

MAINTENANCE AND SERVICING

CLEANING

To maintain the luster of the front panel, occasionally clean it with a soft paper towel and diluted ammonia. This will remove dulling films which have a tendency to build up on the brushed finish.

REPAIR FACILITIES

Only qualified technicians should be allowed to repair the Phase Linear 400-Series Two. Phase Linear Corporation and its authorized warranty stations have the personnel and equipment to repair the Model 400. Should any problems occur with the unit, BE

SURE to refer to the Troubleshooting Section in this manual BEFORE sending it anywhere for repairs. This will help you to identify and locate any specific malfunctions and possibly avoid needless shipment.

If the Model 400 is in need of service, either send it to the factory or take it to the nearest warranty station described on the enclosed list. In either case, **BE SURE TO ENCLOSE A COMPLETE DESCRIPTION OF ANY PROBLEM WITH THE RETURNED UNIT**, along with your **NAME, RETURN ADDRESS**, and a copy of the **WARRANTY CARD** or **SALES SLIP**, if applicable.

If assistance of any kind is required, please feel free to contact the Factory Service Department, 20121-48th Avenue West, Lynnwood, WA 98036, phone (206) 774-8848.

SHIPPING

Never ship the Model 400 in any shipping carton other than the original or a replacement supplied by Phase Linear. Ship only via a reputable carrier. **DO NOT USE PARCEL POST!** Insure the unit for the full value and double check to ensure the unit is properly packaged.

SPECIFICATIONS

PERFORMANCE

POWER OUTPUT: 210 watts minimum power, RMS into 8 ohms from 20 Hz to 20,000 Hz with no more than .09% Total Harmonic Distortion.

CONTINUOUS POWER:

260 watts per channel 8 ohms at 1000 Hz
360 watts per channel 4 ohms at 1000 Hz

TYPICAL TOTAL HARMONIC DISTORTION:

.009% at rated power into 8 ohms at 1 kHz
.009% at rated power into 4 ohms at 1 kHz

INTERMODULATION DISTORTION:

(60 Hz: 7 kHz = 4:1)
less than .09% at rated power into 8 ohms
less than .09% at rated power into 4 ohms

FREQUENCY RESPONSE:

12 Hz to 40 kHz. +0-1 dB

SIGNAL TO NOISE RATIO: 110 dB

(IHF A-Weighted)

RESIDUAL NOISE: 120 uV

(IHF A-Weighted)

DAMPING FACTOR:

1000:1 @ 1000 Hz

INPUT IMPEDANCE:

33 K ohms minimum

INPUT SENSITIVITY:

1.0 volt RMS for 210 watts at 8 ohms

SPEAKER IMPEDANCE:

Accept 4 ohms to 16 ohms

SLEW RATE:

Better than 18 V/uS

RISE TIME: (Small Signal):

Less than 4.0 uS

PHASE SHIFT:

0 degrees at 20 Hz
-18 degrees at 20 kHz

GENERAL SPECIFICATIONS

Displays:

A peak responding 3½ inch sequential light emitting diode (LED) display is provided for each channel. The display is calibrated to indicate output voltage and power levels on a logarithmic scale, with 0dB corresponding to rated power output (210 watts into 8 ohms). The dynamic range of the display is greater than 40 dB; it responds to peak output voltage levels with very fast rise-time but relatively slow decay-time. Amplifier clipping or overload is indicated by a flashing right-hand portion of the display. Flashing will continue for approximately 2 seconds after an overload condition.

Controls:

Independent front panel level controls for each channel.

Protection:

- A. Output transistor protection: Electronic limiters together with power supply fuses prevent excursions into the unsafe operating region, regardless of load conditions.
- B. Speaker protection: The amplifier does not provide speaker protection from excessively high-power audio signals. External fusing of the speakers is highly recommended.
- C. Thermal protection: Automatic turn-off of the amplifier will take place if operating temperature exceeds 90°C to prevent thermal breakdown.

Power Requirements:

60 Hz 120 v (U.S.A. & Canadian Models) or 100-120/220-240 v AC, 50/60 Hz.

Power Consumption:

1200 watts (10 amps) maximum at rated output.

Dimensions:

19" w × 7" h × 10" d
(48.3 cm × 17.8 cm × 25.4 cm)

Weight Gross:

35 lbs.; 16 kgs.