

Midwest Rails *Revolution Use Guide*

Like our old Train Engineer system, the new Revolution system still has one transmitter/receiver combination for each track. They are labeled TRACK 1 for the outside track and TRACK 2 for the inside.

There are six (6) buttons to use the MWR's Revolution

ON / OFF

STOP / ENTER

Left and Right Arrows

Up and Down Arrows



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ON / OFF is used to turn the transmitter on and off. When ON and all is normal, the display screen appears as above.

Fields of note on this screen are:

On the top line, is "**TRACK 1**" which is the unit number the controller is for (this is also identified by the sticker by the ON / OFF button and a sticker on the side of the unit next to the ON / OFF button.

On the bottom line, is "**LinkOK**" which means the transmitter and receiver are talking to each other. Also, "**3.92V**" which is the battery voltage of the transmitter. The unit will shut down when the battery voltage drops to 3.4V. The trains will continue to run and the batteries can be replaced while the trains are running.

Also note that the display will automatically dim after about 40 sec of no button activity to conserve on the battery. This does not effect the functionality of the buttons and the controller.

However, the transmitters are set to automatically shut off after 40 minutes of no button activity. When this happens, the output of the receiver/base unit is not affected and the trains will continue as they were before the transmitter shut off. To regain control of the base unit and your trains, you must first turn the transmitter back ON. Then the buttons will function as normal.

The **STOP/ENTER** button is a direct stop, there is a slight delay set in the unit to help prevent derailments, but **in an emergency, push STOP**.

Left and Right arrows are your direction controls. There is no direct correlation between the left and right arrows and backward and forward. You will have to experiment with your locomotives when you put them on the track.

Up and Down arrows are your speed controls: faster – up, and slower – down. You can push and hold the button to have your locomotive speed up or down.

That should get you running with the Revolution.

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There are a few more notes:

1. On the receiver there is a red and green LED. These LEDs are like lights on your train and indicate the receiver base unit is providing power out. When the **DIR arrow** on the transmitter display points to the right and the receiver is providing power, the green LED is illuminated. If DIR points to the left, the red LED is illuminated.
2. There are two conditions that can cause the base unit to shut down and send error messages to the transmitter. The errors will be displayed in the area where "**LinkOK**" is displayed.
 - a. **OvLoad** – This can occur from a short duration short circuit on the track, like a derailment or a short when crossing some switch frogs.
 - b. **OvHeat** – Occurs when the base unit exceeds 175 degrees F. This should not occur with the fan units we have added to our setup.
 - c. To recover from these errors, clear the short and make sure everything is back on the track and/or let the base unit cool for 5 minutes. When the error condition has been corrected, press the zero (0 / all stop) button on the transmitter to clear the error.

For more details, see the Revolution manual in the black Power Box or talk to Martschinke or Tennyson.