**OPERATING PROCEDURES
STAJ COMPATIBLE IHFR
RADIO SETS AN/PRC-104B
AN/GRC-213A & AN/GRC-193B**

MOS 31C
and GPU

References: TM 11 - 5820 – 1045 - 12

TM 11 - 5820 – 1046 - 12

TM 11 - 5820 – 1047 - 12

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PREOPERATIONAL CHECKS

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
1	POWER SOURCE	• VEHICLE/GENERATOR OR POWER SUPPLY	OFF
2	AN/PRC – 104B	• ATTACH BATTERY PACK TO BOTTOM OF RADIO SET	
3	AN/GRC – 213A & AN/GRC – 193B	• INSPECT GROUNDING SYSTEM	
4	AN/PRC – 104B	• ASSEMBLE & MOUNT WHIP ANTENNA	
5	AN/GRC – 213A & AN/GRC – 193B	• INSPECT ANTENNA SYSTEM	
6	AN/GRC – 193B		
	a. COUPLER CU – 2064A	• AIR INTAKE & EXHAUST	CLEAR
	b. AMPLIFIER AM - 6545	• AIR INTAKE & EXHAUST	CLEAR

PRESETS

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
1	AN/PRC – 104B	• HANDSET H-250/189	Connected to RT
2	AN/GRC – 213A	• HANDSET H-250/189	Connect to Amp-Power-Supply
3	AN/GRC – 193B	HANDSET H-250/189	Connect to Amp Converter

PRESETS (cont'd)

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
4	RECEIVER – TRANSMITTER RT – 1209A	• VOLUME OFF/MAX	OFF
5	(104B) AMPLIFIER – COUPLER AM – 6874	• ANT SEL	Whip connection
6	(GRC-213A) AMPLI-FIER-COUPLER AM-6874	• ANT SEL LOADING	To MIDDLE BNC connector
	ANTENNA SWITCHING UNIT SA – 2365	• ANT	Set to proper position
7	(GRC – 193B) AMPLI-FIER-CONVERTER AM – 6879	• 20/60MA SELECT	20 or 60MA (Not used with VOICE or CW
		• TTY/SPEAKER ON/OFF	OFF
		• SQUELCH CONTROL	MID-RANGE
8	POWER AMPLIFIER AM - 6545	• ANT CPLR CB	PUSH in to reset
		• PA CB	PUSH in to reset
		• 400/100W Selector	100 Watts

ENERGIZE & TUNE

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
1	AN/PRC – 104B	• VOLUME OFF/MAX	Set to Mid-position
		• ANT SELECT	SET to correct position
2	AN/PRC – 213A & AN/GRC – 193B	• CIRCUIT BREAKER of PWR SUPPLY or GEN	ON (Adjust to 26.5vdc)
	VEHICLE	• Start Engine	Adjust Throttle
	RT -1209A	• VOLUME OFF/MAX	Set Mid-position

NOTE: RT – 1209A has a 5 second delay before power is supplied to the amplifier and coupler.

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
3	GRC – 213A AM – 7152	• Power ON/OFF	ON

NOTE: Power indicator lights come on.

		• SQUELCH OFF/MAX	Turn right halfway
		• SPEAKER ON/OFF	On (if using speaker)
4	AN/GRC – 193B	• TTY ON/OFF/SPKR ON	Set to OFF
	a. AMPLIFIER – CONVERTER	Orange "TUN" Light	Will come ON

ENERGIZE & TUNE   (cont'd)

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION

NOTE: Allow 60 seconds for POWER AMPLIFIER warm-up, "BEEPING" sound will be heard in earpiece of the handset at this time.

	b. PWR –AMP AM – 6545	• FAN/LAMP TEST	Press
		• BLOWER MOTOR	Will come ON
5	REC – TRANS RT 1209A for PRC – 104B/GRC – 213A & GRC/193B	• FREQUENCY KHz	Sequentially press push – buttons to select freq
		• SB Select	Press right hand MODE to select a sideband
		• MODE Select	Press left hand MODE to select VTR
		• HANDSET PTT	Momentarily PRESS and release
6	AN/GRC-193B (AM – 6545)	• Orange "TUN" and Green "XMT" lights	Will come ON
		• Green "RDY" light	Will come ON

ENERGIZE & TUNE (cont'd)

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
	NOTE: The Green "RDY" light and the Orange "TUN" light indicates the radio set is ready to be fine tuned.		
1	AN/GRC -193B (AMP-CONVERTER AM – 6879)	• TTY ON/OFF/SPKR ON	SPKR ON
		• SQUELCH OFF/MAX	If no sound is heard from speaker, turn control counter clockwise. Adjust SQUELCH OFF/MAX so that speaker remains silent until a transmission is received.
8	COMMUNICATE WITH OTHER Radios.		
	a. For CW operation, replace handset with CW Key	• LEG KEY KY – 872	DEPRESS to transmit and release to receive.
	b. RADIO SILENCE: VOICE and CW.	• MODE SELECTOR	V-RCV

SHUTDOWN

STEP	UNIT	CONTROL/SWITCH OR PUSHBUTTON	POSITION
1	AN/PRC – 104B (RT)	• VOLUME OFF/MAX	OFF
2	AN/GRC – 213A & AN/grc – 193B	• VOLUME OFF/MAX	OFF
		• ALL POWER CIRCUITS BREAKERS	OFF

(AN/GRC – 193B <u>ONLY</u>) NOTE:

After 6 seconds Green "XMT" light will GO OUT; Orange "TUN" light will GO OUT and Green "RDY" light will STAY ON. The ratio set is now ready for VOICE and CW modes of operation.

NOTES: