# Manual - Tacho/ RPM

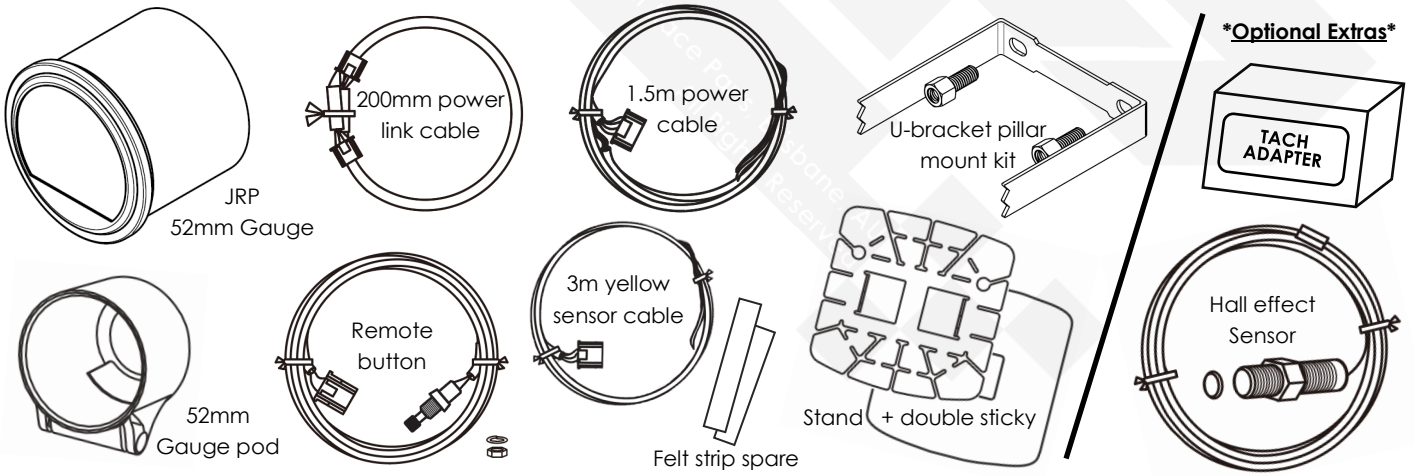
## ⚠ WARNING - Please Read Entire Manual Carefully!

- Do not change settings while driving.
- This product is designed to work with 12 Volt (v) vehicles only! This product will not operate on 6v or 24v systems.
- Take care reading through this manual, if you're not sure ask JRP via Email/ FB Messenger. For best results professional installation may be required for some components.
- Do not disassemble or modify this product. Such actions will not only void the warranty, but may also damage or destroy the product.
- Do not perform installations of this product immediately after the engine has been switched off.
  Engine components and fluids in the cooling system are extremely hot at this time and can cause serious burns if touched.

## ➥ Main Features

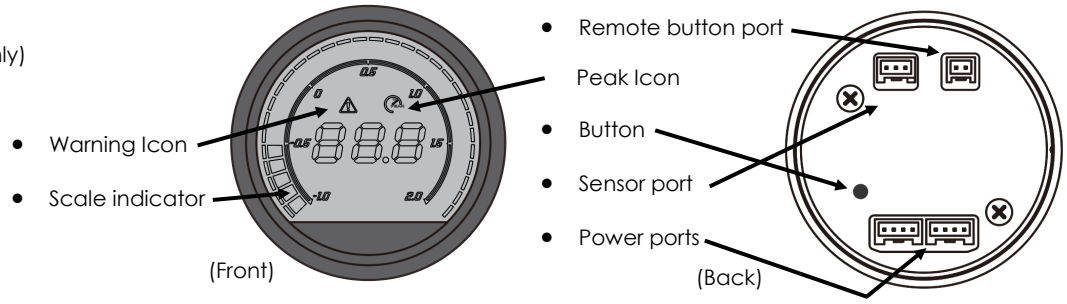
- High quality and accurate RPM data reading
- Internal EEPROM. Gauge will retain some settings after being disconnected from vehicles battery, (if wired correctly ***Page 2***).
- High contrast vertically aligned Liquid Crystal Display (LCD), no shadows when backlight is turned off.
  Different colour values can be chosen for night and day running mode.
- Warning values can be programmed to trigger a warning buzzer with 3x different chimes.
- The warning buzzer can be set 4x different sound levels: Off, low, medium, high.
- Brightness can be set to 5 different values. For both night and day running mode.
- 3x different movements can be set for indicator display type.
- Peak values obtained during operation will be stored, this can be reviewed and cleared at a later time
  (value will remain stored between engine cycles or trips).

## What's Included In Your Kit?




## Gauge Specifications

- Power-supply voltage:
  8v to 18v DC (12v vehicles only)
- Current consumption:
  +B line: MAX 120mA
  IGN line: MAX 120mA
  ILM line: MAX 2mA



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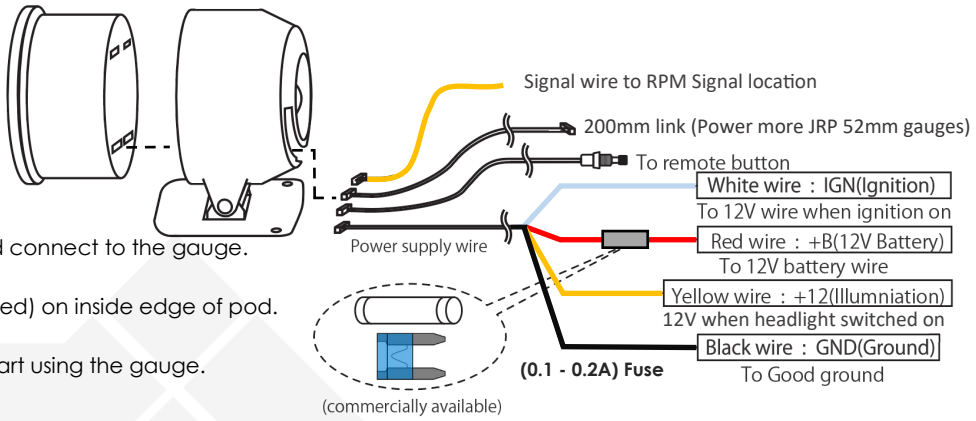
## How To Connect Your Wiring

Test your gauge in isolation before adding it to your vehicle's power system. Black wire: To the Negative ( - ) terminal of the battery Red wire & White: To the Positive ( + ) terminal of the battery, after gauge has booted, disconnect and install as below.

***WARNING!** **Settings will not be saved on gauge if Red & White are connected at the same power source permanently.***

*White wire should always be connected to a "switched on" ignition source, Red wire constant +12v.*

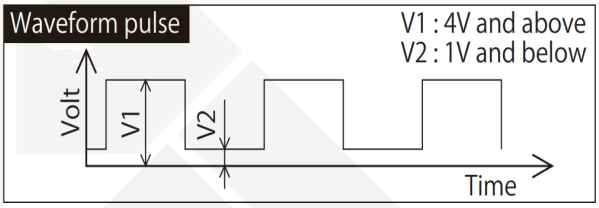
- Disconnect the negative terminal on the battery. Connect the power wires as shown. Warning! Always install a fuse where +12v is indicated.
- Connect the Yellow Signal wire to the RPM Signal input installation.
- (Optional) Install remote button wire and connect to the gauge.
- Install 1x felt sticky strip if required (included) on inside edge of pod.
- Reconnect negative battery wire and start using the gauge.




**Warning:** Resistor spark plugs are required for accurate gauge readings, as they reduce EMI/RFI that can disrupt sensors. Non-resistor spark plugs create electrical noise and interference, which may affect the operation of the gauges and their sensors.

## Tachometer Source Signal

The supported tacho source signal these gauges require is a 5v square wave input. Most vehicles ECU's will have a dedicated RPM out pin on the ECU for tacho, you will need to look up your vehicles ECU pin-out diagram to locate the pin on the ECU that will output tacho. Connect the Yellow wire from the RPM Input cable to this pin on the ECU. The rpm output signal will need to meet the requirements of the graph to the right.




**Yellow wire** on the 4-wire power cable is to tell the gauge when the headlights are on/off so you can make use of the night time brightness setting, or night time colour selection. Do not connect this wire to the RPM input signal.

- If you have any issues using the dedicated RPM pin on your vehicles ECU, you can also pickup RPM/ Tacho from sensors on the ECU such as Crank Angle Sensors, Cam Angle Sensors as well. These sensors in most cases will also produce a signal that can be used as an RPM pickup.
- In the event that you can't find a useful rpm signal, Optional accessories such as: JRP Tach adapter & Hall effects sensors can be used to assist troublesome tacho signals. Individual manuals are available on our website to address these unique issues.
- Once RPM has been connected to the gauge, check that the ratio is correct, example normal Idle is between 700 - 1000rpm (consult owners manual or service sticker attached under hood of car). If you are seeing a drastically incorrect reading on the gauge, you will need to change the engine cylinder setting to match that of your motor, and this will adjust the displayed RPM. *See: Engine Cylinder Setup Below.*
- **Engine Cylinder Setup** is required to make sure the RPM readout on the gauge is correct, you need to tell the gauge how many cylinders your motor has. To change the engine cylinder setting, (While live data is displayed) simply press and hold the remote button for 3sec until the cylinder selection setting shows on the screen. Confirmed with a "beep" ⚠ & **PEEK** symbols will flash on and off. Once you see this, a short press of the remote button will allow you to select between 1,2,3,4,5,6,7,8,9 cylinders. Simply select the number that matches your motor and you should now have the correct RPM display for your motor.

## Common Button Operation

- To make changes to your new gauge use the button on the back of the gauge or the remote button included in each kit. (Both provide the same function). The button can be used to scroll through the menu. Short press will take you through the menu options, long press for three seconds on the displayed option will take you into the setup menu for that selection. Make adjustments to that menu option using short presses, when the setting displays the required value, wait five seconds to return to live data to be display - Saved. (This will confirm and save your set up option). See page 3 &4 for detailed button operation.
- **Night & Day modes** can be set to display different settings for brightness and colours. You have to enter the night time mode to make changes to night time menus. (Night mode is triggered from a 12 volt signal input from the yellow power wire).

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## Custom Shift Colours

- Below there are two examples showing how the shift light may work and change the colour of the LCD screen leading up to your set warning RPM. You can set custom colours as well as pre-set adjustable number increments. Number increments are covered in detail in the "Shift Set" (SS) or "RPM Up" (UP) menu on page 4.

**Tacho + Shift Light Example #1** (Pictured to the right)
RPM Step Setting SS: 5/UP: 5(500rpm)
RPM Warning: 6500
0-4500 RPM = Gauge Is Blue
4501-5000 RPM = Gauge Is Green
5001-5500 RPM = Gauge Is Yellow
5501 – 6000 RPM = Gauge Is Orange
6001 – 6500 RPM = Gauge Is Red
6500 RPM = Audible Beeping From the Gauge

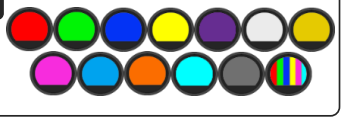
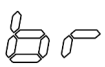
**Tacho + Shift Light Example #2**
RPM Step Setting SS: 2/UP: 5 (200rpm)
RPM Warning: 7000
0-6200 RPM = Gauge Is Blue
6201-6400 RPM = Gauge Is Green
6401-6600 RPM = Gauge Is Yellow
6601 – 6800 RPM = Gauge Is Orange
6801 – 7000 RPM = Gauge Is Red
7000 RPM = Audible Beeping From the Gauge

Examples demonstrate default colours when the "Shift Set" is activated. As a reminder, default colours can each be changed individually to what ever colour you like. Simply change Colours 1-4 as shown in depth on page 4.


## Detailed Button Operation

- The table below shows what to expect when navigating your JRP 52mm RPM/ Tacho gauge. This is more or less an on the fly cheat sheet to assist you during setup. Best way to understand all the features and functions is to read this whole instruction manual carefully.
- For further assistance/ trouble shooting please visit our YouTube channel:
- Visit our social platforms for new ideas, and to see our latest products:
  Alternatively send us a cheeky Dm, were here to help!

**CLICK** ICONS TO FOLLOW LINKS

| | | | | | |
|---|---|---|---|---|---|
| **LONG PRESS** GAUGE MODE CONFIGURATION |  | "Symbols blinking" | Long press navigate the menu, each option reflects the number of cylinders your vehicle has. Choose number to suite the number of cylinders in your car. | **SHORT PRESS** | 1,2,3,4,5,6,7,8, 9 CYL |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** PEAK VALUE |  | | Displays "Peak" value in current mode configuration. NOTE: All peak values are recorded. | **LONG PRESS** | Clear peak value |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** COLOUR SELECTION |  | **LONG PRESS** | There are two modes for all gauges, night and day mode. Different colours can be set for each mode: Red, Green, Blue, Yellow, Purple, Snow, Mustard, Pink, Light Blue, Orange, Teal, Off, (RGB). | **SHORT PRESS** Day Mode<br>**SHORT PRESS** Night Mode |  |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** SCREEN BRIGHTNESS |  | **LONG PRESS** | There are different brightness settings available to match other instruments in your vehicle. Night and day mode can be set to different levels for each mode. | **SHORT PRESS** Day Mode<br>**SHORT PRESS** Night Mode | br0▸ br1▸ br2 br3▸ br4▸ br5 |

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## Detailed Button Operation Continued...

| | | | | | |
|---|---|---|---|---|---|
| **SHORT PRESS** BUZZER TYPES | bu | **LONG PRESS** | There are 3 different buzzers available, gauge will display: and emit corresponding sound - Beep: slow, fast, continued... | **SHORT PRESS** Types | no 1▸ no2▸ no3 |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** BUZZER VOLUME | uo | **LONG PRESS** | There are 4 sound levels: Off, 1, 2, 3. 🔇 🔈 🔉 🔊 Silent to loud | **SHORT PRESS** Level | uo0▸ uo 1▸ ▸uo2 ▸uo3 |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** OPEN/ CLOSE CEREMONIES | AC | **LONG PRESS** | There are 3 options for the opening ceremony, wait for change to be saved and view while turning gauge on/ off. | **SHORT PRESS** Types | AC 1▸ AC2▸ AC3 |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** RPM ALARM + SHIFT LIGHT TRIGGER | ⚠ | **LONG PRESS** | Set the value where you would like to trigger your RPM alarm. This warning alarm should be close to your engines "Rev limit/ red line." This value will also work with settings in the "Shift Set" (SS) menu. | **SHORT PRESS** Rev Limmit | 0-9000 |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** SCALE INDICATOR DISPLAY TYPE | So | **LONG PRESS** | There are 3 different indicator display types. Its best to view these options when vehicle is up to operating temperature. | **SHORT PRESS** Types | So1→So2→So3 |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** COLOUR ONE SHIFT SET | CL1 | **LONG PRESS** | With shift light settings enabled (SS/UP) CL1 is the first colour that is triggered as RPM approachs the set alarm limit. Long press to enter menu, short press to change colour. **(GREEN DEFAULT)** | **SHORT PRESS** RPM Range | |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** COLOUR TWO SHIFT SET | CL2 | **LONG PRESS** | With shift light settings enabled (SS/UP) CL2 is the second colour that is triggered as RPM approachs the set alarm limit. Long press to enter menu, short press to change colour. **(YELLOW DEFAULT)** | **SHORT PRESS** RPM Range | |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** COLOUR THREE SHIFT SET | CL3 | **LONG PRESS** | With shift light settings enabled (SS/UP) CL3 is the third colour that is triggered as RPM approachs the set alarm limit. Long press to enter menu, short press to change colour. **(ORANGE DEFAULT)** | **SHORT PRESS** RPM Range | |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** COLOUR FOUR SHIFT SET | CL4 | **LONG PRESS** | With shift light settings enabled (SS/UP) CL4 is the forth colour that is triggered as RPM approachs the set alarm limit. Long press to enter menu, short press to change colour. **(RED DEFAULT)** | **SHORT PRESS** RPM Range | |
| | | | | | **Wait 5 sec to save** |
| **SHORT PRESS** SHIFT SET/ UP (RPM) | SS OR UP | **LONG PRESS** | "Shift set" or "RPM Up" up can adjust the increment of the shift light colour. Prefix (SS) or (UP) then 2 = 200RPM, 3 = 300RPM, 4 = 400RPM, 5 = 500 RPM. | **SHORT PRESS** | SS5 UP4 |

- Record the date of purchase here for warranty purposes _____.

Notes:_____

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