

DESIGNS DEPARTMENT HANDBOOK

No. 3.249(80)

AM5/32 Mixer Amplifier

C O N T E N T S

1. INTRODUCTION
2. PERFORMANCE SPECIFICATION
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 - 2.2 A.C. Performance
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D R A W I N G S

Circuit	D 49877 A2
Parts List	D 49878 A4
Comp. Loc.	D 49882 A2

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AM5/32 Mixer Amplifier

1. INTRODUCTION

The AM5/32 contains two identical circuits each of which is comprised of a five input current mixing inverting amplifier followed by an inverting amplifier with a single output.

The amplifier is contained on a 3U BMM unsupported card. The card was designed for use in the PA6/87 module which is part of the EP10/18 Radio Continuity Suite.

2. PERFORMANCE SPECIFICATION

2.1 Power Supplies

±12 volts at 50 mA.

2.2 A.C. Performance

<u>Maximum output</u>	+18 dB
Gain	(Input -22 dB) +10 dB
Output at 12W	-12 dB
Input impedance	68 kΩ
Frequency response	40 Hz-15 kHz ±0.03 dB w.r.t. 1 kHz
Noise	-80 dB ₄
Distortion	Less than 0.1% T.H.D. @ +16 dB

3. CIRCUIT DESCRIPTION

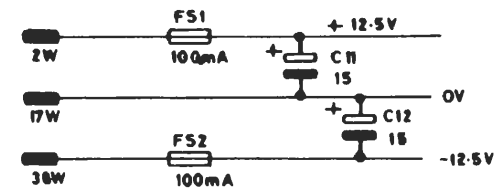
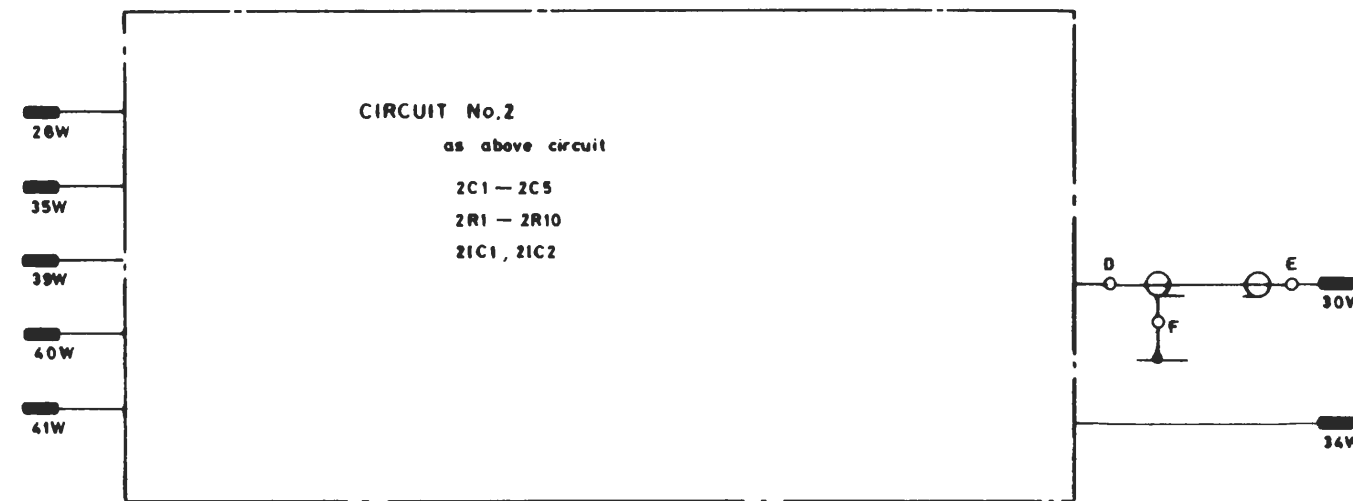
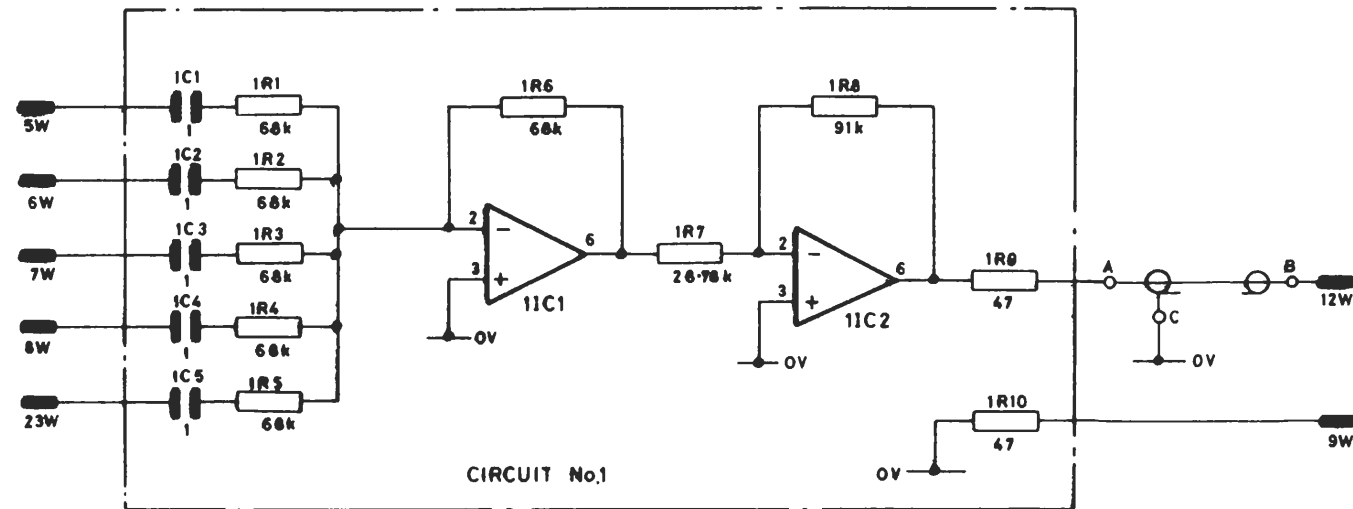
The AM5/32 carries two identical circuits. In this description only one half will be referred to.

IC1 is an inverting current mixing stage with 5 inputs and unity gain. The inputs are A.C. coupled. The output from IC1 is connected to IC2 which is an inverting amplifier with a gain of +10 dB.

4. MAINTENANCE

If a fault occurs the d.c. conditions should be checked first. The supply current should not exceed that given in 2.1 The output of each IC should be 0V ±20 mV.

D49877A2



CIRCUIT REF.	SUPPLY PINS		No OF PARTS	TYPE
	+12.5V	-12.5V		
11C1,2 21C1,2	7	4	1	LF356N

PARTS LIST : D49876A4

SCALE - 0

THIRD ANGLE PROJECTION

ORIGINAL FRAME SIZE 400mm x 574mm

CHANGE 30-10-80

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DS/A2.1

AM5/32

**MIXER AMPLIFIER
CIRCUIT**

All dimensions in millimetres unless otherwise stated
Normal tolerances
no decimal places = 1 mm unless
and otherwise stated = 0.5 mm unless

DRN 6RB
TCD
DESIGNS DEPARTMENT
D49877A2

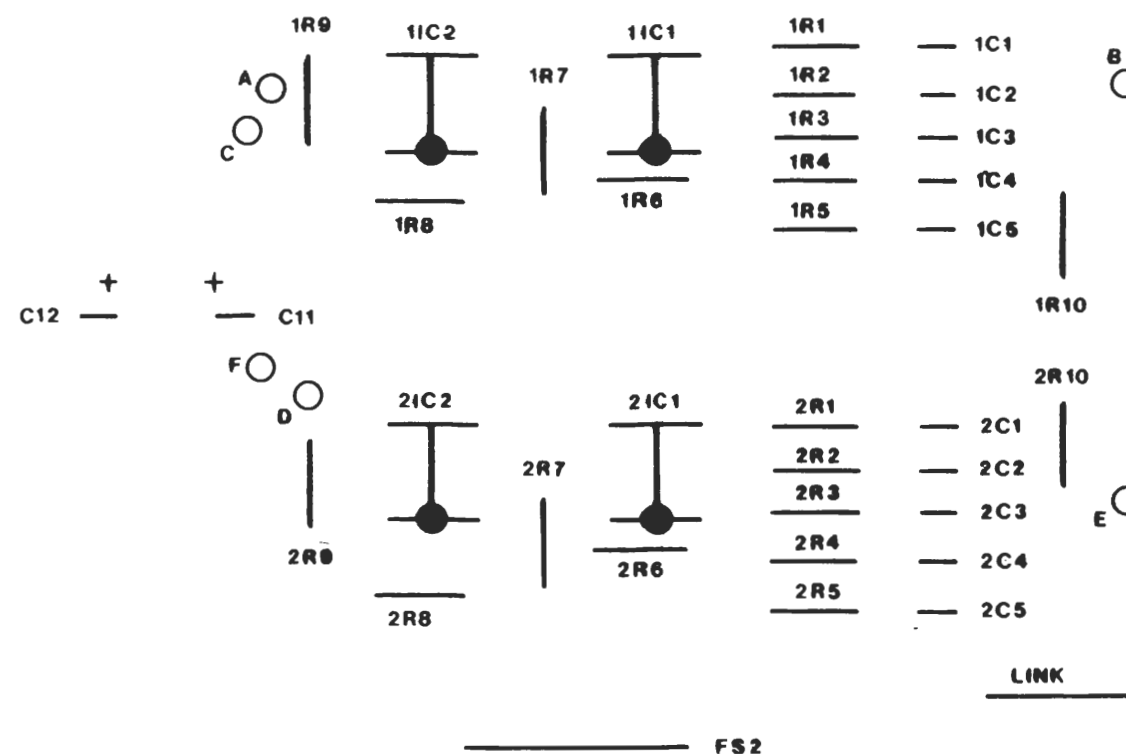
D49882A2

AM5/32 D49882A2/1

MINIMUM SIZE TO CUT NEGATIVE

TOP

FS1

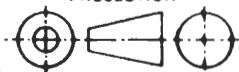


CHARACTERS & LINES TO BE PRINTED IN WHITE
PRINTED WIRING ON REVERSE SIDE OF BOARD IS D49881A2

SCALE 2:1

SCALE:-

THIRD ANGLE
PROJECTION



ORIGINAL
FRAME SIZE
400mm x 574mm

CHANGE
1 30-10-80

BBC

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DS/A2/1

AM5/32

PRINTED BOARD
COMPONENT LOCATION

All dimensions in millimetres unless otherwise stated
Normal tolerances
no decimal places - 1 mm unless
one decimal place - 0.3 mm otherwise
two decimal places - 0.1 mm stated

DRN GRB
TCD
CKD
APP

DESIGNS DEPARTMENT

D49882A2

DSN LTB L 0504