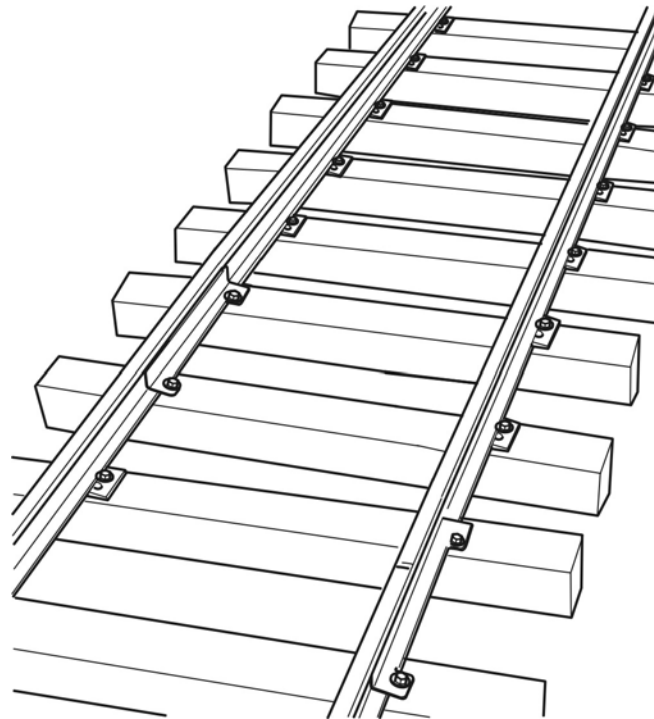




# THE GREAT AMERICAN TRAIN COMPANY

## TRACK LAYING INSTRUCTIONS



### **IMPORTANT**

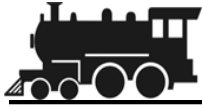
You must carefully read this Manual before using The Great American Train Company Track Sections to avoid personal injury or property damage.



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# Introduction

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Congratulations on the purchase of your Great American Train Company (GATC) Track Sections. If you have any questions concerning the assembly and use, or if you feel that your product is not working properly, contact The Great American Train Company at (763-476-5140), or visit our website at [www.greatamericantrain.com](http://www.greatamericantrain.com).

Read these Instructions carefully, making full use of all explanations and instructions. The “Know How” of trouble free operation of your railroad depends on the degree of your understanding of the system and willingness to keep all components in proper operating condition. Pay particular attention to all **NOTES**, **CAUTIONS**, and **WARNINGS** to avoid the risk of personal injury or property damage. It is important to understand that these **NOTES**, **CAUTIONS**, and **WARNINGS** are not exhaustive. The Great American Train Company cannot possibly know or evaluate all conceivable methods in which procedures may be performed, or the possible hazardous consequences of each method. Accordingly, anyone who uses a procedure that is not recommended by GATC assumes the risk of personal injury or property damage.

When unpacking your product, inspect the carton to ensure that no damage occurred during shipping. If damage has occurred during shipping, contact the shipper immediately. Remove all components from the shipping carton and inspect them. If any components are missing or damaged, contact The Great American Train Company immediately at 763-476-5140. Do not use or assemble the product if any components are damaged or missing. Do not use substitute components not manufactured by The Great American Train Company.



## General Safety Information

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### NOTE

Notes are used to notify of installation, operation, or maintenance information that is important but not safety related.

### ⚠ CAUTION

Caution with the Safety Alert Symbol is used to indicate the presence of a hazard, which if ignored may result in property damage and or minor personal injury.

### CAUTION

Caution without the Safety Alert Symbol is used to indicate the presence of a hazard, which if ignored may result in property damage.

### ⚠ WARNING

Warning denotes that a potential hazard exists and indicates procedures that must be followed exactly to either eliminate or reduce the hazard, and to avoid serious personal injury, or prevent future safety problems with the product.



# Track Components

ITEM NO.	PART NUMBER	DESCRIPTION
ITEM 1	SKU 42555	Rail Joiners (Box of 100)
ITEM 2	SKU 42556	Rail Joiners (Box of 1,000)
ITEM 3	SKU 42500	Bulk Rail (10 ft. Sections)
ITEM 4	SKU 42552	Square Drive Rail Screws (Box of 500)
ITEM 5	SKU 42560	Tie Assembly (48 x Tie + 2 Tie Plates + 4 Pre-drilled Rail Screws)
ITEM 6	SKU 42401	10 ft. Pre-assembled Straight Track
ITEM 7	SKU 42402	10 ft., 30 ft. Radius Pre-assembled Curved Track
ITEM 8	SKU 42550	Bulk Ties (Bundle of 96)
ITEM 10	SKU 42551	Bulk Ties (Pallet load of 3,360 Ties)
ITEM 11	SKU 42553	Tie Plate (500 Qty.)
ITEM 12	SKU 42554	Tie Plate (5,000 Qty.)

Not all of the above listed Items may be provided with your purchase. The above is a listing of all the Track items that can be purchased.



# Customer Provided Items

- Crushed driveway base rock as required for a 3 in. (7.62 cm) base for the roadbed. (As Required)
- 3/4 in. trap rock or other suitable ballast. (As Required)
- 4 ft. (1.2 m) wide heavy-duty landscaping or weed barrier cloth for the entire roadbed. (As Required)
- All surveys, plans, and permits as required by local authorities.



# Recommended Tools



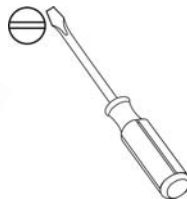
**Channel Lock Pliers**



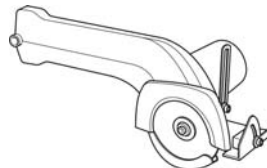
**Mallet**



**Sheet Metal Vise Grip**



**Slotted Screwdriver**



**Circular Saw**



**Power Drill / Screwdriver**



# Site Preparation

## When laying out your track plan, make sure:

1. All grades are 3% or less.
2. No curves are less than a 30 ft. (9m) radius. The wider the radius the better. Do not confuse radius with diameter. Measure the radius from the center of the desired curve.
3. A solid track bed is required. If the ground is soft, 3 in. (7.62 cm) base of crushed, compacted driveway base rock is necessary. You can build your track bed into the grade or above grade depending upon the look you desire, and if you are going through grass or other landscape materials. When laying track through a lawn that will be mowed, below grade is preferred to avoid hitting rocks with the mower blade.
4. All track bed must have positive drainage.
5. Verify that you have all required surveys, plans, and permits. Check with your local authorities before beginning track construction.

## When preparing the site and laying the track bed:

1. Layout the center line of the track path with survey stakes and clear any trees, brush, etc. within 3 ft. (91.44 cm) on either side of the stakes. Stake spacing will need to be closer together around corners to clearly define the path. After clearing the path drive new survey stakes 3 ft. (.9m) out from the center line along both sides of the track and space at appropriate intervals along the length of the track. Remove center line stakes.
2. Smooth out the track bed with a front-end loader or other suitable equipment; then, verify that all grades are 3% or less. Cuts and fills with retaining walls may be required on some layouts.
3. Verify that all drainage is positive. In hilly areas, you may have to cut drainage ditches on the high side of the track bed and use PVC or other solid drainage pipe to move water under — **not through** — the track bed.
4. Construct any required bridges, tunnels, or other structural components on which the train will run.
5. Lay actual track sections on bare ground in the cleared area to verify radii. Modify the location of your survey stakes accordingly; then, remove the track sections.

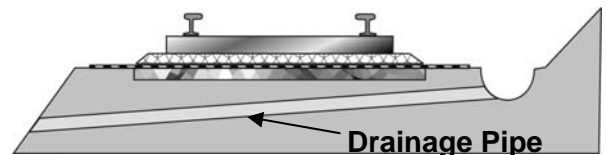


Figure 1

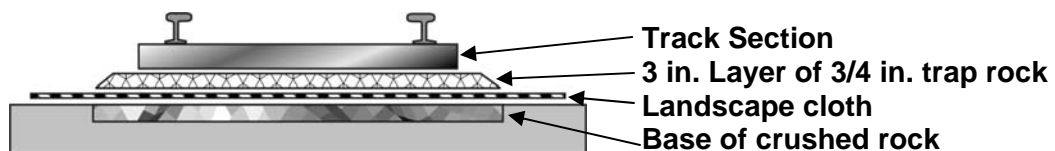


Figure 2

Steps 6-10 continued on next page

6. If the soil is soft and lacks good drainage. Lay a 3 in. (7.62 cm) base of crushed rock and tamp it down with a compactor. The base crushed rock should be class 5 or recycled concrete containing the smaller pieces, so that it packs and provides a solid foundation.
7. Lay a 4 ft. (1.2m) wide, heavy-duty landscape cloth or weed barrier on the track bed.
8. Place the 3/4 in. trap rock or other suitable ballast on top of the landscaping cloth. A 3 in. (7.62 cm) deep bed is ideal. This ballast rock must be angular and not rounded. It should not have smaller pieces in the mixture, since this tends to trap moisture. Rain should travel through and out of the track bed, not puddle on it.
9. Using a plate-type compactor thoroughly compact the track bed.
10. Cut the landscape cloth or weed barrier on each side of the track or lay dirt, mulch, shredded bark, larger rock, or other ground covering to hide the edges of the landscape cloth or weed barrier.



# Connecting Track Sections

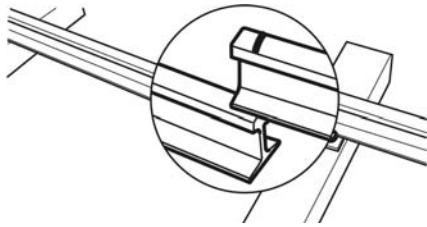


Figure 3

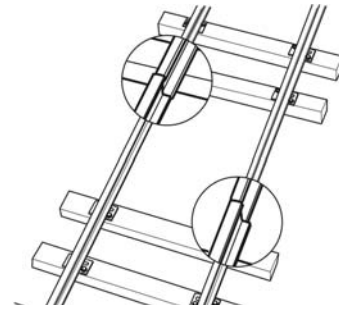


Figure 4



**Always wear safety goggles when cutting or trimming track. Failure to wear safety goggles when cutting or trimming track may result in eye injury from cutting debris entering the eyes.**

1. Verify that the track sections align properly. If they do not, mark the rail and using the Circular Saw, cut the rail to the required length. Refer to Figures 3 & 4.

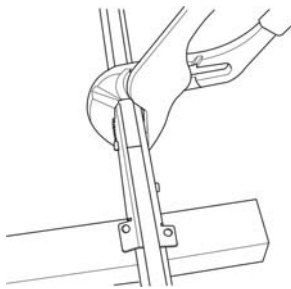


Figure 5

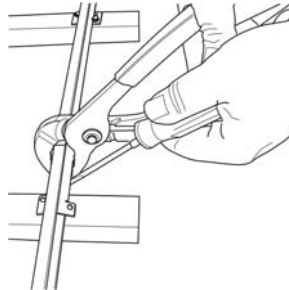


Figure 6

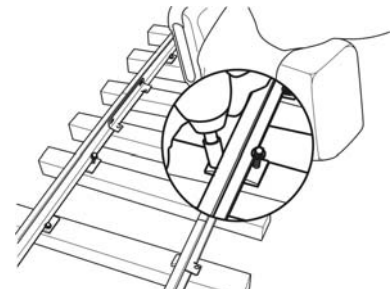


Figure 7

2. Insert a Rail Joiner on each side of the rail; then press the Rail Joiners together. While holding the Rail Joiners together, use a screwdriver to push in the tabs on the Rail Joiners. Perform this procedure on both sides of the track. After the rails have been secured with the Rail Joiners, insert ties and secure the Rail Joiners to the ties. Refer to Figures 5, 6, & 7.
3. Clamp the rails together with sheet metal vice grips and repeat Steps 1 and 2 for the next section of track. Refer to Figure 8.

## NOTE

A 30 ft. (9 m) radius can be slightly straightened to a 40 ft. (12m) — 45 ft. (14m) radius. A radius greater than 45 ft. (14m) can be made by bending a straight section of track to the desired radius. To alter the radius, loosen the inner Rail Screws; then, bend the track section to match the desired curve radius. Retighten the Rail Screws after the desired radius has been attained. After the radius has been set, trim the ends of the rails with a circular saw as described in Step 1.

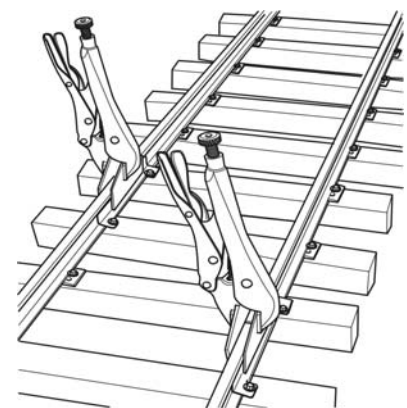


Figure 8

4. Add additional ballast between the ties after the track has been laid to lock the track in place. To prevent damage to the wheels and No-Tip system, there should be no ballast on the top or sides of the rails.



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