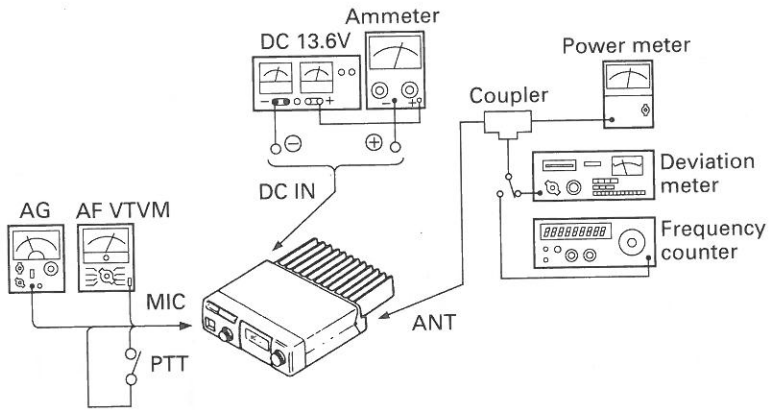
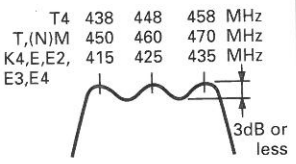
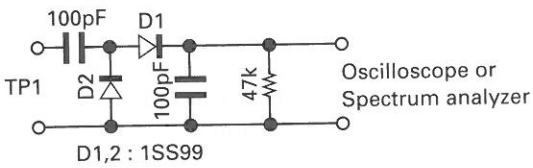
ADJUSTMENT

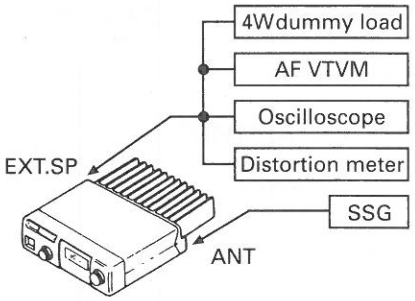
Common Section Adjustment

Item		Condition	Measurement			Adjustment			Specifications/Remarks
			Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Setting		1) Write in freq' and signaling data with EEPROM writer. Source voltage : DC 13.6V POWER SW : OFF VOL VR : Full counterclock-wise (CCW). TX-RX unit VR3~5 : Center VR1 : CW VR2, 6 : CCW CN4 (J2) : SET side							
2. PLL	RX	1) Frequency : f_{RL}	DVM	TX-RX	TP3			Check	1.5V or more.
		2) Frequency : f_{RH}	Dummy	Rear panel	ANT				8.5V or less.
	TX	3) Frequency : f_{TL} PTT : ON							1.5V or more.
		4) Frequency : f_{TH} PTT : ON							8.5V or less.
3. Transmit frequency adjustment		1) Frequency : f_{TH} PTT : ON	f. counter Power meter	Rear panel	ANT			Check	f ± 1200Hz

Receiver Section Adjustment

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Helical	1) Connect the tracking generator to ANT. Tracking generator output : –25dBm Connect the spectrum analyzer to TP1.	Spectrum analyzer Tracking generator	TX-RX Rear panel	TP1 ANT	TX-RX	L1, 4 TC1	Check whether required band obtained at max. gain.	  
2. MCF	1) Frequency : f_{RM} SSG output : 0.5µV/–113dBm MOD : 1kHz DEV : ±1.5kHz	DC V.M SSG	TX-RX	TP2	TX-RX	L7	Alignment to maximum voltage point and 1 turn left the core.	

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
3. Receiving seisitivity	1) Frequency : f_{RL} and f_{RH} SSG output : 0.3μV/–118dBm MOD : 1kHz DEV : ±1.5kHz	AF V.M Oscilloscope SSG	Rear panel	EXT. SP ANT			Check	SINAD 12dB or more.
								
4. Squelch	1) Frequency : f_{RM} SSG output : Turn the SSG output 3dB down so that the SINAD sensitivity becomes 12dB.	SSG	Rear panel	ANT	TX-RX	VR1	Set to the point at which squelch just close.	
	2) SSG output : Sensitivity value of 12dB SINAD.						Check	Squelch should open.
	3) SSG output : OFF							Squelch should close.
5. Acquisition threshold	1) Frequency : f_{RM} SSG output : 10μV/–87dBm	LCD SSG	Rear panel	ANT			Check	LCD display "0"
	2) SSG output : 1μV/–107dBm				TX-RX	VR2	Adjust for LCD display "2".	
	3) SSG output : 0.3μV/–117dBm						Check	LCD display "0"

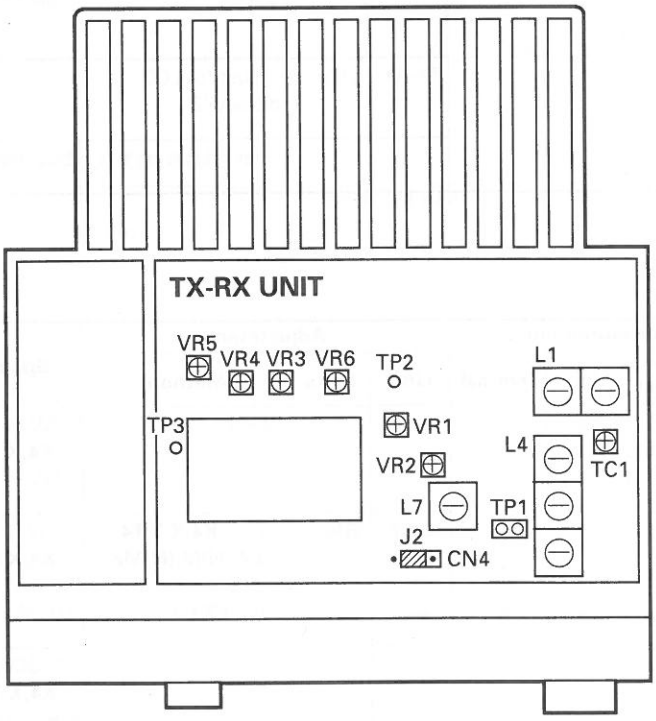
Transmitter Section Adjustment

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. APC	1) Frequency : f_{TM} PTT : ON	Power meter Ammeter	Rear panel	ANT			Check	28W or more. **K4,X,T,T4,E4,(N)M,(N)M2** 11W or more. **E,E2,E3**
					TX-RX	VR6	25W **K4,X,T,T4, E4,(N)M,(N)M2** 6W **E** 10W **E2,E3**	±1W, 7.5A or less. **K4,X,T,T4,E4,(N)M,(N)M2** ±0.5W, 3.5A or less. **E** ±0.5W, 4.0A or less. **E2,E3**
	2) Frequency : f_{TL} and f_{TH} PTT : ON						Check	20~30W, 7.5A or less **K4,X,T,T4,E4,(N)M,(N)M2** 4.8~7.2W, 3.5A or less. **E** 8~12W, 4.0A or less. **E2,E3**

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
2. Maximum deviation adjustment	1) Frequency : fTM AG : 1kHz/50mV Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF PTT : ON	Power meter Deviation meter Oscilloscope AG	Rear panel Front panel	ANT MIC	TX-RX	VR5	±2.2KHz	±100Hz
3. MIC sensitivity adjustment	1) AG : 1kHz/5mV PTT : ON				TX-RX	VR3	±1.5kHz	±100Hz
4. FSK	1) Frequency : fTH AG : OFF Deviation meter filter HPF : OFF LPF : 15kHz CALL + PTT : ON				TX-RX	VR4	±1.5kHz	±200Hz
		LCD					Check	LCD display "10101010"
5. Protection	1) Frequency : fTM and fTH ANT : Open PTT : ON	Ammeter					Check	7.5A or less. **K4,X,T,T4,E4,(N)M,(N)M2** 3.5A or less. **E** 4.0A or less. **E2,E3**

Adjustment Points (Top View)



L1, 4 : Helical
L7 : MCF
TC1 : Helical
VR1 : Squelch
VR2 : Acquisition threshold
VR3 : MIC sensitivity
VR4 : FSK
VR5 : Maximum deviation
VR6 : APC