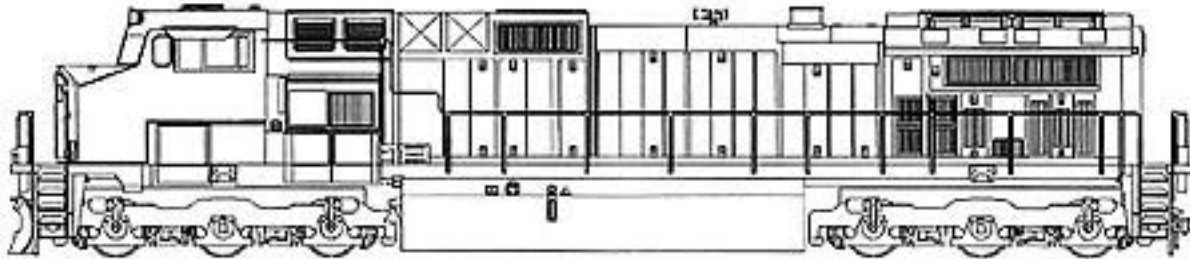




DASH-9 44CW DIESEL LOCOMOTIVE

INSTRUCTION MANUAL ART-23000 - 01



ARISTO-CRAFT TRAINS

110603 NEW

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ARISTO-CRAFT TRAINS

Dear Model Railroader,

This GE Dash 9-44CW Diesel Locomotive is a highly detailed #1 Gauge 1/29th scale unit and is suitable for indoor and outdoor operation. It has been designed and manufactured to our usual high specifications.

Should you have any questions regarding operation, proper usage or maintenance required on this or any other Aristo-Craft product, please do not hesitate to contact us at the following address:

ARISTO-CRAFT TRAINS / Polk's Modelcraft Hobbies, Inc.

698 South 21st Street, Irvington, NJ 07111 USA

Tel: (973) 351-9800 Fax: (973) 351-9700

e-mail: aristo@mindspring.com

Our customer service department phones are open from 10:00 AM to 5:00 PM Eastern time, Monday through Friday.

Visit our website: www.aristocraft.com

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HISTORY

The Dash 9-44CW Diesel Locomotive is one of the most modern pieces of railroad motive power on the rails and is a product of the Erie, Pennsylvania plant of the General Electric (GE) Transportation Systems. This magnificent locomotive is becoming one of the most common of the rail giants that is seen today, the Norfolk Southern alone has almost 1000 of these units. (Technically speaking, the NS has Dash 9-40CW units, but the exterior is the same.)

Among the many modern features are heated and air conditioned cabs, microprocessor control for all major systems, and complete diagnostic capability as an aid in troubleshooting.

The general specifications for the GE Dash 9-44CW are listed below:

Height	15' 04"	Trucks	HiAd Truck
Length	73' 02"	Horsepower	4400 HP
Width	10' 03"	Weight	408,000 Lbs (204 Tons)
Fuel Capacity	5300 Gallons	Wheel Diameter	42"

The units are geared for a maximum speed of 70 mph, and are at home with all types of freight trains. GE designed and built these locomotives to provide cost-effective rail transportation with highly reliable and low-maintenance operation.

Our model is patterned after a locomotive having electronic brakes and has no external brake wheel.

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FEATURES

- Prototype Length and detail
- Detailed cab interior
- Ball bearings on all axles and gear boxes
- DCC / RCC port and dummy plug
- 2 Low-draw motors in each truck
- Sound-ready
- All-wheel drive
- High volume Smoke system
- Working porch, step and ditch lights
- 8" Diameter minimum curve

NOTES:

- For the purpose of this manual, the cab end of the locomotive is considered the front end.
- All information in this manual is subject to change. Refer to any supplement material provided with locomotive or posted on the Aristo-Craft website (www.aristocraft.com) for updates or changes.
- Additional weight added to the locomotive beyond Optional Supplementary Weights may cause damage to the locomotive and is not covered under warranty. See Page 10 for weight installation.
- Not all Dash-9 locomotives are equipped with the same features or details. (For example, some models may have front and rear plows, others may only have front plows)
- Detail parts are fragile and are to be installed at the owner's discretion. See page xx for detail part installation.
- Locomotive handrails are not secured to the locomotive. They are easily removed and may come loose in shipment. They are easily re-installed by pressing into place.

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- Due to train dynamics and requirements of other locomotives and cars, minimum diameter may be greater than 8'. Always use minimum curve requirements from the locomotive or car requiring the greatest curve diameter when setting the minimum diameter curve for train operation. See page 13 for Track Requirements.

- The MU plugs alongside the couplers on the ends of the locomotive can be used to electrically link the locomotive to a trailing car or other locomotives equipped with MU plugs with the use of ART-29607 MU connector.

SAFETY INFORMATION

- This model locomotive is an electric device. Like with all electric devices, proper care and respect of electricity must be kept at all times.

- Do not handle locomotive while power is being provided. Turn off or disconnect all electrical power sources before handling locomotive.

- Make sure power switches are in the OFF position when placing locomotive on tracks or connecting the locomotive to a power source.

- Proper adult supervision is necessary for all children.

- Do not attempt to handle locomotive while in use. Grabbing, holding locomotive or blocking locomotive's path while in motion may cause injury.

- Do not turn the locomotive upside down or on its side when the smoke fluid reservoir contains smoke fluid. Smoke fluid may leak out and may be hot enough to cause injury.

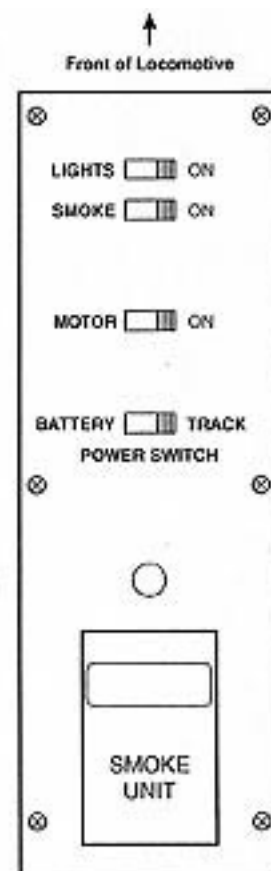
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POWER SWITCHES

The four power switches are located beneath the hatch containing the smoke stack and the horns, which is situated on top of the long hood, in front of the radiator blister.

Remove the hatch by pulling it up and expose the four switches. There are no screws or latches as the hatch is a press fit. See the diagram for the position and function of each switch.

With the front of the locomotive facing away from you, the first or top switch turns the lights on or off. The next switch turns the smoke on or off. The third switch turns the motor on or off. For these three switches, right is on, left is off. The bottom, or last switch is the power switch. It selects track or battery power. In the right hand position the locomotive will run on track power, in the left hand position, the locomotive will run only on battery power.



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SMOKE GENERATOR UNIT

The smoke generator unit is situated beneath the exhaust stack, which is located on the top of the long hood in front of the radiator blister. It is situated under the same hatch that contains the power switches and is accessed in the same manner (see page 6). Before filling the smoke fluid reservoir, turn the smoke switch to the off (left) position. Using Crest smoke fluid, CRE-29601, fill the reservoir with at least 25, but **no more than 50 drops** of the smoke fluid. Turn the smoke switch to the on (right) position before operation.

This smoke generator contains an automatic cut-off circuit that will prevent the unit from burning out if it becomes too hot or if it runs out of fluid. Should the unit turn itself off, move the smoke unit switch to the off position, allow the unit to cool for a few minutes and refill with smoke fluid, if necessary. Move the smoke switch to the on position and restart.

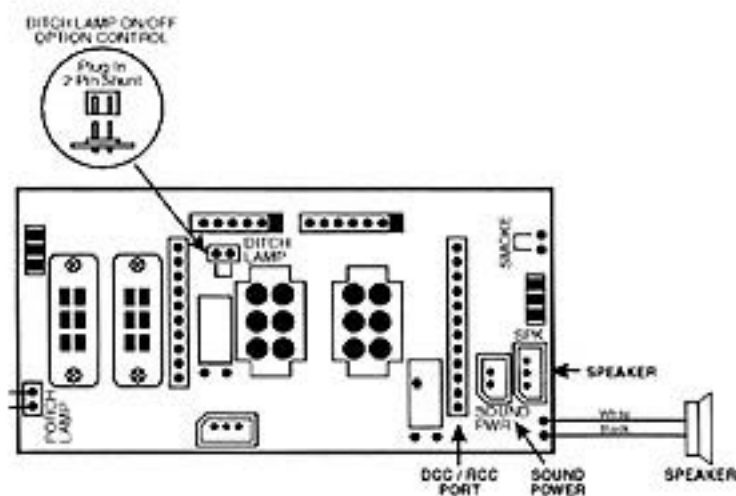
CAUTION: Do not turn the locomotive upside down or on its side when the smoke fluid reservoir contains smoke fluid. Smoke fluid may leak out and may be hot enough to cause injury.

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DCC/RCC INSTALLATION

This locomotive is equipped with a DCC/RCC (Digital Command Control / Radio Command Control) port and dummy plug. After purchasing the control system of your choice, be sure to read the instructions carefully. In order to install your DCC/RCC system, the dummy plug must be removed and the DCC/RCC plug inserted in its place. The DCC/RCC port is located on the main PC board of the unit. See the diagram of the main PC board (below) for the location of the DCC/RCC port. In order to reach this PC board, it is not necessary to disassemble the locomotive. The board is directly below the switch panel (see page 6) and is accessed by removing the six small screws in the panel and lifting upwards.

For RCC operations, we recommend the CREST On-Board Train Engineer Radio Control System (CRE-55492).



Main PC Board

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SOUND INSTALLATION

This locomotive is equipped with a factory installed speaker. After purchasing a sound system for this unit, install it according to the manufacturer's instructions. The sound system may have two female plugs, one with three sockets, the other with two sockets. These are plugged into the pins on the main PC board. See the diagram on page 8 for the location of these pins. The three pin plug is for the speaker, the two pin plug is for the power to the sound system. In order to install the sound system, access the main PC board as was done for the DCC/RCC installation.

BATTERY OPERATION

This locomotive has been equipped to operate either from track power or from battery power. The selection switch is located on the switch panel (see page 6). With the switch in the right position, the locomotive will run on track power. With the switch in the left position, it will use battery power.

There are modular plugs or MU plugs alongside of each coupler. These plugs will link the locomotive to a trailing car containing the batteries.

NOTE: The MU plugs can also be used to electrically link the locomotive to other locomotives equipped with MU plugs with the use of ART-29607 MU connector.

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WEIGHT INSTALLATION

Two additional weights are supplied with this locomotive. These optional supplementary weights are to be installed inside the fuel tank. The fuel tank is attached to the underside of the locomotive by 4 screws. Removing these screws will release the fuel tank allowing access to the supplementary weight area. In the supplementary weight area there are two screws (bolts) fastened to the underside of the locomotive. (A third bolt secures an existing weight to the locomotive.) These two bolts secure the optional supplementary weights to the locomotive. Installation of optional supplementary weights is not required for the proper function of the locomotive and is entirely at the discretion of the locomotive owner.

CAUTION: Do not turn the locomotive upside down or on its side when the smoke fluid reservoir contains smoke fluid. Smoke fluid may leak out may be hot enough to cause injury.

Note: Additional weight added to the locomotive beyond the optional supplementary weights may cause damage to the locomotive and is not covered under warranty.

NOTE:

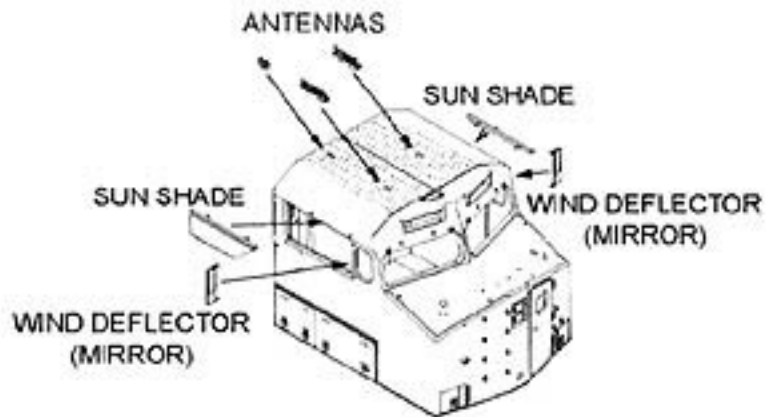
As of 2004 additional weights are no longer packaged with this locomotive. The weights are packaged separately. If the additional weights (ART29514) were not supplied separately with the locomotive contact your dealer or Aristo-Craft Trains for the additional weights.

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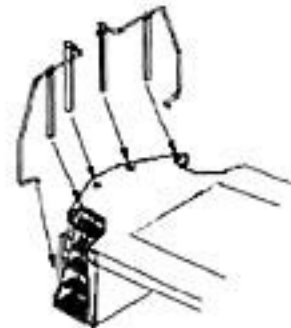
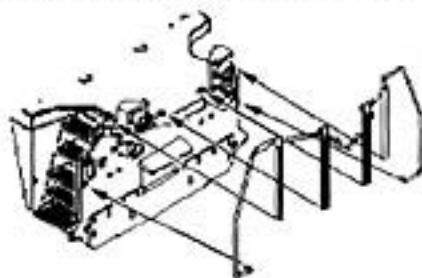
DETAIL INSTALLATION

There are several locomotive detail parts supplied with this locomotive. These parts are fragile and are to be installed at the owner's discretion.

Note: Locomotive handrails are not secured to the locomotive. They are easily removed and may come loose in shipment. They are easily re-installed by pressing into place.



FRONT HANDRAIL INSTALLATION



REAR HANDRAIL INSTALLATION

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AUTO-RESETTING FUSE

This locomotive is equipped with an auto-resetting fuse. This fuse helps protect the locomotive from overheating and electrical shorts. If the fuse trips, the locomotive will cease operating. The fuse will reset after a few moments and the locomotive will begin operating again.

In the event the auto-resetting fuse in this locomotive trips, shut off or disconnect all power sources to the locomotive. Allow the locomotive adequate time to cool. Inspect the locomotive, the tracks it is operating on and the electrical system (power supply, batteries, control system, wires, etc.) for damage, foreign objects or any possible source of an electrical short before reapplying power to the locomotive. Do not start operating the locomotive again until the cause of the tripping locomotive's fuse is found and resolved.

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TRACK REQUIREMENTS

When running by itself or coupled to another locomotive or cars, the Dash-9 requires an absolute minimum track diameter of 8'. While individual experiences may vary, this is a very large locomotive and curve diameters of 8' and smaller may cause derailments and side clearance problems. Smaller diameter curves will also cause cars coupled to the locomotive to be pulled completely off of the rails.

Note: Due to train dynamics and requirements of other locomotives and cars, minimum diameter may be greater than 8'. Always use minimum curve requirements from the locomotive or car requiring the greatest curve diameter when setting the minimum diameter curve for train operation.

COUPLERS

This locomotive is equipped with prototypically accurate, operating knuckle couplers. These couplers are factory installed and may be operated manually by pressing upward on the small tab below the coupler assembly.

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LIMITED WARRANTY

All ARISTO-CRAFT TRAINS products are under warranty for five (5) years from the date of purchase against defects in workmanship and/or materials. Proof of purchase *may be required* by ARISTO-CRAFT TRAINS.

This warranty is void and does not apply to any product and/or parts and components which have been improperly installed by the purchaser/owner, abused or damaged in any way through improper operation such as but not limited to derailment, repairs or modifications performed by non-authorized service centers or technicians.

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SERVICING

Should your ARISTO-CRAFT TRAINS product require warranty service, please return it in the original box, if possible, protected by a proper shipping carton. Send the product fully insured and prepaid. ARISTO-CRAFT TRAINS will not be responsible for any loss or damage incurred during shipping. Be sure to include a brief, but thorough explanation of the problem, together with your name, street address (no Post Office box please), city state or province and country, if outside of the United States. Also include a daytime telephone number so that we may contact you if necessary. Your return address should be clearly marked on the outside of the shipping carton.

Payment for shipping and handling, in U.S. funds, is \$20.00 and should be included. Your check or money order should be made payable to: Polk's Modelcraft Hobbies, Inc. Do not send cash. If your item is not covered by warranty service, you will be contacted and a repair estimate given before any work commences. Warranty covers manufacturer defects, not normal wear and tear.

The shipping address to be used for returns is as follows:

ARISTO-CRAFT TRAINS / Polk's Modelcraft Hobbies, Inc.
Customer Service Department
698 South 21st Street
Irvington, NJ 07111 USA
Tel: (973) 351-9800

Written confirmation of receipt of returned items will be sent with estimated repair time by the ARISTO-CRAFT TRAINS Customer Service Department.

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