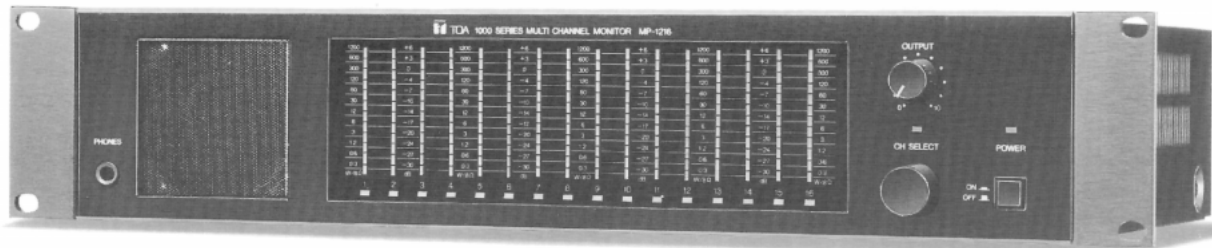


TOA PROFESSIONAL SOUND SYSTEM

MULTI-CHANNEL MONITOR PANEL

MP-1216



DESCRIPTION

TOA's MP-1216 Multi-Channel Monitor Panel is an active device featuring aural and visual monitoring of up to sixteen channels for any combination of speaker and line level audio circuits. By linking two MP-1216's up to 32 channels may be monitored.

The unit may be located away from the equipment, allowing remote monitoring of system levels. It requires only standard, light gauge audio cable for connection to points in the system to be monitored, whether they are speaker or line level.

The MP-1216 is highly useful for monitoring signal levels in any system with multiple channels of line level feeds and/or amplification. This is particularly true when equipment provides, at best, only clip indicators or where there is a variety of different types of indicators—all calibrated to their own "standard" level. This can present a very confusing "level picture", even to trained operators.

A major feature of the MP-1216 is that there is a 12 segment LED meter for EACH input. The meters are active at all times so that all levels can be SIMULTANEOUSLY monitored. The meters are calibrated for 0.3W to 1,200W for 8 ohm speaker circuits and -30dB to +6dB *(ref 0.775V) for line level circuits. Each input is bridging, transformer isolated and can accept signals from high or low impedance speaker or line level circuits.

Each input has a separate screw terminal for each type of input. This provides positive, hardwired, reliable connections with no input switches to misadjust or fail. Because of the transformer isolation and high impedance inputs, by connecting one channel to a patch bay jack, any audio signals in the patch bay can be safely monitored—even mic signals (although usually only at low aural levels).

Each individual input channel can also be aurally monitored through a high quality internal speaker or headphone jack. A front panel selector switch is used to select the channel to be monitored and an output level control adjusts the listening volume. Beneath each channel meter is an indicator to show the channel selected for aural monitoring. The monitor circuit provides up to 3 watts output to the internal speaker. When headphones of 8 ohm or higher impedance are used, the internal speaker is automatically disconnected.

Two MP-1216's can be linked in a Master/Slave configuration using the optional link cable and the rear panel Link switch to select the operation mode. In this way up to 32 channels can be monitored. The Master unit provides the selection and control of aural monitoring for both the Master and the Slave. When in Slave mode, the unit's Select switch is disabled and the LED indicator above the selector switch is extinguished.

* 0dB = +4dBm = 1.23V RMS

FEATURES

1. Simultaneous visual monitoring of up to 16 audio signals with a 12 segment LED meter for each channel.
2. Simultaneous monitoring of 32 channels by linking two MP-1216's.
3. Each input accepts signals at line level or from any type of speaker circuit (low or high impedance).
4. Transformer isolated, bridging inputs do not affect circuits to be monitored.
5. No input switches: A separate screw terminal on each input for each input type for permanent, reliable connections.
6. Individual aural monitoring of each channel, using an internal speaker or the headphone jack. Indicator light for channel being monitored.
7. Volume control and selector switch for speaker and headphone control.
8. Back panel switch for Independent, Master or Slave operation modes with a front panel indicator showing the selected mode.
9. Master unit controls selection and volume for aural monitoring of all 32 channels for linked units.
10. Calibrated meters for meaningful, relative signal level indications.
11. Occupies only 2 rack spaces.

SPECIFICATIONS

Model No.	MP-1216	
INPUT & OUTPUT		
Nominal Input Levels		
Line level	+4dB, transformer isolated	
Low impedance speaker	49V, transformer isolated	
High impedance speaker	70V, transformer isolated (100V 220/240V AC version)	
Maximum Meter Levels		
Line level	+10dB	
Low impedance speaker	98V (1,200W at 8 ohms)	
High impedance speaker	140V	
Maximum Output Level	3W into internal speaker or 10mW into phones jack	
PANEL FUNCTIONS		
Operating Controls (common to both)	Select switch output Power	Chans 1—16 Speaker/Phone level On/Off
Operating Control (link sw on rear panel)	Link switch	Inde/Master/Slave
LED Indicators (per channel)	Meter Channel indicator	12 segment LED On when selected
LED Indicators (common to both)	Ch Select Power	On for Master/Inde modes Off for Slave mode On
POWER		
Power Requirements	AC Mains, 50Hz/60Hz	
Power Consumption	21W (120V AC version) 25W (220/240V AC version) Fuse: 1.0A 120V/0.25A 220/240V	
PHYSICAL		
Finish	Black	
Dimensions	482.6W x 88.4H x 312.7D mm (19W x 3.48H x 12.31D in.)	
Weight	5.3kg (11.7 lbs.)	
STANDARD ACCESSORIES	Spare fuse: 1 Rack screws [metric] 4	
OPTIONAL ACCESSORY	YA-8 Link Cable	

NOTE: 0dB = 0.775V RMS

*Specifications are subject to change without notice.

Architect's and Engineer's Specifications

The device shall be a multi-channel monitor panel to provide visual and aural monitoring of up to 16 channels of any combination of high/low impedance speaker and line level circuits. Two units may be linked for monitoring up to 32 channels. Nominal output level shall be 3W into the built-in monitor speaker and a headphone jack for 8 ohm or higher impedance headphones. Rated input levels shall be 70V, 120V AC version (100V, 220/240V AC version) for high impedance speakers, 50V (300W 8 ohms) for low impedance speakers and 1.23V (+4dB) for line level. Maximum input levels for full meter reading are 100V for speaker and 2.5V (+10dB) for line inputs. All inputs shall be bridging, balanced and transformer isolated.

The front panel shall have a PHONES jack and internal monitor speaker. Front panel controls and switches shall include: POWER On/Off switch; OUTPUT level control and CHAN SELECT switch for the speaker/headphone monitoring. Front panel indicators for each channel shall include: a Channel Select LED below each meter to indicate the channel being aurally monitored; a 12-point LED meter that shall be active at all times and calibrated for 0.3W to 1200W at 8 ohms and -30dB to +6dB* for line level signals. Also provided shall be a CHAN SELECT switch indicator (On = switch enabled in INDEPENDENT or MASTER modes, Off = switch disabled in SLAVE mode); a POWER On indicator.

The rear panel shall have a switch for setting the mode of operation to INDE, MASTER or SLAVE. INDEPENDENT mode shall be for stand alone operation: MASTER and SLAVE modes for linking two units. In this case one unit shall be in MASTER mode, the other in SLAVE mode. The unit in MASTER mode shall provide the aural monitoring facilities and control of monitor Channel Selection and Level for both units.

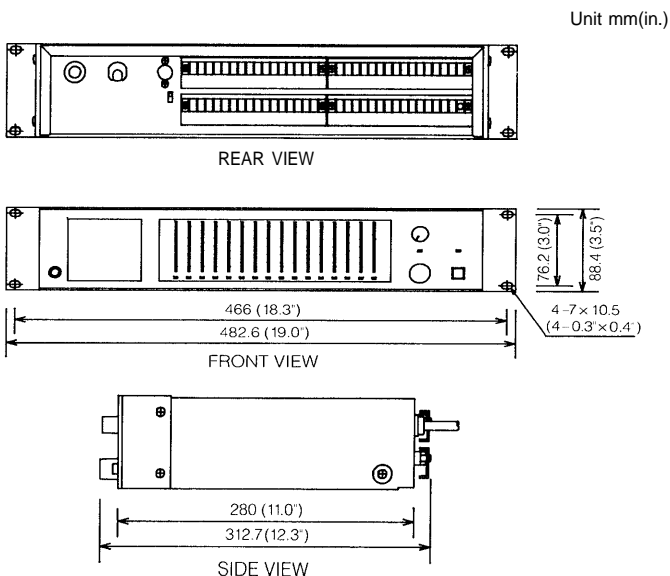
The rear panel shall also include: four barrier strip type screw terminals per channel (70V/100V, 8 ohm, 1.23V, Com), with protective plastic covers to prevent accidental shorts; a fuse holder with a replaceable 1 amp (1/4 amp 220/240V) fuse with 1 spare fuse provided.

Power consumption shall be 21 watts at 120V AC (25W 220/240V AC version). The unit shall be enclosed in a durable, black painted 1.0mm (.04 in.) steel enclosure, mechanically reinforced by a 2.0mm (0.08 in.) thick, black Alumirite front panel. Overall dimensions shall be 482.6W x 88.4H x 312.7D mm (19W x 3.48H x 12.31D in.). Weight shall be 5.3kg (11.7 lbs.). Standard E.I.A. equipment rack mounting shall be provided.

The multi-channel monitor panel shall be the TOA MP-1216.

NOTE: 0dB = 0.775V RMS
* 0dB = +4dBm = 1.23V RMS

DIMENSIONAL DIAGRAM



TOA Corporation