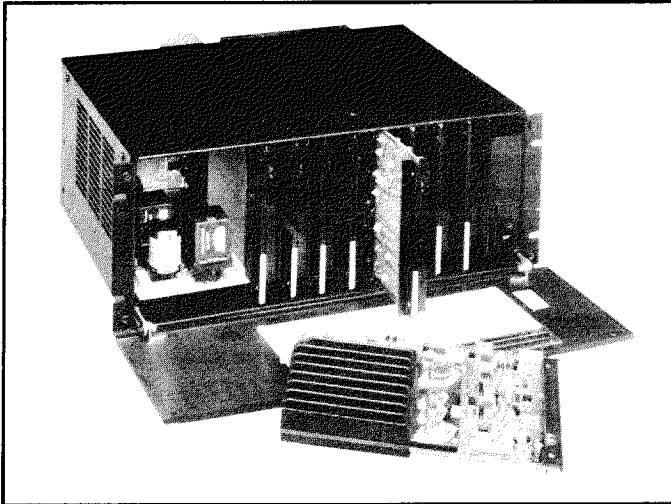




2280B Multichannel Incremental Power® System



KEY FEATURES

- ★ Modular 70.7-volt, 78-watt amplification blocks may be paralleled in any combination.
- ★ Equipped for remote indication of operational faults.
- ★ Flexible input configurations.

The Altec Lansing **2280B** Incremental Power® System consists of a main frame unit that accepts up to eight plug-in 70.7V, 78-watt power amplifier modules. There are two different input modules available for the **2280B**, one with stepped attenuators (**2285A**) and one without (**2284A**). The accurate stepped attenuators reduce input signals in discrete increments of 1 dB steps, to a maximum of -63 dB per channel.

The **2280B** offers many capabilities to achieve optimum results for a sound reinforcement system. Up to eight separate 70-volt speaker zones may be

KEY SPECIFICATIONS

Continuous Rated Output Power:

(20 Hz - 20 kHz at less than 0.1% THD)

1 Output Power Module, 64 Ω:	78 watts
8 Channels Paralleled, 8 Ω:	624 watts

Maximum Midband Output Power:

(Ref. 1 kHz, 1% THD, @120 volts ac line voltage)

1 Output Power Module, 64 Ω:	110 watts
8 Channels Paralleled, 8 Ω:	725 watts

(Ref. 1 kHz, 1% THD, @108 volts ac {10% sag})

1 Output Power Module, 64 Ω:	95 watts
8 Channels Paralleled, 8 Ω:	575 watts

Headroom (Before Clip): ≥ .5 dB

(Ref. 1 kHz, 1% THD, any mode)

Frequency Response: 10 Hz - 50 kHz
(Ref. 1 kHz, 1 watt output, +0/-3 dB)

Power Bandwidth: 20 Hz - 20 kHz
(Ref. 1 kHz, ± 1 dBr where 0 dBr = rated output power in any mode)

Voltage Gain:

(Ref. 1 kHz)

Any Mode: 39.5 dB

DESCRIPTION

powered from a single main frame. Complex sound systems may be powered by combining two or more Incremental Power Systems.

The 70.7V power amplifier modules may be paralleled in increments of 78-watts to meet most conceivable audio applications. The parallel mode for these may drive high power, low impedance loads; high power, 70-volt lines; or a variety of other loads.

Accessory modules may be added to shape the overall performance to the users specifications.

2280B SPECIFICATIONS cont'd

Conditions:

1. 0 dBu = 0.775 volts rms.
2. 120 volt ac line input voltage maintained for all tests unless noted.
3. Electronically-balanced input.

Input Sensitivity for Rated Output Power:

(Ref. 1 kHz, ± 0.5 dB)

Any Mode: 0 dBu

Maximum Input Level:

(Ref. 1 kHz)

2285A (fully attenuated): + 15 dBu

2284A: + 1 dBu

Input Impedance:

(ref. 1 kHz)

2284A or 2285A, Balanced: 15 k Ω

Polarity:

Positive-going signal applied to (+) input of barrier strip produces positive-going signal at (+) output of barrier strip.

Phase Response:

(Any mode)

20 Hz: < + 30°

20 kHz: > - 45°

THD:

< 0.1% (Typical < 0.05%)
(Any mode, 30 kHz measurement bandwidth)

IMD:

< 0.1% (Typical < 0.05%)
(Any mode)

Rise Time:

< 6 μ sec
(Any mode, 10 - 90%)

Slew Rate:

15 v/ μ sec
(Any mode)

Damping Factor:

> 35
(Any mode, 100 Hz)

Crosstalk:

> 50 dBr
(Ref 1 kHz, 0 dBr = rated output power into 8 Ω , 8 output power modules)

Noise:

> 95 dB
(Below rated output power, A-weighting filter, 8 output power modules paralleled, 50/60 Hz ac line frequency)

Stepped Attenuation: 1 dB steps to -63 dB, each channel

AC Power:

100/120/200/220/240
Vac, 50/60 Hz 1200w @
rated output 100w idle

Dimensions:

Height: 7 inches (17.8 cm)
Width: 19 inches (48.3 cm)
Depth: 17 $\frac{5}{8}$ inches (44.8 cm)

Weight:

70 lb. (31.7 kg) with 8
power amplifier modules

Color:

Black

Accessories:

Input/Output:

2285A Input Module
w/Stepped Attenuators
(accepts Anniversary Series
Modules Only)

2284A Input Module
w/o Stepped Attenuators
(accepts all plug-in modules)

2271 Power Amplifier Module

2273 Blank Card Module

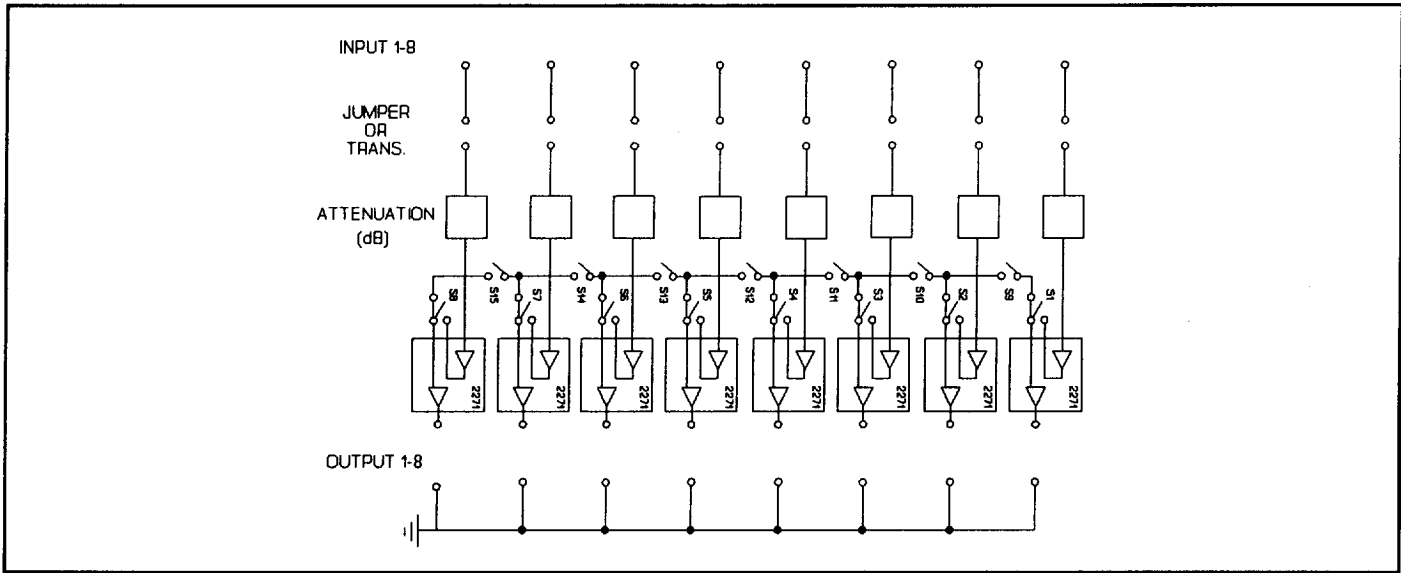
Plug-In Modules: 15335A Input Transformer
Module (for 2284A only)

15594A Low Pass Crossover/EQ
Module

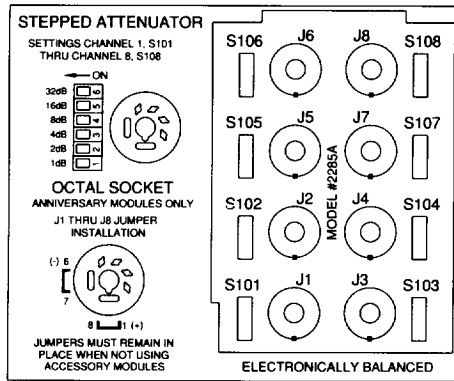
15595A High Pass Crossover/EQ
Module

15015A Input Bridging
Transformer

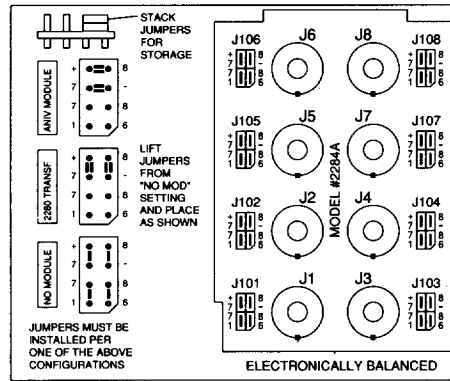
15515A Input Bridging
/Transformer w/Resistive Pad



Hook-Up Diagram



2285A



2284A

Input Boards

MODULAR INFORMATION

2280B Main Frame

The main frame can hold up to eight 2271 Power Amplifier Modules and either a 2284A or 2285A input module. Plug-in modules are easily accessible for quick service.

2271 Power Amplifier Module

Each 2271 Power Amplifier Module is rated at 78-watts maximum output. The 2271 Modules may be operated independently to drive separate 64-ohm loads at 70.7-volts rms, or in parallel to drive higher power loads.

2273 Blank Card Module

The main frame of the Incremental Power System has eight dedicated positions for Model 2271 Power Amplifier Modules. If fewer than eight 2271 Modules are installed, remaining empty spaces are filled with the Model 2273 Blank Card Module.

For detailed information, please consult the 2280B Operating Instructions, Part number 42-02-038073.

ORDERING INSTRUCTIONS

The 2280B Incremental Power System is available with a choice of two different input modules, a variable number of amplifier modules and blank output cards, and various plug-in modules. Each module must be ordered separately from the main frame unit as follows:

- 1 - 2280B Main Frame (does not include input board)
- 1 - Input Board, either the 2285A with stepped attenuators which accepts Anniversary Series

Modules only, or the 2284A without stepped attenuators which accepts all plug-in modules.

- 1-8 2271 Power Amplifier Modules
- 1-8 2273 Blank Card Modules (balance of unused channels must have blank card modules inserted to insure proper ventilation).

Accessory Plug-In Modules, as required by user.

ARCHITECT'S and ENGINEER'S SPECIFICATION

The 2280B Incremental Power System shall consist of a main frame which contains an ac power fan module, a 2285A [2284A] input module, and ____ [1 to 8] 2271 power output modules. The main frame shall include connectors for eight separate outputs and eight separate inputs. The main frame shall include a combination ac power-switch/circuit breaker/pilot-lamp and cooling fan capable of cooling up to eight 70.7V power amplifier modules. The main frame shall include a power supply capable of supporting a full complement of modules and shall be adaptable to 100/120/200/220/240 Vac operation.

The amplifier system shall meet the following performance specifications: Continuous Rated

Power Output, 624 watts with eight channels paralleled, 8 Ω . Maximum Midband Output Power, 725 watts with eight channels paralleled, 8 Ω . Headroom before clip, \geq .5 dB. Frequency Response, 10 Hz - 50 kHz. Power Bandwidth, 20 Hz - 20 kHz. THD, < 0.1%. IMD, < 0.1%. Rise Time, < 6 μ sec. Slew Rate, 15 v/ μ sec. Damping Factor, > 35. Crosstalk, > 50 dBr. Signal to Noise, > 95 dB a-weighted.

The amplifier system shall be 17 $\frac{3}{8}$ " D x 19" W x 7" H and shall weigh 70 pounds with 8 output power amplifier modules installed.

The amplifier system shall be the ALTEC LANSING 2280B Incremental Power System.



a MARK IV company

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