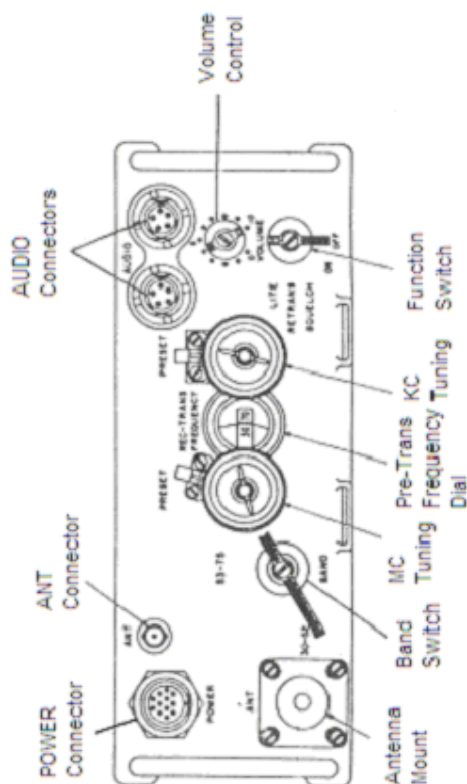




SOUTH QUEENSLAND AUSTRALIAN ARMY CADETS BRIGADE

RATEL

AN/PRC-77 Controls, Indicators and Connectors



FUNCTION SWITCH	OFF – turns power off
	ON - applies power
	SWUELCH – applies power and reduces rushing noise when no signal is received
	RETRAINS – permits radio relay operation
BAND SWITCH	LITE – spring-loaded position; lights channel dial
	30-52 – selects lower frequency band, A band
	53-75 – selects higher frequency band, B band
Mc Tuning Control	Tunes radio in 1-mc steps as indicated by the channel dial
Kc Tuning Control	Tunes radio in 50-kc steps as indicated by channel dial
PRE-TRANS FREQUENCY DIAL	Indicates operating frequency in mc and kc
PRESET levers	Permits rapid location of two pre-set frequencies
VOLUME control	Varies receiver volume
AUDIO connectors	Provides communications for handsets or retransmission cable
ANT mount	Provides connection for antennas
ANT connector	Provides connection for fixed ground plan or vehicle antenna

POWER Connector	Provides connections for external power supply when used as part of a vehicular radio set configurations.
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ASSEMBLY PROCEDURES

1. Set function to 'OFF'
2. Check external power supply connector cover is secure
3. Remove battery box
4. Fit the battery
5. Secure the battery box
6. Check the battery by turning functions to 'LITE' and checking dial light
7. Fit chosen antenna base and antennae
8. Connect the handset
9. Select the desired frequency
10. Set 'VOLUME' switch to '5'
11. Turn function switch to 'ON'
12. Turn function switch to 'SQUELCH'

DISSEMBLY PROCEDURES

1. Function SWITCH TO 'OFF'
2. Remove antennae
3. Remove handset
4. Remove battery

PHONETIC ALPHABET

A	ALPHA	AL-FAH
B	BRAVO	BRA-VOH
C	CHARLIE	CHAR-LEE
D	DELTA	DEL-TAH
E	ECHO	ECK-OH
F	FOXTROT	FOKS-TROT
G	GOLF	GOLF
H	HOTEL	HOH-TELL
I	INDIA	IN-DEE-AH
J	JULIET	JEW-LEE-ETT
K	KILO	KEY-LOH
L	LIMA	LEE-MAH
M	MIKE	MIKE
N	NOVEMBER	NO-VEM-BER
O	OSCAR	OSS-CAH
P	PAPA	PAH-PAH
Q	QUEBEC	KEH-BECK
R	ROMEO	RO-ME-O
S	SIERRA	SEE-AIR-RAH
T	TANGO	TANG-GO
U	UNIFORM	YOU-NEE-FORM
V	VICTOR	VIK-TAH
W	WHISKEY	WISS-KEY
X	XRAY	ECKS-RAY
Y	YANKEE	YANG-KEY
Z	ZULU	ZOO-LOO

COMMON PROWORDS

ACKNOWLEDGE	INSTRUCTION TO CALLSIGN ON THE NET TO ACKNOWLEDGE THAT IT HAS HEARD A MESSAGE WHICH MIGHT NOT HAVE BEEN SPECIFICALLY ADDRESSED TO IT
ALL AFTER ALL BEFORE	USED WITH REFERENCE TO A CATCHWORD OR PHRASE WHEN REQUESTING OR GIVING REPETITIONS OR CORRECTIONS
ANSWER AFTER	USED TO INSTRUCT A CALLSIGN THAT JOINS AN ESTABLISHED NET, THE ORDER IN WHICH TO ANSWER CALLS
ASSUME CONTROL	ORDER A CALLSIGN TO ASSUME CONTROL OF THE NET
BREAK	MESSAGE BEGINS OR ENDS
CALL SIGN(S)	CALL-SIGN FOLLOWS
CANCEL	CANCEL THE MESSAGE OR PART OF THE TRANSMISSION
CLOSE DOWN	CALLSIGNS ARE CALLED TO CLOSE DOWN WHEN INDICATED. ACKNOWLEDGEMENTS ARE REQUIRED
CLOSING DOWN	MAY I CLOSE DOWN (UNTIL..)
CORRECT	YOU ARE CORRECT, OR WHAT YOU HAVE TRANSMITTED IS CORRECT.
CORRECTION	WHAT HAS BEEN SAID IS WRONG. THE CORRECT MESSAGE FOLLOWS.
DISREGARD THIS TRANSMISSION	USED TO CANCEL A MESSAGE OR TRANSMISSION

PRONOUNCING NUMERALS

1	WUN
2	TOO
3	THU-REE
4	FO-WER
5	FI-YIV
6	SIX
7	SEV-EN
8	ATE
9	NY-NER
0	ZEE-ROH

APPOINTMENT TITLES

COMMANDER	SUNRAY
SECOND-IN-COMMAND	SUNRAY MINOR
OPERATIONS STAFF	SEAGULL
ADMINISTRATION STAFF	MANHOLE
INTELLIGENCE STAFF	ACORN
LOGISTICS STAFF	MOLAR
QUARTERMASTER STAFF	NUTSHELL
CHAPLIN	SHEPHERD
SIGNALS	PRONTO
TRANSPORT	PLAYTIME
ENGINEERS	HOLDFAST
MEDICAL	STARLIGHT
ELECTRICAL & MECHANICAL ENG	BLUEBELL
PROVOST (REGIMENTAL POLICE)	WATCHDOG

DO NOT ANSWER	USED WHEN IT IS IMPERATIVE THAT THE CALLED CALLSIGNS DO NOT ANSWER A TRANSMISSION. WHEN THIS PROWORD IS USED, THE TRANSMISSION IS TO END WITH THE PROWORD OUT
EXEMPT	THE CALLSIGNS THAT FOLLOW ARE EXCLUDED FROM A COLLECTIVE OR ALL-CALLSIGNS CALL
FETCH	USED IN CONJUNCTION WITH AN APPOINTMENT TITLE TO INDICATE WHO THE CALLER WANTS TO SPEAK TO
FIGURES	USED BEFORE SENDING GROUPS OF FIGURES DIGIT BY DIGIT. NOT USED FOR CALLSIGNS, GRID REFERENCES, TIME-CHECKS AND DTG
FROM	USED BY A RELAYING CALLSIGN TO INDICATE THE CALLSIGN ORIGINATING THE MESSAGE
GRID	USED BEFORE ANY GRID REFERENCE
I AM ASSUMING CONTROL	USED WHEN A CALLSIGN TAKES OVER THE NET
READ BACK	USED BY RECEIVING CALLSIGN TO SATISFY THEMSELVES THAT THEY HAVE RECEIVED THE TRANSMISSION, OR PART OF IT, CORRECTLY
I SAY AGAIN	USED BY SENDING CALLSIGN WHEN MAKING REPETITIONS FOR EMPHASIS, OR RESPONSE TO A REQUEST TO SAY AGAIN
I SPELL	USED WHEN SPELLING OUT A WORD
I VERIFY	THAT WHICH FOLLOWS HAS BEEN VERIFIED AT YOUR REQUEST. USED AS A RESPONSE TO 'VERIFY'

LONG MESSAGE	A LONG MESSAGE FOLLOWS (<i>WILL TAKE MORE THAN 30 SECONDS</i>)
MESSAGE	A MESSAGE FOLLOWS THAT NEEDS TO BE WRITTEN DOWN
NOTHING HEARD	INDICATION THAT NO RESPONSE HAS BEEN RECEIVED FROM A PARTICULAR CALLSIGN
OUT	THIS IS THE END OF MY TRANSMISSION, NO REPLY IS EXPECTED
OUT TO YOU	THIS IS THE END OF MY TRANSMISSION TO YOU, NO REPLY IS EXPECTED, A CALL TO ANOTHER CALLSIGN FOLLOWS IMMEDIATELY
OVER	THIS IS THE END OF MY TRANSMISSION TO YOU, A REPLY IS EXPECTED, GO AHEAD AND TRANSMIT
RADIO CHECK	REPORT SIGNAL STRENGTH AND READABILITY
READ BACK	REPEAT THIS ENTIRE TRANSMISSION BACK TO ME ENTIRELY AS RECEIVED
RELAY THROUGH	INSTRUCTION TO CALLSIGN TO RELAY MESSAGE THROUGH TO ANOTHER
REPORT STRENGTHS AND READABILITY	CALL BY NCS FOR CALLSIGNS TO REPORT HOW THEY HEAR ONE ANOTHER
ROGER	I HAVE RECEIVED YOUR LAST TRANSMISSION SATISFACTORILY
SAY AGAIN	REQUEST FOR REPETITION OF ALL, OR PORTIONS INDICATED, OF A MESSAGE
SEND	I AM READY TO RECEIVE YOUR MESSAGE
SILENCE LIFTED	SILENCE HAS BEEN LIFTED

SILENCE SILENCE SILENCE	CEASE TRANSMISSION ON THIS NET IMMEDIATELY
SPEAKING	USED IN CONJUNCTION WITH AN APPOINTMENT TITLE TO INDICATE WHO IS SPEAKING
THIS IS	INDICATES IDENTITY OF CALLING CALLSIGN
THROUGH ME	INVITATION BY A CALLSIGN TO RELAY THROUGH THEM
UNKNOWN CALLSIGN	THE IDENTITY OF THE CALLSIGN I AM CALLING IS NOT KNOWN TO ME
USE FULL PROCEDURE	FULL RATEL PROCEDURE IS TO BE USED
VERIFY	VERIFY PORTION INDICATED WITH ORIGINATING CALLSIGN AND SEND CORRECT VERSION
WAIT	I MUST PAUSE FOR UP TO FIVE SECONDS BEFORE REPLYING. NO OTHER CALLSIGN IS TO TRANSMIT DURING THIS PERIOD
WAIT OUT	YOUR TRANSMISSION IS RECEIVED; A FURTHER TRANSMISSION ON THE SAME SUBJECT WILL FOLLOW LATER. OTHER CALLSIGNS MAY CONTINUE TRANSMITTING
WILCO	MESSAGE RECEIVED, UNDERSTOOD AND WILL BE COMPLIED WITH (I WILL CONPLY)
WORD BEFORE WORD AFTER	USED TO IDENTIFY PART OF A MESSAGE
WRONG	WHAT HAS BEEN SAID IS WRONG. THE CORRECT VERSION IS ...

RADIO DO's AND DONT's

- DO KEEP THE ANTENNAE UPRIGHT
- DO RAISE THE ANTENNA AS HIGH AS POSSIBLE – AN INCREASED HEIGHT OF ONLY A FEW METRE OFTEN BRINGS ABOUT A GREAT IMPROVEMENT IN SIGNAL STRENGTH
- DO AVOID DEPRESSIONS – SELECT ANY NEARBY RISES OF GROUND
- DO MAKE MAXIMUM USE OF CLEARINGS IN DENSE VEGETATION
- DO SELECT A SITE ON AN ELEVATED LOCATION, ARTIFICIAL OR NATURAL, SUCH AS HILLS, MASTS, TREES AND TOWERS
- DO MOVE AROUND IN YOUR LOCATION IF SIGNALS ARE WEAK. MOVEMENT OF ONLY A FEW METRES CAN MAKE A VAST IMPROVEMENT
- DO AVOID SCREENING BY KEEPING WELL AWAY FROM POWER LINES BRIDGES AND WIRE FENCES
- DO SELECT SITES ON FORWARD SLOPES OF HILLS. IF THIS IS NOT POSSIBLE TRY TO HAVE THE ANTENNA CLEAR OF THE CREST
- DO NOTE PLACES WHERE YOUR SIGNALS ARE STRONG – IN AN EMERGENCY RETURN TO SUCH A PLACE
- DO CARRY OUT OPERATORS MAINTENANCE REGULARLY (CHECK ANTENNA BASE AND SECTIONS FOR GOOD CONTACT, ENSURE BATTERY IS SERVICEABLE, ENSURE CORRECT FREQUENCY IS SET)
- DO KEEP A SIGNAL OPERATORS LOG AT ALL TIMES
- DON'T ALLOW THE ANTENNA TO TOUCH FOLIAGE OR OBJECTS INCLUDING THE BODY
- DON'T SITE THE ANTENNA CLOSE TO ANY OBSTRUCTIONS BETWEEN YOURSELF AND THE DISTANT STATION

RATEL PROCEDURES

1. Be aware that all radio traffic is logged.
2. Messages are to be brief and concise.
3. Do not use 'over and out', use one or the other at appropriate points.
4. Do not use name or rank over the radio, use appointment titles or call signs.
5. Use the phonetic alphabet.
6. Hold down the pressel switch for two to three seconds before and after a transmission to ensure entire message is transmitted.
7. If unable to make contact, move several metres to a new location and/or higher ground. If communications are not loud and clear, use the Antenna Long in preference to the Antenna short.
8. Maintain battery conservation and discipline.
9. Use only the frequencies allocated.
10. If necessary, relay though another substation.
11. ALWAYS use correct RATEL procedure.
12. NEVER use 'REPEAT', use 'SAY AGAIN'.

LOCSTAT

Ser	
A	Call sign
B	Grid Reference
C	Status: 1 – Moving, 2 – Halted, 3 - Harboured
D	Additional Remarks

EXAMPLE:

0A THIS IS 1A LOCSTAT OVER
 1A THIS 0A SEND OVER
 0A THIS 1A LOCSTAT GRID 123456 OVER
 1A THIS 0A GRID 123456 OVER
 0A THIS 1A CORRECT OUT

CASEVAC (Casualty Evacuation)

Ser	
A	<i>Unit/ Call sign Requesting Evacuation</i>
B	<i>Pick up point – GR</i>
C	<i>Number of casualties – Walking</i>
D	<i>Number of casualties - Lying</i>
E	<i>Nature of injury/illness</i>
F	<i>PRIOR 1, 2, 3</i>
G	<i>Requirements for Specialist Equipment</i>
H	<i>Call sign and Frequencies</i>
I	<i>Hoist Requirements</i>
J	<i>Additional Remarks</i>

SITREP (SITUATION REPORT)

Ser	
A	Call sign
B	Grid Reference
C	Status: 1 – Moving, 2 – Halted, 3 - Harboured
D	Strength (number in group)
E	Morale (high, average, low)
F	Rations (in meals per person)
G	Water (in full water bottles)
H	Additional Remarks

CASEVAC...CONT

NOTES:

1. Italics shows format only. It is not to be transmitted.
2. Serial H and I are only needed if an air evacuation is required, otherwise reply 'nil'.
3. The CASEVAC is sent as a message titled 'CASEVAC'.
4. **All real CASEVACS are to be preceded by 'NO DUFF, NO DUFF, NO DUFF'.**
5. **ONCE A 'NO DUFF' CASEVAC REQUEST HAS BEEN INITIATED ALL C/S ARE TO STAY OFF THE NET UNLESS REQUESTED TO RELAY**
6. Priorities:
 - a. PRIOR 1: Urgent – Casualty for whom life is immediately.
 - b. PRIOR 2: Priority – Casualty for whom life or limb is in serious jeopardy.
 - c. PRIOR 3: Routine – Casualty for whom neither life nor limb is in serious jeopardy.

STRENGTHSTATE

Ser	
A	Male Cadets
B	Female Cadets
C	Male CUO
D	Female CUO
E	Male IOC
F	Female IOC
G	Male OOC
H	Female OOC
I	ARA/GRES OR
J	ARA/GRES NCO
K	ARA/GRES Officers
L	Others

OPDEM/MAINTDEM/PRIMAINTDEM...CONT

NOTES:

OPDEM WHEN THE RESUPPLY IS REQUIRED WITHIN 3 HOURS

PRIDEM WHEN THE RESUPPLY IS REQUIRED WITHIN 6 HOURS

MAINTDEM WHEN THE RESUPPLY IS REQUIRED WITHIN 12 HOURS

1. Italicises shows format only. It is not to be transmitted.
2. The OPDEM/MAINTDEM/PRIMAINTDEM is sent as a message title "OPDEM" or "MAINTDEM" or 'PRIMAINTDEM'.
3. * 1 ration = 1 meal for 1 personnel.
4. ** 1 unit of water = 1 x 20L Jerry.
5. *** Miscellaneous = any other stores required but not covered in Ser B1 – B4.
6. Nil.

OPDEM/MAINTDEM/PRIMAINTDEM

Ser	
A	<i>Unit / Call sign Requesting</i>
B1	<i>Ammunitions</i>
B2	<i>POL</i>
B3	<i>Rations *</i>
B4	<i>Water **</i>
B5	<i>Miscellaneous ***</i>
C	<i>Earliest time required</i>
D	<i>Latest time required</i>
E	<i>GR of delivery point</i>
F	<i>Desired method of delivery</i>
G	<i>Frequency at point of delivery</i>
H	<i>Call sign at point of delivery</i>
I	<i>Special instructions / additional remarks</i>

MOVEREQ (Movement Request)

Ser	
A	<i>From: Call sign or requesting unit</i>
B	<i>To: Call sign or unit arranging transport</i>
C	<i>Number or troops to be moved</i>
D	<i>Cargo description and weight if cargo is to be moved</i>
E	<i>Pick up point – GR</i>
F	<i>Delivery point – GR</i>
G	<i>Preferred method of delivery</i>
H	<i>DTG of pickup</i>
I	<i>DTG of delivery</i>
J	<i>Limitations of LS/DS</i>
K	<i>Frequencies and call sign at pick up point</i>
L	<i>Frequencies and call sign at delivery point</i>
M	<i>Remarks</i>

MOVEREQ...CONT**NOTES:**

1. Italicises shows format only. It is not to be transmitted.
2. DTG = Date Time Group. Sent 151345K.
 - a. 15 = day of the month.
 - b. 1345 = time of day.
 - c. K = time zone.

K is the time zone for the east coast of Australia. The month is assumed to be the month the message was originated unless otherwise stated.

SIGNAL OPERATORS LOG

DATE: FREQ:		CALL SIGN:				PLACE:	
CALL		MESSAGE NUMBER		OPER's NO.	MESSAGE	LOCAL TIME	
FROM	TO	IN	OUT				

OPER's No – First letter of surname and last two of blue book number.

RADIO LOG ABBREVIATIONS

ACKNOWLEDGE	ACK
ALL AFTER	AA
ALL BEFORE	AB
ANSWER	ANS
BREAK	//
CORRECTION	C
DISREGARD TRANSMISSION	DISC
DISTORTED	D
DO NOT ANSWER	F
EXEMPT	XMT
INFORMATION	INFO
NUMBER	NR
OUT	AR
OVER	K
READ BACK	G
ROGER	R
SAY AGAIN	IMI
SERVICE MESSAGE	SVC
SPEAK SLOWER	SSL
THROUGH ME	THM
UNKNOWN STATION	AA (<i>BARRED</i>)
VERIFY	J
WAIT	AS
WAIT OUT	AS AR
WORD AFTER	WA
WRONG	WG
WORD BEFORE	WB