# KENWOOD Service Bulletin

ASB-1018

**Amateur Radio Division** 

Subject: TS-950 14.200 MHz Transmit Spur Date: May

14, 1993

#### Symptom:

A close-in transmit spur might be present on early model TS-950(S) (Serial Number 1010XXX and below) transceivers when operating at a dial frequency of approximately 14.200.0 MHz. This spur is seen approximately -40 to -50 db down from the fundamental.

#### Cause:

The output from the mixer (IC12) which generates the final PLL loop comparison frequency for the AF unit contains harmonic radiation at approximately 36 to 68 MHz.

#### **Parts Required:**

Qty	Description	Kenwood Part No.	Circuit Description
1	Broad band transformer	L19-0346-05	L15
1	.001 uF 50v capacitor	CK45B1H103K	C127

#### **Procedure:**

- 1. Solder the primary of the transformer to pins 3 and 13 of IC12. You will have to bend the terminals slightly.
- 2. Solder the secondary of the transformer to pin 1 and 14 of IC12.
- 3. Remove chip capacitor C127 from the foil side of the board.
- 4. Connect pin 14 of IC12 to the ground pattern.
- 5. Add the new C127 from pin 1 of IC12 to L10 as shown in the accompanying illustration.

**Caution:** This modification requires soldering equipment rated for CMOS type circuits. It also requires familiarity with surface mount soldering techniques. If you do not have the proper equipment or knowledge do not attempt this modification yourself. Seek qualified assistance.

Time required for this modification is 30 minutes or less.

Service code A:06 B:X49-3020 C:L15 D:91

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Broad Band
Transformer
L15

Add
.001 uF 50v
Ceramic Cap.

IC12

Remove chip capacitor C127
from foil side of board.

Add a short jumper between pin 14 and

AF Unit (X49-3020-00) Component Side View

ground.