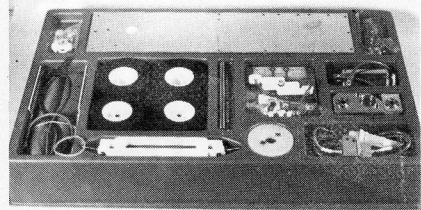
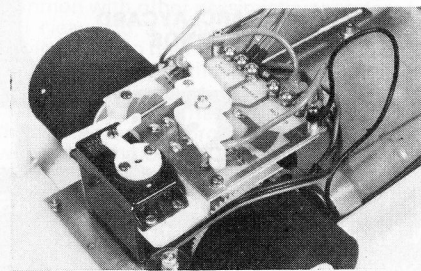
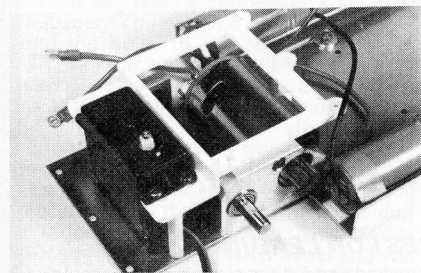


LATEST LECTRICAR



Very different looking car complete. Display box, part of the presentation package.



LATEST Lectricar Racing instruction folder — too good to call a mere leaflet! — reminds us that it was as long ago as 1975 when their first car came on the market as the first British 1/12th scale electric racing car. How time flies! Like a bride's dress their new model combines "Something new and something old." The best and well tried items continue to be used with an exciting blend of new thinking on the production side.

However, since for many this may be their first taste of electric car racing, here is exactly what you get for your money. First of all the box — yes the box! It looks enormous and indeed it is. Inside the car items are laid out on light plastic tray pressing, clearsheet covered to hold goods in place during transit. A splendid shop window item. On top of this is a cardboard spacer that holds the body shell in place. The whole is enclosed in another stout cardboard container that is like the one you carry home the Christmas turkey in complete with handles cut in it. This becomes your model box — the body shell spacer goes to the bottom to locate your radio gear and the completed car sits on top and you just pick up the handles. Don't waste a thing:

Box contents are listed and there is a new identification diagram. Exploded centre spread shows all the parts and their relation to each other. Basically, there is a ready drilled chassis with side plates to take the two strings of three nicad cells

Installing the throttle servo and the speed control printed circuit.

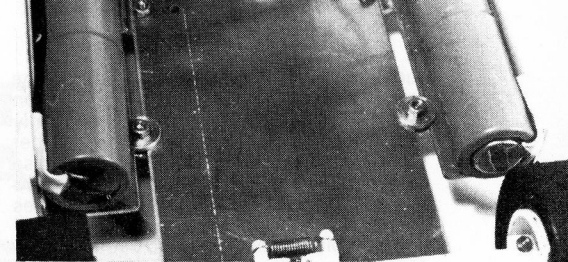
Ingenious method of varying flexibility of chassis with stiffener bolts.

which rest each side, strong alloy plummer blocks for the back axle, motor and general rear end stiffening, moulded steering unit, steering fail-safe, and an elaborate speed controller. Tyres, wheels, hubs, and miscellaneous nuts and bolts complete the pack, all neatly set out. Front and rear bumpers are provided and a set of charging leads with built-in charging resistor. Nor must we forget the strong ABS moulded bodyshell. I have made up the BMW as it is a new body to me. Alternatives are Formula 1 and Porsche 917. These are provided with their appropriate body mounting posts, grommets and retaining clips. Standard gear ratio of 4.5:1 is provided. Other ratios of 4.08:1 and 3.7:1 are available.

For the first time I have seen kit instructions start by telling the builder to glue tyres to wheel hubs. I have always done this first, but usually it comes in the middle of building. It is a nice leisurely job to do — I still have found nothing to beat Evo-Stik as the glue, but using an old palette knife to apply same have managed at last to do it without getting covered in sticky. Beginners are urged to use a plastic bag "mitten" to do the job. Anyway, it comes off with a little lighter fuel or even Evo-Stik cleaner. It also provides a little time to digest the building instructions and sort out which is what amongst the nuts and bolts.

You could get the chassis upside down, so a white sticker indicates topside. Front axle beam and steering failsafe is one of the "something old" in items in the kit, and could hardly be improved upon for simplicity and function. I have seen one or two people who have made up their own stub-axle/steering arm units in metal in place of metal and plastic but in over two years use my own original grey plastic unit has stood up to all the local children have managed to do to in holiday time!

Batteries come in two long snakes already joined with a jumper lead. These fit along the L-angle side pieces, fixed with servo tape. Now comes the choice — rear mounted motor or mid mounted. For the BMW body mid mounted was the choice, and of course, mid-mounted is the "fashion" location these days. In practice I think it is largely a matter of personal opinion, both sides can convince me, dictated as much by choice of prototype body as anything. Rear mounting, which brings the control panel right to the back has the advantage that the various con-



necting wires are all way back, more accessible, and less likely to be accidentally loosened: otherwise they are in the central well and may make fitting in the other bits and pieces more cramped.

Speed controller panel screws down on top of the motor mounting and is really a little beauty of a printed circuit. It is arranged for either six or four-cell running (the slower 4-cell may be a good idea for beginners in theory, but just running slower on 6-cells saves a lot of alteration of batteries later). Note that all the leads have nice little round terminal tags fitted with suitable insulation sleeves. At this stage take a look at them by sliding back the insulation sleeves to check that they are firmly attached since fixing is by squeezing the tag end and not by soldering. The careful builder will take time to solder tags before proceeding. Where to put what is very thoroughly explained in the instructions. Tags are held in place with finger knurled round nuts for the most part, except for those which are not likely to require loosening. Tip here is to Loctite the permanent nuts (Studlock 270 is the one I use) and to slip a short length of darning wool between bolt and nut when screwing down which will hold them together against quite a lot of vibration in action in the case of the nuts that will be used more frequently. When all is fitted in place you may also find that you have a superfluous amount of wire leads which can be profitable shortened to the minimum lengths needed. It then looks a much neater job and less like an untidy bird's nest.

I have used my KO-Digiace r/c this time as I wanted to try-out the round DEAC pack that Colin Thompson sent me. I could of course have dispensed with a RX battery altogether by tapping into the nicads for 6-volts or fitting in dropping diodes to the leads to tge RX. This saves a little space and is one less item to worry about. I have also wrapped up the Rx in foam packing and held it in place with elastic bands. Alternative method looks pretty and uses the little white platform provided on which the aerial can be wrapped round. However, I still like a whip

aerial since I often drive on a quite large car park site assisted by the "destruction gang" mentioned above who have only the vaguest ideas of distance. One other r/c point to mention. You can of course stick your steering servo down with servo tape: it works. But sometimes it does come unstuck and I have now made a good resolution not to be lazy and to fit a proper servo mounting piece every time. This time it is a hybrid, i.e. Digiace servo but MacGregor mount which is useful two piece affair and so can be set up to take very nearly any servo size. (Sorry Mr MacGregor the rest of your equipment is installed in another car q.v.) A Delta servo wheel, heavy duty type, cut down proved most suitable for the steering. At the other end Lectricar provide an additional piece to screw on to the normal servo wheel to take care of the speed controller movement arm.

Last, but not least on the chassis we come to the ingenious variable flex device. The battery carriers on each side do not extend their full length along the chassis, but only come about halfway down. The resultant channel provides a slot on each side for round locating discs to be screwed. By moving them forwards or back a degree of flex or rigidity can be given to the chassis. This may well vary from circuit to circuit and for different tyre combination or track surfaces thus providing an all-purpose chassis. I have found a location about one back from the front gives a good "average" fitting for a start, but weight and position of radio gear will also influence this.

I like the work of cutting out window and window screens on ABS bodies, not

to mention wheel arches and other trim. I have tried doing it the hot iron way but the smell is horrible and it still needs cleaning up with a knife; even using my pyrography outfit (pokerwork if you will) it is still not too pleasant and my cutting wires get all twisted up. So drill a few holes strategically and get going with the modelling knife, good old Xacto or Multicraft. Templates are provided to cut out the clear sheet to fill the frames cut out. Once again Evo-Stik will fix — but this time coat both surfaces and allow to dry (as against tyres put on at once). They are very firm. I sometimes cut a hole in one side window to get a finger in the switch rx on/off which saves taking off the body. Happily any of the car touch up aerosols can be used, and should be sprayed before fitting clear windows. Since it was a BMW I tried out out of the metalised paints a fox-brown shade which has come up very happily and encouraged me to use it on another car. Decals to choice can be added and the job is done.

Newcomers are reminded that charging is via the charging cords provided which must be connected up to a 12-volt fullsize car/motorcycle accumulator for 20 minutes, which will provide running power for 10 minutes (i.e. half the charging time) Alas, you cannot exceed about 20 minutes to get longer running times without possible harm to the nicads. The charging resistor gets quite hot during charge time so that a heatsink is a good idea. I have screwed mine to a four inch square piece of sheet alloy, screwed in turn on a wood block.

The attractive BMW body is worth taking extra care with in painting.

