



DH30 Digital Telephone Hybrid

With the variety of phone systems in the world today, it is becoming increasingly difficult to have all callers sound the same on-air. To help bring uniformity and high quality sound to a broadcast talk show environment, we have created the DH30. The DH30 provides a high quality interface between a standard telephone line and your audio equipment.

Designed with both AES/EBU and analog inputs and outputs, the DH30 can interface with the latest digital and analog consoles. To ensure quality sound in studios that have open speakers and microphones, the DH30 was created with an acoustic echo cancellation feature.

The DH30's digital signal processing (DSP) has multiple adjustable parameters to provide you with the best send and caller audio signals. New audio processing features such as the compressor and downward expander functions ensure that the best audio reaches your audience. All audio processing features are programmable via the front panel controls. For the deepest, most reliable hybrid null, and the best quality caller audio for your application, the DH30 is the answer.

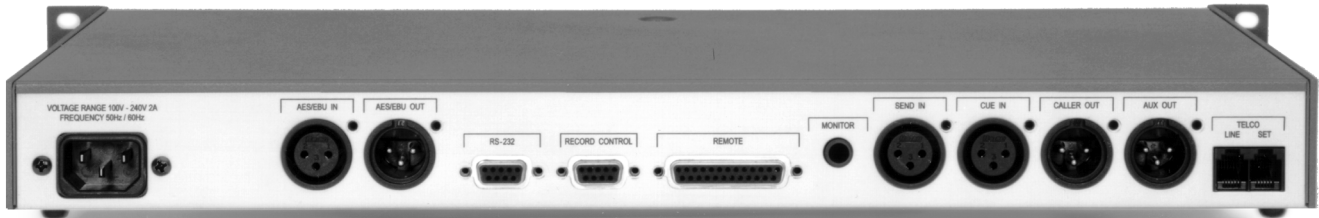
Easy to use and install, the DH30 has simple front panel controls and remote control capability. These controls put the On, Off, Rec, and Cue functions right at your fingertips. The DH30 also includes a 2W monitor amp with volume controls right on the front panel. The Rec function sends a start/stop signal to your external recording device. The Cue function allows you to control which audio signal should be sent to the caller, allowing you to switch from the Send input to the Cue input at the touch of a button.



The DH30 features acoustic echo cancellation to ensure quality sound in studios with open mics.

Features and Benefits

- Remote controllable presets
- Password protected
- 24-bit digital signal processing (DSP)
- AES/EBU digital or analog audio input and output
- Record and Cue functions
- Selectable auto mix-minus
- Selectable acoustic echo cancellation
- Selectable auto answer and disconnect
- Integrated monitor amp with front-panel volume control
- Remote control via contact closures or RS-232
- Adjustable caller control (ducking)
- Adjustable three-band equalizer
- Adjustable compressor and expander
- Bass boost
- Microphone send and cue preamps
- Automatically accepts all worldwide voltages
- Three selectable presets for customized audio
- Worldwide compliant including FCC, CSA, CE, CTR 21



Specifications

Dimensions (LxDxH)

17.125" x 10.125" x 1.75"

43.5 x 25.7 x 4.44 cm

Rack mount included for installation in a 19" rack

Weight

6.7 lb/3.04 kg (dry)

11.2 lb /5.08 kg (shipping)

Operating Temperature

32-100° F/0-38° C

Humidity

0-80%

Front Panel Controls

LCD programming display, ENTER/ESC/▲▼ programming buttons, monitor volume control, send-level LED bar meter, caller-level LED bar meter, record, cue, hybrid On/Off, buttons with status LEDs

Power: IEC Type

Auto adjusting, 100-240VAC, 2A, 50/60Hz, 30W

AES/EBU IN: XLR

Pin 1=ground, pin 2=+phase, pin 3=-phase; 32, 44.1, or 48kHz sample rate

AES/EBU OUT: XLR

Pin 1=ground, pin 2=+phase, pin 3=-phase; 32, 44.1, or 48kHz sample rate

RS-232: DB9 female connector

9,600 baud rate, used for status and control via a PC or other RS-232 controller

Record Control: DB9 female

Start, stop, and enable outputs are open collector outputs rated at 40VDC and 50mA maximum

Remote: DB25 female

Remote Send input: 0dBu nominal, adjustable, unbalanced, 20kΩ impedance
Remote Caller and Aux outputs:

0dBu nominal, adjustable, unbalanced, 50Ω impedance

Control inputs: Remotely activate any of the following functions with a simple switch closure to ground: On, Off, Cue, and Rec along with preset selection controls 1,2, and 3 or with Send, Caller, and Monitor Mute controls

Status Outputs: Remotely check the status of the hybrid with the On, Off, Cue, Rec, Send Presence, and Caller Presence status outputs. All status outputs are open collector outputs rated at 40VDC and 50mA maximum

Monitor Output: 1/4" stereo jack

Tip=+phase, ring=-phase sleeve=-phase; 2W output into an 8Ω load

Send Input: XLR female

Mic/Line selectable, -55 or 0dBu nominal, adjustable, balanced bridging, 20kΩ impedance, selectable 12VDC phantom power

Cue In: XLR female

Mic/Line selectable, -55 or 0dBu nominal, adjustable, balanced bridging, 20kΩ impedance, selectable 12VDC phantom power

Caller Output: XLR male

0dBu nominal, adjustable, balanced 50Ω impedance

Aux Output: XLR male

0dBu nominal, adjustable, balanced 50Ω impedance

Telco Line: RJ11 connector

POTS (plain old telephone service) line or analog extension from a PBX or dry line (no DC offset voltage)
A-Lead supervision provided

Telco Set: RJ11 connector

A-Lead supervision provided

Telephone Transmit

All measurements referenced at -15dBm level on the phone line
Frequency response: 250Hz to 3.5kHz, ±1dB
SNR: >70dB
Distortion: <0.15%

Telephone Receive

All measurements referenced at -15dBm level on the phone line with caller processing options bypassed
Frequency response: 250Hz to 3.5kHz, ±1dB
SNR: >70dB
Distortion: <0.1%

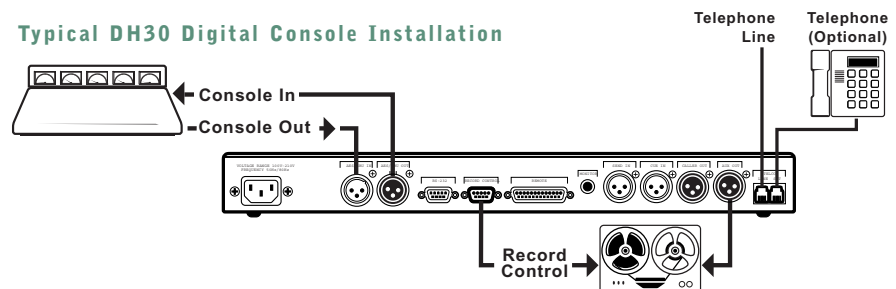
Echo Cancellation/Mix-Minus

Tail time: 120 milliseconds
Null: 50dB

Telco Cancellation

Tail time: 32 milliseconds
Null: 55dB

Typical DH30 Digital Console Installation



Gentner Corporation ~ 1825 Research Way, Salt Lake City, UT 84119 ~ 1-800-945-7730 ~ www.gentner.com