

What all do I need for Battery Power?

Batteries and Charger

You need on-board batteries to supply the power, and an external battery charger to recharge them. There are several on-line sources that will give you the best value. Our product manuals will tell you how to determine the proper size. We recommend Lithium-Ion battery packs from All-Battery.com, but you may also use Ni-Mh, Ni-Cad, drill batteries, etc. Maximum voltage input for our controls is 25VDC (with a full battery charge, actual voltage will be greater than rated).

www.All-Battery.com
www.BatterySpace.com
www.CordlessRenovations.com

Lithium-Ion batteries and chargers (**our preferred supplier**)
Li-Ion, NiMh, NiCd batteries and chargers
Li-Ion, NiMh, NiCd batteries and chargers

Power Input

You will need a few components for the power input circuit. We can supply you with individual components for the battery on/off switch and charging jack. But we highly recommend our Battery Conversion Module which greatly simplifies installation by placing all of these components on a small circuit board with screw terminals. If you purchase the All-Battery.com Li-Ion charger, you will need our charging plug with wires to adapt it to the Battery Conversion Module charging jack. A battery connector pair between the battery pack and Battery Conversion Module is also recommended to safely disconnect the battery when needed.

Control System

The control board provides the motor driver, a micro-controller, and all of the interface circuitry for lights, sound, reed switches, and radio control.

G-Scale Graphics offers several types of controller systems to complete your installation.

The **Simple Critter Control** (Manual hand control of speed with a knob)
The **Magnetic Critter Control** (Semi-automatic speed control. Start/Stop via hand-held magnet)
RailBoss 4 Basic and RailBoss 4 Plus
(2.4GHZ radio control using a hand-held 6-button transmitter and control board with built-in receiver)

G-Scale Graphics also offers an R/C system using 4 or 5 channel hobby stick radios.

The **RailBoss Plus - Hobby** system utilizes low cost, readily available, hobby radios that must be purchased separately. These may be available at your local hobby shop, or you can get them on-line. We recommend the 2.4GHZ Spektrum DX5e transmitter available from www.HorizonHobby.com or your local hobby shop. Of course, you are free to use any brand or frequency of 4/5 channel hobby transmitter you like.

Note: the AR600 receiver currently supplied with the Spektrum TX/RX package is not fully compatible with the RailBoss. So just purchase the transmitter only, and compliment it with a G-Scale Graphics DSM2 compatible receiver for substantial cost savings.

Reed Switch: If you want automated station stops using the RailBoss 4 Plus, or RailBoss Plus -Hobby, you will also need a reed switch.

Recommended Parts List

G-Scale Graphics control system of your choice	G-Scale Graphics
Battery Conversion Module (Door mount or Floor Mount)	G-Scale Graphics
Battery connector pair (battery to BCM)	G-Scale Graphics
Charging Plug w/wires (Charger to BCM)	G-Scale Graphics
Reed Switch	G-Scale Graphics
Lithium-Ion Battery Pack (14.8V, 2200 or 4400 mah)	All-Battery.com
14.8V Lithium-Ion Battery Charger	All-Battery.com

For RailBoss Plus - Hobby ...

Spektrum DX5E 2.4GHZ transmitter	HorizonHobby.com or your Local Hobby Shop
DSM2 compatible receiver	G-Scale Graphics

Note: You may also need additional connectors to route power and signals between trailing cars/tenders/locos. We have 2-wire and 4-wire locking connector cables. (2 wires for motor, another 2 for front light).

Installation

Sorry. We don't do installations. Most of our customers have successfully installed our systems themselves. If this isn't for you, you may want to find a local installer to avoid having to ship your locomotive.