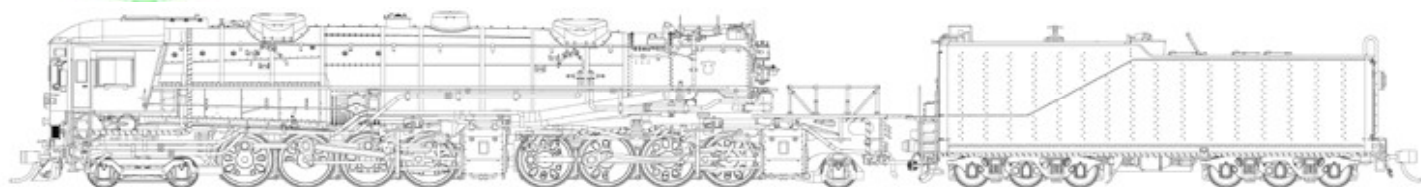




**Baldwin Locomotive Works  
SOUTHERN PACIFIC  
Cab Forward 4-8-8-2  
Articulated Steam Locomotive**



## **Operators Manual**

### **Your Presentation Quality Collectors Box Includes:**

- Baldwin Locomotive Works HO Scale Cab Forward 4-8-8-2 Articulated Locomotive
- Oil Tender with Electronics
- Warranty Information
- Front Truck Spring Set with Instructions
- Operators Manual

### **Table of Contents:**

- HO Scale Cab Forward 4-8-8-2 Articulated Steam Locomotive Features
- Oil Tender Features
- Preparing The InterMountain Cab Forward Steam Locomotive For Operation
- DC (Basic Analog Mode) Operation
- Digital Command Control (DCC) Operation
- Ongoing Maintenance Activities

### **HO Scale Cab Forward 4-8-8-2 Articulated Steam Locomotive Features:**

- Detailed cab interior
- Painted gauge faces
- Detailed boiler back-head
- Sliding cab roof vent
- Directional lighting and lighted number boards
- Highly detailed piping including flexible high pressure piping
- Operating side rods, eccentric cranks and valve gear
- Detailed feed-water system, air pumps, generator and brake gear
- Formed wire railings and grab irons
- Kadee® Magne-Matic® Coupler installed in the Locomotive Pilot
- Diamond Plate patterned walkways and deck plate
- Prototypical correct articulation of the trailing engine
- Blackened RP-25 wheels
- Operates on 24" Radius
- 8 Pin NMRA Plug and 21-pin plug for quick & easy DCC Installation
- ESU® LokSound 5 DCC decoder allowing for operations on both standard DC and DCC powered layouts (Sound Equipped Locomotives Only)

### **Oil Tender Features:**

- Formed wire railings and grab irons
- Detailed trucks and brake piping
- Diamond Plate patterned deck plate
- Opening water hatches
- Operating directional back-up light
- Blackened RP-25 wheels
- Kadee® Magne-Matic® Coupler



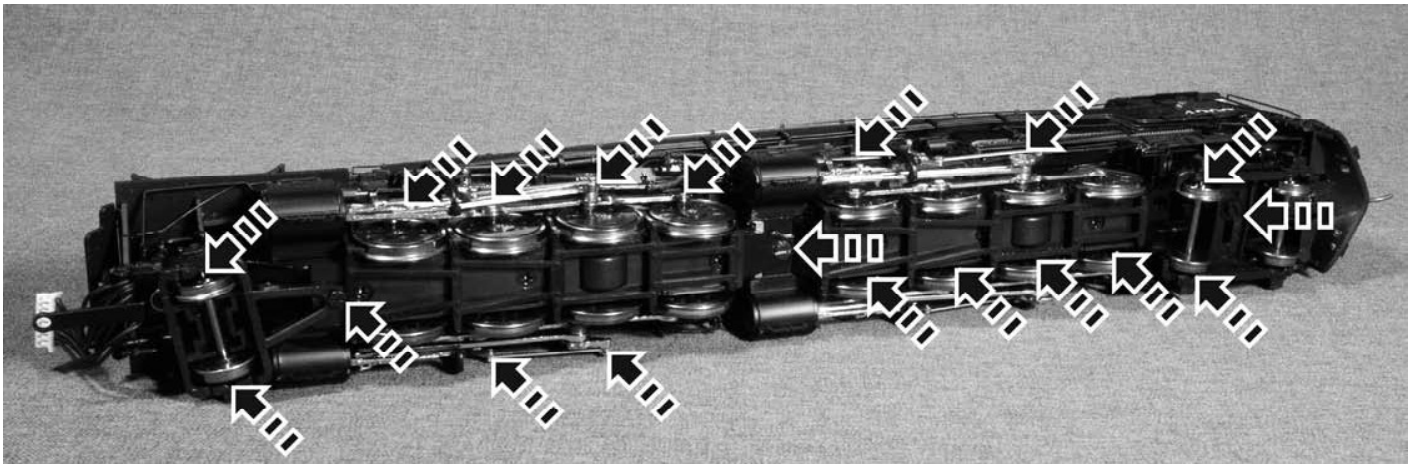
### Correct locations for picking up the locomotive

#### **Preparing The InterMountain Cab Forward Steam Locomotive For Operation:**

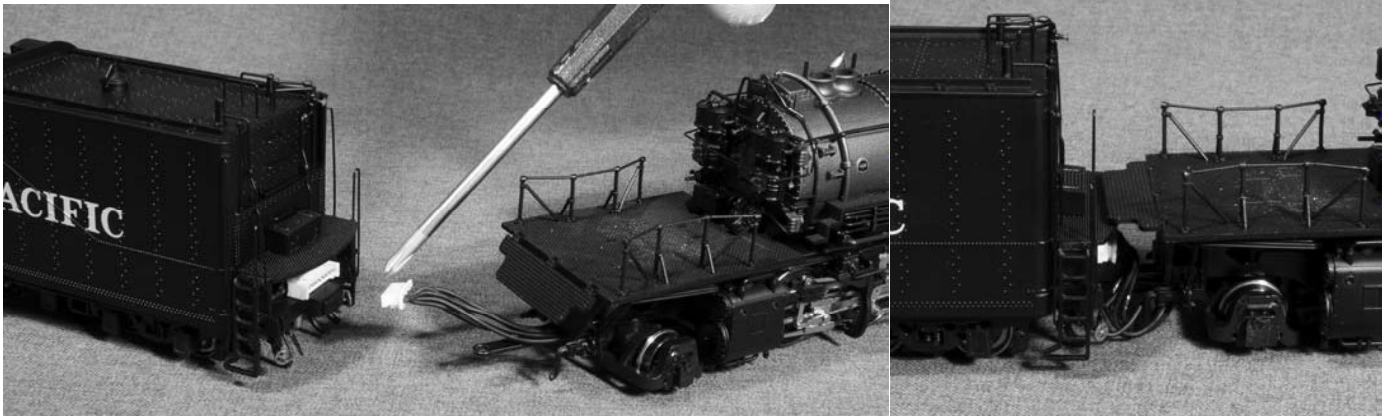
Every InterMountain Cab Forward Steam Locomotive is factory tested prior to release. The InterMountain Cab Forward Steam Locomotive is factory lubricated on all internal driveline components. The external driveline components are not factory lubricated to protect the finished model in its presentation packaging.

**Once initial set-up and test run is complete the following lubrication is *required prior to normal operation of the locomotive*:**

- Using high quality plastic compatible lubricating oil, carefully (but sparingly) lubricate all moving parts of the external side rod assemblies.
- Lubricating the drive axles at their bearings is also recommended (see image below).
- Avoid and remove any excess oil prior to normal operation of the locomotive.



### Lubrication Locations



**Tender to Locomotive plug-in**

## **DC (Basic Analog Mode) Operation:**

### **Operating the Locomotive with a standard HO Scale Compatible (DC Analog) power pack:**

- Carefully connect the wire harness between the locomotive and the tender.
- Connect the drawbar between the locomotive and tender, raising the deck plate to ride on top of the tender deck and place on the track.
- Set the DC Power pack direction control switch to forward.
- Set the DC Power pack throttle to Zero/Stop position.
- Turn on the HO Scale Compatible DC Power pack.
- To Accelerate: Advance the throttle control slowly until the locomotive moves forward. Adjust the throttle required to achieve the desired speed.
- To Decelerate: Reduce the throttle control slowly. Adjust the throttle to achieve the desired speed.
- To Stop: Reduce the throttle control slowly to the Zero/Stop position.
- To Reverse or Change Direction: With the throttle in the Zero/Stop position, switch the power pack direction control switch to reverse or opposite position. Then accelerate, decelerate, and stop as described above.

### **Important Notes:**

- NEVER Reverse or Change direction while the locomotive is moving to avoid damaging driveline components.
- Avoid rapid throttle changes and abrupt stops to reduce excessive strain on driveline components.
- InterMountain recommends utilizing a DC power supply capable of providing 14-18 Volts of power. Utilizing a lower power system will not provide optimal performance from your locomotive.

# Operational and Decoder Functions:

## Sound Equipped Locomotive Only- Default Address = 3 (\*Not 03\*)

Your new locomotive comes equipped with a LokSound 5 DCC decoder integrating a full-featured, 12 channel sound system, 12 lighting outputs, and a 1.1A motor controller. The LokSound 5 DCC follows all NMRA DCC standards and recommended practices. It can be used with 14, 28, or 128 speed steps, supports two digit as well as “4-digit” addressing. Up to 31 function keys are supported.

The LokSound 5 DCC supports all DCC programming modes including Programming on the Main Track. Because of its unique low-power design, the LokSound 5 DCC can be programmed on the programming track of all popular DCC systems. **No programming track boosters or other circuitry is required.**

- Over 20 sound effects, including the bell, playable whistle, air pump, exhaust chuff, steam release, cylinder cocks, brake release, blower, injector, dynamo, synchronized brake squeal, and more!
- 12 channel sound: The LokSound 5 DCC can playback up to 12 sounds at a time.
- Industry leading motor control with load compensation for smooth and precise operation.

**Decoder Reset CV8 = 8**, then interrupt track power for approximately 5 seconds and restore power. The decoder will revert back to address 3 after a decoder reset.

### Operating the DCC Equipped Locomotive:

- Carefully connect the wire harness between the locomotive and the tender.
- Connect the drawbar between the locomotive and tender, raising the deck plate to ride on top of the tender deck and place on the track. (See photo on previous page for proper connection).

Your sound equipped locomotive comes with the following DCC function key commands:

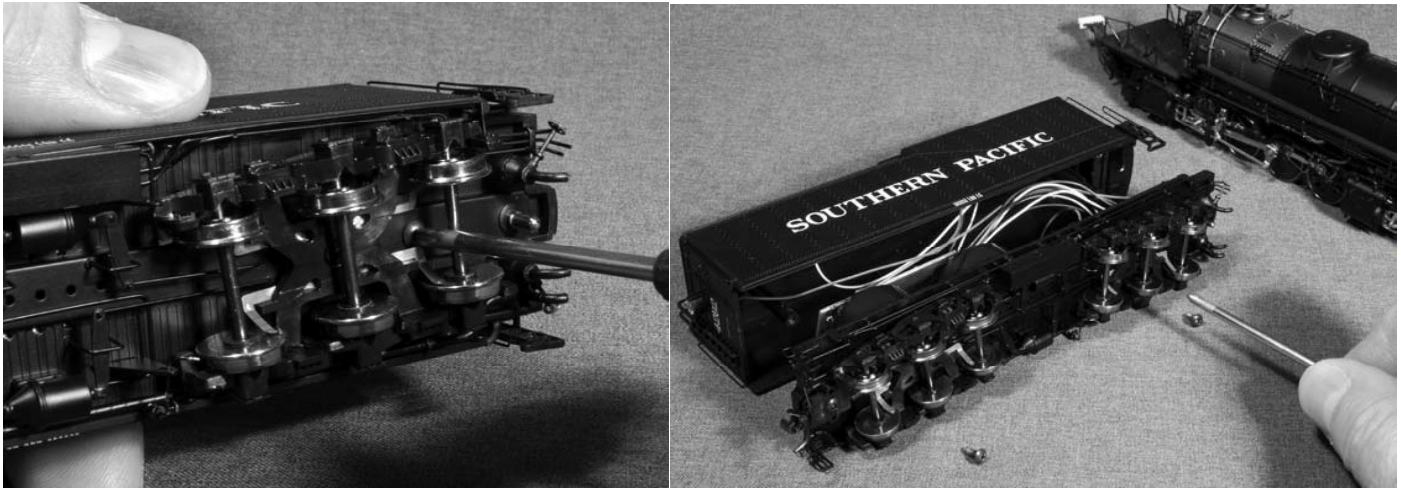
F0 (f) Headlight / Dynamo	F10 Independent Brake
F0 (r) Backup Light / Dynamo	F11 Oil Burner Blower
F1 Bell	F12 Headlight Dimmer
F2 Steam Whistle	F13 Water refill
F3 Single Chime Air horn	F14 Slow Air Pumps
F4 Grade Crossing Whistle Sequence	F15 Fast Air Pumps
F5 Coupler Clank	F16 Safety Value
F6 Injector	F17 Turn Brake Set / Brake Release OFF
F7 Number Board Lights / Dynamo	F18 Curve Squeal
F8 Start-Up / Boiler Hiss / Shut Down / Mute	F19 Blowdown
F9 Primary Load	F20 Sanding Valve

**\*Loco does NOT start with track power, pressing F8 will start it up. When moving F8 is Mute.**

### Master Volume: CV63 Default = 192 (Range 0 - 192)

#### Individual Sound Volume Control (MUST SET CV32=1 FIRST):

Chuff 1:	CV259 Default = 160	(Range 0 – 255)
Chuff 2:	CV267 Default = 160	(Range 0 – 255)
Steam Whistle:	CV275 Default = 192	(Range 0 – 255)
Bell:	CV283 Default = 84	(Range 0 – 255)
Slow Air Pumps:	CV299 Default = 160	(Range 0 – 255)
Dynamo:	CV379 Default = 39	(Range 0 – 255)
SP Air Horn:	CV419 Default = 96	(Range 0 – 255)
Grade Crossing Whistle:	CV435 Default = 192	(Range 0 – 255)
Fast Air Pumps:	CV467 Default = 160	(Range 0 – 255)



Tender Receiver Access

### **Ongoing Maintenance Activities:**

Apply the following recommendations as needed.

#### **Cleaning Wheels:**

Use a small amount of rubbing alcohol as needed to remove most normal build up on wheels. The frequency of wheel cleaning can vary depending on factors such as track condition, duration of running time, etc.

#### **External Lubrication:**

Using high quality plastic compatible lubricating oil, carefully (but sparingly) lubricate all moving parts of the external side rod assembly. Lubricating the drive axles at their bearings is also recommended. Avoid over lubricating your locomotive. Remove any excess oil prior to normal operation of the locomotive.

#### **Internal Driver Set – Gear Lubrication:**

After extended operational service, inspect and lubricate the drive gears in each driver set with high quality plastic compatible gear oil or light grease. Again, light application of the lubricant is best. An experienced modeler or technician should perform this drive gear lubrication as removal and reassembly of the driver set cover plates and brake gear detail is required to access these components.

#### **Drive Motor:**

The Drive Motor in this locomotive is permanently lubricated and requires no additional lubrication.

We hope you will enjoy the operation of your InterMountain HO Scale Cab Forward. If you have any questions about your locomotive, or any other InterMountain product, feel free to contact us by phone at (800) 472-2530 or by e-mail at [intermountain@intermountain-railway.com](mailto:intermountain@intermountain-railway.com).

# InterMountain HO Scale Cab Forward Warranty

InterMountain Railway Company will repair or replace, at our discretion, any part which it finds faulty in workmanship or material, provided these instructions are followed:

1. If you feel that you have a warranty issue, please contact InterMountain Railway Company to discuss the problem at 800-472-2530 or [intermountain@intermountain-railway.com](mailto:intermountain@intermountain-railway.com). If needed, we will then advise you to send your locomotive in for service.
2. Upon our instruction, send locomotive with written note<sup>1</sup> to: Customer Service Department, InterMountain Railway Co., 1336 Sherman Dr. Unit C, Longmont, CO 80501.
3. Please be sure to include your full name, return address, email address, telephone number, and any other contact information should we need to reach you.
4. Please **pack the locomotive in its original box** to prevent damage during shipping. Please make certain the outer carton has enough packing material to ensure a safe shipment. ***Any product not returned in the complete original packaging will be subject to a repair fee!***

This warranty covers defects in workmanship and materials for as long as it is in possession of the original owner. This warranty does not cover the cost of any inconvenience, transportation damage, misuse, accident or any item that has been modified from its original configuration. This warranty also does not cover any damage caused to the locomotive or tender by a user installed aftermarket produced decoder. Replacement parts for any non-warranty issues may be obtained for a fee depending on availability.

<sup>1</sup>A form that can be printed, filled out, and returned with your locomotive in lieu of the written note can be found on our website ([www.intermountain-railway.com](http://www.intermountain-railway.com)) under the Customer Service button and then the Service and Repair link.



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*Web Site: <http://www.intermountain-railway.com>*  
*Modeler's Club: <http://intermountain-railway.com/modelersclub/>*