



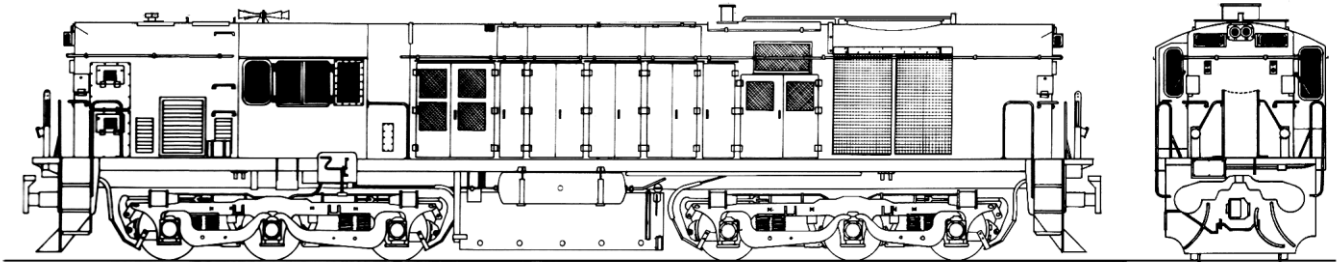
Australian Railway Kits

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45 CLASS/600 CLASS

THANK YOU FOR PURCHASING THIS MODEL WHICH, WITH THE EXCEPTION OF THE MOTOR, HAS BEEN TOTALLY DESIGNED, MANUFACTURED AND ASSEMBLED IN AUSTRALIA.



PROTOTYPE NOTES - 45 CLASS

Coded DL 541 by its manufacturer, the 45 Class first entered service in June 1962, when 4501 was handed over to the New South Wales Government Railways by its manufacturers, A.E. Goodwin of Auburn N.S.W. The Class was delivered in 2 batches of 20 units each, with 4540 the final unit delivered in January 1964. All units were initially based at Delec Depot in Enfield, Subsequent movements saw some of the Class members allocated to Bathurst and Broadmeadow Depots prior to the eventual transfer of the whole Class to the Broadmeadow allotment in the early 1970's. Although based at Broadmeadow, it was not uncommon to see the Class operating on all main lines in the state, either singularly, in pairs, or in multiple unit working with other classes of locomotives. In service they could be seen hauling all manner of trains, from roadside goods to Express freight and passenger trains.

An accident involving 4525 in a head on collision with 4462 at Robertson in May 1972 resulted in both units being written off due to extensive damage sustained. Of the original 40 locomotives built, this is the only unit to have been scrapped due to accident damage.

In June 1984, the Locomotive Enginemen's Union placed a ban on the use of the 45 Class as a sole unit or leading engine in a multiple unit arrangement. Whilst this ban still remains in force, certain members of the Class have been modified and these units are exempt from the ban. To assist with the identification of the units, they have been reclassified to initially the 451 Class but eventually the 35 Class, whilst still retaining their actual unit number. Locomotives re-numbered to date are 3507, 3513 and 3527.

The 45 Class has seen many liveries over its years of service. All units were delivered in the Indian Red and Chrome Yellow lining scheme which remained until January 1982 when 4502 was repainted in the Yellow End paint scheme. August 1982 saw 4508 also receive the scheme, this being the only other 45 so adorned and the last New South Wales locomotive to be out shopped in this livery. The same month saw the introduction of the "Candy" scheme, and in December 1982. 4504 became the first of many in the Class to receive this colourful scheme. May 1988 saw the most recent livery change to the 45's when 4529 was repainted in the all over Red scheme. 4532 was refurbished by the Silverton Tramway Company and released in the striking Yellow and Blue livery as 45s1. This unit is now stored in Adelaide. A lot more can be said about this old horse as some still ply their trade to-day on the railway lines of Australia.

PROTOTYPE NOTES - 600 CLASS

The South Australian Railways took delivery of Class Leader 600 In April 1965 following manufacture by A.E. Goodwin. This unit was placed in service hauling construction trains on the Broken Hill - Port Pirie Standard Gauge Project and was joined in this task by 601 in June 1966. It was a further 4 years before the five remaining members of the Class were placed in service just prior to the commencement of working over this length of new line in January 1970. Allocated to Peterborough, these units saw service on the Indian Pacific passenger train, express freights and on the Broken Hill - Port Pirie Ore traffic. In later years the ore train became a regular triple header 600 Class working.

1974 saw the first major change to the appearance of the 600 Class, when Class Leader 600 was the first to be repainted from the original Red scheme into Traffic Yellow. Commencing in 1975 further modifications changed the appearance when the dynamic brake grilles located in front of the cab were enlarged. 1981 saw the introduction of the Australian National Corporate colours of Green and Gold, however, it wasn't until 1984 that 603 became the first Class member to receive this paint scheme. More recent modifications have been to the cab window arrangements where an additional fixed window has been placed beside the main opening cab window. All units remain in service although Class Leader 600 was renumbered 607 in July 1986 to allow proper identification of this unit in Australian Nationals Computer Systems.

In June 1982, 600, 602, 603 and 606 were transferred to New South Wales as part of the Through Working Agreement. Predominantly working in pairs, these units were utilised mainly around the Wollongong area and in Limestone Traffic between Port Kembla and Marulan. May 1983 saw engine 603 returned to South Australia for a major overhaul and in July, 601 arrived in New South Wales to take its place. September 1985 saw the end of this working and the locomotives returned to South Australia, ending their 3 years of service in New South Wales. The livery in use for all units was the commonly called Mustard Pot scheme.

MODEL INFORMATION

AR Kits has chosen to detail the model of the 45 as it was seen running in the early 1970's. Additional detail parts have been provided to enable the purchaser to either backdate or modernise the locomotive as suits their requirements. The model of the 600 is representative of the Class members that saw service in New South Wales. To avoid damage to the model's detail whilst it was in transit, the following items are included in the box for fitting. All parts are a press fit in the holes provided and should not require any gluing.

Handrails

End handrail mouldings, which include multiple unit sockets, can be fitted either end. Step handrails will need to be identified as per the diagram as to their location. The long walkway handrail is fitted between the steps and the cab door. The short walkway handrail is fitted to the diagonally opposing door. It is suggested that the handrails be attached to the model using a delrin compatible ACC Cement

Headlights & Number Box

Carefully remove these items from the moulding sprue and press fit into the moulded lights from the outside of the model. The headlight lenses are the larger cylindrical shape, the smaller ones being for the marker lights. Self adhesive decals are supplied for applying to the number boxes after the lenses have been fitted.

Marker Lights

Carefully remove the lenses from the moulding sprue and press fit into the moulded light from the outside of the model.

For modellers wishing to update their model, twin marker light boxes have been provided. To fit these the existing marker light detail will need to be carefully removed using a craft knife. The twin marker lights can then be fitted in the holes, after painting in the appropriate colour. Please note that extreme care is needed for this modification and modellers should have some degree of experience with a craft knife prior to attempting this task. A slip of the knife could damage other parts of the model.

Exhausts

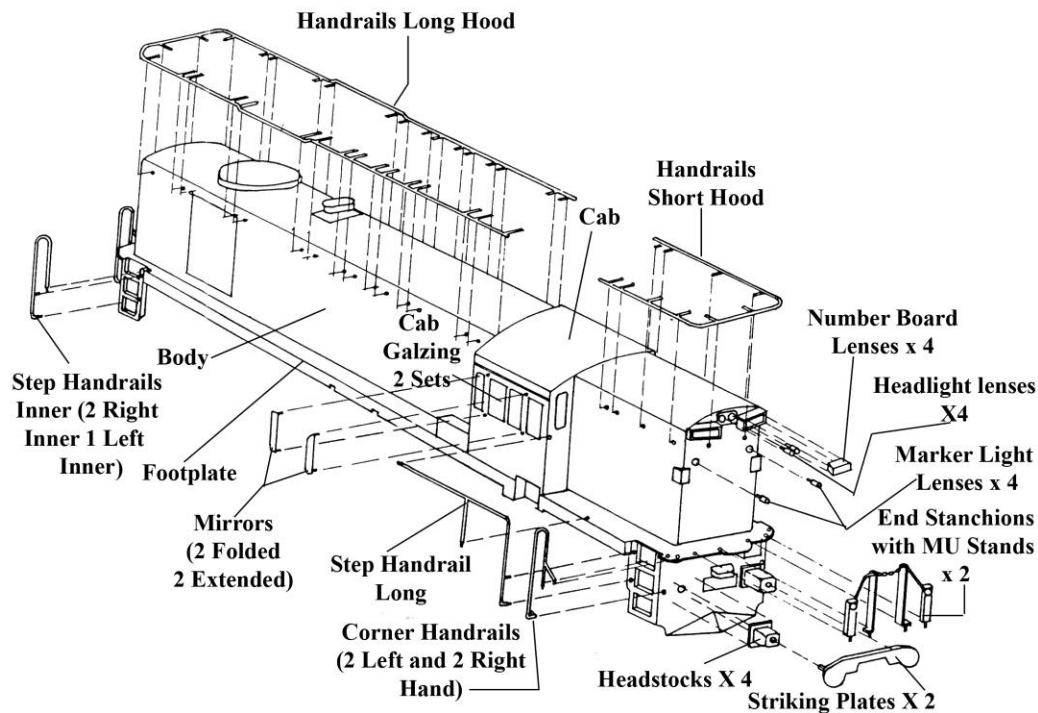
For modellers wishing to back date their original liveried 45 Class, the early style exhaust stack has been provided. The exhaust stack as fitted to the model is a press fit and can be removed by gently pulling and twisting by hand.

Headstock & Striker Plate

Headstock are fitted horizontally in the hole provided, with striker plates then fitted into the headstocks. They can be either High Centre or Flat Top Striker Plates depending on the model or both with **Undecorated Models**. (Please note this item is not supplied for Candy or Red liveried 45 Class, 451 Class, 35 Class or 600 Class models.

Couplers

Kadee Couplers are supplied, #5s for models without striking plates and #26s for models with striking plates, to allow clearance for reliable operation of the coupler and to avoid clearance problems.



MAINTENANCE

The majority of the model clip fits together. It is suggested that the model not be needlessly disassembled as constant disassembly may damage clipping mechanisms.

Separating Body From Chassis

Prior to separating, all side handrails attached to cab will need to be unclipped to allow removal of the body. The body is secured by 8 retaining clips. To remove body, turn locomotive upside down and locate all of the clips which are located approximately under each outer axle of the bogies. Carefully press the side of the shell in on the outside of each clip until they disengage from their retaining lugs whilst gently separating the body from the walkway. Work from the rear end of the model to the front. Upon release of the last clip gently remove the body from the chassis. To replace the body, reverse the above procedure after firstly locating the front end clips and the light towers. Use the back of the cab against the front of the battery box as a guide for the correct location of the clips.

Separating Walkway From Chassis

Walkway is retained by the light towers at each end of the model. To remove light towers, first remove globe from housing and then gently pull tower upwards whilst rocking from side to side. When towers are removed walkways will come away. With walkways removed staff exchanges will not be secured and care should be taken so as not to lose these items. To refit walkway, locate staff exchangers in their housing, replace walkway ensuring staff exchanger opening is correctly located and then refit light towers.

Separating Bogies From Chassis

The bogies are retained by the moulded housing over the worm gear at the top of the bogie. To remove bogie gently lever either side of the housing until it unclips and comes away. Remove worm gear shaft, taking care not to lose the end bearing. Bogie will now come away. To refit bogies, reverse above procedure, ensuring that the drive shaft is correctly located in the universal joint when refitting the worm gear shaft.

Lubricating The Gear Boxes

To ensure quiet trouble free running of your locomotive, the gearboxes have been lubricated during assembly. If further lubrication is required, access to the gears is by removal of the bottom plate of the bogie. Using a screwdriver inserted between the bogie side frame and the brass axle keeper plate, gently prise them apart so as to release pressure on the sides of the bottom plate. Then use a screwdriver to release the clips at the end of the bogie. Bottom plate will now come away. To refit bottom plate reverse above procedure, ensuring that arrow moulded on bottom plate is pointing to fuel tank. It is not recommended that grease be used in the gearboxes as in cold weather the cold grease puts too much of a load on the whole drive train and may lead to motor failure.

Lubricating The Motor

If you get a squeal coming from the motor oil the end bearings with a drop of oil on a toothpick and allow to wear in.

Separating Motor From Chassis

The motor is retained by the plastic motor mounts located at each end of the motor. These mounts are secured to the chassis by screws from underneath the chassis. To gain access to these screws the fuel tank which is retained by the air tanks needs to be removed. Firstly remove walkway as outlined above and then gently slide-both air tanks out of their housing on the chassis. Fuel tank will now come away. Undo the 2 screws and then by gently pulling both mounts away from the chassis, motor will come away. To refit, reverse the above procedures, ensuring that motor is correctly located on the motor mounts.

Parts List

S001	Undecorated body
S001D	Decorated body
S002	Undecorated cab + windows
S002D	Decorated cab + windows
S003	Lenses + number board inserts
S004B	Handrails - black
S004W	Handrails - white
S004Y	Handrails - yellow
S005	Small detail parts - staff exchanger, etc
S006	Buffers and buffing beam sockets
S007	Footplate
S008	Die cast chassis
S009	Fuel tank and 2 air reservoirs
S010	Motor mount and screws
S011	Light towers and lenses
S012	Lighting unit
S013	Weights
S015	Side frames + brake cylinders
S016	Gear boxes - 1 pair + screws
S017	Worm retainer clip - 2
S018	Bottom keeping plate - 2
S019	Gear sets - 2
S020	Universal joints + drive shafts
S021	Wheels, axles + gears
S022	Side bearing plates + wires
S023	Worms, brass bearings and thrust washers
S024	Gear box - assembled - 1 pair Note: Gear Box come complete with side frames, blackened wheels, worm gear, brass bearings and thrust washers
S025	Chassis - assembled
S026	RP25-88 wheels, axles and gears
S027	Undecorated body - complete