THE RAILROAD WORKS™

Capture the Spirit of Model Railroading from the Golden Age to the Modern Era.

Railmaster Guide

CBS
SOFTWARE

LOADING YOUR PROGRAM

FOR APPLE® II + /IIe/IIc COMPUTERS

1. Insert the program disk into the disk drive and close the drive door.
2. Turn on your computer and monitor.
3. The title screen will appear, followed by the Main Menu.

FOR COMMODORE 64™ COMPUTERS

1. Insert the program disk into the disk drive and close the drive door.
2. Turn on your computer, disk drive and monitor.
3. Type: **LOAD "CBS," 8** and press RETURN. Then type **RUN** and press
   RETURN again.
4. The title screen will appear, followed by the Main Menu.

THE RAILROAD WORKS™

All aboard! Welcome to the fascinating world of *computer* railroading. What's computer railroading? It's the excitement of model railroading combined with the versatility and interaction of computer technology. It allows you to create your own railroad empire across 12 screens of tracks, towns and terrain without needing the actual space to build it!

The Railroad Works is *your* creative tool. *You* create the track layouts. *You* decide where to put towns, trees and mountains. *You* determine what kinds of freight your trains will carry and deliver, whether your trains will be antique or modern, and how fast they'll go!

So why not begin building your railroad now, *full steam ahead!*

PROGRAM CONTENTS

The Railroad Works consists of a disk and this Railmaster Guide. The disk contains **The Railroad Works** program as well as nine complete railroad layouts of varying complexity that you can practice with and modify any way you like.

This Railmaster Guide includes detailed, yet easy-to-read operating instructions for the wide variety of user-controlled elements featured in the program. It also includes important reference information for users of various home computers.

CONTROLLERS

Depending upon the type of computer you're using, you have the option of using a joystick, a Mouse or the keyboard to operate **The Railroad Works.**

**Apple**—joystick, Mouse or keyboard

IBM—joystick or keyboard

Commodore 64—joystick

Your controller governs the position of the on-screen cursor and arrows used in laying down and erasing segments of track and scenery. The controllers operate as follows:
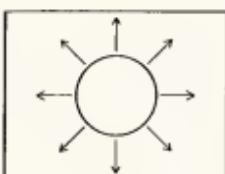
JOYSTICK
Your controller button is the red button on the joystick.
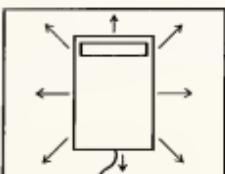
MOUSE
Your controller button is the gray button on the Mouse.
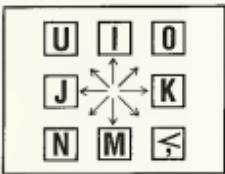
KEYBOARD
Your controller button is the space bar or RETURN on your keyboard.

# BEFORE YOU BEGIN

Making a Map

Preparing a rough map will help you keep "track" of your layout as you begin to lay down the rails and insert scenery and buildings at key locations. Since **The Railroad Works** allows you to build your railroad across 12 screens, you may wish to divide your map as shown in the sample below. You may also wish to use graph paper to help organize your thinking.
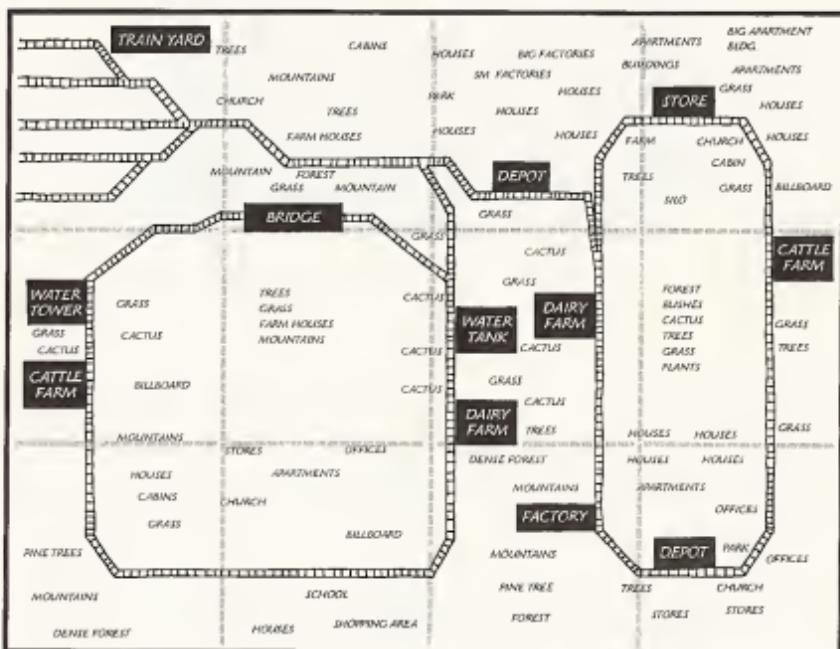
Definitions
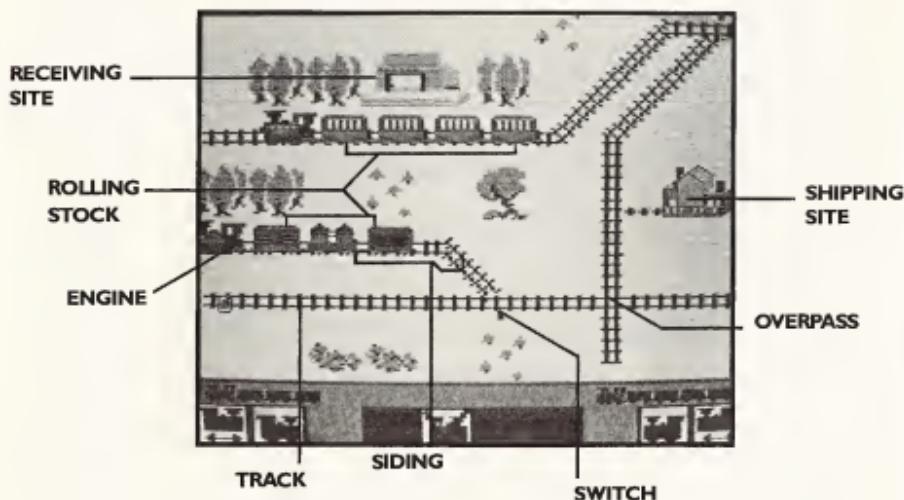
Engine
The "star" of any train, real engines—also called *locomotives*—are self-propelled units and pull all the freight and passenger cars attached to them. There are two engine types featured in **The Railroad Works**: Old-fashioned *steam engines*, complete with cowcatcher, and modern *diesel engines*.

Layout
A layout is a complete railroad scenario in miniature. While it may consist exclusively of track, it also includes any buildings, trees, mountains, bridges and other scenery that you may add. In **The Railroad Works**, you can save your best layouts on your program disk or another disk to enjoy again and again.

Overpass
When two sections of track intersect at 90° angles, an overpass is created. In the example shown, the north-south track passes over the east-west track. If two trains were to travel along these two track segments at the same time, it would appear as if they were passing through each other.
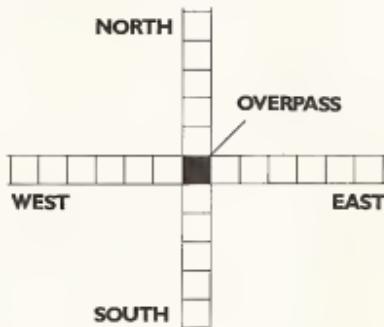
Receiving Site

In **The Railroad Works,** a building that accepts cargo from a rolling stock car is called a Receiving Site.

Rolling Stock

Wheeled cars that make up a railroad are called rolling stock. There are five types of rolling stock featured in **The Railroad Works:**

Boxcars:	completely enclosed rolling stock designed to carry freight. Also called *freight cars.*
Cattle Cars:*	boxcars designed to carry livestock. Also called *stockcars.*
Tank Cars:	specially designed rolling stock made for transporting liquids such as water and oil. Similar cars attached to steam locomotives for carrying fuel and water were called *tenders.*
Passenger Cars:	rolling stock with seats and, sometimes, air conditioning, designed to transport people from station to station.
Caboose:	the last car of a freight train, designed for the use of the crew.

*Not included in Apple version.

The engine itself is also an example of rolling stock.

Shipping Site

In **The Railroad Works,** a building that loads cargo onto a rolling stock car is called a Shipping Site.

Siding

A siding is a short stretch of railroad track onto which one of two meeting trains is switched until the other has passed. If you plan on having two trains travel along the same set of tracks, it is suggested that you create sidings within your layouts to avoid collisions.

Switch

Switches are specially designed structures that appear at track intersections in **The Railroad Works.** When thrown, they divert moving trains from one track to another.

Tracks

Tracks make up the "roads" your trains run along and serve as the basis of your layouts. Most tracks are composed of rails spiked to beams of wood called *ties.* On actual railroads, ties are held in place by being embedded in gravel called *ballast.*

There are no curved track segments in **The Railroad Works,** although tracks can be laid down at 45° angles to simulate curves.

Intersecting segments of track are governed by switches.

THE MAIN MENU

The Main Menu features eight options with which you can create and command your railroad empire.

```
  ☐   CONSTRUCT
  ☐   OPERATE
  ◉   PLAY GAME
  ☐   SAVE TO DISK
  ☐   LOAD FROM DISK
  ☐   CLEAR LAYOUT
  ☐   CHANGE BACKGROUND COLOR
  ☐   CHANGE ENGINE AND CARS
```
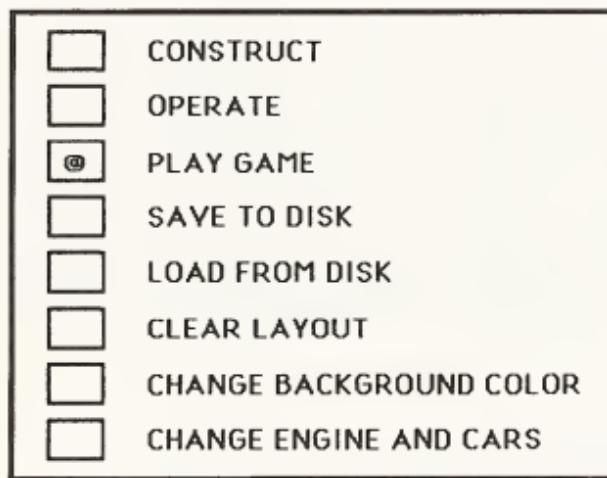
CONSTRUCT

Construction of your layout is governed by the nine icons located at the bottom of your screen (see below and page opposite).

When you first select Construct, an arrow will appear in the center of the "train yard," the first screen of all track layouts, and the Lay Track icon will automatically be engaged.

To select any one of the options shown, use your controller to move the arrow over that icon and press the controller button.
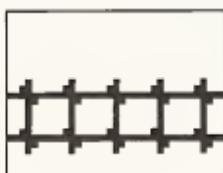

LAY TRACK
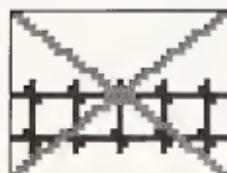
ERASE TRACK
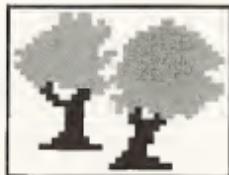
SCENERY MENU 1
Bushes & Trees
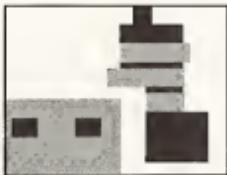
SCENERY MENU 2
Buildings
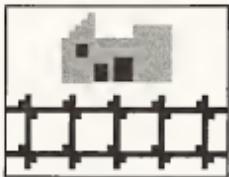
SCENERY MENU 3
Shipping & Receiving Sites
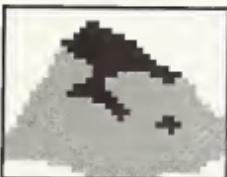
*SCENERY MENU 4
Mountains & Bridges
*Not included in Apple version.
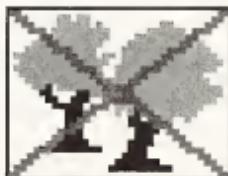
ERASE SCENERY

MAP OF ENTIRE LAYOUT

EXIT CONSTRUCT

Lay Track

Lay Track is automatically engaged as soon as you enter Construct from the Main Menu. Use your controller to move the arrow to any location on any one of the 12 sections of your layout. Press the controller button and the arrow will lock into position. Now use your controller to point the arrow in the direction you wish the track segment to be laid down. Press the controller button again and the track segment will appear.

The arrow will reappear at the other end of your track segment. This simplifies linking track segments across the entire layout area. Of course, you can lay track from *any* point on the layout.

Erase Track

To erase track segments, use your controller in the same manner as when you laid down track segments.

First select the Erase Track icon from the bottom of the screen. Then move the arrow to the segment of track you wish to erase and press the controller button. Make sure the arrow is pointing in the same direction as the track segment, and then press the button again. The track segment will disappear.

Note: The track in the "train yard" cannot be erased.

To return to Lay Track or any other option, move the arrow over the proper icon and press the controller button.

Scenery

To add scenery to your layouts, select one of the Scenery icons and a menu of scenery will appear. Use your controller to move the cursor over the type of scenery you want and press the controller button. You will automatically return to your layout screen. Now use your controller to move the cursor to the location where you want the scenery to be placed and press the controller button to make it appear.

To *repeat* the piece of scenery on your layout, you do not have to return to the Scenery icons. Simply move the cursor to another location anywhere on the 12 sections of your layout area and press the controller button again. This way, you can, for example, create an entire forest by selecting just one tree.

To get different scenery or return to laying track, select the appropriate icon from the choices at the bottom of your screen.

Erase Scenery

After selecting the Erase Scenery icon, a cursor box will appear on your layout screen. Use your controller to move it over the scenery you wish to erase and then press the controller button to complete the task.

Scenery Notes:

☐ While tracks can be laid over scenery, scenery cannot be laid over tracks. To do so, you will first have to erase the tracks at that location and then lay down the scenery.

☐ Mountains, bridges and Shipping and Receiving Sites can be laid over all other items of scenery without having to first erase those items. Grass can be overlaid by *any* item of scenery.

☐ If there is not enough room at a particular location for a particular piece of scenery, the computer will let you know with either a beep or no response. Move the scenery to another location or get rid of some track.

☐ Shipping and Receiving Sites appear on your layout with required segments of track. Since part of the fun of **The Railroad Works** is loading and unloading cargo and passengers at these sites, do not erase these track segments if you plan on servicing these sites when you put your trains into operation.

☐ If desired, Shipping and Receiving Sites can serve as non-operating decorations *anywhere* in your layout outside of the track route. In these cases erase the track segments that appear with each site when you first lay them down.

Map

Map displays a bird's-eye view of your entire layout—all 12 screens together. You can use it in many ways. In this mode use it to monitor how well your actual layout is shaping up as compared to the layout you have on your written map or in your mind. You can return to building your railroad by using your controller to move the cursor into *any* of the 12 sections of the layout area. When you press the controller button, you will return to that section and may resume work.

Exit

Select this option when you are finished with your layout and/or want to return to the Main Menu.

OPERATE

Operate allows you to practice coupling rolling stock to engines and experiment with acceleration, deceleration and stopping. Once you've mastered these skills you can use Operate to simply run your trains along your tracks, without worrying about servicing the businesses you've placed along your route, or to test your ability in the Play Game mode.

When you select Operate, the bottom of the screen will display eight icons.

FOLLOW FIRST ENGINE
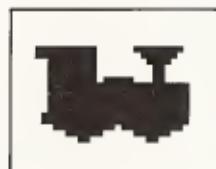
FIRST ENGINE THROTTLE

**MAP**

STOP FOLLOW

HELP

EXIT

FOLLOW SECOND ENGINE
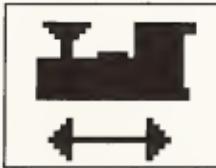
SECOND ENGINE THROTTLE

Engine Throttles

Select either of the Engine Throttle icons to move either one of the two train engines shown in the "train yard." Once selected, all icons disappear and are replaced by throttles.

THROTTLE INDICATOR

R **S** **F**

REVERSE STOP FORWARD
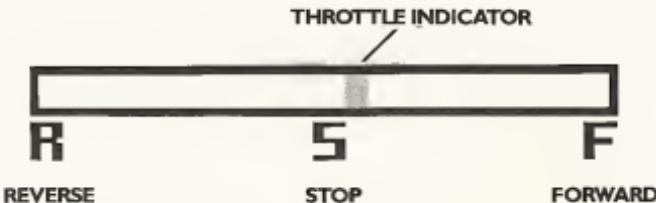
Suppose you want to work with the first train engine. After selecting First Engine Throttle, move your controller to the left. The flashing Throttle Indicator will also move to the left and cause the first engine to move in reverse.

When the engine comes into contact with a rolling stock car, it will automatically couple with it and stop. Now you can move your controller to the right and the entire train will begin to move forward.

The further the flashing Throttle Indicator is pushed in either direction, the faster the train will move in that direction.

At this point, you can either continue to control your train manually, getting the "feel" of how to speed up, slow down and stop, or, once you are satisfied with your speed, you can press the controller button and your train will run automatically. To make adjustments in speed, simply select the proper Engine Throttle icon and move the Throttle Indicator.

Follow Engines

When your train begins to proceed along your layout, you'll notice that you'll begin to lose "track" of it once it moves off the first screen section of your layout. You can either use your controller to move the cursor over a screen to the next section, or you can select the proper Follow Engine icon and you will automatically follow the train as it moves across your layout.

Map

Once again, Map gives you a bird's-eye view of your entire layout. Here, however, you can see your train move along the track and also practice making out where your Shipping and Receiving Sites are (as indicated by colored rectangles) in relation to your train, an important skill for making pickups and deliveries during the Play Game mode. Again, pressing the controller button will return you to the more detailed perspectives of individual layout sections.

Stop Follow

Selecting this icon cancels any commands to follow either of the two train engines. This feature frees you up to "run ahead" of your trains to check on any Shipping or Receiving Sites that may be coming up, giving you time to plan on where and when to stop your train should you decide to do so.

Help

Help displays which Shipping Sites load cargo into what rolling stock and what rolling stock unload cargo at which Receiving Sites. Consult this chart when you're planning your layouts and when you're playing the game. The chart is reprinted here to help you become familiar with car and building types, as well as with railroad terminology.

| SOFTWARE COMPANY | → | LOADS BOXES OF SOFTWARE | ONTO BOXCAR | → | WHICH UNLOADS BOXES OF SOFTWARE | AT STORE |

| WATER TANK | → | EMPTIES WATER | INTO TANK CAR | → | WHICH REFILLS WATER SUPPLY | OF WATER TOWER |

| *CATTLE RANCH | → | LOADS CATTLE | ONTO CATTLE CAR | → | WHICH UNLOADS CATTLE | AT DAIRY FARM |

| TRAIN DEPOT | → | LOADS PASSENGERS | ONTO PASSENGER CAR | → | WHICH UNLOADS PASSENGERS | AT TRAIN DEPOT |
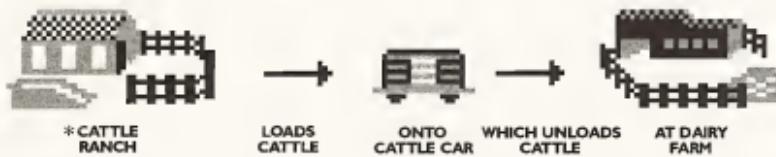
*Not included in Apple version.

Exit
This option returns you to the Main Menu.

## Coupling and Uncoupling Rolling Stock Cars
Linking cars to engines and other cars is called *coupling*. As mentioned earlier, to couple an engine to a car simply back your engine into it. Of course, any other cars already coupled to that car will also become part of your train. To uncouple cars, use your controller to move your cursor onto the car you want removed *closest to the engine*. Press the controller button and the cars will uncouple. You may only uncouple cars that are attached to your engine; i.e., to separate any cars, they must first be part of your train.

Completing Your Train
Through an interplay of throttle forward, throttle reverse, and the use of switches, you will be able to custom design your own trains to meet the needs of the specific Shipping and Receiving Sites within your layout. As you become a more experienced engineer, you'll quickly learn which cars should be in which locations in your train in order to efficiently service the businesses that depend upon you.

Switches
To change switches, place the cursor over the track intersection and press the controller button. A tone will sound as you do this, as well as when an engine runs through the intersection and *automatically* flips the switch.

■ SWITCH
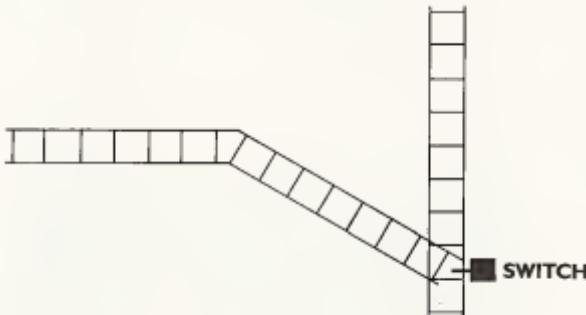
Loading and Unloading Cars
To load a car, stop your train (using Engine Throttle) so that the car is positioned next to the appropriate Shipping Site as displayed on the Help Chart. This is where a steady brakeman's hand becomes crucial to timing. Once the train is stopped, position the cursor *over the Shipping Site*, press the controller button and watch the cargo load.

CBS
SOFTWARE

For Commodore 64

THE
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The **Overpass** feature, described on page 4 of your Railmaster Guide, has been modified to enhance the use of intersecting track segments.

When two sections of track intersect at 90° angles to create an overpass, a diamond-shaped symbol will appear at the intersection, as shown below.

OVERPASS

Similarly, when two sections of track intersect at 90° angles, *but no such symbol appears at the intersection, no overpass exists.* If two trains were to travel along these two track sections at the same time, they would collide at the intersection.

INTERSECTION