

# DH30

## DIGITAL TELEPHONE HYBRID



### PRODUCT OVERVIEW

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

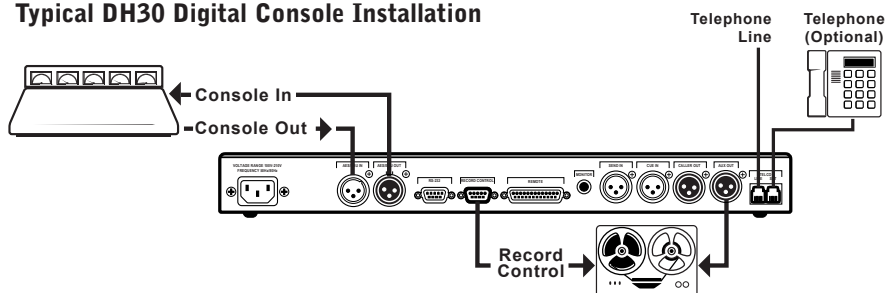
that the best audio reaches your audience. All audio processing features are programmable via the front panel controls. For the deepest, most-reliable hybrid null, and the best quality caller audio for your application, DH30 is the answer.

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 2Watt 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.

### FEATURES/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 RS232
- 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

### Typical DH30 Digital Console Installation



 **Gentner**®

1 . 8 0 0 . 9 4 5 . 7 7 3 0  
1 . 8 0 1 . 9 7 5 . 7 2 0 0

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### SPECIFICATIONS

#### 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

#### Telephone Line Requirements:

Operates on standard telephone lines and connects to the telephone system with a standard RJ11C modular jack. Selectable auto connect and auto disconnect with loop-drop and/or call progress detection

#### Dimensions (W/H/D):

17"/43.2cm x 1.75"/4.5cm x 8"/25.4cm  
Rack mount included for installation in a 19" rack

#### Weight:

7 lbs./3.2 kg  
12.1 lbs./5.5 kg (shipping)

#### Power Requirements:

100-240 Vac, 50/60 Hz, 30 W

#### Operating Temperature:

32-100 degrees F / 0-38 degrees C

#### Humidity:

0-80%

#### Connectors:

AES/EBU IN: XLR; pin 1=ground, pin 2=+phase, pin 3=-phase; 32, 44.1, or 48 kHz sample rate

AES/EBU OUT: XLR; pin 1=ground, pin 2=+phase, pin 3=-phase; 32, 44.1, or 48 kHz sample rate

RS232: DB9 female connector; 9,600 baud rate, used for status and control via a PC or other RS232 controller

RECORD CONTROL: DB9 female  
Start, stop, and enable outputs are open collector outputs rated at 40 Vdc and 50 mA maximum

#### REMOTE: DB25 female

Remote Send input:  
0 dBu nominal, adjustable, unbalanced, 20 kOhm impedance

Remote Caller and Aux outputs:  
0 dBu nominal, adjustable, unbalanced, 50 Ohm 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 40 Vdc and 50 mA maximum

MONITOR: 1/4" stereo jack;  
tip=+phase, ring=-phase sleeve=-phase;  
2 Watt output into an  
8 Ohm load

SEND IN: XLR female  
Mic/Line selectable, -55 or 0 dBu nominal, adjustable, balanced bridging, 20 kOhm impedance, selectable 12 Vdc Phantom Power

CUE IN: XLR female  
Mic/Line selectable, -55 or 0 dBu nominal, adjustable, balanced bridging, 20 kOhm impedance, selectable 12 Vdc Phantom Power

CALLER OUTPUT: XLR male  
0dBu nominal, adjustable, balanced bridging, 50 Ohm impedance

AUX OUTPUT: XLR male  
0 dBu nominal, adjustable, balanced bridging, 50 Ohm impedance

Line: RJ11 connector; A-lead supervision provided

SET: RJ11 connector

TELEPHONE TRANSMIT: (all measurements referenced at -15 dBm level on the phone line)  
Frequency Response: +/- 1 dB from 250 Hz to 3.5 kHz  
Signal to Noise: >70 dB  
Distortion: <0.15%

TELEPHONE RECEIVE: (all measurements referenced at -15 dBm level on the phone line with caller processing options bypassed)  
Frequency Response: +/- 1 dB from 250 Hz to 3.5 kHz  
Signal to Noise: >70 dB  
Distortion: <0.1%

Echo Cancellation/Mix-Minus Tail Time:  
120 milliseconds

Telco Cancellation Tail Time:  
32 milliseconds

#### APPROVALS:



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