

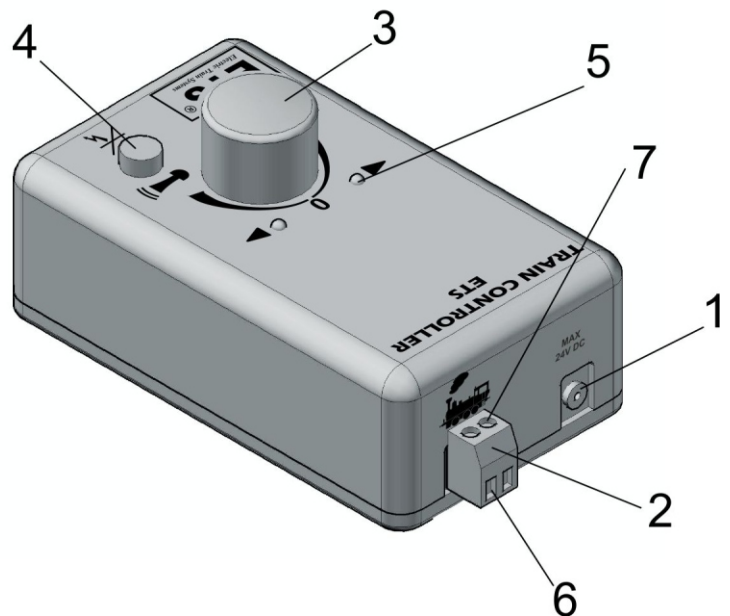


TRAIN CONTROLLER ETS

Operating Instructions

The Train Controller ETS (controller) is designed to adjust input power from an external power supply (24V DC) to a voltage suitable for the ETS TinPlate railway. The controller enables smooth starting of the locomotive, change of direction, and control of the locomotive's whistle when the model is stopped.

The back of the controller cover has an input voltage connector (1) and a screw-tight output connector terminal (2) for connecting the cable to the tracks. On the main upper face here is a circular direction and speed control knob (3), direction LED diodes (5) and a button for operating the whistle or cut-out reset (4).



Connection:

The controller needs to be connected to the track with the supplied power cable. Insert the ends of the cable provided with the end caps under the loosened screws of the connecting track (ETS Cat. No. 752), and tighten the screws. Take care to ensure the cable ends do not touch each other. Insert the other end of the cable into the holes (6) after loosening the screws (7) on the output connector terminal (2) and tighten the cables by fastening the screws. The terminal can be ejected from the feeder with the cable attached. Once the controller is connected to the tracks, plug the lead-in cable from 24V DC external power supply into the input connector (1). To operate an external power source, refer to the manual for this source.

Operation:

Speed and direction of travel are controlled by the control knob (3). The central position of the knob when the locomotive stops, is indicated by the lighting of both green LEDs (5). By rotating the knob to one side or the other, the locomotive moves forward or backwards, and its direction is indicated by lighting one of the LEDs (5). If the direction of rotation of the control knob is inconsistent with the direction of the locomotive, it is sufficient to interchange the wires at one end of the cables.

You can operate the whistle by pressing the button (4) remotely.

Controller overload or short circuit are indicated by flashing of both green LEDs (5). In this case, the power to the track is automatically disconnected. The normal operation of the controller is restored by pressing the reset button (4) after a short circuit has been rectified. Once the function is restored, one of the green LEDs (5) lights up.

Whilst the controller is designed for continuous operation, we strongly recommend you do not leave it switched on unattended or when not in use.

The product is intended for persons over 14 years of age.

Technical specification:

Input:	DC 24V/2A, connector dia 5.5x2.1mm
Output for connecting the layout:	DC 0-20V/2A pulse voltage
Controller protection:	electronic cut-out

Recommended accessories:

DC external source 24V/ 2A, 230 V
Connecting track ETS Part No. 752
Connecting break track ETS Part No. 751

ETS Trains s.r.o., Komořanská 326/63, 143 00 PRAHA 4, Czech Republic

tel. +420 244 403 500

e-mail: zuzana@ets.cz

www.ets.cz



Tinplate model railway "0" gauge

