
User Information for 98040 Dummy Track Load

General Description

The 98040 Dummy Track Load by Genesis Technologies may be used with electronic railroad signal equipment to electrically simulate the resistive and inductive characteristics of a track circuit with hardwire or narrow-band shunts with 1,000 ft. approaches.

The Dummy Track Load is typically used with railroad grade crossing predictor or motion sensor equipment as a troubleshooting aid to isolate trouble in an overall system made up of the predictor or motion sensor and the track it is connected to. This is done by substituting a “known and working” track circuit in the form of the Dummy Track Load in place of the “unknown” actual track circuit. By substituting a “known and working” element in place of one that may be faulty, a signal maintainer can, by process of elimination, determine if the trouble is in the track or the predictor or motion sensor electronics.

Instructions:

CAUTION: DANGER!!! APPROACHING TRAINS WILL NOT BE DETECTED WHEN TRACK WIRES ARE DISCONNECTED OR WHEN THE DUMMY TRACK LOAD IS CONNECTED IN PARALLEL WITH THE PREDICTOR, MOTION SENSOR, OR OTHER TRAIN DETECTION EQUIPMENT. You must take the appropriate steps to protect the crossing and/or other equipment and personnel as the SIGNALS WILL BE INOPERATIVE WHEN THE DUMMY TRACK LOAD IS CONNECTED!!!

After taking precautions to protect the crossing, (the equipment and personnel that the signals or flashers normally protect [see CAUTION above]), carefully mark or note the terminal location of each track wire, then remove the track wires.

The Dummy Track Load has three red wires and three black wires. All red wires are common with each other, and all black wires are common with each other.

1. Connect the red wires to all transmit and receive terminals marked for rail “1.” Terminal nomenclature may read T1, R1, ISL1, CHK1, etc.
2. Connect the black wires to all transmit and receive terminals marked for rail “2.” Terminal nomenclature may read T2, R2, ISL2, CHK2, etc.
3. Make sure connections are made to the appropriate island track wire terminals as well as the predictor/motion sensor track wire terminals.
4. Reset the predictor or motion sensor to clear any high signal, low phase or other sensed track problems, and allow the unit to stabilize.
5. Before making any changes to system settings, be sure to write down all parameters that you change so you can restore the system to its original settings.
6. Adjust the RX or ED as necessary to meet the adjustment parameters specified by the manufacturer for a “first-time” installation.
7. If necessary, change the approach length to more closely match that of the Dummy Track Load.

The RX or ED adjustment when the Dummy Track Load is connected may be somewhat different from that of the actual track even when it is a “good” track circuit. This is because the characteristics of each track circuit vary from location to location due to approach lengths, ballast conditions, electrical quality of rail bonds and track wire connections, type of termination shunts, other signal equipment circuits on the rails, and many other conditions. This may require you to make some changes to RX or ED and possibly change the approach length of the unit to match that of the Dummy Track Load.

The important thing to remember is that if the unit “picks up” using the Dummy Track Load and will not do so otherwise, the problem is very likely in the track.

When finished, reconnect all track wires, reset the track length to the actual length of your approaches, reset RX or ED according to the manufacturers’ instructions, and test the signal system by shunting the approaches and the island to verify the signals are operating properly. If possible, observe a train through the crossing for proper operation.