ARIES AR-324 DUAL LFO / LAG / INVERTER MODULE

The AR-324 is a multi-function module providing control voltage signal source and signal processors. The two low-frequency oscillators have independent manual frequency controls, provide three simultaneous waveform outputs each, and are syncable. The LAG circuit is a 6db-per-octave low-pass filter, with a variable, very low cut-off frequency. The LAG is used to limit the rate of change of a control signal, like the portamento circuit in the AR-313 Keyboard Control, or to "round off" the edges of a low frequency pulse to produce a useable envelope.

SPECIFICATIONS:

LFO
- Frequency Range: 0.3Hz to 30KHz
- Output Waveforms:
  - Sawtooth 0V to +10V
  - Square 0V to +10V
  - Triangle -5V to +5V
- Sync Input: Positive-going edge, 2V min, to 10V. max
- Sync Input Impedance: 47K ohms

Lag
- Gain: 1.0
- Lag Time variable 1 mS to 1 sec
- Input Impedence:
  - 1K ohms at min
  - 1K ohms at max.
- Input Level: +/-10V max

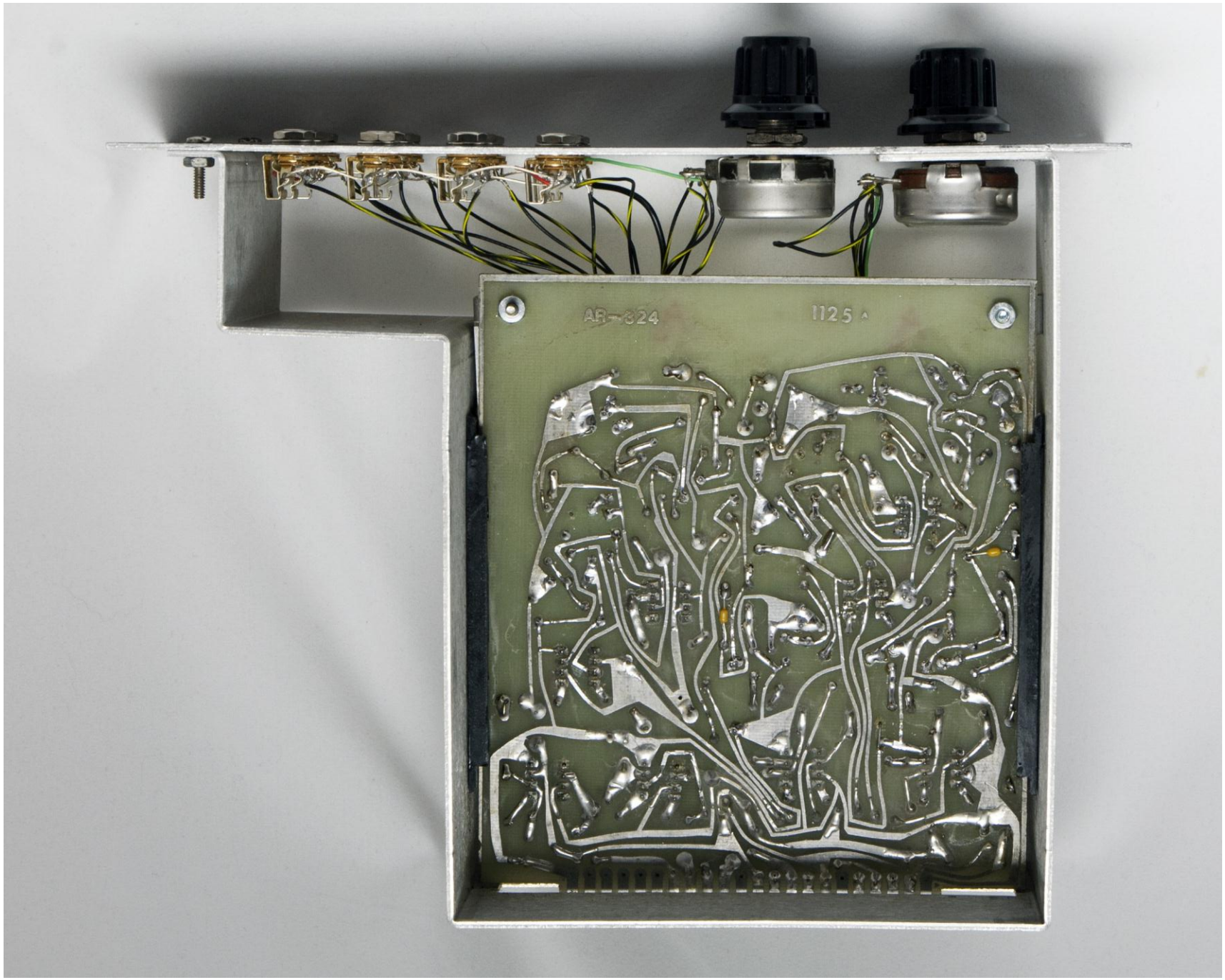
Inverter
- Gain: 1.0
- Input Level: +/-10V max
- Input Impedance: 1K ohms, all outputs

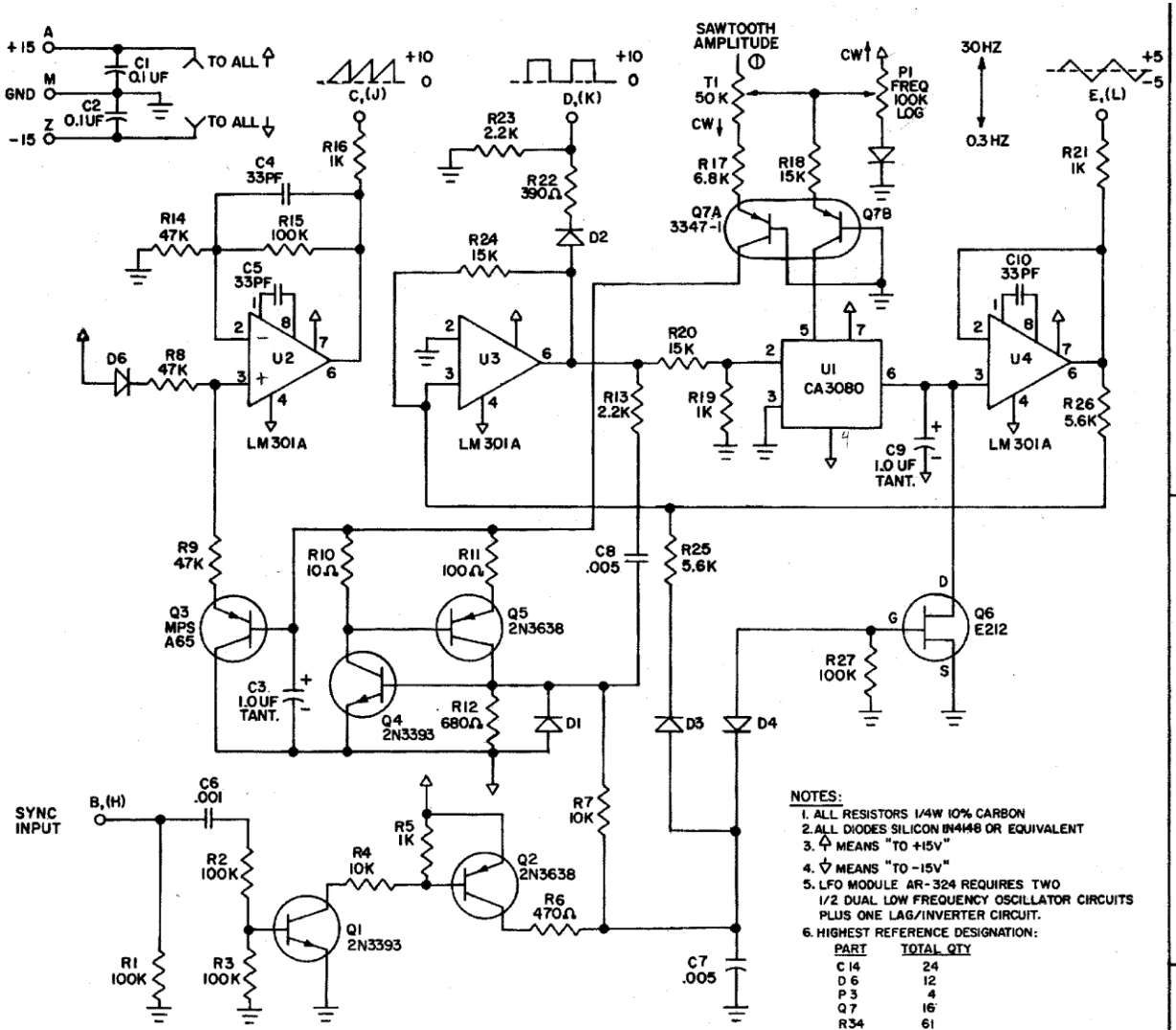
Control
- LFO-1: Sync In, Sawtooth Out, Square Out, Triangle Out
- LFO-2 same as LFO-1
- LAG In, LAG Out;
- INVERTER In, INVERTER Out

Power Consumption
- 48mA at +15V
- 20mA at -15V


DUAL LFO
LAG/INVERTER
3
0.3
30
FREQUENCY 1
3
0.3
30
FREQUENCY 2
0.1
0
1
LAG(SEC.)
0.5
0
1
INVERTER GAIN
SYNC
SYNC
IN
LAG
OUT
IN
OUT
LFO 1
LFO 2
INVERTER
AR-324

50K 531
50K 531
U2
U4


AR-824
1125 A



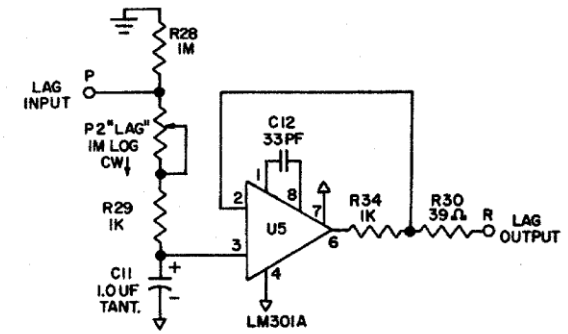
I/2 DUAL LOW FREQUENCY OSCILLATOR

NOTES:

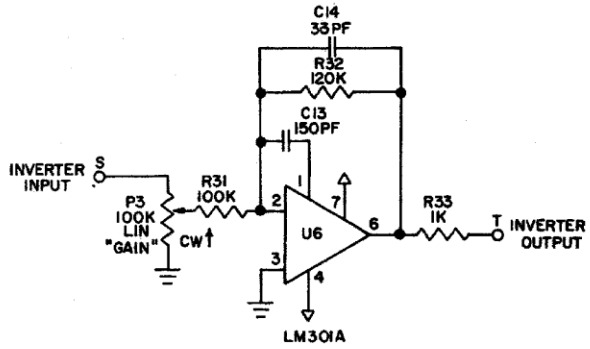
1. ALL RESISTORS 1/4W 10% CARBON
2. ALL DIODES SILICON IN4148 OR EQUIVALENT
3. ↑ MEANS "TO +15V"
4. ↓ MEANS "TO -15V"
5. LFO MODULE AR-324 REQUIRES TWO 1/2 DUAL LOW FREQUENCY OSCILLATOR CIRCUITS PLUS ONE LAG/INVERTER CIRCUIT.
6. HIGHEST REFERENCE DESIGNATION:

PART	TOTAL QTY
C14	24
D6	12
P3	4
Q7	16
R34	61
T1	2
U6	10

7. PIN DESIGNATIONS IN PARENTHESES ( ) REFER TO LFO #2.



LAG CIRCUIT



INVERTER CIRCUIT

AR-324
LAG, INVERTER
AND
1/2 DUAL LOW FREQUENCY OSCILLATOR