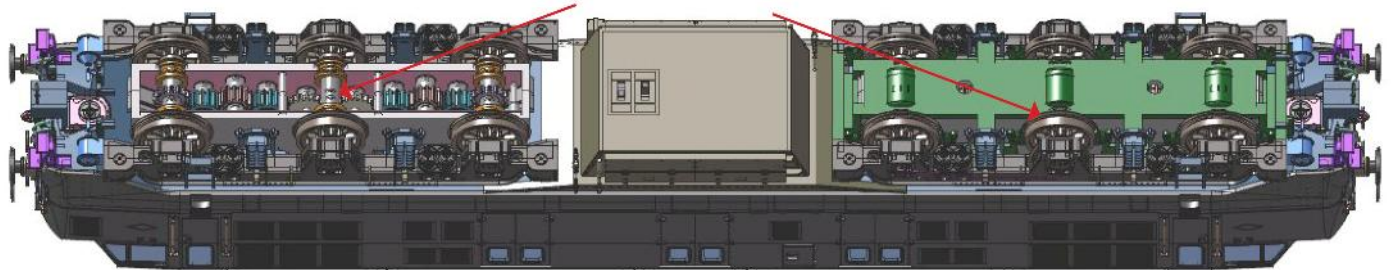


D600 A1A-A1A DIESEL INSTRUCTION SHEET

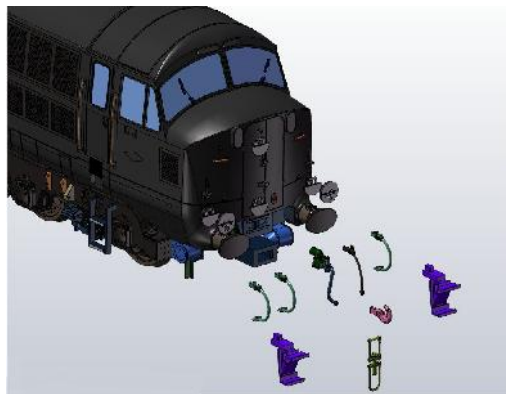
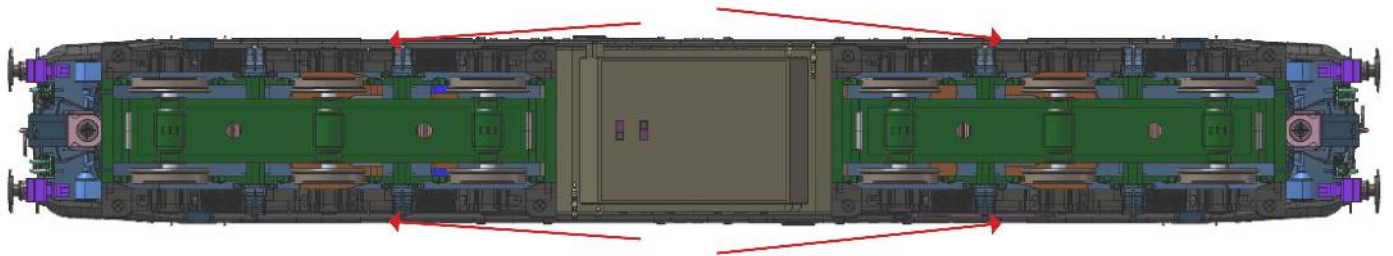
IMPORTANT INSTRUCTIONS: PLEASE READ BEFORE USE

This model has been lubricated during manufacture. We suggest running in for 30 minutes in each direction. After this period, light lubrication may be required in the places indicated (refer to image below). We recommend HL654 Woodland Scenics Hob-e-lube available from our website. Please apply oil with caution as excessive oiling will damage the mechanism and some oils can damage the plastic. If oil touches the bodyshell, wipe it off with a non-fluffy cloth immediately. No part of the motor requires lubrication. **DO NOT** operate the model on track laid onto carpet as dust and fibres will impair the mechanism. The model should only be used on 2nd radius curves or greater. The coreless motor may not be compatible with high-frequency track cleaners or some feedback controllers.



BODY REMOVAL

The body is secured with lugs (see image below), gently prise the body away from the chassis. Take care as the body will still be attached to the chassis by wires from the circuit board.



INCLUDED ACCESSORY BAG

This bag includes: couplings, vacuum pipes, open and closed route indicator discs (where appropriate) and nose end steps. Please refer to the image to the left for guidance on the correct position to fit these if desired. Some of these details may interfere with the tension lock coupling. If you wish to fit the headcode disks we suggest they are temporarily fixed with tacky wax or similar.

LIGHTING

On **analogue** the interior cab lights will operate in the direction of travel. The headcode boxes / disc lights are directional and will light up in the direction of travel. One white marker light will light up in the direction of travel with one red tail light to the rear (in accordance with the prototype). A switch is provided below the battery boxes to allow the cab lights and / or tail lights to be switched off.

On **DCC** the interior cab lights are independently controlled using function 1 and function 2. The directional lights are controlled using function 0. A switch is provided below the battery boxes to allow the cab lights and / or tail lights to be switched off.

DIGITAL COMMAND CONTROL

The model is DCC Ready. It is fitted with a 21 pin decoder socket and blanking plug for standard analogue operation. You will need to remove the body and blanking plug to fit the decoder - body removal instructions are given above.

WARRANTY

Thank you for purchasing this *D600 Diesel* locomotive. *Kernow Model Rail Centre* will remedy any defect or malfunction occurring with this model during a period of six months from the date of purchase. This guarantee does not extend to defects or malfunctions of any kind caused by damage or unreasonable use, including failure to provide the correct lubrication.

If for any reason the model develops a fault during the warranty period, please return it to the address below. This warranty is given in addition to all legal rights of the purchaser under the "Sales of Goods Act" and shall expire six months from the date of purchase from *Kernow Model Rail Centre*, who shall not be responsible for any consequential loss or damages arising from this product.

EUROPEAN REGULATIONS

Kernow Model Rail Centre products conform to WEEE and RoHS requirements. If you have any need to dispose of any electrical components, please do so correctly.



HISTORY OF THE D600 WARSHIP DIESELS

From the day they were ordered, the D600 'Warship' class were the locomotives the Western Region did not want. The WR required lightweight diesel - hydraulic engines of the German design, similar to the Krauss-Maffei V200 locomotives, whereas the British Transport Commission (BTC) ordered this heavyweight class of five to be built on diesel - electric principles. The BTC's vision was for the D600 class to be the equivalent of the 2,000 hp diesel - electrics being built at the time.

All five members of the D600 class were built by the North British Locomotive (NBL) Company in Glasgow and on completion each was to cost £87,500. An A1A - A1A axle arrangement was used with the centre axles unpowered. MAN L12V18/21A engines, each giving 1,000 bhp at 1,445 rpm were coupled to Voith L306r transmissions. The V12 engines for the first two locomotives, D600/1, were built by MAN in Germany while the other engines were built by NBL under licence. The Voith transmissions, which were a tried and tested design as used in some of the Krauss - Maffei V200 locomotives, were set to change speed at 29mph and 57mph.

The underframe of the D600s was built like a tank. Using 'I' section beams and cross - members which were riveted and welded together and topped by a thick sheet steel floor with aluminium bodywork, the total weight of each locomotive was 117 tons.

Names for the locomotives were given in alphabetical order after five famous warships -Active, Ark Royal, Bulldog, Conquest and Cossack - and the locomotives were supplied in standard BR green livery with a blue - grey line at the lower edge of the bodysides. One characteristic of the D600s was the use of spoked wheels. They could work in multiple with each other or up to two D6300 locomotives using the orange square coupling code.



Several small engine and transmission faults were noticed soon after the class were introduced. These components were then returned to NBL for repair in accordance with the contract, however this meant that locomotives would be out of service awaiting spares or repairs. In addition, the Spanner Mk1a train heating boilers fitted to all early diesels were very unreliable. On average, engines were replaced after 8,000 hours in service (there being 8,760 hours in a year) while the locomotives generally clocked 65,000 miles annually.

D600 was officially completed on 25 November 1957 but was not handed over to BR until that December. Some trial runs with passenger coaches were carried out in south-west Scotland before D600 was allocated to Swindon in January 1958. A press run was arranged for 17 February 1958 when D600 hauled a 340-ton train between London Paddington and Bristol Temple Meads with stops at Reading, Didcot and Swindon. D601 appeared in March 1958 and was also initially allocated to Swindon. By June 1958, both were based at Plymouth Laira and D602-D604 were then allocated there from new.

Entering service between January 1958 and January 1959, the class initially worked on the London-Plymouth-Penzance route of the Western Region. On 16 June 1958 D601 hauled the Cornish Riviera Express non-stop from Paddington to Plymouth — the first diesel locomotive to do so. The maximum permitted loads for a D600 on such a run were 410 tons westbound (climbing the 1-in-37 of Dainton Bank and 435 tons eastbound and up Hemerdon Bank's 1-in-42 in the opposite direction). The D600s continued on the fast Bristol/West of England trains until a dozen D800 Warships had been accepted into service. Later they were largely restricted to the line west of Plymouth, finally being withdrawn *en bloc* in December 1967. By the time of withdrawal D600 was in all-over rail blue with full yellow ends, D602 was blue with small yellow warning panels and D601/3/4 were still green, albeit with yellow warning panels.

They were noted for being capable of over 90 mph if worked well and did run at 100 mph during their very early careers. D603 was damaged in an accident and was returned to NBL for repair in 1960: the cast light alloy cabs were replaced with sheet steel as the original NBL subcontractor for these items was not prepared to fabricate a small, one-off order. Swindon had a spare cab which wasn't used and survived long after the locos had been withdrawn before finally being sold for scrap.

D600 and D601 were sold to Dai Woodhams of Barry and numbers D602, D603 and D604 travelled to Cashmore's at Newport. These three locomotives were cut up by the end of 1968, whereas D600 Active was not scrapped until March 1970. D601 Ark Royal was the subject of a failed preservation attempt and languished at Barry for further 10 years before eventually being cut up in July 1980.



We wish to thank the following people for their assistance with the research and production of this model. Fred Phipps for invaluable help and assistance throughout, Mike Romans for further help and assistance, Frank Spence for the use of his images, Robert Carroll for the use of his image and the Exe Rail Collection for the use of their images.