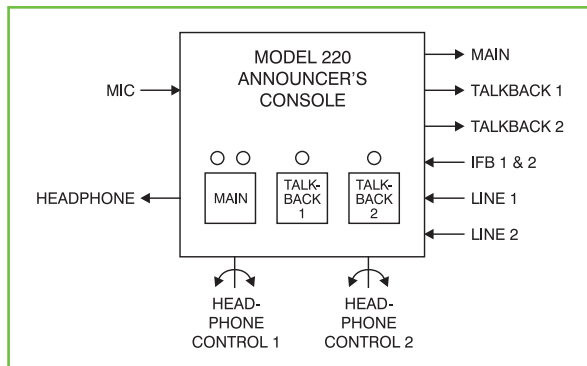


Model 220

Announcer's Console



The Model 220 Announcer's Console is an enhanced audio control "hub" for announcers, commentators, and production personnel. Compatible with essentially all broadcast and production audio system environments, the tabletop unit is a great choice for on-air television and radio broadcast.



Key Features:

- Microphone preamp with selectable gain and 48 volt phantom power
- Two line-level inputs
- Broadcast IFB input
- Three pushbutton switches offer programmable "click-free" audio path control
- Transformer-balanced main output
- Two line-level talkback outputs
- Stereo headphone monitoring of selectable sources
- Two rotary headphone output level controls
- Microcontroller-directed audio routing
- Auxiliary relay contacts
- Powered by IFB or by external DC source
- All configuration switches and trim potentiometers accessible via the bottom of the enclosure

Flexible Setup

Three pushbutton switches—Main, Talkback 1, and Talkback 2—operate under microprocessor control to offer unmatched flexibility and "click-free" audio routing. The Main button controls the main output with operating modes that include push-to-mute (cough), push-to-talk, and latching. The Talkback 1 and Talkback 2 buttons control dedicated line-level outputs to provide talent-originated cue signals to production personnel. For non-on-air applications a special feature set referred to as "production" mode can be enabled. Simple customization of the button labels ensures the user is presented with an easy-to-use set of controls and indicators.

Superior Audio

Featuring a studio-inspired low-noise/low-distortion preamplifier design, adjustable gain, and 48 volt phantom power, the Model 220 is compatible with balanced dynamic and condenser microphones. With high output capability and the use of an output transformer expressly designed for professional audio applications, the main output offers broadcast-quality audio as the on-air or other primary audio feed.

Powerful Monitoring

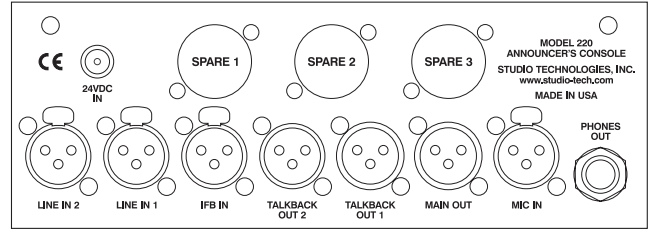
The headphone output's circuitry provides high output levels with very low distortion and noise. The user can monitor up to four external audio sources: IFB channel 1, IFB channel 2, line input 1, and line input 2. Possible signal sources for the line-level inputs include off-air receivers, wireless IFB systems, and audio consoles. Each source can be individually assigned to the left, right, or both channels of the binaural headphone output. Two rotary controls allow the user to adjust the headphone output levels.

Speedy Configuration

Model 220 configurations are made using DIP-type switches and trim potentiometers that are accessible via the bottom of the enclosure. No disassembly is required. An included security plate attaches to the bottom of the enclosure to limit access.

Installer Friendly

The Model 220 can be powered by the IFB input or the supplied external 24 volt DC source. Regardless of the power source used, the console is always fully operational including 48 volt phantom power. Audio inputs and outputs utilize industry-standard 3-pin XLR-type connections. Three spare connector locations are available on the Model 220's back panel. Factory-available assemblies and card kits allow a technician to customize these spare locations to accept a 6- or 7-pin XLR-type headset or to bring the auxiliary relay contacts to an XLR connector. Additional card kits include direct microphone output and remote switch input.



Model 220 Back Panel

Specifications

General Audio:

Frequency Response: 20 Hz-20 kHz, ± 0.1 dB, mic in/main out
 Distortion (THD+N): 0.008%, measured at 1 kHz, mic in/main out
 S/N Ratio: 80 dB, referenced to -46 dBu mic in/
 -2 dBu main out

Connectors:

Mic In, IFB In, Line In 1 & 2: 3-pin female XLR-type
 Main Out, Talkback Out 1 & 2: 3-pin male XLR-type
 Headphone Out: $\frac{1}{4}$ -inch 3-conductor phone jack
 24 Vdc Power In: 2.1 x 5.5 mm coaxial power jack

Spare Connector Locations: 3

Allows up to three Neutrik NC*D-L-1 connectors to be installed (*=3F, 3M, 5F, 5M, 6F, 6FS, etc.)

Microphone Input/Preamplifier:

Type: electronically balanced
 Input Impedance: 2 k ohms, nominal
 Gain Range: 20 to 60 dB, nominal, adjustable in 10 dB steps
 Compatibility: dynamic or phantom-powered mics
 Phantom Power: 48 Vdc, nominal, meets IEC 61938

Compressor:

Threshold: 2 dB above nominal level
 Attack/Release Time: 2 mSec/100 mSec, nominal
 Slope: 5:1, nominal

Line Inputs: 2

Type: balanced, transformer-coupled
 Impedance: 10 k ohms, nominal
 Nominal Level: -12 dBV to $+6$ dBu, adjustable

IFB Input:

Type: 2-channel, unbalanced (pin 1 common; pin 2 DC with channel 1 audio; pin 3 channel 2 audio)
 Impedance: 10 k ohms, nominal
 Nominal Level: -10 dBu

Main Output:

Type: balanced, transformer-coupled
 Nominal Level: -2 dBu
 Maximum Level: $+20$ dBu into 2 k ohms
 Impedance: 100 ohms, nominal

Line-Level Talkback Outputs: 2

Type: transformer-coupled with series capacitors and isolation resistors
 Impedance: 600 ohms, nominal
 Nominal Level: $+4$ dBu
 Maximum Level: $+11$ dBu (compressor restricts maximum)

Headphone Output: 1, binaural (stereo)

Compatibility: intended for connection to mono or stereo headphones or headsets with nominal impedance of 100 ohms or greater
 Type: voltage driver
 Maximum Output Voltage: 8 Vpp, 150 ohm load

Auxiliary Relay:

Contacts: 2, form C (Common, Normally Closed, Normally Open)
 Rating: 1 A, 30 W (resistive)

Power Sources:

IFB: 24-32 Vdc, 125 mA
 External: 24 Vdc nominal, 80 mA; acceptable range 20-30 Vdc. All units include a universal input/24 Vdc output power supply.

Dimensions (Overall):

8.1 inches wide (20.6 cm)
 3.3 inches high (8.4 cm)
 8.5 inches deep (22.4 cm)

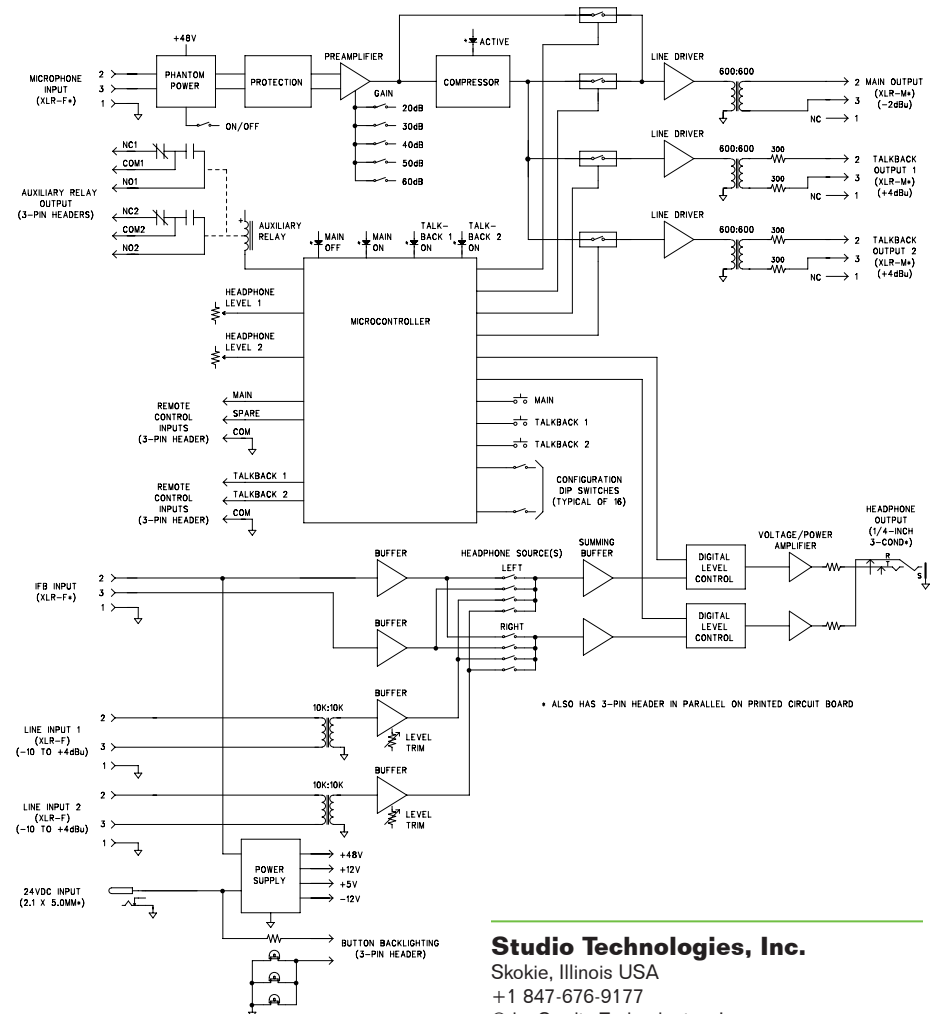
Weight: 4.5 pounds (2.1 kg)

Specifications subject to change without notice.

Additional Model 220 information can be downloaded from www.studio-tech.com.

Downloads include:

- User Guide
- Block Diagram
- Configuration Guide
- Model 200-Series Accessories Installation & Configuration Guide



Studio Technologies, Inc.

Skokie, Illinois USA

+1 847-676-9177

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