A M P L I F I E R T Y P E 2

SERIAL 173/32

SCHEDULE C9114

CONTRACT 28058

SPECIFICATION:

General: The Type 2 amplifier is designed for use as an isolating and bridging amplifier.

A stepped attenuator provides a maximum gain of 6.5 db., to allow for compensation of switching losses.

Mounting Requirements: The amplifier is a plug-in unit intended for use in either a four-unit or eight-unit type mounting shelf, in accordance with Departmental Drawings No. CF549 and CF550 respectively.

ELECTRICAL PERFORMANCE:

Frequency Response: ± 0.5 db., from 30 C.P.S. to 15 Kc's.

Gain: 0 db to 6.5 db ± 0.25 db., variable in 12 steps.

Stability: The amplifier is free from oscillation when the output termination is varied from 600 ohms non-inductive resistance, to 600 ohms resistance in parallel with 0.1 mfd. capacitance.

Input Impedance: Not less than 25,000 ohms, from 30 C.P.S. to 10 Kc's.
Not less than 20,000 ohms, between 10 Kc's and 15 Kc's.

Load Impedance: 600 ohms.

Output Impedance: 600 ohms ± 15%

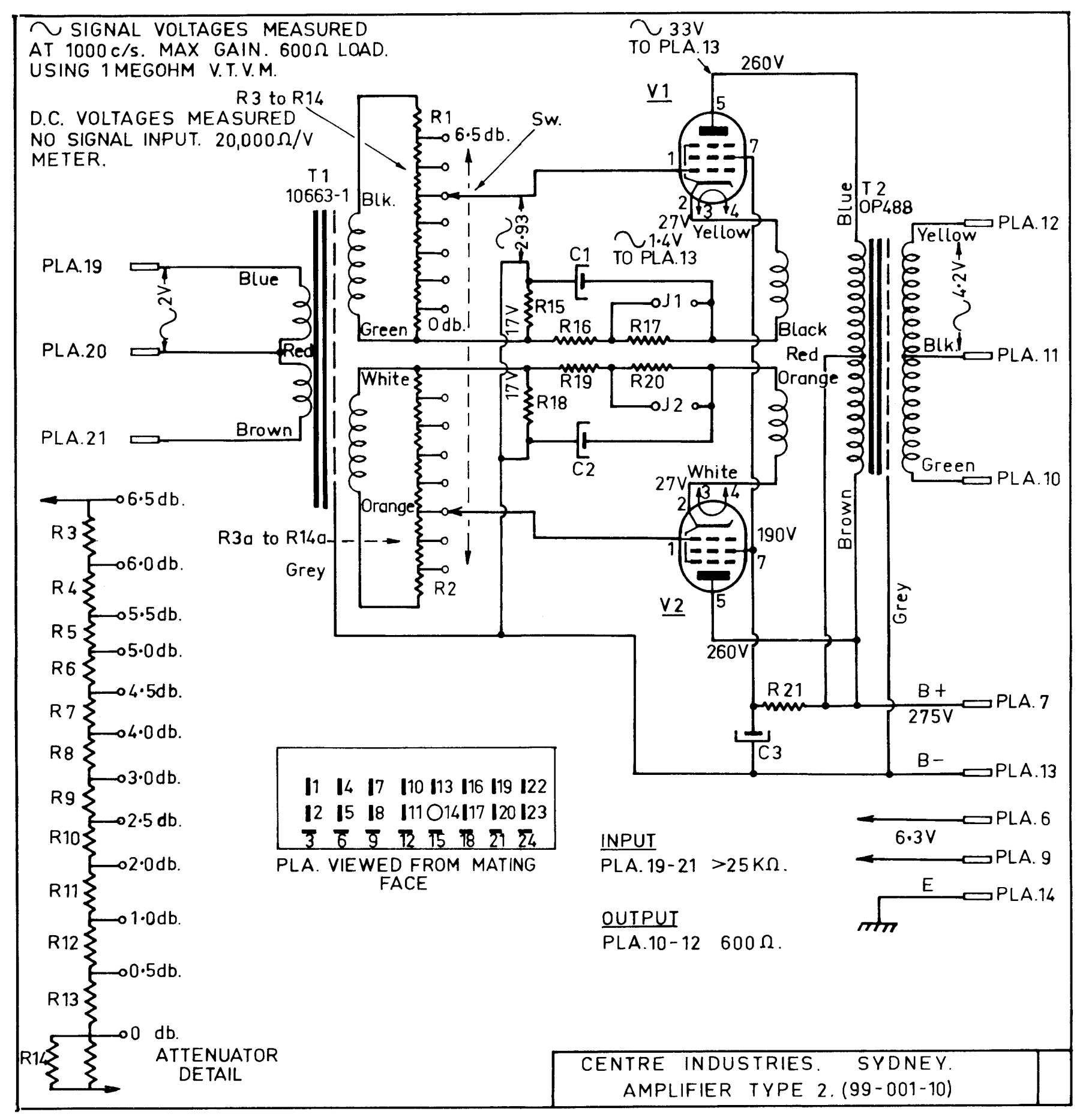
Noise: The equivalent noise input does not exceed - 80 dbm. with input terminated in 300 ohm non-reactive resistance.

Power Output: 500 MW (+27 dbm), at distortion not greater than 0.5% over the range of 60 C.P.S. to 7.5 Kc's., and not greater than 1.0% over the range of 30 C.P.S. to 15 Kc's.

Power Input: 6.3V. ± 10%. 0.4 Amp., Heater. 250-300V D.C., 20 Ma., H.T.

Cathode Metering: Sockets are provided to allow metering of the cathode current of each valve. A reading of approximately half scale will be obtained on a 1000 ohms per volt meter having an internal resistance of 1000 ohms.

REF.	DESCRIPTION	Qty.
R1, 2	6·8KΩ ·5W 5% PHILIPS	2
R3, 3a	2·7KΩ " " "	2
R4, 4a	2·7KΩ " " "	2
R5, 5a	2·7KΩ " " "	2
R6, 6a	2·2KΩ " " "	2
R7, 7a	2·2KΩ " " "	2
R8, 8a	3·9KΩ " " "	2
R9, 9a	1·8KΩ " " "	2
R10, 10a	1·8KΩ " " "	2
R11, 11a	3·3KΩ " " "	2
R12, 12a	1·5KΩ " " "	2
R13, 13a	1·5KΩ " " "	2
R14, 14a	27 KΩ] // 180KΩ " " "	2
R15, 18	1·8 KΩ " " "	2
R16, 19	1·0 KΩ " " "	2
R17, 20	68 Ω " " "	2
R21	39 KΩ 1W 5% BTA I.R.C.	1
C1, 2	100μF. 25 V.W. ET 1X DUCON	2
C3	8μF. 450 V.W. ET 2D "	1
V1, V2	EL 91 / 6 AM 5	2
P.L.A.	24 PIN MALE PLUG PAINTON Cat. No. 311186.	1
J1, J2	2 PIN SOCKET. CINCH 733-16-1.	2
T1.	TRANSFORMER. 10663-1. NATIONAL.	1
T2.	TRANSFORMER. OP. 488. FERGUSON	1
S.W.	2-POLE 12-POSITION. OAK.	1


SIGNAL VOLTAGES MEASURED AT 1000 c/s. MAX GAIN. 600Ω LOAD. USING 1 MEGOHM V.T.V.M.
D.C. VOLTAGES MEASURED NO SIGNAL INPUT. 20,000Ω/V METER.
33V TO PLA.13
260V
V1
R3 to R14
R1
6·5 db.
Sw.
T1 10663-1
Blk.
Green
0 db.
2·93
1·4V TO PLA.13
C1
R15
17V
R16
R17
J1
27V
Yellow
T2 OP488
Blue
Black
Red
Orange
White
R18
R19
R20
J2
C2
Brown
Grey
R2
R3a to R14a
V2
190V
260V
R21
C3
B+ 275V
B−
PLA.19
PLA.20
PLA.21
2V
Blue
Red
Brown
PLA.12
PLA.11
PLA.10
4·2V
PLA.7
PLA.13
PLA.6
6·3V
PLA.9
E
PLA.14
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
6·0 db.
5·5 db.
5·0 db.
4·5 db.
4·0 db.
3·0 db.
2·5 db.
2·0 db.
1·0 db.
0·5 db.
0 db.
ATTENUATOR DETAIL
1 4 7 10 13 16 19 22
2 5 8 11 14 17 20 23
3 6 9 12 15 18 21 24
PLA. VIEWED FROM MATING FACE
INPUT
PLA.19-21 >25KΩ.
OUTPUT
PLA.10-12 600Ω.
CENTRE INDUSTRIES. SYDNEY.
AMPLIFIER TYPE 2. (99-001-10)