

THE POWERLINE UPDATE

Published Quarterly

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2001

The Powerline Update.

Up until 2001, the Powerline Update, the Update, has been published monthly on a 4-page format. This has presented two problems, one that publishing it monthly has taken time and has at times caused rushes to get it out, and two the four page format has always meant a cut down in articles and an inability to fit much in each issue.

So to give more time and to enable us to publish a newsletter with more substance it has been decided to go quarterly. The plan is eight pages every three months, which gives us more room for articles and more time to get them together.

This update had been delayed as we were anticipating news and articles to be ready late January, which did not happen. We wanted to hold off the first issue for the year so it could be a good starter for the year. Well between Murphy's law and procrastination the Powerline Update was delayed and for that we apologise.

We hope you agree with the decision to go quarterly with a larger Update and that we can continue to provide you with the latest and most up to date news on Powerline first.

Train Sets.

In November 2000 Powerline Models Pty. Ltd. introduced onto the Australia market place a new train set. This is the only train set where the box, packing and some of the product are totally produced in Australia, and the assembly and packaging of the set is totally done in Australia.

This set used the 'Australianised' F3A locomotive in Australian National colours together with Freightline Australian rolling stock. The cheaper set used the unpainted gondolas (and yes they are a true Australian model and are produced in Dandenong) and the more expensive sets had printed gondolas, hoppers and tank cars. All packed in a reusable box with grey foam rubber. A basic controller was included together with Atlas Nickel Silver track. A set designed to for the new entrant into the hobby.

The locomotive was specifically designed to be the top, strongest, most trouble free locomotive that could be produced to act as the best entry point for new train set owners to the hobby. We think we have achieved this aim. The locomotive features a full metal chassis, centre semi can motor, all metal wheels, all wheel electrical pick up and all wheel drive. Plus we are selling a large number of locomotives by them selves.

At the time of the introduction of the set we produced enough to last us for at least 6 months. Always plan ahead and ensure you can supply the market. This did not prove to be the case.

So popular has the set become that we had already run out of the original production run well before Christmas and had to rush off and do two more production runs. After mid December we were again out of many lines. We are now assembling the 'product' to start another production run. It has been our biggest set run for many many years. This year we do not plan to run out and are giving retailers the opportunity to pre order stocks well in advance with scheduled dates.

New Sets for 2001

Well almost new sets. The existing range of sets will become available soon with a different optional lid. Some people feel that a box lid on a train set should not cover the product but have windows so what is inside can be seen without removing the lid. Well we did state that our sets would be quality sets that would not rely on flashy colours, big pictures or gimmicks to attract sales. Our sets come with quality at an affordable price.

For 2001 Powerline is releasing an optional new lid to cover its sets, which will have windows to show the locomotive and rolling stock, as well as being colourful. This lid is 100% Australian from the cardboard to the finished product.

The sets featuring the new lid should start to become available mid 2001 with a view towards Christmas train set sales.

Looking for a train set for Birthdays or Christmas, look no further than Powerline. The Linkline, Freightline and Powerline range of train sets are the best value for money available in Australia. They are also the only Australian style train set produced by an Australian company and packaged in Australia. Available in good hobby shops across Australia NOW.

Austral Hobbycraft have moved

Yes Robyn Taylor and Austral Hobbycraft have moved to new and improved premises in Queensland. Shop 6/ 126 Oxley Station Road, Oxley 4075, is where you will find them. Phone/Fax (07) 3278-4472.

Opening on or before Easter

The Train Place at 72 Eaglehawk Road, Ironbark, Bendigo plans to have their layout and display room open very soon. So next to their retail store will be other displays and an operational model railway. When in Bendigo drop in for a look.

Simple Tech Tips

People continue to ask simple questions, and quite often we get asked the same questions over and over. So to answer the majority of those asked questions here are some tips.

These are not listed in any order but are tips given after comments and letters from readers.

1. When re-gluing coach windows we suggest you use the Testors glue in the red and white tube. Never use PVA, Super Glue, M.E.K, M.I.K or solvents. This will glue the windows adequately and will not whiten or craze the windows. Testors have also released special window glue that dries clear and is meant for gluing windows and fixing mistakes. We have not tried this product yet but have been told it is quite good.
2. When fitting Kadee adaptors, fit and press the adaptor into place first as per instructions and then apply a glue or adhesive like M.E.K or Faller expert around the adaptor. Only apply glue to the unseen rear area and never apply glue before fitting. This will give you a better finish and not damage the paintwork on the front or leave any glue-based mess. Never glue the front area of the adaptor or pilot.
3. Only used Powerline Kadee adaptors as we can not comment, advise or ensure a proper fitment of other after market Kadee adaptors. Also the fitment of a non-Powerline part will invalidate your warranty. Powerline Kadee Adaptors are designed to work.
4. Please do not bake Powerline bodies after re-painting them, we don't have spare bodies and plastic will melt if it's hot.
5. Use only plastic compatible oils and greases on plastic gears. This goes for all models and if in doubt do not use the oil. Look for oils that state they are plastic compatible.
6. We do not recommend the use of Super glue on any of our models. Super glues and others like them create more problems than they solve
7. When fitting new RP-25 wheels to 48/830 Class locomotives we do not recommend removing the wheels to allow the gears to be removed off the axles on the non powered end. If you wish to remove the gears, when fitting axles to the non powered end, we suggest snipping them off with side cutters or a Xuron tool. It is quicker, easier, and you will not have to reset or gauge the wheels.
8. When fitting Kadees to NSW coaches ensure you check the coupler height and bogie movement. Body mounted Kadees on the NSW coaches require more than an 18" radius curve. So before making the cut make sure your track work is more than 18" radius.
9. When planning a Kadee fitment to big locomotive, BL/G/81, drill the hole in the adaptor for mounting the Kadee first. Too often people drill them after fitment and often drill out wires or light globes. For the 81/G/BL Class locomotives there are two coupling options, close or short coupling and medium or standard coupling.
10. When drilling holes in your models use a pin vice or a hand operated drill at most. Never use cordless drills or electric drills as in a split second you have drilled out more than you planned and possibly damaged a good model.
11. Believe it or not but the mechanism for the 81, G or BL Class only fits one way. So when refitting a mechanism don't force it, if it does not fit try it the other way round.
12. When fitting Kadees to Freightline rolling stock, use numbers 17-19. They fit straight in with no modification required.
13. Locomotives for repair or warranty should only be worked on by Powerline approved repairers. Please send your locomotive back to the place of purchase to organise the work. There are only two Powerline approved repairers, 1 in Sydney and 1 in Melbourne.
14. Only used Powerline parts because they are designed and produced for Powerline product.
15. When starting out we do not recommend the use of Kadee or knuckle style couplers. These style of couplers have a lower degree of tolerance than our standard coupler and if not fitted correctly or used on average track work they will not stay coupled. The standard Powerline style coupler is reliable and will stay coupled under many adverse conditions. For the beginner this means less frustration, happy model railway operations and less expense.
16. When changing wheel sets on locomotive please ensure that you always place the insulated wheel on the correct side and that all the wheels have their insulated wheel on the same side. Its always good to note the positions of the existing wheels before you change them. There are four different wheel sets available; traction tyred wheel sets, non-traction tyred wheel sets, RP25 nickel-plated wheel set and RP25 blacken wheel set.
17. For beginners and starters we only recommend code 100 Nickel Silver track and suggest Peco or Atlas brands of track be used. Codes 55-70-75-83 are best left to those more experienced at track laying and that know the modification required to run their rolling stock on the finer scales of track. All our train sets and expansion packs come with top quality Atlas code 100 Nickel Silver track.
18. Depending on the environment in which your layout resides we recommend regular cleaning of your track about once a week using a track rubber as produced by Peco, Fleishmann or Roco. Clean track always provides better running and fewer problems. Do not use sandpaper, steel wool, abrasive sanding blocks or any style of polishing or grinding stone. A Peco track rubber is best.

- 19 When building a layout it is best to tack your track to a board. We recommend a 6-foot by 4-foot board as a minimum with an 8-foot by 4-foot board being the preferred size. Suggested board is 13-mm chipboard with a frame underneath. This can be stored against walls, behind furniture or in sheds out of the weather.
- 20 When building a layout we have two recommendations. The minimum curve size recommended is 18-inch radius or 3 foot diameter. Remember the bigger the curve the better off you are, Powerline is designed to go round 18 radius curves many other brands are not. When planning hills, rises and gradients we recommend no more than 1 in 20. That is for every 20 centimetres you go along you should only go up 1 centimetre or for every 20 inches the rise should be no greater than 1 inch. Anything smaller than these recommendations is asking for trouble.
- 21 Powerline locomotives run on 12 volts DC (Direct Current). Do not use AC (Alternating Current) or more than about 14 volts.
- 22 HO scale is 1/87 or 3.5mm to the foot. That means that HO scale is 87 times smaller than the real thing and that one foot in real life equals 3.5mm in HO Scale. So in HO scale 3.5mm equals one foot in real life.
- 23 Powerline models are made from a high quality plastic and should not be left in direct/full sun light, should not be left in hot car and should not be place in front of operating or hot heaters. They will melt. You would be surprised about this tip.
- 24 For those who want to convert their Freight Rail 81 Class to Freight Corp, Powerline has the Freight Corp decals available.
- 25 On the Victorian passenger carriages the Argentine bogie was used on the Broad Gauge and the Commonwealth bogie is for the Standard Gauge. Powerline has both available so that you may emulate the period, passenger carriage and the gauge you want.
- 26 When painting a loco or wagon it is normally best to use a gloss finish or semi gloss finish paint. Firstly the paint tends to adhere better and you tend to notice mistakes or error more easily. Also decals tend to adhere and sit down better when applied to a gloss finish. When applying a decal a setting or decal solution like Solvaset or Microscale decal set are always a good idea especially over details like louvres, vents, grills and other fine details. Once painted, finished and decaled apply a dull coat finish. The dull coat finish removes the gloss look, hides the decal film, makes the decal appear more realistic and also provides a protective barrier.
- 27 The globes as used in the current production of 81 Classes are 1.5-volt globes. These are available as a spare part.
- 28 When considering DCC we recommend the use of the SM/1 PCB which has this has already been configured

to NEM 362 standard which is the 8-pin connection as also used by NMRA.

A brief look into DCC

Run your locomotives and not your track I am told. Then I am confronted by a plethora of brands including; Digitrax, Lenz, Roco, Motorola, Atlas, Marklin, Fleishmann, Selectrix, Arnold, Modeltrene, LGB, Ramtraxx, System One, Command 2000 by MRC, ZTC, NMRA DCC, Uhlenbrock and Noch. All with their own system and their distinct features. Then I am told when I buy one system that's the one I must stick to because they are not all compatible. Then there is the issue of power supplies, tailoring the power supplies and the wiring to suit my railway and its needs. Complicated to start with but I am told it gets easier.

DCC stands for Digital Command Control and the essence of this system is to control locomotives on the same section, circuit or block of track independently. Then there are the add on features such as lights, different locomotive sounds, horns, bells and other functions that can be independently controlled and switched off or on.

With DCC there are three basic parts; the command control or controller, the power supply and the decoder/chip. The main elements in the system are the command control and the decoder/chip.

The command control or controller is the panel at which you control the locomotives by selecting which locomotive you want, which functions (if the decoder allows for functions) are on and then you control the locomotive. When you have more than one controller you can control more than one locomotive totally independently.

The decoder or chip is the unit installed in the locomotive, which communicates with the command controllers. It has a designated address, which allows any command control on the system to select it. Through communicating with the chip the command control can activate and run the locomotive and switch on or off any functions which the decoder/chip supports.

Where the power supply is concerned the power goes through the command control placing full power to the track with the command control operating the locomotive via the decoder/chip. The whole idea is to reduce and simplify wiring. Yet this is not necessarily true when you get to reverse loops, where age old problems occur, and the wiring of accessories such as signals, point motors, snap relays and the stopping of trains at specific points like a red signal.

Then there is the problem of transportability of locomotives and systems. Quite a few of us enjoy going to a mates place or a club to run our locomotives. With DCC quite often this is not easily possible due to addressing of decoders, incompatibility of systems and the differences that do occur between products and the way people meet the problems.

Then there are the costs involved; \$1100 for a basic system, \$390 to \$1000 for a command control and \$35 to

\$450 per decoder/chip dependent on complexities and functions you want. Remember you need a decoder per locomotive and a command control or controller for each locomotive you want to operate.

DCC like all systems has its positives and its negatives as well as its supporters and its knockers. Do not get me wrong it is improving as technology and functionality improve and costs of getting in reduce. At present the vast majority of modellers in Australia are not interested in it, and use and demand is very low.

Complexity, cost, transportability, and compatibility have all contributed to the small impact of DCC in Australia. That is why the majority of Australian manufacturers have not adopted it or integrated the technology with their product. To do so would insulate their product and possibly cause its demise. With the current standard of controlling power to the track with 12 volts DC, any person can easily start up in the hobby and operate their train on virtually any layout or model railway.

This is all about to change. In 1998 a system was released which has since evolved and developed. This system can read, address and operate most DCC decoders and allows for an almost infinite number of locomotives to be operated independently as well as allowing multi lash ups. It addresses the issues of compatibility and transportability as well as letting you select how and what to run. By using this particular controller you can use any other firms decoder be it digitrax, Lenz, LGB, Roco, Marklin, Motorola old or new, selectrics, Ulenbrock, Noch and Arnold from N scale to G scale.

Stay tuned for more information or give us a ring if you are interested in such a system.

The Traction Tyre Issue.

Recently we had a phone call regarding traction tyres and why we still offer them as standard on all our locomotives. The simple answer is that traction requires grip, adhesion, and this is achieved by weight or the medium in contact with the base surface. For example most forms of motor transport have tyres as do aircraft and some trains.

Weight, horsepower and the adhesion between the wheels and the road are the important factors in traction. For instance a 48 Class weighs 70t, has 670 kilowatts and has metal to metal contact to replicate that in HO scale is about 800 kilograms, 7.7 kilowatts and metal to metal. Two of the three are not possible and the third is a less than satisfactory adhesive formula. So getting enough weight in scale models is not always possible to achieve maximum traction.

Traction tyres as used on model locomotives have been used for over 30 years in one fashion or another to improve adhesion and traction. Rubber or its clones, synthetic forms, have been recognised as the best medium to attain traction and that is why they are used on cars, trucks, buses, aircraft and other forms of transport. This why some manufacturers opted to use rubber tyres on model locomotives, to gain back traction lost due to lack of weight.

In the early days due to the forms of rubber used this met with problems such as excessive or poor wear, poor shape causing wobbles, slipping due to wear or oil and tyres keep slipping or falling off. Using rubber tyres also reduced the amount of surface area from which electrical current could be picked up. Also poor track work, steel track and bad conductivity only added to the problem. So many saw it as a negative move and claimed it was inferior. Improvements in track materials, Nickel Silver, improvements in material used in traction tyres, ie new and improved forms of rubber, improvements in producing the tyres, improvements in track work and the ease of laying track and improvements in electrical delivery and pick up has turned the balance.

Powerline is using the latest in technology in both the material used and means of production used. The results being a better traction tyre in material, finish, fit and longevity.

Overseas in places like the United States traction tyres are making a return and putting to rest old debates. In general terms they are not proto-typical but they do address problems concerning weight, adhesion and power. In 2000 the new release of 48 Classes proved this pulling 23 passenger carriages up a grade, incline, on the AMRA NSW Club layout. There have been no problems from the 2000 release of the 48 or 81 Class locomotives concerning running quality or pulling power. Traction tyres may not be correct and some may frown upon them but they meet a need. Traction tyres are no longer a negative or frustrating addition to locomotives but an asset in meeting the need for adhesion, increasing traction, and countering the lack of weight inherent in model locomotives. Traction tyres are not a compromise or a gimmick, they are a useful tool in providing adhesion. Remember the real locomotives rely on weight and horse power for adhesion and traction. There are some railway systems that do utilise rubber but in general most locomotives are too heavy and produce too much power for tyres to be used, model locomotives do not.

Many die hards will never be convinced and other people will want to be more proto-typical, so non-traction tyres wheels sets are available as are RP25 wheel sets. You will lose tractive effort, adhesion, but that is a price we pay. Powerline utilises traction tyres to provide a better median.

Fine scale wheels versus NEM, standard or larger flanged wheels.

To be honest this is a small debate and an issue that arises very in frequently. Most of the time it comes from manufacturers and the upper levels of modellers who really tend to make their own models and very rarely purchase ready to run models off the shelf.

In general fine scale wheels with smaller flanges tend to be used on finer scale tracks/rails due to necessity and/or the desire of the modeller to get closer in scale to the real thing. The result is the need for perfect track work, precision track laying and precision in all facets of model and scene building. This is due to the finer tolerances and the more sensitive nature of smaller rail and flanges. If track, track work and rolling stock are not right or near

perfect they will not run properly and will often derail and come off the track.

The vast majority of enthusiasts and modellers stick with code 100 Nickel Silver track because over time it has proven to be the best option and due its popularity the most readily available and an industry standard. Code 100 is the standard across the world and found in most train sets and is made by most manufacturers. With code 100 track you can run standard wheels, NEM wheels, and fine scale wheels like those in RP25. Code 100 Nickel Silver track is what we recommend and sell in our train sets and expansion packs.

The flange on a locomotive or rolling stock wheel is designed to keep the wheels and the rolling stock on the track. The deeper or larger the flange the less likely a wheel or piece of rolling stock is to come off the track. With a deep flange a locomotive and rolling stock are better able to with stand rough or poor track work, bad joins, bumpy track sections, bad gradients or inclines, slight kinks in the track and uneven track work. The finer the flange the less tolerant the wheels or rolling stock become and the more likely they are to come off the rails. The trick is not to go so deep or large that the flange rides on the sleepers or fowls on frogs and points, and not to go so fine that items keep coming off and derailling. For this reason Powerline reached a compromise in that we went for a flange with the best tolerance and the least likely to come off the track or be seen as too big. Yet we also allowed for the die hards by making sure finer scale flanges could be easily fitted.

For the every day modeller, starter, beginner and the person who just want as near to trouble free running as possible we recommend code 100 Nickel Silver track as produced by Atlas or Peco and standard wheels and flanges. We recommend fine scale tracks and flanges to those who have years of experience, who know what the problems are, who are willing to ensure their work and track is as near perfect as possible and who have the tolerance to sort out any problems which may arise.

The RC1 Model Railway Remote Radio Control System

This is now available in stores across Australia with four separate channels available. Check the label on the out side of the box for the channel of the individual unit. These units have been tested to comply with Australian standards concerning electrical equipment and radio transmitting devices. The frequency used is an approved frequency and will not interfere with alarms, roller door or other R/C devices.

Please note the manufacturer wishes to make it clear that this unit is compatible with all scales from N to G which operate on 12 volts DC and that information published in the AMRM is incorrect.

This unit is compatible with all 12 volt open frame and can motors but is not recommended for coreless or Portersgap motors.

Production & the Australian Dollar

As most of you will know the Australian Dollar has gone below fifty cents US and is rumoured to go under forty cents US. Since most of our contracts here and overseas

rely upon the US Dollar prices are expected to rise and sales of current product are not expected to raise enough to enable production to be paid for.

With out being dooms day merchants the warning is expect prices to rise. For this reason we have delayed further production to evaluate where our best out comes lie.

Exhibitions in 2001.

Warrnambool

This was our first exhibition for 2001 and a good start to the year. From Friday 12th Jan to Sunday 14th Jan this exhibition presented the public with some excellent layouts in air-conditioned comfort. G scale, On30, HO and N scale were all present along with trade stalls and raffle prizes. Layouts include Enterprise Gold Mine, an LGB shunting layout, Georges River and many more. A good day trip for a family outing as many people took a trip on the West Coast Railways. Maybe a Steam special next year would in order. This is an excellent exhibition for locals, beginners and general modellers.

Croydon

This outer Metropolitan show is always worth a visit. Often over looked by many I have always found Croydon to have the odd surprise. For those, like myself, who frequent many exhibitions, we tend become a bit blinkered and miss the trees in the forest. This exhibition included many good layouts in HO, N and On30 scales including Enterprise Gold Mine on its second outing. Croydon is always a good exhibition for locals and a must for modellers because some exhibits you don't see elsewhere.

Corio

This exhibition, usually on the Australia Day long weekend, is one of Victoria's biggest train exhibitions. For the model train enthusiast in Victoria this is a must visit. If you missed it this year, you missed another good exhibition. Corio has always been an excellent exhibition for Australian and American modellers and a real motivator for those amongst us who have lapsed or fallen. This years exhibition featured many good layouts and displays, too numerous to mention, and really sets the benchmark for exhibitions for country and outer Melbourne exhibitions. For those travelling from Melbourne this exhibition is an excellent excuse for a day trip by train. Plenty to see and always friendly.

Chelsea

Held over the Victorian Labour Day long weekend from March 10th to 12th this exhibition was an uncertainty being brand new and unknown. With 10 layouts, two demonstrations and other displays it was off to a good start but railway transport close by, air-conditioning, a friendly atmosphere and plenty of enthusiasm made it a winner. A G scale layout from Morwell, a WW2 Black & White layout in HO, a Lionel layout in O scale, 2 American N scale Layouts, an HOn2.5 layout based on Powelltown, Rippon Lea an Australian layout, Eddington a OO English layout, Georges River a mainline Australian layout and a free U-Drive by Remote control for all was only the beginning. Not to mention How to Solutions showing you

how to do trees and scenery and Dave showing you how to do plaster cliffs and rocky details, both talking to you and answering all your questions, this was good. A good exhibition for beginners and those interested in model railways.

Boxhill

Operated by the AMRA Boxhill is to be Camberwells replacement. A large and open environment with good natural light but lacking the finish that was Camberwell. On Friday and Saturday it was too warm, the carpet required attention and the natural light made layout light redundant with much detail being washed out. With 18 out of 44 displays being layouts this is very much a commercial exhibition. Layouts included Wills St, Broadford and Pound Creek Junction. This is an exhibition for local and interstate enthusiasts and established modeller who knows what it's all about.

Other Exhibitions for 2001.

Canberra	7 th & 8 th April National Hockey Centre
Bendigo	13 th to 16 th April McGillivray Hall B.R.I.T (TAFE) 136 McCrae ST Bendigo
Hobsons Bay	14 th to 16 th April Albert Park College Dank Street South Melbourne
Brisbane	5 th to 7 th May RNA Showgrounds Westpac Sheep & Wool Pav And Building 9 Brisbane
La Trobe Valley	9 th to 11 th June Morwell Campus Hall Kurnai College McDonald St Morwell
Adelaide	9 th to 11 th June Greyhound Park complex 55 Cardigan St Angle Park.
Stawell	July Drill Hall Sloane St Stawell
Newcastle	August 25 th & 26 th Basketball Stadium Broadmeadow NSW

See Powerline at one of these exhibitions. More to come and be confirmed at a later date; this is not the complete listing for 2001.

We attend and support more model railway exhibitions than any other group, company or business.

Apology

The SM/2 PCB. This was believed to have been sent with the Powerline shipment of 81 Class locomotives. After much searching and going through spare parts and the shipping list it was found that the SM/2 PCB had not been shipped. We thought it had been and had planned its release for those that wished to up grade their big locomotives from SM/1 to SM/2. To those of you who have been waiting for the SM/2 PCB, we apologise for the error in listing the part and giving the impression it would be available soon.

Please note the dual motored complete SM/2 mechanism is available ready to go in 81 Class and BL Class formats. These have been released and are now available in stores now.

G Classes and BL Classes.

In previous issues we informed readers where to find some of the rarer request locomotives. We stand corrected; there are less than 12 G & BL Class locomotives available in stores across Australia. At going to press we find that the Buffer Stop in Preston East, Village Hobbies in Keilor and PJs Hobby World in Monee Ponds, all in Victoria, have at least a G Class in stock.

We apologise for the oversight and to the best of our knowledge these are the last new G Classes in stores in Victoria.

Stock take note

With recent production and the re-release of train sets over 90% of the current Powerline range is available now. Freightline 81 Classes, Freight Corp 48 Classes, Austrac 48 Classes, AN 830 Classes and the Stealth 81 Class locomotives are all available. All NSW Tuscan coaches, Tangerine V/Line coaches, all VR Blue Art Deco coaches, all West Coast Railways coaches and all V/Line Passenger Corporation coaches are available. Most of our freight wagons, accessories, spare parts and Remote controllers are currently available. If you can not find these or other items in your local hobby store give us a ring and we will advise you of stores where product should be available or we will supply you directly at full retail price.

Here is a list of product currently available at the time of going to print. This product should be available through all Powerline Dealers across Australia.

RADIO CONTROLLED Transformer/controller

RC-1	Model Railway Remote Radio Controlled system, 12v 2Amps
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LOCOMOTIVES

81 Class

P204S	Stealth (8167 & 8175)
P206	Freight Rail (8108, 8181, 8184)
P207	Freight Rail (8177) dual motor

48 Class

P235B	Freight Corp (4806 & 4862)
P239	AUSTRAC (4814 & 4836)

830 Class

P237A	A.N (846)
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POWERLINE TRAIN SETS

PB001P NSW Pass Tuscan or Candy
PB001F NSW Freight
PB001S NSW Super Freighter
PB001D NSW Mixed Daily

FREIGHTLINE TRAIN SETS

FB001 Australian National
FB002 Southern Freight
FB003 Freight Corp
FB004 Western Line
FB005 Australia Wide

PASSENGER CARRIAGES

New South Wales

P420 FS Tuscan
P421 BS Tuscan
P422 BSR Tuscan
P423 MHO Tuscan
P424B KB Tuscan
P440 FS Candy
P441 BS Candy
P443 MHO Candy
P444 KB Candy

New South Wales Specials

P462 Red Cross
P464 "3801 Ltd" FS coach
P465 MHO BiCentennial

Victorian V.R

P434A Blue Art Deco AS/BS 1st/2nd
P435A Blue Art Deco BS 2nd
P436A Blue Art Deco AS 1st
P438S Spirit of Progress VRS Buffet

V/Line (Tangerine)

P455 BS Economy
P456 BRS Snack bar
P458S VRS Buffet

V/Line Pass Corp (Red/White/ Blue)

P475 BS Economy (3 numbers)

West Coast Railways (Blue & White)

P495 BS Economy (2 numbers)
P496 BRS Snack

COACH PACKS

P161 VR Red AS/BS/BRS
P162 VR Blue AS/BS/BRS
*P163 V/Line Tang Eco/Eco/BRS
*P163A V/Line Tang Eco/Eco/VRS
*P163B V/Line Tang Eco/BRS/VRS
*P181 NSW Tuscan FS/BS/MHO
P182 NSW Candy FS/BS/MHO
*P184 V/Line Pass Corp BS-3 No,
*P185 West Coast Rwy BS/BS/BRS

SCALE FREIGHT

P500 MHG Brake Van Black
P504 L550 Lab test car
P509 MHG Black undec
P510 BDX Gondola NSW Black
P511U NOBX-PTC Blue Undec
P512U NOBX-NSWR Indian Red Undec

FREIGHTLINE ECONOMY FREIGHT SERIES

Hoppers

P603 A.N (green)
P604 V/Line (Wagon Red)

Tank Cars

P641A Caltex (black)
P642 Golden Fleece (yellow)
P651A Ampol (black)

Gondolas

P671 V/Line (wagon red)
P672 S.A.R (light grey)
P674 A.N (green)
P675 B.H.P Steel (blue)
P676 BDX/NOBX Undec (yellow)
P678 Nat Rail (dark grey)

Flat Cars

P620U NFFX NSW (blue)
P689 Nat Rail (dark Grey)

Container Wagon

P620A Track Fast- NSWGR
P681 CSR – V/line
P683 Allied Pickfords-A.N

Containers 20 foot

P829 Undec White (pr)
P881 CSR green
P883 Allied Pickford orange

SPARE PARTS & ACCESSORIES

Couplings and Corridors

P1003t X2F (US) coupling (4)
P1006 Corridor Connections (2)
P1007 Compact coupler (4)
P1007A Draft Box coupler (4)
P1016 Tubular Corridor Conn (2)

Bogies: Pass & Freight. (packed as pairs)

P1102 2AN (BS/FS)
P1103 2BC (MHO/KB)
P1104E Freight bogie black
P1117 Argentine (Broad gauge)
P1118 Commonwealth black
P1118G Commonwealth grey

Other Coach/freight parts

P1108 Plastic wheels/metal axle
P1108A Plastic wheels and axles
P1109 Metal Wheels/axles
P1110 Coach window plugs

LOCOMOTIVE PARTS & ACCESSORIES

81/G/ BL current parts

P1201A 81 Power bogie W/motor
P1207 81 steps/brk wheel & M/UC
P1209C 1.5 volt light globes
P1211 Triple fan moulding
P1215 G/BL steps & M/UC
P1216 G/BL exhaust cover
P1217 81 exhaust cover
P1212A BL/G Power bogie W/motor
P1214A Power pick up strips
P1224A 81 Class chassis & mechanism
P1225A G/BL chassis & mechanism
P1290 PCB SM/1 (DCC 8 pin ready)
P1402 81 Class horns
P1404 Coupling screw & washer
P1405 Porthole round glass

81/G/BL Kadee @ Adaptors (complete pair)

P1218A-1 P204S Stealth-short
P1218A-2 P204S Stealth-long
P1218A-3 P218/9NR.BL-short

P1218A-4	P218/9 NR. BL-long
P1218A-5	P206/7 81 Frt Rail-short
P1218A-6	P206/7 81 Frt Rail-long
P1218A-7	P216/7 G V/Line-short
P1218A-8	P216/7 G V/Line-long

Wheels & Tyres to fit 48 Class & 81/G/BL

P1206	Traction tyres
P1219A	Wheel set w/gears w/tyres
P1219B	Wheel set, geared
P1500	RP-25 Wheels blackened
P1501	RP-25 Wheels Nickel Plated

48/830 Class Locomotive parts & Accessories

P1230	Power bogie with motor
P1232A	Motor & worm gear (mk3)
P1233	wheel set, non tyred
P1234	Gear Set
P1235	Complete Mk1 mechanism
P1236	Power bogie frame & centre
P1237	Unpwd bogie frame & centre
P1238	Kadee ® adaptor grey
P1238Y	Kadee ® adaptor yellow
P1239	Metal hand rails
P1240A	Buffers & buffer plates
*P1241	Plastic handrails (2)
P1243	Couplers (2)
P1244	Contact strip (2)
P1245	chassis casting Mk1
P1245A	chassis casting Mk3
P1246	Window Insets
P1247	Motor housing
P1248	Horns (2)
P1249A	Flettner vent (2)

DECALS

PDN001	Freight Corp logo for 81
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LINKLINE EQUIPMENT & PRODUCT

Locomotive

L201	A.N F3A Bo-Bo Australianised
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Link Line Train sets

LB000	Basic Set
LB001	South Australian
LB002	The Victorian
LB003	The New South Welshman
LB004	The West Australian

All LB sets feature L201 Loco, Nickel silver code 100 track and Powerline rolling stock, all top quality.

Track packs, expansion packs

TP-A	Track Pack A.
TP-B	Track Pack B.
TP-C	Track Pack C.

Presentation set

LLP001	Spirit of Progress boxed set
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These sets feature a Lima S-Class and 3 Powerline coaches, BS, BS and VRS.

Cork

L401	HO Cork (5 x 36") roll
L402	HO point Mats
L403	N Cork (5 x 36") roll
L404	N point mats

Controllers & Electrical

L700	Train set Controller, Basic
L701	Cable- Controller to track
L702	Push Button switch (4)

L703	SPDT Toggle switch (2)
L704	DPDT Toggle switch (2)
L705	DPDT Centre Off Toggle (2)
L710	Wire Red
L711	Wire Black
L712	Wire Blue
L713	Wire White
L714	Wire Yellow
L720	Wire Yellow/green
L721	Wire signal-4 colours

Items with an asterix (*) to be available by end of April. Please note some items, very few in fact, are in short supply and may be out of stock from time to time for up to a fortnight. All items listed are currently available.

Our aim in 2001 is for hobby stores and retailers who act as Powerline dealers to carry at least 1 of each item in our range at all times on shelves and on display. This is so people can walk off the street and have the opportunity to see and buy the Powerline range.

For inquiries regarding sales and supply of Powerline product by a retail outlet please contact Powerline Models Pty Ltd. Please note Powerline Models Pty Ltd only supplies bona fide's shops who have a shop front in a recognised retail district, a registered business open regular trading hours and who at the discretion of Powerline Models Pty Ltd meet the requirements of a Powerline dealer. Terms of trade also apply.

For all retail and customer based sales please write to or request to speak to Powerline Direct. Powerline Direct offer retail sales only to those people who are overseas, do not have access to a local hobby store and/or are unable to purchase products from their local hobby store which Powerline does have available. We are not in anyway competition to existing hobby shops and recommend people visit their local hobby shop for that person to person service that mail, fax, phone and e-mail can never replace.

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