

**MACKIE®****FRS•1700 / FRS•2800****1700W / 2800W
Power Amplifiers**

FRS•1700 and FRS•2800

Mackie FRS Series Power Amplifiers provide the power and performance needed to keep the show rolling night after night. With proven Fast Recovery™ technology, FRS amplifiers deliver clear, punchy sound that's undistorted, even when pushed to the limits.

The designs are extremely rugged, but are still easy to lift thanks to lightweight and ultra-efficient high-current switching power supplies. With optimized performance, super-quiet operation and an array of protection circuits, FRS Series Power Amplifiers are the obvious choice to drive your passive loudspeaker system.

The amplifier can operate in stereo, dual-mono, or bridged-mono. The output connections are NL4 and binding posts for left, right, and bridged mono.

The combination inputs are capable of accepting balanced XLR, 1/4" TRS, or unbalanced 1/4" TS connections from line-level sources. Two XLR thru-outputs allow sharing the balanced input signals with other amplifiers or powered speakers. Two front panel level controls allow adjustment of the input signals.

The front panel has a rocker-style power switch with a power LED, and each channel has a high-resolution six-segment LED meter.

The amplifier output stage is fully protected against permanent damage caused by overloading, shorts and extreme temperatures.

The front panel incorporates holes for rack mounting where it will take up two rack spaces. Two handles are fitted on the front panel for easy transporting.

The FRS Series Power Amplifiers are designed for continuous duty in speech, music and sound reinforcement applications in churches, schools, offices, arenas, hotel meeting rooms, convention centers, recreation facilities and other venues demanding high performance, flexible features and rugged dependability.

Available in two powerful models: FRS•1700 and FRS•2800



FEATURES:

- Fast Recovery™ circuitry for clean, undistorted sound
- Ultra-lightweight switching power supply for maximum efficiency and minimal heat
- Available in two powerful models:
 - FRS•1700 – 1660W continuous power @ 4 Ω bridged
 - FRS•2800 – 2800W continuous power @ 4 Ω bridged
- Selectable mono/stereo/bridged operating modes
- High-resolution, 6-segment LED meter per channel
- Defeatable clip limiter plus short, under-impedance, over-current and thermal protection
- 30 Hz subsonic filter maximizes amplifier efficiency and headroom
- Combo XLR/TRS input and XLR thru connectors per channel
- NL4 and binding post outputs per channel
- Third NL4 output for bridged mono applications, also provides both output channels on a single connector (mono / stereo modes)
- Multi-speed fans adjust to operating temperature for minimal acoustic noise
- Robust, impact-resistant, all-steel 2U rackmount chassis
- Lightweight and portable – both models under 22 lb



FRS•1700 / FRS•2800

1700W / 2800W
Power Amplifiers

FRS SERIES AMPS SPECIFICATIONS

Continuous Sine Wave Average Output Power, per channel, both channels driven, 20 Hz to 20 kHz

	FRS•1700	FRS•2800
2 Ω:	830W	1300W
4 Ω:	540W	850W
8 Ω:	310W	500W

Bridged Mono Operation, 20 Hz to 20 kHz

	FRS•1700	FRS•2800
4 Ω:	1660W	2800W
8 Ω:	1080W	1700W

Note: Power ratings are specified at 240 VAC line voltage.

Power Bandwidth

5 Hz to 50 kHz (+0, -3 dB)

Frequency Response

20 Hz to 25 kHz (+0, -1 dB)

Distortion

THD and SMPTE IMD; 20 Hz to 20 kHz
<0.03% @ 8 Ω

Signal-to-Noise Ratio

>105 dB below rated power into 4 Ω

Channel Separation

>68 dB @ 1 kHz

Damping Factor

>300 @ 1 kHz and below, into 8 Ω

Input Impedance

20 kΩ balanced
10 kΩ unbalanced

Input Sensitivity

1.15 V (+3.4 dBu) for rated power into 4 Ω

Gain

FRS•1700:	33 dB
FRS•2800:	35 dB

Maximum Input Level

9.75 Vrms (+22 dBu)

Turn On Delay

2.5 seconds

Subsonic Filter

-9 dB @ 30 Hz

Topology

FRS•1700:	Class AB
FRS•2800:	Class H

Cooling

Variable-speed fans with back-to-front airflow

Indicators

SIG (Signal Present) on each channel
OL (Overload) on each channel
Signal Meters -3 dB, -6 dB, -9 dB, -20 dB on each channel
Power LED on power switch

Current Consumption (measured at 240 VAC line voltage)

	FRS•1700	FRS•2800
Idle:	0.5 A	0.6 A
Musical Program:		
@8 Ω:	5.3 A	8.4 A
@4 Ω:	7.4 A	10.8 A
@2 Ω:	11.4 A	18.3 A

AC Power Requirements

US model:	100 - 120 VAC, 50 - 60 Hz
EU model:	200 - 240 VAC, 50 - 60 Hz
Operating Temperature	0 - 40 °C
[extended ambient temperature]:	32 - 104 °F

Physical Properties (packaged product)

Height:	6.8 in / 173 mm
Width:	19.5 in / 495 mm
Depth:	23.3 in / 592 mm
Weight:	30.3 lb / 13.7 kg [FRS•1700]
Weight:	30.9 lb / 14 kg [FRS•2800]

Physical Properties (product)

Height:	3.5 in / 89 mm
Width:	19.0 in / 483 mm
Depth:	14.7 in / 373 mm
Depth (with handles):	16.2 in / 411 mm
Weight:	21.5 lb / 9.7 kg [FRS•1700]
Weight:	22 lb / 10 kg [FRS•2800]

Ordering Information

FRS•1700 1660W 2-Channel Power Amplifier, US:	P/N 0025403-00
FRS•1700 1660W 2-Channel Power Amplifier, EU:	P/N 0025403-01
FRS•2800 2800W 2-Channel Power Amplifier, US:	P/N 0025404-00
FRS•2800 2800W 2-Channel Power Amplifier, EU:	P/N 0025404-01

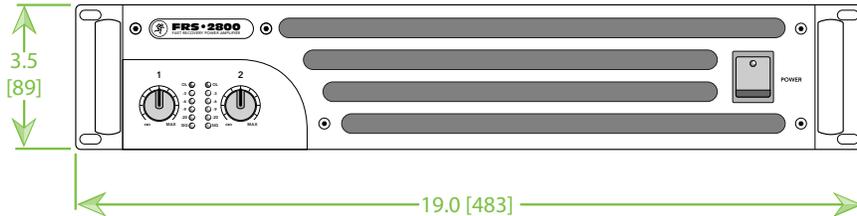


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FRS-1700 / FRS-2800

**1700W / 2800W
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FRS SERIES AMPS DIMENSIONS

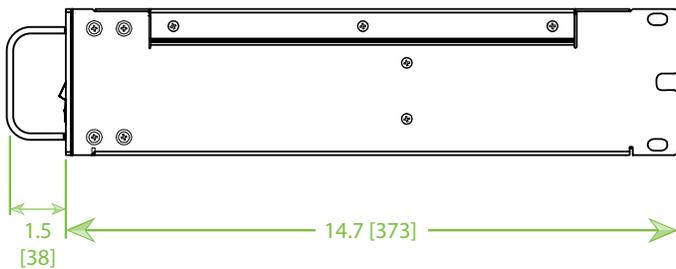
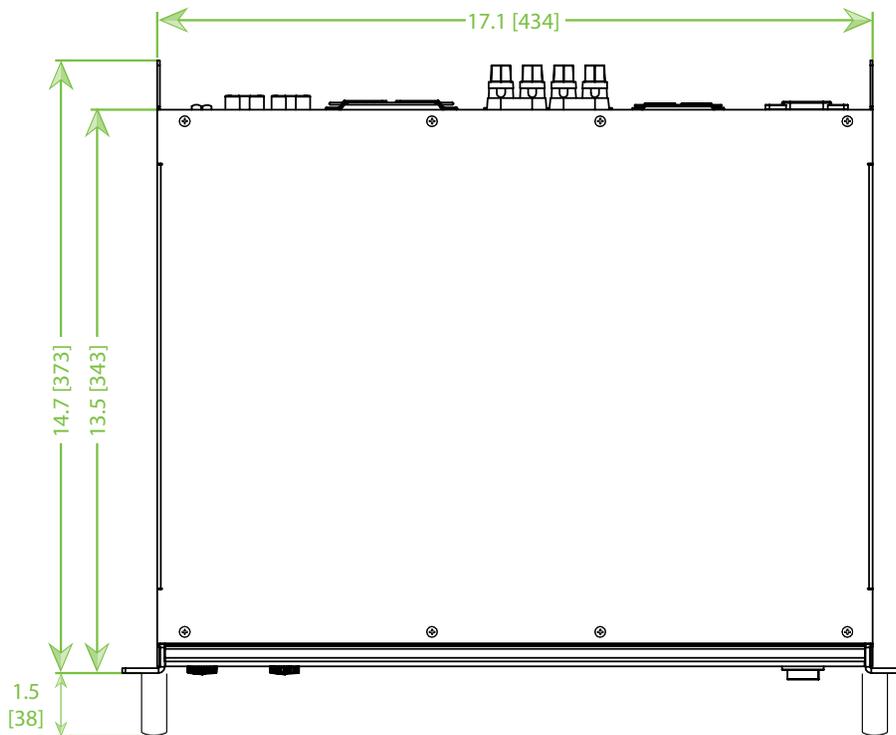


FRS-1700 NOTES:

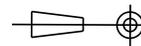
- 1. WEIGHT APPROX. 21.5 lb [9.7 kg].
- 2. SHIPPING WEIGHT APPROX. 30.3 lb [13.7 kg].

FRS-2800 NOTES:

- 1. WEIGHT APPROX. 22 lb [10 kg].
- 2. SHIPPING WEIGHT APPROX. 30.9 lb [14 kg].



THIRD ANGLE PROJECTION



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HEREIN IS PROPRIETARY AND
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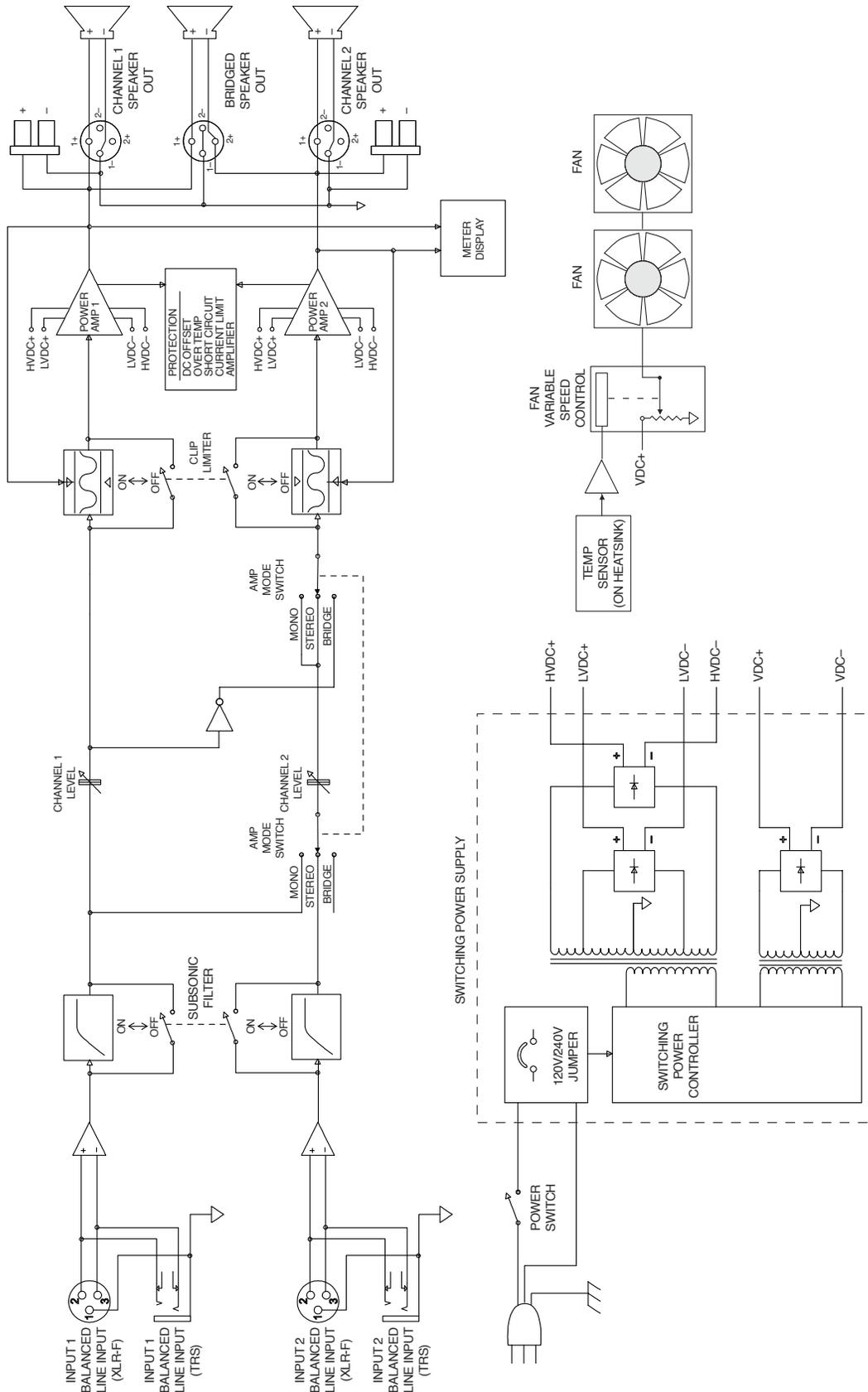
UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
DUAL (MM) DIMENSIONS
FOR REF ONLY

TOLERANCE IN INCHES
LINEAR ± 0.13 in / ± 3.3 mm
ANGLES $\pm 1^\circ$

(X.XX) = REF DIMS
NO TOLERANCE IMPLIED

TSC = THEORETICAL SHARP CORNER
DIMENSIONS ACROSS CENTERLINES
TO BE SYMMETRICAL

FRS SERIES AMPS BLOCK DIAGRAM



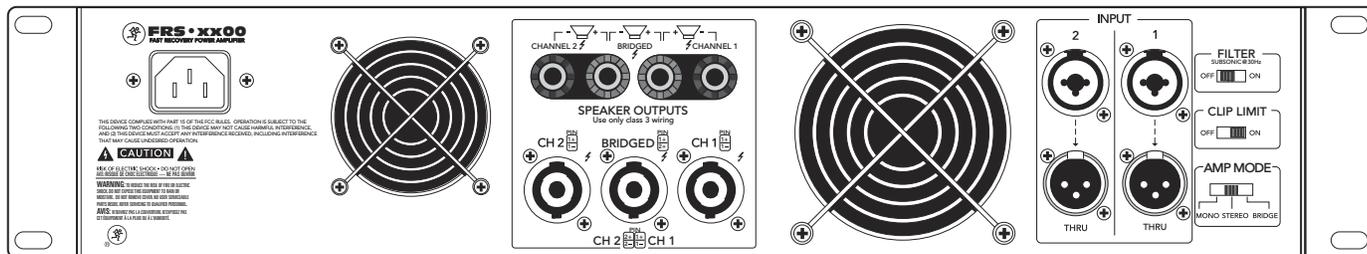
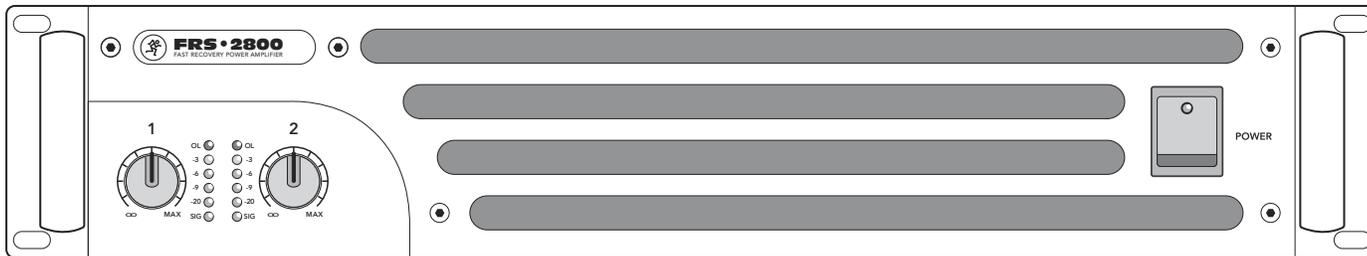


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FRS-1700 / FRS-2800

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FRS SERIES AMPS FRONT AND REAR PANELS



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Electronic files for this product are available at:
www.mackie.com

Specification Sheet	FRS_Series_Amps_SS.PDF
Owner's Manual	FRS_Series_Amps_OM.PDF



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