

# Manual: Water Temp + Head Guard Ultra



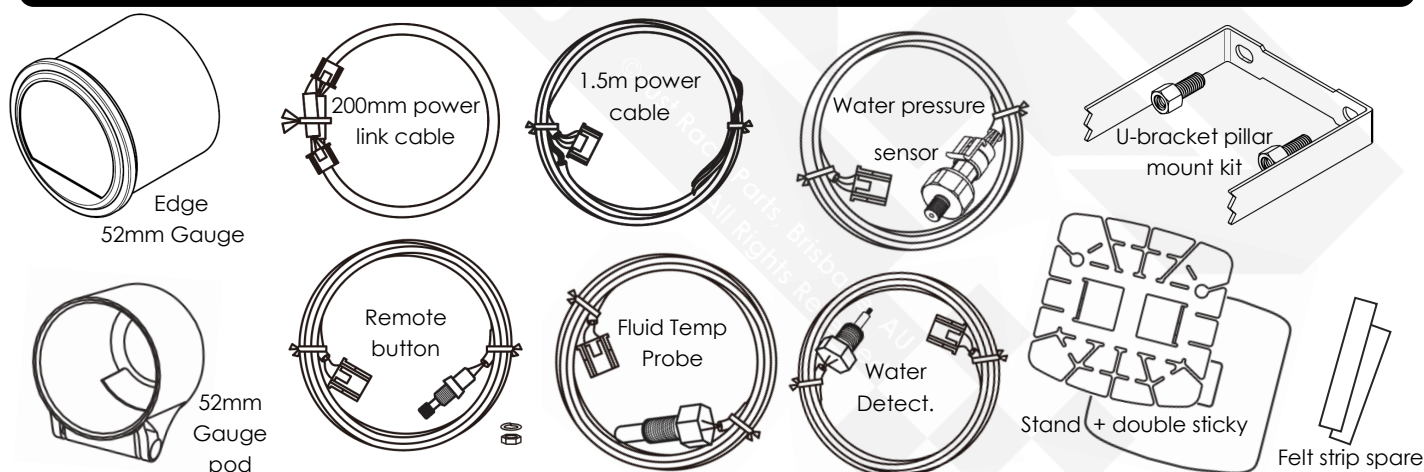
## ⚠ WARNING - Please Read Entire Manual Carefully!

- 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 and fluid in the cooling system are extremely hot at this time and can cause serious burns if touched.

## ➔ Main Features

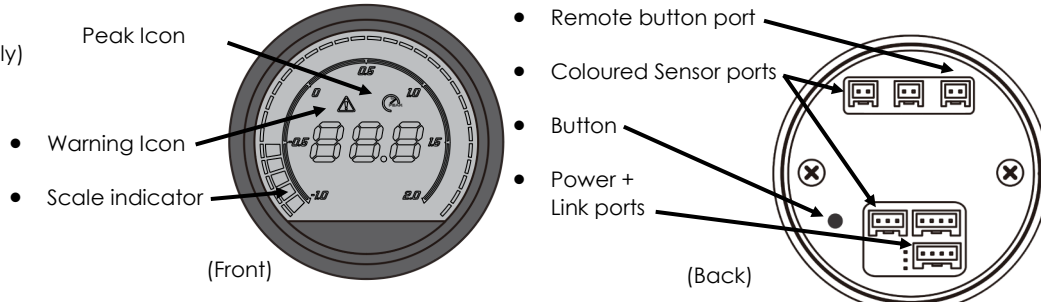
- ✨ High quality and accurate Water temperature, Water Detection and Water/ Oil compatible pressure sensors.
- 📱 Onboard memory battery. Gauge will retain settings even after being disconnected from the vehicles battery.
- 🖥 High contrast vertically aligned Liquid Crystal Display (LCD), no shadows when 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.
- 🔊 Dual warning for 2x warning buzzers can be set 4x different sound levels: Off, low, medium, high. (Read Head Guard Page 2).
- 🌞 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:  
9v to 15v DC (12v vehicles only)
- Current consumption:  
+B line: MAX 120mA  
IGN line: MAX 120mA  
ILM line: MAX 2mA



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## ☺ Colour Pre-Warn!



**CPW**  
COLOUR PRE-WARN

- Colour Pre-warn (CPW) is a new innovation developed first in the world by Just Race Parts! Originally introduced with V1.5 Edge series temperature gauges.

The V1.6 also supports this two stage warning system.

There is a traditional alarm warning which works the same as old/ competitor gauges where you set a warning value that can trigger an alarm on the gauge. And now with the CPW feature enabled; the gauge will change display colours leading up to your set warning alarm.



You can set custom colours as well as the pre-set adjustable number increments.

See example below: **Blue** is your "day mode" running colour, **100c** is your warning alarm trigger value **2** is your temperature control (TC) increment.



Temperature below 94c display colour says to:  
(Mode set colour)



Temperature above 94c display colour change to:  
(Yellow default)



Temperature above 96c display colour change to:  
(Orange default)



Temperature above 98c display colour change to:  
(Red default)



Temperature above 100c display warning sound buzzer alarm

- **To enable Colour Pre-Warn:** Navigate to temperature control marked as "TC" in the menu. Long press to make changes (OFF is default). The values available for 3in1 Water Temp gauges are 2,5,10.

**ULTRA**

## ☺ New - Head Guard



**HEAD GUARD**

LOW COOLANT &  
HIGH PRESSURE  
**ALARM**

Head Guard is JRP's latest update to the Edge Series 52mm Gauge line. It's always been obvious for both 4x4 and performance race vehicles that it was critical monitor engine coolant temperatures. Now, that's only half the picture and a clue to a potentially expensive problem... Water Temperature gauges generally will display reliable data, ONLY if there is fluid in the system.

No water = Bad news for engine, and the temperature gauge reads silly numbers!

So, 2024 brought on the development of detecting water and coolant fluids in the radiator system. This led us to specially develop a water detection sensor that will trigger an alarm on the JRP 3in1 gauge; even if it detects a momentary air pocket in the cooling system. We call this the "Low Coolant Alarm." The low coolant alarm used in conjunction with CPW should alert you to sudden loss of fluid in the cooling system, or even help diagnose potential fluid bleeding issues on coolant flushes.

**Head Guard Ultra** is where all this comes together in the perfect 3in1 package! This is an innovative system developed here at JRP to further protect engines. Temperature, CPW, Water detection integrated with a separate water pressure sensor installed in the cooling system. Head Guard Ultra is a system we developed where the gauge is always monitoring the normal pressures within the cooling system. Most Radiators will maintain a similar pressure all the time, be it 12 to 20 psi, and it won't really deviate much once the system is up to operating temperature. The only reasons you might see the system go from 15psi to 35psi is because there has been some kind of failure within the system. This could be a simple thermostat getting stuck closed or a Head gasket on the way out.

The aim of Head Guard Ultra is to alert you to the fact something has gone very wrong with your engine right away, if you manage to catch a blown head gasket, or stuck thermostat QUICKLY, then this can be the difference between replacing a cheap part or 2k - \$10k in engine damages... Once you warp a head it's done, and this little feature will help keep you alerted potentially before you see catastrophic failure!

**Activate Head Guard Ultra** covered in detail on [Page 3](#).

There are 2x alarm chime styles that will alert you to an issue on the gauge.

A **SLOW beep** (Default) that will activate when the gauge detects **Low Coolant** or a **High Temperature** event (Exceeding the CPW).

And a second more urgent **FAST beep** alarm for **Water pressure**. If activated the gauge will flash with the letter "H" just above the pressure units displayed on the gauge.

The alarm buzzer style can be changed via following menus:

**No.** = Low Coolant + High Temperature Buzzer chime.

**No.H** = High Water Pressure Alarm Buzzer chime.



## Display Configuration/ Gauge Mode (TY Modes)

There are 3x different display modes available for the "3in1 Water Temp + Head Guard Ultra 52mm Edge gauge. Think of the "TY" modes as a "running mode" and also a "display style." Each "TY" mode will have a default display for the screen layout, this will also give access to unique alarm modes from this "TY" display style.

While gauge displays live data press and hold the button on the back of the gauge until "TY Number" displays. Next use a short press to change the TY mode, short button press can be used to scroll through the other display modes.

Stop on the desired mode and wait 5 seconds to return to live data. Note: if no number displays, like this: The sensor is not detected in that running mode.

- **TY3** - Will show the **Water Temp** input in the centre as a number, and will monitor Water Temp on the outer scale
- **TY4** - Will show Water Pressure **BAR** as a number in the centre, and will monitor Water Temp on the outer scale
- **TY5** - (Default) Will show Water Pressure **PSI** as a number in the centre, and will monitor Water Temp on the outer scale



TY3

Water Temp + Water Temp



TY4

Pressure BAR + Water Temp



TY5

Pressure PSI + Water Temp  
(Default)

During the setup process, the gauge must be switched to the display running mode for the connected sensors. This will give access to the alarm set menus for the chosen inputs on the gauge. Once the warning alarms are set: they will remain active and monitor the sensor input in the background regardless of the chosen "display mode." So, you can choose to run the gauge in: TY3 Water temp/ water temp mode, but can also be alerted to a Low coolant condition or a High Pressure event in the cooling system ☺

(See more on Page 4 - Warning setup and Display)

## Activate Head Guard!

**Pressure Warning Setup** may require changes to the default settings.

Head Guard Ultra gauge is set to run pressure in the centre of the screen, so you can get an idea of what your normal operating pressures are straight out of the box. Generally the vehicle should be up to normal operation temperature after about 15 - 20 min of normal driving and the cooling system should be pressurised. Take note of the number on the screen then set an alarm a 1-2 PSI above the standard pressure. (You may need to make a slight adjustment to this later on).

**Your Radiator Cap** should have a rated pressure on the cap. Examples: (Right) show radiator caps in BAR, PSI, and KPA. Sadly for no good reason this isn't standardised and you may need to calculate conversion to set up the gauge. A Radiator cap that's in good condition should relieve and modulate pressure in the cooling system when it reaches the number indicated on the cap. (Check owners manual not all caps have this information).

**Set Alarm Value** navigate to the Water Pressure warning menu and set "at or just" above value indicated on your radiator cap (Default = OFF).  
Detailed [Page 4](#).



**Test vehicle** where you can put the engine under load after its up to operating temperature (Where safe to do so - Yes this can be done without speeding or access to a race track).  
Manual: choose higher gear then what's required for conditions, flat or slight incline road.  
Automatic: can be a little more difficult requiring a long constant incline use more throttle then your standard cruising position. This is a test to see if the water pressure alarm momentarily activates. If the alarm becomes too invasive check the "PEAK pressure" and set alarm one more PSI beyond that. Now the alarm should activate and catch a true over pressure situation when you're really into it on the track! If the pressure alarm is active more then a few seconds, engine off and check what is going on! Now that you know the pressure alarms are active you can return the Gauge to TY3 mode and keep a close eye on your water temperature.





# Manual: Water Temp + Head Guard Ultra



## Peak Value/ Combo Gauges

Peak menu operates differently on 3in1 Edge gauges compared with single sensor gauges. The Gauge will cycle through the all peak values that alarms are set for. All values can be cleared from any peak menu: Press and hold to enter peak menu: Up to 3x different values with corresponding Icon will cycle though. Press & hold at any time and values will be cleared Confirmed with 3x Dash " - - - " no need to clear if you wish to keep peak values in memory, However it's best to clear the peak values so that you can see your new all time high score next time you're pushing the limits!

(Peak values: Water Temperature, High Water Pressure BAR or PSI).

**Fine Tuning Water pressure** alarm with the PEAK menu can be a helpful reference tool.

Pressures must have warning set before peak numbers will be recorded (OFF default).

**\*Low Coolant:** is off by default, Use the numbers in the setup as a timer delay. Zero "0" is recommended.

(More info Below)



## Warning Set Up & Alarm Displays

Alarm monitoring and displays styles are a little bit different on the 3in1 Water temp Gauge when compared to Single alarm Edge gauges. Animation styles are improved with synchronised "Beep" tone, and the addition of custom animations with each beep style. *"This can be handy if you decide to turn off the audible alarm, there will still be 3x different animations to choose from on the display."*

Alarms are a very important function to JRP Edge gauges, its important to read and understand this section well as some pretty sophisticated ideas have been condensed into a simple menu setup. **This section is seriously worth the read!**

**Alarm Events:** Briefly mentioned in the "Display mode section," the Gauge needs to change "TY" Display mode to access some alarm setup menus. Temperature and Low Coolant Alarms can be modified from all display modes, However, Pressure "alarms & calibration" can only be accessed in their respective modes: TY4 (BAR) & TY5 (PSI).

**Alarms monitor All Sensors** connected to the gauge. Once the alarm is set for Water pressure in this display mode it will automatically turn off other water pressure alarms **E.g.** The gauge can be left to run in TY5 running mode if you wish to see Water PSI number value at all times. You can however, configure the gauge to display in another mode, (Water Temp only & Water Press. BAR).

When the gauge sees a condition where the Water Pressure PSI value has exceeded the alarm set value - the screen will temporarily change the centre number back to PSI and display the number till the alarm event is over.

Detailed in "After Warning Flash" **bottom of page.**

**Unexpected PSI & BAR Alarms** can occur if warning is set in one of the pressure modes then the Display mode is changed to alternative units. **E.g.** Alarm is set in "TY5 PSI MODE" then the display mode is changed to "TY4 BAR MODE" Pressure numbers will display in BAR. However, when the alarm is activated Pressure number will still display in PSI units (PSI Symbol will be active).

To resolve: You must set a new alarm value in BAR while the gauge is in TY4 running mode. The PSI Alarm will Auto switch to: **OFF**



**High Water Pressure Alarm** should be set up using the concepts detailed on [pages 2-3](#).

The pressure warning alarm will need to be set to a warning value before it will trigger (Default is **OFF**). If the high pressure alarm is triggered the gauge will fast beep and display the pressure value E.g.: "54.H PSI" Beep style for the pressure alarm can be changed in the "**No.H**" menu and should be set differently to the other alarms.

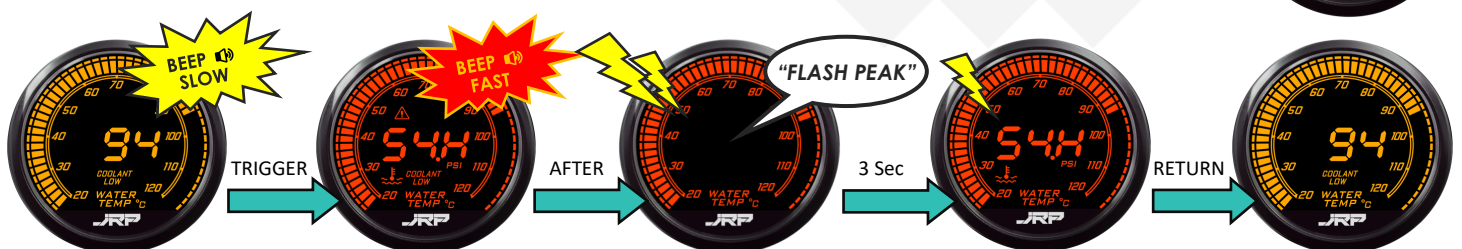
Notice: No.H will override all other active alarm tones when activated.

"Coolant and Temperature" alarms both use same beep style. Change Beep style with menu option "**No.**"

**\*Low Coolant Alarm** will not be active from first time the gauge is powered up. Its recommended to change the setting to 0 (Zero) & have the alarm active as soon as water isn't touching the probe. Low coolant alarm can be changed to other delay numbers depending on the sensor install location and what the vehicle is doing.

High G-force or coolant slosh may trigger false alarms, so adjust as necessary.

**Low Coolant settings** are: OFF, 0sec, 5sec, 10sec, 20sec, and can be changed in the "**Lc**" menu.



**After Warning Flash:** occurs when a display change was required to show a background warning alarm not in current display mode.

Once alarm is no longer required the "PEAK Value" will "**Flash 3 seconds**" before returning back to live data from set running mode.

Pictured Example: Display mode "TY3 Water Temp only (Slow beep) for Low Coolant alarm.

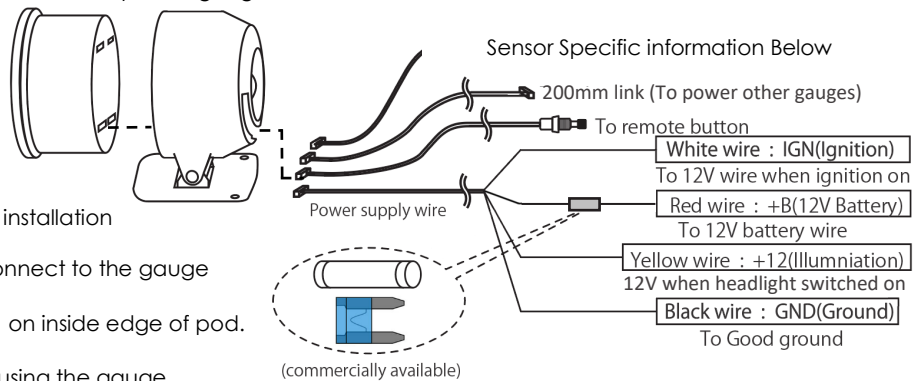
Value has exceeded Pressure alarm set: Number changes from Water temp to High pressure (Fast Beep). After Pressure warning complete the "PSI PEAK Number" will flash 3sec before returning to the Water Temperature display number.



## ⚡ 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.

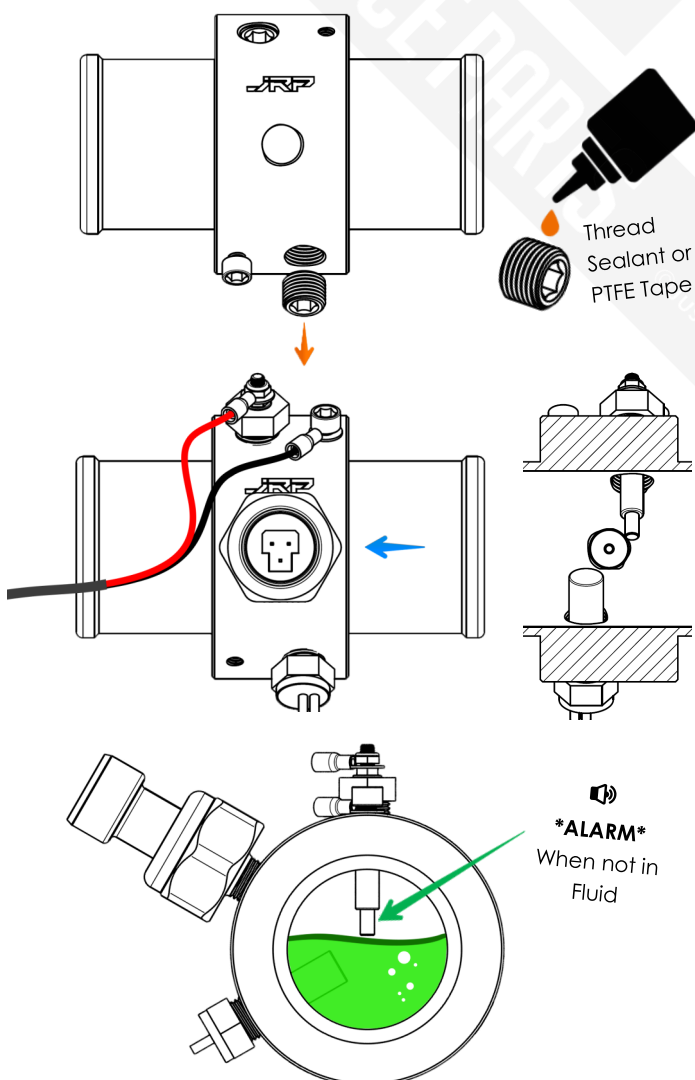
- Disconnect the negative terminal on the battery. Connect the power wires as shown. Warning! Always install a fuse where +12v is indicated.
- Connect the supplied sensor wires to their respective harnesses. Follow procedures below for sensor specific installation
- (Optional) Install remote button wire 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



## 🔧 Install Water Sensors

**WARNING:** It's highly important to run an independent ground wire from the hose adapter to the either the negative terminal of the battery or to a clean ground point on a negatively charged chassis. Also critical for reliable engine monitoring and long-term sensor life that: High quality, and clean engine coolant/ anti-freeze is used in your vehicles radiator cooling system. Water alone will not only damage the entire cooling system with corrosion, but this will also lead to premature sensor failure.

**For easy sensor installations:** Use the JRP 3in1 Radiator hose adapter kit. Please ensure that you purchase the correct size to suit your cooling system hose diameter. Radiator hoses are designed to work under pressure and will not stretch to incorrectly sized spout ends. You can check hose size with your local auto parts supply store, or measure the diameter of an exposed spout on the cooling system. (Ask JRP Sales team we're here to help!) ☺



**1/8 Threaded holes are tapered and don't need to be over tightened. JRP adapters are supplied loosely assembled. CHECK & Install all fittings finger tight to verify fitment in vehicle before final installation. *WARNING Anodised coating: may need to be removed on inside face of hose adapter Low coolant circuit to complete. (Only if false alarms are present).***

1. For final installation, remove grub screws and sensors. You must apply high temperature thread sealant or PTFE Tape on All 1/8 NPT threads on the male fittings.

2. Sensors should be finger tight, Then 1-2 turns firm. (7in-Lbs/ 0.79Nm). Follow directions recommended on tread sealing method for best results.

3. Pressure sensor (**Blue Arrow**) Should be installed in the centre port. Looking at the section view its important to install the sensors in this configurations so that probe tips have no chance of colliding.

**Wires:** should be secured so that they do not have harsh kinks at the termination point. Cable tie and run parallel to radiator hose.

🔧 **Handy Tip:** Expandable braided cable sleeve. Corrugated conduit or spiral sleeve should be used to cable manage and group the sensor cables together.

4. Install separate ground wire as mentioned in warning above!  
Low coolant sensor should be installed so that the Chrome tip is at the highest point in the fluid stream. Air pockets are more likely to develop at the highest point in the cooling system. Depending on your hose diameter you may need to mount the Low Coolant Sensor upside down?

**Sensor Reference below:**



## 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.
- Day and Night Modes** can be set to display different settings shown in table below. 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).

## Temperature Warm-up

- Colour Slowly Fades** when temperature warmup is enabled. This warmup function works only when temperature is below set value in the "UP Menu." *Selectable options are: OFF, 40, 60, 80.*

When enabled this feature will fade cycle the first colour from (CL1) and current display mode colour Day/ Night mode. This is just a really passive warning function intended to show the driver that you should take it easy on the vehicle till you're in the operating temperature range. Make changes to this function navigate to the "UP" menu. **Handy Tip:** If the gauge has an intermittent warning symbol but no alarm this setting may be active. Change "UP" setting to off and see if this resolves the issue. Check that the CL1 colour is set to yellow and not the same as your normal running colour.



## Detailed Button Operation

- The tables on the following pages shows what to expect when navigating your 52mm 3in1 Edge series 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, we're here to help!

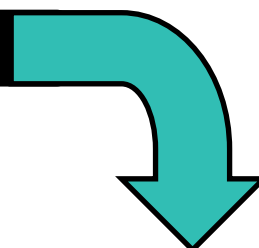


CLICK ICONS TO FOLLOW LINKS

- Record the date of purchase here for warranty purposes \_\_\_\_\_.

- Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Detailed Button Operation Continues Over Page



## Detailed Button Operation (TY3 Water Temperature Only)

TY3 - Water Temp + Low Coolant			
<b>LONG PRESS</b>	GAUGE MODE CONFIGURATION	See "Display Configuration" for in depth explanation on Page 3. HINT: below Each TY# value shows: Water Temp, BAR, PSI. This will change numerical value centre of screen.	<b>SHORT PRESS</b> tY3 ▶ tY4 ▶ tY5
<b>SHORT PRESS</b>	PEAK VALUE	Displays cycles "Peak" value twice on screen. NOTE: Peak values are only recorded if alarm is set to monitor that input. (Peak icon flash when in menu)	<b>LONG PRESS</b> Wait 5 sec to save Clear peak value CONFIRM "- - -"
<b>SHORT PRESS</b>	COLOUR SELECTION	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).	<b>SHORT PRESS</b> Day Mode Short Press Night Mode Wait 5 sec to save
<b>SHORT PRESS</b>	SCREEN BRIGHTNESS	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.	<b>SHORT PRESS</b> Day Mode Short Press Night Mode Wait 5 sec to save
<b>SHORT PRESS</b>	BUZZER STYLE	There are 3 different buzzers available, gauge will display: and emit corresponding sound - Beep: slow, fast, continued...	<b>SHORT PRESS</b> Default: Slow Beep Wait 5 sec to save
<b>SHORT PRESS</b>	BUZZER VOLUME	There are 4 sound levels: Off, 1, 2, 3. Silent to loud	<b>SHORT PRESS</b> Level Wait 5 sec to save
<b>SHORT PRESS</b>	OPEN/ CLOSE CEREMONIES	There are 3 options for the opening ceremony, wait for change to be saved and view while turning gauge on/off.	<b>SHORT PRESS</b> Types Wait 5 sec to save
<b>SHORT PRESS</b>	Water TEMP WARNING  & TEMP	Customise the Water temperature value to trigger alarm. Short press for fine tune adjustment, long press for rapid number adjustments.	<b>SHORT PRESS</b> EGT Value Wait 5 sec to save
<b>SHORT PRESS</b>	SCALE INDICATOR	There are 3 different indicator display types. This setting will change how the outer scale displays increments. It's best to view these options when the vehicle is up to operating temperature.	<b>SHORT PRESS</b> Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR TWO (CPW)	This is where you set the first colour of the temperature controlled colour pre-warn (CPW) (YELLOW DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR THREE (CPW)	This is where you set the second colour of the temperature controlled colour pre-warn (CPW) (ORANGE DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR FOUR (CPW)	This is where you set the third colour of the temperature controlled colour pre-warn (CPW) (RED DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	WARM UP	This is where you can set the warm-up function, settings are: off, 40, 60 & 80. Colour will fade and change between running colour and CL2. Warning icon flash intermittently. (Detailed on page 6).	<b>SHORT PRESS</b> Temperature Range Wait 5 sec to save
<b>SHORT PRESS</b>	TEMPERATURE CONTROL	This is where you can set the colour pre warn function, settings are: Off, 2, 5, & 10 for Water Temperature.	<b>SHORT PRESS</b> Temperature Range Wait 5 sec to save
<b>SHORT PRESS</b>	LOW COOLANT ALARM	This is where you can set the Low coolant alarm, settings are: Off, 0Sec, 5Sec, 10Sec, 20Sec.	<b>SHORT PRESS</b> Temperature Range Wait 5 sec to save



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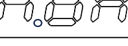
















## Detailed Button Operation (TY4 BAR/ Water Temp)

TY4 - Water Pressure BAR/ Water Temp			
<b>LONG PRESS</b>	GAUGE MODE CONFIGURATION	See "Display Configuration" for in depth explanation on Page 3. HINT: below Each TY# value shows: Water Temp, BAR, PSI. This will change numerical value centre of screen.	<b>SHORT PRESS</b> tY3 ▶ tY4 ▶ tY5
<b>SHORT PRESS</b>	PEAK VALUE	<b>LONG PRESS</b> Displays cycles "Peak" value twice on screen. NOTE: Peak values are only recorded if alarm is set to monitor that input. (Peak icon flash when in menu)	<b>LONG PRESS</b> Clear peak value CONFIRM "- - -"
<b>SHORT PRESS</b>	COLOUR SELECTION	<b>LONG PRESS</b> 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).	<b>SHORT PRESS</b> Day Mode Night Mode Wait 5 sec to save
<b>SHORT PRESS</b>	SCREEN BRIGHTNESS	<b>LONG PRESS</b> 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.	<b>SHORT PRESS</b> Day Mode Night Mode Wait 5 sec to save
<b>SHORT PRESS</b>	BUZZER STYLE	<b>LONG PRESS</b> There are 3 different buzzers available, gauge will display; and emit corresponding sound - Beep: slow, fast, continued...	<b>SHORT PRESS</b> Default: Slow Beep Wait 5 sec to save
<b>SHORT PRESS</b>	BUZZER VOLUME	<b>LONG PRESS</b> There are 4 sound levels: Off, 1, 2, 3. Silent to loud	<b>SHORT PRESS</b> Level Wait 5 sec to save
<b>SHORT PRESS</b>	OPEN/ CLOSE CEREMONIES	<b>LONG PRESS</b> There are 3 options for the opening ceremony, wait for change to be saved and view while turning gauge on/off.	<b>SHORT PRESS</b> Types Wait 5 sec to save
<b>SHORT PRESS</b>	BAR HIGH PRESSURE WARNING	<b>LONG PRESS</b> Customise the BAR pressure value to trigger alarm. Short press for fine tune adjustment, long press for rapid number adjustments.	<b>SHORT PRESS</b> BAR Value OFF-0.99BAR to 7.0BAR Wait 5 sec to save
<b>SHORT PRESS</b>	Water TEMP WARNING	<b>LONG PRESS</b> Customise the Water temperature value to trigger alarm. Short press for fine tune adjustment, long press for rapid number adjustments.	<b>SHORT PRESS</b> EGT Value 20c to 120c Wait 5 sec to save
<b>SHORT PRESS</b>	BAR OFFSET CALIBRATION	<b>LONG PRESS</b> Fine tune adjustment for BAR pressure offset, aim for 0.00 BAR when engine not running. You will need to repeat short press of button till display reads 0.00BAR	<b>SHORT PRESS</b> BAR Value (PSI Equivalent) -0.6 to 0.6BAR -8.7 to 8.7PSI Wait 5 sec to save
<b>SHORT PRESS</b>	PRESSURE BUZZER STYLE	<b>LONG PRESS</b> There are 3 different buzzers available for high pressure alarm, gauge will display warning; and emit corresponding sound - Beep: slow, fast, continued...	<b>SHORT PRESS</b> Default: Fast Beep Wait 5 sec to save
<b>SHORT PRESS</b>	SCALE INDICATOR	<b>LONG PRESS</b> There are 3 different indicator display types. This setting will change how the outer scale displays increments. It's best to view these options when the vehicle is up to operating temperature.	<b>SHORT PRESS</b> Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR TWO (CPW)	<b>LONG PRESS</b> This is where you set the first colour of the temperature controlled colour pre-warn (CPW) (YELLOW DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR THREE (CPW)	<b>LONG PRESS</b> This is where you set the second colour of the temperature controlled colour pre-warn (CPW) (ORANGE DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	COLOUR FOUR (CPW)	<b>LONG PRESS</b> This is where you set the third colour of the temperature controlled colour pre-warn (CPW) (RED DEFAULT)	<b>SHORT PRESS</b> Leading Up to Warning Alarm Wait 5 sec to save
<b>SHORT PRESS</b>	WARM UP	<b>LONG PRESS</b> This is where you can set the warm-up function, settings are: Off, 40, 60 & 80. Colour will fade and change between running colour and CL2. Warning icon flash intermittently. (Detailed on page 6).	<b>SHORT PRESS</b> Temperature Range OFF ▶ 40 ▶ 60 ▶ 80 Wait 5 sec to save
<b>SHORT PRESS</b>	TEMPERATURE CONTROL	<b>LONG PRESS</b> This is where you can set the colour pre warn function, settings are: Off, 2, 5, & 10 for Water Temperature.	<b>SHORT PRESS</b> Temperature Range OFF ▶ 2 ▶ 5 ▶ 10 Wait 5 sec to save
<b>SHORT PRESS</b>	LOW COOLANT ALARM	<b>LONG PRESS</b> This is where you can set the Low coolant alarm, settings are: Off, 0Sec, 5Sec, 10Sec, 20Sec.	<b>SHORT PRESS</b> Temperature Range OFF ▶ 0 ▶ 5 ▶ 10 ▶ 20 Wait 5 sec to save

# Manual: Water Temp + Head Guard Ultra



## Detailed Button Operation (TY5 PSI/ Water Temp)

TY5 - Water Pressure PSI/ Water Temp			
<b>LONG PRESS</b>	See "Display Configuration" for in depth explanation on Page 3. HINT: below Each TY# value shows: Water Temp, BAR, PSI. This will change numerical value centre of screen.	<b>SHORT PRESS</b>	tY3> tY4> tY5
<b>GAUGE MODE CONFIGURATION</b> 	"Icons blinking"		
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>LONG PRESS</b>	Wait 5 sec to save
<b>PEAK VALUE</b> 	Displays cycles "Peak" value twice on screen. NOTE: Peak values are only recorded if alarm is set to monitor that input. (Peak icon flash when in menu)	Clear peak value CONFIRM "- . -"	
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>COLOUR SELECTION</b> 	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).	Day Mode Short Press Night Mode	
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>SCREEN BRIGHTNESS</b> 	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.	Day Mode Short Press Night Mode	br0> br1> br2 br3> br4> br5
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>BUZZER STYLE</b> 	There are 3 different buzzers available, gauge will display: and emit corresponding sound - Beep: slow, fast, continued...	Default: Slow Beep	no0> no1> no2
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>BUZZER VOLUME</b> 	There are 4 sound levels: Off, 1, 2, 3.  Silent to loud	Level	uo0> uo1> uo2> uo3
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>OPEN/ CLOSE CEREMONIES</b> 	There are 3 options for the opening ceremony, wait for change to be saved and view while turning gauge on/off.	Types	AC1> AC2> AC3
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>PSI HIGH PRESSURE WARNING</b> 	Customise the PSI pressure value to trigger alarm. Short press for fine tune adjustment, long press for rapid number adjustments.	PSI Value	OFF-0.99PSI to 7.0PSI
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>Water TEMP WARNING</b> 	Customise the Water temperature value to trigger alarm. Short press for fine tune adjustment, long press for rapid number adjustments.	EGT Value	20c to 120c
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>PSI OFFSET CALIBRATION</b> 	Fine tune adjustment for PSI pressure offset, aim for 0.0 PSI when engine not running. You will need to repeat short press of button till display reads 0.0PSI	PSI Value (BAR Equivalent)	-9 to 9PSI -0.62 to 0.62BAR
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>PRESSURE BUZZER STYLE</b> 	There are 3 different buzzers available for high pressure alarm, gauge will display warning: and emit corresponding sound - Beep: slow, fast, continued...	Default: Fast Beep	noH> n1H> n2H
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>SCALE INDICATOR</b> 	There are 3 different indicator display types. This setting will change how the outer scale displays increments. It's best to view these options when the vehicle is up to operating temperature.		So1> So2> So3>
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>COLOUR TWO (CPW)</b> 	This is where you set the first colour of the temperature controlled colour pre-warn (CPW) (YELLOW DEFAULT) 	Leading Up to Warning Alarm	
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>COLOUR THREE (CPW)</b> 	This is where you set the second colour of the temperature controlled colour pre-warn (CPW) (ORANGE DEFAULT) 	Leading Up to Warning Alarm	
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>COLOUR FOUR (CPW)</b> 	This is where you set the third colour of the temperature controlled colour pre-warn (CPW) (RED DEFAULT) 	Leading Up to Warning Alarm	
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>WARM UP</b> 	This is where you can set the warm-up function, settings are: off, 40, 60 & 80. Colour will fade and change between running colour and CL2. Warning icon flash intermittently. (Detailed on page 6). 	Temperature Range	OFF> 40> 60> 80>
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>TEMPERATURE CONTROL</b> 	This is where you can set the colour pre warn function, settings are: Off, 2, 5, & 10 for Water Temperature. 	Temperature Range	OFF> 2> 5> 10>
<b>SHORT PRESS</b>	<b>LONG PRESS</b>	<b>SHORT PRESS</b>	Wait 5 sec to save
<b>LOW COOLANT ALARM</b> 	This is where you can set the Low coolant alarm, settings are: Off, 0Sec, 5Sec, 10Sec, 20Sec. 	Temperature Range	OFF> 0> 5> 10> 20>