

600DC WIRELESS SINGLE MOTOR VARIABLE SPEED CONTROLLER

READ CAREFULLY BEFORE AND WHILE INSTALLING

NOTE FOR MOTORS LARGE THAN 1/3HP YOU CANNOT USE POWER AND GROUND FROM YOUR 7 PRONG TRUCK PLUG

ALSO MANY TRUCKS 2014 AND NEWER DO NOT HAVE HEAVY ENOUGH GAUGE OF WIRING TO THE 7 PRONG PLUG YOU MUST STRING A POWER WIRE FROM BATTERY BACK TO THE UNIT OR USE AN EXTERNAL BATTERY.

NOTE this unit was tested again before shipping. You will need to reprogram the unit (SEE PROGRAMMING TRANSMITTER TO RECEIVER) below

For use with 12-volt DC only

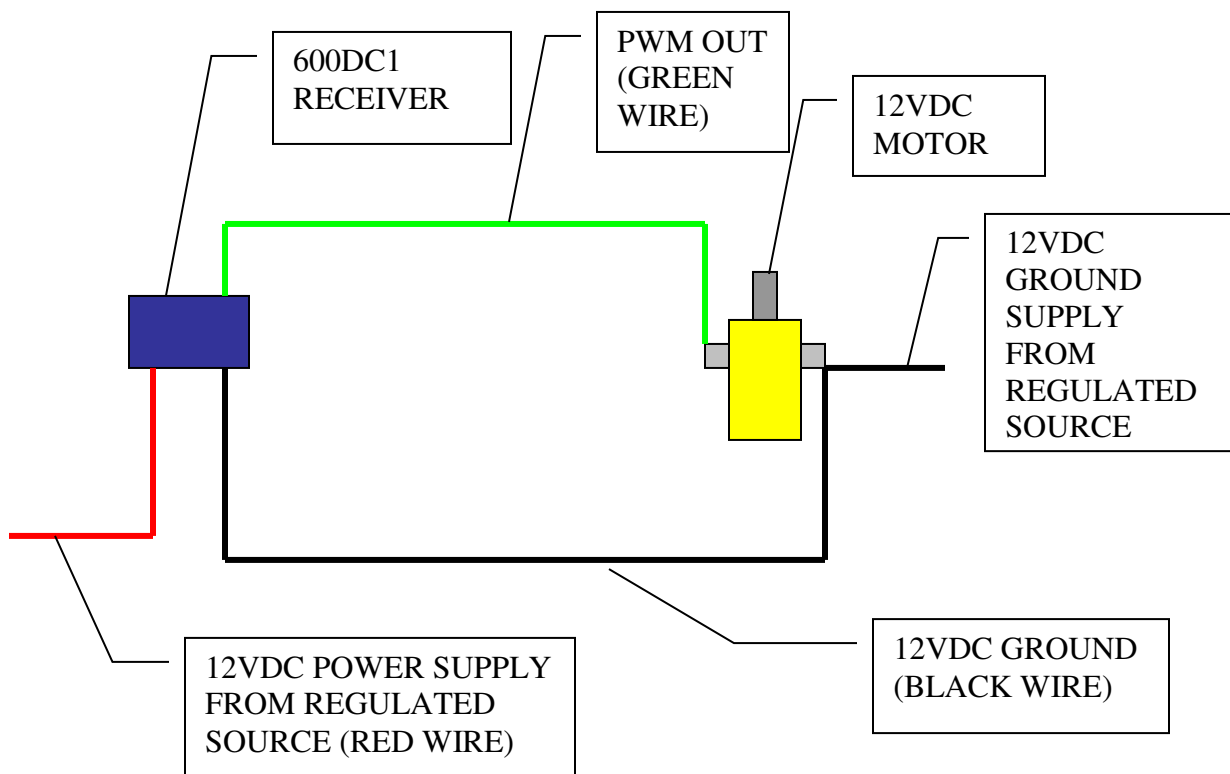
How it Works:

The 600DC Wireless DC Motor Controller provides RPM control for a single, 2 pole DC motor that can output up to over 200 amps for up to 1 seconds and a continuous amperage of up to 80 amps. The speed or RPM control is done by providing the user 5 outputs, approximately 1/5 of the maximum motor RPM. The 600DC also incorporates a full RPM feature (Blast) that runs the motor full speed for 6 to 8 seconds and then automatically shuts off and an E-Stop.

To protect the motor and electronics, the 600DC has built-in safety circuits. These include:

- Automatic shut down if motor is locked up. How this is done is if the receiver senses a current draw of more than 200 amps at start up for more than approximately 1000mS, the unit will shut down from 1 to 30 seconds.

Typical Wiring Connection Diagram



Be very careful when connecting to a 7 prong rv plug cord as the white wire on the plug is ground and the black is power coming from the cord. If crossed up with the wireless unit you will burn out the unit (no warranty)

We highly recommend the use of Alumiconn #18 - #10 awg connectors or other clean secure connections

RED WIRE FROM RECEIVER CONNECTS TO POWER SOURCE 12V POSITIVE OR 7 PRONG TRUCK TRAILER PLUG IN POSITIVE WHICH IS LABELED BLACK #4 ON INSIDE OF TRUCK 7 PRONG RECEPTACLE.

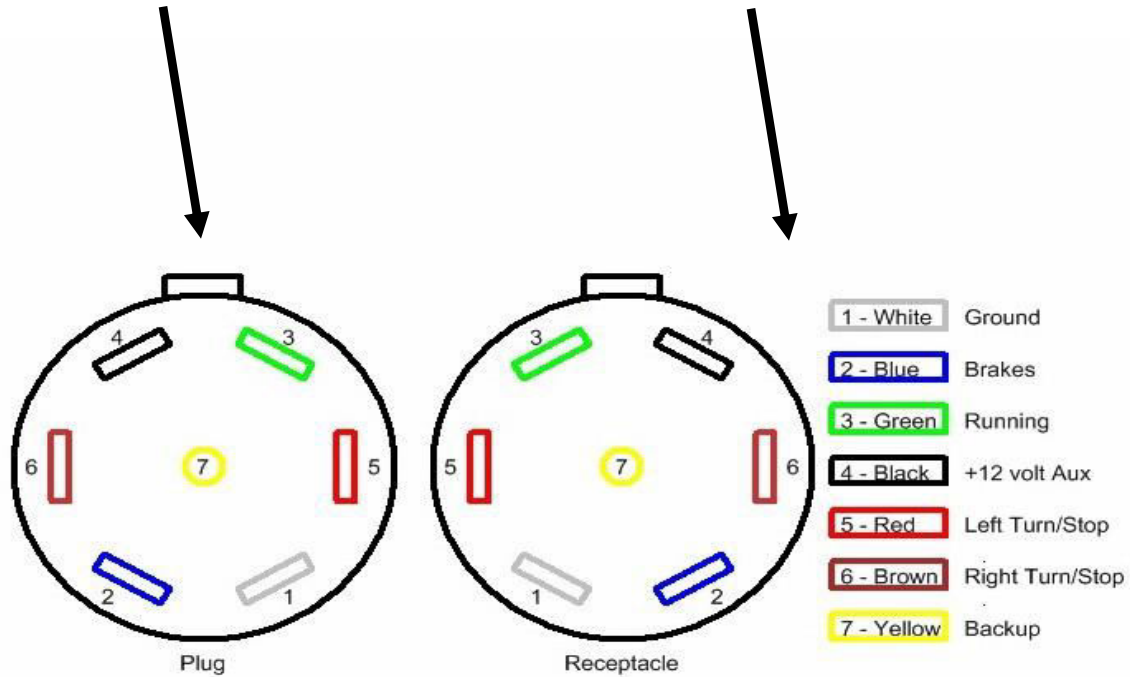
BLACK WIRE FROM RECIEVER (GROUND) CONNECTS TO ONE SIDE OF YOUR MOTOR (NORMALLY BLACK WIRE) AND GROUND OF POWER SOURCE OR GROUND ON 7 PRONG TRUCK RECEPTACLE LABELED WHITE #1

GREEN WIRE FROM RECEIVER CONNECTS TO OTHER WIRE OR POST ON THE MOTOR (NORMALLY RED) Note **if the motor runs backwards simply switch the wires on the motor.**

ALWAYS TEST YOUR TRUCKS WIRING TO MAKE SURE IT WILL MATCH UP IF YOU CONNECT WRONG YOU WILL BURN OUT THE UNIT IMMEDIATELY. Below picture is an example only 7 prong plugs will vary.

SPREADER PLUG

VEHICLE PLUG



If your unit came with or you purchased a 7 prong female plug lead we use the white(ground) and black(power) wires only. The rest of the wires are not used. *User must maintain good, clean connections for proper operation and to avoid damage to the receiver and void the warranty*** note – some trucks 2014 and newer have to get power direct from battery and not from the 7 prong connector**

OPERATION: Note model operation may vary slightly from instructions



**600DC blue ringed
TRANSMITTER**

Shown above is a typical transmitter for wireless operation of a 12VDC motor. The button functions are as follows:

1. **ON/** this button turns on the receiver unit and will allow the receiver to function. It also will stop the unit, but does not shut down the receiver.
2. **#1/** Slow speed setting of approximately 1/5th of full motor speed.
3. **#2/** Speed setting or approximately 2/5th of full motor speed.
4. **#3/** Speed setting or approximately 3/5th of full motor speed.
5. **#4/** Speed setting or approximately 4/5th of full motor speed.
6. **#5/** Full Speed.
7. **Blast/** A timed 6 to 8 second full speed with auto shut down.
8. **OFF/** Shuts down the receiver unit. Must be turned on using Button #1

****** It is recommended that when the DC motor/s is under high loads that the control first be started at medium to high speed for the first 1 to 5 seconds of operation to avoid damage to the motor or control and may void the warranty******

If transmitter is allowed to freeze warm it up before use as the battery and keypad may be frozen

Programming Transmitter to Receiver:

[Video link](#)

The following are the step by step procedures for setting the unique address between the transmitter and receiver or adding extra transmitters to the receiver (up to 40 transmitters). Note you need to be next to the receiver and the receiver needs to have 12-volt power and ground connected and the cover off of it.

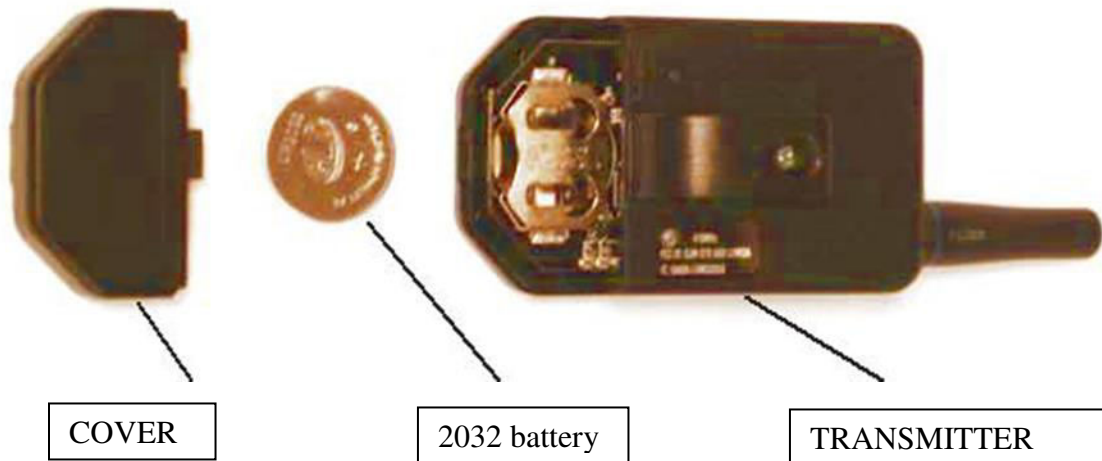
On the backside of the standard Transmitter, use a paperclip and **GENTLY** insert it in the hole next to the clear blue window. Once the programming button is depressed, a blue LED will begin to blink for 15 seconds. Flip the Transmitter over and firmly depress all 8 buttons starting with the ON button within 15 seconds. Now the Transmitter has acquired a 1 in 16 million address. **MAKE SURE THE BLUE LIGHT GOES OUT BEFORE PROCEEDING.**

Next step is to remove the receiver box cover noting the drain hole positions in the cover. With the receiver connected to a 12VDC power source look inside the box next to the red LED depress the black programming button. The red LED will begin to flash for 15 seconds. Take the Transmitter while the red LED is flashing and depress all buttons one at a time on the transmitter. When you are finished press the black button on the receiver again and the red light will stop blinking and you are now programmed. To test this, press a button on your transmitter and the red light on the receiver will come on. Re-install the cover noting drain hole position, depress the "OFF" button on the transmitter to make sure the unit is off. . The unit is now ready to operate the DC motor.

Add button

Blue light





WARNING PLEASE READ THIS FOR SALT SPREADER APPLICATIONS.

THESE UNITS ARE DOUBLE TESTED BEFORE THEY SHIP AND WORK WHEN THEY LEAVE HERE. YOU WILL NEED TO REPROGRAM (SEE DIRECTIONS)

ONCE YOU HAVE VERIFIED PROGRAMMING IF YOU HOOK THE UNIT UP TO YOUR PLUG IN AND IT DOES NOT WORK CHECK YOUR POWER AND GROUND CONNECTIONS. DO NOT TAKE THE TRANSMITTER APART. THIS IS USUALLY DUE TO POOR GROUND OR POWER IF YOU ARE USING YOUR TRUCKS TRAILER PLUG.

When using your own power and ground we recommend using a cutoff switch when the unit is not in use. Wiring that is powered for prolonged periods of time enhances wiring corrosion. You may just add a good toggle switch to the ground wire. Otherwise disconnect the power from the unit when not in use.

FAILURE TO FOLLOW ALL DIRECTIONS CAN LEAD TO PERMANENT DAMAGE TO EITHER MOTOR, CONTROL, TRANSMITTER OR ALL.

Salt spreaders are made for bagged salt only, not sand, granite chips... Salt spreaders have small motors and will burn out if overloaded. If you drive a distance with a fully loaded hopper before activating any controls go back to the spinner and turn it counterclockwise and then clockwise to free up any compaction before activating the controller.

If you do not do this and continue to apply power to the motor you will burn out the motor and possibly the controller. THIS IS NOT COVERED UNDER WARRANTY.

(BE SURE OF YOUR GROUND AND POWER SOURCE BEFORE CONNECTING WIRES) Make sure you do not reverse the ground and power as you will burn out the receiver. This is not covered by warranty whatsoever.

USE DIELECTRIC GREASE ON YOUR ELECTRICAL CONNECTIONS TO PREVENT CORROSION. TYPICAL TAILGATE MOUNTED SPREADERS HAVE 2 BEARINGS MAKE SURE TO GREASE THEM OFTEN.

More info: see www.snowplowsplus.com or www.controlallwireless.com or email sales@snowplowsplus.com