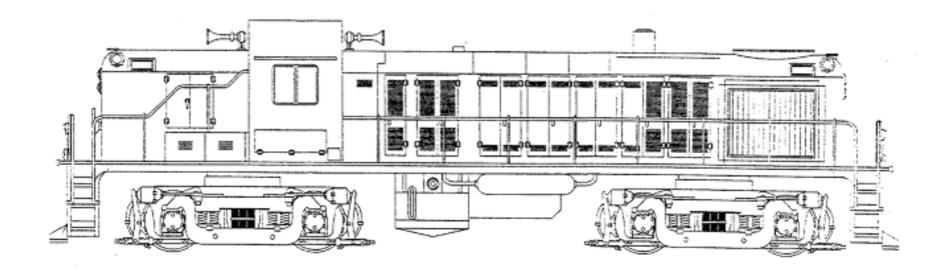


ALCO RS-3 DIESEL LOCOMOTIVE

INSTRUCTION MANUAL for ART-22200 Series



ARISTO - CRAFT TRAINS

082395 NEW

INTRODUCTION

Dear Model Railroader:

This locomotive is, without a doubt, another highly detailed #1 GAUGE 1/29th Scale Road-Switcher type Diesel Locomotive from ARISTO-CRAFT TRAINS. Suitable for both INDOOR and OUTDOOR operation, it portrays a North American prototype ALCO RS-3 DIESEL LOCOMOTIVE, based upon our research and on documented Official Blueprints referenced to standard Association of American Railroads (AAR) recommended practice.

Should you have any questions about operations, proper usage, or maintenance required on this Diesel Locomotive or any other ARISTO-CRAFT-TRAINS #1 GAUGE I/29th Scale or the new (for 1995) ARISTO-CRAFT TRAINS DELTON CLASSICS #1 Gauge 1/24th Scale model Railroad product, please contact us at the following address:

ARISTO-CRAFT TRAINS/Polk's Modelcraft Hobbies Inc. 346 Bergen Avenue, Jersey City, NJ USA 07304

Our phone lines are open from 10:00 AM to 5:00 PM (EASTERN STANDARD TIME) Monday through Friday at (201) 332-8100 or FAX at (201) 332-0521.

Or contact us through E-mail by computer on the INTERNET: aristo@earth.cnct.com

The following instructions are intended to help you understand and operate all the features built into this Diesel Locomotive.

Good Railroading!!!!



HISTORY

This ARISTO-CRAFT TRAINS model railroad locomotive is an accurate reproduction of the ALCO RS-3 Diesel-Electric Locomotive designed and built by the American Locomotive Company (ALCO) of Schenectady, New York, USA and Montreal Locomotive Works (MLW) of Montreal, Ontario, CANADA.

Immediately after the end of World War II, ALCO resumed full production of the RS – Road Switcher Diesel Locomotives. The original/military RS-1 (1000 hp) was replaced by the RS-2 (1500 hp, first delivered to Detroit & Mackinac in October, 1946), and upgraded to the RS-3 (1500 hp/model 244, first delivered to Great Northern Rwy. in May, 1950 or, the 1600 hp/model 251 starting in 1953). ALCO built 1,272 RS-3 Diesel Locomotives and MLW built 146 RS-3 Diesel Locomotives for use by railroads in the USA, Mexico, South America, Cuba, and Canada until production ended in August, 1956.

Above RS-3 PROTOTYPE INFO: The Diesel Builders, Volume Two by John F. Kirkland, Interurban Press, 1989.

Primarily intended as a replacement for steam locomotives in local freight train service, the ALCO RS-3 Diesel Locomotive was also used extensively in local commuter passenger service by railroads such as the Jersey Central, Reading, NY Central, New Haven, Erie, Boston & Maine, Lackawanna, and Pennsylvania among others. The ALCO RS-3 Diesel Locomotives have been replaced by more modern diesels on today's mainline railroads and many of the original railroad ALCO RS-3 Diesel Locomotive owners have themselves been absorbed through mergers and abandonments.

However, the ALCO RS-3 Diesel Locomotive continues in operation today (1995) on many shortline and industrial railroads. Modifications and upgrades allow these RS-3 owners to economically operate the nearly 50 year-old diesel locomotives in regular daily service. Historic preservation groups, such as the Anthracite Railways Historical Society (ARHS) of Pennsylvania, USA; have also saved and restored Alco RS-3 Diesel Locomotives, and, returned them to 'in-service' condition and painted in the liveries of many original ALCO RS-3 Diesel Locomotive users. JERSEY CENTRAL #1554, an ALCO RS-3 1600hp Diesel Locomotive built in 1953 for the CRR-NJ, is owned (1995) by the ARHS and has operated for many years in a restored CRR-NJ as-delivered green and yellow livery. A former READING COMPANY ALCO RS-3 Diesel Locomotive has been cosmectically restored and resides (1995) at the Whippany Railroad Museum in Whippany, NJ (USA).



FEATURES

Modular Electrical Connections.

Modular Carbody and Power Truck Assembly.

Operating Diesel Smoke Unit.

Fully sprung power trucks.

Directional Lighted Front/Rear Headlights and Lighted Numberboards.

Interior Cab Lighting.

Full Interior Cab detail.

Operating AAr Knuckle Couplers.

Solid Metal Railings.

Clear Plastic Windows with Bright-Work Trim.

Realistic Painting, Lettering, and Numbering.

BRASS Safety Chain on Pilot

Moveable MU-Dropstep on Pilot

Moveable Carbody Radiator Shutters

Factory-installed interior body-mounted Diesel Sound SPEAKER for Optional ART-29348 Diesel Sound Unit. (ART-29348 seperate purchase required to activate SPEAKER)

OPERATION:

 Single unit ALCO RS-3 Diesel Locomotive can properly operate on the ART-11100/30100 curved track when coupled to any ARISTO-CRAFT TRAINS freight railcars or ART-31000 series Wood-style Passenger Cars (check Instruction Manual on other ARISTO-CRAFT Diesel/Steam Locomotives and Standard Heavy-weight Passenger Cars for minimum operating radius). When operating the RS-3 diesel in multiple unit formation or with an FA-1/FB-1/U-25B diesel as RS-3/FA-1 or a RS-3/FB-1/FA-1/U-25B 'lashup', the minimum recommended curve track to use is ART-11500/30110 or ART-11600/30115 due to clearance between locomotives when coupled together.

1A. Modification to ART-29200 AAR-style knuckle coupler may be requifred when coupling to above listed Standard Heavyweight Passenger railcars with front/rear end of ALCO RS-3 Diesel Locomotive. And, due to curvature of small radius ART-11100/30100 curved track, AAR-style knuckle coupler cannot swivel enough to allow following knuckle coupler to remain in track center. Derailment of railcar is possible. To correct, it is suggested that the proper diameter curve track (see above) be used and the tab arm on knuckle coupler be trimmed about 1/8 inch to allow knuckle coupler to swivel against RS-3 carbody opening. Also make sure that molded airhose(s) on RS-3 carbody pilot do not interfere with knuckle coupler.

TRUCK BEARINGS:

2. The truck/wheelset sideframes are molded of a thermal plastic which reproduces all details and, for durability, a special bearing has been permanently inserted in each journal box end. These bearings are designed to operate properly WITHOUT additional lubrication. However, you MAY lubricate, if desired, using either a dry lubricant of powdered graphite or an oil-based paste lubricant/ART-29602 but ONLY in very small amounts. It is not necessary to dis-assemble diesel locomotive trucks/wheel sets to properly lubricate. Turn the ALCO RS-3 Diesel Locomotive upside down and apply lubricant to axle ends at truck/wheelset sideframes.



TRUCK SPRINGS:

3. The trucks/wheelsets on this model are designed exactly like the trucks used on prototype railroad diesel locomotives, and use springs for equalization to act as a shock absorber and cushion the ride. It is important that each truck/wheel set sideframe have the proper number of springs installed, four (4) springs per sideframe, otherwise the remaining springs will compress unevenly and may cause operational problems including possibly derailments.

COUPLERS

- 4. DO NOT CONFUSE ART-29200 ARISTO-CRAFT TRAINS Knuckle Couplers with the ART-89200 ARISTO-CRAFT TRAINS DELTON CLASSICS Knuckle Couplers (used only on former DELTON products produced 1985-1994 and the new 1995 production DELTON CLASSICS by ARISTO-CRAFT TRAINS). While both style couplers may appear to be similar Knuckle Couplers, many of the components/parts are not interchangeable and automatic operation between the two styles may not be possible. See Item 4B.
- 4A. Loop style couplers (ART-29200-69) are enclosed as a spare accessory. The operating knuckle couplers on all the ARISTO-CRAFT TRAINS locomotives and passenger/freight railcars are designed based upon the AAR style used on all major North American Railroads. See Item 4. above.
- 4B. NOTE: However, these knuckle couplers may not operate automatically when attempting to couple ARISTO-CRAFT TRAINS products to knuckle couplers used by other model railroad manu-

- facturers. Knuckle couplers may have to be joined by manually coupling the knuckle on each car/locomotive end in a closed position then lifting one end knuckle coupler and inserting the closed knuckle onto the ARISTO-CRAFT TRAINS knuckle coupler. See Item 4. above.
- 4C. This AAR-type knuckle coupler works equally well from either end of the ALCO RS-3 Diesel Locomotive and can be uncoupled automatically by using an LGB* designed uncoupling device. The knuckle couplers may also be operated manually by pressing upward on the small tab below each coupler assembly. The knuckle coupler can be pushed away to either side if you wish the locomotive not to couple automatically when the opposing knuckle couplers come together. However, DO NOT attempt to operate in train without the knuckle couplers properly alligned and fully coupled to opposite railcar/locomotive. Otherwise, derailment on curves or switch tracks is possible.
- 4D. Should you prefer to use the Loop-style coupler, this conversion can be made by unscrewing the single screw that holds the AAR knuckle coupler to the truck arm and attaching the Loop-style coupler using the same screw. See Item 4E.
- 4E. NOTE: The ALCO RS-3 Diesel Locomotive was NOT designed to operate easily with the 'unrealistic' Loop-style coupler mounted through either front/rear pilot. Attaching Loop-style coupler may require modification to coupler mounting bracket and/or extension of coupler arm and/or enlarging hole through front/rear pilot assembly.



^{*}LGB is a trademark of the E.P.Lehman Company, Germany.

4F. Both style couplers are attached to truck arm at a swivel base. When operating, this enables coupler(s) to articulate when encountering sharp radius curves or switches. Couplers will center automatically while in motion. Manual centering is accomplished by exerting light pressure on knuckle/Loop at articulated joint and returning knuckle/Loop to center.

WHEELS:

- 5. The metal wheels are designed for electrical power pickup through a wire connection at each axle end in truck sideframe. Specially plated to insure good electrical conductivity, corrosion resistance, and extended wear, the wheels will give normal service during usage of the ALCO RS-3 Diesel Locomotive.
- 5A. However, over a period of time, these wheels may require cleaning. Dirty metal wheels will cause sporadic electrical pickup and possibly electrical flashover which may cause discoloring on affected surfaces of wheel and/or track.
- 5B. A good indication of dirty metal wheels is flickering lights or non-functioning fan or smoke unit. To clean properly, remove ALCO RS-3 Diesel Locomotive from any electrical contact and turn upside down exposing metal wheels. Using ART-29601 SMOKE FLUID/TRACK CLEANER is recommended for application to metal wheel surface with clean/soft fabric (rag). DO NOT USE ABRASIVE because resulting metallic particles may enter electric motor/gearing and cause operational problems.

ELECTRICAL PICKUP:

6. The ALCO RS-3 Diesel Locomotive is equipped with eight (8) electrical pick-up points, four (4) per power truck/wheelset, located at each truck/wheelset sideframe journal and contacting against the axle end. Each brass bushing provides firm contact on each axle end and transfers electrical current to each truck motor. Connections are

- continued to other electrical features, headlights, etc. through additional wiring using modular plugs.
- 6A. These ART-29118 brass bushings should not need replacement during normal operational lifetime of the ALCO RS-3 Diesel Locomotive. However extended continuous hard/commercial usage may require non-scheduled replacement. This replacement can be accomplished by owner or factory-authorized ARISTO-CRAFT TRAINS Repair technician.
- 6B. Each power truck is connected to the main wiring by means of 2 (two) modular disconnect plugs. One plug for Gearbox connection and the second for Electrical Pickup Sideframe connection. Wires are 'color-coded' for each plug.
- 6C. To replace ART-29118 Brass Pick-Up Bushing:
 - 6C1. Remove the truck/wheelset sideframe by unscrewing the three (3) mounting screws. Two (2) screws are located above the coiled springs and the other screw is located below the leaf spring.
 - 6C2. Loosen the two (2) screws on the inside bearing cover and then remove cover.
 - 6C3. The old brass bushing is now exposed and can be removed from inside bearing cover plate by prying out bushing (use small screwdriver). At this point disconnect the soldered wire lead from brass terminal strip located inside of truck/ wheel set sideframe.
 - 6C4. Insert new brass bushing, then solder wire connection and re-assemble as per above reversing the sequence.

IMPORTANT - Caution:

- 6D. The bearing cover has a small notch in the top center. This notch must be in the upward position.
- 6E. There is an electrical contact connector under one of the sideframe screws. This connector must be positioned properly and in contact with the terminal strip during re-assembly.
- 6F. Solder point(s) . . . Be careful not to damage opposite electrical contact leads when soldering during replacement.

DRIVE TRAIN:

- 7. The ALCO RS-3 Diesel Locomotive (and all other ARISTO-CRAFT TRAINS Diesel Locomotives) is equipped with a unique drive mechanism that allows greater tractive effort (pulling power) and smoother operation during usage. Each axle/pair of wheels is articulated and independent from the other axle in each two (2) axle powertruck on the diesel locomotive. Each axle can move vertically/horizontally without affecting operation of other paired axle. This allows for better electrical contact on switches and especially on uneven track.
- 7A. Each powertruck has a motor, wired independently of the other powertruck, and can be replaced as a complete power-truck unit, ART-29351 (pair of 2 trucks). See Parts Listing Selection for ordering information.
- 7B. Each powertruck gearbox has been lubricated at the factory with a new high-tech lubricant which, under normal operating conditions, should last indefinitely, thus eliminating the need for periodic gearbox maintenance. However, you MAY lubricate, if desired, using a high-temperature/non-water soluble paste (ART-29602) or liquid lubricant, but ONLY in proper amounts. It is necessary

- to disassemble truck/wheel set to allow access to gearing and shafts for lubrication. Follow instructions for proper procedure to disassemble powertruck.
- 7C. Although each gearbox is a complete unit, it may be dis-assembled and all parts contained therein are repairable or available as replacement. NOTE: Allow only factory-authorized ARISTO-CRAFT TRAINS Repair Technician to perform ANY REPAIRS otherwise, WARRANTY MAY BE VOIDED.
- 7D. To inspect the gearbox, disconnect diesel locomotive from electrical power and:
 - Remove powertruck/wheel set sideframes as instructed in the ELECTRICAL PICKUP section above.
 - 7D2. With diesel locomotive upside down, remove eight (8) screws from each side of gearbox casing cover. Lift off cover.
 - 7D3. To disconnect gearbox and wheel assembly unit, remove the two (2) screws and lift upward on the wheel assembly unit. Pull gently away from the motor at a slight upward angle.
 - 7D4. To remove the motor, utilize the disconnect plug as mentioned above at the rear of motor, and lift up. NOTE: Be sure to recognize each wire lead with regards to terminal on motor. You must re-solder to SAME TERMINAL during re-assembly.
 - 7D5. After repairs/inspection is completed, reverse sequence to assemble powertruck.

LIGHTING:

- The ALCO RS-3 Diesel Locomotive is equipped with operating front and rear headlight with lighted numberboard, and interior cab light. A total of seven (7) light features using three (3) lightbulbs.
- 8A. To replace a lightbulb, part ART-29502, use the following directions:
 - 8A1. Turn off electrical power supply to ALCO RS-3 Diesel Locomotive. Remove the locomotive carbody from underframe to allow access to lightbulbs(s). Remove screws fround alongside the frame.
 - 8A2. Remove brass grab railings from cab of locomotive, the protruding ends may interfere with inside clearance of the underframe when removing carbody.
 - 8A3. Gently pull long hood carbody away from the underframe. Be careful at the three (3) top mounted switches when lifting. The carbody assembly is connected electrically via modular disconnect plugs. Unplug, and long hood carbody with smoke unit assembly then lifts off as a unit.
 - 8A4. Gently pull short hood carbody away from the underframe. Be careful when lifting.
 - 8A5. After removing three (3) screws attaching cab carbody to underframe, gently pull cab carbody away from underframe. The cab carbody is connected electrically via modular disconnect plugs. Unplug, and cab carbody then lifts off as a unit with interior.
 - 8A6. Headlights, Numberboard Lights, Interior Cab Light are accessable after removing long hood carbody and cab carbody. See Items 8A1-8A2-8A3-8A4-8A5 above.

DIRECTIONAL LIGHTING:

- 9. The headlight of the ALCO RS-3 Diesel Locomotive will ONLY LIGHT in the direction of movement. With multiple units of RS-3/U-25B etc., only headlight in direction of movement (on both/all diesels) will light as per direction of units. Headlight direction is NOT controlled by top switch(es) on diesel.
- 9A.NOTE: All interior lighting will remain "ON" regardless of direction of diesel locomotive travel and operation of headlight, unless top switch marked light is in "OFF" position.

INTERIOR LIGHTING:

 The ALCO RS-3 Diesel Locomotive interior cab lighting is controlled by one (1) position switch at top of locomotive marked "LIGHT".

SMOKE UNIT/EXHAUST FAN:

- The ALCO RS-3 Diesel Locomotive roof exhaust fan is independently controlled by the two (2) position ON-OFF switch at top of locomotive.
- 11A. NOTE: DO NOT OPERATE SMOKE UNIT/EXHAUST FAN WITHOUT ART-29601 Smoke Fluid in smoke generator unit. Failure to have supply of smoke fluid WILL BURN OUT smoke unit. See SMOKE GENERATOR Instructions.
- 11B. This top mounted switch also activates Smoke Generator Unit, but in only two (2) modes of operation, ON-OFF.

SMOKE GENERATOR UNIT:

 The ALCO RS-3 Diesel Locomotive is equipped with an operating smoke generator unit, ART-29309, which produces smoke through

the use of ART-29601 SMOKE FLUID. To operate properly, fill the stack with ART-29601 SMOKE FLUID, about twenty-five (25) drops are sufficient. Fill smoke fluid tank through smokestack hole, top center of stack. *NOTE*: To avoid spilling fluid on locomotive carbody, smoke generator unit can be removed before filling. Make sure switch marked SMOKE on top compartment is in "OFF" position when refilling fluid or removing generator unit.

- 12A.By excercising proper care during operation, the smoke generator unit will provide long service and enhance operation of the ALCO RS-3 Diesel Locomotive.
- 12B. NEVER OVERFILL stack/unit with Smoke Fluid. The unit holds twenty-five (25) drops of fluid. If spilled, wipe up excess promptly.
- 12C. To prevent smoke unit burnout, NEVER RUN UNIT DRY. As soon as smoke unit stops smoking, turn off and refill.
- 12D. All fluid in stack/unit must be heated by element to begin smoking. If smoke unit is completely full, longer time must be allowed before smoke begins.
- 12E. For safety and proper operation, USE ONLY ARISTO-CRAFT TRAINS ART-29601 SMOKE FLUID to operate Smoke Generator Unit. Using improper Smoke Fluid and damaging unit can void warranty.
- 12F. Should it become necessary to repair the Smoke Generator Unit of the ALCO RS-3 Diesel Locomotive, return to ARISTO-CRAFT TRAINS Customer Service or replace complete smoke generator unit. Order replacement part ART-29309 SMOKE UNIT for the ALCO RS-3 Diesel Locomotive.

12G. The remainder of smoke unit associated components and exhaust fan are accessible by removing the carbody from locomotive underframe. See previous instructions for details.

CAUTION - CAUTION - CAUTION -

12H. The smokestack of this smoke generating unit and surrounding carbody roof MAY BECOME HOT during operation and for a reasonable time after unit turned off. DO NOT TOUCH this unit until it has sufficiently cooled. DO NOT TURN LOCOMOTIVE upside down or side-ways because remaining smoke fluid may flow out. Smoke Fluid MAY ALSO BE HOT.

DIESEL SOUND UNIT:

- 13. The ALCO RS-3 Diesel Locomotive is NOT equipped with a factory installed operating DIESEL SOUND UNIT. However, to assist the customer and provide optimum sound quality levels, a suitable speaker has been factory-installed during assembly of the ALCO RS-3 Diesel Locomotive.
- 13A. Provisions have also been made during manufacture to allow installation of the Optional ARISTO-CRAFT TRAINS Diesel Sound Unit ART-29348 by customer or factory-authorized technician. Full installation instructions will be included with purchase of ARISTO-CRAFT TRAINS DIESEL SOUND UNIT ART-29348. It will be a simple "plug-in" type of installation. No special modifications or wiring will be required.

SERVICE NOTES:

 All parts contained in the ALCO RS-3 Diesel Locomotive are available for replacement or repair by contacting ARISTO-CRAFT TRAINS Customer Service Department or your local <u>Authorized</u> <u>ARISTO-CRAFT Retailer</u> (A.A.R.). 14A. Major components are available as a unit to allow the customer to have the option of replacement or repair by qualified factory technicians. If you have any questions, please refer to INTRODUC-TION for method of contacting our office.

PULSE WIDTH CONTROL:

- 15. All ARISTO-CRAFT TRAINS locomotives, tenders, railcars with operating features, and electrical accessories are designed to operate at proper capacity ONLY with ARISTO-CRAFT TRAINS Power Supply Units featuring "Pulse Width Control" (P.W.C.) such as the ART-5400 (1.8AMP DC) or ART-5450 (3.5AMP DC) POWER SUPPLY (2-piece set).
- 15A. P.W.C. allows a continuous voltage to flow to the operating accessories such as interior lighting during operation REGARD-LESS of the speed OR direction of passenger railcar.
- 15B. DO NOT CONFUSE PULSE WIDTH CONTROL with Pulse Power, a feature provided by some other (non-ARISTO-CRAFT TRAINS) power packs. It may seem that when operating with Pulse Power, the features on ARISTO-CRAFT TRAINS products are operating properly, but, in fact they ARE NOT. Sufficient voltage may not be available to activate the unit(s) and underload/overload damage to components may result.
- 15C. Also, the TRAIN POWER PACK 7000 3.5 AMP FOR G AND HO previously manufactured (in 1988/1989) by Polk's Modelcraft Hobbies under the Aristocraft Tradename DOES NOT HAVE P.W.C. To properly operate your #1 Gauge ARISTO-CRAFT TRAINS with P.W.C., use ARISTO-CRAFT TRAINS ART-5400 (1.8 AMP) or ART-5450 (3.5 AMP) Power Supply Units.

- 15D. If you do not use an ARISTO-CRAFT TRAINS P.W.C. Power Supply, it is still possible to operate any #1 Gauge ARISTO-CRAFT TRAINS product with the non-P.W.C. equipped Power Supply, do not worry. ARISTO-CRAFT TRAINS' Electrical Engineers have developed the ART-5401 CONTROL PACK ADAPTOR which can be easily attached to your present power supply, UP TO 5 AMPS, of another manufacturer and allow PULSE WIDTH CONTROL to be applied to your Indoor/Outdoor model railroad. The ART-5401 CONTROL PACK ADAPTOR is available seperately from your local A.A.R. dealer.
- 15E. NOTE: The P.W.C. feature of the ARISTO-CRAFT TRAINS ART-5450 Power Supply is not compatible with LIONEL LARGE SCALE* Locomotives equpped with 'Rail-Sounds'*. However, these locomotives may be operated with the sound unit turned OFF.

ASSEMBLY INSTRUCTIONS:

- The ALCO RS-3 Diesel Locomotive comes Ready-to-Run. ART-22200 UNDECORATED requires some assembly in placement of exterior detail components – horns, windshields, wipers, railings. All other ALCO RS-3 Diesel Locomotives are assembled at factory.
- 16A. Horns are packaged seperately to prevent damage during shipping, insert into holes on Short/Long Hood Carbody ROOF. Painted BRASS GRABRAILINGS are also packaged seperately, check position and 'snap' onto GRABRAILING POSTs along UNDERFRAME and Front/Rear PILOT).
- 16B. PARTS LISTING FOR ART-22200 series ALCO RS-3 Diesel Locomotive, all railroad names – for one (1) each unless noted otherwise.

^{*}LIONEL LARGE SCALE and RAIL-SOUNDS are a trademark of LIONEL TRAINS INC./LTI, Mt. Clemens, MI, USA.

| PART # | DESCRIPTION | <u>cost</u> | PART # | DESCRIPTION | COST |
|----------|---|-------------|--|--|---------|
| 22200-01 | Instruction Manual | \$ 1.00 | 22200-38 | PLASTIC Grab Rail Post each | \$ 1.00 |
| 222xx-02 | Long Hood Carbody | 75.00 | 29118 | BRASS Bushings for Power Truck (50) | 5.95 |
| 222xx-03 | • | 25.00 | 29200 | AAR Knuckle Coupler (pair) | 7.95 |
| 222xx-04 | Cab Carbody with Interior | 45.00 | 29309 | Smoke Generator Unit | 16.95 |
| 222xx-05 | Underframed w/o power trucks/fuel tank | 35.00 | 29348 | Diesel Sound Unit | 89.95 |
| 222xx-06 | Short Hood BATTERY BOX | 5.00 | 29351 | Diesel Power Truck assembly-Black/pair | 64.95 |
| 222xx-07 | Round Radiator Fan Cover | 5.00 | 29352 | Diesel Power Truck Sideframe-pair | 20.00 |
| 222xx-08 | Walkway Drop-step | 2.00 | 29502 | Light Bulb (10 pieces) | 7.95 |
| 222xx-09 | MU Receptacle Stanchion Post pair L/R | 4.00 | 29601 | Smoke Fluid 4 oz. | 3.50 |
| 222xx-10 | Round Headlight Assembly Cover | 2.00 | | | |
| 222xx-11 | Roof Sandbox Filler Cover | 2.00 | Additional parts available, contact ARISTO-CRAFT TRAINS Cus- | | |
| 222xx-12 | Underbody Square Fuel Tank | 10.00 | tomer Service. | | |
| 222xx-13 | Underbody Round Air Tank | 5.00 | | | |
| 22200-20 | 0 1 1 0 | 10.00 | 16C. xx - refers to last two digits of railroad name ALCO RS-3 Diesel | | |
| 22200-21 | 0 0 | 15.00 | Locomotive when part is painted to match, i.e. ART-22201-02 | | |
| 22200-22 | ~ ~ ~ | 15.00 | would refer to Long Hood carbody for CNJ/JERSEY CENTRAL | | |
| | BRASS Grab Railing-front/rear end | 8.00 | ALCO | RS-3 Diesel Locomotive. | |
| 22200-24 | BRASS Grab Railing-short left side | 5.00 | | | |
| 22200-25 | 0 0 | 5.00 | 16D. When part is same for all ALCO RS-3 Diesel Locomotives | | |
| | BRASS Grab Railing-front/rear Pilot w/o chain | 10.00 | regardless of railroad name, 22200 plus 2 digit number would be | | |
| 22200-27 | BRASS Chain | 2.00 | used to denote specific part, i.e. 22200-36 is Bell. This part is same | | |
| 22200-28 | ~ ~ | 5.00 | and used on all ALCO RS-3 Diesel Locomotives regardless of | | |
| 22200-29 | | 3.00 | railroa | d names. | |
| 22200-30 | • | 2.00 | | | |
| | BRASS Grab Railing-Roof | 2.00 | 16E. When a part is a standard replacement part, such as wheels, knuckle | | |
| 22200-32 | | 1.00 | | er, etc. or used on OTHER DIESEL LOCON | |
| 22200-33 | | 1.00 | | GHT/PASSENGER RAILCARS, 29200 (or other | |
| 22200-34 | 4, | 1.00 | ber - plus 2 digit number, if applicable) would be used to denote | | |
| 22200-36 | | 1.00 | specif | ic part regardless of roadname/car type. | |
| 222xx-37 | Brakewheel | 1.00 | | | |

- 16F. NOTE: When ordering replacement parts or repair request, please refer to the proper ART-5 or 7 digit part number listed and specify roadname if applicable.
- ***Unpainted/black plastic PART(S) will be substituted if the Paintedto-match PART(S) ordered not available.***

In addition to COST shown above, please enclose ... \$3.50 shipping/handling* if PART Order less than \$10.00 or \$5.00 shipping/handling* if PART Order \$10.00 and above.

*This is for PART Order only, not WARRANTY Order.

LIMITED WARRANTY

- All ARISTO-CRAFT TRAINS products are under warranty for 180 days from DATE OF PURCHASE against defects in workmanship and/or materials. Proof of purchase may be required by ARISTO-CRAFT TRAINS.
- 17A. This warranty is VOID and does not apply to any product and/or parts and components which have been improperly installed by purchaser/owner, abused or damaged in any way through improper operation such as train derailment, modified, or repaired by unauthorized service centers and/or non-factory authorized technicians.

SERVICING:

- 18. Should your ARISTO-CRAFT TRAINS model railroad product require warranty service, be sure to take the following steps to assure proper servicing:
- 18A. Return product in ORIGINAL BOX, then pack this ORIGINAL BOX in proper shipping carton. If not possible to use original box, pack product carefully in cardboard box, FULLY INSURED and PREPAID. ARISTO-CRAFT TRAINS will not be responsible for any damage or loss incurred during shipping.

- 18B. Include a brief but thorough explanation of the problem(s) and the servicing that may be required.
- 18C. Be sure to include your NAME, STREET ADDRESS (no Post Office Box please), CITY, STATE (or PROVINCE), COUNTRY (if outside U.S.A.), and Postal ZIPCODE along with daytime phone number, including Area Code, so that you may be contacted if it becomes necessary. All identification should be both – INSIDE package, contained in letter, and – OUTSIDE on cardboard box.
- 18D. Include proper payment for shipping/handling -

Locomotive or Complete Train Set \$20.00 US

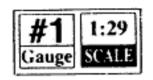
- with your (USA Bank Account only) check/Money Order payable in US Dollars (\$) to: Polk's Modelcraft Hobbies, Inc. Please DO NOT SEND CASH. If your item is out of warranty, you will be contacted with amount of repair costs before repairs are started.

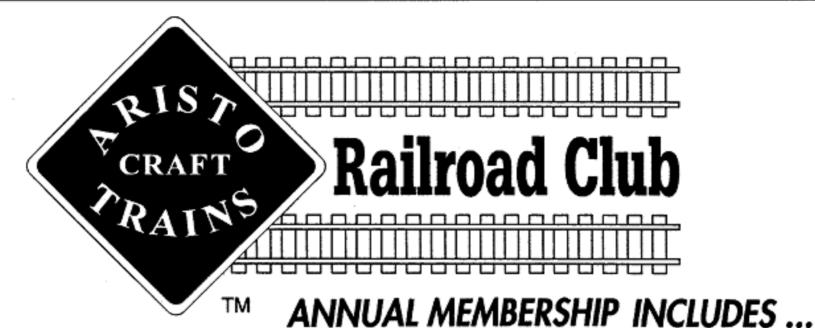
C.O.D. shipping charges NOT included, additional cost.

18E. Ship your item(s) to:

ARISTO-CRAFT TRAINS/Polk's Modelcraft Hobbies Inc. Customer Service/Repair Department 346 Bergen Avenue, Jersey City, NJ 07304 USA

18F. Immediate written confirmation of receipt of returned item(s) will be sent along with estimated repair time by ARISTO-CRAFT TRAINS Customer Service/Repair Department.





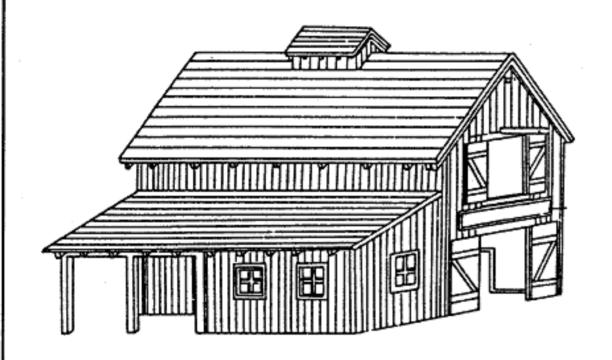
- EXCLUSIVE COLLECTOR EDITIONS OF ARISTO-CRAFT TRAINS
- INFORMATION ON ARISTO-CRAFT TRAINS AND ADVANCE INFORMATION ON NEW ARRIVALS AND IN STOCK ITEMS.
- INFORMATION ON SHOWS WHERE ARISTO-CRAFT TRAINS' STAFF WILL BE ON HAND TO TALK TO YOU.
- NEW CATALOGS, PRICE LISTS AND FLYERS AS AVAILABLE.

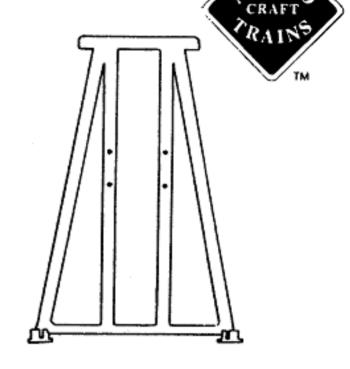
- OTHER LIMITED EDITION/SPECIAL OFFERINGS DURING THE YEAR.
- BE A LARGE SCALE TRAIN BOOSTER!! HELP SELECT AND DEVELOP NEW ARISTO-CRAFT TRAINS PRODUCTS.
- RECEIVE A NUMBERED MEMBERSHIP CERTIFICATE WITH A SPECIFIC NUMBER ASSIGNED ONLY TO YOU.
- Start a collection of limited edition items that will only be available to ARISTO CRAFT Railroad Club members on a one per membership only status.

Should you have any questions please contact us at the following address:

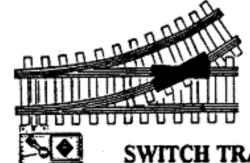
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EXPAND YOUR MODEL RAILROAD WITH





ART-7104 TRESTLE SET 7106 TRESTLE SET 7108 TRESTLE SUPPORT



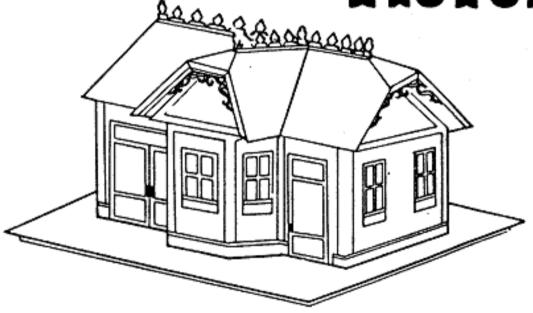
ART12091 EXTENDER SET 1 MANUAL SWITCH ART12092 EXTENDER SET PR. MANUAL SWITCHES ART12093 EXTENDER SET PR. REMOTE SWITCHES

SWITCH TRACK



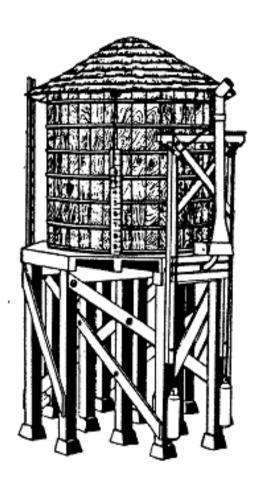
TRACK ACCESSORIES AND BUILDINGS

VICTORIAN



TRAIN STATION

ART7100



...additional items available. See your local ARISTO-CRAFT TRAINS authorized A.A.R. hobby shop.



TOWER

ART7103



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