Creating the Future of Home Entertainment Today
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Musica Audio Distribution System

The Netstreams Musica MU4601 Audio Distribution System, designed to deliver superlative sound, features highly interactive keypads with simple operation. Musica’s advanced design places the amplifiers in the individual rooms, rather than in one central location. This improves sound quality, control, and simplifies installation and maintenance. Musica is an audio distribution system capable of playing up to four different sources independently, distributing them to as many as six rooms and is expandable to twelve rooms (without third party products), or more with the addition of inexpensive third party products.

Musica gives you complete control of all aspects of the sound in the room, right from the keypad. You can listen to different sources simultaneously in different rooms, or have the same music in every room. Adjust bass, treble, balance, volume, etc. at the keypad and turn off one or all rooms from anywhere in the house.

The Musica system saves installation time because the system works right out of the box. The only programming required is to learn a few IR commands, power cycle the system, and all of the keypads will now contain the learned commands. This eliminates the tedious task of programming each keypad with the same information over and over again as other systems require.

Musica can be set up to detect external signals like doorbells, intercom, telephone, etc. When these signals are detected, the main system enters into a mute mode automatically. No programming is required to achieve this function.

The Musica system’s Audio Port modules (EIM) expands the input and outputs of Musica. This makes it easy to integrate local sources, like a CD or MP3 player in a local room, or to add an external amplifier, or a powered subwoofer for richer sound. The local source input can also connect to an existing audio system (like a home theater system) that resides in that particular room.
The *Musica* Audio Distribution Center is equipped to support up to 4 sources and 6 Zones each, and is expandable up to 12 zones or more. Includes (1) ADC, (1) remote control and (4) IR emitters.
The Musica keypad/amplifier provides an intuitive interface that makes it a joy to operate a distributed audio system. Designed with simple-to-use menus, the keypad/amplifier allows users to control global or local sources or turn any keypad in the home ‘off’.

Color Kits available in Ivory, Almond and Black
The Audio Port (EIM) provides the user the ability to expand the system locally, without running wires back to the head end. Instead, an Audio Port is connected to the local keypad/amplifier using CAT 5e. The Audio Port has a variable output that can be used for a powered subwoofer. This output is also commonly used to feed global or local source to an external amplifier for applications where you have many speakers in a large room and need more power than the built-in amplifier can provide. The 35mm phono-jack on the Audio Port can be configured for ‘Audio-Input’, ideal for a portable mp3 player or “IR Output” to control a local amplifier or source.

Color Kits available in Almond and Ivory

Ivory Color kit
NS-MU100CK-I

Almond Color kit
NS-MU100CK-A

Part # NS-MU4601AP-W
Part # NS-MU4601APS-W
The R2E Network Interface allows easy integration of your Musica system with lighting control systems, home automation systems and sophisticated media storage and playback systems. NetStreams has partnered with some of the finest manufacturers in the industry to offer you complete and trouble free integration beyond any other product in its class.
MU290 External Amplifier

The MU290 is a high quality, high speed switching, fully complimentary, Class A/B amplifier.

This powerful yet compact amplifier utilizes Darlington pairs for more linear operation and offers 90 watts per channel into 4 ohms and 200 watts bridged into a 4 ohm load. The MU290’s sound is more musical and more ‘tube-like’ than most amplifiers. This amplifier is designed to be either rack-mounted, flat-back mounted or set on a shelf. This product will ship December 2003.
Remote Control

The Remote Control emulates the buttons on the keypads making it very easy to use with backlight control and ergonomic construction. One remote is included with purchase of the ADC. Additional remote controls can be purchased.

19" Rack Mount Kit

The 19" rack mount kit is a faceplate designed to replace the faceplate that ships with the Audio Distribution Center (ADC) to allow the ADC to be mounted on a standard 19" equipment rack. Easily installs on to the ADC.
ADC Expansion Kit

Part # NS-MU4601-XK

The Audio Distribution Center 12-Room Expansion Kit provides the ability to share 4 Sources with 12 Keypads/amplifiers. Simply attach the IR emitters to one ADC’s set of the IR outputs. The null modem RS-232 cable transfers data from one Audio Distribution Center to the next. The kit includes 8 high quality y-cables, 4 line level audio cables and 1 null modem RS-232 cable. A Musica system can be configured to control more than 12 Rooms of audio with third party equipment. Please contact NetStreams for more information on this specific application.

IR Emitter

Part # NS-MU4601RE

The IR emitter connects from the ADC to each source IR output enabling remote control of each source to each keypad. Four IR Emitters are included with purchase of the ADC.
The *Musica* Tabletop demo system includes (1) Audio Distribution Center (ADC), (1) remote control and cable and (assembled within a clear plastic display) (1) Remote/Keypad Amplifier, and (1) Audio Port (EIM).

**Musica Tabletop Demo Unit**

Part # NS-MU4601DK-P

The *Musica* Traveling Demo System includes a heavy duty plastic road-case with carry handles and one pull-handle, (1) Audio Distribution Center (ADC), (1) remote control and cable, and (assembled within a clear plastic display) (1) Remote/Keypad Amplifier, and (1) Audio Port (EIM).

**Musica Tabletop Travel Demo Unit**

Part # NS-MU4601DK-S
Musica Specifications

### AUDIO DISTRIBUTION CENTER
- **Component Type:** Line level Audio Multi Room Controller
- **Source Inputs:** 4 Stereo
- **Connector:** RCA Jack
- **Input Level:** 150mV
- **Input Impedance:** 47KOhms
- **Connector 1 (Data):** 8-pin RJ45 Data Jack EIA/TIA 568A (RJ61x)
- **Connector 2 (Power):** 2-pin 5mm Phoenix type
- **Output Level:** 2.0Vrms
- **IR Source Control Outputs Type:** Infrared LED Flasher
- **Connectors:** 3.5mm 4 x 1/8" mini plug mono phone
- **Microprocessor:** Advanced RISC Microprocessor
- **Memory:** Non-Volatile EEPROM, 256K
- **Power Voltage:** 110V AC, 60Hz
- **Power Consumption:** 250W
- **Dimension:** 16.95"(W) x 9.04"(D) x 2.28"(H)

### REMOTE KEYPAD/AMPLIFIER
- **Output Power**
  - 20W + 20W at 1KHz, 12W + 12W at 20KHz @ 8 Ohms
- **Load Impedance:** 8 or 4 Ohms (user selectable)
- **Signal to Noise:** >100dB (A-weighted ref: 1 Vrms, 1 KHz)
- **Distortion:** <0.02% (Po: 1W, 1KHz)
- **Channel Separation:** >90dB
- **Level Control Volume:** -70~dB
- **Bass:** -14~14dB
- **Treble:** -14~14dB

### AUDIO PORT MODULE (EIM)
- **Zone Input**
  - Stereo L/R RCA & 3.5mm Mini-Phono
- **Connector**
  - 8-pin RJ45 Data Jack EIA/TIA 568A (RJ61x)
- **Input Level:** 2.0 Vrms
PS Series Audio Components

Cables

NetStreams wiring solution provides a solid foundation for incorporating the latest audio technology into your home. NetStreams TwinRiver cable is the perfect connection for distributed audio systems of today and tomorrow.

TwinRiver cable uniquely combines high-speed Cat 5e with a 4 conductor, high strand count, high performance speaker cable in the same jacket. The siamese construction allows an installer to pull the cable with stronger force through studs and engineered wood without damaging the delicate CAT 5e. This construction also allows an installer to separate the cables at the equipment rack and run them to the appropriate connection points without striping the cable prior to the point of connection. This makes for a cleaner install.

Volume Controls

Designed for high performance sound quality and long-life dependability, NetStreams PS Series volume controls offer superior volume control of your audio systems.

- 'Make-Before-You-Break' switching format ensures smooth, glitch free transitions between volume steps.
- Clearly labeled screw-to-connect terminals on the circuit board allow easy, yet secure connection.
- Utilizes autoframes instead of less effective L-pads for the volume controlling element ensuring minimal power loss with virtually no power wasted as heat.
- Also available in both of the popular Decora® style almond and ivory colors.
TwinRiver cable is an, unshielded, twisted pair, enhanced Cat 5 cable and four conductors of high-strand count with a choice of 14 or 16 AWG speaker cable. Spools (1,000 ft) in a "siamese" construction (the two cables are side by side joined by a thin plastic web.

The CAT 5e in this cable is swept tested to 350 MHZ. This bandwidth will be of critical importance when upgrading to a networked audio distribution system.

TwinRiver cable works for virtually all audio distribution systems in the market today.

**TwinRiver Configurations:**

NS-TR164/Cat5e – Four Conductor, 16 AWG & CAT 5e

NS-TR144/Cat5e – Four Conductor, 14 AWG & CAT 5e
60 Watt Volume Control

Part # NS-PSVC60-W

60 Watt Volume control switching format ensures glitch free transitions between each volume progression for a single speaker pair.

60 Watt Impedance Matching Volume Control

Part # NS-PSVCIM60-W

60-watt Impedance Matching Volume Control designed for installations where several volume controls are connected to a single remote amplifier.
## Volume Control Specifications

### 60 Watt Volume Control  
**NS-PSCV60-W**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Attenuation or balancing of amplifier volume to one pair of speakers.</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>1 1/2&quot; x 4&quot; x 3&quot; (38mm x 102mm x 76 mm)</td>
</tr>
<tr>
<td><strong>Terminal Type</strong></td>
<td>Screw quick-disconnect 20-14 AWG wire capacity</td>
</tr>
<tr>
<td><strong>Frequency Response</strong></td>
<td>20Hz to 20,000 Hz+/ - 1dB</td>
</tr>
<tr>
<td><strong>Power Rating</strong></td>
<td>60w RMS max</td>
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</tbody>
</table>

### 60 Watt Impedance Matching Volume Controls  
**NS-PSVCIM60-W**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Installations involving several volume controls connected to a single remote amplifier.</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>1 1/2&quot; x 4&quot; x 3&quot; (38mm x 102mm x 76 mm)</td>
</tr>
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<td>60w RMS max</td>
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Product Literature
NS Limited Product Warranty

*NetStreams* warrants, only to the Original Purchaser of the product, that the product will be free of defects in materials or workmanship, as follows:

- *NetStreams* Electronic products - 2 year from date of invoice
- *NetStreams* Volume Controls - 5 years from date of invoice
- *NetStreams* Wire products - 10 years from date of invoice

Provided that the product was purchased from a *NetStreams* Authorized Distributor, installed by a *NetStreams* Trained Installer, registered with *NetStreams*, are subject to normal use, and have not been modified in any manner this warranty shall apply.

This Warranty is in lieu of all other expressed warranties.

The liability of *NetStreams* hereunder shall be limited to either replacing or repairing, at its sole option, any defective product(s) which conform to the foregoing warranty and are properly packed, original shipping container preferred, insured, and shipped freight prepaid to *NetStreams*’ facility in Austin, Texas. Prior to returning such product(s) to *NetStreams*, Distributor must obtain a Return Material Authorization (RMA) number by contacting *NetStreams*. This RMA number must be clearly marked on the outside of the return shipping container and all accompanying documents.

This warranty applies to product that is subject to normal use and has not been modified in any manner. This warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the product, or service, repair, or modification of the product, which has not been authorized or approved by *NetStreams*. No liability is assumed by *NetStreams* for expendable items.

*NETSTREAMS SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM LOSS OF PROPERTY OR OTHER DAMAGE OR LOSSES OWING TO THE FAILURE OF NETSTREAMS’ PRODUCT BEYOND THE COST OF REPAIR OR REPLACEMENT OF ANY DEFECTIVE PRODUCT. NETSTREAMS' LIABILITY FOR MONETARY DAMAGES SHALL IN NO EVENT EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCT BY THE CUSTOMER. NETSTREAMS MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY AND NO OTHER WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED, BEYOND THE WARRANTY EXPRESSLY SPECIFIED HEREIN.*

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