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AG-348A

STEREO LINE-UP OSCILLATOR

802618

04-10-1989
Issue 2

DESIGNED AND MANUFACTURED
IN AUSTRALIA

AG-348A

STEREO LINE-UP OSCILLATOR

INSTRUCTION BOOK

W A R N I N G

OPERATION OF ELECTRONIC EQUIPMENT INVOLVES THE USE OF VOLTAGES AND CURRENTS WHICH MAY BE DANGEROUS TO HUMAN LIFE. OPERATING PERSONNEL SHOULD OBSERVE ALL SAFETY REGULATIONS. DO NOT CHANGE COMPONENTS OR MAKE ADJUSTMENTS INSIDE THE EQUIPMENT WITH POWER ON UNLESS PROPER PRECAUTIONS ARE OBSERVED. NOTE THAT UNDER CERTAIN CONDITIONS DANGEROUS POTENTIALS MAY EXIST IN SOME CIRCUITS EVEN THOUGH POWER CONTROLS ARE IN THE OFF POSITION.

TECHNICAL DATA

OUTPUTS

Two each for the LEFT and RIGHT channels

Left Channel:	Continuous tone
Right Channel:	Interrupted tone On for 3 seconds Off approx. 0.25 sec
Frequency:	1000Hz +/- 20Hz
Impedance:	40 ohm balanced circuit
Level:	Internally adjustable Range -40dBm to + 8dBm

Harmonic distortion: Less than 0.05% at +8dBm

Connections: XL series audio connectors

POWER

Requirements: 240v AC 5VA

MECHANICAL

IRT Single width 19" rack mounting chassis one rack unit (44mm) high

Dimensions: 483mm x 44mm x 250mm

CIRCUIT DESCRIPTION

The AG-348A consists of an AG-604ST oscillator sub-module fitted to a AA-604 Audio Distribution Amplifier mounted in a IRT rack mounting chassis one rack unit (44mm) high.

The AG-604ST oscillator stage U1 is an operational amplifier with positive feedback provided by a WIEN network to set the frequency of oscillation and negative feedback by thermistor RA1 and resistor R4 to set the gain of the amplifier at 3 as required for stable oscillation.

The signal from the oscillator stage is coupled to the LEFT signal output pin 5 through voltage divider R10,R11 and to the RIGHT signal output pin 3 through voltage divider R16,R12 and FET switch Q1. Timer IC U2 generates a switching voltage to switch the FET switch ON for 3 seconds as adjusted by RV1 and OFF for approximately 0.25 second.

Supply voltages for the operation of the sub-module come from the internal regulated supplies of the AA-604 Audio Distribution Amplifier.

The LEFT and RIGHT signals pass from the sub-module to the output amplifier sections of the AA-604 A.D.A. Output level of the channels are adjusted by potentiometers RV3 and RV4, the signal then being amplified by the balanced output amplifiers U3 and U4. Transistors Q1 to Q8 serve to provide extra current drive for the output amplifiers with splitting resistors R37 to R56 setting the output impedance of the amplifiers.

The power supply of the AA-604 consists of half wave bridge rectifiers to provide unregulated voltages to the +/- 12v three terminal regulators U5 and U6. Low voltage AC is sourced from T1 a 5VA 240v to 12v + 12v power transformer mounted on a IRT 802233 circuit board.

INSTALLATION

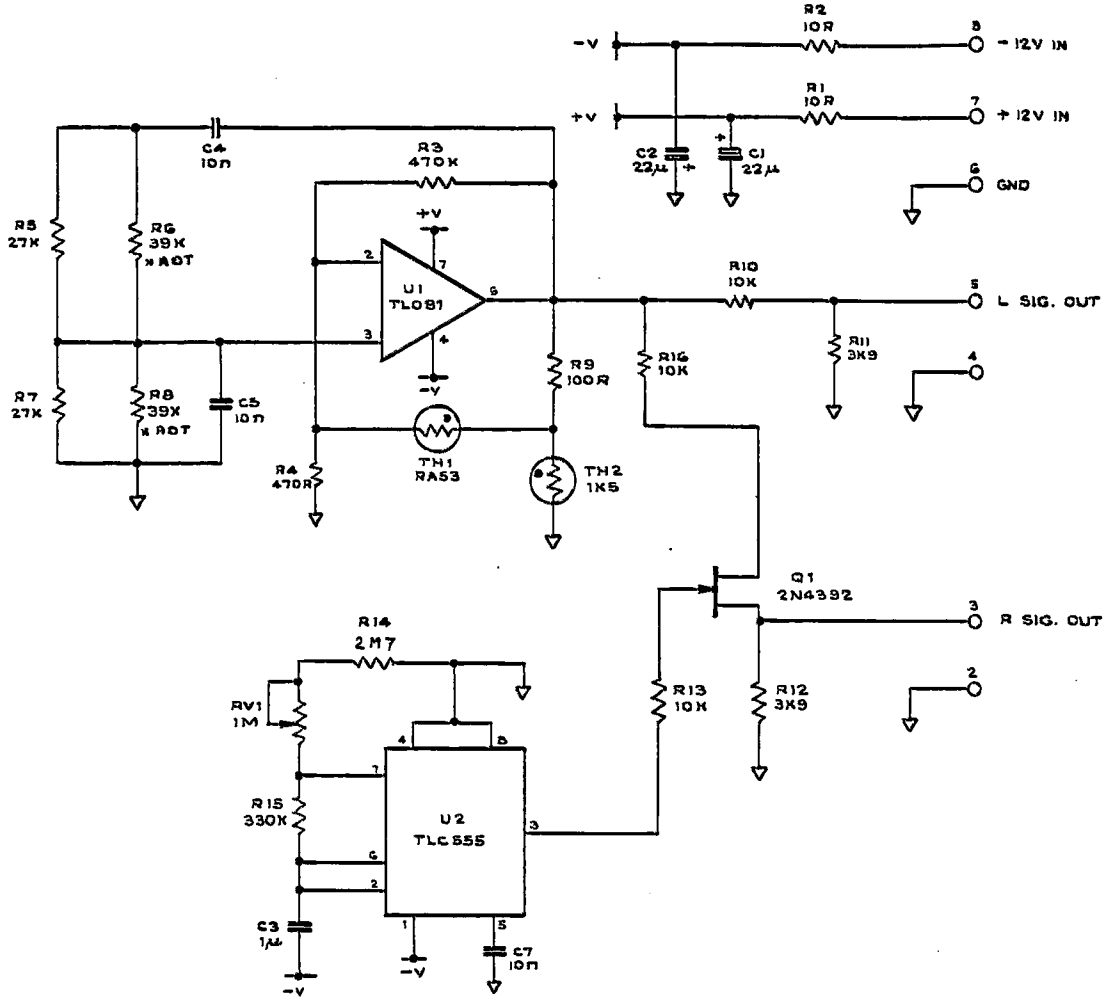
The AG-348A is supplied with mating audio connectors for two output circuits.

The connections are:
1 - GROUND
2 - AUDIO +
3 - AUDIO -

Output Signal Level

The level of the output signals from the AG-348A are set by RV3 and RV4, these are factory preset for an output level of +4dBm. To change these settings remove the two screws holding the front of the AA-604 circuit board and lift the board up sufficiently to adjust RV3 to set the LEFT channel output and RV4 to adjust the RIGHT channel output.

NOTE: Allow the AG-348A circuit conditions to settle before making these adjustments, a period of 15 minutes is recommended.



NOTE : Remove Links 1 & 2, and move the Mode Link to STEREO in the AA-604 before installing the sub-module.

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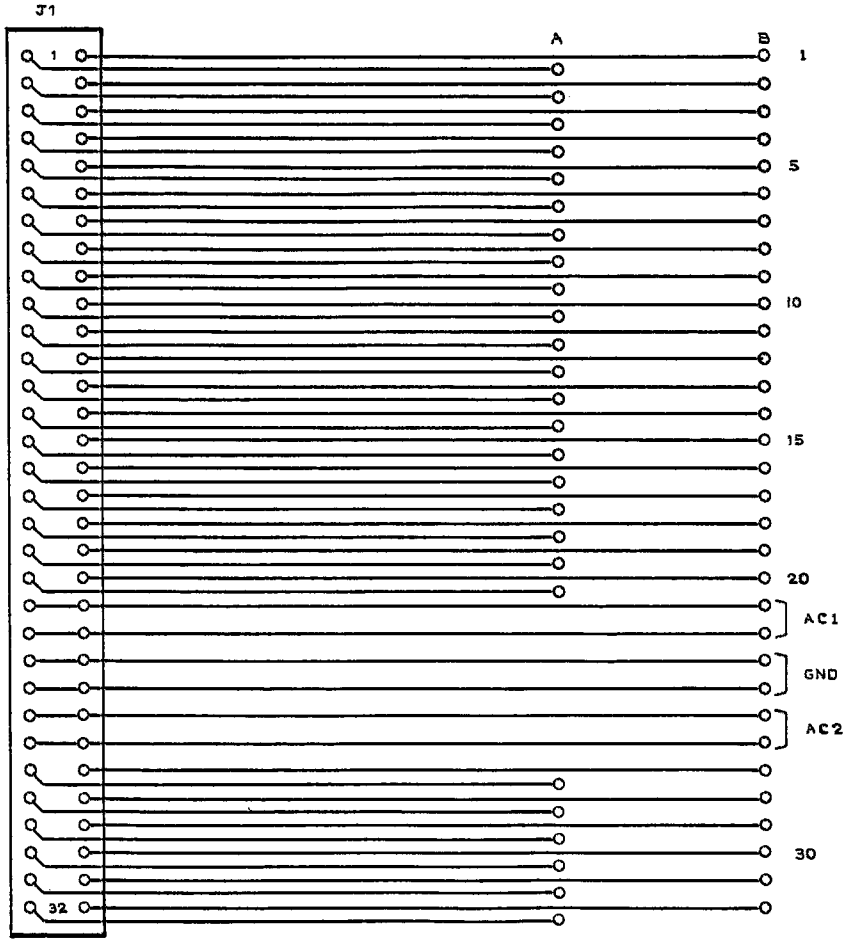

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