

S E R V I C E N O T E

SUPERSEDES: None

**8904A Multifunction Synthesizer (Option 006/H16)**

**Serial Numbers:** 2948A04593 / 2948A04693

**Replacement of Audio Transformer to Correct Inverted Waveform**

**Parts Required:**

9100-4833, Audio Transformer

**Situation:**

Some 8904A Multifunction Synthesizer (Option 006/H16) with serial numbers listed above may have inverted OUTPUT 1 waveforms. This is because the primary of Audio Transformer T1 was wound backwards, resulting in a 180 degree phase shift from the primary to the secondary. OUTPUT 2 waveforms are not affected.

The most noticeable waveform is the ramp because it is asymmetrical. Sinewave, square and triangle waveforms are inverted but are less noticeable because they are symmetrical. Normally the ramp waveform starts at the negative peak and ramps up to the positive peak. Suspect units will exhibit an inverted ramp waveform, i.e., the ramp starts at positive peak and ramps down to the negative peak.

NOTE: Option 006/H16 is not indicated on the front panel LCD display when an instrument preset is performed. Verify if Option 006/H16 is installed by inspecting the option label on the rear panel of the unit.

*Continued*

DATE: 01 January 1992

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:					
<b>MODIFICATION RECOMMENDED</b>					
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME	STANDARDS:	LABOR: 1.0 Hours		
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT	USED PARTS:	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	RESPONSIBLE UNTIL: 1000	UNTIL: 01 January 1997		
AUTHOR: LHL	ENTITY: 1000	ADDITIONAL INFORMATION:			

**Solution/Action:**

Configure the unit to output a ramp waveform from OUTPUT 1 at approximately 1 kHz and 1 Volt. Verify with an oscilloscope whether the ramp waveform is inverted (ramps down instead of up). If this behavior is unwanted then replace T1 with the part number noted above.