

Airtronics Vanguard Radio Control Operating Instructions

Refer to the diagram showing the radio control transmitter for the location of controls. Extend the Radio Control Transmitter Antenna 1/4 to 1/2 way. Turn the Radio Control Transmitter on first and then turn on the main robot power switch. Turn on the Bear. It is necessary for the robot to always have an operating signal when it is on. If there is no signal you will not have full control of the robot.

Before operating the robot, attach the neck strap to the radio control neck strap connecting hook (#10 on the radio control diagram).

Control of the left and right eyelids is via switch #11 and #12 (See the radio control diagram) found on the upper left hand corner of the Radio Control Transmitter. With the switch towards the operator the eyelids will be in the closed position and away from the operator the eyelids will be in the open position. The movement of the eyes left and right is operated by switch #13. Moving it left moves the eyeballs left and moving the switch right causes the robot eyes to look right.

The cassette/radio and siren is controlled by the switch on the upper right top of the radio control (switch #18). Movement of the switch away from the operator causes the cassette tape function to switch on. Movement of the switch towards the operator causes the siren to switch on.

The left joystick left and right moves the Bear's head. Forward and back movement of the joystick does not control a function.

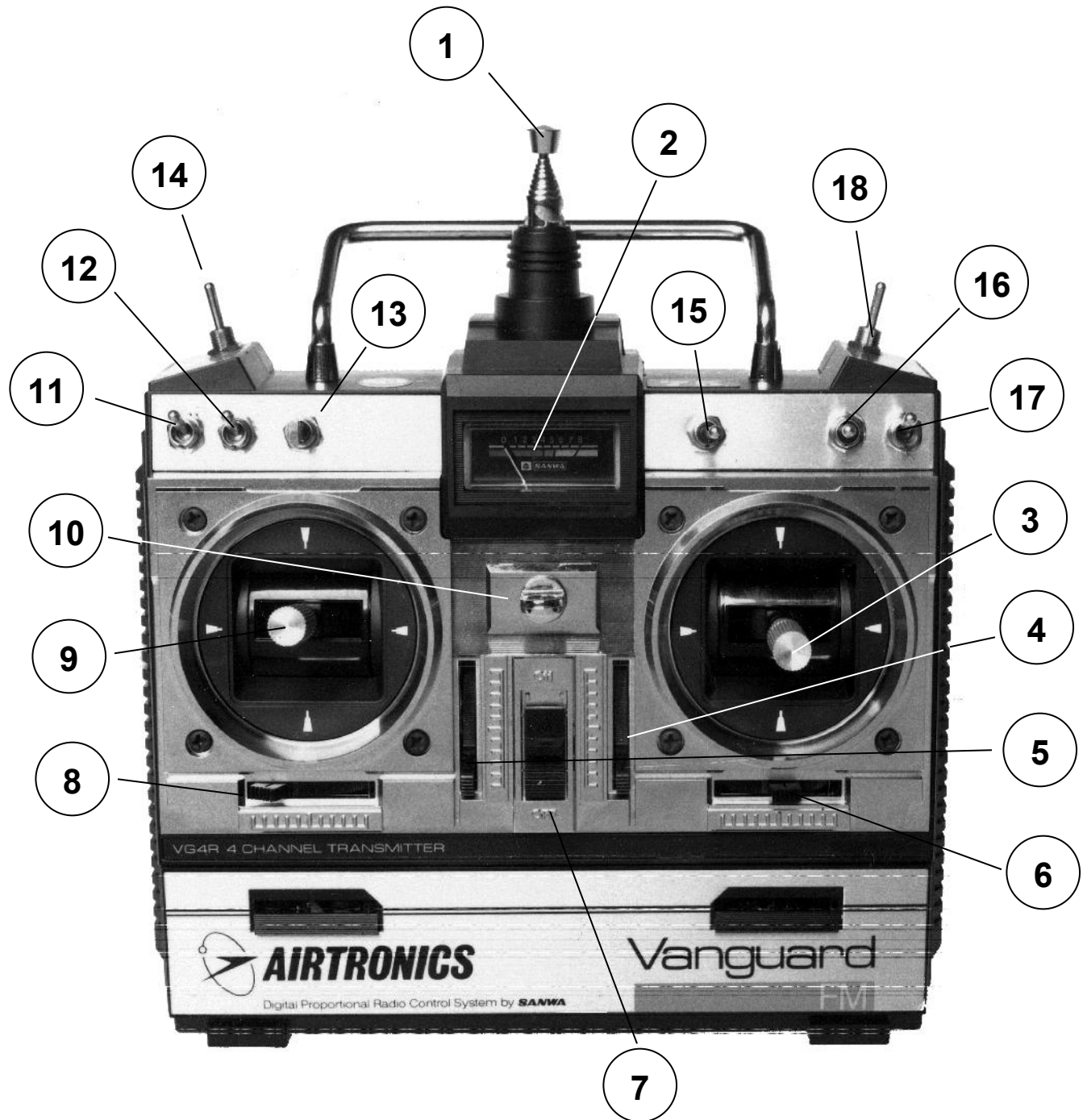
A charge plug is provided on the transmitter for recharging its internal 500 mAH NiCd batteries (Do not use this charge plug to charge the optional 1.3AH super battery pack). The charger should be connected with the appropriate cable connection, and the transmitter power switch must be in the off position before charging the batteries. A charge light on the charger will come on while charging.

To charge the super battery, unplug it from the R.C. and connect it directly into the super battery charger. Do not charge the small RC battery with the super battery charger. The small battery must be charged through the RC.

The transmitter should be charged for 16 hours when fully discharged. Take care not to overcharge the batteries as this will shorten their life span. Repeated partial discharging of the NiCd batteries will cause them to lose some of their capacity. Therefore, it is preferable to discharge the transmitter until the needle goes into the red region of the battery level meter before recharging when this is possible. It is best to avoid discharging the batteries until they are completely dead as this will make recharging more difficult.

The optional 1.3AH super battery pack may be attached to the back of the radio control with the Velcro. To connect it to the radio control, open the battery compartment of the radio control. Disconnect the internal RC transmitter Battery, and connect the Super Battery connector where it was plugged into. Put the battery compartment door back on allowing the Super Battery wire to run through the slot.

RADIO CONTROL TRANSMITTER (AIRTRONICS VANGUARD)



Note: Some switches or joysticks are not used on certain models of robots. Refer to the description of the functions on the next pages.

RC TRANSMITTER CONTROLS (AIRTRONICS VANGUARD)

1. Telescopic Transmitter Aerial.
2. Transmitter Battery Voltage Meter (Expand Scale Voltmeter)
3. Right Control Stick- Does not operate a function
- 4,5 Do not operate a function.
6. Left and Right Turns Trim Lever (Unused-disabled). Normal=center.
7. Power Switch - Turns Transmitter on and off.
8. Left/Right Trim Lever for left control stick (Unused-disabled). Normal=Center.
9. Left Control Stick- Left and right movement moves the Bear's head. Forward and back movement of the stick does not control a function.
10. Neck Strap Connecting Hook.
11. Switch - Left eyelid movement, open and close.
12. Switch - Right eyelid movement, open and close.
13. Switch - Eyes movement, left and right.
- 14-17 Do not operate a function
18. Switch (Function up - Center off - Function down-momentary.)

All Robots

Up - Cassette Player

Down - Siren (All Robots Except School Bus.)

- The switches that are listed 'Does not operate a function', are used for other types of robots.

THE RADIO CONTROL TRANSMITTER BATTERY

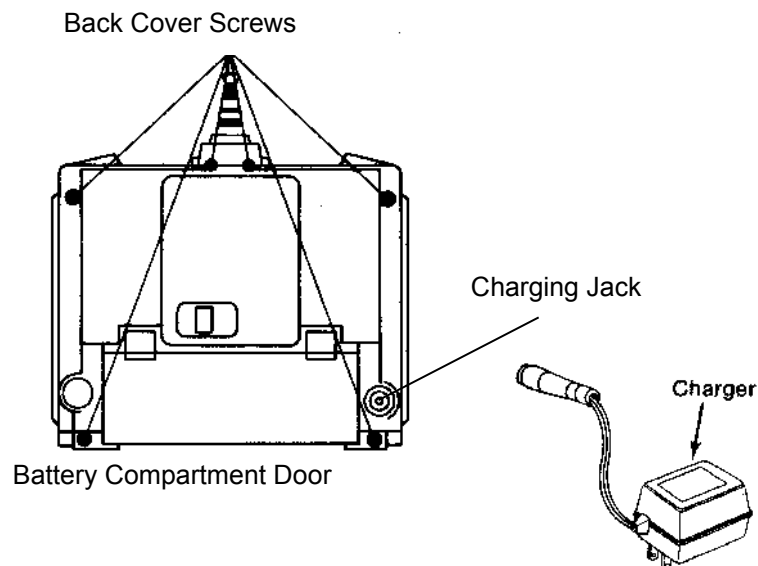
The RC transmitter battery will last about 2-3 hours on a full charge. A charge jack is provided on the transmitter for recharging its internal NiCd batteries. This round jack is located on the back of the radio control. (See the next page) The transmitter power switch must be in the off position when the charger is plugged into the transmitter (RC) and must remain in the off position while charging. A light on the RC transmitter battery charger will be on, when charging the internal RC transmitter battery.

When the RC transmitter battery is discharged, (The battery level needle is in the red), it should be charged for 14-16 hours.

Caution: Do not overcharge the batteries as this could cause permanent damage to the transmitter batteries. (Doubling the normal charging time is the type of over charging that is meant here, and the battery getting hot.) When the battery level needle goes in the red, the robot should be turned off because the robot could act erratic without the transmitter signal. If you have the optional Super RC battery or 110 Volt RC Power Supply, you could attach one of these and continue the program.

To avoid a RC battery going dead during a presentation, start the program with a fully charged battery or be aware of how much charge there is left in the battery. On a full charge the RC transmitter battery will last approximately 2-3 hours. If you have the optional 110 Volt RC Power Supply, there is unlimited operation time, because this unit is plugged directly into a 110 Volt AC outlet.

The battery should be discharged before recharging to increase the life of the battery. Repeated partial discharging and then recharging may build a memory into the battery. This will cause the battery to only allow partial discharge and therefore less operating time. Also avoid allowing the battery go completely flat by accidentally leaving the radio control on unattended.



THE SUPER RC TRANSMITTER BATTERY

The super battery is a battery that can be used to back up the R.C. transmitter battery inside the radio control. The R.C. transmitter battery will provide approximately 2-3 hours use and the super battery lasts approximately 8 hours.

The super battery pack may be attached to the radio control externally with the Velcro strips included. It should be attached to the back of the radio control. To connect the super battery to the radio control, open the battery compartment door on the back of the radio control transmitter. Disconnect the internal RC transmitter battery and feed the radio control power wire out through the slot in the battery compartment door. Connect this wire to the super battery.

The R.C. and super batteries should be used alternately to avoid a battery being left idle or stored for more than 2 weeks on less than full charge.

<p>CAUTION: Charge the super battery and R.C. battery only with their respective chargers to avoid damage to the batteries. Charge the R.C. and super battery only when in a discharged condition. a discharged condition is when the battery level indicator needle goes into the red. The battery can then be charged for 14-16 hours. Excessive charging or repeated half-discharging can damage the battery and shorten its life and ability to hold a full charge.</p>
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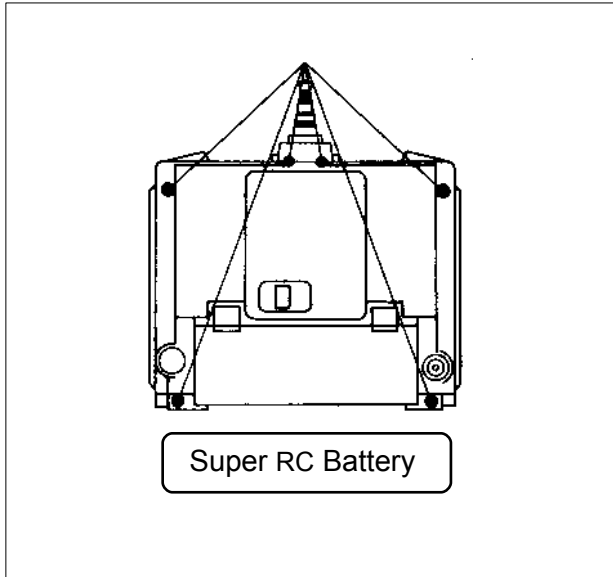
When the battery level needle goes in the red, the robot may jump or move on its own. To avoid this remember that the R.C. battery will last about 2-3 hours and the super battery, 7-8 hours. With this in mind and knowing the length of your presentation, you can be prepared with fully charged batteries. Avoid accidentally leaving the radio control on unattended and discharging this battery until it is beyond flat. This will make it difficult to charge.

110 VOLT RC TRANSMITTER POWER SUPPLY

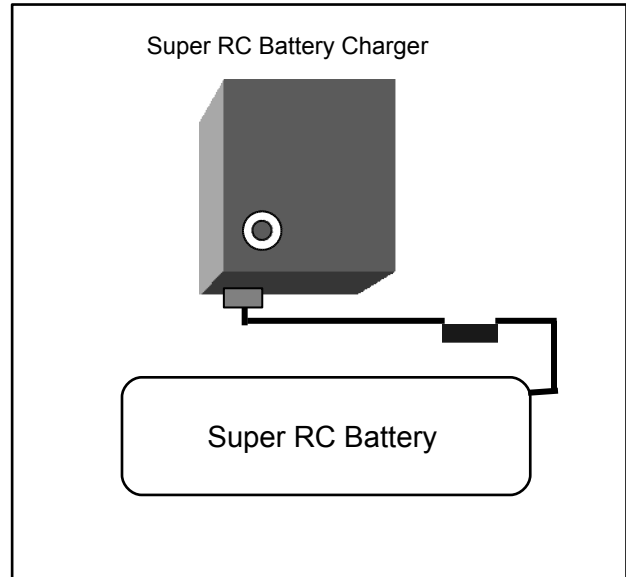
The RC transmitter power supply can be used to power the RC transmitter from a 110 Volt wall outlet. To make the connection, remove the battery compartment door and disconnect the battery wire. Connect the power supply connector in its place and feed the wire through the slot in the battery door. Connect it to a wall outlet and turn on the transmitter. The power level indicator will go up to about the three-fourth level. Be careful not to pull on the power supply wire.

Super RC Battery (Charging and Placement)

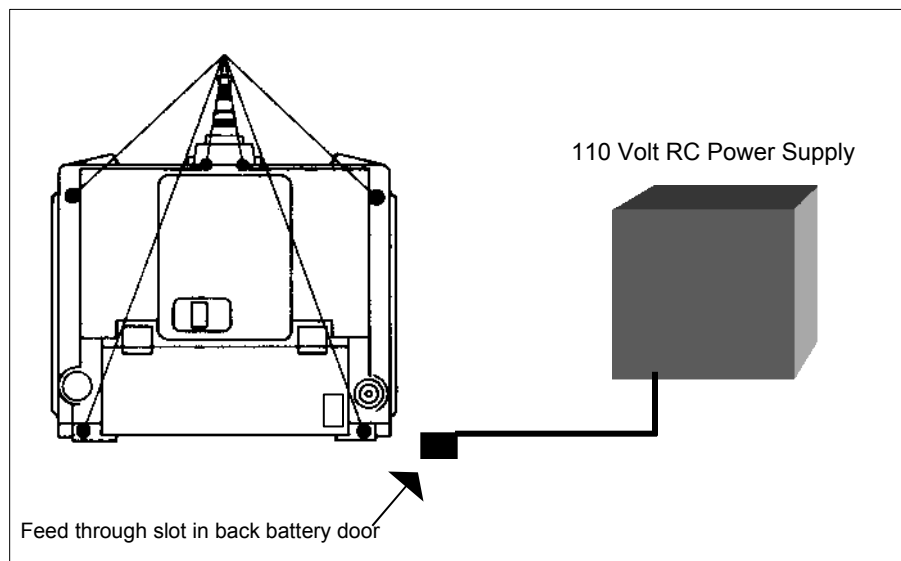
110 Volt RC Transmitter Power Supply Hook-up



Placement of Super RC Battery



Charging Connection for Super Battery



Hook-up for 110 Volt RC Transmitter Power Supply
(Optional Accessory used in place of NiCd Batteries)