



Remote Control Systems INSTALLATION KITS

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RCS # BATTERY-PNP. DIY INSTALLATION KIT FOR ONBOARD USE.

BATTERY R/C INSTALLATION KIT FOR ALL BACHMANN® & ARISTOCRAFT® LOCOS FITTED WITH A STANDARD P'n'P SOCKET.

Although intended and set up for RCS supplied VIPER ESC's, it can be used with any brand of R/C equipment.

2 x wires (Red M+ & Black M-) are for the motor control. They may be back to front. Default ESC direction can be reversed at the VIPER ESC.

2 x wires (Blue + & Black -) are for the loco battery supply.

2 x wires (White F & Yellow R) are for the front & rear light controls. An # **MRW-SSLS** is required.

TOOLS REQUIRED.

Medium, small and very small size Phillips head screwdrivers, side cutters and small pliers. A drill with an assortment of drill sizes for mounting the various switches etc.

A fine tipped soldering iron, resin core solder plus some heat shrink tubing for insulation for tinning wire going into the screw terminals.

Silicone adhesive for securing components where necessary.

SUITABLE BATTERIES.

The # **VIPER-10-12** minimum voltage required is 7.2 volts. 12 volts nominal is the max.

The # **VIPER-10-24** the minimum voltage required is 12 volts. 24 volts nominal is the max.

We use and recommend Li-Ion battery packs. 3s - 4s and 2600 mah where possible.

In ideal situations expect up to 500 re-charges. You must use a Li-Ion specific charger.

Over charging and too much current draw will shorten that life span drastically.

Our battery packs have built in pcb protection against over charge, over load and short circuit.

INSTRUCTIONS.

Installation is simply removing the factory fitted P'n'P plug & replacing it with the # **BATTERY-PNP**. Make sure the # **BATTERY-PNP** pcb is the correct way around.

The pin row J1 pins 1 - 12 uses the 12 pin socket row which is the same for both loco brands.

The J2 row has 11 sockets and is not used. The pcb is not user serviceable.

WIRING NOTES.

The fitted wires are clearly colour coded. The Red/Black Motor wires plug into the VIPER ESC.

Connect the RCS ESC as per the basic wiring diagram overleaf. Other brands will be similar.

The motor drive connections and the lighting connections are back to front on AristoCraft® sockets when compared to the Bachmann® socket the # **BATTERY-PNP** was designed for.

To set up an AristoCraft® socket equipped loco correctly simply reverse the two **M M** motor wires.or reverse the VIPER default direction. Reverse the **FL RL** lighting wires at the # **MRW-SSLS**.

CONTENTS

The **RCS # BATTERY-PNP** kit contains the following components:

1 x PCB mounted with attached wires.

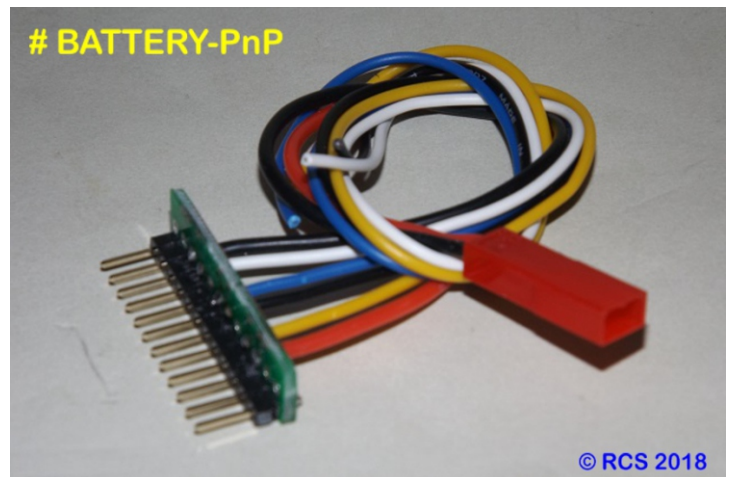
Although this is RCS specific & is for battery R/C only, it could be used by other brands of R/C.

NOT SUPPLIED BUT RECOMMENDED

1 x # **U-BIK-3-TS** This is used with on board batteries and provides an ON - OFF switch and a servo cable port for charging the batteries.

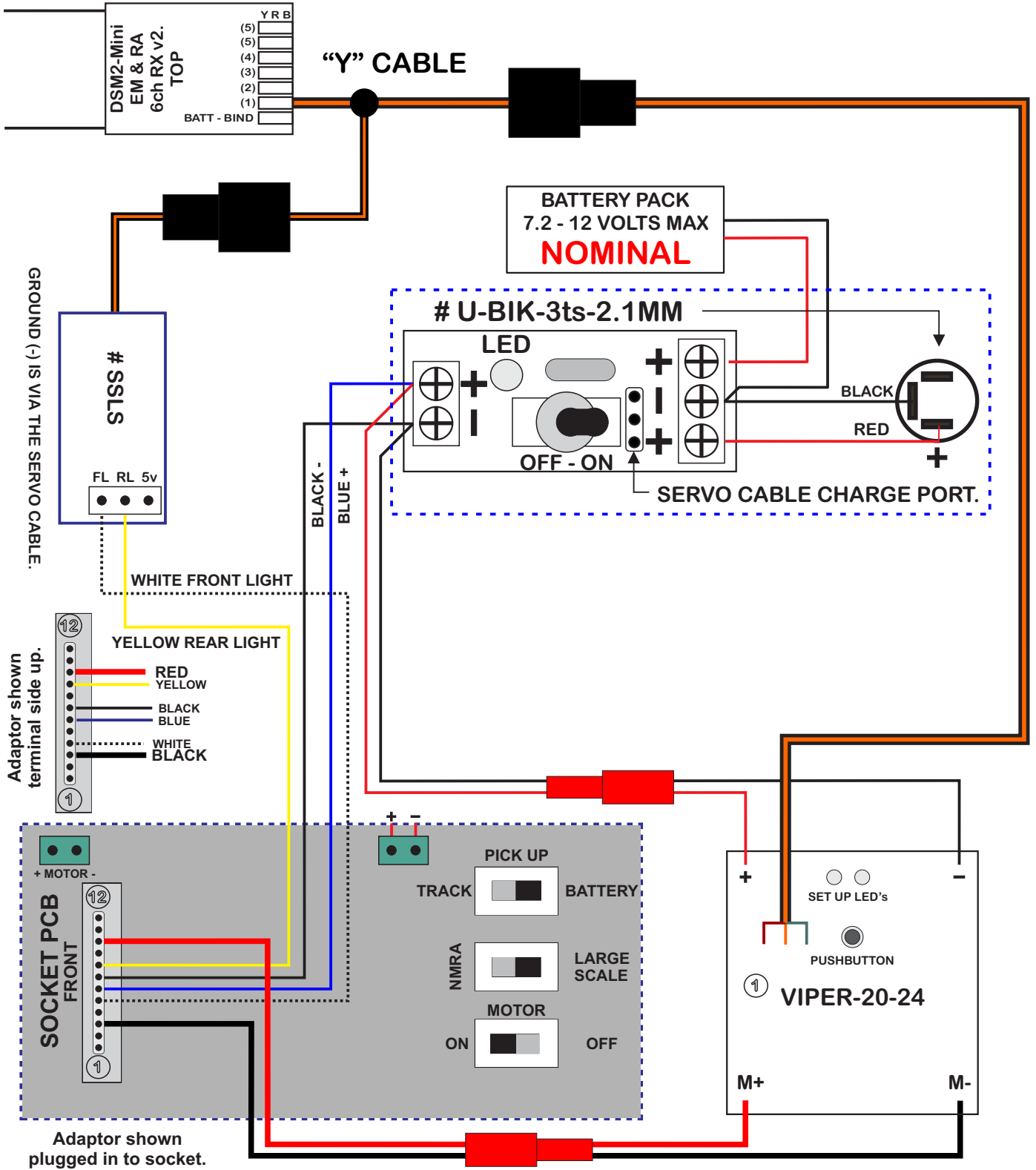
1 x # **IL-Jack-2.5** where a 2.5 x 5 mm plug is used by the charger.

If installing Sierra® sound you will need our # **SSI-12v5** to compensate for the pwm output.

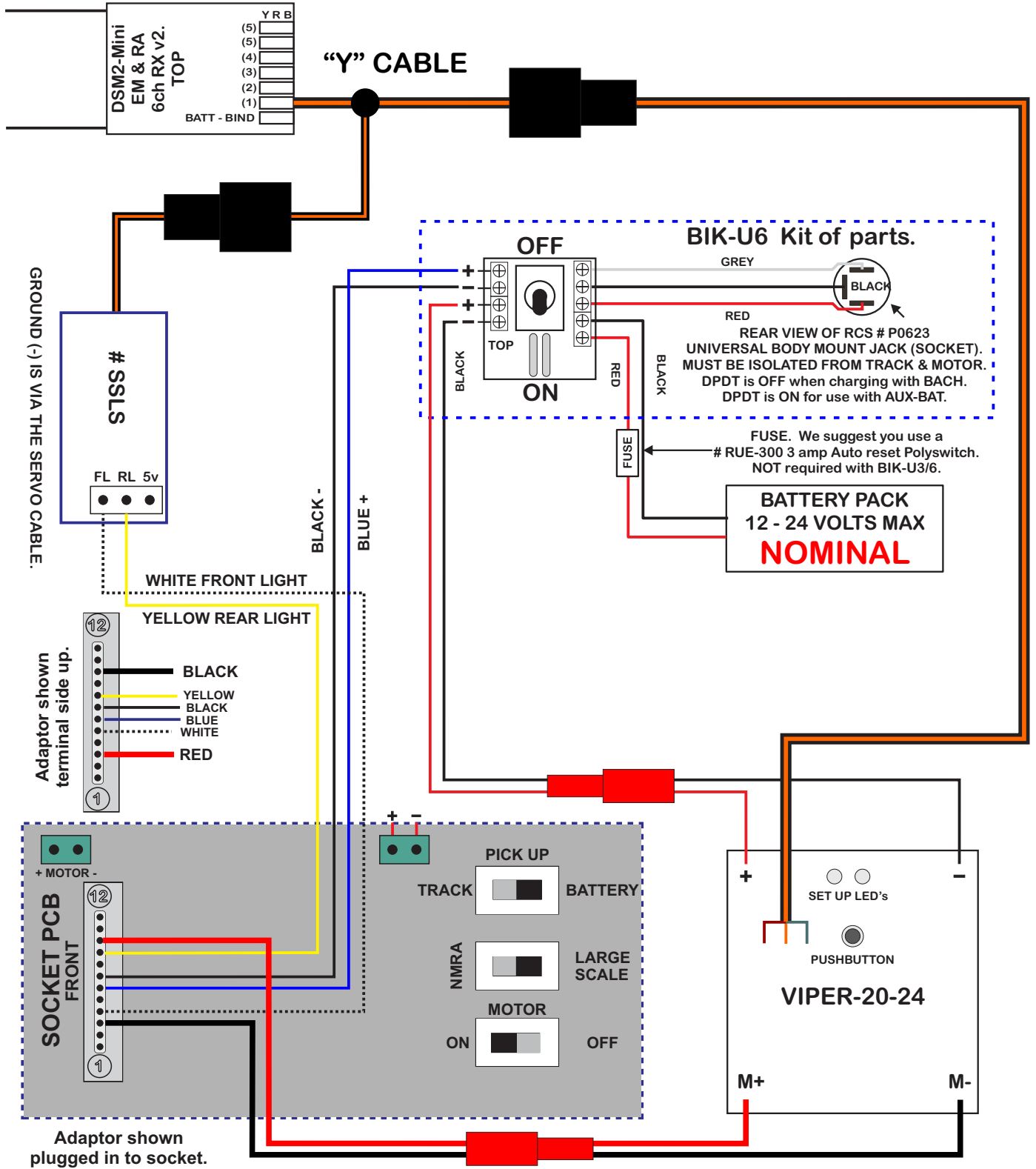


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WIRING THE RCS # BATTERY-PNP to BACHMANN & ARISTOCRAFT PnP sockets. Using on board batteries & a VIPER ESC. Directional lights. No sound fitted.



WIRING THE RCS # BATTERY-PNP to BACHMANN & ARISTOCRAFT PnP sockets. Using on board batteries & a VIPER ESC. Directional lights. No sound fitted.



WIRING THE RCS # BATTERY-PNP to BACHMANN & ARISTOCRAFT PnP sockets. with MyLOCOSOUND & a VIPER ESC.

See previous pages for wiring lighting

