









REDVISION CONFIGURATION

1. FIRST CONNECTION

REDVISION DISPLAY

MAIN MENU SCREEN

Scroll across to the **System Settings**, using the *left arrow*, located on the right, below the screen.

SYSTEM SETTINGS SCREEN

Scroll up or down to the **Display Settings**, using the *up / down arrows*, located on the left, below the screen.

DISPLAY SETTINGS SCREEN

Select the **Bluetooth Icon**, using the bottom *soft key*, located on the left of the screen.

BLUETOOTH PAIRING SCREEN

It will then specify **Bluetooth Pairing advertising**.



Open the **REDARC Configurator App**.

Keep your phone as close as possible to the RedVision Display during configuration.



The RedVision app will present the introduction page.

Tap *Skip*, if you want to skip the introduction or swipe left then tap *Done*.

The app will prompt to enable permissions, tap *Allow*.

The app will request permissions for Bluetooth and Location settings. Enabling these permissions is essential for the smooth operation of the RedVision App.

The app will have 2 main options, **Import Config** and **Read Device**.

If configuring for the first time, tap *Read Device* and the app will scan for a system, select your system by tapping *Connect*.

In systems that have multiple devices ensure you connect to the RedVision Display **REDARC DISP** rather than the Smart Battery Monitor.

If you have a configuration to import, select *Import Config.*

The configuration will need to be saved to your device's files to be selected.

Once the system is selected it will read the default configuration in the screen, this may take a few moments.



Enter the PassCode shown on the RedVision Display into the PIN section of the app.

Then tap Pair.

At no point should the Bluetooth connection be established through the device settings on your phone or tablet.

Bluetooth pairing request			
Enter PIN to pair with REDARC DISP 095070-0001 (Try 0000 or 1234).			
PIN Usually 0000 or 1234			
Cancel	Pair		



After the configuration has been read, you can begin setting up your system.

Add a Configuration Name.

Tap Unit Preferences.

Set the temperature unit to *Celsius* or *Fahrenheit*.



If your system contains a Manager30 or Manager Alpha please follow the configuration as below:

Please note: If you are adding (or replacing) a Manager30 or Manager Alpha to an already configured system, you will need to *Read Device* and connect to your system before completing the instructions below.

Under the Manager heading, tap Charger Unit.

Set the DC Input Trigger.

The DC Input Trigger sets the voltage at which the Manager will begin to charge your auxiliary battery from the vehicle's charging system / start battery. (Refer to vehicle user manual or an authorised installer to determine your alternator type).

Below defines each DC Input Trigger setting:

Auto: Automatically detects if the start battery is 12V or 24V and operates within the 12 / 24V parameters outlined in the user manual.

12V: Designed for a 12V vehicle system. The Manager will begin charging from the start battery input when the input reaches 12.9V for standard alternators or 12.0V for other alternators (where the vehicle ignition cable is used). The Manager will stop charging from the start battery input when the input drops below 12.7V for standard alternators or 11.9V for other alternators.

24V: Designed for a 24V vehicle system. The Manager will begin charging from the start battery input when the input reaches 25.8V for standard alternators or 24.0V for other alternators (where the vehicle ignition cable is used). The Manager will stop charging from the start battery input when the input drops below 25.4V for standard alternators or 23.8V for other alternators.

Ignition: Designed for non-standard systems between 9V and 32V. The Manager will charge from the start battery input whenever the vehicle ignition cable is powered and the input voltage is above 9V.

Always On: Designed for use with systems utilising a dual battery isolator or other non-standard systems between 9V and 32V. The Manager will charge from the start battery input whenever the input voltage is above 9V.

NOTE: Start Battery Charge and Recovery Mode are only available for 12V vehicle batteries and require the DC Input Trigger to be set to either 'Auto' or '12V' mode.



MANAGER ALPHA ONLY

Set DC Input Current Limit.

This setting allows the user to reduce the load that the Manager puts on the alternator, allowing the alternator to supply vehicle loads as a priority and not demand more than the alternator can supply. REDARC recommends consulting with a qualified technician to ensure your vehicle's alternator is not overloaded, as a guide it is best not to exceed 50% of the alternator's total capacity. This capacity will vary with different make and model vehicles.



MANAGER ALPHA ONLY

Enable or disable the *Start Battery Charge Mode.*

This enables the **Manager Alpha** to charge your start battery after your auxiliary batteries are full, this will only occur if the DC Input Trigger is set to Auto or 12V. It isn't compatible when set to Always On, 24V or Ignition.



MANAGER ALPHA ONLY

Set Fan Night Mode.

This allows the **Manager Alpha** charger to run without operating the internal cooling fan which results in eliminating the fan noise between the **Start** and **End** time selection under the Fan Night Mode Setting.

Please note, with this mode enabled the charger may derate the charge output based on the unit temperature.



Tap Save.



Tap Battery Sensor.

Set the **Battery Type** and **Battery Size**. (Refer to battery manufacturer specifications)

Set *Max Charge Current*. (Refer to battery manufacturer specifications,

system wiring size and charger output)

Set the *Low Soc Alarm* (state of charge) and *Low Voltage Alarms*. (*Refer to battery manufacturer specifications*)



3. TVMS ROGUE (TVMS1240)

If your system contains a *TVMS Rogue (TVMS1240)* please follow the configuration as below: *If an Output doesn't have any installed accessories, leave the Output disabled* **()** Disabled.

Please note: If you are adding a **TVMS Rogue** to an already configured system, you will need to **Read Device** and connect to your system before completing the instructions below.

Under the TVMS Modules heading, tap Wiri	ng			
Configuration.				

Tap TVMS Rogue.



Under *Module Name*, if multiple TVMS Modules (Rogue or Prime) are installed, rename each TVMS module for easier identification.

Tap **Outputs.**

To configure Outputs C1-C5 and D1-D5.

Tap one of the **Outputs** that has installed accessories.



Add a *Label*. Set an *Icon* for the output.



Next, set the output to **User Controlled** or **Always On**.

User Controlled will enable on/off operation when using the soft keys on the RedVision display or RedVision App. Always On will lock the output for constant power to the accessory.

If the accessory connected to this output is a dimmable LED, you can toggle on *Enable Light Dimming Mode.*

Set *Master Switched from Display* on or off.

Turning on will allow multi-channel on/off control when using the Master Switch. The Master Switch function can be accessed by double tapping the power button on either the RedVision Display or RedVision App.

Tap Save.

Repeat this process for the remaining Outputs that have installed accessories.





Tap **Back**.

Tap Sensor Inputs.

The Rogue has 2 configurable Analog Sensor Inputs (Generic Analog Input 1 and Generic Analog Input 2) and a Voltage Input.

There is additional monitoring of the input voltage to the Rogue which can be enabled if required.

Tap one of the *Inputs* that has installed sensors.



Set the Sensor Type.



If *Fluid Tank Level* is selected;

Ensure Sensor Input is *Enabled*.

Add a *Label.*

Set the Fluid Type.

Optional: Set **Widget Overlay**. (Eg: 1 for Tank 1 or G for Grey Water)



Set Sensor Type.

REDARC has 3 different length float sensors. Third party float sensors can be configured by selecting **Custom** in the **Sensor Type** drop down.

If a custom tank sensor is used, you will need to program the water levels by entering either resistance or voltage values. Add additional reference points by tapping **Add**.

Set Alarm Type, if necessary.

The alarm will appear as a warning on the RedVision Display once the specified Fluid Tank Level percentage limit is reached.

Tap **Save**.



Ensure Sensor Input is *Enabled*.

Add a *Label.*

Set an Icon.

Set a **Sensor**.

Set Alarm Type, if necessary.

The alarm will appear as a warning on the RedVision Display once the specified Temperature limit is reached.





If Voltage is selected;

Ensure Sensor Input is *Enabled*.

Add a *Label.*

Set an *Icon*.

Set Alarm Type, if necessary.

The alarm will appear as a warning on the RedVision Display once the specified Voltage limit is reached.

Tap Save.



Repeat this process for the remaining Sensor Inputs that have installed sensors.



Tap **Back**.

If you have installed physical switches to the Rogue, follow the instructions below: If a Switch Input doesn't have any physical switches installed, leave the Switch Input disabled () Disabled.

Tap Switch Inputs.

The Rogue allows up to 8 Switch Inputs either for mechanical switches or signals.

Tap one of the *Switch Inputs* that is connected to a physical switch.



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Push Button (Normally Closed

Signals



Repeat this process for the remaining Switch Inputs that are connected to a physical switch.



Tap **Back** until you are back at the main screen.

Tap Output Groups.

Output Groups allows the control of multiple Output Channels from one switch or input.

Tap Add Group.



Add a *Group Name*. Set an *Icon*. Tap *Modify Group Channels*.







Tap Control Configuration.

Control Configuration allows you to assign an output to a Switch Action.

Tap one of the *Switch Inputs* to assign an output or output group.



Tap Choose Output or Group.

Tap an **Output Group** or a single **TVMS Rogue Output** to assign to the Switch Input.



Under Control Logic, set your control type.					
				Digital I	
	Toggle: Is the default, on/off operation.		PIR Mov	ement Sensor	
	Dimmer: Allows for toggling on/off and press and hold for dimming. Suitable for dimmable LED circuits. <i>Control Parameters: Allows the percentage of</i> <i>dimming to be set for when the LED is switched on.</i>			Cont LIGHTS	
_	adjustable from 0-100%			Toggle	
${}^{}$	Timer: Allows for the channel to be	/	•	on/off toggle	
	Switched on for a specific time. Control Parameters: Allows the channel to remain on for up to 23hrs 59mins 59secs		0	Dimmer on/off toggle	
\bigcirc	Bell Press: Allows the channel to be		0	Timer turn on for a p	
	active when the switch is held down.				
A	Lock Off: Locks a particular channel or channels off when the switch is active. <i>Control Parameters: allows the channel to return to</i> <i>its initial state when the switch is inactive</i>		l	Cancel	
	Lock On: Locks a particular channel or channels on when the switch is active. <i>Control Parameters: allows the channel to return to</i> <i>its initial state when the switch is inactive</i>				
Tap Save .					
Tap Back	until vou are back at the main screen.				

Repeat this process for the remaining Switch Actions to assign an output or output group.



4. TVMS PRIME (TVMS1280)

If your system contains a *TVMS Prime* (*TVMS1280*) please follow the configuration as below: If an Output Channel doesn't have any installed accessories, leave the Output disabled Channel Enabled.

Please note: If you are adding a **TVMS Prime** to an already configured system, you will need to *Read Device* and connect to your system before completing the instructions below.

Under	the	TVMS	Modules	heading,	tap	Wiring
Config	lura	tion.				

Tap TVMS 1280.



Under *Module Name*, if multiple TVMS Modules (Rogue or Prime) are installed, rename each TVMS Module for easier identification.

The yellow bars represent digital inputs, these control a channel by turning it on or off when either an input voltage or open circuit is detected by the digital input channel.

For example: The digital input can be used to turn auxiliary rear lights on when the vehicle is put into reverse.

Tap one of the *Digital Inputs* that has installed accessories.



Add a *Label.* Ensure *Channel Enabled* is enabled. Set an *Icon*.



Next, under the *Input Logic* heading, set *Input is ON when*.

Below defines the options:

High (Greater than 3 Volts):

When the digital input receives an input voltage above 3 volts, the digital input turns on.

Disconnected (Open Circuit):

When the digital input has a voltage input and the input is taken away, the digital input turns on.

Low (Less than 1 Volt):

When the digital input receives a ground input and the input voltage drops below 1 volt, the digital input turns on.



Tap **Save**.

The blue bars represent the Output Channels. Output 1-5 (F0-F4 on the distribution box) are 10A channels and Output 6-10 (F5-F9 on the distribution box) are 30A channels.

Tap one of the **Output Channels (1-10)** that has installed accessories.





Add a *Label.* Ensure *Channel Enabled* is enabled. Set an *Icon*.



Next, under *Logic Configuration* set the *Master Switch* to on or off.

On will allow the channel to turn on or off when Master Switch is enabled on the RedVision Display or RedVision App.

		Logic Configuration
		Master Switched
	۲	Always On
	0	Input Control
	0	User Control

Master Switched

Set the channel to *Always On*, *Input Control* or *User Control*.

If Always On is selected;

Always On will lock the output for constant power to the accessory.

If Input Control is selected;

Set the Input Channel.

Set the Input Channel to **ON when INPUT ON** or **OFF when INPUT ON**.

This will enable the output to switch on or off depending on the digital inputs.



If User Control is selected;

User Control will enable on/off operation when using the soft keys on the RedVision Display or RedVision App.

Additionally this can be configured as a *Momentary Switch* (On only during button press) or *With Input Override* from a digital input.





The dark blue bar represents the Inverter Channel.

This communication line is only compatible with REDARC inverters.

Tap Inverter 1.



Add a *Label*.

Ensure Control Enabled is enabled.

If you have an RS3 Inverter and TVMS Prime with a serial number greater than 2310119116-0001, you can turn on **RS3 Inverter Comms Enabled** to monitor the output voltage and output power of your inverter on the RedVision Display and RedVision App.

Set an *Icon*.

Under Logic Configuration set the Master Switched to on or off.

On will allow the Inverter to turn on or off when double tapping the Master Switch on the RedVision Display and RedVision App.

Set the Inverter to Always On, Input Control or User Control.



If Always On is selected;

Always On will lock the output for constant power to the Inverter Channel.



If Input Control is selected;

Set the Input Channel.

Set the Input Channel to ON when INPUT ON or OFF when INPUT ON.

This will enable the output to switch on or off depending on the digital inputs.



If User Control is selected;

User Control will enable on/off operation when using the soft keys on the RedVision Display or RedVision App.

Additionally this can be configured as a *Momentary Switch* (On only during button press) or With Input Override from the digital input.



Tap Save.



To configure the Voltage Inputs, follow the instructions below: Optional: if you choose not to display voltage information, leave the channel disabled Defannel Enabled.

The green bars represent Voltage and Temperature Inputs.

Voltage Input 1 is measured using the positive and negative of the Digital Input connector. Voltage Input 2 is measured from the TVMS Prime input power supply.

Tap one of the *Voltage Inputs*, to configure.



Voltage Input 1 Add a *Label*. Ensure Channel Enabled is enabled. Label Set an *Icon*. 1 Enter label 7 Choose Icon Set Alarm Type, if necessary. Channel Enabled The alarm will appear as a warning on the RedVision Display once the specified voltage limit is Overlay reached. Tap **Save**. V Repeat this process for the remaining Voltage Input. Alarm Type Turn ON above 32.0 V +Turn OFF below 0.0 V

If you have a Temperature Probe(s) connected to the TVMS Prime, follow the instructions below: If a channel has no Temperature Probe(s) connected, leave the channel disabled Channel Enabled.



Add a *Label*.

Ensure *Channel Enabled* is enabled.

Set an *Icon*.

Set *Alarm Type*, if necessary.

The alarm will appear as a warning on the RedVision Display once the specified temperature limit is reached.

Tap **Save**.

Repeat this process for the remaining Temperature Input that has a probe installed.



If you have Water Tank Probe(s) / Sensor(s) connected to the TVMS Prime, follow the instructions below: If a channel has no Water Tank Probe(s) / Sensor(s) connected, leave the channel disabled Channel Enabled.





Set *Alarm Type*, if necessary.

The alarm will appear as a warning on the **RedVision Display** once the specified Water Level Tank percentage limit is reached.

Tap **Save**.

Tap **Back** until you are back at the main screen.

Repeat this process for the remaining Water Level Tanks that have a probe or sensor installed.

	Alarm Details					
	Alarm Type					
	0	Disabled				
(High limit alarm				
	0	Low limit alarm				
	Turn O	N above	100 %			
	Turn O	FF below	0 %			
	Θ		$ \oplus$			
			Save			

5. REDVISION USER INTERFACE

If your system contains a *TVMS Rogue (TVMS1240)* or *TVMS Prime (TVMS1280)* please follow the configuration as below:

Please note: The following steps are not applicable if you have a Manager30 or Manager Alpha without a TVMS installed.

Under the *RedVision User Interface* heading, tap *TVMS Display*.

Each display connected to the system will be listed under the *RedVision User Interface* heading.

If multiple RedVision Displays are installed, you can program different soft keys, home screen and status screen layouts.

Under *Module Name*, rename each display for easier identification (ie: front or back, inside or outside).

Tap Soft Keys.

The layout of the **Soft Keys Page 1** corresponds to the location of the **Soft Keys** on the RedVision Display and RedVision App.

If you are selecting an Output from a TVMS Prime Output Channel, the chosen Output Channel will fill the Empty Soft Key you selected, however, if you have a TVMS Rogue, you will have more options for the control type (see below).

Tap one of the *Empty* Soft Keys.

Select an Output Group or Output Channel.

Output Groups will only appear if a TVMS Rogue is installed and if you have configured groups.









Repeat this process for the remaining Soft Keys.

If you have more than 6 Channels, tap + Add Soft Keys to add a new page.

Tap Save.

Tap Home Screen.

Select a Home Screen layout which will be configured onto your RedVision Display and RedVision App.

There are a number of Home Screen combinations to choose from. Select the one that suits your setup or displays the items that you wish to see on your Home Screen.

Depending on the **Home Screen layout** you select, the app will prompt you to customise the information that will be displayed on the home screen of the RedVision Display and RedVision App.

Note: If any of these are not connected or you don't want to display the information, leave as **None**.

Set a Home Screen Layout.





Below defines each *Home Screen Layout* option:

Home screen layout options with inverter information are only compatible when using **REDARC RS3 Inverters** with comms connected to the **TVMS Prime**.

Battery Overview, TVMS Tank Levels: Displays battery information including state of charge percentage and tank levels. Once selected, you will be prompted to select the temperature readout and TVMS tank level options. *(TVMS ROGUE & TVMS PRIME)*

Battery Overview, TVMS Tank Levels

Battery Overview, Manager Current Flov

94 %

24 da

0

0

23/25%

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▣

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Battery Overview, Manager Current Flow: Displays battery information including state of charge percentage and manager current flow information. Once selected, you will be prompted to select the temperature readout. *(TVMS ROGUE & TVMS PRIME)*

Battery Overview, Inverter Output: Displays battery information including state of charge percentage and inverter output voltage and wattage. Once selected, you will be prompted to select the temperature readout and inverter readout. *(TVMS ROGUE, TVMS PRIME & RS3 INVERTER)*

TVMS Voltages, TVMS Tank Levels: Displays voltages and tank levels. Once selected, you will be prompted to select the temperature readout, TVMS tank levels and voltage channels. *(TVMS ROGUE & TVMS PRIME)*

TVMS Voltages, TVMS Tank Levels, Inverter Output: Displays voltages, tank levels and inverter output voltage and wattage. Once selected, you will be prompted to select the temperature readout, inverter readout, TVMS tank levels and voltage channels. (TVMS ROGUE, TVMS PRIME & RS3 INVERTER)

TVMS Voltages, Inverter Output: Displays voltages and inverter output voltage and wattage.

Once selected, you will be prompted to select the temperature readout and inverter readout. (TVMS ROGUE, TVMS PRIME & RS3 INVERTER)

Managers Information Only: Displays battery information including state of charge percentage, manager current flow information, input status and solar input.

Once selected, there are no configuration options for this home screen. (MANAGER30 & MANAGER ALPHA)



TVMS Voltages, Inverter Output









Optional: With a TVMS Rogue or TVMS Prime installed, status screens can be added and accessed through the RedVision Display or RedVision App.

Tap Status Screen.

The Status Screen Settings page allows configuration of the RedVision Display Status Screens. Once the system has been configured, status screens are accessed by pushing the Right button on the RedVision Display or swiping when using the RedVision App.

There are multiple status screens which can be added to your RedVision Display Menu.

Tap + Add Status Page to add a status screen.



Select one or more RBus Device Status Screen layouts which will be added to your RedVision display and RedVision App menu.

The screen layout options are *TVMS Overview*, *TVMS Fluid Tank Levels* and *RS3 Inverter Output.*

Depending on the *RBus Device Status Screen* selected, this next screen will give you specific display options for the chosen screen layout.

You can name the screen layout and select the information you want displayed.

The tank status screen allows you to display two rows of tank levels, up to four on each row.

Note: If you only select two on a row, the icons will appear larger than if three or four are selected.

For Status Screen options you don't want to display on the status screen, leave as *None*.



6. BATTERY PROTECTION

Battery Protect is designed to prevent excessive discharge of the auxiliary battery. For more information refer to the RedVision user manual.

Tap *Load Disconnect* from the main screen. Tap *Battery Protect*.



Ensure Battery Protect is Enabled.

Adjust the minimum voltage that all the channels will switch off at.



Under the *Product Load Disconnect Settings* heading, tap *Charger (Manager)*.

In battery management systems, the load disconnect feature automatically disconnects non-essential loads when the battery reaches a predetermined value, such as a Voltage or State of Charge (SoC). This prevents excessive discharge of the house battery, ensuring that essential loads, like a refrigerator, can continue running for a longer period while managing available input power.

Set the Disconnect Type.

The list below provides the disconnect type options.

Always: overrides the load disconnect feature.

Voltage: uses the battery voltage information to enable/disable Load Disconnect based on turn ON/OFF voltage thresholds.

BMS Voltage: uses the Manager battery voltage information to enable/disable Load Disconnect based on turn ON/OFF voltage thresholds.

BMS SOC: uses the Manager battery percentage information to enable/disable Load Disconnect based on turn ON/OFF percentage thresholds.

Never: disables the load disconnect feature.



For applications using Manager30 or Manager Alpha, the suggested Disconnect Type is BMS SOC, this refers to the Battery Percentage that you see on the home screen of the RedVision Display and RedVision App. For all other applications, set Disconnect Type to Always, which will override the load disconnect feature.

Tap **BMS SOC** as **Disconnect Type**.

For **Lead Acid** or **AGM Batteries**; Adjust *Falls Bellow* to 50% and *Turn Back On Above* to 55%

For **Lithium Batteries**; Adjust *Falls Bellow* to 20% and *Turn Back On Above* to 25%

Much like the Manager Charger Disconnect Trigger.

Tap **Save**.

Tap **Back** until you are back at the main screen.



7. PROGRAMMING REDVISION DISPLAY

Once the configuration is complete and you are back on the main screen, tap *Program*.

Under *Choose System*, select your system by tapping *Connect* and allow to program.

Note: You may need to tap **RESCAN** for your device to appear. (This may take a few moments).

In systems that have multiple devices ensure you connect to the RedVision Display **REDARC DISP** rather than the Smart Battery Monitor.

Once completed, a pop-up with *Success* will appear on the **REDARC Configurator App** screen and the **RedVision Display** will restart.

Tap Continue.



This completes the programming.

PROGRAMMING TWO DISPLAYS:

When configuring an installation with two displays, the configuration needs to be applied to each display, please follow the programming procedure as below:

Once the configuration is complete and you are back on the Home Screen. Tap *Program*.

Under *Choose System*, select the REDARC DISP by tapping *Connect* and allow to program.

Note: You may need to tap **RESCAN** for your device to appear. (This may take a few moments).

Ensure you connect to the RedVision Display **REDARC DISP** rather than the Smart Battery Monitor (BATSEN).

Once the display has finished reading the devices, you will be presented with a pop-up screen to configure the two displays.



Refer to page 1-1 of this guide. Using the notes you recorded, select the display name that corresponds to the serial number shown in the app.

Tap **Next**.

Select the remaining option for the second display.

Tap **Done**.

The programming of the configuration will begin and once completed, a pop-up with *Success* will appear on the RedVision Configuration App screen and the RedVision displays will restart.

Tap **Continue**.



For further information on REDARC products visit **redarcelectronics.com**.