



ROTARY DJ MIXER USER GUIDE

DN78
PHANTOM VALVE SERIES

A decorative horizontal flourish consisting of two symmetrical, flowing lines that curve upwards and then downwards, ending in small loops.

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Warranty

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Limited One Year Warranty

This product is warranted to be free from defects in materials or workmanship for period of one year from the date of purchase by the original owner.

To ensure a high level of performance and reliability for which this equipment has been designed and manufactured, read this User Guide before operating. In the event of a failure, notify and return the defective unit to SuperStereo.co.uk or its authorised agent as soon as possible for repair under warranty subject to the following conditions.

DATE OF PURCHASE

S/N

Conditions Of Warranty

1. The equipment has been installed and operated in accordance with the instructions in this User Guide
2. The equipment has not been subject to misuse either intended or accidental, neglect, or alteration other than as described in the User Guide or Service Manual, or approved by SuperStereo.co.uk
3. Any necessary adjustment, alteration or repair has been carried out by SuperStereo.co.uk or its authorised agent.
4. This warranty does not cover fader wear and tear.
5. The defective unit is to be returned carriage prepaid to SuperStereo.co.uk or its authorised agent with proof of purchase.
6. Units returned should be packed to avoid transit damage. In certain territories the terms may vary.

NOTE: Any changes or modifications to the console not approved by SuperStereo.co.uk could void the compliance of the console and therefore the users authority to operate it.

Important Safety Instructions

DN78 Phantom Valve Series User Guide

Read the following before proceeding

- 1. READ THIS USER GUIDE:** Retain these safety and operating instructions for future reference. Adhere to all warnings printed here and on the mixer. Follow the operating instructions printed in this User Guide.
- 2. DO NOT OPEN THE MIXER:** Operate the mixer with its covers correctly fitted. Disconnect mains power by unplugging the power cord if the cover needs to be removed for setting internal options. Refer this work to competent technical personnel only.
- 3. POWER SOURCE:** Connect the console to a mains power only of the type described in this User Guide and marked on the rear panel. Use the power cord with sealed mains plug appropriate for your local mains supply as provided with the mixer. If the provided plug does not fit into your outlet consult your service agent for assistance.
- 4. POWER CORD ROUTING:** Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against it.
- 5. GROUNDING:** Do not defeat the grounding and polarisation means of the power cord plug. Do not remove or tamper with the ground connection in the power cord.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- 1. WATER AND MOISTURE:** To reduce the risk of fire or electric shock do not expose the mixer to rain or moisture or use it in damp or wet conditions. Do not place containers of liquids on it which might spill into any openings.
- 2. VENTILATION:** Do not obstruct the ventilation slots or position the mixer where the air flow required for ventilation is impeded. If the mixer is to be operated in a rack unit or flight-case ensure that it is constructed to allow adequate ventilation.
- 3. HEAT AND VIBRATION:** Do not locate the mixer in a place subject to excessive heat or direct sunlight as this could be a fire hazard. Locate the mixer away from any equipment which produces heat or causes excessive vibration.
- 4. INSTALLATION:** Install the mixer in accordance with the instructions printed in this User Guide. Do not connect the output of power amplifiers directly to the mixer. Use audio connectors and plugs only for their intended purpose.

Features

DN78 Phantom Valve Series User Guide

- LED Clip indicator
- Wooden side panel
- 2 channel stereo mixer
- Stereo Fx send & return
- Valve (tube) output stage
- Audiophile grade op-amps
- Audiophile grade capacitors
- 24bit SPDIF output (optional)
- Push button PFL cue controls
- 3 band 'Isolator' on the output
- High power headphone output
- 3 band EQ control on each channel
- Precision Backlit VU meters (output)
- Push button cues with Cue indicator
- High grade toggle switches & knobs
- High quality Alps 'Blue Velvet' faders
- Input gain control giving up to 5 x gain
- Rotary cross-fader between CH1 + CH2
- 4 channel USB Audio (upto 32bit 384khz)
- 5 LED input monitor VU meter for each channel
- 2 line & 2 phono RCA inputs (Switchable to Line)
- RCA and XLR balanced output level (booth & main outs)
- A headphone cross-fader control between the output and cue channel



Introduction

The New DN78 Phantom Valve is a desktop analogue DJ mixer featuring 2 dual input channels, one mono mic channel, 2 stereo USB channels and features rotary faders and an optional rotary cross-fader.

The mixer is designed to the highest audio standard featuring a valve stage giving extra warmth and depth to the sound and is designed for professional DJ's, clubs and venues. It is laden with many features to enhance the DJ's performance and sound. We have used design principles found in the best studio and audiophile grade hi-fi to create a unique sounding mixer, which uses a combination of high quality op-amps, audio grade capacitors and quality audio faders, unlike the majority of DJ mixers.

Each of the channels is equipped with a standard 3 band baxandall type eq with between -26db and +16db of gain at specially selected musical frequency's.

A five times gain control and five point LED meters on each input channel allows for precise matching of input signal levels and smooth 'blue velvet' rotary faders ensure a perfect mix. Individual channels can be routed either side using the rotary cross fader.

The DN78 is also equipped with a very powerful Isolator on the output giving +8db of boost and total cut of three carefully selected frequency's. There is also a control to select the mid frequency range offering further cut of the lower end of that range up to the higher end. These filters have a wide 'Q' range to ensure they cover the full spectrum of audio.

There are two high grade phono stage preamplifiers with standard RIAA EQ to ensure faithful full range production from a standard MM record cartridge, which can also be switched to line input levels for convenience.

Uniquely offered on our rotary mixer is a high quality 32bit/384kHz four channel sound card built in to the DN78 Phantom Valve. The sound card uses a USB interface found in the best converters in the world and the latest delta sigma oversampling DAC's to give true studio quality playback, enabling easy integration to digital media. The USB interface can be used for playback from most popular DJ software platforms on both MAC and PC.

A high quality MIC channel with a single gain control on the back panel gives up to 56db of gain and feeds the signal over the stereo mix.

Quick Start Setup

DN78 Phantom Valve Series User Guide

DN78 Phantom Valve Series User Guide. It is important you read this guide before starting.

Plug in the power connector and twist the ring so its locked in place. Switch on the power switch on the external power supply so the blue LED is lit up. (if the LED is red, the internal fuse has blown - refer to fuses section). Check the Meters are lit up, power light is on and the valve is glowing through the front right panel. During the valve warm up the VU meters will light up red in the centre. Once they have gone out, the mixer is ready to use. Plug a Line source into a line input or a vinyl deck into a phono input (line switch off on the back panel) and ensure the ground wire is connected to the ground post. Move the input selector switch to either phono or line positions. Connect either the XLR or RCA main outputs (or booth) to your amplifier or speakers. The booth and master outputs both use the same high quality circuitry, so will sound the same. If you are using an unbalanced input to your speakers or amplifier, please ensure you use the RCA unbalanced outputs. It is important you do NOT use a balanced to unbalanced cable - ie an XLR to mono jack or XLR to RCA, where the ground of the XLR (pin 3) is connected to -ve (pin 2). This can cause damage to the output and cause the mixer to go into protection mode. The XLR outputs will give a higher output (+4db over the VU meter reading) and will be better quality if longer cables are required (The balanced outs are designed to drive cables over 100m long). Adjust the front panel gain control so that the third blue led and the forth purple LEDs on the input meter are lighting up on peak levels, the inputs can be driven so the 5th red LED is lit up without distortion, but it will restrict how much EQ boost can be used. The mid position of the gains is 0dB (unity).

Adjust the main channel fader to position 8 to 10 as desired and the 3 band eq to desired levels. Set the isolator to their centre positions. Please also ensure the mid freq control is fully turned round to the left, this will set the mid to its full range and with the other controls in the centre, this will ensure the isolator EQ is flat. There is also a bypass switch on the mid freq control which will switch the isolator out of circuit if desired. Finally adjust the master output so the master VU meters are showing 0dB to +3dB. This is an optimal level to get the best performance and sound. This level will also give you plenty of headroom when using the isolator on the master outputs. The DN78 is designed to run at much higher output levels (up to +12 to +18dB) without clipping. At higher output levels the valve will add natural 'valve compression' .

Please ensure when connecting the headphones that the level is at minimum. The DN78 headphone amplifier is designed to drive a wide range of headphone impedances at a high level. Plugging in headphones when the level is high can cause damage to your hearing and your headphones. The mixers protection circuitry can activate in some cases to protect your mixer and your headphones from damage. If this occurs (the meters will flash intermittently), simply turn the level to zero or re-plug the headphones. The electronic cue buttons allow you to select either or both channels at one time with the headphone cross-fader at the cue position, you can also review the mix by cross fading to mix position on the headphone cross fader.

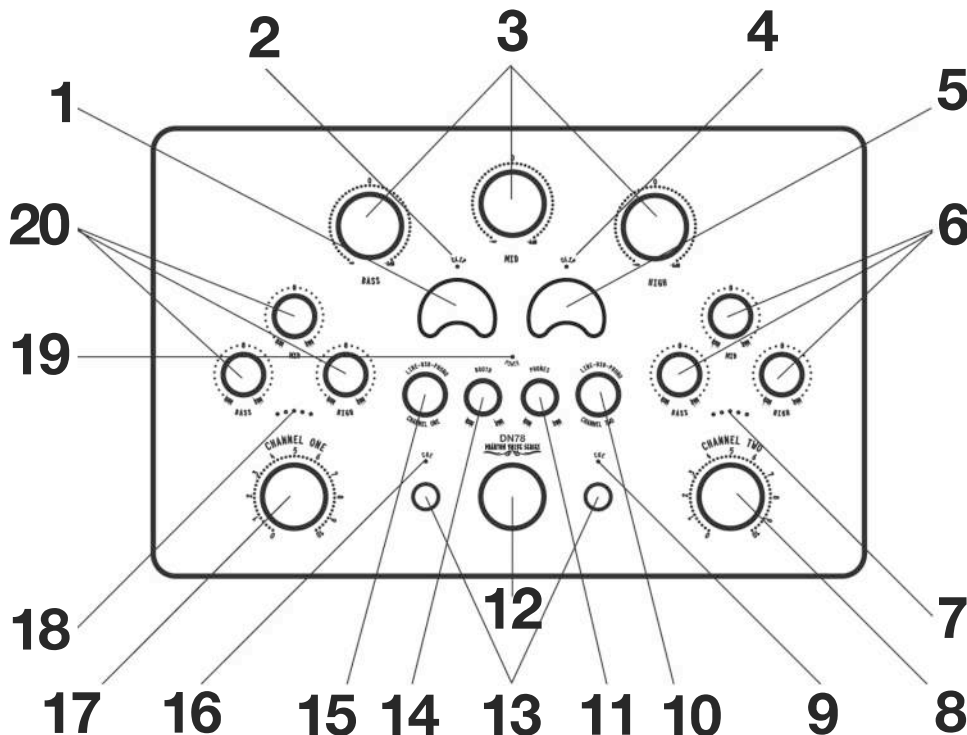
If you wish to use your mixer with the USB input, simply plug into your laptop and ensure the USB light on the front panel is lit up. Please ensure you have set your options in audio/midi setup on the Mac and you have downloaded and installed the driver for Windows. (details in the USB setup section). Select the USB on the input selector and you are ready to go. If the mixer has been switched on for a long period of time without USB connected, the soundcard can go into sleep mode. Simply power down, unplug the USB and switch on again and re-plug the USB to re-set.

When powering the mixer off, its ideal to turn down the master or booth levels as and off 'pop' can sometimes occur. The valve is designed to withstand shocks of up to 600g, even when hot, so you won't need to let the mixer cool down before moving. It is very rugged and is designed to be moved when hot. The DN78 is also equipped with a high quality protection circuitry to protect the mixer from damage during any faults. The meters will flash on and off 1-2 times per second, if this occurs please switch off the mixer and refer to the faults section. This will occur is you have an output cable fault, headphone fault, low or poor mains supply or an internal fault within the mixer.

Top Plate

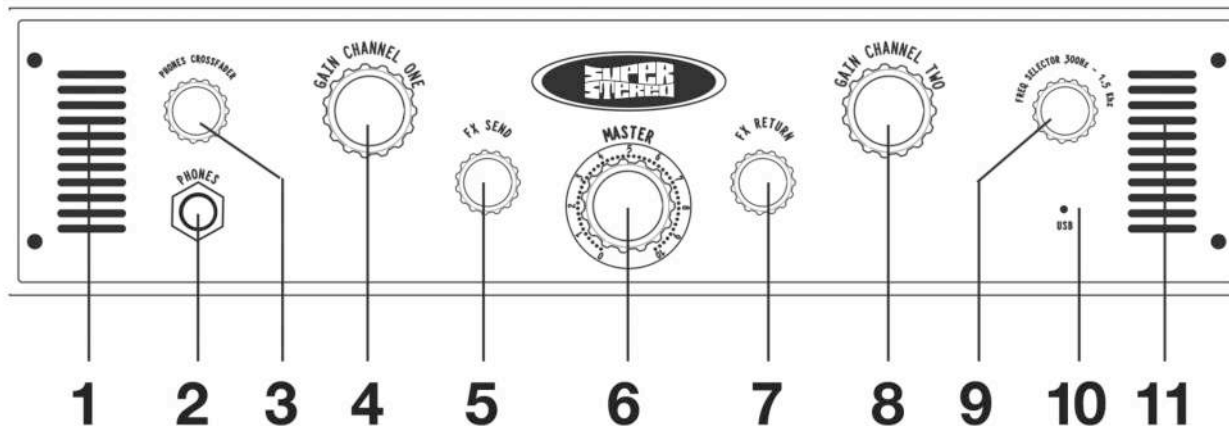
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1. Vintage VU Meter Left (Master)
2. Clip LED Left
3. Isolator Bass/Mid/High
4. Clip LED Right
5. Vintage VU Meter Right (Master)
6. 3-Band EQ Channel Two
7. LED VU Meter Channel Two
8. Level Control Channel Two
9. CUE LED Indicator Channel Two
10. Line/USB/Phono Selector CH Two
11. Phones Level Control
12. Crossfader Control
13. Cue Switch Channel One/Two
14. Booth Level Control
15. Line/USB/Phono Selector CH One
16. CUE LED Indicator Channel One
17. Level Control Channel One
18. LED VU Meter Channel One
19. Power Indicator
20. 3-Band EQ Channel One



Front Panel Drawing

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1. Left vented to improve air flow

6. Master Level Control

11. Right vented

2. Phones Jack Input

7. FX Return

3. Phones Crossover

8. Gain Channel Two

4. Gain Channel One

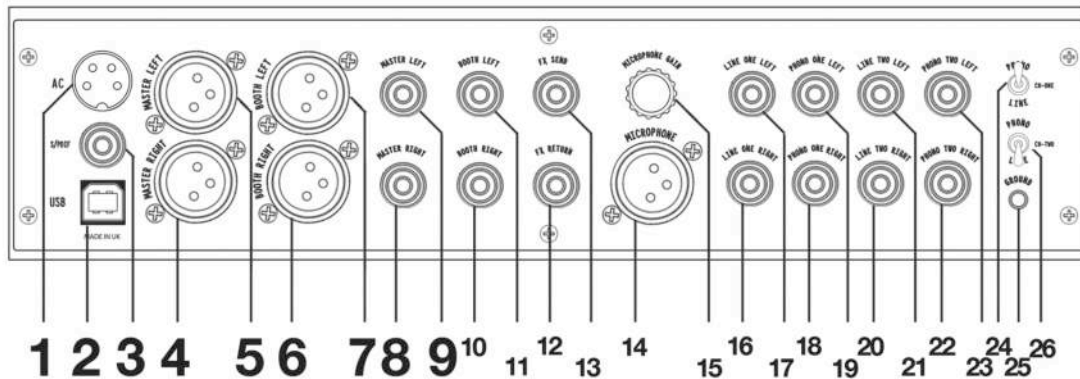
9. Frequency Selector 300Hz - 1.5KHz

5. FX Send

10. USB LED

Rear Panel Drawing

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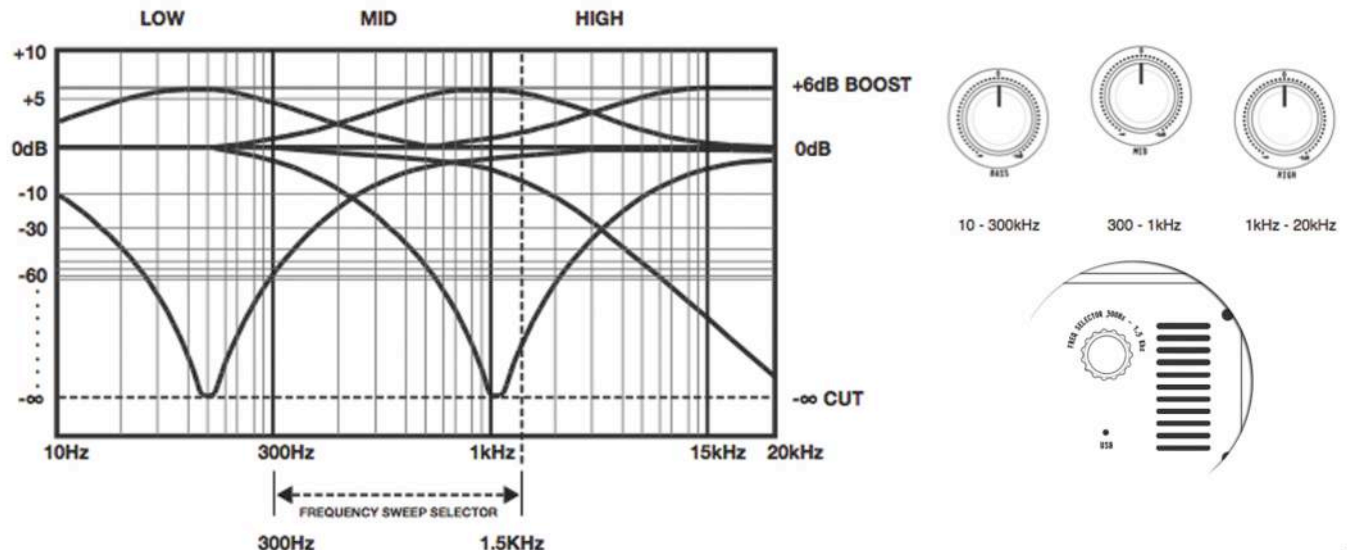


1. AC 4 Pin	8. Unbalance Master R	15. Mic Gain Control	22. Phono Two R
2. USB Input	9. Unbalance Master L	16. Line One R	23. Phono Two L
3. S/PDIF Input	10. Unbalance Booth R	17. Line One L	24. Phono - Line CH One
4. XLR Master R	11. Unbalance Booth L	18. Phono One R	25. Ground
5. XLR Master L	12. FX Return	19. Phono One L	26. Phono - Line CH Two
6. XLR Booth R	13. FX Send	20. Line Two R	
7. XLR Booth L	14. XLR Mic Input	21. Line Two L.	

Isolator

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The DN78 Phantom Valve Series is armed with a very powerful isolator (low-pass, band-pass, and high-pass) which basically is a high quality, standalone three band EQ, connected to the master output. In contrast to traditional EQ's (which are normally not used for the purposes of mixing) but instead to excite the sound and add colour to your set. Isolators also reach wider frequency ranges, smooth pots, high quality audio circuits, and much more gain and cut per band. The DN78 Phantom Valve Isolator has been carefully designed for all sound systems. We also have implemented on it a Frequency Selector Knob acting like a parametric in the MID range between 280Hz to 2kHz.



Power Connector

DC power input is a multi-pin socket for connection to the external power unit using the DC cable from the external PSU. Align the orientation lug and press the plug in until it clicks. Push the button on the plug to release. Only connect to the correct Superstereo DN78 power supply specified for the console. Do not attempt to modify the cable or power unit in any way. Failure to observe this may result in damage to the console. The power unit has a blue status LED indicator on its top panel, this will remain lit for a few minutes after the power switch has been switch off, while the supply discharges, this is normal.

Powering On

The DN78 power unit has two mains voltage settings, 115 and 230V AC. First check that the setting is correct for your local mains voltage. Please see diagram for switching between mains voltages. Remove round dust cap and use a small screwdriver provided to switch to the desired input voltage, the switch will show which voltage it is set at. Please note: Damage will occur to the PSU if operated at the wrong voltage causing the fuse to blow. To avoid audible switch-on thumps, turn the master volume and booth volume controls down fully as well as connected power amplifiers down or off before **switching** the console on or off. Ensure that the IEC mains plug provided is pressed fully into the panel socket and the DC cable locked in place in the back panel before switching on.

Level - Gain

Adjusts the input sensitivity from -8dB to its maximum +8dB gain. Correct use of this control makes it impossible to overload the input preamp. Adjust it so that the meter averages around '0' with loudest peaks up to '+6'.(3rd blue LED to 4th purple LED) 0db (Unity) is set with the gain control at the centre position.

Input Meter

This has 5 LEDs which display the level from -18dB to +10dB relative to the normal 0dB operating level. It is peak responding so that it can accurately display fast music peaks. The stereo L and R signals are summed to feed the meter display, post channel EQ. Turn back the gain control if the red '+8' LED lights. Although there is still plenty of headroom above this level, it is important to prevent very high channel levels which could overload the mix if sources are being mixed together. 0 DB is indicated by the 3 blue LED and the 4 the purple LED which 1st lights up at +2 DB.

Outline

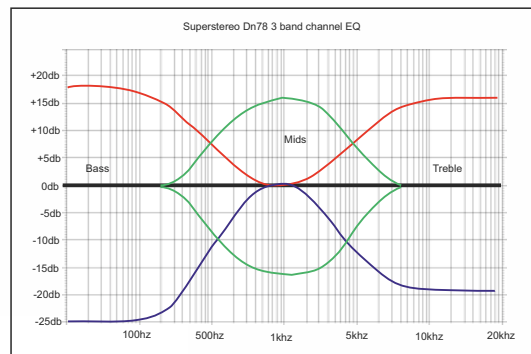
Channel Controls

2 Input channels are provided. Each has switchable inputs for three stereo sources. Line, USB and phono (RIAA) inputs. The Phono input passes through an RIAA equaliser. This compensates for the response of the turn table pickup cartridge and results in the desired flat frequency response. Note that the RIAA equaliser can be bypassed using switch s 1 and 2 if you want to use the inputs for additional line sources instead.

Equalizer

The DN78 is equipped with a carefully selected frequency, variable 12dB per octave bauxandall, powerful 3 band EQ stage providing a controlled +16dB of boost when fully clockwise and -16dB when fully anti-clockwise for each shelving band. The mid frequency gives a +/- 18db of cut and boost with a wider 14dB per octave 'Q'. Centre frequencies are set at:

Bass - 180hz +18db to -26db
Mid - 950hz +14db to -14db
Top - 5Khz +14db to -14db



Rotary Fader

Each channel has a large rotary fader for precision control of its level when mixing. This type of control provides far greater accuracy than the typical linear fader found in most DJ mixers. It uses the renowned Alps 'Blue Velvet' oil-damped potentiometer for smooth movement, accurate control and long life. The rotary ranges from fully off when anti-clockwise to fully on at unity gain (0dB) when clockwise. For best performance operate these controls near to their fully clockwise position for normal music level.

Master Controls

The Master is the main output that feeds the sound system. An overall Master Level Controls the output levels to both the RCA (0dB) outputs and Main professional balanced XLR's outputs (+4dB). For normal operation the master level control should be used near to or at its fully clockwise position. This should match most systems.

Booth Controls

The DJ's local loudspeakers are fed from the console BOOTH output. The booth mix is sourced from the master mix. As with the master outputs, the booth outputs are available on both RCA (0db) and via professional balanced XLR's (+4dB).

Booth Level

Controls the overall level of the booth mix. It ranges from fully off to 0dB unity gain. For normal operation it should be used near to or at its fully clockwise position.

Crossfader

The rotary crossfader gives a smooth crossfade between channel one and channel two. The centre position, there is a detent on the fader which gives the precise even mix between the 2 channel. The "shape" of the Crossfader response is a gentle curve for smooth, long running fades. There is a slight 1dB increase in level when turned fully clockwise or fully anti-clockwise.

The Meters

The input channel meters are peak responding. The LEDs have a very fast attack and slower decay to display the music peaks. The main meters are the moving coil VU type with damped mechanical action displaying the average music level. It is typical for the VU meters to read lower than the LED type. Music averaging around '0' on the main meters may be peaking around '+4' or so on the input meters. If the music is heavily compressed this difference may be less. The main VU meter clip indicators are set at +8dB (+12dB on XLR outputs) the clip indicators will indicate that distortion on the output will start to occur. Due to the high dynamic range of the DN78 outputs of over +12dB (+16dB on the XLR's) are possible without distortion.

Headphones Controls

The DJ headphones is signal sourced from the main mix and switched cue system. Headphone sockets are provided on the front panels. The cue switches are electronic push button system, providing greater reliability and sound quality. A led provides indication of operation.

Cue / Mix

This control balances the level of cue signal and main (music) signal in the headphones. Fully anti-clockwise, only cue signal is routed. Fully clockwise, only main mix. At centre position (detented), equal cue and main mix signal is mixed together. Use the control when auditioning new tracks and experimenting with how they may sound when added to the mix. Phones level Controls the overall level of the headphones. It ranges from fully off to maximum volume. The DN78 is designed to operate with headphones in the range 8 to 600 ohms. For best performance we recommend the high quality 70 or 100 ohm type popular with top DJs. The output volume will differ depending on the impedance of the headphones.

Important Note about Hearing: *The DN78 is equipped with a very powerful headphone amplifier. To avoid damage to your hearing do not operate any sound system at excessively high volume. This also applies to any close-to-ear monitoring such as headphones. Continued exposure to high volume sound can cause frequency selective or wide range hearing loss.*

Connectors

Channel

Each channel has two stereo inputs. CH1 & 2 provide line and RIAA inputs. L and R inputs RCA phono sockets. The Phono input provides gain and RIAA equalisation for turntable cartridges. Note that CH1 & 2 have toggle switches to disable RIAA if you want to use the inputs for additional line sources. The LINE inputs have a maximum gain of +10dB to accept signals as low as -10dBu. Connect the ground wires of the turntables to the ground terminal post provided. **NOTE:** Please ensure the Phono/Line switch is in the Phono position when connecting a vinyl deck, if a line level signal is fed into the input while in the Phono switch position, damage can be caused to the Phono input stage and sound system the mixer is connected to.

Effects Send

A stereo effects send is provided by a single TRS stereo jack socket. It provides a stereo output feed pre-isolator and post channel EQ and is controlled by the effects send control on the front panel. It gives a +10dB output with the tip as the left output and ring as the right output. The signal can then be used to feed an external effects unit. It can also be used as an extra output or for recording.

Effects Return

A stereo effects return is provided on a single TRS stereo jack socket. It provides a stereo return from -10dB to +10dB of return signal from an external effects unit. The signal is returned post Isolator and controlled by the effects return control on the front panel. The tip is the left input and ring is the right input. The effects return can also be used as an extra input from other sources such as a music player or other line sources.

Mic Input

Balanced XLR, pin 2 hot. Maximum gain available is +60dB. We recommend you use a dynamic microphone designed for the vocal application. This should be low impedance (less than 600 ohms), balanced and have a cardioid response to avoid feedback problems. We also recommend the use of a balanced XLR cable to reduce noise and hum. If an unbalanced cable is used please ensure the – ve (cold) pin to be connected to ground. (pin 1) Please note the microphone channel is a simple microphone pre-amp designed for a wide range of dynamic microphones for MC's or announcements and does not provide phantom power. It is not designed as a high quality recording channel.

Master & Booth Connectors

The master and booth mix to feed the house/DJ monitor system is available on four pairs of sockets, 2 x XLR and 2 x RCA's.

Connectors

XLR

Electronically balanced, wired pin 2 hot. Output level is +4dBu when the MASTER level control is fully clockwise and the VU meters read '0'. The XLR output is designed to operate with balanced equipment such as professional amplifiers or mixing desks. Only use the XLR output with balanced equipment. Do not short the pin 2 or pin 3 signals to ground as this will degrade the performance. For unbalanced connection use the RCA output.

NOTE: that levels of greater than +12dB and +16dB can be expected from the output from the unbalanced and balanced connectors respectively.

Booth

The XLR and RCA booth output feeds the DJ's booth amplifier / loudspeaker system.

USB

The USB input socket is located at the rear of the mixer and provides 4 channels of studio quality audio from your computer into channel one and two on the mixer. It is a one direction only sound card and can run any audio file from Mp3 to high resolution 32bit 384KHz, on Mac and PC. It uses the latest Burr Brown converters with multi oversampling technology and very high quality USB interface for true studio quality sound.

Operating Levels

The best performance can only be achieved if the system levels are set within the normal operating range and not allowed to peak. Peaking simply results in signal distortion, not more volume although the DN78 has been designed to run at high output levels without distortion, clipping and distortion will occur if run at maximum output. It is the quality of the sound that sounds better than greater volume.

The Meters

The input channel meters are peak responding. The LEDs have a very fast attack and slower decay to display the music peaks. The main meters are the moving coil VU type with damped mechanical action displaying the average music level. It is typical for the VU meters to read lower than the LED type. Music averaging around '0' on the main meters may be peaking around '+4' or so on the input meters. If the music is heavily compressed this difference may be less. The main VU meter clip indicators are set at +8dB (+12dB on XLR outputs) the clip indicators will indicate that distortion on the output will start to occur. Due to the high dynamic range of the DN78 outputs of over +12dB (+16dB on the XLR's) are possible without distortion.

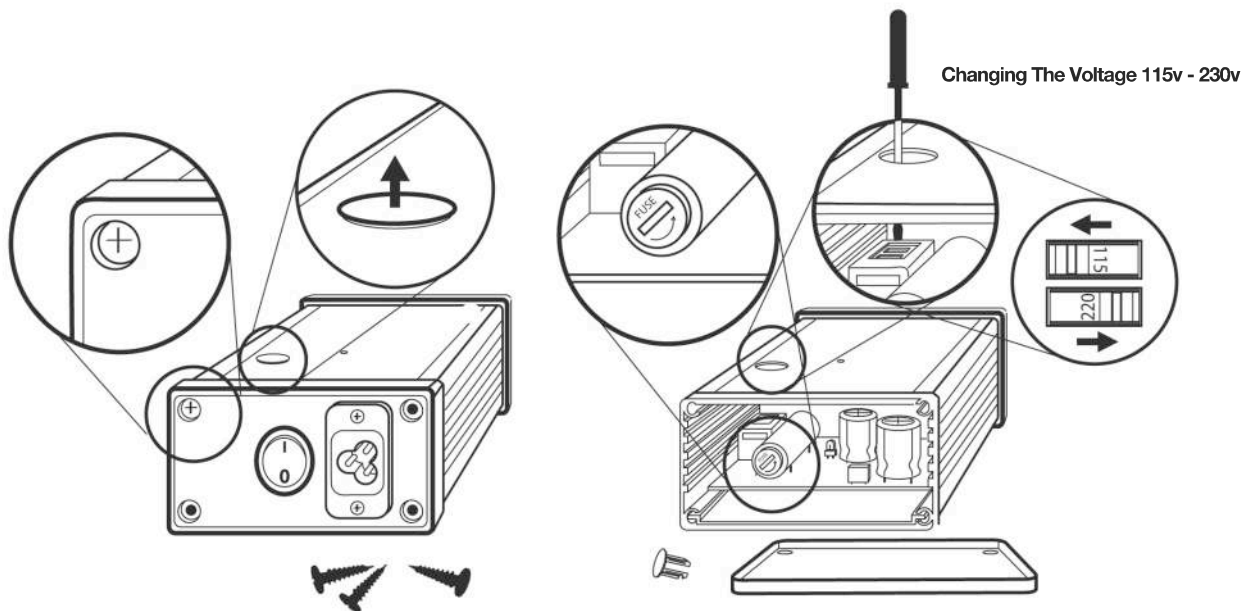
Pad attenuation switch

There is a small toggle switch on the base of the mixer which will reduce the master output by -6db and roll off the bass at 20hz by a further 14db. This is designed for smaller sound systems or for small speakers that cannot cope with a lot of sub bass frequency's. It also allows you to drive the output and valve with more signal to get greater valve compression sound. The outputs will show the slight drop in level.

Transformer

Changing The Fuse

The power supply is equipped with an internal fuse. Please only change with the same type and value of 600ma, 250v 20mm type. To release the fuse please see diagram to remove front panel. The fuse is released by using either a flat blade screwdriver or can be done by hand, by pushing down on the fuse holder and turning ¼ turn to release. The DN78 is equipped with 2 electronic fuses which will trip in case of fault. They will reset automatically when the power is removed for 1 minute. If the fault still occurs please contact your supplier. To switch the console switch the power switch to the 1 position on the external power supply. The VU meters and blue power LED on the console will light up. The VU meters will also light red in the centres of the meters for around 1 minute while the valve stage warms up to full operating temperature. During this time the sound may be faint or distorted. This is normal.



Earthing

The connection to earth (ground) in an audio system is important for safety to protect the operator from high voltage electric shock. Audio performance can be effected when earth (ground) loops occur, which result in audible hum and buzz, and to shield the audio signals from interference. The DN78 has an earth lift switch located on the base of the mixer, and indicate with a label showing earth lift, when the switch is in the lift position the DN78 is electrically isolated from the audio ground for better audio performance, this also helps to prevent earth loops from poorly grounded equipment connected to the DN78 and faulty cables. When switched towards the earth symbol of the mixer, the case and electrical ground will be connected to the mains earth and power supply case.

The external power supply case is connected to mains earth to help prevent electrical shock. It is important this electrical ground is not removed from the plug.

For safety it is important that all equipment earths are connected to mains earth are not removed so prevented from carrying possible high voltage to the Dn78. It is recommended that a qualified system engineer check the continuity of the safety earth from all points in the system including microphone bodies, turntable chassis, equipment cases etc.

The same earth is often used to shield audio cables from external interference such as the hum fields associated with power transformers, lighting dimmer buzz, and computer radiation. Problems arise when the signal sees more than one path to mains earth. An 'earth loop' (ground loop) results causing current to flow between the different earth paths. This condition is usually detected as a mains frequency audible hum or buzz.

To ensure safe and trouble-free operation we have isolated the electrical ground from the mains ground and isolated the case when in earth lift position. Make sure that turntables are correctly earthed. A chassis earth terminal is provided on the console rear panel to connect to turntable earth wires. Use low impedance sources such as microphones and line level equipment rated at 200 ohms or less to reduce susceptibility to interference.

Ventilation

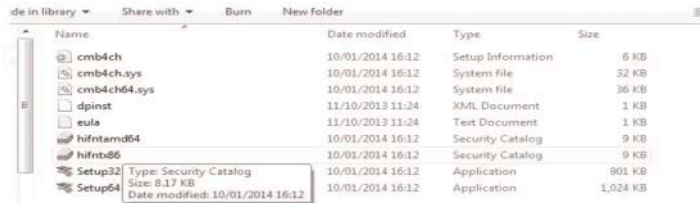
It is not recommended to use the DN78 in ambient temperatures greater than 40 degrees centigrade for long periods of time. It is recommended to use suitable ventilation at all times of operation to prevent over heating and damage. An over heating indicator will light in the form of the VU meters lighting red when internal temperatures reach a critical level. Please switch off the unit and allow to cool for up to 45 minutes before continued use, or damage may occur. Please ensure nothing obstructs ventilation flow of the base of the unit and the side vents on the front, this could cause damage through over heating.

USB & Driver Setup

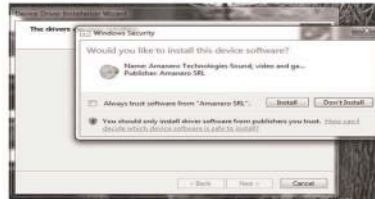
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USB installation for Windows PLEASE NOTE: Do not plug the sound-card into your PC before installing the driver software.

1. Download the driver from www.superstereo.co.uk.
 2. Unzip the file into a folder of your choice.
 3. Open folder superstereo windows driver 2, and then superstereo driver folder.
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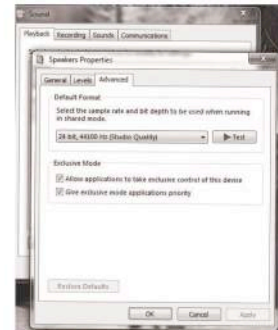
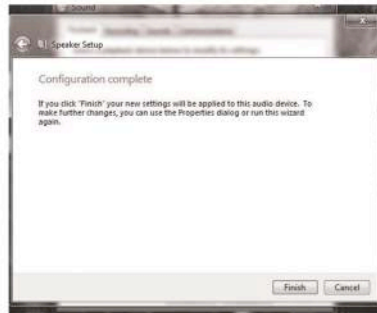
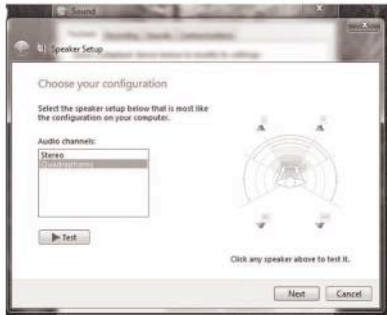


4. Run either setup 32 for windows xp or 32bit win7, or run setup64 for 64 bit versions of Win 7 & 8.



USB & Driver Setup

5. Follow on screen instructions, pressing install option when asked to install driver software.
6. Once you have pressed the finish button, you can then plug the USB cable from the DN78 into any available port.
6. A message will pop up to say the SUPERSTEREO driver is installed.
7. To configure the soundcard for use goto Hardware and sound in the control panel and click on Manage audio devices.
8. Select the SUPERSTEREO speakers option and click configure.



9. For four channel operation click on Quadraphonic or on stereo if 4 channels are not required (stereo will default to channel 1 on your mixer). click next
10. Click finish, to complete.
11. To change sample rate and quality follow steps 7 & 8 but click on properties instead. Click on advanced.
12. Select your desired sample rate and bit rate.
13. Your DN78 is now ready to use with most DJ software.

For MAC:

Simply plug your DN78 mixer into an available USB port and your mixer is ready to use with any professional DJ or music software. If you are not getting any sound or its distorted, open the application MIDI and Audio setup. Select Superstereo driver and select the required sample rate 44.1, 48, 96 or 192Khz as it will usually default to 385khz which is out of range of our DAC's. Once selected go into configuration and select 4 channel mode if you require all 4 channels or 2 channel mode for 2 channels, which will default to Channel one on the DN78.

Specifications

DN78 Phantom Valve Series User Guide

PHONO STAGE: RIAA - 47kohm, S/N 102dB 3 to 100mV. 300pf, Moving Magnetic pick up. MC switch optional - 100 - 300 uV - 300pf. Standard RIAA curve. Switchable to line inputs.

·LINE IN: >47k ohm -10 to +15dBu. S/N 104dB

USB AUDIO: 32 bit @ upto 384kHz. 2 x 2 In. S/N <112 dB D/R. Win & Mac OSx - Plug and Play for Mac

·MIC INPUT: >600 ohm, -47dB to -10dB. Gain +60d

MIX OUT: (XLR) Servo Balanced XLR male >600 ohm +4dBu.

·BOOTH OUT: (XLR) Servo Balanced XLR male >600 ohm +4dBu

·MIX OUT & BOOTH OUT: Unbalanced, RCA. 0dB 47 ohm

·MAX OUTPUT LEVEL: (XLR) Booth and Master. +24dB. (RCA) Booth and Master. +20dB

EFFECTS SEND/RETURN:: 47K ohm, +18dB. Stereo TRS, Tip L, Ring R.

ISOLATOR: LOW 0-280Hz, MID 260Hz – 2K, HIGH 2K – 20k (12db/octave) -inf. to +8dB. Flat at centre/Bypass

·FREQUENCY RESPONSE: 4Hz – 28kHz +/- 1db

·3-band baxandall EQ per channel: Bass 180hz -26db to +15dB, Mid 900hz +/-12dB, Top 5khz +/-12db

·CHANNEL GAIN: -18db to +16db. HEADROOM: +25dBb · NOISE: -98dB Ave. Distortion < 0.05% THD+noise @1kHz @ +20db

Crosstalk < -90dB between channels 1 & 2

·Channel separation > -85db Signal to Noise ratio > 95db

Headphone Amp: 900mw into 16 ohm. 30 - 120 ohm recommended

Channel meters, peak reading 5 LED -18, -10, -4, 0, +4db

·Main Meters PPM/VU -20dB to +9dB, LED CLIP: +9 db

Record out mini jack - 0db impedance 47k - Direct valve, fixed output.

·AC mains 110 and 240V AC @ 50-60hz. Consumption 28W max

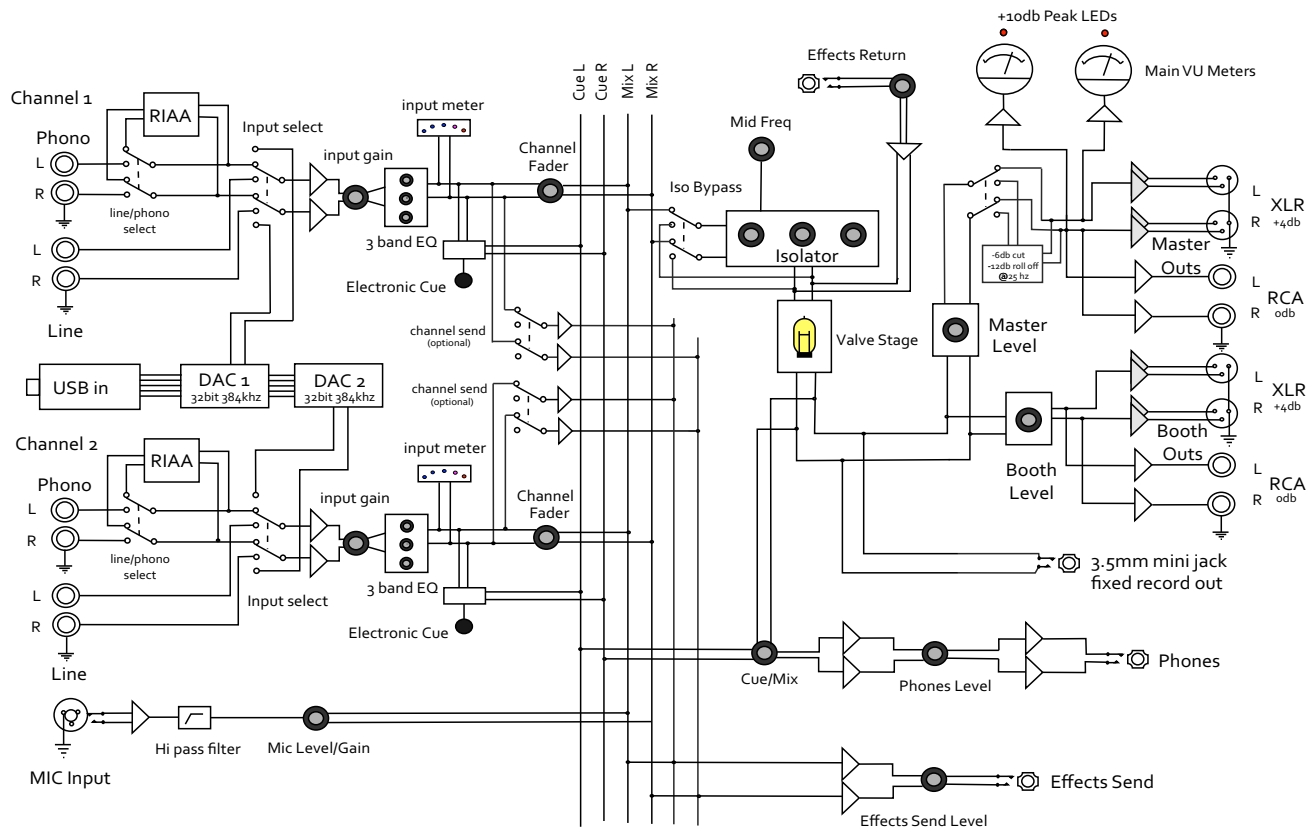
Fuse rating 100-250v T600ma

·Mains In, 3 pin T5 cable earthed.

·VALVE: JRP 5760/ 396a / 2c51 dual triode, triple silver mica. recommended change every 1200 -2000 hours

System Block Diagram

DN78 Phantom Valve Series User Guide



Notes

DN78 Phantom Valve Series User Guide



www.superstereo.co.uk DN78 Phantom Valve Series VERSION 1.0 - MMXIV Made in United Kingdom

