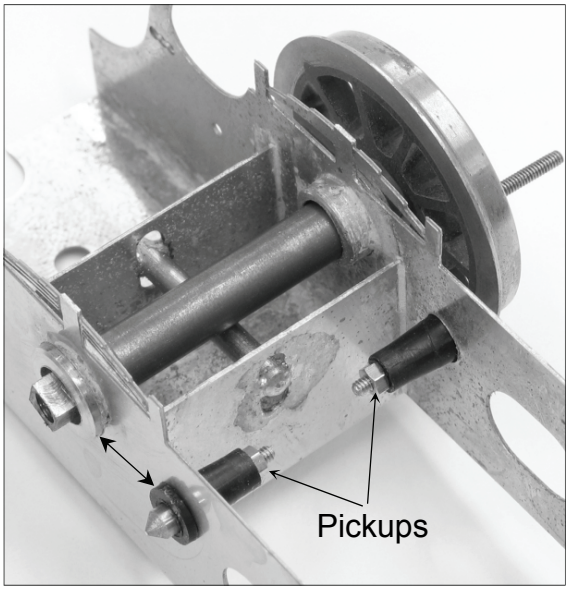
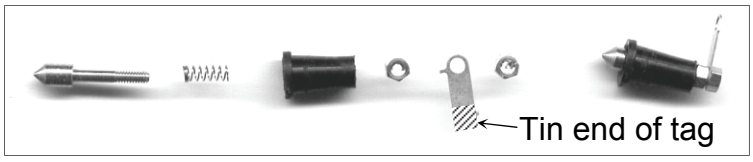
Connoisseur Models On Line Catalogue Print Off Hints & Tips Sheet For Slater's Electrical Plunger Pickups



As with most components a little time spent preparing Slater's plunger pickups will be rewarded by preventing potential problems. When fitting plunger pickups it is a good idea to first check that the mounting holes in the chassis are in the right place.

In theory the holes should be undersize and centred in exactly the right position for the pickups to bear onto the centre of the back of the wheel tyre. In practice when using Slater's wheels I find that some have a little of the plastic centre intruding into the tyre very close to where the pickup runs. I would suggest that you fit a wheel onto an axle and make up a pickup so that you can offer them into place and check that the positioning will be correct before you open up the mounting holes. As the plastic moulded body of the pickup is tapered you should be able to gently fit its end into the undersized mounting hole. As the pickup holes require opening up by about 1/2mm you can adjust slightly the hole position if required. I would Recommend first using a round file to move the edge of the hole away from the axle centre line by 1/2mm converting the circular hole into a slight oval. Then using a tapered broach open up the hole (making it circular again) until the moulded pickup housing is a snug push fit. By doing this we have slightly moved the pickup hole centre away from the axle centre to remove the risk of the pickup being interrupted. I fit the pickups after painting the chassis.

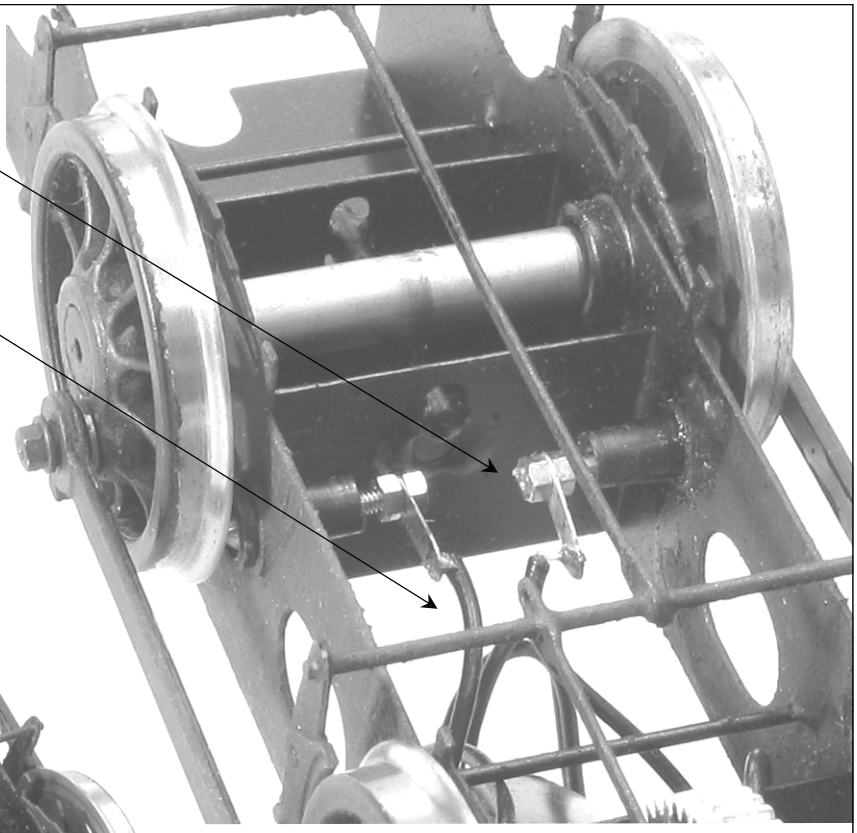
I have found that Slater's plunger pickups require a little care in their preparation and fitting if they are to work reliably. First the pack contains some spacing washers to be used with narrow chassis and I would suggest that you consider using these for chassis 25mm or less wide. Then drill out the back hole in the plastic housing 1.4mm. I then run a 2.4mm drill down the inside of the plastic housing twisting the drill between finger and thumb. This will remove any wisps of plastic that may jamb the plunger. By twisting the drill between finger and thumb there is no risk of the drill binding and drilling right through the end. Then fit the spring onto the plunger and fit into housing running a nut onto the back end. When fully depressed the plunger should sit virtually flush with the end of the housing. It is important that you use the etched solder tag that is locked between two nuts on the end of the plunger. If you try to solder the electrical wire direct to the plunger you will melt the threaded end into the plastic housing. This will cause the plunger to jamb in use even if it feels free before fitting (this is probably what people who don't like plungers have done). I tin one end of the etched tag with electrical solder before locking between the nuts. In this way I can solder the tinned end of the electrical wire very quickly onto the tag with no risk of heat getting to the plunger. I prefer to fit a separate length of electrical wire to each pickup and join the wires as I terminate them at the motor tags. I find that this is neater and easier than trying to link the pickups on each side together using jumper wires.

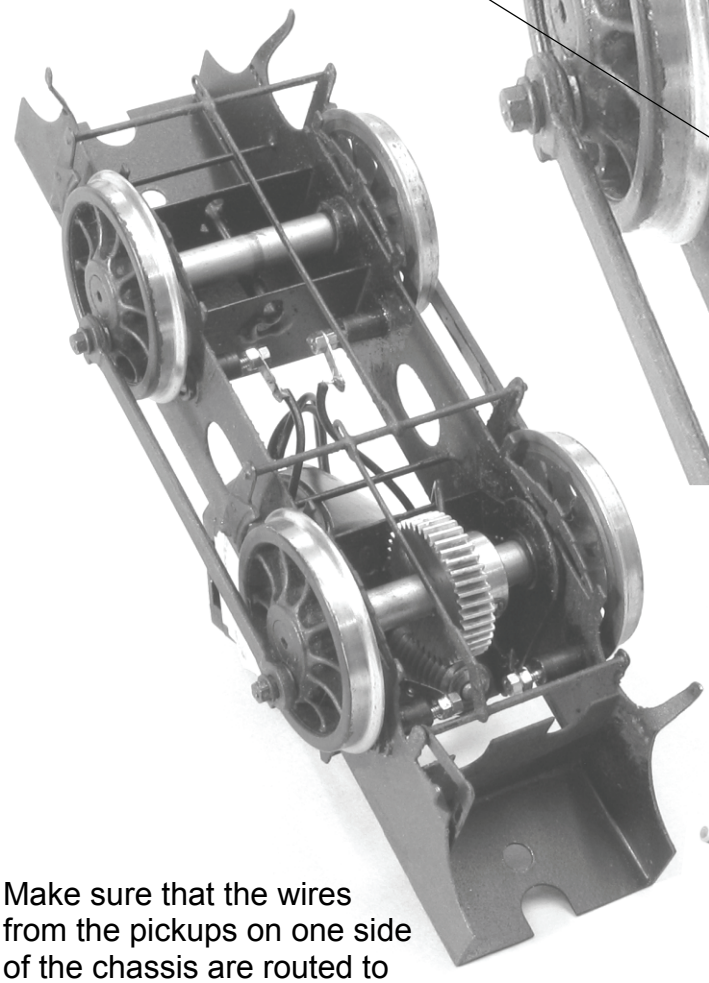


If you are a little unsure about this you can solder the wire to the tag. Then lock it between the nuts and thread the wire and plunger through the hole in the chassis. Once the plunger is fitted into the chassis I run a ring of Araldite around the housing on the inside face of the chassis side.

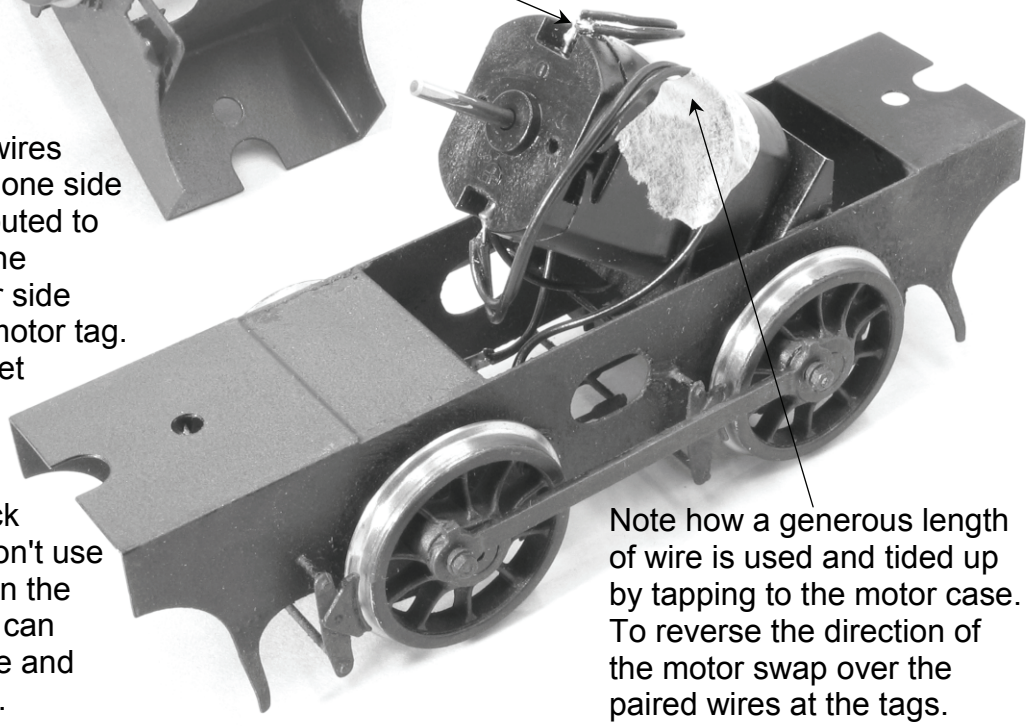
Note how the solder tag is locked between the two nuts and how a single wire from each tag is taken back to the motor.

Also note how the electrical wire is gently curved so as to allow movement of the pickup





Note how a single wire is taken back from each pick up and then paired together at the motor solder tag. For a six wheeled loco you would have three wires on each tag but make sure you strip the wire insulation evenly and solder neatly.



Make sure that the wires from the pickups on one side of the chassis are routed to one motor tag and the pickups for the other side routed to the other motor tag. Otherwise you will get a dead short circuit. Use red wires for one side of the chassis and black for the other. Also don't use big blobs of solder on the motor tags as these can touch the motor case and cause a short circuit.

Note how a generous length of wire is used and tided up by tapping to the motor case. To reverse the direction of the motor swap over the paired wires at the tags.