



# **OEM Module Hardware Installation Guide**

One device can control one motor+optional light, or two lights with dimming and fade, or two relays with momentary or toggle functions.

Does not need cell service to work.

Greater than 100-foot range.

Mounts behind the control switch

#### Universal for all 12Volt features:

Jacks, Awnings, Slides

Lights (LED and Blub)

Relays and Hydraulics valves, generator run/ start.

#### **Multiple Safety features:**

smartLOCK (patent pending)

**Motion Sensing** 

Reverse protection

Short circuit

Over current

Over temp

Under and Over voltage

#### smartRVapp

Apple and Android

Free, no advertising

Can pair to as many modules as you need to control your RV

The smartRVcontrols are multi-use remote control modules that can be configured to operate any 12V electrical features in your RV, such as lights, Bulb or LED, jacks, awnings, slides, relays, valves, generators and more.

Download the free easy-to-use smartRVapp, available for iOS and Android, to configure a module for the function you need and take control right from your phone.

The smartRVcontrols OEM module is design specifically to be used with the existing switch controls. With some very minor wiring using quick disconnects you can easily connect the smartRVcontrols OEM module into the wiring and you are controlling the feature via your smartphone. Of course the original switch works at all times.

The module has been created so that when used with a DC motor, a light can also be attached to the device and controlled from the app. When configured as a light controller you can control two channels at up to 10A each, with dimming and fading. When used as a relay controller, each channel can be configured for either momentary or toggling, when connecting to relays, generators, water pumps and water heater controls

Our Patent Pending smartLOCK environmental safety system ensures that your devices will not activate while your RV is in motion or in any other unsafe condition. The smartRVcontrols module has a 1-year manufacturer defect warranty.

The smartRVcontrols OEM







# IP-69 waterproof encapsulation

**Power and Ground** 

connections

Accessory light connection

High current output wires



Three low current high going signals:

**Extend** 

Retract

Light

A 12V low current

wire to provide the 12V for the signal switches

LED indicator can be seen through the encapsulant.

#### LED indicator: Shows conditions of unit with a sequence of lights at 1 sec intervals

Green: Your smartRVcontrols is on and has no problems but is not connected to the phone

Blue: Your smartRVcontrols is on and has no problems and is connected to the phone

Red: There is an issue: Device is not configured, device is motion locked, or it is in over current

White: The smartRVcontrols are being controlled by the existing wall switch

Light Blue: The smartRVcontrols are being controlled by a phone via the app

Purple: Voltage supply is outside of the nominal operating range (9 volts -15volts)







# Wire Connections Connect by wire color, not position



14 gauge wires design for high current

12Vdc at 30 amps is the RED wire

Power ground is the BLACK wire

The 12vdc output to the optional light is the YELLOW wire

The ORANGE wire is one high current output

The BROWN wire is the other high current output

18 gauge wires design for low current

The YELLOW wire is the control signal for the light

The ORANGE wire is the control signal to extend

The BROWN wire is the control signal to retract

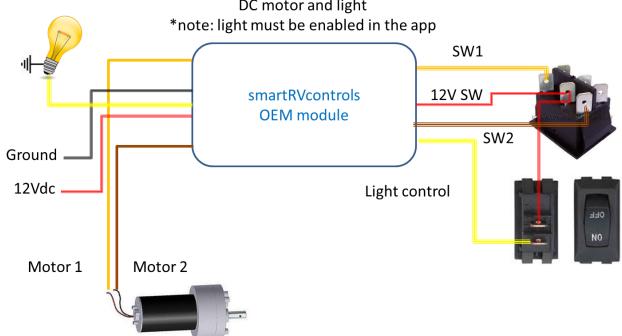
The RED wire provides the 12V signal for the switches to control the module



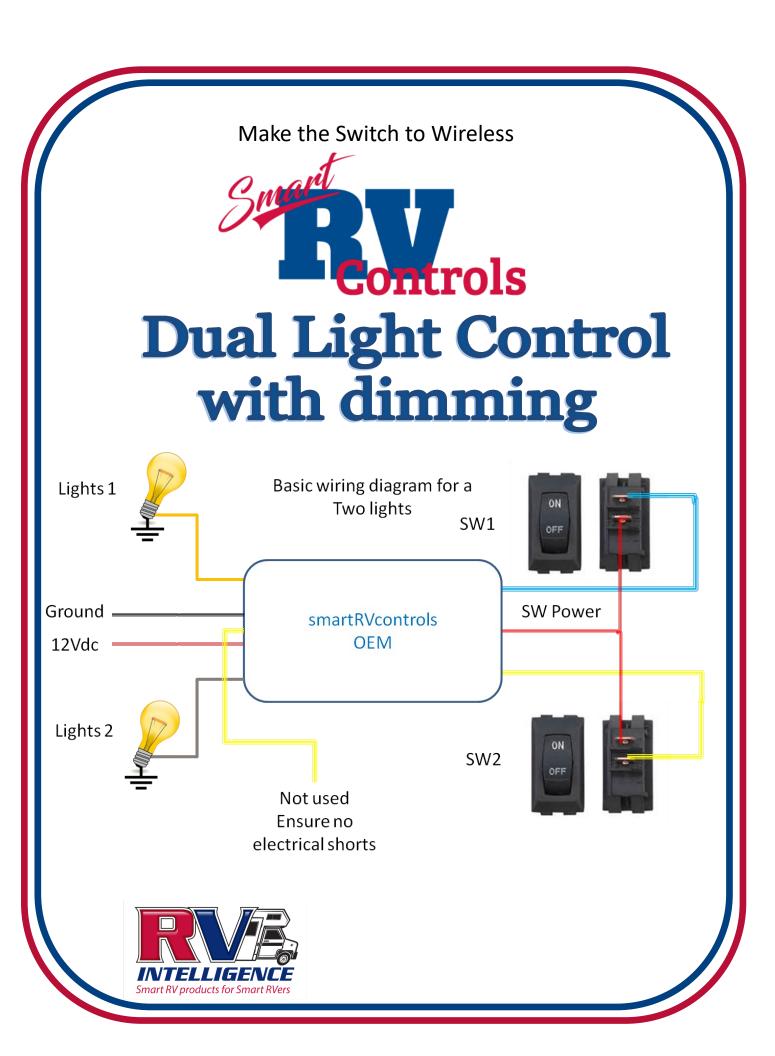


# DC Motors: Jacks Awnings Slides with optional light

Typical wiring diagram
smartRVcontrols OEM module installation
DC motor and light
\*note: light must be enabled in the ann

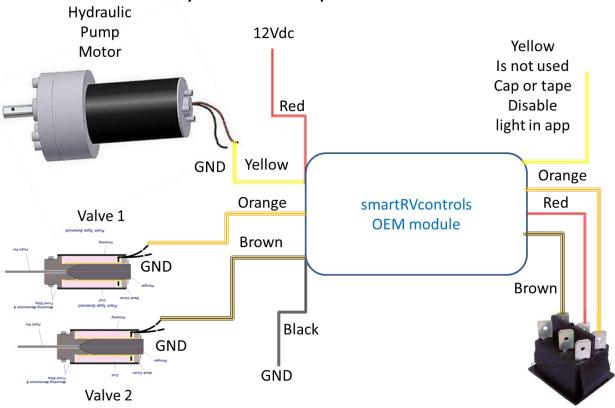






# FControls Hydraulic Kit

### Hydraulic Pump and Valves







Do I have to have cellular coverage or WiFi access to use the smartRVapp? No, smartRVcontrols is connected by Bluetooth Low Energy (BLE).

#### Can I add another smartRVcontrols module to this app?

Yes, multiple smartRVcontrols can be operated with the app. You simply select the device you wish to operate from the device listing in the menu after selecting the plus(+) sign in the upper right corner.

#### What is the smartRVapp's working range?

Approximately 100 feet. Range is dependent on many factors; the application shows signal strength and will warn you if you are outside the effective range.

## Can the smartRVcontrols be restored to factory defaults, no paired devices, and the PIN reset to 123456?

Yes, rock the manual control switch 3 times or more within 5 seconds. The indicator will cycle through all the colors and the smartRVcontrol module will reset all features to factory default, clear all pairings, and resets the PIN to 123456.

What is the smartLOCK environmental safety system, and why do I need it: In most RVs the features (slides, awnings and jacks) all have power available to them while the RV is being transported. Very few RVs have a safety interlock that prevents operation while the RV is in motion. If something were to fall against the switch while the RV was in transit, or someone where to activate an old-fashioned key fob remote control, it could start to move, really, it is not hard to image the many disastrous results! The smartRVcontrols module not only adds the convenience of smartphone remote controls, but in addition our smartLOCK technology provides this essential safety interlock in your RV, for our smartphone app and even for the manual switch, solving this scary problem.



#### **Protection: Testing smartLOCK**

While the unit is not attached to the wall, you can test the motion detection by slightly moving the smartRVcontrols unit. This motion should be detected and the unit should show a RED indication, GREEN/RED if not connected, BLUE//RED if connected. If connected to a phone, the app should show that the device is locked. The smartRVcontrols can be unlocked by entering the password on the app or any manual switch activity. Both return the unit to normal function. The motion detection sensitivity is a setting on the configuration page and can be made or less sensitive.

IF THE MOTION DETECTION IS NOT FUNCTIONING, PLEASE CONTACT US IMMEDIATELY AND DO NOT USE THE SMARTRVCONTROLS UNIT. WE WILL PROVIDE A REPLACEMENT DEVICE AT NO COST. WE TEST EACH UNIT, BUT INSIST THAT A TEST IS DONE WHEN CONTROLLING A MOTOR DRIVEN FEATURE TO ENSURE YOUR SAFETY.

#### Power: Is my unit powered correctly?

The smartRVcontrols module requires 12V DC 30-amp service. If the power is correctly connected to the two tabs in the back, marked 12V DC and Ground, the LED indicator in front will be green. If it does not illuminate, check to ensure that you have 12V DC and Ground on the wires and that your crimps are successful. You can also try swapping the two wires. Reverse voltage does not harm the smartRVcontrols module; it simply will not function until 12V DC and Ground are on the correct pins. If adding any wires, ensure they meet the electrical current requirements of the device being controlled.

## Overcurrent protection and shorts to ground: My unit is not working and I hear a whining noise coming from the smartRVcontrols module.

The smartRVcontrols module has inherent overcurrent/short circuit protection built into the unit. You cannot break it by shorting out the outputs; they protect themselves against over current, and you can tell by the high-pitched sound made by the electronics. Also, the LED indicator will add a Red to its light sequence, and if connected the app will display an overcurrent warning. Once the problem is corrected, the module will work normally.

### I am trying to pair, but the app keeps saying that the pin/passkey is incorrect? There are two situations where this could occur:

Someone has set the PIN to a value different from what you are entering. Or you already have 4 phones paired to the unit.



While using the smartRVcontrols module to run a feature it "just stopped". I tried the button again and it started working again, but it said I was in over current protection. What happened?

The smartRVcontrols module has inherent over current protection built into the unit. Motor driven RV features can run it to many issues: poor lubrication, tacky gaskets, pitching and binding slides or bent awnings, jacks that can generate enough force to twist your RV frame. The smartRVcontrols module actively monitors the total power sent to the RV feature you are controlling. Should that power exceed a safe level, the overcurrent warning is activated. The LED indicator will add a Red to its light sequence, and if connected the app will display an over current warning. Once the problem is corrected, the module will work normally. Before smartRVcontrols modules, people would just hold down the power switch, "forcing" more power to the unit. Many bad things can happen in that scenario; broken drive gears, burned out wires, blown fuses, bent metal. The smartRVcontrols module only allows the proper amount of power to be delivered, ensuring safe operation of your RV feature. If your smartRVcontrols module continues to overcurrent, it is an indication that your feature needs service.

I just bought a coach with smartRVcontrols modules, and I want to reset the pairing and PIN. The smartRVcontrols module can be reset to factory defaults by holding the two front switches on the module for about 10 seconds. The indicator will cycle through all the colors and the smartRVcontrols module will reset all features to factory default, clear all pairings, and resets the PIN to 123456.

#### The pairing failed and I cannot seem to make it connect. I just want to start over?

Delete the device from your app. Select "delete device," select the device, and then confirm. Close the app to clear the memory.

Go to the Bluetooth icon on your phone, or through the settings menu, and delete or forget the smartRVcontrols device from the list of known Bluetooth devices. Restart the pairing procedure.

#### My phone is not connecting to the smartRVapp.

Check that your phone's Bluetooth is turned on and that location services are enabled, You can turn on Bluetooth via the phone's settings menu. If there are already four paired smartphones, that is the limit of the number of paired smart devices at any time.