

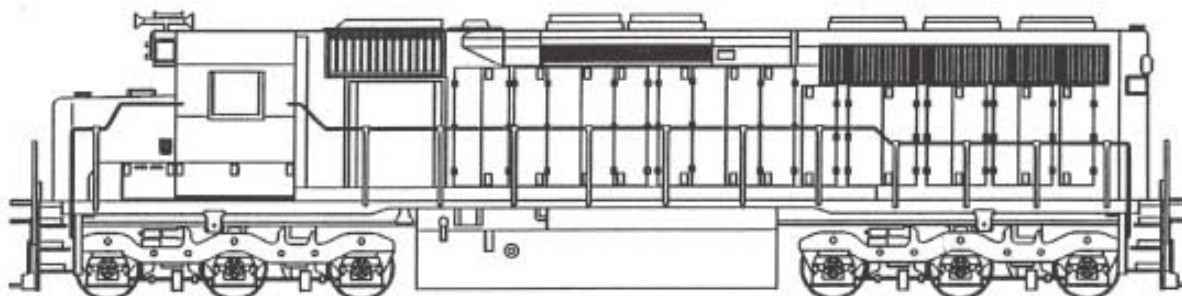
#1	1:29
Gauge	SCALE

SD-45

DIESEL LOCOMOTIVE

INSTRUCTION MANUAL

ART-22400 - 01



ARISTO-CRAFT TRAINS

112000 NEW

ARISTO-CRAFT TRAINS

Dear Model Railroader,

This EMD SD-45 Diesel Locomotive is a highly detailed #1 Gauge 1/29th scale unit and is suitable for both 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

HISTORY

The EMD SD-45 was developed during the mid 1960's to fill the need for a high horsepower locomotive. It produced 3600 horsepower using 20 cylinders, and could move a long heavy train very quickly. Many of these locomotives are still in use, after much rebuilding, 35 years later.

FEATURES

This unit has the following features which make it look and operate in a superior manner:

Prototype length and detail	Modular electrical connections
Ball bearings on all axles and gear boxes	2 motors in each truck
Low amperage draw	All wheel drive
Directional head and marker lights	Working porch lights
Detailed cab interior	New Smoke System
DCC port and dummy plug	Sound ready
Prototypical knuckle couplers	Crisp painting and lettering

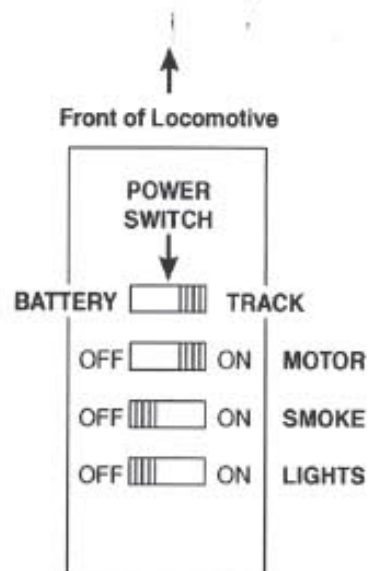
NOTE:

For the purpose of this manual, the cab end of the Locomotive is considered the "front" end.

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POWER SWITCHES

The four power switches are located beneath the dynamic brake blister, which is situated on top of the long hood, near the middle. The dynamic brake blister is identified by the two round fan housings on the top and by its bulging sides. Remove the hatch by pulling it up to expose the four power switches. There are no screws or latches. The blister 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 is the track power or battery power selector. When this switch is in the right hand position, the locomotive will run on track power. When the switch is in the left hand position, the locomotive will run only on battery power. The next three switches, in order from top to bottom, control the motor, smoke and lights. Left is off, right is on.



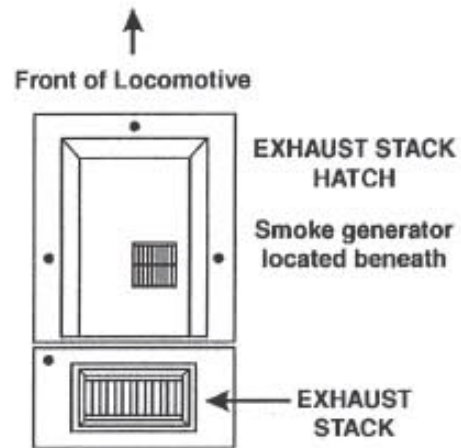
Switches
are located
beneath
the dynamic
brake blister

SMOKE GENERATOR

The smoke generator unit is situated beneath the exhaust stack, which is located on the top of the long hood between the cab and the dynamic brake blister. This entire hatch lifts off to expose the smoke unit. There are no screws or latches to impede the removal of this hatch. Before filling the smoke fluid reservoir, turn the smoke switch to the off (right) position. Remove the exhaust stack hatch to expose the round smoke fluid filling hole. Using Crest smoke fluid, CRE-29601 (ART-29601), fill the reservoir with at least 25, but **no more than 50 drops** of the smoke fluid.

This new 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 smoke fluid. Should the unit shut itself off, move the smoke unit switch to the off (right) position, allow the unit to cool for a few minutes and refill with smoke fluid

(if necessary). Move the smoke switch to the on (left) position and restart.



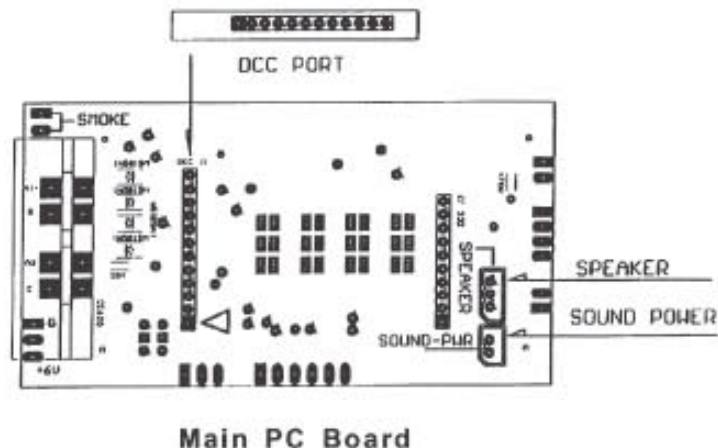
CAUTION

Do not turn the locomotive upside down or on its side when the smoke fluid reservoir contains smoke fluid. The remaining liquid may leak out, and if the locomotive has just been run, the fluid may be hot enough to cause injury.

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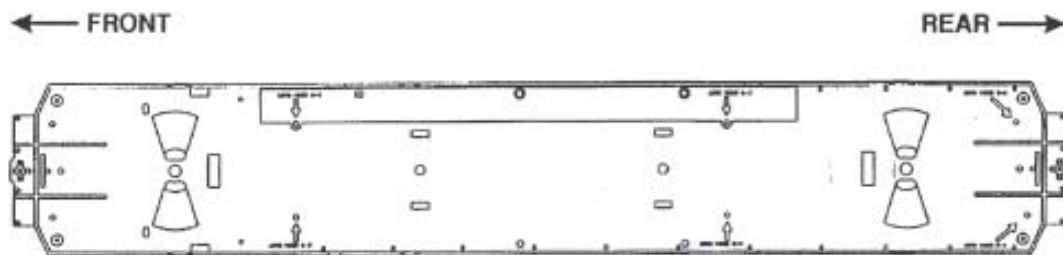
DCC INSTALLATION

This locomotive is equipped with a DCC port and dummy plug. After purchasing the DCC system of your choice, be sure to read the instructions carefully. In order to install your DCC system, the dummy plug must be removed and the DCC plug inserted in its place. The DCC 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 port. In order to reach this PC board, the long hood and the cab must be removed. This is done by removing the 6 screws that hold them in place. Turn the locomotive on its back and remove the screws from the bottom of the chassis. Refer to the diagram on Page 7 for the exact location of these screws.



SOUND INSTALLATION

This locomotive is equipped with a factory installed speaker. After purchasing a sound system for this unit (ART-29345), install it according to the manufacturer's instructions. The sound system will have 2 female plugs, one with 3 sockets and the other with 2 sockets. These are plugged into the pins on the main PC board. See the diagram on Page 6 for the location of these pins. The 3 pin plug is for the speaker, the 2 pin plug is for the power to the sound system. In order to install the sound system and access the main PC board, the long hood and cab must be removed. There are 6 screws that hold the long hood and cab in place. Turn the locomotive on its back and remove these screws from the bottom of the chassis. Refer to the diagram below for the location of the screws.



Bottom of Chassis

Location of screws (small arrows) securing the cab and long hood.

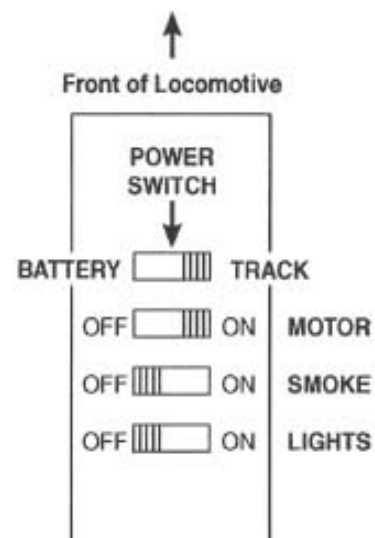
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BATTERY OPERATION

This locomotive has been equipped to operate either from track power or from battery power. The selection switch is located beneath the dynamic brake blister, which is situated on top of the long hood, near the middle. The dynamic brake blister is identified by the two round fan housings on the top and by its bulging sides. Remove the hatch by pulling it up to expose the power switches. There are no screws or latches. The blister is a press fit. See the diagram to the right. With the switch in the right position, the locomotive will use track power. With the switch in the left position, the locomotive will use battery power. There are modular connectors alongside of each coupler. These connectors will link the locomotive to a trailing car containing the batteries and a controller.

If battery power is utilized we strongly recommend the use of Crest Electronics Gel Cel batteries (CRE-55493). If other batteries are

utilized, the total voltage must be 18 and total amperage must be at least 3.



Switches are located beneath the dynamic brake blister

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OPERATION

When running by itself or coupled to another locomotive or freight cars, the SD-45 requires a minimum track diameter of 8'. This is a very large locomotive and smaller diameter curves may cause derailments and side clearance problems. Smaller curves will also cause cars coupled to the locomotive to be pulled completely off of the rails.

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. Automatic uncoupling may be accomplished by using an LGB designed uncoupling device (*LGB is a trademark of the E.P. Lehmann Company, Germany*).

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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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