INSTRUCTIONS

MECCANO TRANSFORMER TYPE T20

Output : 20VA at 20 Volts

This Transformer provides an economical and perfectly safe means of running a Meccano 20-volt Motor or a Hornby 20-volt Electric Train. It transforms the high voltage of the electric light supply to the requisite low voltage. The Transformer can be used in connection with any apparatus requiring an Alternating Current supply up to 1 amp. at 20 volts. It will run for 50 hours on one unit.

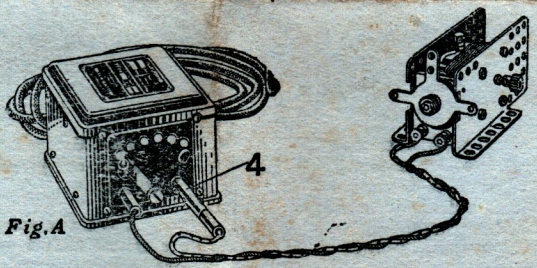

Fig. A

Transformers work only on Alternating Current (A.C.) **A Transformer must not be connected to direct or continuous current (D.C.)**

The three-core flex provided with this Transformer is intended to be used with a three-pin plug and socket. If your plug is of this type, connect the two free ends of the flex to the terminals of the two smaller pins, which are the supply terminals; and the end tied back and labelled "Earth" to the terminal of the remaining larger pin, which is the earthing terminal. **On no account must the earth lead be connected to either of the supply terminals.**

If you have a two-pin plug, connect the free ends of the flex to the terminals of these pins, leaving the earth lead disconnected. When a two-pin plug is used the earth lead may be connected to a separate earth. This should certainly be done where the Transformer is to be used on a stone or concrete floor. If in doubt, consult your electrical supplier.

Fig. A shows how the Transformer is connected for driving a Meccano 20-volt Motor.

Fig. B shows the Transformer connected to tinplate rails for driving a 20-volt train. **The plug socket marked "E" must always be connected to the outer rails of the track, that is to the plug connected to the locking lever on the Terminal Connecting Plate.**

To start a train, move the regulator handle to the stud at the extreme right, without pausing on the intermediate studs. Then, by moving the handle towards the left, the speed is gradually increased until maximum speed is reached when the handle is in contact with the stud next to the "off" stud, which is at the extreme left.

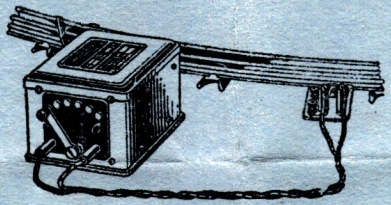

Fig. B

A Fuse Unit (4), Fig. A, is supplied with the Transformer. This device consists of a holder fitted with a piece of soft wire that melts at a low temperature, and thus prevents damage to the Transformer resulting from short circuit. The Unit is plugged into the socket marked "L" on the Transformer. As supplied, it is fitted with a piece of No. 32 S.W.G. Lead Wire. A supply of this wire can be purchased from any Meccano dealer.

If a short circuit occurs the wire in the Fuse Unit will melt and must be replaced. To do this a piece of fuse wire 1¾" in length is passed through the holes in the holder and under the two brass washers, and secured by the two screws. One single strand only should be used.

A fuse consisting of a length of the same wire is incorporated also in the Terminal Connecting Plate. The replacing of this wire as the result of short circuits is apt to prove troublesome. The Hornby 20-volt Circuit Breaker avoids the necessity for renewing fuses in the event of a short circuit. Such a fault causes the red button on the Circuit Breaker to rise. If this should occur, switch off the current; restore conditions on the track to normal, and reset the Circuit Breaker by pressing down the red button. Full instructions for use are included with each Circuit Breaker. Ask your dealer to show you one.

The Circuit Breaker cannot be used in conjunction with Meccano Motors.

Care should be taken not to exceed the rated output of the Transformer, as continuous overloading causes damage to the windings.

As a guide to determining the load on the Transformer, the following current consumptions are given:—

20-volt Locomotive	.75 ampere
20-volt Headlamp on Loco	.15 ampere
20-volt Meccano Motor	1 ampere