



RDL®

High Performance Audio Products. Made in America.

Model TP-BN14

Networked Mic Input and Selectable Monitor Station



TP-BN14 with
user-provided
microphone

Microphone to Network Section:

- Converts a Standard Mic Source to a Dante Network Channel
- Mute Button Toggles Output On and Off or Provides Momentary Muting
- No User or Installer Gain Adjustments are Required
- Automatic Microphone Gain of 40 dB for Condenser Mics and 60 dB for Dynamic Mics
- P48 Phantom is Provided on the Microphone Input
- 40 dB per Octave at 100 Hz Low-Cut Filter*

Network to Speaker Section:

- 2 Watt RMS Audio Amplifier
- Compressor/Limiter Prevents Clipping
- Amplifier Gain Adjustment is Accessible through the Chassis Bottom*
- Speaker Audio Source may be Dedicated Channel or Follow Headphones*

Network to Headphone Section:

- Selection from 3 or 4 Mono Dante Network Sources to a Stereo Headphone
- Single-Button Selection for Each Source with LED Indication
- Upper Button Selects "OFF" or Speaker Source*
- Output on Professional Quality 3.5 mm stereo Mini-Jack
- Display is Bright During Selection, Dims After Selection
- Front-Panel Output Level Control

Common:

- Adjustment and Switch Settings on the Chassis Bottom*
- High Resolution 24 Bit Analog to Digital and Digital to Analog Conversion
- Rear-Panel LED Indicators Show Network Sync Status
- Normal or Hot-Standby Operation from PoE

*set by installer

APPLICATION: The TP-BN14 is a bidirectional Dante network interface for tabletop use. The unit provides a shock-mounted XLR microphone input with a mute button. A front-panel 2W amplified speaker provides monitoring of a specific audio mix.

The TP-BN14 provides a front-panel headphone Mini-jack with an associated four input source selector. LEDs associated with the input buttons indicate the selected source.

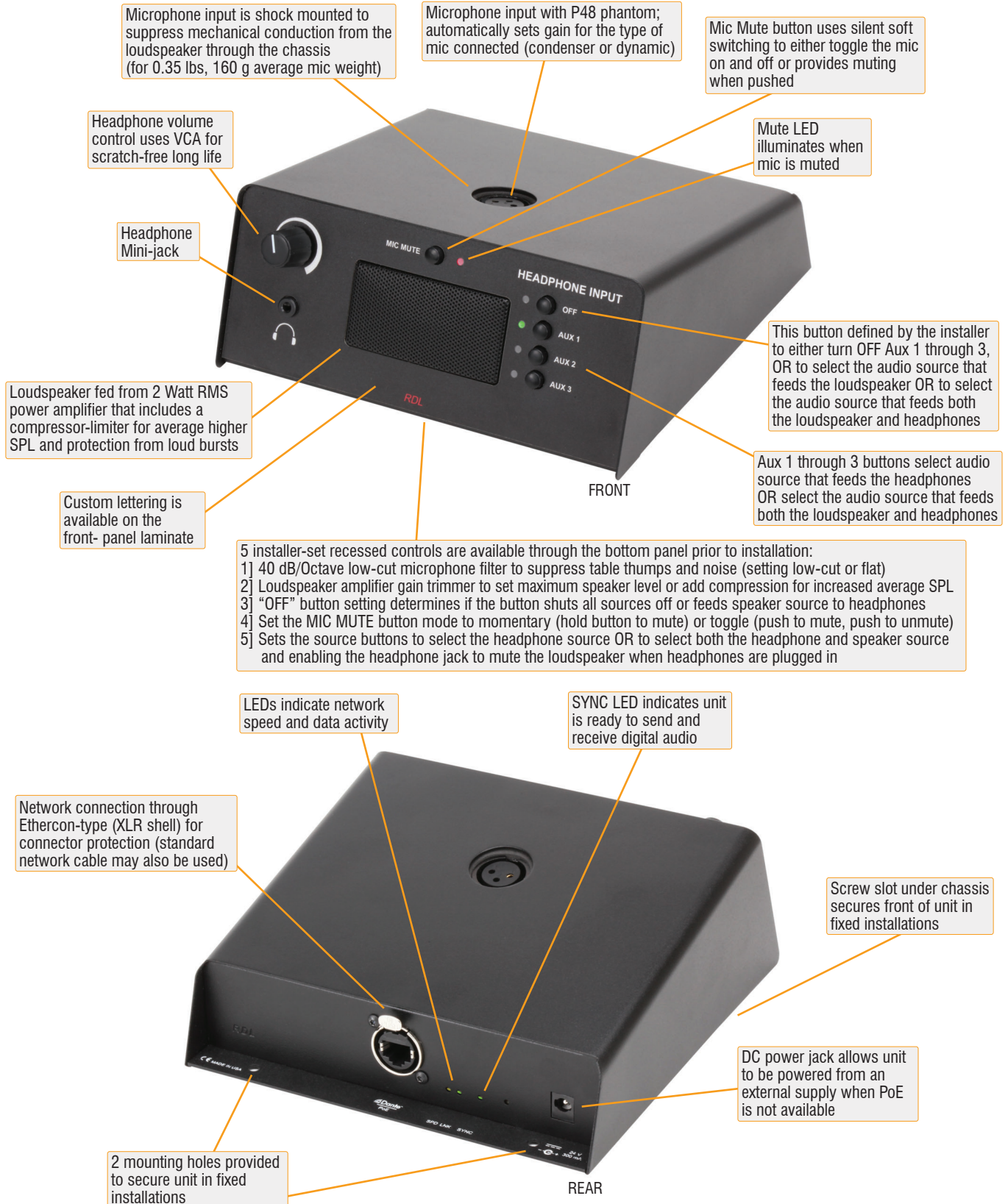
The front panel level control is a long-life potentiometer controlling a VCA. Audio does not pass through this control, assuring years of noise free level adjustment. The output amplifiers deliver more than 90 mW into either high or low impedance headphones. The headphone output may be used to listen to different language translations.

The TP-BN14 may be powered from a 24 Vdc power supply, available separately, or from PoE. It is used in meeting halls, conference rooms or courtrooms.



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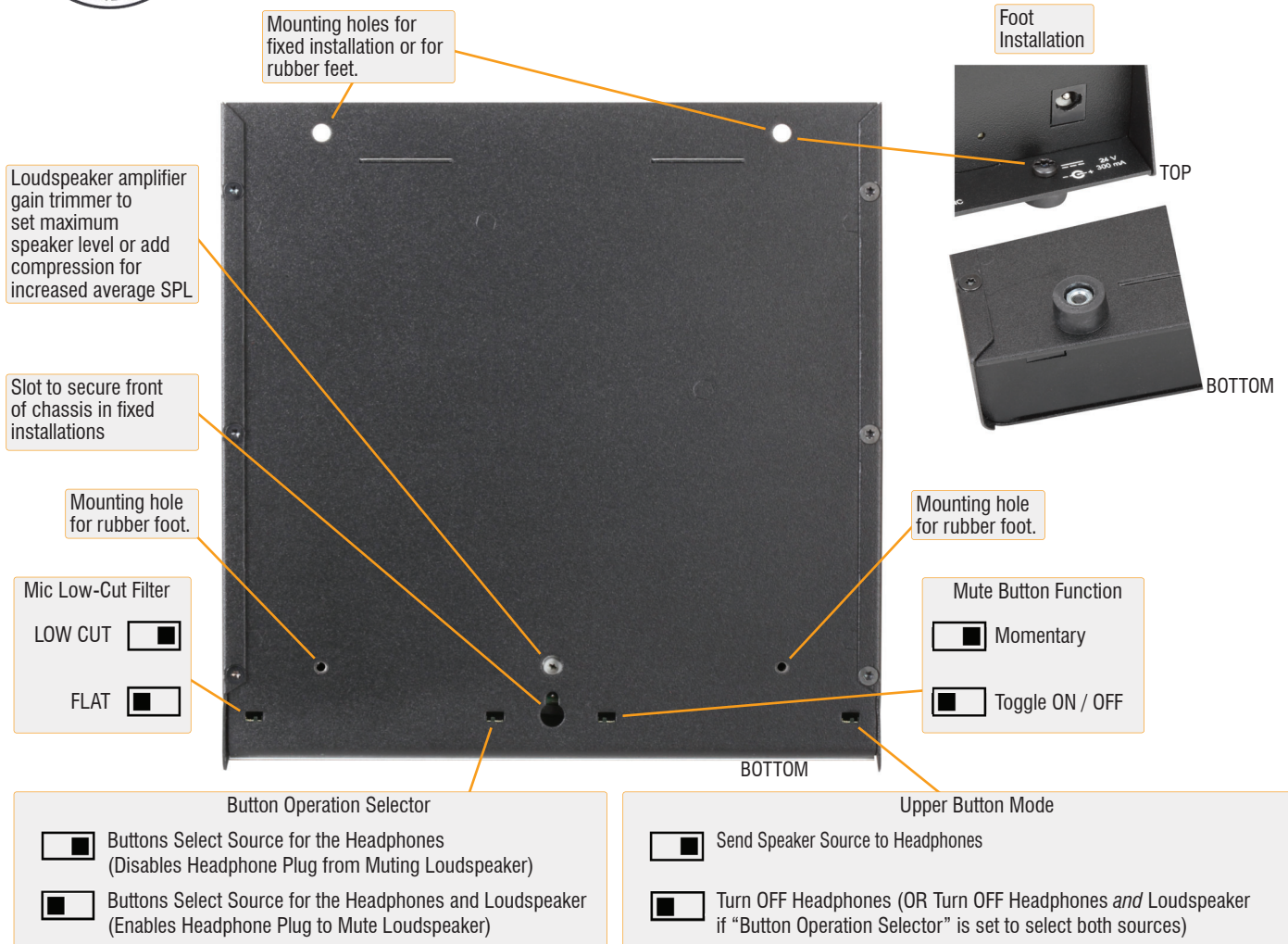
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TYPICAL PERFORMANCE

Network Connector:
Digital Audio Ethernet Protocol:
Transmission Rate:
Sample Rates Supported:
Bit Depth Supported:
Audio Operating Levels:

RJ45 Ethernet style
Dante
100 Mbps
44.1 kHz, 48 kHz (default)
24 bits
-20 dBFS = +4 dBu

Level adjustment:
Output:

Single-turn front-panel rotary level control
Stereo mini jack,
90 mW per channel (into 100 ohms),
Mono source
20 Hz to 20 kHz (+0, -3 dB, into 100 Ohms)
< 0.2% (1 kHz, 10 mW)
< -70 dB (below 10 mW with a -18 dBFS input)

Mic Input to Network Interface Section

Input:
Gain:

Input Level for +4 dBu (-20 dBFS):
-36 dBu maximum;

Balanced, XLR
Automatic; 40 dB for condenser mics,
60 dB for dynamic mics
-56 dBu (dynamic),
-36 dBu (condenser), -19 dBu maximum (unclipped),
-14 dBu maximum (soft clipped)
> 1 k Ω
P48, 48 Vdc
IEC 61938: 2013
20 Hz to 20 kHz (\pm 0.75 dB) flat;
with low cut filter: -1.5 dB @ 100 Hz,
-8 dB @ 80 Hz, -38 dB @ 50 Hz, -60 dB @ 20 Hz
< 0.1%
< -70 dB
> 70 dB (50 Hz to 120 Hz)
Mute Button Toggles Mic On or Off

Frequency Response:
THD+N:
Noise:

Network to Speaker Output Section

Output power:
Frequency Range:

2 Watts RMS
150 Hz to 20 kHz, nominal

Common

Indicators (8):

Power Connections (2):
Ambient Operating Environment:
Power Requirement:
PoE:
Dimensions:

Headphone channel selected (4);
Mic muted, Network Sync,
Ethernet Link and Speed (2)
Power Jack; PoE
0° C to 40° C
24 Vdc @ 300 mA, or PoE
Class 0, IEEE 802.3af
6.95" (17.7 cm) W;
2.85" (7.24 cm) H;
7" (17.8 cm) D
Cardboard Box
7 x 7 x 3 in.
3.26 lbs.
2.97 lbs.
8518.50.0000

THD+N:
Noise below +4 dBu (-20 dBFS):
CMRR:
Muting:

Network to Headphone Output Section

Selectors (4):

Momentary pushbuttons (1 for each channel);
Upper Button Selects "OFF", Speaker Source, or
Speaker and Headphone Source, Set by Installer
Green LEDs, (indicates channel selected)

Indicators (4):

Radio Design Labs Technical Support Centers

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