

DIGITAL COOLING FAN CONTROLLER

Installation Instructions

Important notes before installing:

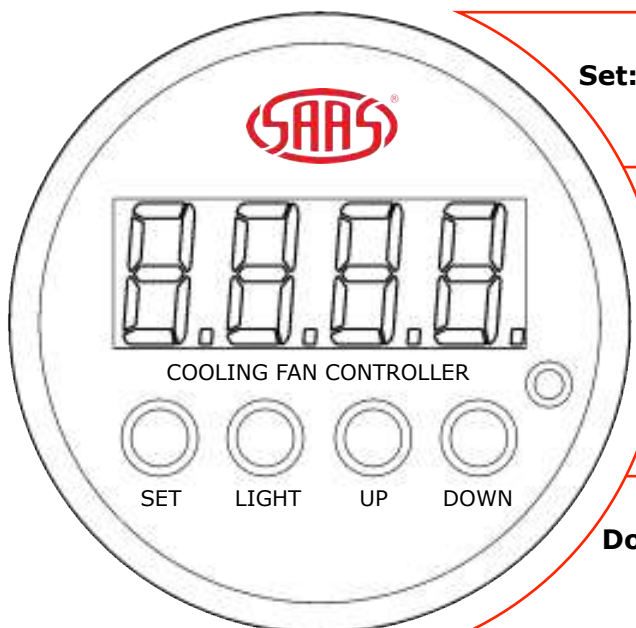
- Installing this product to your vehicle may require an adaptor. SAAS make a large range of adaptors and installation parts, please check with your SAAS dealer for available adaptors.
- SAAS Muscle series gauges are designed for **12volt** systems **ONLY!**
- All installation work should be done by a qualified professional to avoid damage to this product.
- SAAS **RECOMMENDS** all products be tested prior to installation. This will save time and speed up the troubleshooting process if you encounter any issues.

Wiring Guide:

Wire colour	Wire Function	Wire Connection Location
Red	Battery 12V+	(+) terminal of battery
Blue	Fan 12V+ output	To fan/fans (+) side
Black	Ground 12V-	Vehicle body
Yellow	Ignition 12V+	Ignition harness / Fuse box

- **Red** wire must be connected to the (+) terminal of the vehicles battery.
- **Blue** wire connects to (+) side of fan/fans with a current draw no more than **35 AMPS!**
- **Black** wire must be connected to a good grounding point, usually the vehicles body/chassis.
- **Yellow** wire must have 12V+ power when the ignition is in the **ON** position.

Fan Controller Functions:



Set: This button is used to set the temperature for controlling your fan/fans.

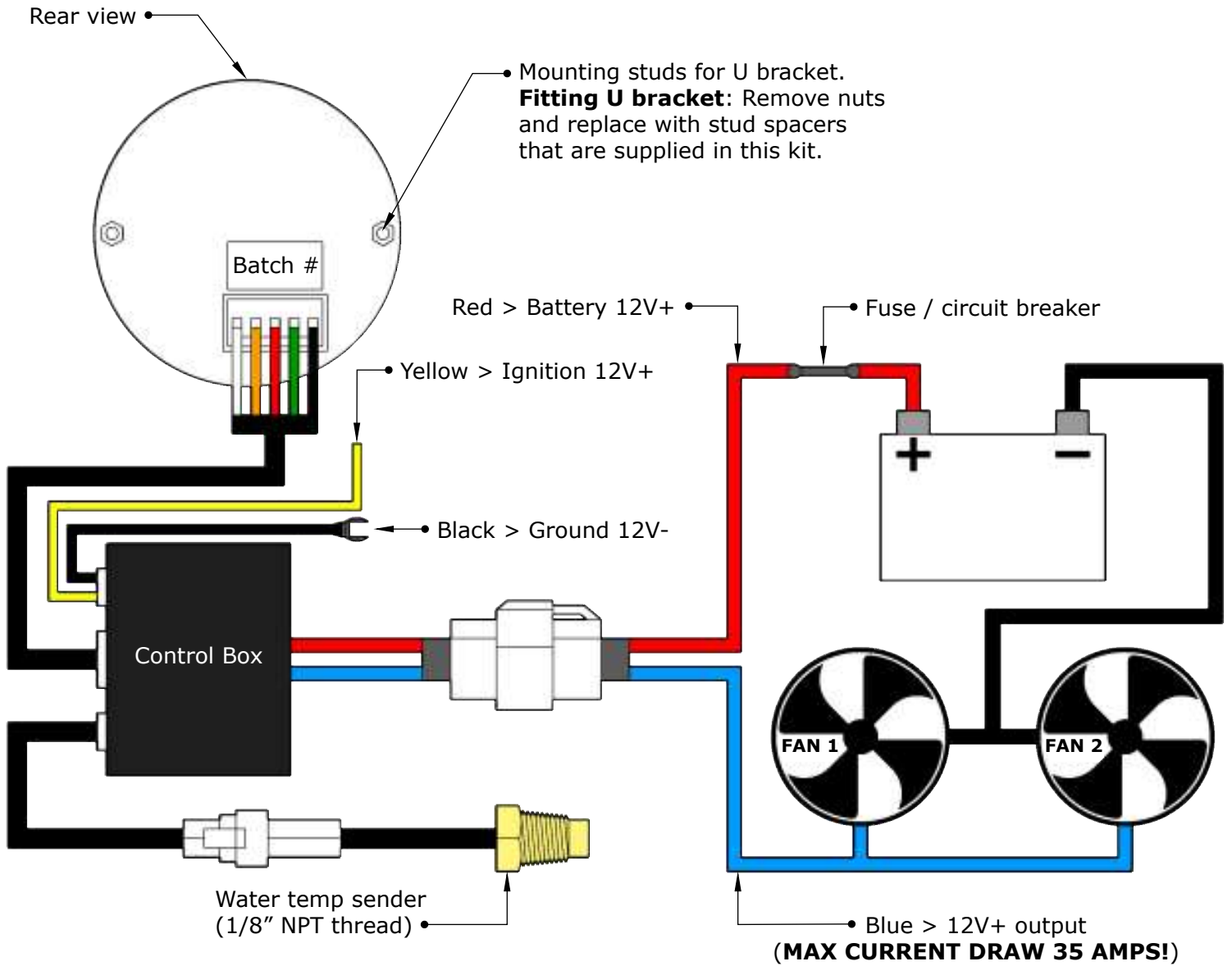
Light: Press this button to change the back lighting colour. (white>red>green>blue)

Up: This button is used to increase the temperature preset.

Down: This button is used to decrease the temperature preset.

Wiring Diagram

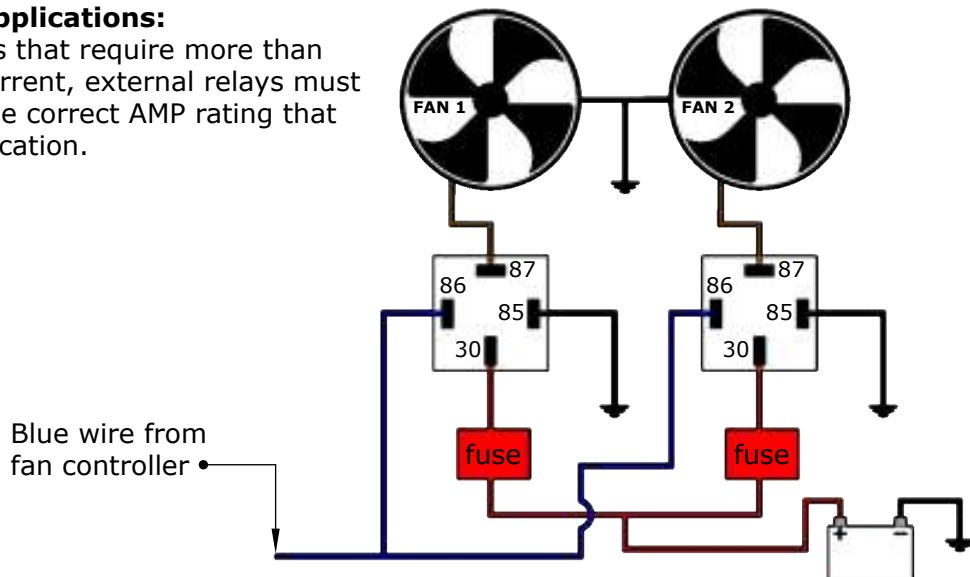
Typical Layout



Installation Notes:

- **Recommended mounting locations:**
- Gauge and control box must be mounted inside the vehicles cabin.
- Water temp sender should be installed in a radiator, water temp adaptor or cylinder head.

- **Heavy duty applications:**
- For applications that require more than **35 AMPS** of current, external relays must be used with the correct AMP rating that suits your application.



Cooling Fan Controller Set Up:

- Cooling fan controller temperature setting:

- Turn ignition on > gauge will turn on with current vehicle temperature displayed > press **SET** button once > current temperature preset will be displayed > press **UP** or **DOWN** to adjust the temperature value > press **SET** button once again to lock in temp setting.

- Using the cooling fan controller:

- When the vehicle reaches its preset temperature, the red indicator light in the gauge will turn on showing the fan/fans are operating. When the temperature drops **9** degrees below the preset temp value, the red indicator light will turn off showing the fan/fans have been turned off.

Troubleshooting:

Please note: If you are having problems with the installation of this product, please do not contact your retailer or SAAS until you have read **ALL** the troubleshooting notes below.

Problem	Possible Cause	Solution
-gauge won't turn on	-bad connection to gauge or control box	-check connectors on gauge and control box are plugged in correctly
	-bad wiring	-check all power wires for good connection and ground cable
	-power spike	-remove power for 10 seconds and retry
-fan not tuning on	-incorrect temp setting	-check temp setting preset in gauge
-fan not tuning off	-temp setting too low	-check temp setting preset in gauge
-control box runs hot	-wiring is overloaded	-check current draw -wire up external relays
-no temp display	-bad connection on temp sender	-check temp sender for bad connection
	-temp sensor damaged	-repair or replace sender

GAUGE INFORMATION

Specifications

Gauge operating range	0°C > 110°C (MAX reading is 110°C)
Gauge temperature preset range	0°C > 100°C (fans will stay on constantly if set to 0°C)
Gauge operating voltage	8v > 18v
Maximum current draw from control box	35 AMPS!
Control box dimensions	80mm x 55mm x 34mm - cable length 150mm (10AWG)
Cable length for 2 pin main plug	3mt (10AWG)
Cable length for 2 pin ground plug	ground cable > 400mm, ignition cable > 1.5mt
Cable length for temperature sensor	3mt
Cable length for gauge harness	1.5mt (5pin data cable)
Water sender ohms range	1028Ω > 74Ω, scale: 1028Ω > 40°C or 215Ω > 80°C
Water sender thread size	1/8" NPT
water sender dimensions	Total length 20mm, wire length 100mm
Mounting depth required for gauge	50mm (minimum)
Mounting hole size for gauge	52mm
Total depth of gauge	55mm (including bezel)
Gauge lighting type	white LED with 4 colour LED backlight (NON DIMMABLE)
Gauge lighting colours	green > red > blue > white

Contents:

In The Box	Qty	Notes	Part No.
Cooling fan gauge	1		
Control box	1		SG31011
Water temperature sender	1		SG31010
Gauge wiring harness (5pin)	1		SG3170
Control box ground wiring harness (2pin)	1		
Control box main wiring harness (2pin)	1		
Water temperature sender wiring harness	1		
Mounting U bracket	1		SG31005
Mounting U bracket studs (M4x0.7 thread)	2		
Mounting U bracket nuts	2		
Mounting U bracket spring washers	2		
Fitting instructions	1		

Warranty Terms & Conditions:

SAAS Automotive Pty Ltd warrants this product against defects in factory workmanship and materials for a period of twelve (**12**) months from the date of original purchase. This warranty applies to the first retail purchaser, is non-transferable and covers only where the product has been subjected to normal use or service. Provision of this warranty shall not apply to any SAAS Automotive product that has been 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. Warranty claims to the manufacturer must be transportation prepaid and accompanied with dated proof of purchase. On any part or product found to be defective after examination by SAAS Automotive Pty Ltd, SAAS Automotive Pty Ltd will only repair or replace the merchandise through the original selling dealer or on a direct basis. SAAS Automotive Pty Ltd assumes no responsibility for diagnosis, removal and/or installation labour, loss of vehicle use, loss of time, inconvenience or any other consequential expenses. The warranties herein are in lieu of any other expressed or implied warranties, including any implied warranty of suitability, and any other obligation on the part of SAAS Automotive Pty Ltd, or the selling dealer.

For further assistance email: tech@saasautomotive.com.au