

Important Operating Notice for the 8137501 DiMAX 1202B Digital Booster When Connected to Third-Party Command Stations via the CDE Interface

Dear Customers,

During our investigation into recurring output stage failures in the DiMAX 1202B Digital Booster, we identified a possible cause of failure when operating with third-party command stations via the CDE interface.

Switching on the booster with the CDE connection already in place may cause a communication error. In this case, the track signals from the command station and the booster are not synchronized. This error occurs intermittently and therefore may not be apparent every time the booster is switched on.

If adjacent track sections are powered by the command station's track output and the booster respectively, this lack of synchronization can cause damage: As a vehicle crosses the insulating gap, its wheels or electrical pickups briefly connect the two track sections electrically. During this connection, opposite polarities may be present at the two outputs. The resulting high equalizing currents can overload the output stages and damage them, potentially causing complete failure. Previous trouble-free operation does not rule out this risk.

We therefore strongly recommend following one of the two options below:

Option 1: Power the Tracks Exclusively Through the Booster

Use only the track outputs of the DiMAX 1202B to power your layout. Leave the third-party command station's track output unconnected; it must not power a separate track section. The command station continues to control the layout and provides the booster signal via the CDE connection.

This eliminates the critical bridging between the command station's track output and a track section powered by the booster. The DiMAX 1202B provides a total output current of **up to 12 amps, divided between two outputs supplying up to 6 amps each**. Please distribute the electrical loads accordingly between the two power districts and observe the maximum current rating of each output, along with the instructions in the operating manual.

Option 2: Ensure Synchronization Through the Power-On or Connection Sequence

If you wish to continue using the third-party command station's track output to power a separate track section, follow one of these procedures each time you start the system:

- **Switch on the booster first:** The CDE connection may already be in place. Leave the third-party command station switched off initially. Switch on the DiMAX 1202B and wait until its startup sequence is fully complete. Only then switch on the third-party command station.
- **Establish the CDE connection after startup:** Leave the CDE connection disconnected initially. Switch on both devices and wait until their startup sequences are fully complete. Only then establish the CDE connection between the booster and the command station.

Both procedures ensure proper synchronization via the CDE interface. Do not start running trains until these steps have been completed.

Follow this sequence after a restart as well. Avoid switching on both devices simultaneously with the CDE connection already in place.

Please check your wiring and your current power-on sequence before further operation. Changes to the track wiring must only be made with all power supplies switched off. By contrast, the procedure described above for establishing the CDE connection after startup is performed with both devices switched on and their startup sequences fully complete.

We are working to clarify the technical cause and find a permanent solution to prevent this issue from recurring.

If you have any questions regarding connection or operation, please contact our technical support team at hotline@massoth.de.

Kind regards,

Your Massoth Systems GmbH Team