
Instruction Manual - GS-4 Daylight



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Southern Pacific GS-4 4-8-4 No. 4449

Instruction Manual - GS-4 Daylight



Prototype Information:

Californians who witnessed the early runs of the Southern Pacific red, orange and black consists declared them to be "the most beautiful trains in the world". The striping on locomotive, tender, and the length of the train presented a bright, cherry image to a nation emerging from the Great Depression.

In 1941, Lima built 27 GS4-class 4-8-4s, and were numbered from 4430--4457. No. 4449 was the only Daylight painted GS-class preserved. After lying stationary for years in a park in Portland, Oregon, she was resurrected in red, white and blue livery in 1975 to pull the American Freedom Train around the U.S.A to commemorate the Bicentennial of American independence. Since then, the 4449 has been meticulously maintained. Today, the 4449 is occasionally run on special trips.

General information About Accucraft GS-4 Daylight Model:

This accurately detailed model is constructed of brass and stainless steel. A large Pittman gearhead motor powers all eight drivers through a metal gear box and the side rods. The museum quality finish and lettering represents this locomotive as it would have looked in the late 1940's and early 1950's.

Your Accucraft GS-4 Daylight is ready for installation of a DCC decoder. Unscrew the two hex bolts in the front and at the oil bunker, lift up and remove the oil bunker top. On the front area of the tender floor you will find Accucraft's power distribution board, which has several features. Track power is routed through this board to the motor, and it is a simple matter to disconnect the power and motor wires and then insert your DCC decoder at this point.

In addition, this distribution board has switches to control the outputs to the motor and sound systems, and also has power "tap-off" points for two 1.5v supplies, one reverse 1.5v supply, and an 18v supply for sound system power.

The light bulbs in your GS-4 are all rated at 1.5v DC.

Your locomotive and tender are electrically connected via a six-prong plug found at the left rear of the locomotive, under the cab. Be sure to connect the plug marked "TOP" in the up position.

Instruction Manual - GS-4 Daylight



This plug takes the place of the usual “wireless drawbar” that has traditionally been found on metal locomotive models. The drawbar on this model is just what its name implies, a drawbar only. Power is routed from front to back and vice-versa via the six prong plug. Both locomotive and tender units have carbon brush pickups on both rails, to insure reliable operation when using track power.

Disassembly of this large and complex model is not recommended. However, if absolutely necessary, the 2mm hex bolts and nuts can be turned with a nut driver sized for US 00-90.

Your GS-4 is designed to run at a 10ft minimum radius curve track. However, Accucraft has made available blind replacement driver sets for the enthusiast who wishes to have run GS-4 on a much smaller radius track. Please contact your Accucraft dealer for these driver sets.

Please take care in lifting this large and heavy model. It is recommended that the locomotive be picked up by grasping it under the frame on both ends.

Total production volume is limited to 300 units, and each unit is serially labeled on the bottom of each locomotive.

Model Features

This limited production model has been handcrafted for Accucraft Trains by AMMC, one of the most respected makers of large scale brass models. This museum quality model features:

- Full cab interior details, with operating cab windows
- Operating smokebox door
- Detailed boiler with fittings, domes, pipes, and handrails
- Operating steel drive rods, valve gear and cross heads
- Prototypical livery and lettering
- Steel helical gears in a die-cast transfer box

Instruction Manual - GS-4 Daylight



Technical Specifications

Scale/Gauge:	1/32, 45 mm Gauge
Total Weight:	13.7 Kg, 30.1 lbs.
Engine Length:	658 mm, 25.9 ins.
Engine Width:	110 mm, 4.3 ins.
Engine Height:	162 mm, 6.4 ins.
Tender Length:	450 mm, 17.7 ins.
Tender Width:	108 mm, 4.3 ins.
Tender Height:	150 mm, 5.9 ins.
Driver Wheels:	Dia. 63 mm, 2.5 ins.
Recommended radius:	3 M, 10 ft
Power:	Pittman GM9413-2 0v-24v DC 1:36 Gear Ratio Peak rated output torque 187 oz-in Output shaft stall torque 911 oz-in

* Be sure to leave at least 3" clearance (measured from the inner rail) to allow for overhang.

The following parts are packaged separately

- M3 hex head screws
- 3mm hex head screw driver
- Rear truck with assembly parts (on some models)
- Blow down valve (on some models)

Caution!

This model is an accurate replica of the original locomotive. It has sharp and moving parts. The locomotive drive rods are stainless steel with sharp edges. **AT ANY TIME, OPERATORS MUST NOT BECOME IN CONTACT WITH THE MODEL WHILE IT IS POWERED. UNDER NO CIRCUMSTANCES SHALL ACCUCRAFT TRAINS BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING IN REGARD TO ANY ACCUCRAFT PRODUCT.**

Instruction Manual - GS-4 Daylight



Tools you will need for maintenance

- 1.5 mm allen wrench
- 2 mm and 3 mm hex wrenches
- Flat head crew driver

Lubrication

Please lubricate your Accucraft Model before attempting to operate.

With a bit of care, your Accucraft Model should give you many years of pleasure and reliable service. Lubrication is of prime importance on a model of this type with so many moving parts. Always use quality lubricants. This should not be a problem, for there are many modern lubricants available in hobby and sport shops. Light oil such as Labelle #108 or Hoppe's Gun Oil will do a good job on lubricating most of the moving parts. For pistons and slides, a heavier lubricant such as Labelle #102 would suffice. For gears use a gear grease such as Permatex Super Lube or another hobby gear lubricant.

To access the many moving parts of this model it is best to carefully place it on its side on a soft towel or foam sheet. A drop of light oil on every moving part is necessary, and there are many on this locomotive. Be sure to lubricate all the crank pins, crosshead slides, piston rods, etc. that you can see. Be sure to lubricate the tender axles journals as well. Do not over lubricate, for excess oil only picks up unwanted dirt. Be careful to keep lubrication off the painted surfaces as this causes shiny areas.

Use an oil that is a bit heavier to lubricate the axle bushings and pivot points of the lead and trailing trucks.

The main gear box is lubricated in the factory, and will not need any attention when you first run your model. However, in time, you should make sure that the gears are will lubricated with a technical gear grease. The gear box cover is held on with screws, and removing it will allow you to access all the gears and bushings that need lubrication. Take note of how the cover came off and replace it exactly the way it was when you started.

Lubrication of the locomotive should be done every 25 hours of operation.



After following the recommended lubrication procedures your Accucraft GS-4 is ready to provide many years of reliable operation. We recommend that you use a D.C power supply with a capacity of 2.5 amps or larger. Always pick your model up by grasping it under the frame on both ends. It is a very heavy model so make sure that you grasp it firmly.

- ***Electrical Pickup***

The GS-4 model is powered by the DC voltage off the track through the engine and the tender. All drivers are insulated on the both side of the locomotive, and the electricity is picked up with 12 pickup wheels. Be sure to clean electrical pickup units before each operation. Replacement electrical pickup units can be ordered from Accucraft Trains. Track power is connected to the Accucraft Trains' power distribution board which is located in the tender.

- ***Power Distribution Board***

All input and output terminals on the power distribution board are labeled for easy access. Two "On/Off" switches are added to the circuit. "M" switch can disconnect the locomotive motor from its powered wheels, and "S&L" switch controls the sound unit and lights.

- ***Lighting***

This model features directional lighting. The constant voltage is set at 1.5V.

- ***Smoke Unit***

A smoke unit may be installed in the barrel of the smokestack. Depending on the type of smoke unit, different voltage supplies can be found on the power distribution board.

- ***Sound Installation (if not factory installed)***

Several manufacturers have sound systems that are acceptable for your new GS-4 locomotive. Sound system power connectors are available on the power distribution board in the tender, and a generous speaker hole will be found in the tender floor. Please contact sound system manufacturers for installation directions.

- ***General maintenance***

Clean the exterior surfaces of your locomotive with a clean, soft and lint free cloth. To remove stubborn soil or greasy spots from the painted surfaces use alcohol on a soft, lint free cloth.

Instruction Manual - GS-4 Daylight

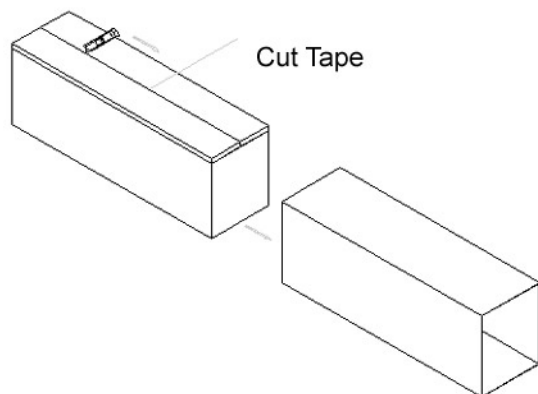


Accucraft Trains locomotives are fine scale brass models with small parts. To provide maximum protection from shipping damage, we carefully pack the models in metal cases. We ship via UPS with insurance coverage to its full value. Please contact UPS if package is damaged.

Each locomotive is packed under UPS guideline for shipping. We do not warrant any damage resulted from re-packaging by any party other than Accucraft Trains.

Please read the following directions before unpacking your locomotive.

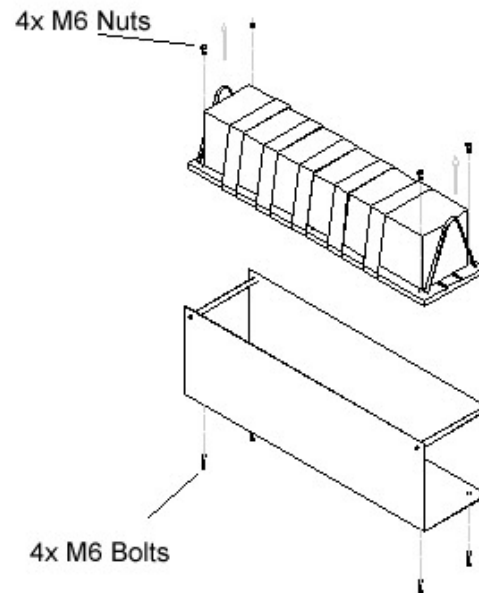
1. Remove foam around the locomotive. Slide the inner box cover to the side, and open the inside cardboard box with a cutting knife.



2. Lift the metal case from the cardboard box.

3. The locomotive is firmly taped to a 1/2" wood board which is then fastened to the metal case with 4 M6 bolts. Bolts must be

removed before lifting the locomotive with wood board from the metal case.



4. Place taped locomotive on a flat surface. Carefully cut the tape along the wood board side surface. Be sure to cut both sides of the wood board. Slowly lift the tape from the locomotive. Be very careful with small parts. Tape cannot be re-used to re-pack the model. Use new packing tape if necessary.

