

# Nigel B.

## DESIGN CATALOG

*Includes the new Limpet*



Published July 2007 Rev 5



## MICROPHONE/LINE LEVEL MIXERS



NB-MLM MIC / LINE MIXER



NB-MLM MIC / LINE MIXER WITH RS 232



### NB-MLM SELECTABLE INPUT/OUTPUTS

Input via 5 Pin Balanced Line In, Inputs also allow User to Switch between 2 Mic and 1 Line, or 2 Line In and 1 Mic.

### NB-MLMPL WITH RS 232 AMX® OR CRESTRON® CONTROL SELECTABLE INPUT/OUTPUTS



Input via 5 Pin Balanced Line In, Inputs also allow User to Switch between 2 Mic and 1 Line, or 2 Line In and 1 Mic.

Part #	Description	List Price
NB-MLM	Mic / Line Mixer	\$ 249.95
NB-MLMPL	Mic / Line Mixer with RS 232 AMX/Crestron Control	\$ 349.95
NB-12DCP	Power Supply 120 v -12v DC 300 mAmp	\$ 29.95

## ***MK 2 PROJECTOR POLE BRACKET***

Patent applied for

*This Versatile Bracket can be used with many different products, it can be fitted to any 1 1/2" Pipe typically used to mount Projectors or Screwed to any Flat Surface saving you both time and money*



**NEW Increased Size**  
**Perfect for the**  
**Crestron® QM-RMC**  
**or AMX® N Series**



Mounting holes allow the Pole Mount to be fitted to any Flat Surface

Internal Dimensions: 6" Wide x 5" Deep 1.75" High

### ***SOME OF THE MANY PRODUCTS THAT CAN BE INSTALLED***



Nigel B Design Amplifiers



AMX® NI 700/900



Crestron® RM-QMC



Extron® Modules



"U" Bolt on Pole

### ***ONLY TWO & HALF INCHES HIGH ARE NEEDED ON A TYPICAL INSTALLTION***

Each Bracket is secured to any 1 1/2" Pipe or a Projector's Pole using a Simple "U" Bolt (which we supply). When using two Brackets "side by side" to install both the Amplifier and Power Supply, allows the Projector to sit within two inches of the Ceiling. This reduction in height is achieved by using two sets of offset Bracket holes, keeping the two Brackets on the same plane.

### ***EXAMPLES SHOWING HOW THE UNIVERSAL BRACKET CAN BE USED***



70 v Amplifier



AMX N 700



Crestron® QM-RMC



Amplifier & Power Supply



Extron® Versa Tool Module



Bracket on Pole

Part #	Description	List Price
NB-M2PMB	Universal Projector Pole or Wall Mount Bracket	\$ 79.95



## **RACKFRAME SYSTEM™** **1U RACKFRAME/SHELF**

*Fits any 19" Rack Enclosure requiring only 1 U of Rackspace*

This allows you to fit all 1/4 Rack Nigel B™ Amplifiers and Modules, or any Extron® 1/8 or 1/4 Rack Versa Tools® Modules. You can also add any Custom Made Connecting Panels of your choice.



Each RackFrame Shelf is purchased as an "individual" unit, allowing you to add our 1/4 Rack Amplifiers, Modules or Blanking Panels to the Frame exactly as you want them installed.



**RackFrame Shelf shown populated with Extron & Nigel B Modules**



**PREDRILLED FOR ALL NIGEL B™ AMPLIFIERS, MODULES & EXTRON® VERSA TOOLS® UNITS**



**Underside of RackFrame Shelf showing predrilled Mounting Holes**

The RackFrame Shelf is predrilled making installation of any Nigel B™ Amplifier or Module, or any Extron® Versa Tools® Units, a simple matter of using (2) 440 x 1/4" long screws to attach the different units to the Rack Rails.

### **GENERAL NOTES & INSTRUCTIONS**

A series of eight holes on the Front of the Frame are provided for future units. When installing Nigel B™ Amplifiers and Modules, it will be seen that one or two Front Panel Screws have to be removed, before attaching the (2) Underneath 440 Screws.

1. First remove either one or two of the Amplifier's Front Panel 6.32 x 1/4" Long screws, then attach to the underneath (2) 440 screws.
2. Finally replace the Amplifier's 6.32 Screws attaching them through the appropriate Rack's Front Holes.

### **SUPPLIED HARDWARE**

(4) 10.32 X 1/2" Truss Head Screws are provided with each RackFrame Shelf when attaching the unit to the Rack Rails.

Nigel B Amplifiers, Modules and Blanking Panels for installation into the Rack Frame Shelf are supplied with the necessary hardware at the time of purchase.

Part #	Description	List Price
NB-1USHE	1U Rack Shelf Frame	\$ 119.95
NB-1BP	1U Blanking Panel	\$ 19.95



**Nigel B Design, Inc. CA, USA. Tel: (818) 487-9323 Fax: (818) 766-9805**  
**Web Site: [www.nigelbdesign.com](http://www.nigelbdesign.com). E-Mail: [sales@nigelbdesign.com](mailto:sales@nigelbdesign.com)**





## NEW PLENUM EQUIPMENT BOXES

**Meeting NEC & UL Code Requirements for the Installation of Equipment and Power in the Plenum or Ceiling Space**

Size increased to 14" x 14" and almost 5" high with new Mounting options that allow many different types and sizes of equipment to be installed inside its extremely Strong Aluminum Interior. For example, some of the many products from Companies such as Crestron®, AMX®, Altec Lansing Commstar®, Extron® and all Nigel B Products etc, have been Installation Tested

### PLENUM EQUIPMENT BOX MOUNTING OPTIONS

Plenum Equipment Boxes can be installed anywhere. The examples below give you some idea how flexible the new units are:

1. The NB-PLWB comes with a Flat Surface/Wall Mount, allowing the Plenum Equipment Box to be attached to any Flat Surface or Suspended using our new Hanging Kit.

2. Our new Hanging Kit in conjunction with the NB- PLWB allows the entire Plenum Equipment Box to be suspended directly above the Projector above the Ceiling Tiles, or anywhere in the Ceiling Space when the Cables are attached to a structural Member to NEC Code Requirements. Each Cable is rated up to 65 lbs.



3. The NB-PEBPM Pole Mount Plenum Box attaches to any 1 1/2" Pipe, used to Pole Mount most Projectors.

**Helps eliminate Theft by Hiding everything out of Sight**

**Making for a tidier installation**



**Flat Surface or Wall Mount**



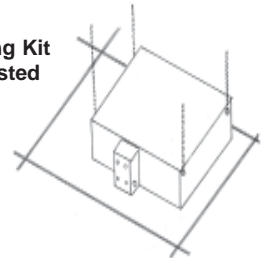
**Model NB-PLWB Plenum Equipment Box with Flat Surface Mount attached**



**1 1/2" Pole Mount**



**NB-PLHK Optional Hanging Kit is UL & CSA Listed**



### WIRING AND CABLE ENTRY

More than enough Wiring and Cable Entry and Exits Ports are provided. For the Pole Mount Version, most Cables are run inside the Pole. In addition 1 Port is for Power and an additional one is available for other uses. For the Flat Surface Mount/Hanging version, one is used for Power and two additional ports are available for connection to 1/2" conduit.

### THE PLENUM EQUIPMENT BOX WEIGHT CAPACITY

The Box is made from .060" Superior Grade Aluminum and each Mount is made from 16 ga Steel. The Plenum Equipment Box and its Mounts will easily take a combined weight up to 50 lbs.



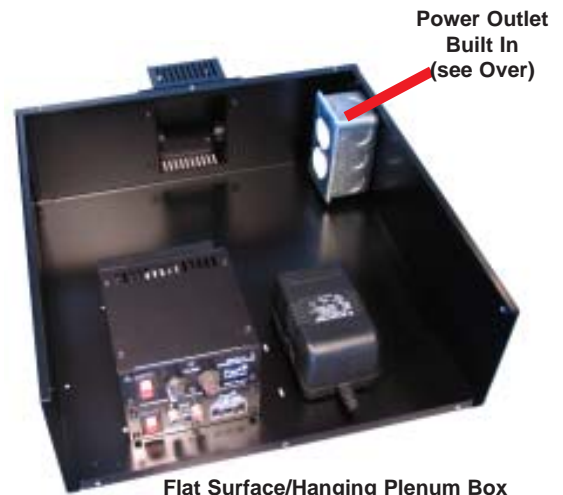
**Power Outlet Built In (see Over)**

**Need more outlets for your equipment? (see solutions on next page)**



**Cover is easily removed for access at any time**

**Interior Views showing some equipment installed**



**Power Outlet Built In (see Over)**

### ROOMY INTERIOR PROVIDES ENOUGH SPACE FOR ANY EQUIPMENT

Regardless of the type of Mounting used, both have an interior dimension of 14" x 14" by almost 5" high, making this Equipment Box suitable for many different types of product to be installed inside.

### COOLING THE EQUIPMENT INSTALLED INSIDE

We use Conventional Cooling Methods for cooling. The Pole Mount version allows air intake through the bottom of the Pole and exhausts any warm air from the Plenum Box through the top of the pole. Slots in the top and bottom of the Flat Surface Mount allow air to pass through the unit. This we call the Chimney Effect which allows the inside of the Plenum Box to remain cool.

**Please turn over for Pricing and other Information**

In order to meet NEC and State Code regulations, it is important to understand the main parts of the Code that regulate how equipment and wiring can be installed in a Plenum or Ceiling Space.

NEC ARTICLE 400-8 and 400-8(5).....page 219 of the code states: That Flexible Cords and Cables are not permitted to be run through Walls, Structural ceilings, Suspended Ceilings, or Dropped Ceilings. In addition the revision to 400-8 specifically prohibits these cords being used without being properly enclosed. Regulations also prohibits the Installation of open Power Outlets in these spaces.

**Our Plenum Box encloses all Wiring and Cables including the Power Recepticle meeting all NEC Code Requirements**

To Ceiling Speakers



Power Supply to Projector

Line In to Amplifier



Pole Mount Installation

The Supplied Power Outlet is



installed **Inside** all Plenum Boxes to meet NEC Code Requirements

Need more outlets for your equipment?



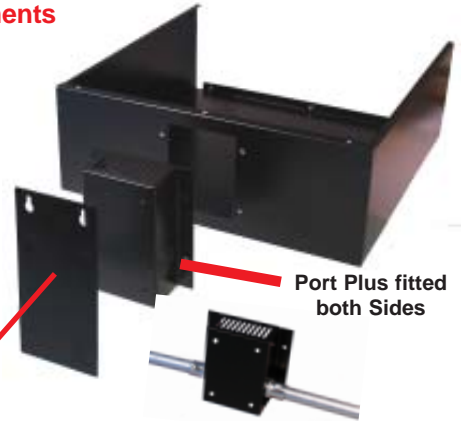
Simply add one or two 3 Outlet Taps or a Power Strip to the receptacle inside

Using the supplied Flat Plate allows the Plenum Box to be fixed to any Flat Surface



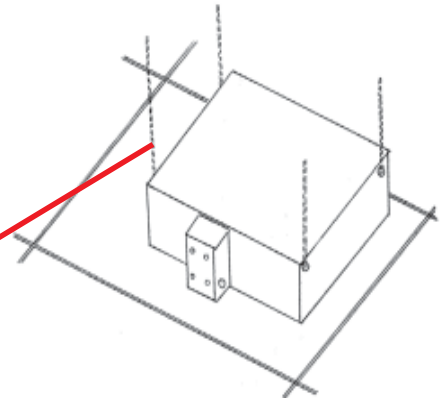
Eye Bolts are attached to each corner of the Plenum Box

The Hanging Kit is UL & CSA Listed and is rated with a safe working load of 100 lbs



Port Plus fitted both Sides

By removing the supplied Port Plugs, standard 1/2" Conduit can be used to provide Cable Entry & Exit Points



Hanging Plenum Box Installation

**CONTROLLING NIGEL B AMPLIFIERS**

Our Standard Amplifiers are usually controlled using the Projector's Remote, our Plus Series Amplifiers have an RS 232 Port, enabling them to be controlled by an AMX® or Crestron® or similar Touch Screen

**IF YOU NEED TO INSTALL THE PLENUM EQUIPMENT BOX BELOW THE CEILING TILES**

Because the Pole Mounted Plenum Box uses standard 1 1/2" Pipe fittings, the equipment box can be attached to the Projector's Pole

**SPECIFICATIONS**

Interior Dimensions: 14" x 14" x 4.75 High

Weight: 5 lbs

Part #	Description	List Price
NB-PEBPM	14" x 14" Plenum Equipment Box with Pole Mount	\$ 299.95
NB-PLWB	14" x 14" Plenum Equipment Box with Flat Surface Mounting Box	\$ 299.95
NB-PLHK	Hanging Kit with all Hardware for Flat Surface Mounting Box	\$ 79.95

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Web Site: [www.nigelbdesign.com](http://www.nigelbdesign.com). E-Mail: [sales@nigelbdesign.com](mailto:sales@nigelbdesign.com)



# MODEL 75 MINIATURE STEREO AMPLIFIER

**PERFECT FOR 4 OR 8 OHM SPEAKERS**

**With 45 watts RMS Output  
Twice the power  
of any similar size Amplifier**



SUPPLIED WITH PHOENIX® (EURO STYLE)  
PLUGS FOR  
FASTER CONNECTIONS

## SELECTABLE INPUTS

**For Unbalanced, Balanced or Bridged Modes**



## SIZE VERSUS PERFORMANCE

When compared to other Amplifiers such as the Extron®, which is a similar size, but only half the Output, or Larger Units such as the Crown® D 45, or Toa® Units which have a similar output to ours, in all cases, side by side Listener Tests show a preference for our unit. Our smaller size Amplifier is the result of advanced Electronic Design and Surface Mounted Components for improved reliability and Performance.

## SMALL ENOUGH TO FIT ANYWHERE

A wonder in miniaturization this **COOL RUNNING** Amplifier weighs under 12 ozs. and fits in the palm of your hand. Four units can be installed in one Rack Space. Installers are also finding many different uses for this compact Amplifier as its size allows it to be **concealed or used in many Small Spaces.**

## PERFECT FOR ALL CEILING MOUNTED PROJECTORS -EVEN FLAT PANEL MONITORS

With 45 watts RMS Output, the Amplifier can be coupled with either 4 or 8 Ohm Speakers for a clarity of sound not usually found in Commercial Amplifiers.

## PROTECT YOUR INVESTMENT WITH OUR LIMPET ALARM SYSTEM

The Limpet Alarm System can be attached to any Equipment you want to protect 24/7  
Press the [Products Button](#) and select The Limpet



## AMPLIFIER SPECIFICATIONS

45 watts Stereo into 4 Ohms  
(22.5 watts per Channel)  
45 watts Single Speaker when Bridged  
Can be used with 4 or 8 Ohm Speakers  
75 watts Peak Music Power  
Frequency Response: 15 Hz - 22 kHz  
Signal to Noise Ratio: -65 dB  
Total Harmonic Distortion: .003 dB  
Dynamic Range: 115 dB  
Overload Protection: Built In  
Phoenix (Euro Style) Connectors

## DIMENSIONS

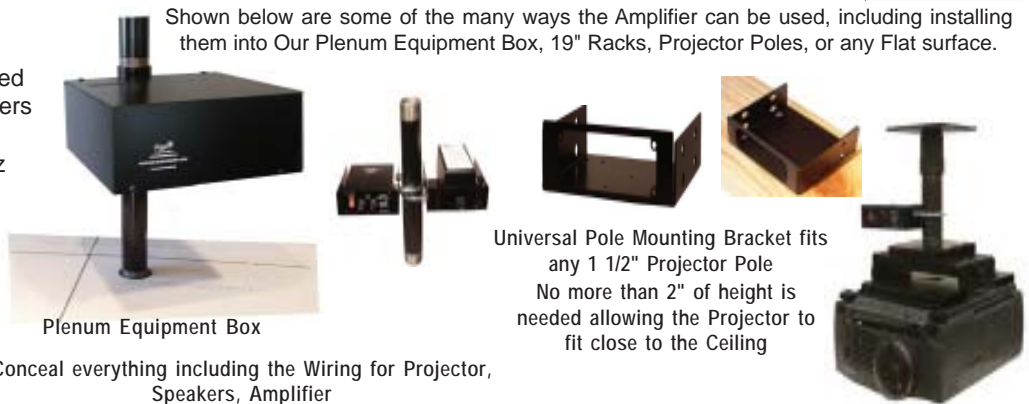
4.3"w, 1.75"h, 4"d  
Weight: 12 ozs

## REQUIRED OPTION

Power Supply, UL / CSA Listed  
110V - 12V 4.5 Amps AC

## MOUNTING OPTIONS

Shown below are some of the many ways the Amplifier can be used, including installing them into Our Plenum Equipment Box, 19" Racks, Projector Poles, or any Flat surface.



Plenum Equipment Box

Conceal everything including the Wiring for Projector, Speakers, Amplifier

**INSIDE** the piping & Box using only 7" of Plenum Space and mount the Projector below the Ceiling Tiles.

Universal Pole Mounting Bracket fits any 1 1/2" Projector Pole  
No more than 2" of height is needed allowing the Projector to fit close to the Ceiling

The Universal Mounting Bracket used to mount the Amplifier on to a Projector's Pole



Allows all modules to be installed into any 19" Rack

## 70 VOLT AMPLIFIERS

Press the [Products Button](#) to see our range of 70 /25 v Amplifiers that can send Audio over several Zones or can be controlled via their RS 232 Port in either Stereo or Mono.

1	NB-2075	Model 75 Stereo 45 watts RMS Amplifier	\$ 299.95
2	NB-PS75	Power Supply 117v - 12v AC 4.5 Amps for above	\$ 49.95

**Nigel B Design, Inc. California, USA. Tel: (818) 487-9323 Fax: (818) 766-9805**  
**Web Site: [www.nigelbdesign.com](http://www.nigelbdesign.com). E-Mail: [sales@nigelbdesign.com](mailto:sales@nigelbdesign.com)**





# 70 VOLT, 25 VOLT DUAL ZONE AMPLIFIER

45 WATTS RMS, SELECTABLE BETWEEN MONO & STEREO

Chose Either Single or Dual Zone Modes

(see Instruction Sheet)

ADC

AUTOMATIC DETECTION CIRCUIT  
TURNS THE AMPLIFIER ON AND OFF

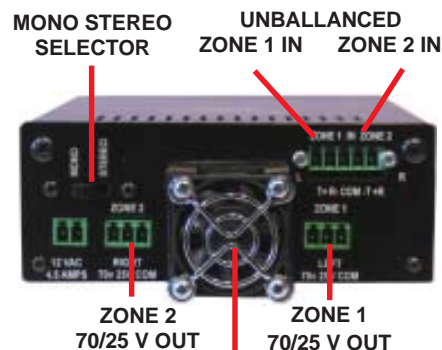


TO CONSERVE ENERGY

**SMALL SIZE - LIGHT WEIGHT**

Smaller Than two VHS Tapes

4.3" w x 6.75" d, 1.75" h



FAN TURNS OFF  
AUTOMATICALLY WHEN  
AUDIO IS NOT PRESENT

## THE AUTOMATIC DETECTION CIRCUIT

This Energy Efficient Amplifier turns itself ON within 2 milliseconds of hearing an Audio Signal. This eliminates any Clipping. If no Audio Signal is detected the Amplifier will automatically go into a "Sleep" mode until a Audio Signal is again applied.

## NEW ADVANCED CIRCUIT DESIGN FOR SUPERIOR SOUND QUALITY

Dual Zone capability allow the Amplifier to be set up with Two totally different Inputs going to two totally different Outputs. Each Zone puts out 22.5 Watts Mono, In Stereo Mode 45 watts to one Zone or 22.5 watts to each Zone. Our Advanced design also allowed us to incorporate an Improved output stage using Tuned Autoformers rather than "Off the Shelf" Transformers for superior Sound Quality.

## MULTIPLE MOUNTING OPTIONS

The Installer is not limited to how and where the Amplifier is placed. Using the Plenum Rated Box allows everything to be hidden in the Plenum or Ceiling Space. For Below Ceiling Installations the Projector Pole Bracket with the Amplifier installed takes up only 2", allowing the Projector to sit very close to the Ceiling Tiles. Or use the 19" Rack Shelf that holds four Modules for installation into any 19" Equipment Rack.

## SPECIFICATIONS

### AMPLIFIER SECTION

45 watts RMS Selectable Stereo/Mono

Two Zone Input

45 watts Stereo to One Zone

22.5 watts to Two Zones Mono

15 Hz-22 kHz Frequency Response

115 dB Dynamic Range

95 dB Signal to Noise Ratio

.003 Total Harmonic Distortion

### ADC CIRCUIT

Automatic On 2 milli seconds

Automatic Off 30 seconds

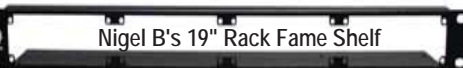
### TRANSFORMERLESS OUTPUT SECTION

2 70/25v Custom Autoformers (Built In)

For Superior Performance



The Pole Mounting Bracket can be  
used in Single or in Space Saving Paired Configurations



Uses 1U Rackspace and holds four Modules



Plenum Equipment Box



The Limpet Alarm System for  
24/7 Set & Protect all your Equipment

Allows all the Equipment to be concealed  
in the Plenum or Ceiling Space

Amplifier shown mounted  
on the Projector's Pole

## Rear of Unit Connections

Dual or Single Zone

Selectable Inputs

Mono/Stereo Switch

Dual or Single Zone Outputs

Power Inlet

### DIMENSIONS:

4.3"w, 1.75"h, 6.75"d

Overall Depth 8" inc Fan

Weight: 32 ozs

## REQUIRED OPTION

Power Supply UL / CSA Listed

110v - 12v AC 4.5 Amps

Part # NB-70AMP	70/25 volt 45 watt RMS Stereo Amplifier.	List Price \$ 399.95
Part # NB-PS75	Power Supply.	List Price \$ 49.95
Part # NB-M2PMB	Projector Pole / Wall Mounting Bracket	List Price \$ 79.95
Part # NB-PEBPM	Plenum Equipment Box (Pole Mount Version)	List Price \$ 299.95
Part # NB-LSAS	The Limpet Electronic Alarm System	List Price \$ 189.95
Part # NB-1SHE	1U RackFrame Shelf	List Price \$ 119.95
Part # NB-1BP	1/4 Rack Blankng Panel	List Price \$ 19.95

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Web Site: [www.nigelbdesign.com](http://www.nigelbdesign.com). E-Mail: [sales@nigelbdesign.com](mailto:sales@nigelbdesign.com)







# 45 WATT **PLUS SERIES** AUTOMATIC AMPLIFIER

Part # NB-2052PL Requires NB-PS75

**45 WATTS RMS INTO 4 OHMS OR 8 OHM FOR MULTIPLE SPEAKER INSTALLATIONS FOR SUPERIOR SOUND OUTPUT IN EITHER MONO OR STEREO MODES**



(See Below)

TWO WAY RS 232 PORT FOR CONTROL FROM ANY AMX®, OR CRESTRON® CONTROLLER OR OTHER DEVICES

ACCEPTS BALANCED OR UNBALANCED INPUTS FOR STEREO OR MONO OPERATION



AUTOMATIC DETECTION CIRCUIT

**Turns the Amplifier On and Off Automatically**



**TO CONSERVE ENERGY**



AUTOMATIC FAN CONTROL  
FAN TURNS OFF AUTOMATICALLY WHEN NO AUDIO IS PRESENT

## SUPER FAST - ADC - AUTOMATIC DETECTION CIRCUIT - ELIMINATES CLIPPING THE SOUND

A wonder in **ENERGY EFFICIENCY** this **COOL RUNNING AUTOMATIC** Amplifier turns itself on in less than **2 milliseconds of detecting an Audio Signal**. When no Audio signal is detected it will automatically turn itself off after about 2 minutes, unless the Audio is restored before the cutoff period, at which time the unit will repeat the Active Mode until finally no signal is detected.

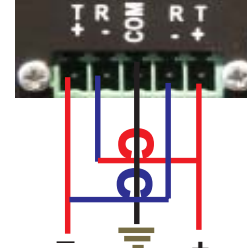
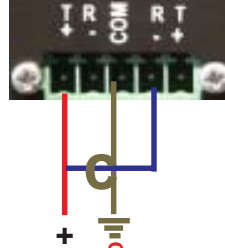
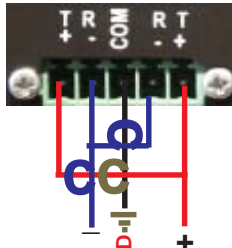
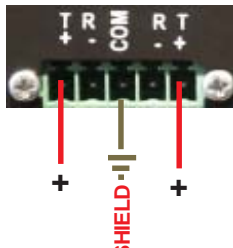
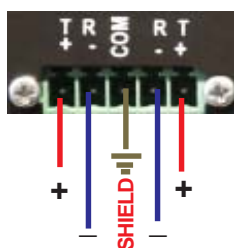
BALANCED STEREO

UNBALANCED STEREO

BALANCED DUAL MONO

UNBALANCED BRIDGED MONO

BALANCED BRIDGED MONO



PHOENIX TYPE TERMINALS FOR FAST CONNECTIONS

## AUTOMATIC INTERNAL CONFIGURATION OF THE LINE INPUT

Internal circuitry enables the user to configure the Amplifier to be used in either Balanced or Unbalanced Modes depending on the connections used. Shown above are the different Line In Connections that allow the Amplifier to accept either Balanced or Unbalanced Stereo, Balanced Dual Mono or Balanced Bridged Mono Inputs, depending on the user's requirements.

## RS 232 PORT FOR TOTAL CONTROL

The Amplifier provides Two Way Communication supporting almost any Control Device including AMX, Crestron Control Devices. Currently the Amplifier can receive and confirm the following Commands:  
Volume - Left Channel, Right Channel, Up and Down and Mute. As On and Off are an Automatic Functions of the Amplifier there is no need to provide these from the RS 232 Port.

In addition, Software Controllers such as Stardraw, Girder Commercial etc that use Global Cache allow these functions to be made from any Computer or PDA Device.



**AMX and Crestron Certified Partners**

**Please turn over for Mounting Options and Specs**



**The Limpet  
for 24/7 Set & Forget Protection  
for all your Equipment**



The Projector Pole Mounting Bracket attaches the Amplifier on to a Projector's Pole or any Flat Surface



Using the Projector Pole Mount, no more than 2" of height is needed between the Projector and the Ceiling Tiles



Up to four Amplifiers can be fitted taking up only 1 Rackspace

### **NEED TO HIDE THE EQUIPMENT IN THE PLENUM**

Hidden from view our new Plenum Rated Equipment Box allows the Amplifier, Power Supply, AC Receptacle and all the Cables to fit inside. All Cable runs are routed internally, so that the entire unit meets UL 2034 and all Electrical Codes for **Plenum Rating. Because the entire assembly is hidden, the chance of theft is eliminated.**

Our Plenum Rated Equipment Box contains a 1 gang Receptacle for powering both the Amplifier and any other equipment concealed inside

### **AMPLIFIER SPECIFICATIONS**

45 watts Stereo into 4 Ohms  
(22.5 watts per Channel)  
75 watts Peak Music Power  
Frequency Response: 15 Hz - 22 kHz  
Signal to Noise Ratio: -65 dB  
Total Harmonic Distortion: .003 dB  
Dynamic Range: 115 dB  
Overload Protection: Built In  
All Screw Connectors

### **AUTO POWER SAVING MODE**

Power is reduced to 250 milliamps in Stand By Mode

### **REQUIRED OPTION**

Power Supply UL/CSA Listed  
110V - 12V 4.5 Amps AC



### **USES STANDARD SERIAL CABLE (NOT SUPPLIED)**

The RS 232 Port is a **Two Way Device** that receives its instructions from a variety of Controllers such as AMX or Crestron and Software such as Stardraw, Girder Commercial or Spinoza in conjunction with Global Cache or by using Web Servers such as Crestron's QM-RMC or AMX's NI 700 & 900 Units. Once commands are received by the Amplifier, confirmation is sent back to the Control Device.

### **CUSTOM APPLICATIONS (EXTRA COST)**

### **RS 232 PORT SPECIFICATIONS**

The Protocol can be downloaded from our Web Site free of charge or you can contact our Program Engineer for specific Control Functions that you may want to be programmed.

Part #	Description	List Price
NB-205PL	Plus Series Automatic Amplifier with RS 232 Port	\$399.95
NB-PS75	Power Supply 120 v -12v AC 4.5 amps	\$ 49.95
NB-PEBM	Plenum Equipment Box (Pole Mount Version)	\$299.95
NB-M2PMB	Projector Pole/Wall Mount Bracket ( New Size)	\$ 79.95
NB-LSAS	The Limpet Electronic Alarm System	\$189.95
NB-1SHE	1U Rack Shelf Frame	\$119.95



# 70 / 25 VOLT PLUS SERIES AUTOMATIC AMPLIFIER

45 WATTS SUPERIOR SOUND OUTPUT IN EITHER MONO OR STEREO MODES

Balanced or Unbalanced and can also be Bridged  
For Perfect Sound using either 4 or 8 Ohm Speakers

(See Below)

RS 232 PORT  
FOR CONTROL FROM ANY COMPUTER  
SCREEN, AMX®, CRESTRON® OTHER  
DEVICES\*

ACCEPTS BALANCED OR  
UNBALANCED INPUTS FOR  
STEREO OR MONO  
OPERATION



Light Weight, Small Size and almost  
three times the power of our  
nearest competitor



AUTOMATIC DETECTION CIRCUIT

ADC

**TURNS ITSELF ON AND OFF AUTOMATICALLY  
TO CONSERVE ENERGY**



\* STARDRAW, USING  
GLOBAL CACHE.  
IT CAN ALSO BE CONTROLLED

## RS 232 PORT FOR TOTAL CONTROL

The Amplifier supports almost any Control Device including AMX®, Crestron® Devices. Users have complete control from any Computer Screen or Web Server using the Crestron QM- RMC or AMX NI Series Units. The Amplifier can also be controlled from a PDA.

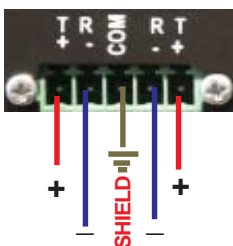
## SUPERIOR SOUND QUALITY

Unlike our Competitors our Transformerless 70 / 25 Volt Amplifiers use Custom made Autoformers that are carefully matched and optimized for superior Sound Quality - whose quality cannot be beaten regardless of cost.

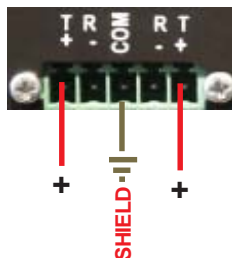
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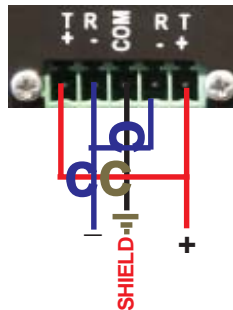
BALANCED STEREO



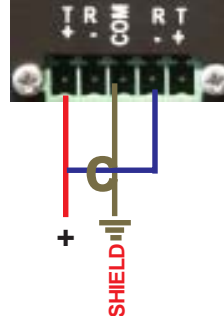
UNBALANCED STEREO



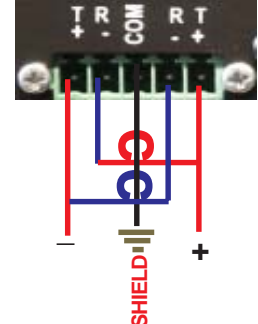
BALANCED DUAL MONO



UNBALANCED BRIDGED MONO



BALANCED BRIDGED MONO



PHOENIX TYPE TERMINALS FOR FAST CONNECTIONS

## AUTOMATIC INTERNAL CONFIGURATION OF THE LINE INPUT

Internal circuitry enables the user to configure the Amplifier to be used in either Balanced or Unbalanced Modes depending on the connections used. Shown above are the different Line In Connections that allow the Amplifier to accept either Balanced or Unbalanced Stereo, Balanced Dual Mono or Balanced Bridged Mono Inputs, depending on the user's requirements.

## ADVANCED AMPLIFIER DESIGN WITH INCREDIBLE POWER

Advanced circuitry Amplifier produces 45 Watts RMS Output into 4 Ohms, more than enough to drive Multiple Speakers with a Clarity of Sound not usually found in such a small Amplifier, with this amount of power the Amplifier does not have to strain itself or be "cranked up" to its extreme level, so distortion is eliminated.

## REDUCES THE CHANCES OF THEFT

By mounting the amplifier above the Ceiling Projector or hiding it along with the other equipment in our new Plenum Equipment Box eliminates theft.

## COMPACT DESIGN GIVES THE INSTALLER MANY MOUNTING OPTIONS

As it takes up very little room, Installers are finding many different uses for this compact Amplifier. It's small size allows it to be **concealed or used in many small spaces**. The entire installation of Projector, Amplifier and Power Supply can be installed at Ceiling Height or hidden in using our Plenum Equipment Box shown on the next page.

**Please turn over for Mounting Options, Specs & List Prices**

The Projector Pole Mounting Bracket attaches the Amplifier on to a Projector's Pole or any Flat Surface



**The Limpet**  
For 24/7 Set & Forget Protection  
of all Your Equipment



Using the Projector Pole Mount, no more than 2" of height is needed between the Projector and the Ceiling Tiles



Up to four Amplifiers can be fitted taking up only 1 Rackspace

### NEED TO HIDE THE EQUIPMENT IN THE PLENUM

Hidden from view our new Plenum Rated Equipment Box allows the Amplifier, Power Supply, AC Receptacle and all the Cables to fit inside. All Cable runs are routed internally, so that the entire unit meets UL 2034 and all Electrical Codes for **Plenum Rating**. Because the entire assembly is hidden theft is eliminated.



Our Plenum Rated Equipment Box contains a 1 gang Receptacle for powering both the Amplifier and any other equipment concealed inside

### NEED THE PROJECTOR CLOSE TO THE CEILING WITH THE AMPLIFIER & EQUIPMENT HIDDEN

Using the Plenum Equipment Box has the benefit of being able to mount the Projector tight against the Ceiling Tiles.

#### AMPLIFIER SPECIFICATIONS

45 watts Stereo into 4 Ohms  
(22.5 watts per Channel)  
45w Mono When Bridged  
75 watts Peak Music Power  
Frequency Response: 15 Hz - 22 kHz  
Signal to Noise Ratio: -65 dB  
Total Harmonic Distortion: .003 dB  
Dynamic Range: 115 dB  
Overload Protection: Built In  
All Screw Connectors

#### AUTO POWER SAVING MODE

Power is reduced to 250 milliamps in Stand By Mode

#### DIMENSIONS:

4.3" w, 1.75" h, 6.75" d  
8" Deep inc Fan

#### REQUIRED OPTION

Power Supply UL/CSA Listed  
110V - 12V 4.5 Amps AC

#### RS 232 PORT SPECIFICATIONS

The Programmed Microprocessor controls all commands from the RS 232 Port, using a variety of Contollers and Softwaresuch as Stardraw, Girder Commercial or Spinoza Softare in conjuntio with Global Cache or by using Web Servers such as Crestron's QM-RMC or AMX's NI 700 & 900 Units.

Part #	Description	List Price
NB-7052PL	70/25 Volt Automatic Amplifier with RS 232 Port	\$ 499.95
NB-PS75	Power Supply 120 v -12v AC 4.5 amps	\$ 49.95
NB-M2PMB	Plenum Equipment Box (Pole Mount Version)	\$ 299.95
NB-UPMW	Projector Pole/Wall Mount Bracket (New Size)	\$ 79.95
NB-LSAS	The Limpet Electronic Alarm System	\$ 189.95
NB-1SHE	1U Rack Shelf Frame	\$ 119.95

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## THE LIMPET™ ANTI-THEFT ALARM

AN ELECTRONIC PROTECTION SYSTEM  
THAT PROTECTS EVERYTHING IT IS FIXED TO

**Projectors, Plasma Screens in fact anything  
you want to protect from Theft**



Its Advanced Circuit Design is Optimized for up to at least 9 years of protection with the same Battery. Not only will it outlast the Equipment it is protecting but it is proven to outlast by **at least FOUR TIMES** any other Device currently on the market.

**Never have to replace the Battery**

(unless The Limpet is Activated)



Contact Closure  
or Connect it to an  
Alarm System, AMX or  
Crestron Controller

Security Loop

The Security Loop can be any length  
and ordinary single conductor wire  
can replace our supplied Loop wire



Can easily be Incorporated into  
an AMX or Crestron System  
using their reporting functions  
when the Limpet  
is Tampered with



### **SIMPLE TO INSTALL - WITH AUTOMATIC SET & FORGET PROTECTION**

Simple to Install, the Limpet runs on a Built-In 10 year Lithium Battery. Its Advanced Circuit Design guarantees an extended Life of Operation. For complete protection a supplied 4 foot Specially Toughened Security Cable (although any longer Cable can be used) is looped around a fixed object (such as the Projector Pole). The Projector and our Amplifier can also be looped together. The Limpet is normally fixed to the Projector, Plasma Screen or similar device using the supplied Methylmethacrylate Glue (considered the world's strongest for Bonding Metal to Plastic), but you can also attach the device to any fixture using Screws or Bolts which are hidden from view after installation.

### **NO FALSE ALARMS WHEN IN USE**

Because the Alarm does not use Motion Sensors, the user is assured there will be no false Alarms when operating or making adjustments to the Equipment it is protecting. For Servicing the Equipment, the Limpet can be temporarily deactivated using the supplied key.

### **VIRTUALLY IMPOSSIBLE TO DEFEAT**

Unique additional Safeguards Protect the Equipment at all times, also cutting the Loop or the Contact Closure Wire will automatically activate the alarm. No amount of jumpering or reconnection of the wires will stop the Alarm, unless the supplied Key is used to deactivate or reset the unit.

### **ONCE ACTIVATED THE SIREN CAN RUN FOR UP TO 30 HOURS**

The Limpet's built in Siren lets out a piercing 117 dB when activated, and it can run for about 30 hours unless it is stopped using the supplied Key. Even when connected to an External Burglar Alarm System or other Contact Closure Device, the Limpet's Alarm features still function unless it has been deactivated with its supplied Key.

### **CAN BE CUSTOMIZED FOR DIFERENT ALARM MODES**

Installers are given the opportunity to configure the Limpet Alarm to suit different applications:

1. Siren, Loop and Contact Closure Connection
2. Silent with Contact Closure & Loop Connection
3. Loop Only.

**Silent Mode but connected to a Burglar System is useful when you don't want to alert the thief  
that the Limpet is activated.**

### **INTEGRATION OF THE LIMPET INTO AN AMX OR CRESTRON CONTROL SYSTEM**

Users of an AMX or Crestron System might want to take advantage of the Reporting Device features that are provided by these devices that The Limpet though it's Contact Closure Connection can access. This feature is shown overleaf.

**Please see over for futher advantages of the Limpet**

**9 Volt Lithium Battery  
For 9 Plus Years Protection**

**117 dB Siren  
(Runs off Battery)**

**Removable Red Plug  
disables the Siren  
(For Silent Operation)**

**Optional  
Mounting Holes**

**Loop Connection**

**Contact Closure for Connection to any  
Contact Closure Device.  
For Example:  
Central Burglar System, AMX or Crestron  
Control Device**

**Glue or Screw  
Mount Options**

### **GLUE OR SCREW MOUNT THE LIMPET**

The Glue we supply with each unit is known to be Stronger than the item being glued. While both Methods provide a Permanent Fixture, there may be times when, for example, replacing the Equipment under warranty, and the product has to be returned without the Limpet, the Screw Mounting Method might be the Better Option.

### **UNIQUE KEY LOCK**

**To ensure the highest degree of Security, we supply two Special keys that are used to Activate and Deactivate the Limpet. The keys cannot be duplicated or purchased from a local store.**

### **WHY IT WILL OUTLAST ANY OTHER UNIT**

The Limpet is supplied with a 10 year Lithium Battery. The Current Consumption of its unique circuit is so low that it cannot be read on a Standard Meter. These two factors guarantee it will outlast any other device currently on the market.

### **COST OF OWNERSHIP**

When comparing it with any similar Device, cost of ownership must include not only the Battery cost, but the added Labor charges which could amount to as much as \$60.00 or more per year. It's not just the hassle of frequent Battery Changes, but the inconvenience of having to bring in a technician with a Step Ladder to make those changes. The Limpet's cost of ownership is almost zero due to its low Battery drain and long life Battery, which relates to a **Cost Saving in Batteries and Labor** in its life of protection of almost \$600.

### **REPLACEMENT BATTERIES & PARTS**

In the event the Battery is discharged, replacement Batteries are available from Most Hardware Stores including ACE, True Value etc, under the Brand Name, Ultralife or 10 Year 9v Battery. Replacement Loop Wire or Keys etc., are freely available from us at reasonable cost.

Special Note: Although we supply Loop Wire, when you need a longer Loop, ordinary single conductor 22 gage wire or smaller can also be used.

### **SPECIFICATIONS**

Built in Siren: 117 db

Current Consumption: 1000th of 1 mAmp

Battery: 10 Year Ultralife 9v Lithium

Dimensions 4" x 2" x 1.5". Weight: Less than 7ozs

### **FOR SECURITY REASONS**

We deliberately chose components that do not compromise the security aspects of the Limpet™ such as The Arming Key and Tamper Proof Screw Hex Key. Thieves will not easily find these in any Hardware Store.

Part #	Description	List Price
NB-LSAS	Limpet Security Alarm with Contact Closure Connection	\$ 189.95
NB-LNA	Network Version Limpet Security Alarm	\$ 299.95

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