

ALIGNMENT PROCEDURES

Model No : FRS 210C

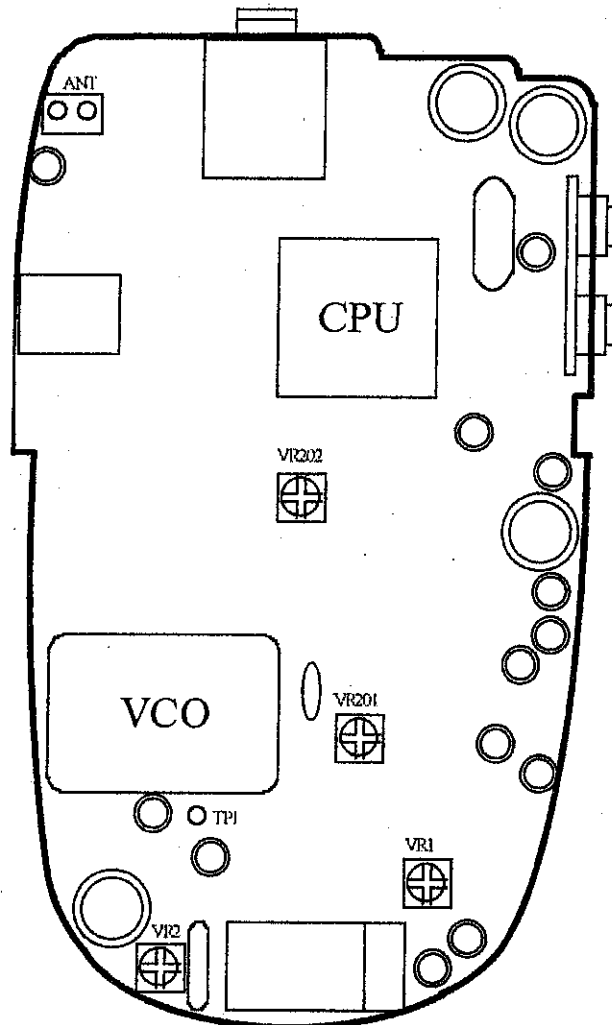
Frequency Range : 462.5625 ~ 4467.7125 MHz

Feb-05-2001

PCB Alignment Point

Location of Adjustment in PCB

《 FRS 210C 》



FRS 210C

Alignment Conditions

Standard Conditions :

Power Supply Voltage	.....	6.0 V DC
Audio Output	.....	75 mW
Audio Load	.....	8 ohm
Standard modulation	± 1.5 KHz at 1 KHz AF
Transmission Load	.....	50 ohm
Reception Adjustment Frequency	.....	See below
Transmission Adjustment Frequency	.....	See below

Transmission / Reception Adjustment Frequencies

<i>Channel</i>	<i>Frequency</i>
1 CH	462.5625 MHz
8 CH	467.5625 MHz
14 CH	467.7125 MHz

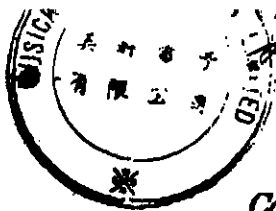
« PLL Alignment »

Conditions :

1. Frequency	.....	CH-1, CH-14
2. Squelch	.....	Open
3. Volume	.....	Min
4. Power Supply	.....	6.0 V DC

Procedures

- 1) Set a reception Frequency to CH-1.
- 2) Connect a Digital Voltmeter with T.P1, and Confirm that a Voltage Should be a Range of 0.6 V ~ 1.2 V.
- 3) Set a Reception Frequency to CH-14 and Switch to Transmit Mode.
- 4) Confirm That a Voltage Should be Within a Range of 2.4 ~ 3.0 V.



ATTN: MS JOYCE CHAN

URGENT *from room*

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< **Transmission Alignment** >

Conditions :

- 1. *Dummy Load* 50 ohm
- 2. *Frequency* CH-1, CH-14.
- 2. *Squelch* Open
- 3. *Volume* Min
- 4. *Power Supply* 6.0V DC

Procedures

A) RF output Power Alignment

- 1) Set Supply Voltage to 6.0V.
- 2) Adjust a Frequency to CH-1 and Switch to Transmit Mode.
- 3) Confirm That the RF Power obtained at CH-1 and CH-14 must be Within a Range of 290 mW (Max)

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Action By	Joyce

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B) TX Frequency Alignment

- 1) Set a Frequency to CH-8, and Switch to Transmit Mode.
- 2) Adjust VR2 so that a Frequency Counter Reading Should be Within 467.5625 MHz ± 100 Hz.

C) Deviation Alignment

- 1) Set a Frequency to CH-8, and Switch to Transmit Mode.
- 2) Input 1 KHz, From AG (Audio Generator), 100 mV (Open Voltage) to the EXT-MIC Terminal, and Adjust VR 201 so that Deviation is ± 2.1 KHz.
- 3) Lower the AG output, and Adjust the Deviation to 1.5 KHz. In that case, Confirm That AG output Voltage is Within a range of 10 ~ 30 mV (Open Voltage).

D) CTCSS Deviation Alignment

- 1) Set a Frequency to CH-8, and Set CTCSS Code 38.
- 2) Switch to Transmit Mode.
- 3) Adjust VR.202 so that a Deviation is ± 0.6 KHz.

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◀ Receiver Alignment ▶

Conditions :

- | | | |
|-----------------|--|----------|
| 1. Frequency | | CH-8. |
| 2. Squelch | | Open |
| 3. Power Supply | | 6.0 V DC |

Procedures

A) RX Sensitivity Alignment

- 1) Set a Frequency to CH-8.
- 2) Confirm that 12 dB Sinad is -9 dB approx.
- 3) Confirm that a 12 dB Sinad of the Frequency at CH-1 and CH-14 Must be below -7 dB.

B) Squelch Sensitivity Alignment

- 1) Set a Frequency to CH-8.
- 2) Set a Signal Generator Output Level -13.0 dB μ V e.m.f.
- 3) Adjust the VR1 so that Audio Signal Close Point.