FREQUENCY STRAPPING & DEVIATION METER RECALIBRATION PAGE 1 OF 2 FOR SCA-186 SCA GENERATOR Modulation Sciences Inc. (PTX:SSTRAP.INS)

FREOUENCY STRAPPING ______

THE PC BOARD MUST BE REMOVED FROM THE BOX SINCE THE MAJORITY OF THE FREQUENCY STRAPS ARE ON THE BOTTOM OF THE BOARD.

FIRST, ON THE TOP OF THE BOARD, LOCATE PINS P15 AND P16 AT LOCATION D8. FOR 67 KHZ. STRAP P15 TO P16. FOR 92 KHZ. REMOVE THE STRAP FROM P15 TO P16.

THE REMAINING STRAPS ARE ON THE BOTTOM OF THE BOARD:

	67 KHZ. STRAPS		92 KHZ. STRAPS
LOCATION	FROM	TO	FROM TO
B3	IC27 PIN 5	P10	IC27 PIN 5 Plo
B3			IC27 PIN 6 P9
B3			IC27 PIN 7 P8
B2	IC25 PIN 4	V+	IC25 PIN 4 V+
B2	IC25 PIN 5	GND	IC25 PIN 5 V+
B2	IC25 PIN 6	GND	IC25 PIN 6 V+
B2	IC25 PIN 7	GND	IC25 PIN 7 GND
B2	IC25 PIN 10	GND	IC25 PIN 10 GND
B2	IC25 PIN 11	V+	IC25 PIN 11 GND
B2	IC25 PIN 12	V+	IC25 PIN 12 V+
B2	IC25 PIN 13	GND	IC25 PIN 13 GND

NOTE: GND SHOULD BE OBTAINED FROM IC25 PIN 8. V+ SHOULD BE OBTAINED FROM IC25 PIN 16.

DEVIATION METER RECALIBRATION

FROM 67 kHz to 92 kHz:

The calibration of the deviation meter will change when the subcarrier frequency is moved, so recalibration is required. If the meter was correctly calibrated at 67 kHz, the following procedure can be used to reset the calibration for 92 kHz:

1. Connect a sine wave generator to the SIDEKICK's audio input and set the frequency of the generator to 200 Hz.

2. Push the DEV switch on the SIDEKICK front panel. Set the DEV and LIMIT pots to maximum CW rotation. Set HFR pot to maximum CCW rotation.

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3. Connect an accurate AC voltmeter to the output of U31B - a convenient point to find this is the 68k resistor (color bands blue-gray-orange-gold) adjacent to U31 at location F2. Be sure to connect to the end of the resistor at F2, NOT the end at E2.

4. Adjust the output level of the sine wave generator so that the AC voltmeter reads 0.50 volts at U31B out. The INPUT LEVEL control on the SIDEKICK's front panel may be used to trim this reading to precisely 0.50 volts if the output control on the sine wave generator does not have sufficient resolution.

5. Adjust the meter calibration pot RV10 (location E6) to raise the reading on the AC voltmeter to 0.69 volts. The SIDEKICK deviation meter will now be calibrated to read correctly at 92 kHz.

FROM 92 kHz to 67 kHz:

The calibration of the deviation meter will change when the subcarrier frequency is moved, so recalibration is required. If the meter was correctly calibrated at 92 kHz, the following procedure can be used to reset the calibration for 67 kHz:

1. Connect a sine wave generator to the SIDEKICK's audio input and set the frequency of the generator to 200 Hz.

2. Push the DEV switch on the SIDEKICK front panel. Set the DEV and LIMIT pots to maximum CW rotation. Set HFR pot to maximum CCW rotation.

3. Connect an accurate AC voltmeter to the output of U31B - a convenient point to find this is the 68k resistor (color bands blue-gray-orange-gold) adjacent to U31 at location F2. Be sure to connect to the end of the resistor at F2, NOT the end at E2.

4. Adjust the output level of the sine wave generator so that the AC voltmeter reads 0.69 volts at U31B out. The INPUT LEVEL control on the SIDEKICK's front panel may be used to trim this reading to precisely 0.69 volts if the output control on the sine wave generator does not have sufficient resolution.

5. Adjust the meter calibration pot RV10 (location E6) to lower the reading on the AC voltmeter to 0.50 volts. The SIDEKICK deviation meter will now be calibrated to read correctly at 67 kHz.

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