**Warranty**

If service is required within the warranty period, this item may be sent to the Atlas O Customer Service Dept. Make sure the item is packed to prevent shipping damage; if possible send in original package to:

**ATLAS O CUSTOMER SERVICE DEPT.**  
ATLAS O, 378 FLORENCE AVE., HILLSIDE, NJ 07205

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**21st Century Track System**
- Two versions: 3-rail solid nickel silver rail with brown ties or 3-rail solid steel rail with black ties
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- Geometrically exact layout construction
- Compatible with other major brands of track
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- Ready-to-run
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- Outstanding craftsmanship
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- Available in 3-rail & 2-rail

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- Exquisite detail and construction
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**2-Rail Scale Track System**
- Code 148 solid nickel silver rail and brown ties
- Precision-molded with American prototype ties and spacing
- Correct spike, tie plate and bolt details
- Dark brown tie strip

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Check out the entire Atlas O product line at www.atlasO.com
The ATLAS O Turntable is designed so you do not have to cut a hole for the pit in your layout table; it lies directly on a flat surface. The lack of a turntable pit is prototypical. The ATLAS O Turntable is based upon a Santa Fe prototype and features many of its key detail elements, such as the heavy girder bridge construction and control house.

The ATLAS O Turntable does not require special wiring. All wiring, as well as the driving mechanism, is done internally and is factory installed. The turntable is also designed for either 3-rail or 2-rail operation. The conversion is easy and can be done in minutes.

Turntables can serve a variety of purposes on a model railroad, just as they do in the prototype world. The design of your layout will determine where the table is placed:

• It can be installed at the end of a line to turn the locomotive for its return trip. This requires only 1 track leading to the turntable.
• It can be in an engine terminal, with 2 or more approach tracks. This one is usually found with an adjacent roundhouse for locomotive storage.

Unpacking the Turntable

Carefully remove the turntable from its package. Most of the parts are pre-installed at the factory. For shipping precautions, the turntable arch is packaged separately and must be installed by the consumer. The arch fits into the center hole on each of the side girders. The smaller supports go into the adjacent holes on the girders as well as the hole on the upright of the arch.

Installing the Turntable

The ATLAS O Turntable is designed for easy installation. It does not require a hole to be cut in your layout. The turntable lies directly on your layout surface and is ready to accept the track of your choice.

The turntable base is the same height as the popular Midwest cork roadbed. If you use this roadbed, the following track will not require any shimming to match the height of the track on the turntable: Atlas O, GarGraves, Ross, Curtis, Lionel Super O & 027 Tubular.

A shim will be necessary if your layout does not use roadbed. The track must be brought as close as possible to the table without touching the revolving bridge

Maintenance

The worm gear that turns the table is powered by the motor through a belt drive. This system will provide years of trouble-free operation. However, the belt may slip off of its pulley if the turntable is turned at a high speed. If this should occur, remove the motor house shed to expose the motor and drive. Using a small screwdriver, re-install the drive belt on the pulleys. It is recommended that the worm and drive gears be lubricated for smooth and quiet operation. Use a good quality gear lube, such as Labelle, for this normal maintenance.
track. It will be necessary to remove any track pins or molded-on tie strip connectors to do this.

**Operating the Table**

The ATLAS O Turntable can be operated with the separately-attached motor drive (factory-installed) or by the manual crank which is packaged with the table. Either way, the turntable works in the following manner:

As the drive starts turning, the turntable unlocks from a track position and moves to the next track position. It then stops and locks at that position. If the drive is stopped at this point, the turntable is ready to accept or deliver a locomotive. If the drive continues, the table will unlock and move on to the next track position, and so on. There are 23 track locations around the turntable for either approach or storage tracks.

The ATLAS O Turntable is electrically operated when the factory-installed motor drive is used. This drive unit may be powered with either a separate 12 volt DC power pack (such as the ATLAS #310) or an AC power pack with variable speed control (eg: Lionel ZW, 1033, etc.) In the latter case, a rectifier is required to convert the AC current to DC to power the turntable motor. This rectifier is supplied with the turntable. Also included, is an ATLAS #210 Twin. This electrical device will provide easy direction control of the turntable when used with an AC transformer. Please see **Fig. 1** for DC power hook-up and **Fig. 2** for the AC power connections.
Warning! - Connecting the turntable motor directly to AC power can damage it. Please use the supplied rectifier and Twin as described above.

Use the speed control knob on your power supply to regulate the speed that the table turns. To best simulate prototype operation, it is suggested that the turning speed be kept at the lower end of the controller range. Too high of a speed could disengage the drive belt from the motor assembly. Should this occur, please refer to the Maintenance section of these instructions.

**Powering the Tracks for 3-Rail Operation**

The turntable is factory-wired for 3-rail operation. Fig. 3 shows the power connections from the transformer to the table. These connections power the turntable track only.

Each of the turntable storage tracks will require similar connections to the outside common rails and center rails. It is suggested that each stall track be wired through an on-off switch, such as the Atlas #205 Connector, for easy power shut off.

If you are using Lionel® TrainMaster® Command Control, ensure that the command base is connected to the common (outer) rails of the turntable track and every storage track. If you are using strictly command-controlled equipment, it is not necessary to have the storage tracks powered through an on-off switch.

**Converting the Turntable for 2-Rail Operation**

Conversion of the turntable to 2-rail operation is very easy. The first step is to remove the center rail. Grip the end of the rail with needle-nosed pliers and pull the rail straight out. Do this to both center rails. Snap in the separate simulated wood walkway planks to fill the gap where the rail was removed.

Remove the cover from the tool box that is near the center of the table as in Fig. 4. Inside you will find the electrical connections to the rails on the turntable. Fig. 5 shows the connections as they are factory delivered for 3-rail power. Remove the jumper and change the wiring so that it matches Fig. 6. The turntable track is now wired for 2-rail operation.

**Powering the Tracks for 2-Rail Operation**

Before wiring for 2-rail operation, it is important to familiarize yourself with the turntable’s wiring scheme. For a locomotive to move from either an approach track onto the turntable or from the turntable into an engine house stall track, it is necessary that the polarity of the approach and stall track rails match the polarity of the turntable rails.

Please refer to Fig. 7. With the toolbox of the turntable on your left, the left hand rail will be the same polarity as the left hand screw terminal. Likewise, the right hand rail will be the same polarity as the right hand screw terminal. As the table revolves, this polarity will not change. In other words, the rail closest to the toolbox will always have the same polarity as the left hand screw terminal.

The Atlas Twin, if not used for the directional control of the turntable motor, may readily be used for direction control of the turntable track as well as the stall tracks. Remember: the polarity of the turntable track must be the same as the stall track for the loco to smoothly travel off the turntable. Fig. 8 shows a typical connection, using the Twin for direction control for the table track as well as the stall tracks. The Atlas #205 Connectors are used for the power shut down of the stall tracks.