

PLINE



OWNER'S MANUAL: DHR NDM6 DIESEL LOCOMOTIVE

1:19 scale Radio controlled Model with synchronized diesel engine sound & horn with re-gaugeable wheels for 45mm or 32mm gauge tracks.



PLEASE READ THIS OWNERS MANUAL CAREFULLY BEFORE OPERATING THE MODEL

Caution!!

This model is an accurate replica of the original locomotive. It has sharp and moving parts. The locomotive drive gears are brass & stainless steel with sharp edges.

AT ANY TIME, OPERATORS MUST NOT COME IN CONTACT WITH THE MODEL WHILE IT IS POWERED. UNDER NO CIRCUMSTANCES SHALL Paul Industrial Co. OR ANY OF ITS ASSOCIATES BE HELD RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING IN REGARD TO ANY PLINE PRODUCT.

Items included:

1. NDM6 Model Locomotive X 1 off (Serial No.)
2. 2.4 GHz 6 Ch RC transmitter X 1 off
3. M3 Allen wrench X 1 off
4. Decal Sheet X 1 off
5. Owner's Manual X 1 off

Required:

1. 12v 1.3Ah rechargeable Battery pack for Locomotive X 1 off
2. AA batteries for transmitter X 8 off
3. Suitable battery chargers for serials 1 & 2

Battery Pack Selection:

Your NDM6 locomotive & transmitter are not supplied with the Battery Packs due to International Shipping & Security norms. We recommend any deep-cycle Battery pack with an output of 12v rated at 1.3Ah (or higher rating) for the locomotive and 8 off AA alkaline cells for the transmitter.

Connect your preferred battery pack to the terminal Connector leads inside the locomotive cab by removing the cab roof. The roof is snap fitted and can be removed by lifting it up straight. BE CAREFUL TO CONNECT THE CORRECT POLARITY OF THE BATTERY TERMINALS TO THE CONNECTOR STRIP. THE WIRES ARE COLOURED RED FOR +VE & BLACK FOR -VE POLARITY. INCORRECT POLARITY CONNECTION CAN DAMAGE THE CONTROL SYSTEM OF YOUR MODEL. The locomotive battery pack can be housed inside the cab.

PLINE

Lubricating:

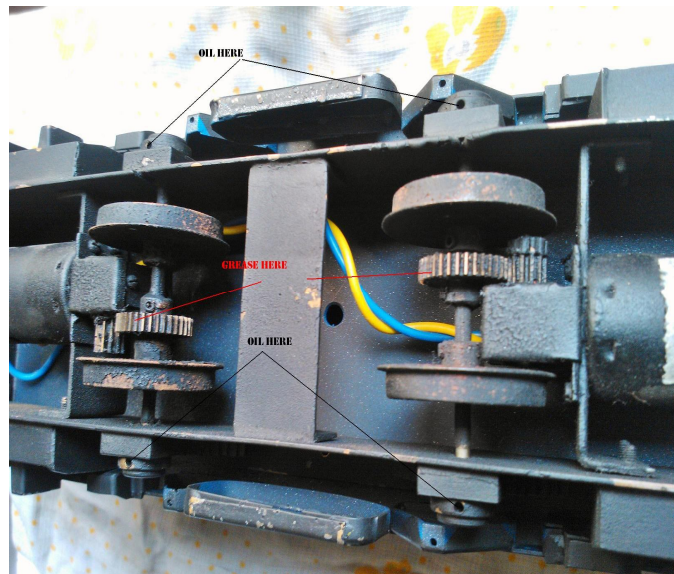
With a bit of care, your PLine NDM6 should give you many years of pleasure and reliable service. Lubrication is of prime importance for a model of this type with moving parts. Always use quality lubricants. This should not be a problem, for there are many modern lubricants available in hobby and sport shops. Light oil such as Labelle #108 or Hoppe's Gun Oil would be good enough for lubricating most of the moving parts. For gears use a suitable gear grease such as Permatex Super Lube or another hobby gear lubricant.

The spur gears driving each axle can be lubricated by applying grease on the gear teeth using a small screw driver.

To access the many moving parts of this model it is best to carefully place it on its side on a soft towel or foam sheet. A drop of light oil on every moving part is necessary, and there aren't many on this locomotive. Use oil that is a bit heavier to lubricate the axle bushings and pivot points of the Power Bogies. Each Model is provided with Oiler holes on the Axle boxes of each wheel. There are 4 Oiler holes on each Locomotive with their openings facing downwards towards the rail top. Use a drop of Lubricating Oil to lubricate each Axle box. Be sure to lubricate all the wheel bearings, gear bearings etc. that you can see. Do not over lubricate, for excess oil only picks up unwanted dirt. Be careful to keep lubrication off the painted surfaces as this causes shiny areas.

The main worm gear box is lubricated in the factory and will not need any attention when you first run your model. However, in time, you should make sure that the gears are will lubricated with suitable gear grease.

Thorough Lubrication of the locomotive should be done every 5 hours of operation.



Operating the model:

Insert 8 off AA alkaline or similar batteries into the transmitter, and connect a suitable 12v battery pack to the battery terminals of the locomotive (refer section for details).



Cab controls (above)



Tx controls (above)

Next switch the transmitter 'ON'. The model can now be powered 'ON' by flipping the main power 3-way switch in the cab downwards. Always SWITCH 'ON' the Tx first before POWERING ON the model.

PLINE

By moving the left hand joystick gradually upwards on the transmitter the locomotive will move forward, while gaining speed, and moving the same joystick downwards would reverse the model and increase speed. The model ideally should come to a stop when the same joystick is in the neutral or centre position. This position can be adjusted using the throttle trim slider located alongside the left hand joystick on the transmitter.

CAUTION: DO NOT RUN THE MOTORS ON FULL THROTTLE IN THE FIRST 60 MINUTES OF RUNNING. Run the model at half throttle in any one direction for a few minutes, then stop, and then run it again at half throttle for a few minutes more. Repeat this procedure for about half an hour until the model runs smoothly in both directions. Once you have run your Model on half throttle in both directions on a test track for at least about an hour, your model should be ready to run at Full throttle on the Outdoor layout.

Sound:

When the model is powered on and not moving, you should hear the engine idling sound. As you speed up or down in either forward or reverse directions the engine sound will also rev up or down in a synchronized fashion, and idle when the model comes to a standstill.

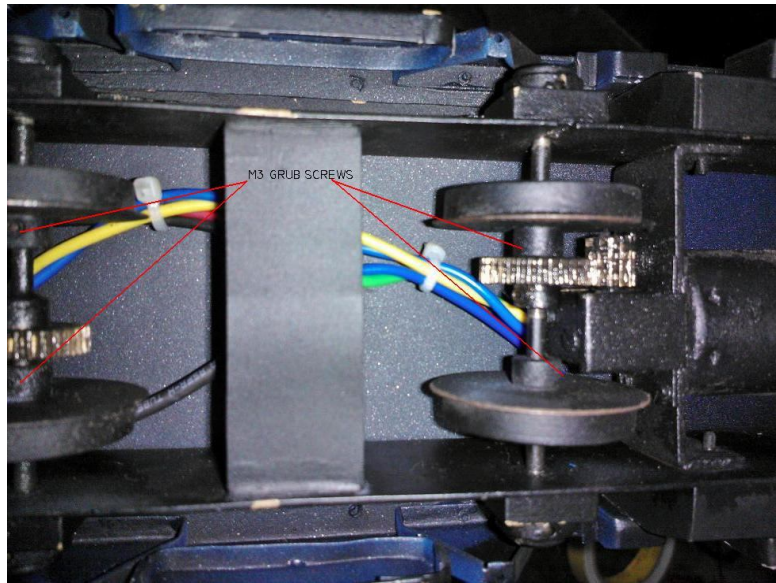
The right hand side joystick on the transmitter when moved upwards blows the model's horn.

Lights:

The lights on the model can be operated by flipping the smaller toggle switch in the 'ON' or in the downward position. The lights are directional and on the traction motors. So when the model moves in any direction, the head, markers lamps and fog lamp in that direction lights up.

Altering wheel gauge:

Your NDM6 locomotive is fitted with gauge adjustable wheels to run on both 32mm & 45mm gauge tracks. Before altering wheel gauge, make sure that the battery pack for the locomotive is disconnected and removed from the model. Turn the model upside down on a clean piece of cloth, so that you have access to the wheels. The wheels are locked in place using M3 grub screws. Use a suitable M3 Allen wrench to loosen the M3 grub screws on the wheel hubs (at the rear of the wheels). Slide the wheels on the axles to get the required gauge. Once the desired gauge has been attained, tighten the M3 grub screws with the Allen wrench to lock the wheels for the desired gauge. For reference the back to back wheel distance for 45mm gauge is 40mm while that for 32mm gauge is 28mm.



Wheel grub screw positions (above)

Maintenance:

Clean the body of the Model with a clean soft lint free cotton cloth. To remove stubborn grease stains from the painted surface use a detergent solution with a lint free cloth. With a little care your PLine NDM6 Locomotive will give you years of trouble free running.

Decal attaching reference photos of prototype:

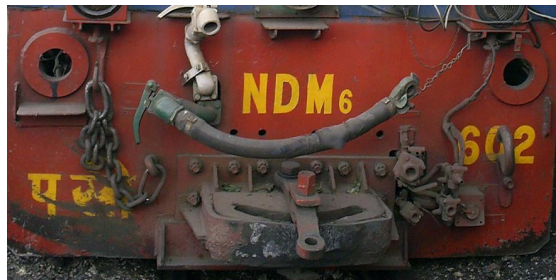
A decal sheet has been provided with the model for further detailing the model. Use the prototype photos below to apply the decals in the correct places on the model.



Side view with English "Indian Railways" markings
Similar markings in Hindi on opposite side of cab.



Front buffer beam



Rear buffer beam



Cab rear view



IMPORTANT!

Some parts may have loosened during shipment. Inspect your model prior to any operation. Please contact PLine at info@pline.in for more assistance.

THANK YOU!

Marketed by: Paul Industrial Company
30A, Kasundia Road,
Howrah-711101, India.
[Tel:+91-33-26407137](tel:+91-33-26407137)
Fax: +91-33-26406248
e-mail: info@pline.in
URL: www.pline.in

Manufactured by: Model Engineering Company
47, Sankharitola Street, Calcutta-700014, India.