

# MGP16X, MGP12X

## Mixing Consoles



## MGP16X



Rear Panel



## MGP12X



Rear Panel

From the preamps, EQ and effects to the Hybrid Channel functions and iPod/iPhone connectivity—every aspect, every feature, every sound, establishes the MGP as a premium mixing console in a class of its own.

- Studio-grade Discrete Class A “D-PRE” Mic Preamps with an Inverted Darlington Circuit.
- Musical X-pressive EQ based on Yamaha’s famed VCM Technology.
- Professional 1-knob Compressors with LED Indicators.
- High-grade Dual Digital Effects Processors: Advanced REV-X and Classic SPX.
- Stereo Hybrid Channels utilizing a Powerful, Proprietary DSP.
- Digital Connectivity for iPod/iPhone.
- MGP Editor for Detailed Control of the Console's DSP settings via iPod/iPhone.
- Rugged, Impact-resistant, Powder-coated Metal Chassis.
- Integrated Rack-ears for Easy Rack Mounting.
- Internal Universal Power Supply for World-wide Use.

# MGP16X, MGP12X

## GENERAL SPECIFICATIONS

|                                                | MGP16X                                                                                                                                             | MGP12X                                                                                                 |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Mic inputs</b>                              | 10                                                                                                                                                 | 6 (100Hz 12dB/oct)                                                                                     |
| <b>Line inputs</b>                             | LINE: 8mono+4stereo, CH INSERT: 8, RETURN: 1stereo, 2TR IN: 1 stereo                                                                               | LINE: 4mono+4stereo, CH INSERT IN: 4, RETURN: 1stereo, 2TR IN: 1 stereo                                |
| <b>Mixing channels</b>                         | 16 Line Inputs (8 mono and 4 stereo)                                                                                                               | 12 Line Inputs (4 mono and 4 stereo)                                                                   |
| <b>Group buses</b>                             | 4 GROUP Buses + ST Bus                                                                                                                             |                                                                                                        |
| <b>AUX buses</b>                               | 2 AUX Sends + 2 FX Sends                                                                                                                           |                                                                                                        |
| <b>Total harmonic distortion</b> <sup>*1</sup> | 0.02% (20Hz to 20kHz) @ +14dBu                                                                                                                     |                                                                                                        |
| <b>Frequency response</b>                      | +0.5/-1.0dB 20Hz-20kHz, refer to the nominal output level @1kHz                                                                                    |                                                                                                        |
| <b>Hum &amp; noise level</b> <sup>*2</sup>     | -128dBu Equivalent Input Noise<br>-102dBu Residual Output Noise                                                                                    |                                                                                                        |
| <b>Crosstalk</b> (@1kHz)                       | -74dB                                                                                                                                              |                                                                                                        |
| <b>Phantom Power</b>                           | +48V                                                                                                                                               |                                                                                                        |
| <b>Monaural Input Channel Equalization</b>     | HIGH:±15dB (8kHz shelving)<br>MID:±15dB (250Hz-5kHz peaking: CH1-8,13-16)<br>LOW:±15dB (125Hz shelving)                                            | HIGH:±15dB (8kHz shelving)<br>MID:±15dB (250Hz-5kHz peaking: CH1-4,9-12)<br>LOW:±15dB (125Hz shelving) |
| <b>Stereo Input Channel Equalization</b>       | HIGH:±15dB (8kHz shelving)<br>MID:±15dB (2.5kHz peaking: CH9-12)<br>LOW:±15dB (125Hz shelving)                                                     | HIGH:±15dB (8kHz shelving)<br>MID:±15dB (2.5kHz peaking: CH5-8)<br>LOW:±15dB (125Hz shelving)          |
| <b>Compressor (COMP)</b>                       | CH1-8: control x 1 (Gain/Threshold/Ratio)                                                                                                          | CH1-4: control x 1 (Gain/Threshold/Ratio)                                                              |
| <b>Internal Digital Effect</b>                 | FX1: REV-X<br>FX2: SPX                                                                                                                             |                                                                                                        |
|                                                | 8 PROGRAM, PARAMETER control                                                                                                                       |                                                                                                        |
|                                                | 16 PROGRAM, PARAMETER control                                                                                                                      |                                                                                                        |
| <b>LED Level Meter Pre MONITOR Level</b>       | 2 x 12points LED meter (PEAK, +10, +6, +3, 0, -3, -6, -10, -15, -20, -25, -30dB) PEAK lights if the signal comes within 3dB of the clipping level. |                                                                                                        |
| <b>Signal indicator</b>                        | PEAK indicator (red), SIG indicator (green) Peak lights if the signal comes within 3dB of the clipping level.                                      |                                                                                                        |
| <b>USB Audio USB IN/OUT</b>                    | iPod, iPhone exclusive                                                                                                                             |                                                                                                        |
| <b>Power requirements</b>                      | 100-240 V 50/60 Hz, auto sensing, IEC input                                                                                                        |                                                                                                        |
| <b>Power consumption</b>                       | 55W max                                                                                                                                            | 45W max                                                                                                |
| <b>Dimensions (W x H x D)</b>                  | 447 x 143 x 495 mm (17.6" x 5.6" x 19.5")                                                                                                          | 348 x 143 x 495 mm (13.7" x 5.6" x 19.5")                                                              |
| <b>Weight</b>                                  | 9.0 kg (19.8 lb)                                                                                                                                   | 7.5 kg (16.5 lb)                                                                                       |

\*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.

\*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

## ANALOG INPUT SPECIFICATIONS

| Input terminal                                   | PAD  | GAIN  | Actual source impedance | For use with nominal | Input level              |                    |                   | Connector                      |
|--------------------------------------------------|------|-------|-------------------------|----------------------|--------------------------|--------------------|-------------------|--------------------------------|
|                                                  |      |       |                         |                      | Sensitivity <sup>†</sup> | Nominal            | Max. before clip  |                                |
| MONO CH INPUT<br>MGP16X: 1-8<br>MGP12X: 1-4      | 0    | -60dB | 3kΩ                     | 50-600Ω Mics         | -80 dBu (0.078 mV)       | -60 dBu (0.775 mV) | -40 dBu (7.75 mV) | Combo jack*                    |
|                                                  |      | -16dB |                         |                      | -36 dBu (12.3 mV)        | -16 dBu (123 mV)   | +4 dBu (1.23 V)   |                                |
|                                                  | 26dB | -34dB |                         | 600Ω Lines           | -54 dBu (1.55 mV)        | -34 dBu (15.5 mV)  | -14 dBu (155 mV)  |                                |
|                                                  |      | +10dB |                         |                      | -10 dBu (245 mV)         | +10 dBu (2.45 V)   | +30 dBu (24.5 V)  |                                |
| STEREO CH INPUT<br>MGP16X: 9-12<br>MGP12X: 5-8   | 0    | -60dB | 3kΩ                     | 50-600Ω Mics         | -80 dBu (0.078 mV)       | -60 dBu (0.775 mV) | -40 dBu (7.75 mV) | XLR-3-31 type*                 |
|                                                  |      | -16dB |                         |                      | -36 dBu (12.3 mV)        | -16 dBu (123 mV)   | -6dBu (389mV)     |                                |
|                                                  | 26dB | -34dB |                         | 600Ω Lines           | -54 dBu (1.55 mV)        | -34 dBu (15.5 mV)  | -14 dBu (155 mV)  |                                |
|                                                  |      | +10dB |                         |                      | -10 dBu (245 mV)         | +10 dBu (2.45 V)   | +30 dBu (24.5 V)  |                                |
| STEREO CH INPUT<br>MGP16X: 13-16<br>MGP12X: 9-12 | 0    | -34dB | 10kΩ                    | 600Ω Lines           | -54 dBu (1.55 mV)        | -34 dBu (15.5 mV)  | -14 dBu (155 mV)  | Phone jack**<br>RCA pin jack** |
|                                                  |      | +10dB |                         |                      | -10 dBu (245 mV)         | +10 dBu (2.45 V)   | +30 dBu (24.5 V)  |                                |
| MONO CH INSERT IN<br>MGP16X: 1-8<br>MGP12X: 1-4  |      |       | 10kΩ                    | 600Ω Lines           | -20 dBu (77.5 mV)        | 0 dBu (0.775 V)    | +20 dBu (7.75 V)  | TRS Phone Jack**               |
| RETURN (L, R)                                    |      |       | 10kΩ                    | 600Ω Lines           | -12 dBu (195 mV)         | +4 dBu (1.23 V)    | +24 dBu (12.3 V)  | Phone Jack**                   |
| 2TR IN [L,R]                                     |      |       | 10kΩ                    | 600Ω Lines           | -26 dBV (50.1 mV)        | -10 dBV (0.316 V)  | +10 dBV (3.16 V)  | RCA Pin Jack**                 |

## ANALOG OUTPUT SPECIFICATIONS

| Output terminal                                  | Actual source impedance | For use with nominal | Output Level      |                  | Connector                    |
|--------------------------------------------------|-------------------------|----------------------|-------------------|------------------|------------------------------|
|                                                  |                         |                      | Nominal           | Max. before clip |                              |
| ST OUT [L,R]                                     | 75Ω                     | 600Ω Lines           | +4 dBu (1.23 V)   | +24 dBu (12.3 V) | XLR3-32 type*<br>Phone jack* |
| GROUP OUT (1-4)                                  | 150Ω                    | 10kΩ Lines           | +4 dBu (1.23 V)   | +20 dBu (7.75 V) | Phone jack*                  |
| AUX SEND (1, 2)                                  | 75Ω                     | 600Ω Lines           | +4 dBu (1.23 V)   | +24 dBu (12.3 V) | XLR3-32 type*                |
| FX SEND (1, 2)                                   | 150Ω                    | 10kΩ Lines           | +4 dBu (1.23 V)   | +20 dBu (7.75 V) | Phone jack***                |
| MONO CH INSERT OUT<br>MGP16X: 1-8<br>MGP12X: 1-4 | 150Ω                    | 10kΩ Lines           | 0 dBu (0.775 V)   | +20 dBu (7.75 V) | Phone jack**                 |
| REC OUT [L,R]                                    | 600Ω                    | 10kΩ Lines           | -10 dBV (0.316 V) | +10 dBV (3.16 V) | RCA Pin Jack**               |
| MONITOR OUT [L,R]                                | 150Ω                    | 10kΩ Lines           | +4 dBu (1.23 V)   | +20 dBu (7.75 V) | Phone jack***                |
| PHONES OUT                                       | 100Ω                    | 40Ω Phones           | 3mW               | 75mW             | ST Phone Jack**              |

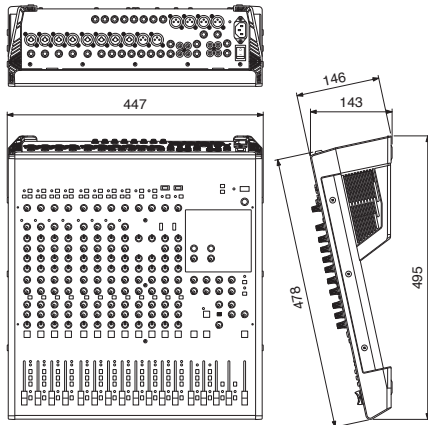
\*\*\* Phone jacks are impedance balanced. (Tip=HOT, Ring=COLD, Sleeve=GND)

## DIGITAL INPUT SPECIFICATIONS

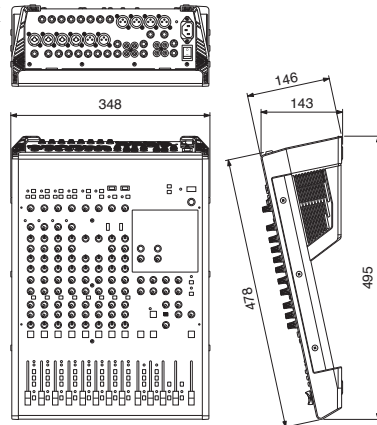
| Terminal | Format                 | Connector  |
|----------|------------------------|------------|
| USB IN   | iPod, iPhone exclusive | USB A type |

## DIMENSIONS

MGP16X



MGP12X



unit : mm

