



Remote Control Systems INSTALLATION KITS

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RCS # PNP-ADAPT.

DIY INSTALLATION KIT FOR ONBOARD USE.

BATTERY R/C INSTALLATION KIT FOR ALL BACHMANN® & ARISTOCRAFT® LOCOS FITTED WITH A STANDARD P'n'P SOCKET. It can be used with any brand of R/C equipment and supplies rectified and filtered DC voltage for any brand of ESC from constant track voltage and/or on board batteries.

AVAILABLE AS:

PNP-ADAPT-3a/b = 3 AMPS up to 24 volts

PNP-ADAPT-6a/b = 6 AMPS up to 30 volts.

Make sure you have selected the correct model to suit your loco. Only use the 3a or 6 a version if there are no obstructions in the socket space.

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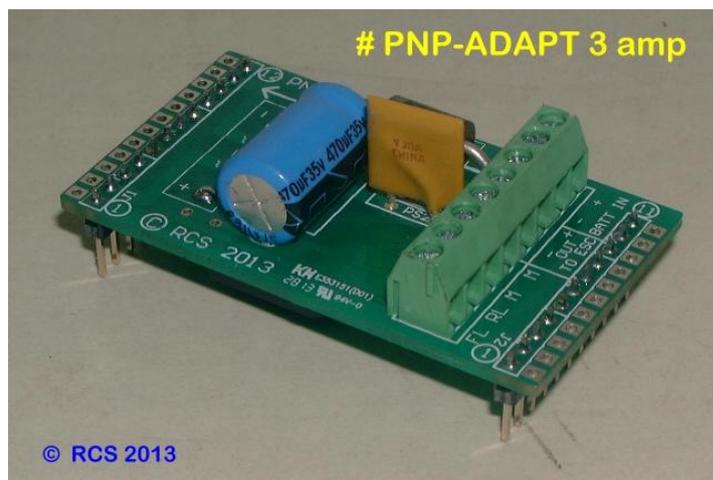
The RCS # PNP-ADAPT kit contains the following components:

1 x PCB mounted with screw terminals.

NOT SUPPLIED BUT RECOMMENDED.

1 x # Y-CABLE 2 way connector for putting in series twin stick Ni-Cad or NiMh batteries with Tamiya connectors.

1 x # BIK-U3/6v2 This is used with on board batteries and provides an ON - OFF switch and a port for charging the batteries.



COMPONENTS NOT SUPPLIED THAT YOU WILL NEED.

The RCS # OMEGA-3 ESC is ideal. Use 14.4 volts - 18 volts nominal - 24 volts maximum.

If installing Sierra® sound you will need our # SSI-12v5

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.

If using the # OMEGA-3 the minimum voltage required is 12 volts. 14.4 v - 24 v is ideal. Although, if you choose to use regular SubC NiCd batteries, the # Y-CABLE is useful for putting 2 x 7.2 volt twin stick Ni-Cad batteries with TAMIYA connectors in series to get 14.4 volts.

AA" size NiMh batteries are very popular although they do have some disadvantages.

We suggest you only use them if the current draw is going to be well BELOW 1 amp continuous.

Other sizes of NiMh batteries such as sub "C" will permit very high current draw.

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

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

Our Number # 1 choice is for NiCd batteries. 2 x 7.2 volt twin stick sub "C" packs are ideal.

They will last twice as long. Up to 1,000 charges. "AA" NiCd cells also have limited current draw.

NiCd cells are very tolerant when being charged. They charge best overnight at the standard rate.

Suitable Li-Ion batteries can be used as long as they have over voltage and load protection fitted.

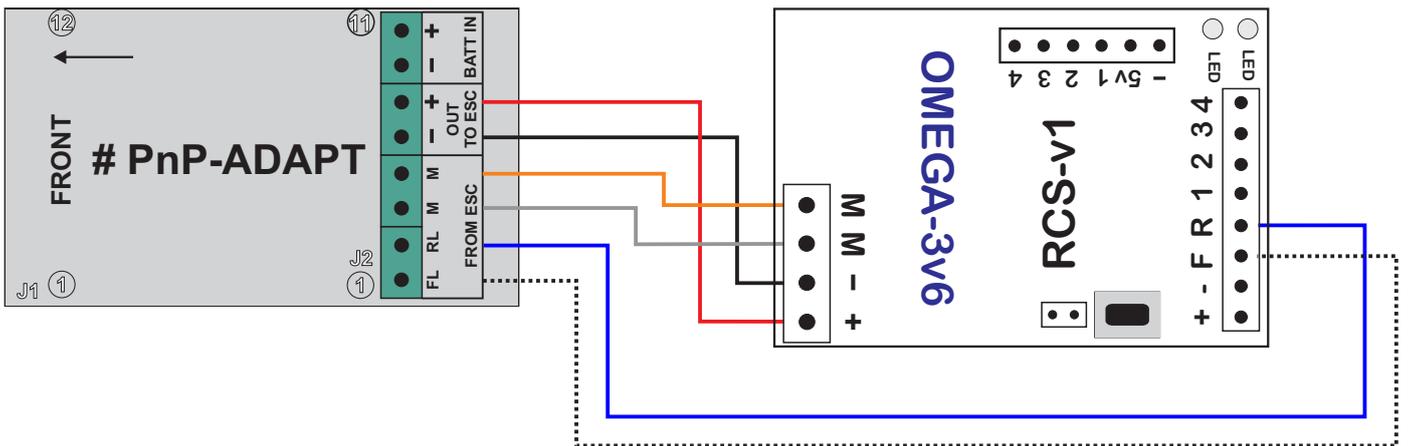
INSTRUCTIONS.

Installation is simply removing the factory fitted P'n'P plug and replacing it with the # **PNP-ADAPT**. Make sure the # **PNP-ADAPT** 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 pins to suit Bachmann® sockets. It may be necessary to cut off the J2 - 11 pin so it will fit Aristocraft® sockets. There are convenient solder pads with holes at each end of the pcb to make use of pins not normally used for the basic wiring.

WIRING NOTES.

The screw terminals are clearly marked on the # **PNP-ADAPT**. Connect the RCS ESC as per the basic wiring diagram below. Other brands will have a similar wiring layout. The motor drive connections and the lighting connections are back to front on Bachmann® sockets when compared to the AristoCraft the # **PNP-ADAPT** was designed for. To get a Bachmann® socket equipped loco set up correctly simply reverse the two **M M** motor wires and the **FL RL** lighting output wires at the screw terminals.

This way of setting it up will permit track power supply OR battery supply.



This way of setting it up will permit track power supply AND-OR battery supply. The system automatically selects whichever source has the highest voltage.

From a fused battery supply.

Minimum 12 volts up to 24 volts (3 amp) or 30 volts (6 amps).

