NORMAL/DIAL BRIGHTNESS
Press down and up buttons to adjust dial brightness. Press the center button to save and advance to **PEAK PLAYBACK**.



NORMAL/DIAL BRIGHTNESS
ON POWER UP THE GAUGE READS THE SENSOR RPM. Press the center button to advance to **PEAK PLAYBACK.** OR
OPTION:SELECT PPR (Pulses Per Revolution)

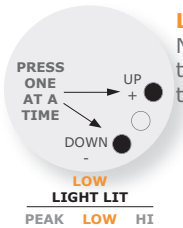
PEAK PLAYBACK
Pointer will now display peak playback. The peak value is constantly monitored and the gauge updated every 15 seconds. Press the center button to advance to
HIGH RED-LINE SETTING.

PEAK PLAYBACK
Press the center button to advance to **HIGH RED-LINE SETTING.** OR
OPTION:RESTORE FACTORY DEFAULT



HIGH RED-LINE SETTING
PRESS THE RIGHT OR LEFT BUTTON TO PROGRAM THE HIGH RED-LINE SETTING. Press the Center Button to SAVE
Release and advance to **LOW THRESHOLD SETTING**.

HIGH RED-LINE SETTING
Press the center button to advance to **LOW THRESHOLD SETTING.**
OPTION: DEACTIVATE PIT ROAD LIGHTS AND THEN PROGRAM HIGH RED-LINE SHIFT LIGHTS

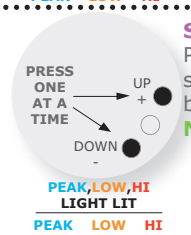


LOW THRESHOLD SETTING
No programming at this level. Press the center button to save and advance to **COLOR SCHEME**.

LOW THRESHOLD SETTTING
Press the center button to advance to **COLOR SCHEME.**
OPTION: DEACTIVATE PIT ROAD LIGHTS AND THEN PROGRAM LOW YELLOW AND RED SHIFT LIGHTS

COLOR SCHEME
Press down and up buttons to select a color scheme. (OFF-VIOLET-BLUE-GREEN-YELLOW-ORANGE-RED-WHITE). Press the center button to save and advance to **SHIFT LIGHT BRIGHTNESS**

COLOR SCHEME
Press the center button to advance to **NORMAL/DIAL BRIGHTNESS.** OR
OPTION A:DEMO MODE
OPTION B:POINTER BRIGHTNESS



SHIFT LIGHT BRIGHTNESS
Press down and up buttons to adjust shift light brightness. Press the center button to save and return to **NORMAL/DIAL BRIGHTNESS**.

SHIFT LIGHT BRIGHTNESS
Press the center button to save and return to **NORMAL/DIAL BRIGHTNESS**.

- **CAUTION:** FOLLOW WIRING INSTRUCTION CAREFULLY. INCORRECT RELAY WIRING WILL LEAD TO PREMATURE NITROUS OXIDE ACTIVATION.
- **WARNING:** INSTALLATION MUST BE PERFORMED BY AN EXPERIENCED TECHNITION. SYSTEM MUST BE INSTALLED ACCORDING TO MANUFACTURER RECOMMENDATIONS.
- DISCONNECT THE NEGATIVE BATTERY TERMINAL BEFORE INSTALLATION.
- USE CARE WHEN CONNECTING OR DISCONNECTING THE WIRING HARNESS. PULL OUT EACH CONNECTOR WHILE PRESSING THE LOCK OF THE CONNECTOR FIRMLY.
- NEVER DISASSEMBLE, MODIFY OR TAMPER WITH THE UNIT.
- PROPARTS,LLC IS NOT RESPONSIBLE FOR INCORRECT TURBOCHARGER SIZING, EXCESSIVE EXHAUST PRESSURE, OR INADEQUATE WASTEGATE OPERATION.
- THIS UNIT IS DESIGNED ONLY FOR DC 12V TYPE VEHICLES WITH NEGATIVE GROUND.
- CHECK THE AIR/FUEL RATIO ONCE THE BOOST PRESSURE IS SET TO PROTECT AGAINST LEAN FUEL SUPPLY THAT COULD CAUSE ENGINE DAMAGE.
- DO NOT USE BOOST CONTROL IN CONJUNCTION WITH ANY TYPE OF "DRAW THROUGH" FUEL SYSTEM.
- DO NOT ADJUST THE UNIT WHILE DRIVING.
- DO NOT USE THIS UNIT UNDER EXTREMELY HOT OR COLD CONDITIONS.
- DISCONTINUE USE OF THIS PRODUCT IF THE GAUGE DOES NOT OPERATE OR A STRANGE ODOR OR SMOKE IS PRESENT.

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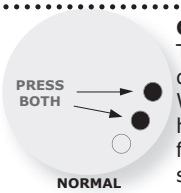
Flow Chart Programming Instructions for : Spek Pro 5" Professional Racing Tachometer

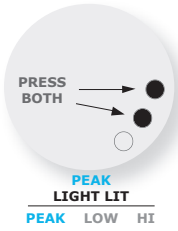
SUBMENU
(ENTER FROM MAIN MENU)

PROGRAM SUBMENU

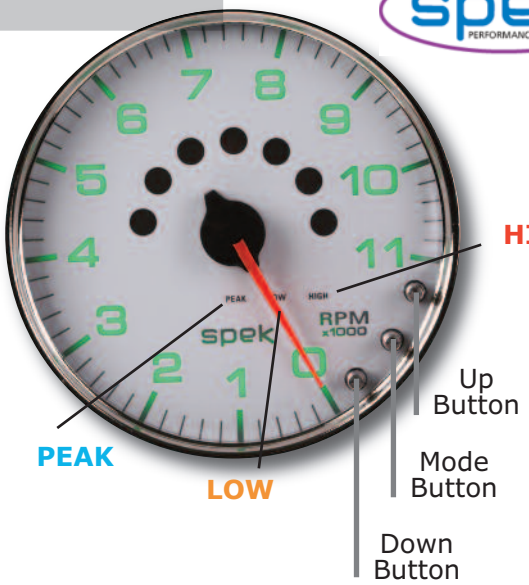
(Press two(2) buttons simultaneously for 5 seconds)



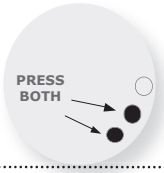
OPTION: SELECT PPR (Pulses Per Revolution)
The WHITE/DIMMER circuit must be installed and produce 3 to 12VDC before PPR can be programmed. While in **NORMAL DIAL BRIGHTNESS**, press and hold center and right buttons for 5 seconds. Dial will flash blue rapidly. Press down and up buttons to select PPR value by moving dial pointer to corresponding RPM. Press the center button to save and return to **NORMAL/DIAL BRIGHTNESS**.
(See PPR Chart PAGE 4)



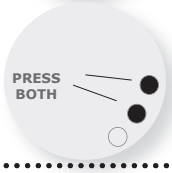
OPTION:RESTORE FACTORY DEFAULT
While in **PEAK PLAYBACK**, press and hold the center and right buttons for five seconds. Dial pointer will step five times and return to zero. This will erase all user-programmed calibrations and settings, and return to **NORMAL/DIAL BRIGHTNESS**.



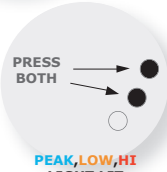
START HERE - DEACTIVATE PIT ROAD LIGHTS



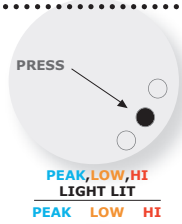
.Press and Hold the CENTER and LEFT buttons for 5 seconds. The pointer will step forward and then STOP. Use the UP button to move the pointer ABOVE 11,000 RPM. Press the center button to disarm PIT ROAD LIGHTS for RED-LINE SHIFT LIGHTS only. With gauge in normal mode, Program the HIGH RED-LINE SETTING as shown on previous page under MAIN MENU.



Press and Hold CENTER and RIGHT buttons for 5 seconds. The pointer will step forward and then drop to approximately 2,000 RPM. Use the DOWN button to move the pointer to 300 RPM. Midway between the first and second TICK before zero (0). Press the CENTER button to deactivate Pit Road Lights for the YELLOW and RED-LINE SHIFT LIGHTS. With gauge in Normal mode, Use a MSD Digital Tester (part# 8998) to move the pointer to the required RPM start of RED-LINE SHIFT LIGHTS. Press the RIGHT (UP) button to set RPM. Press the Center Button to Save. To change SHIFT LIGHT SETTING just reprogram with MSD.



OPTION A:DEMO MODE
WHILE IN **COLOR SCHEME**, press and hold the center and right buttons for five seconds. Dial will scroll through the seven color schemes. The **HI**,**LOW** and **PEAK** will light, and the dial pointer will move.



OPTION A:DEMO MODE
Press the center button to return to **NORMAL/DIAL BRIGHTNESS**.

OPTION B:POINTER BRIGHTNESS
While in **COLOR SCHEME**, press and hold the center and left buttons for five seconds to enter pointer brightness mode. The dial pointer will start to flash and point to the upper right.

OPTION B:POINTER BRIGHTNESS
Press down and up buttons to adjust the pointer brightness. Press the center button to save and return to **NORMAL/DIAL BRIGHTNESS**.

ProParts, LLC • PO Box 360 • Annapolis Junction MD • 20701
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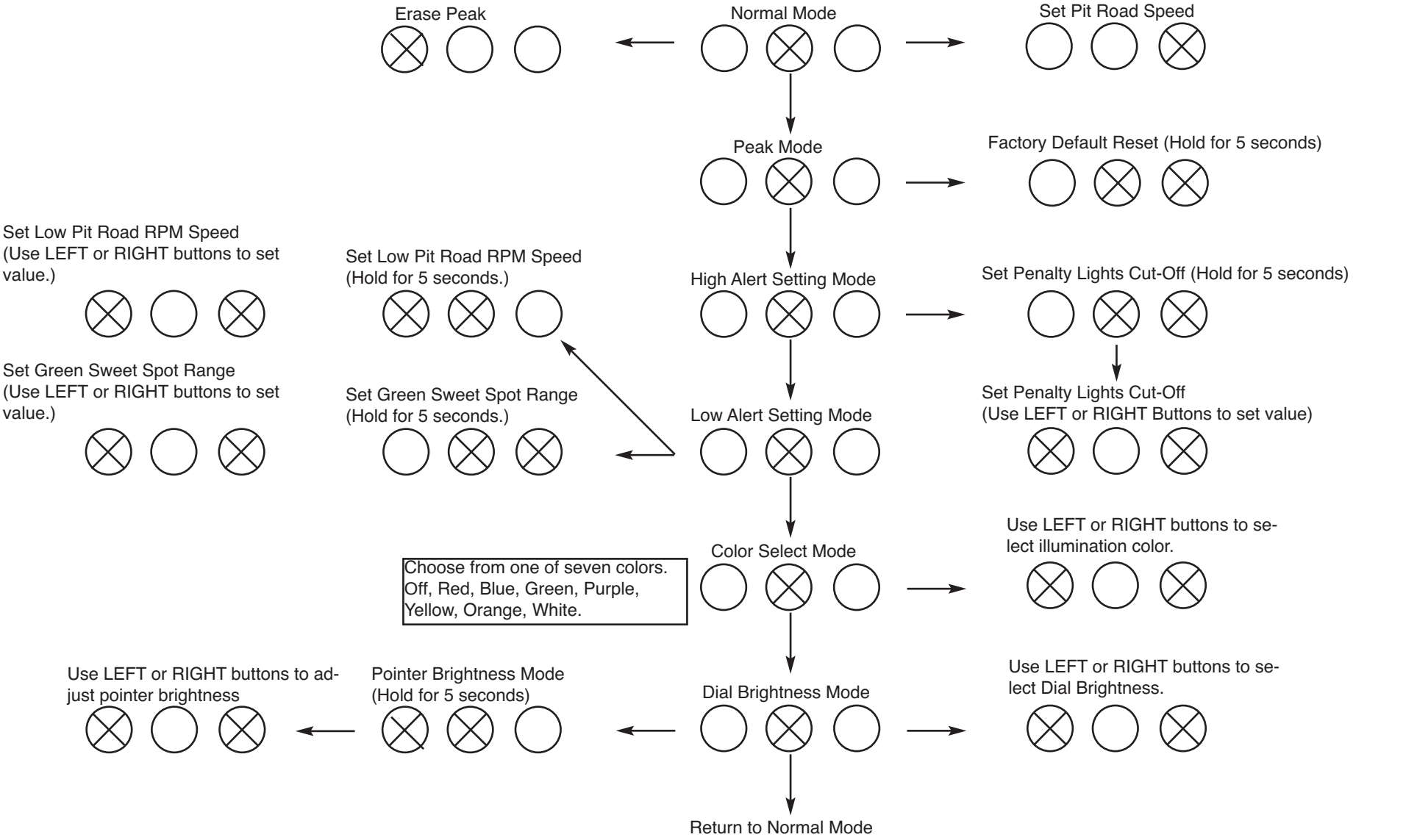
Tachometer
Programming Quick Reference Guide

See Programming notes only for Revision 24 on the next page page



Save changes and advance to next menu

Depressed Buttton

Left Center Right

When pressed together exit menu without changes

12.20.10

Re: Technical Notice
Spek-Pro™ Tachometer, Part # 239328
Software Revision # 24
Program Shift Lights without Pit Road Program

Dear Customer,

Spek-Pro™ Tachometer, Revision # 24, permits the option of standard programming or capture the RPM setting directly from the MSD Digital Ignition Tester, Part # 8998. This is limited to Tachometers with the Flat Top Len which were introduced in January, 2009.

Deactivate Pit Road Lights and Program Red Shift Lights

- Deactivate Pit Road Program in the SUBMENU as shown on the Flow Chart Program Instructions.
- Program Beginning of RED Shift Lights in the HIGH RED-LINE SETTING, MAIN MENU.
- Press the CENTER Button to save the setting
- Programming complete

Deactivate Pit Road Lights and Program Yellow and Red Shift Lights

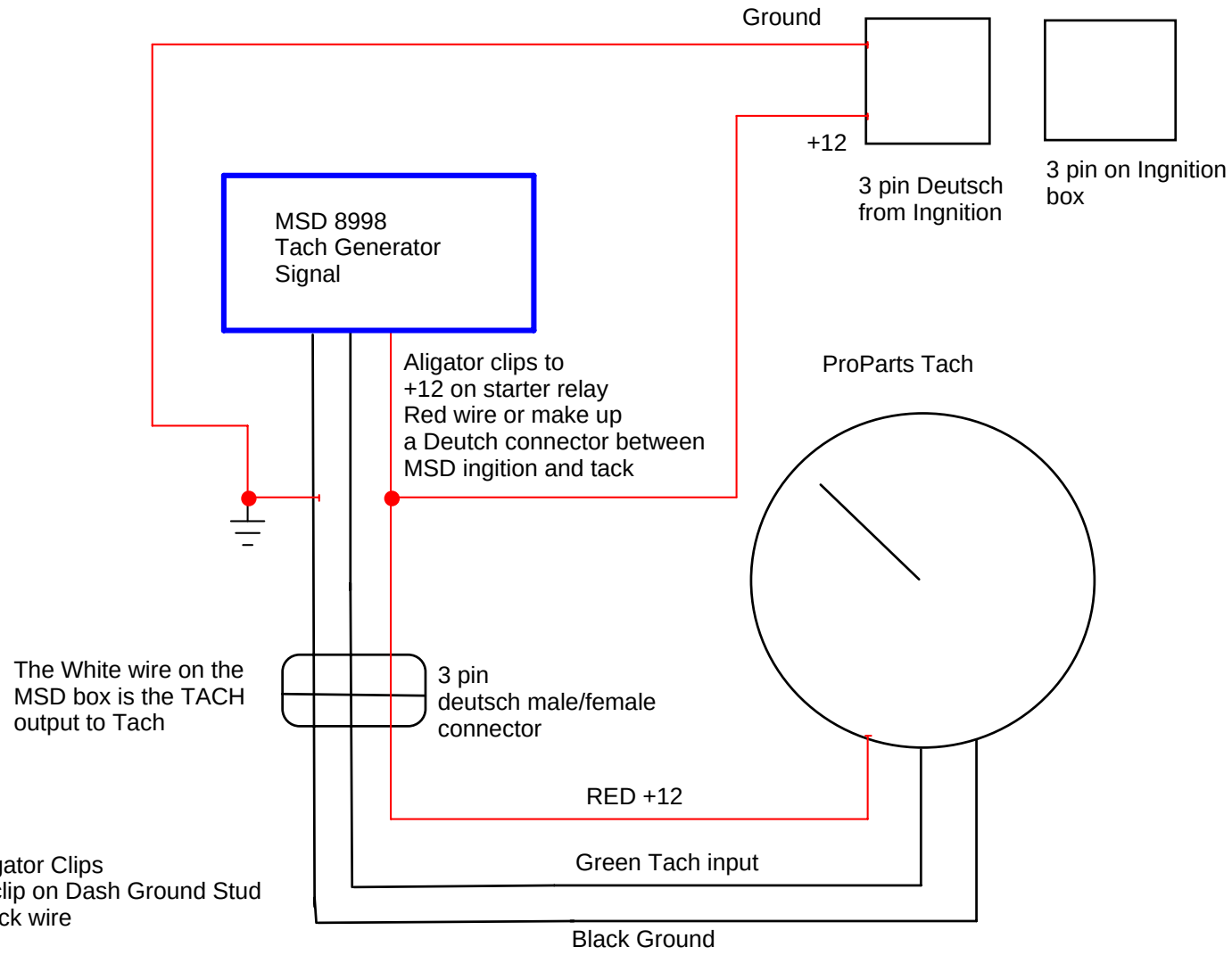
- Wire the Tachometer and MSD Tester as shown in the attached diagram
- Deactivate the Green Pit Road Light band from the LOW THRESHOLD SETTING SUBMENU
- With the gauge in the NORMAL operating mode, Use the MSD Tester to move the pointer to set the beginning of the Red Shift Light Band.
- Press the RIGHT button to save the setting.
- Programming is complete.

NOTE:
- Programming for Revision 24 software will support previous revisions with flat top lens.
- Use of the MSD Tester after gauge is programmed will have no affect on the gauge settings.
- All Tachometers shipped after 11.22.10 includes Revision# 24.
- Existing Tachometers with Flat Top Lens can be upgraded to Revision #24 for $25.00. In addition, Existing Return Goods Authorization (RGA) policy applies.

Sincerely,

Chip Kilgallen
Proparts, LLC
email: chipproparts@aol.com

Joe Chapman
Proparts, LLC
email: propods@aol.com



Unplug the 3 pin deutsch connector from the MSD ignigtion box to the Tack. Replug the MSD 8998 Digital box to test or set the PIT ROAD setting. Use 3 foot wire with RED (+12) and Black (-) Ground Aligator clips to get power from the starter hot side relay and the dash ground stud. Wire a 3 pin Deutsch connector to plug into the Tach without removing the Tach from the dash mount. After testing is complete remove the test box and reinstall tach to ignition box. DO NOT RUN MSD 8998 through the Ingition circut to set pit road. Always connect the MSD 8998 directly to the SPEK TACH. We recomend using a silicone McMaster Carr part number 74935A45 Non-Corrosive adhesive between the wire and the connector to hold the wires steady as a strain relief. (www.mcmastercarr.com) Phone: 609 689 3000

Always run the MSD box 8998 Directly to the TACK never run it through the ingnition box or your RPM reading could be off by 1,000 RPM's.

It is highly recommended that you install the ProParts LLC Electronic Snubber (Part # 13149) It will filter against Voltage spikes when switching from one MSD ignition box to another. The filter could prolong the electronics from receiving Voltage surges in excess of 60 Volts.

NEVER DISCONECT MAIN BATTERY WHILE GAUGE PANEL IS ON
IT COULD SEND A 60 VOLT LOAD DUMP AND DAMAGE GAUGE.

ProParts, LLC
10840 Guilford Road, Suite 404
Annapolis Junction, MD 20701
Phone: 301.490.7700
Fax: 301.490. 3700

Electric Snubber Noise Filter, Part # 13149

This is an over voltage protection circuit for automotive load dump. The noise filter will limit voltage spikes above +16 VDC and all negative voltage below (-) ground caused by inductive loads such as battery changeover switch, starter solenoids, fan motors, etc. The negative counter EMF spikes will be filtered to ground.

Install noise filter between the (-) ground terminal and the +12 VDC power on the gauge panel power supply to filter all harmful transient spikes.

APPICATION: The noise filter, or an appropriate microfarad capacitor, must be used if a battery changeover switch is included in the electrical system.

RED + 12 Volts

BLACK Ground

Electric Snubber Noise Filter
Part # 13149