

## **Operating TMCC-equipped locomotives with the PowerMaster**

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**W**hen operating Command-equipped locomotives with the PowerMaster, the PowerMaster serves as a circuit breaker and a remote power switch. In this mode the track power is either off or full on at the maximum output. The conventional bell, whistle, direction and other key activated functions of the LEGACY PowerMaster are disabled. The speed of the locomotive and all other locomotive features are controlled by addressing the locomotive directly.

1. Set the COMMAND/CONVENTIONAL switch to COMMAND.
2. Press **TR** or **ENG** and enter the unique ID number for the PowerMaster.
3. Press **BOOST** to set the track power to full on
4. Press **AUX1, 0** to turn off track power.

You may choose to limit the top speed of your locomotives by setting the maximum output voltage available from the LEGACY PowerMaster. To set a voltage limit:

1. Press the **SET** button on the CAB controller. The output voltage will drop to 0 and the green indicator will flash.
2. Use the **THROTTLE** knob on the CAB controller to set the output to the desired voltage.
3. Press the **SET** button again to lock in the voltage limit setting. The green indicator will stop flashing and come on to show that the setting has been saved.

**Note!** The voltage limit will be remembered even if the power to the PowerMaster is turned off.













**Note!** The voltage limit setting only applies when the Command/Conventional switch is the CMD position. It will not affect the maximum output voltage and cannot be set if the switch is in the CONV position.

**Note!** Setting the voltage limit too low may result in the undesirable operation of some locomotive functions (e.g., coil couplers, smoke units, sounds, etc.).

To clear the voltage limit setting:

1. Press the **SET** button twice without moving the Throttle knob. This will clear any previously set limits and allow the output of the LEGACY PowerMaster to go to the maximum available voltage.

## CAB-1 and CAB-1L Remote Controller commands

-  Fires the rear ElectroCoupler on select Conventional locomotives.
-  Fires the front ElectroCoupler on select Conventional locomotives.
-   The **AUX1, 0** sequence sets the output voltage to zero and resets an overload shutdown.
-  Increases the output voltage with a clockwise rotation. Decreases the output voltage with a counter-clockwise rotation.
-  Triggers the whistle on equipped locomotives.
-  Triggers the bell on equipped locomotives.
-  Momentarily interrupts the output voltage to activate the reversing unit in the locomotive.
-  Increases the output voltage while button is pressed. Voltage returns to initial level when button is released.
-  Reduces the output voltage while button is pressed. Voltage returns to initial level when button is released.
-  Resets all LEGACY PowerMaster outputs to zero and resets all Command Controlled equipment.
-  Used to set ENG or TR addresses and to set maximum output in CMD mode



### Speed Step Settings

- L** Sets the output to 32 speed step mode
- M** Sets the output to 100 speed step mode
- H** Sets the output to 200 speed step mode