

Instruction Manual



Southern Pacific 4-8-8-2 Cab Forward Electric



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NOTES:



Prototype Information:

Those of us fortunate enough to have seen Cab Forward in action will never forget their massive size and thunderous sound. Standing next to the tracks on Donner Pass in the Sierra Nevada with Cab Forward pounding up grade, hauling long strings of PFE reefer blocks, was truly an awesome sight. The ground literally shook as they went by.

The design of the Cab Forward was done out of necessity. By reversing the locomotive end for end and placing the cab in front the exhaust gases from the stack were behind the crew. This was necessary in the long covered snow sheds to keep the crew from being asphyxiated.

Our two Cab Forward models are unique in that the 4294 was the last Cab Forward to be built and the last steam engine purchased by the Southern Pacific. The 4274 was the last Cab Forward to operate on the Southern Pacific. It was unfortunate that the 4274 was not saved from being scrapped. The 4274 was the last Cab Forward shopped by the Southern Pacific. This was done for the last Railfan Trip over Donner Pass with a Cab Forward. The trip was run and the engine went back to the dead line and was scrapped some time later. What a waste!!!



NOTES:



General information About Southern Pacific 4-8-8-2 Cab Forward:

This accurately detailed model is constructed of brass and stainless steel. Pittman gearhead motors power all 16 drivers. The museum quality finish and lettering represents this locomotive as it would have looked in the late 1940s and early 1950s.

Your Accucraft Cab Forward has a new style power distribution board in the tender.

Remove the two hex bolts in the front of the oil bunker, lift up and remove the oil bunker top. This will reveal the power distribution board.

Track power is routed through this board to the motors. The sound system also gets its power from this board. Please refer to the Wiring Diagram at the rear of this manual.

The lights on this locomotive are LEDs rated at 6 volts.

Your locomotive and tender are electrically connected via 12-prong plug at the rear of the locomotive, under the rear deck.

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 12-prong plug.

Both locomotive and tender units have carbon brush pickups on both

rails, to ensure reliable operation when using track power.

Disassembly on this large and complex model is not recommended. However, if absolutely necessary, the 1.6mm hex bolts and nuts can be turned with a nut driver sized for U.S. 00-90.

Your Cab Forward is designed to run on a 10ft. minimum radius curve track.

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.

Model Features:

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

- Full cab interior details, with operating cab windows
- 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
- 2 independent Pittman Motors



Technical Specifications:

Scale/ Gauge: 1/32, 45mm Gauge
 Total Weight: 36.5 lbs.
 Length: 38 in. (965.2mm)
 Width: 4.5 in. (114.3mm)
 Height: 6.5 in. (165.1mm)

Tender Information:
 Length: 18 in. (457.2mm)
 Width: 4.25 in. (107.95mm)
 Height: 6.5 in. (165.1mm)

Recommended Radius: 3M, 10ft.*

Power: TwoPittman GM94
 13-2, 0-24V DC

11:5.1 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.

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.

OPERATORS MUST NOT COME IN CONTACT WITH A MODEL THAT IS BEING POWERED AT ANY TIME. UNDER NO CIRCUMSTANCES SHALL ACCUCRAFT TRAINS BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING IN REGARD TO ANY ACCUCRAFT PRODUCT.

The following part is packaged separately:

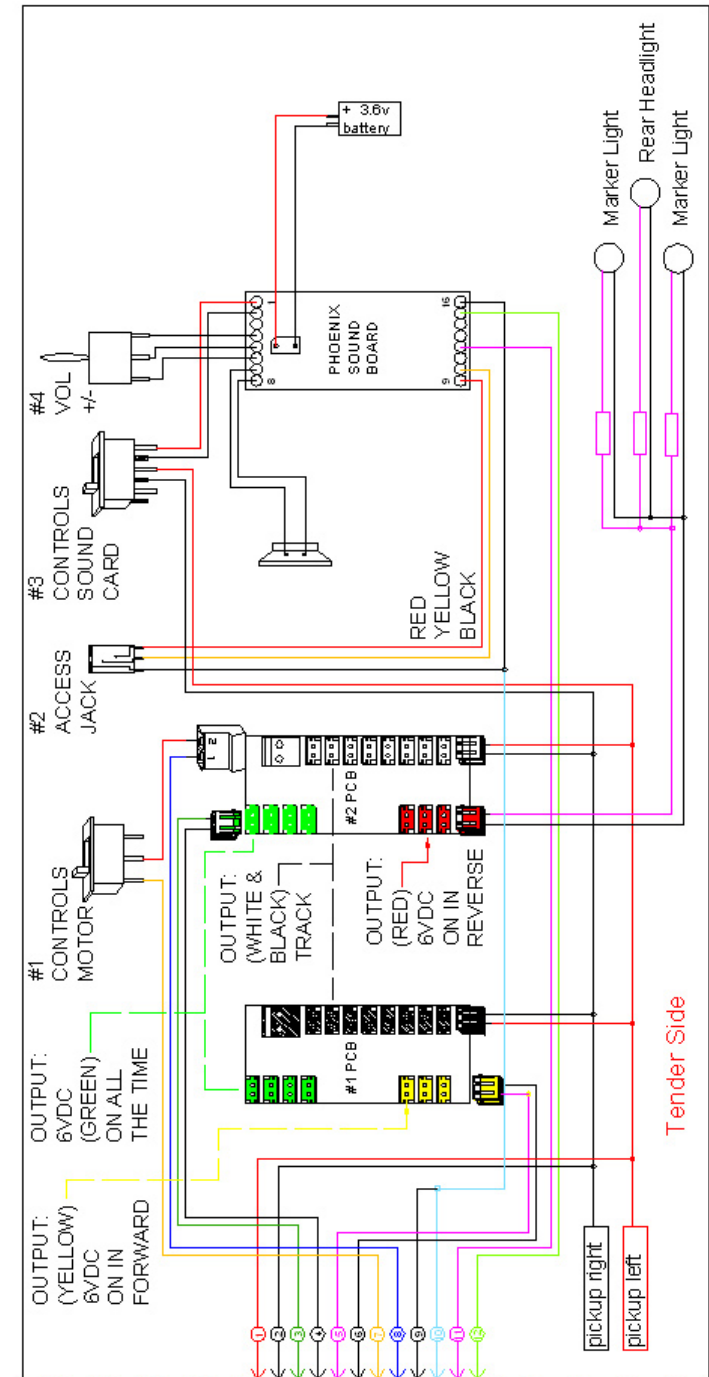
- 2mm hex head screwdriver

Tools you will need for maintenance

- 1.5mm Allen Wrench
- 2mm Hex wrenches
- Flat head screwdriver
- Philips head screwdriver

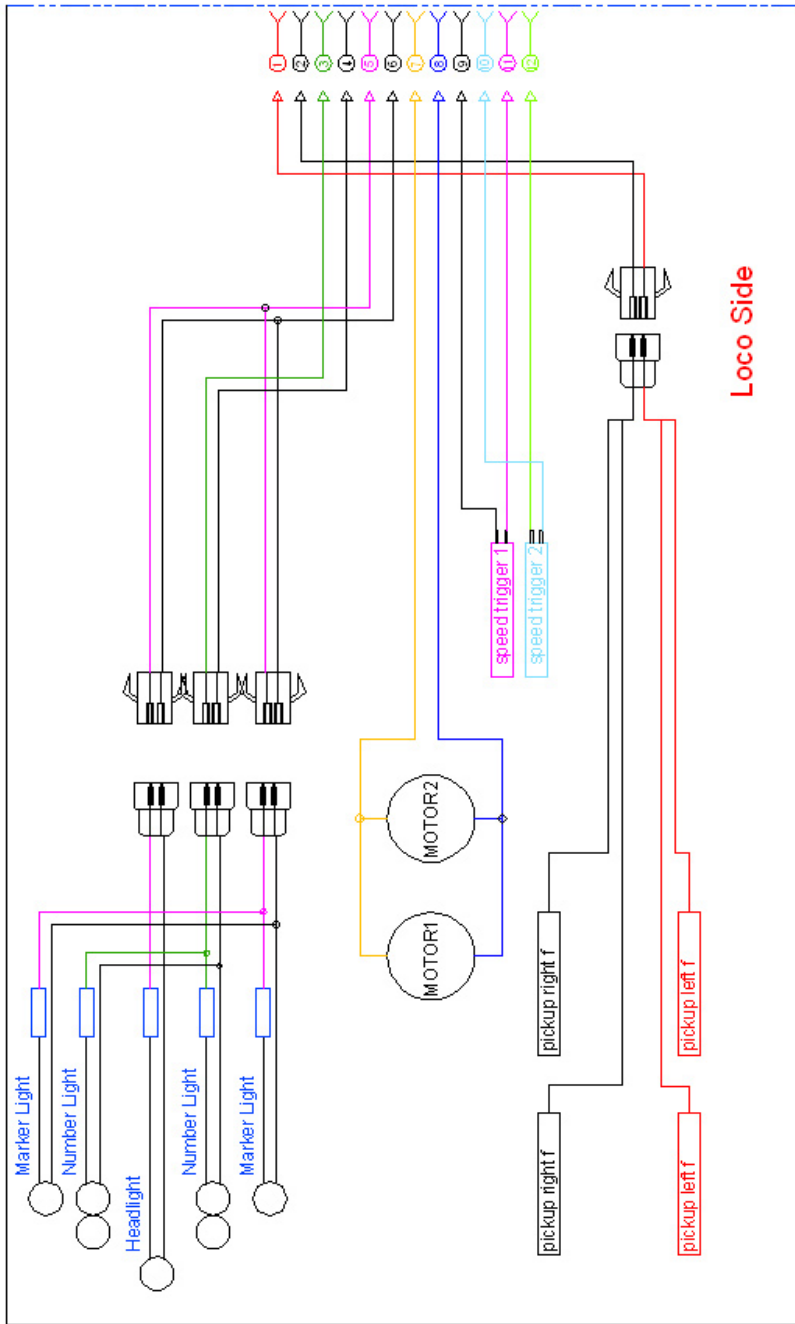


Cab Forward Tender Side Wiring Diagram





Cab Forward Loco Side
Wiring Diagram



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 gear grease such as Permatex Super Lube or another hobby gear lubricant.

To access the many moving parts of this model: Using a soft towel or foam sheet, the model should be carefully placed on its side. A drop of light oil on every moving part is necessary; there are many moving parts on this locomotive. Be sure to lubricate all the crank pins, crosshead slides, piston rods, etc. that is visible to you. Make sure you lubricate the locomotive and tender axle's journals as well.

Do not over lubricate, since excess oil only picks up unwanted dirt. Be careful to keep lubrication off the painted surfaces to avoid having shiny areas. Use a type of 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 require any attention when you first run your model. However, in time; you should make sure that the gears are well lubricated with some 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 comes 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 Cab Forward 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 and 24 volt output. Always pick your model up by grasping it under the frame on both ends. It is a very heavy model so make sure you grasp it firmly.



Electrical Pickup:

The model is powered by the DC voltage off the track through the engine and the tender. All drivers are insulated on both sides of the locomotive, and the electricity is picked up with 16 pickup wheels.

Be sure to clean electrical pickup units when needed. Replacement electrical pickup units can be ordered from Accucraft Trains.

Lighting:

This model features directional lighting.

Sound Installation (if not factory installed):

Several manufacturers have sound systems that are acceptable for your new Cab Forward locomotive. Sound system power connectors are available for 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:

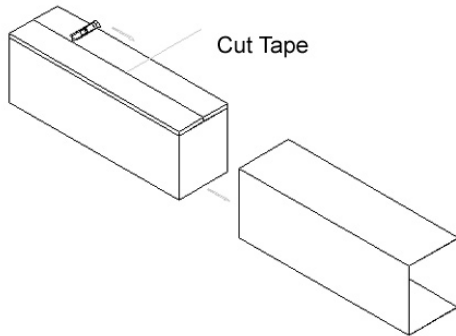
Clean the exterior surfaces of your locomotive with a clean, soft and lint free cloth.

Accucraft Trains locomotives are 1/8" 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 guidelines 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 for the side, and open the inside cardboard box with a cutting knife.



2. Lift the metal case from the cardboard box.



4. Place taped locomotive on 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.

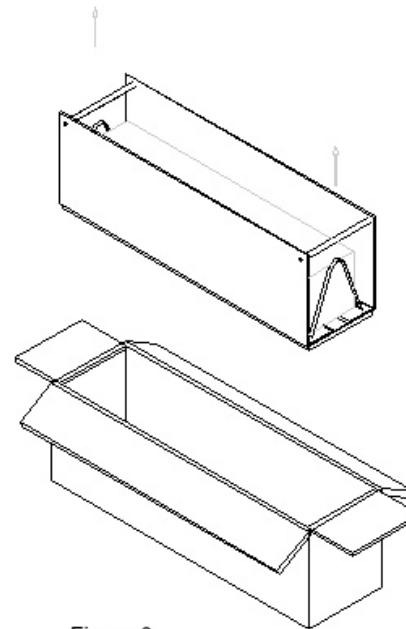


Figure 3

to a 1/2" wood board, which is then fastened to the metal case with 4 M6 bolts. The bolts must be removed before lifting the locomotive with wood board from the metal case.

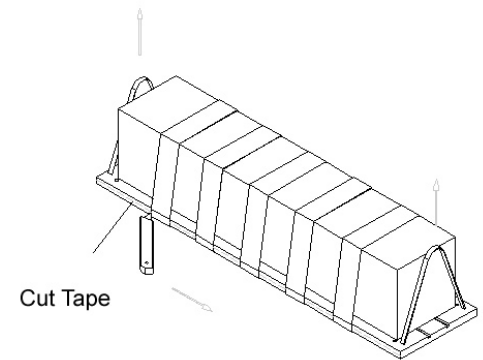


Figure 5

Be very careful with small parts. Tape cannot be re-used to re-pack the model. Use new packaging tape if necessary.

