

NE5530 OPAMP SUBSTITUTION

The Signetics NE5530 dual operational amplifier used in the "A" Series products has been discontinued (1982). Substituting this component with an available part may require additional modifications; depending on the product the substitution is made in. The recommended substitute is the Texas Instrument TL072 FET dual operational amplifier. The following modifications must be made to use this substitute:

1. Power Amplifiers A21-A22, A31-A32, A41-A42 (Revised June 1980, complementary output).

Resistors R19 & R20 must be 22 ohm, 1 watt, metal oxide resistors. Resistors R17 & R18 must be 6.8 ohm, 1 watt, metal oxide resistors.

The values of capacitors C7 & C8 may need to be altered to prevent output instability. Check the distortion waveform with no output load, an 8 ohm output load, and a 4 ohm output load with a 20kHz input signal. Look for instability at the peaks of the waveform and at zero-crossing.

2. Power Amplifiers A41 & A42 (Original Version, quasi-complementary output).

Resistors R18 and R19 must be 22 ohm, 1 watt, metal oxide. Resistor R17 must be 6.8 ohm, 1 watt, metal oxide.

A small value capacitor (100pF-.001uF, 50VDC) paralleling resistor R17 may be needed to prevent instability. Check the distortion waveform with no output load, an 8 ohm output load, and a 4 ohm output load with a 20kHz input signal. Look for instability at the peaks of the waveform and at zero-crossing.

3. Power Amplifiers A3.7, A4.2, and A5.1.

Resistors R14 and R15 must be 6.8 ohm, 1 watt, metal oxide resistors.

The value of capacitor C11 may need to be altered to prevent output instability. Check the distortion waveform with no output load, an 8 ohm output load, and a 4 ohm output load with a 20kHz input signal. Look for instability at the peaks of the waveform and at zero-crossing.