



MOTOROLA INC.

MANUAL REVISION

for
Manual No. 68P81067C40-A
Instruction Manual MT1000®

This revision outlines changes that have occurred since the printing of the manual or previous revisions. Use this information to supplement your manual. Installation of these changes in earlier equipment is not necessary except as recommended in Motorola Service and Repair Notes(SRN's).

REVISION DETAILS

<u>NO.</u>	<u>CHANGE AFFECTS</u>	<u>ITEM NUMBER</u>	<u>SUFFIX</u>
1	Model and Option Charts		
2	Electrical Parts List (146-174MHz Bandsplit)		
3	Exploded View Parts List		
4	Electrical Parts List, Transceiver Board		
5	LOWBAND Electrical Parts List Transceiver Board		
6	Remote Speaker Microphones		
7	Cloning Procedure		
8	MT1000 Antenna Cut Chart		
9	VHF (146-176MHZ) TRANSCEIVER COMPONENT LOCATION DIAGRAMS Side 1		
10	Electrical Parts List VHF and Controller Flex		

CHANGES:

- No.
- On page v, **Model Chart**, and the **Option Chart** page vi, the following models have been added:

H33GCU7180AN MT1000, 2WATT, 146-174MHz, 8 CHANNEL ROTARY, PL/DPL, PKGED
H43GCU7180AN MT1000, 5WATT, 136-174MHz, 8 CHANNEL ROTARY, PL/DPL, PKGED
H34GCU7180AN MT1000, 2WATT, 403-433MHz, 440-470MHz, 8 CHANNEL ROTARY, PL/DPL, PKGED
H44GCU7180AN MT1000, 4WATT, 403-520MHz, 8 CHANNEL ROTARY, PL/DPL, PKGED
 - On page 78 **Electrical Parts List (146-174MHz Bandsplit)**

NON REFERENCED ITEMS

<u>MOTOROLA PART NO.</u>	<u>ACTION</u>	<u>MOTOROLA PART NO.</u>	<u>DESCRIPTION</u>
1400861196	changed to	1402428J01	INSULATOR for Q103
delete		7505695R01	PAD for U106
4005265Q02	change to	4005148Q04	SWITCH S3 16 position (square)

- On page 89, **Exploded View Parts List**, add the following:

<u>ITEM NO</u>	<u>ACTION</u>	<u>MOTOROLA PART NO.</u>	<u>DESCRIPTION</u>
16	add	1305676R25	ESCUTCHEON, 8 Channel
18	add	0405218Q04	WASHER
1	change to	0105950P95	ASSEMBLY Frame

Note: Changes 1-2, were necessary to add 8 frequency models to the **MT1000 Portable Radios**

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-1 of 3-



FMR-1492-4

CHANGES:

No.

4 On page 81, Electrical Parts List, Transceiver Board

B1 = 403-433 MHz 2 - and 4 - Watt Radios
 B3 = 440-470 MHz 2 - and 4 - Watt Radios
 B4 = 470-500 MHz 4 - Watt Radios
 B5 = 488-512 MHz 4 - Watt Radios

REF SYM	MOTOROLA PART NO.	ACTION	MOTOROLA PART NO.	DESCRIPTION
C2	2113740A13	change to	2113740A12	2.4 \pm 0.25pF (B3 2W)
C3	2113740A29	change to	2113740A31	12 (B3 2W)
C6	2113740A17	change to	see description	3.9 \pm 0.25pF (B1)
C6	2113740A14	change to	see description	3.0 \pm 0.25 (B3 4W) (B5)
C35	2113740A40	change to	2113740A43	39 (B3)
C50	2113741B73	change to	2113740B73	1000
C60	2113740A01	change to	2113740A03	1.0 \pm 0.25 (B1)
C60		add	2113740B01	1.0 \pm 0.25 (B3)
C182	2113741A37	add	see description	4700 \pm 10%;25V (B1,B3 2W, B4, B3 4W)
Q102	4805128M84	change to	4802246J06	NPN
S2	4005265Q02	change to	4005148Q04	SWITCH 16 position ()square)

NON REFERENCED ITEMS

ACTION	MOTOROLA PART NO.	DESCRIPTION
add	0105953P30	SHIELD, IF
add	0105955G27	TUNE Slugs, L1, L2

5 On page 72 LOWBAND Electrical Parts List Transceiver Board

REF SYM	MOTOROLA PART NO.	ACTION	MOTOROLA PART NO.	DESCRIPTION
C110	2113740A56	change to	see description	110 (L)
C110		add	or 2113740A59	150 (H)
C110		add	or 2113740A61	180 (M)
C114	2113740A61	change to	2113740A57	120 (M)
C119	2113740A56	change to	2113740A55	100 (H)
C129	2113740A46	change to	2113740A49	56 (H)
R109	0602433J29	change to	0602433J27	1W (L)
R111	0602433J28	change to	0602433J25	100;1W (L)
R111	0602433J25	change to	0602433J24	1W (H)
R121	0660076A01	delete		



6. REMOTE SPEAKER MICROPHONES

A remote speaker microphone instruction manual (Motorola part number) 68P81107C27 is located in the back of your MT1000 instruction manual. The remote speaker microphone instruction manual covers "A" models. Two new B models are available (NMN6145B and NMN6156B). The new B model is exactly the same as the corresponding A model, except that the cable and connector assembly (item 6 in the exploded view) part number has been changed. The new part number for item 6 in the exploded view parts list (0105959R75 for NMN6145 and 0105959R73 for NMN6156) applies to both A and B models.

7. On page 63, **Cloning Procedure**, replace with the following information.

CLONING PROCEDURE

THE CONTENT OF RADIO A IS TO BE DUPLICATED INTO RADIO B

1. Turn off radio A and turn on radio B.
2. Connect the cloning cable (NKN6376A) to the Universal Connector on both radio A and radio B.
3. Place the PL switch on radio A to the carrier squelch position () for full cloning, or the PL position () for partial cloning. Full cloning will duplicate the content of radio A to radio B. Partial cloning will duplicate the content of radio A to radio B, except for the deviation and squelch settings. Partial cloning is recommended due to deviation variations from radio to radio. (Later version MT1000's [B model for 6, 16 and 99 channel portables, A model for 8 channel] have partial cloning only).
4. Simultaneously depress the PTT and monitor button on radio A and hold.
5. Turn on radio A. The green LED turns off. Release both the PTT and monitor button on radio A (HT600's and older MT1000's [A model for 16 and 99 channel portables] beep when cloning is complete). Turn both radios A and B off and on to reset.

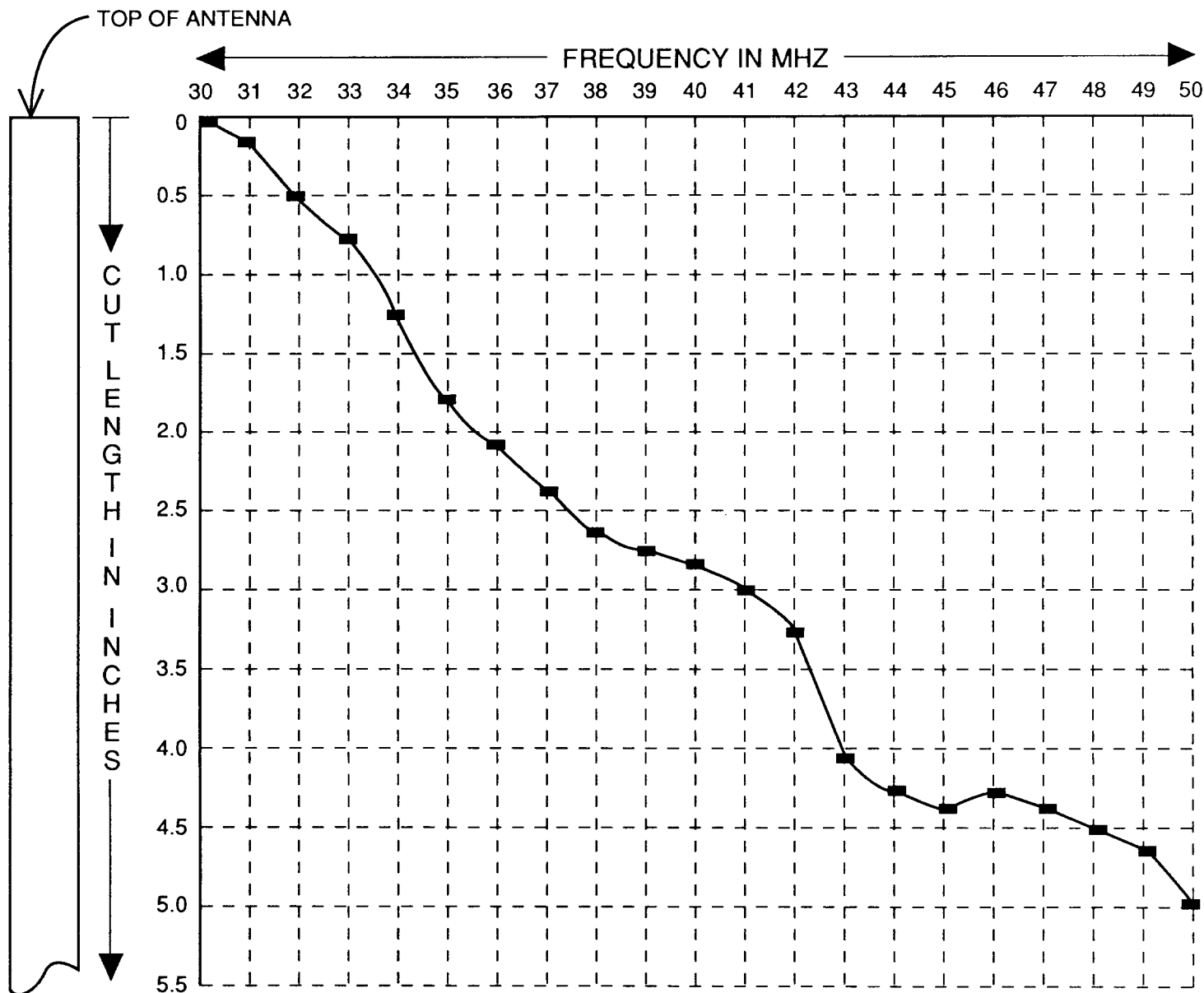
NOTE: For MDC Front covers (NTN5456, 57, 58, and 59), make sure you turn radio B on before connecting the cloning cable.

8. On page 70, **MT1000 LOWBAND ANTENNA CUT CHART**, replace with new ANTENNA CUT CHART.
9. On page 76, **VHF (146-176MHZ) TRANSCEIVER COMPONENT LOCATION DIAGRAMS** Side 1, Q102 should be Q104 on side 1 view.
10. On page 83, **Electrical Parts List VHF and Controller Flex** change the following.

<u>REF SYM</u>	<u>MOTOROLA PART NO.</u>	<u>ACTION</u>	<u>MOTOROLA PART NO.</u>	<u>DESCRIPTION CIRCUIT MODULE:</u>
U401	5105805P38	change to	0105950R29	Microcomputer
U402	0105956M99	change to	0105950R56	16k EEPROM

MT1000 Lowband Molded Antenna Cut Chart

for antenna RAB4022A,
NOT FOR heat shrunk antennas (NAB6051A-53A, 42A-44A)



FREQUENCY VERIFICATION CHART

This chart can be used to VERIFY the length or frequency of an antenna already cut. DO NOT use it to make the actual cut.

FREQ. (MHz)	FINAL ANTENNA LENGTH (INCHES)
30.....	11-9/16
32.....	11-1/16
34.....	10-5/16
36.....	9-1/2
38.....	8-15/16
40.....	8-3/4
42.....	8-5/16
44.....	7-5/16
46.....	7-5/16
48.....	7-1/16
50.....	6-5/8

CUTTING INSTRUCTIONS

1. Remove cap from antenna.
2. Align top of antenna with top (0 line) of graph corresponding to the desired frequency (choose frequency in the middle of customer order).
3. Mark the antenna where the solid line intersects the antenna, and cut at that mark.
4. To replace antenna cap, put a small bead of #414 Loctite® (Motorola part number 1110019B59) around the inside walls of the antenna cap. Place the antenna cap on top of the antenna and seat fully.