



# RDL®

High Performance Audio Products. Made in America.

## Model SF-MA100A Format-A to 100 W Mono Audio Mixer-Amplifier - 70 V or 100 V

- 100 Watts RMS Constant Voltage Amplifier
- 70 V or 100 V Output
- Three Operating Modes
- Mode 1: 3-Input Mixer Amp with No Remote Control
- Mode 2: 3-Input Mixer Amp with VCA for Remote Level Control of Audio Output
- Mode 3: 3-Input Mixer Amp with VCA Remote Control of Each Mixer Input
- Mixes Audio Inputs from Format-A Pair A, Pair B and Pair C
- Format-A Signal and Power Pairs Pass Through to LOOP OUT Jack
- External Level Control Using RDL Type D\*-RLC10KM (Mode 2)
- External Level Control Using RDL Type D\*-RC3 (Mode 3) Remote Controls with RJ45
- Special Software Not Required for Module Setup
- LED Indicators: Amplifier Output Level and Status, and Correct dc Voltage on Format-A Output
- High-Efficiency Class D Operation
- Thermal and Short-Circuit Protection
- Plenum Rated per UL 2043 Standard



**APPLICATION:** The SF-MA100A is an audio power amplifier that receives three audio channels on an RJ45 Format-A connector. The three inputs are mixed either by the three rear-panel potentiometers or remotely by the three potentiometers on the remote control (available separately). Local or remote control is defined by the Mode switch on the rear panel. If the mixer is remote-controlled, the rear-panel potentiometers set the maximum gain applied to each input.

At the normal gain setting, the output provides a 70 V or 100 V constant voltage amplified output at 100 watts for an audio input level of +22 dBu. The three Format-A pairs feed through to the LOOP OUT jack to feed additional amplifiers or other Format-A receivers.

Input gain is set by the installer using the rear-panel single-turn potentiometers with an associated dual-LED VU meter calibrated to 10 dB below maximum power output. The SF-MA100A is equipped with internal VCAs for setting the mixer input levels or amplifier output level. The REMOTE CONTROL RJ45 jack provides for the connection of an RDL D\*-RLC10KM type remote level control for Mode 2, or an RDL D\*-RC3 for Mode 3. It is also possible to use the RJ45 jack to connect external 10 kΩ potentiometers or a 0 to 10 Vdc control voltages. VCA control insures long term noise-free level adjustment.

A selectable audio compressor is provided to add up to 15 dB additional headroom to the power amplifier input. The compressor is designed to remain aurally transparent using automatically adjusting attack and release times. The amplifier is equipped with both thermal and output short-circuit protection. The high-efficiency Class D output stage produces minimal heat for all levels of expected voice or music modulation.

The SF-MA100A is equipped to operate from an included external 48 Vdc power supply.

The SF-MA100A is constructed in a durable, professional all-metal enclosure suitable for free-standing, surface-mounted or rack-mounted operation. This full-featured SYSFLEX product is engineered and manufactured in the U.S.A. for continuous duty in demanding installations. The versatility of SYSFLEX products adds enormous flexibility in the design and installation of professional A/V systems.



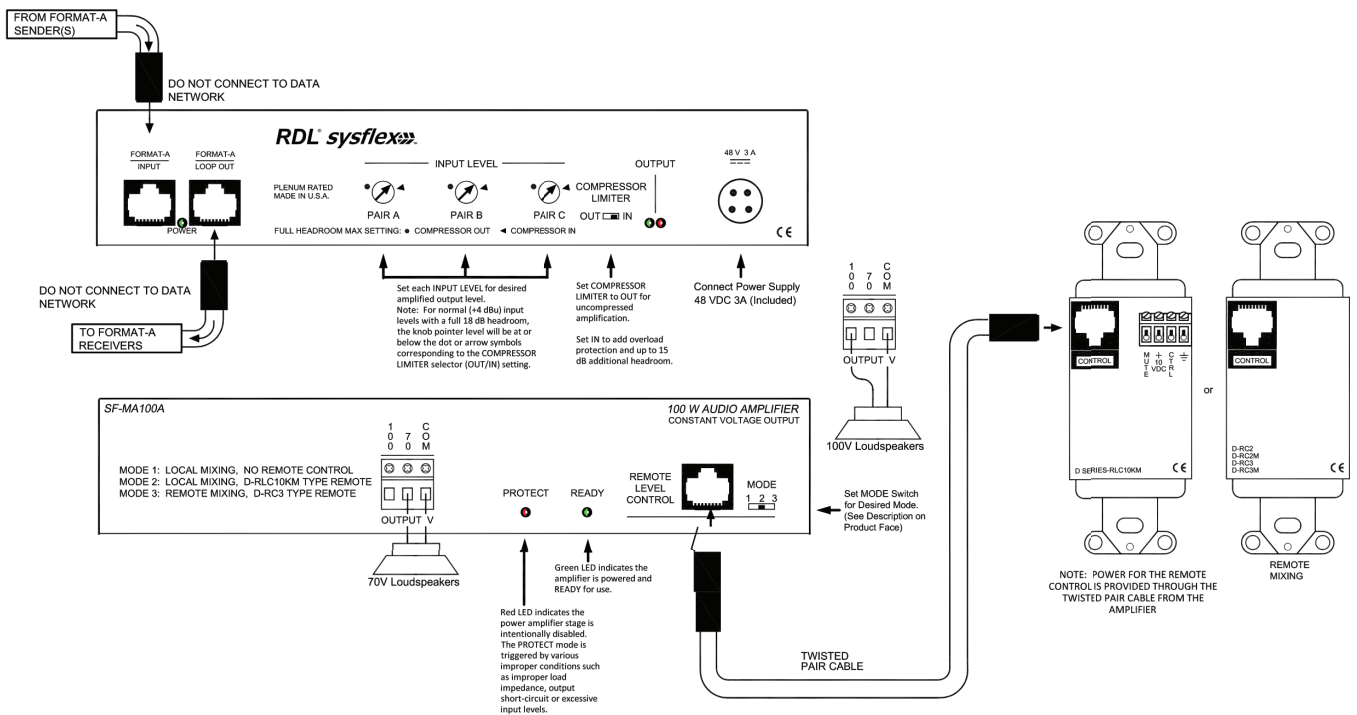
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## Installation/Operation

CE Declaration of Conformity available from rdlnet.com. Sole EMC specifications provided on product package. Specifications are subject to change without notice.



### TYPICAL PERFORMANCE

Input:  
Input Connection:  
Format-A Signal Pairs Used (3):  
Format-A Output:  
CMRR:  
Headroom above +4 dBu input:

RDL TP Format-A  
RJ45  
A, B, C  
RJ45 (loop-through)  
> 80 dB (50 Hz to 150 Hz)  
> 18 dB

### Amplifier Section

Power Amplifier Output:  
Frequency Response:  
THD+N:  
Noise:  
Audio Metering:  
Compressor:

100 W RMS (70 or 100 V)  
+0/-3 dB (50 Hz to 20 kHz; -0.25 dB typical at 20 kHz)  
< 1% (100 W)  
< -85 dB (below max power); < -75 dB (below 1/8 power)  
below full output power  
Dual-LED VU Meter calibrated to 10 dB  
Selectable (IN/OUT), threshold 2 dB below rated output,  
automatic adjusting attack and release times;  
adds 15 dB headroom to power amplifier input

### Mode 1

Function:  
Inputs (3):  
Gain Adjustments (3):

Inputs summed using Gain Adjustments;  
No remote controls used  
Pair A, Pair B, Pair C  
Single turn audio taper

### Mode 2

Function:  
Inputs (3):

Inputs summed using Gain Adjustments; Master VCA level  
remote control (see RDL D\*-RLC10M type)  
Pair A, Pair B, Pair C

Gain Adjustments (3):  
VCA:

### Mode 3

Function:  
Inputs (3):  
Gain Adjustments (3):  
VCA (3):

Single turn audio taper  
RJ45, 0 to 10 Vdc control  
(compatible with RDL D\*-RLC10KM wall controls)

Indicators (5):

Ambient Operating Environment:  
Power Supply (included):

Plenum Rating Standard:  
Dimensions:

Package Type:  
Package Dimensions:

Shipping Weight:  
WEEE weight:  
Tariff code:

Inputs summed using remote control  
(see RDL D\*-RC3 type remote)  
Pair A, Pair B, Pair C  
Single turn audio taper; sets maximum gain  
available for associated input pair  
RJ45, 0 to 10 Vdc control  
(compatible with RDL D\*-RC3 wall controls)

Front-panel: Ready (green), Overload Shutdown  
(red), Rear-panel: dual-LED VU meter (2),  
Format-A Power (green)

0° C to 50° C  
100 to 240 Vac, 50-60 Hz, IEC C14;  
Output to module: 48 Vdc  
UL 2043  
Height: 1.68 in. (4.27 cm);  
Width: 8.71 in. (22.12 cm);  
Depth: 7.8 in. (19.81 cm)

Cardboard Box  
4.2 in. (10.67 cm) x 11.9 (30.23 cm) x  
9.5 (24.13 cm)  
5.46 lbs.  
4.56  
8543.70.9910

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