

Replacement Parts Ordering

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Introduction

When ordering replacement parts or equipment information, the complete identification number should be included. This applies to all components, kits, and chassis. If the component part number is not known, the order should include the number of the chassis or kit of which it is a part, and sufficient description of the desired component to identify it.

Crystal and channel element orders should specify the crystal or channel element type number, crystal and carrier frequency, and the model number in which the part is used.

Controller Board Ordering Information

When ordering a replacement controller board, refer to the applicable model chart in the front of this manual, read the controller-board note, and include the proper information with your order.

Mail Orders

Send written orders for replacement parts, test equipment, manuals, and /or crystal service items to the following addresses:

Domestic

Motorola Inc.
Aftermarket Products Division
Attention: Order Processing
1313 E. Algonquin Road
Schaumburg, IL 60196

Federal Government

Motorola Inc.
United States and Canada Aftermarket Products Division
Attention: Order Processing
7230 Parkway Drive
Landover, MD 21076

International

Motorola Inc.
Aftermarket Products Division
Attention: International Order Processing
1313 E. Algonquin Road
Schaumburg, IL 60196

Telephone Orders Call telephone orders to the following numbers:

Replacement Parts/Test Equipment/Manuals/ Crystal Service Items	1-800-422-4210 1-800-826-1913 1-847-538-8023	Domestic Federal Government International Orders
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Services Training (VHS Video Tapes)	1-847-576-2828
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FAX Orders FAX orders to the following numbers:

Replacement Parts/Test Equipment/Manuals/ Crystal Service Items	1-847-538-8198 1-410-712-4991 1-410-712-6200 1-847-576-3023	Domestic Federal Government, Domestic Federal Government, International International Orders
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Parts Identification	1-847-538-8194
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Customer Service

Parts	Aftermarket Products Division:
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Call:	1-800-422-4210 1-847-538-0021	Parts Identification
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Product	Customer Response Center (Sales and Service Assistance):
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Call:	1-800-247-2346
FAX:	1-800-232-9272

Secure Modules:
NTN7279A,
NTN7280A,
NTN7281A,
NTN7282A, and
NTN7283A for
MTS 2000 Radios

NOTE: The Secure Module is NOT serviceable. The information contained in this appendix is only meant to help determine whether a problem is due to the Secure Module or the radio itself.

Introduction

The Secure Module is designed to digitally encrypt and decrypt voice data in Motorola's MTS 2000 Series Handie-Talkie™ Portable Radios. The Secure Module uses a custom encryption integrated circuit (IC) and an encryption key variable to perform its encode/decode function. The encryption key variable is loaded into the Secure Module via the radio's universal (side) connector from a hand held key variable loader. The encryption IC corresponds to the particular encryption algorithm purchased. The encryption algorithms and their corresponding kit numbers are:

- Data Encryption Standard (DES)NTN7279A
- DES-XLNTN7280A
- Digital Voice Protection (DVP)NTN7281A
- DVP-XLNTN7282A
- DVI-XLNTN7283A

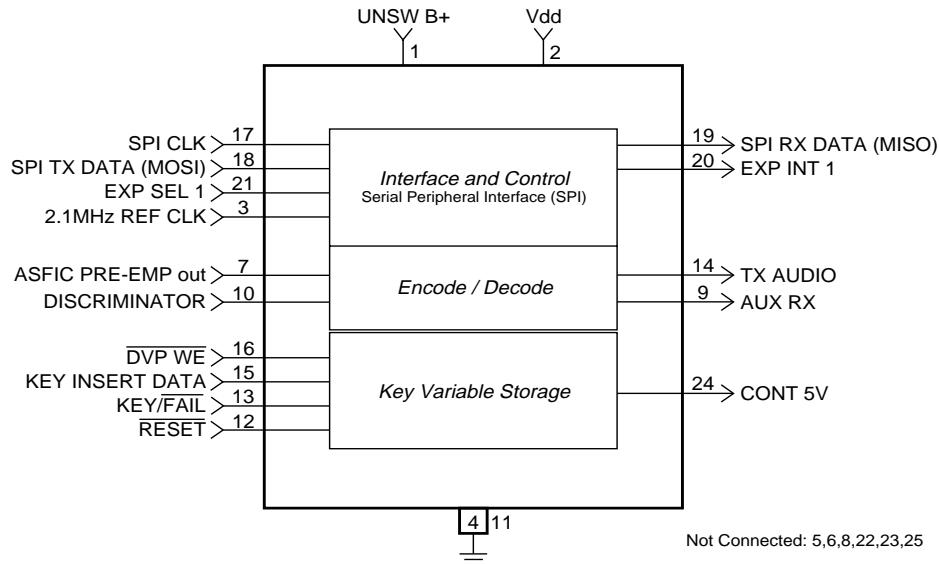
Circuit Description

The Secure Module, shown in Appendix Figure 1, operates from two power supplies. The first 5 volt supply (Vdd) is received from the controller board through connector plug P1 pin 2. This Vdd supply is turned on and off with the radio on/off switch. The second supply (UNSW B+) is received from the controller board through connector Plug P1 pin 1. UNSW B+ provides power to the Secure Module as long as the radio battery is in place.

Key variables are loaded into the Secure Module through connector P1 pins 13, 15, and 16. One key variable can be stored in the module at a time. The key variable is stored in volatile electronic memory, so it can only remain in memory as long as the radio is connected to a charged battery. If the battery is removed or if the battery fails, then a capacitor will allow the module to retain the key variable for at least 30 seconds while the battery is being replaced.

The radio's host processor communicates with the Secure Module on the Serial Peripheral Interface (SPI) bus. The host processor is the master on this bus, while the Secure Module is a slave on the bus. The

SPI bus consists of five signal lines. Refer to Appendix Table 1 for the signal information. A communications failure between the host processor and the Secure Module will be indicated as an “ERROR 09/10” message on the radio display.



Appendix Figure 1. Secure Module

Appendix A Table 1. MTS 2000 Single Key Secure Module I/O Definition

SIGNAL NAME	CONNECTOR PLUG P1 PIN NUMBER	FUNCTION
UNSW B+	1	Unswitched battery voltage
Vdd	2	Switched 5 volt supply
2.1MHz REF CLK	3	2.1/2.4 MHz clock signal
GROUND	4	Ground
ASFiC PRE-EMP out	7	Transmit Clear Audio
AUX RX	9	Receive Clear Audio
DISCRIMINATOR	10	Receive Encrypted Audio
GROUND	11	Ground
RESET	12	Radio Reset - Does NOT reset module
KEY/FAIL	13	Keyloading Signal
TX AUDIO	14	Transmit Encrypted Audio
KEY INSERT DATA	15	Keyloading Signal
DVP WE	16	Keyloading Signal
SPI CLK	17	SPI Data Clock
SPI TX DATA (MOSI)	18	SPI Data from Host
SPI RX DATA (MISO)	19	SPI Data to Host
EXP INT1	20	SPI Secure Interrupt Request
EXP SEL1	21	SPI Secure Slave Select
CONT 5V	24	Continuous 5 Volt Regulator Output (Not Used)
	5,6,8,22,23,25	Not Used

Troubleshooting Secure Operations

Refer to Section 6 of this radio service manual for disassembly and reassembly information, refer to Section 9 "Removal And Installation" for secure module and pad orientation, and refer to the radio theory/troubleshooting manual for a general overview of troubleshooting information and procedures. A key variable loader and oscilloscope are needed to troubleshoot the Secure Module.

NOTE: The Secure Module itself is NOT serviceable. If the Secure Module is found to be defective then it must be replaced.

ERROR 09/10

The MTS 2000 Series Handie-Talkie™ Portable Radio automatically performs a self test on every power-up. Should the radio fail the self tests, the display will show "ERROR XX/XX" (where XX/XX is alphanumeric) accompanied by a short beep. If the display shows "ERROR 09/10" or "E09/10", then the radio failed the secure power-up self tests and the host microcontroller is unable to communicate with the Secure Module via the SPI bus. Turn off the radio, check the battery connection, and turn the radio back on. If the radio still does not pass the self tests, then a problem exists with the secure operations of the radio.

Since the module is removable, a good first step in troubleshooting secure operation is simply to replace the suspect Secure Module with a known working module. If this does not fix the problem, then the original module is probably not the cause of the problem. If the new module does fix the problem, then the original module must be replaced.

A complete procedure for troubleshooting this error is listed below:

1. Turn the radio off, check the battery connection, and turn the radio back on.
2. If the error condition still exists, check that a Secure Module is installed and make sure that it is properly connected to the controller board. To do this, refer to the disassembly and reassembly sections of this manual.
3. Turn the radio back on.
4. If the error condition still exists and a working secure module with the same kit number is available, replace the suspect module with the working module.
5. If the problem persists, disassemble the radio and check the encryption connector SPI pins (listed in Appendix Table 1) for data transitions when the radio is turned on and off. If activity is not seen on all five lines, check both sides of the connector for broken connections.
6. Troubleshoot the Controller Board.

Keyloading Problems

Use the following procedure to troubleshoot keyloading problems:

1. Verify that the correct Key Variable Loader (KVL) is being used for the particular encryption algorithm present in the radio. Refer to Appendix Table 2:

Appendix A Table 2. Key Variable Loader

Secure Module Kit	KVL Kit	Description
NTN7279A	T3011_X	DES
NTN7280A	T3011_X	DES-XL
NTN7281A	T3010_X	DVP
NTN7282A	T3014_X	DVP-XL
NTN7283A	T3012_X	DVI-XL

2. 2. Connect the KVL to the radio via the TDN9390A keyloader cable. When the cable is connected to the radio, the radio should enter the keyloading mode of operation, and the radio should display "KEYLOADING" or "KEYLDG" and make a beep tone.
3. 3. If the radio displays "ERROR 09/10" or "E09/10" then go to the ERROR 09/10 troubleshooting section.
4. 4. If the radio does not go into keyloading mode, detach and reattach the keyloader cable.
5. 5. If there is still a problem, refer to the universal connector illustration found in the schematic and circuit board section of this manual, and short pins 8, 10, and 12 on the universal connector together. If this causes the radio to go into keyloading mode, then replace the keyloader cable.
6. 6. If the radio still does not go into keyloading mode, check the continuity of the Front Cover/Display Flex and make sure that the Flex is properly connected to the Universal Connector and to the Controller Board.
7. 7. If the radio does go into keyloading mode, but after starting the keyloading process the KVL display indicates "X FAIL", then check to see if there are transitions on pins 13, 15, and 16 of connector P1 on the Secure Module during a keyload.
8. 8. If there are no transitions on any one of these lines during a keyload, check the integrity and continuity of the Expansion Board Connector. If it is OK, try replacing the Controller Board.
9. 9. If there are transitions on these lines, try replacing the Secure Module.
10. 10. If the KVL display indicates "X PASS" but you cannot hear a keyload verification tone, then check the volume of the radio. If the volume is OK, troubleshoot the receive routing paths in the radio.

Service Aid

A cable, Motorola kit number TDN9390A, connects the MTS 2000 radio universal connector to the keyloader.

Retrofit Instructions

General

This section gives instructions on retrofitting a secure module into a secure-capable MTS 2000 radio. The following paragraphs give directions on how to physically install the secure module, how to

enable the secure options by updating the codeplug, and how to tune the radio for optimum secure performance.

Physical Retrofit of Secure Module



Anti-static precautions must be observed at all times.

Caution

Follow the disassembly procedures in Section 6, located toward the front of this manual. Proceed through “**Disassembly to Board Level**” step 8, where the front cover has been removed and the controls flex has been disconnected from the controller board.

Continue through step 9a, to loosen the front shield. Do not completely remove the front shield. Simply raise the lower portion of the shield while the opposite end is still connected to the top of the radio. With the front shield raised, observe the controller board which takes up the bottom third of the radio. On the lower right corner of the controller board is an empty female connector, which will be used to mate the controller board to the secure module. Place the secure module (component side toward controller board) over the controller board with the secure module's male connector placed above and aligned to the female connector on the controller board. Interlock the connectors by pressing down on the back of the secure module. The secure module has now been installed. Reassemble the radio according to the reassembly instructions in Section 6, located toward the front of this manual. Begin with “**Reassembly** (Control Top/Front Shield/Controls Flex as a unit to Chassis), step 2.

Update Codeplug Through RSS

General

Once the secure module is installed, the radio's codeplug must be reprogrammed so that the new hardware can be used. There will also be some secure options that the user may or may not want to activate. Appendix Table 3, at the end of this appendix, gives a quick reference to several properties and a brief description for each parameter. Refer to the RSS manual for general instructions in the use of RSS.

Set Secure-Equipped Field

The radio must be reprogrammed to utilize the secure module. At the RSS main menu, press F4 for the CHANGE/CREATE/VIEW menu. Press F3 for the Radio Wide Buttons, Switches, Display, Scan, Phone screen. Press F2 for Radio Wide Options screen. Here, press tab to reach the Secure Equipped field. Press up/down arrow keys to select YES.

Set XL IC Present Field

If the secure module has an XL IC (the Range Extension or -XL option), the radio must be reprogrammed to show that this IC is present. While still in the Radio Wide Options screen, press F6 to see Secure Options. Press Tab until the XL IC Present field is highlighted. Press up/down arrow keys to select YES. If the secure module does not have an XL IC, set the XL IC Present field to NO.

Enable Secure On Desired Channels

To actually use the secure option, Secure must be enabled on the channels for which it is desired. A channel can be strapped to secure-only, or clear-only, or secure/clear-selectable.

For conventional channels, proceed as follows: Press F4 at the Main Menu to see the CHANGE/CREATE/VIEW menu. Press F6 to see Conventional Systems, Personalities, MDC, Options. Press F3 to see Conventional Personalities, Options. Press F6 to see the SECURE OPTIONS screen. Press Tab to select the Secure/Clear Strapping field.

For trunking channels, proceed as follows: Press F4 at the Main Menu to see the CHANGE/CREATE/VIEW menu. Press F4 to see Trunking Systems, Personalities, Call Lists, Options screen. Press F4 to see Trunking Personalities: Talk Groups, Emergency Options, etc. Press Tab to select the Strapping field. An Announcement Group must be specified for the Strapping parameter to appear. This selects the Announcement Group Strapping. Press F7 to select Talk Groups. Press Tab to select the strapping of each Talk Group.

Other Secure Options

There are other secure options that can be changed on a per-channel basis, such as: Proper Code Detection, Transmit XL, or CFB. For conventional channels, these options are found on the same screen as Secure/Clear Strapping (F4/F6/F3/F6). These options are XL Transmit, Scan Holdoff Strapping, RX Modulation, and Proper Code Detect. For trunking channels, the only selectable option is Proper Code Detect. This can be found by going to the MORE OPTIONS screen (F9) from the screen that was used to select secure/clear Strapping for trunking channels.

Secure Retrofit Tuning

After installing a secure-retrofit board into a radio, the secure TX deviation and the secure RX discriminator level must be tuned. Follow the procedure outlined in Section 9 “**Secure Alignment Procedure**” in this publication for the tuning of these two secure-related alignments.

The TX deviation balance (compensation) does not need to be performed as part of the secure retrofit procedure. Use the transmit deviation balance (compensation) procedure as outlined in this appendix, only when a complete radio alignment is being performed with a secure board installed.

Secure Alignment Procedure

General

For optimum radio performance, the secure transmit deviation and the receive discriminator level must be set. Refer to Section 5, “**Radio Alignment Procedure**”, for a description of the radio alignment test setup, an RSS service menu overview, and for general radio tuning procedures. All normal radio tuning should be performed in the proper sequence before proceeding with secure tuning.

Note that the transmit deviation balance (compensation) tuning must be performed differently if a secure board is installed in the radio. Follow the procedure changes outlined below when tuning transmit deviation balance, and complete the normal tuning. Then proceed

with the additional tuning for secure TX deviation and secure RX discriminator level tuning.

Transmit Deviation Balance (Compensation)

When tuning with a secure board installed, the coupling capacitor inside the RKN4035A Test Cable will cause rolloff of the low port modulation. To fix this, the cable should be dc coupled ("VOL" position) and an external coupling capacitor (1.3 μ F or larger) must be placed in series with the signal source input to the AC/DC MTR.

Follow the “**Transmit Deviation Balance (Compensation)**” procedure outlined in Section 5, except change step 3 as follows:

- Set the RTX4005B Test Box meter selector switch to the "VOL" position, and connect the signal source to the AC/DC MTR port thru a $1.3\mu\text{F}$ capacitor. Inject an 80 Hz tone at 100mVrms thru this capacitor. Keep the ac voltmeter in parallel to the AC/DC MTR input to ensure the proper input signal level.

Secure TX Deviation

Transmit deviation balance (compensation) and transmit deviation limit adjustments should be completed before secure deviation is adjusted. Remember to use the new transmit deviation balance procedure outlined in the previous paragraphs before performing the following steps.

1. From the SERVICE menu, press F2 to select TRANSMITTER alignment.
 2. Press F8 to select the SECURE TX DEV softpot.
 3. Press F6 to key the radio on the test frequency. The screen will indicate that the radio is transmitting.
 4. Measure the secure deviation on your service monitor.
 5. Use the up/down arrow keys to adjust the secure deviation per Appendix Table 3.

Appendix A Table 3. Secure Deviation

Channel Spacing (kHz)	Secure Deviation (kHz)
25 / 30	2.91 - 3.06
20 (VHF / UHF)	1.69 - 1.84
20 (821 - 824, 866 - 969)	1.69 - 1.84
12.5	N / A

6. Press F6 to dekey the radio. Press F8 to program the softpot value.
 7. Press F10 to return to the TRANSMITTER menu.
 8. Set the RTX4005B Test Box meter selector switch to the “MX DISC” position, and connect an ac volt-meter (capable of 1mV resolution on a 2V scale) to the test box AC/DC meter port.
 9. From the SERVICE menu, press F3 to select RECEIVER alignment.
 10. Press F8 to select the SECURE DISCRIMINATOR LEVEL softpot.
The screen will indicate the receive test frequency to be used.
 11. Set the RF test generator to the receive test frequency. Set the RF

level at the radio standard antenna port to 1mV (-47dBm) modulated with 3.0 kHz FM deviation of a 1 kHz tone.

12. Use the UP/DOWN arrow keys to obtain a discriminator level between 206 - 218mVrms (target value of 212 mVrms) observed on the ac volt-meter.
13. Press F8 to program the softpot value.
14. Press F10 to return to the RECEIVER menu.

Removal And Installation

Refer to Appendix Figure 2, Secure Module Location Detail, when adding, removing, or replacing the secure module and/or secure module pad. Notice the orientation of the secure module and the secure module pad to the controller board.

Removal

Perform the disassembly procedure outlined in Section 6, up to and including removing the radio's front shield. Remove the secure module by pulling it out and away from the controller board.

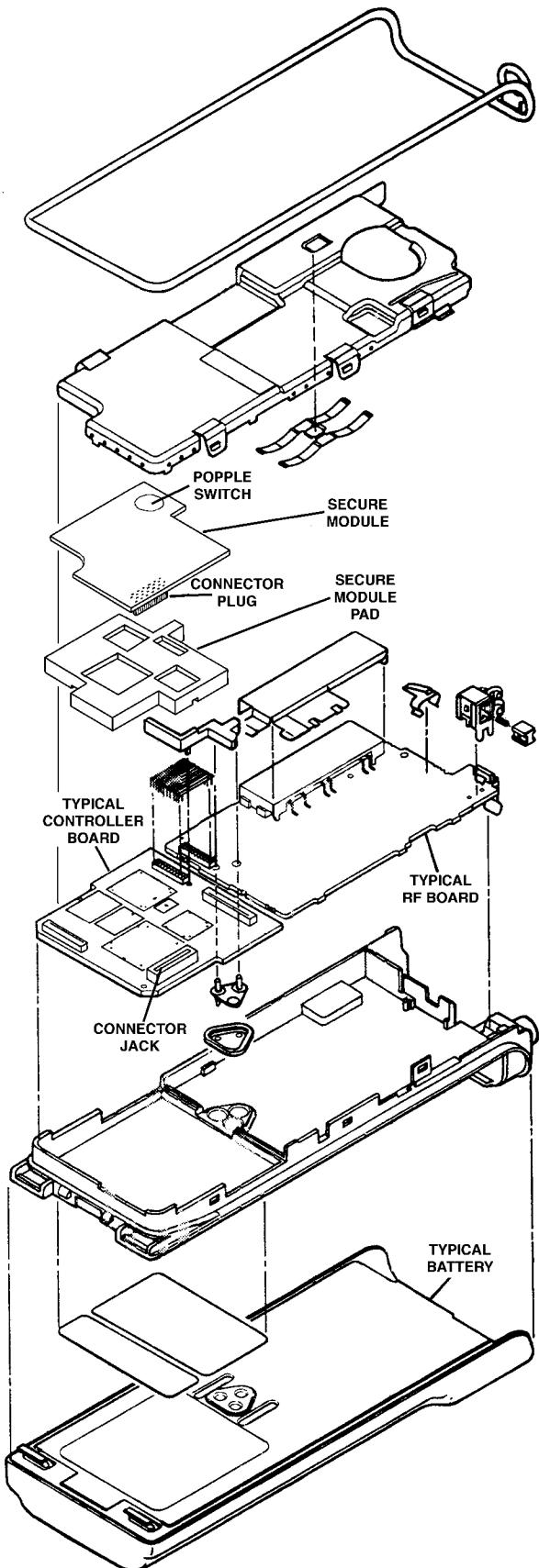
NOTE: The secure module and the controller board connect via a plug and jack located at the opposite corner from the round popple switch.

Remove the secure module pad as necessary.

Replacement/Installation

Perform the disassembly procedure described in the preceding paragraphs. Refer to Appendix Figure 2 for secure module pad and secure module board orientation. If the secure module pad was removed, place the removed pad or a new pad (Motorola part number 7505670Z01) on the controller board and ensure that it seats flush with the controller board on all sides. Place the secure module on the secure module pad. Press the secure module plug into the controller board jack with enough force so that the jack and plug snap together.

Reassemble the radio per the procedure outlined in Section 6 of this manual.



Appendix Figure 2. Secure Module Location Detail

Appendix A Table 4. RSS Secure Parameters

Parameter	Default	Possible Settings	Radio Wide/Per Channel	Used in Conv/Trunk	Description
Secure Equipped	No	Yes/No	Radio Wide	Both	Notifies radio that Secure Module is present
XL IC Present	No	Yes/No	Radio Wide	Both	Notifies radio that Secure Module contains XL IC
Secure/Clear Strapping	Select	Select/ Clear/ Secure	Per Channel	Conv	Sets channel to Clear-Only or Secure-Only or user Selectable
Strapping	Clear	Select/ Clear/ Secure	Per Channel	Trunk	Sets channel to Clear-Only or Secure-Only or user Selectable
XL Transmit	Enable	Enable/ Disable	Per Channel	Conv	Enables TX XL operation or disables for CFB
Scan Select	Non-XL&XL	Non-XL/ Non-XL&XL	Per Channel	Conv	Selects between Non-XL and XL Scan Unsquelch Duration
Scan Holdoff Strapping	Both	Both/ Clear Only/ Secure Only	Per Channel	Conv	Scan for Clear or Secure or Both on a particular channel
RX Modulation	2-Level Rx	Auto Rx/ 2-Level Rx	Per Channel	Conv	Tells radio to look for 2&4 -level signals or 2-level signals only
Proper Code Detect (Conv)	Enabled	Enabled/ Disabled	Per Channel	Conv	Enables RX proper code detection
Proper Code Detect (Trunk)	Disabled	Enabled/ Disabled	Per Channel	Trunk	Enables RX proper code detection
TX Clear Alert Tones	Enabled	Enabled/ Disabled	Radio Wide	Both	Enables alert tone when PTT is pressed while in the Clear mode
Periodic Keyfail Alert Tone	Enabled	Enabled/ Disabled	Radio Wide	Both	Enables a Keyfail Alert Tone to sound periodically in a key-fail condition
Non-XL Scan Unsquelch Duration	275ms	0-6375ms	Radio Wide	Both	The time after an activity detect that radio will wait on channel without an unsquelch in Non-XL mode
Non-XL Scan Unsquelch Duration	875ms	0-6375ms	Radio Wide	Both	The time after an activity detect that radio will wait on channel without an unsquelch in XL mode

Appendix B

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Model History Tables

The following five tables include all of the HT 1000, JT 1000, MT 2000, MTS 2000, and MTX Series models from the beginning of this product line to date. Each table includes model number, model number description, and the kit numbers of the transceiver board (Xcvr Bd) and the controller board (Ctrl Bd) that shipped with that particular model. The chart also lists replacement transceiver board, controller board, and codeplug.

Refer to the "Read Me" file on the replacement code plug disc to ensure current code plug use. Be sure to use the HJV_0002.EXE code plug tool for correct programming.

Appendix B Table 1. HT 1000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacement		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDC9AA1AN	VHF 2-F Closed 5-1W	NUD7070A	NTN7090A	NUD7085E	NCN6129B	D64W
H01KDC9AA1BN	VHF 2-F Closed 5-1W	NUD7085A	NTN7092A	NUD7085E	NCN6129B	D64W
H01KDC9AA1BN	VHF 2-F Closed 5-1W	NUD7085B	NTN7092B	NUD7085E	NCN6129B	D64W
H01KDC9AA1CN	VHF 2-F Closed 5-1W	NUD7085C	NCN6129A	NUD7085E	NCN6129B	D64W
H01KDC9AA1CN	VHF 2-F Closed 5-1W	NUD7085C	NCN6129B	NUD7085E	NCN6129B	D64W
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7085D	NCN6129C	NUD7085E	NCN6140C	D64W
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7085E	NCN6138A	NUD7085E	NCN6140C	D64W
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7091A	NCN6140A	NUD7091B	NCN6140C	F91P-3
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7091B	NCN6140B	NUD7091B	NCN6140C	F91P-3
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7091B	NCN6140C	NUD7091B	NCN6140C	F91P-3
H01KDC9AA1DN	VHF 2-F Closed 5-1W	NUD7095B	NCN6140C	NUD7095B	NCN6140C	F91P-3
H01KDC9AA3AN	VHF 16-F Closed 5-1W	NUD7070A	NTN7090A	NUD7070D	NCN6129B	D64W
H01KDC9AA3BN	VHF 16-F Closed 5-1W	NUD7070B	NTN7092B	NUD7070D	NCN6129B	D64W
H01KDC9AA3CN	VHF 16-F Closed 5-1W	NUD7070C	NCN6129A	NUD7070D	NCN6129B	D64W
H01KDC9AA3CN	VHF 16-F Closed 5-1W	NUD7070C	NCN6129B	NUD7070D	NCN6129B	D64W
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7070D	NCN6129C	NUD7070D	NCN6140C	D64W
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7070E	NCN6138A	NUD7070D	NCN6140C	D64W
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7092A	NCN6140A	NUD7092B	NCN6140C	F91P-3
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7092B	NCN6140B	NUD7092B	NCN6140C	F91P-3
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7092B	NCN6140C	NUD7092B	NCN6140C	F91P-3
H01KDC9AA3DN	VHF 16-F Closed 5-1W	NUD7095B	NCN6140C	NUD7095B	NCN6140C	F91P-3
H01RDC9AA1AN	UHF B1 2-F Closed 4-1W	NUE7213A	NTN7090A	NUE7240D	NCN6129B	D64W
H01RDC9AA1BN	UHF B1 2-F Closed 4-1W	NUE7240B	NTN7092B	NUE7240D	NCN6129B	D64W
H01RDC9AA1CN	UHF B1 2-F Closed 4-1W	NUE7240C	NCN6129A	NUE7240D	NCN6129B	D64W

Appendix B Table 1. HT 1000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacement		
				Xcvr Bd	Ctrl Bd	Codeplug
H01RDC9AA1CN	UHF B1 2-F Closed 4-1W	NUE7240C	NCN6129B	NUE7240D	NCN6129B	D64W
H01RDC9AA1DN	UHF B1 2-F Closed 4-1W	NUE7240D	NCN6129C	NUE7240D	NCN6140C	D64W
H01RDC9AA1DN	UHF B1 2-F Closed 4-1W	NUE7265A	NCN6141A	NUE7265B	NCN6140C	F91P-3
H01RDC9AA1DN	UHF B1 2-F Closed 4-1W	NUE7265B	NCN6141B	NUE7265B	NCN6140C	F91P-3
H01RDC9AA1DN	UHF B1 2-F Closed 4-1W	NUE7265B	NCN6140C	NUE7265B	NCN6140C	F91P-3
H01RDC9AA1DN	UHF B1 2-F Closed 4-1W	NUE7272B	NCN6140C	NUE7272B	NCN6140C	F91P-3
H01RDC9AA3AN	UHF B1 16-F Closed 4-1W	NUE7213A	NTN7090A	NUE7231C	NCN6129B	D64W
H01RDC9AA3BN	UHF B1 16-F Closed 4-1W	NUE7213B	NTN7092B	NUE7231C	NCN6129B	D64W
H01RDC9AA3CN	UHF B1 16-F Closed 4-1W	NUE7213C	NCN6129A	NUE7231C	NCN6129B	D64W
H01RDC9AA3CN	UHF B1 16-F Closed 4-1W	NUE7213C	NCN6129B	NUE7231C	NCN6129B	D64W
H01RDC9AA3DN	UHF B1 16-F Closed 4-1W	NUE7231C	NCN6129C	NUE7231C	NCN6140C	D64W
H01RDC9AA3DN	UHF B1 16-F Closed 4-1W	NUE7266A	NCN6141A	NUE7266B	NCN6140C	F91P-3
H01RDC9AA3DN	UHF B1 16-F Closed 4-1W	NUE7266B	NCN6141B	NUE7266B	NCN6140C	F91P-3
H01RDC9AA3DN	UHF B1 16-F Closed 4-1W	NUE7266B	NCN6140C	NUE7266B	NCN6140C	F91P-3
H01RDC9AA3DN	UHF B1 16-F Closed 4-1W	NUE7272B	NCN6140C	NUE7272B	NCN6140C	F91P-3
H01SDC9AA1AN	UHF B2 2-F Closed 4-1W	NUE7214A	NTN7090A	NUE7241D	NCN6129B	D64W
H01SDC9AA1BN	UHF B2 2-F Closed 4-1W	NUE7241B	NTN7092B	NUE7241D	NCN6129B	D64W
H01SDC9AA1CN	UHF B2 2-F Closed 4-1W	NUE7241C	NCN6129A	NUE7241D	NCN6129B	D64W
H01SDC9AA1CN	UHF B2 2-F Closed 4-1W	NUE7241C	NCN6129B	NUE7241D	NCN6129B	D64W
H01SDC9AA1DN	UHF B2 2-F Closed 4-1W	NUE7241D	NCN6129C	NUE7241D	NCN6140C	D64W
H01SDC9AA1DN	UHF B2 2-F Closed 4-1W	NUE7267A	NCN6141A	NUE7267B	NCN6140C	F91P-3
H01SDC9AA1DN	UHF B2 2-F Closed 4-1W	NUE7267B	NCN6141B	NUE7267B	NCN6140C	F91P-3
H01SDC9AA1DN	UHF B2 2-F Closed 4-1W	NUE7267B	NCN6140C	NUE7267B	NCN6140C	F91P-3
H01SDC9AA1DN	UHF B2 2-F Closed 4-1W	NUE7273B	NCN6140C	NUE7273B	NCN6140C	F91P-3
H01SDC9AA3AN	UHF B2 16-F Closed 4-1W	NUE7214A	NTN7090A	NUE7232C	NCN6129B	D64W
H01SDC9AA3BN	UHF B2 16-F Closed 4-1W	NUE7214B	NTN7092B	NUE7232C	NCN6129B	D64W
H01SDC9AA3CN	UHF B2 16-F Closed 4-1W	NUE7214C	NCN6129A	NUE7232C	NCN6129B	D64W
H01SDC9AA3CN	UHF B2 16-F Closed 4-1W	NUE7214C	NCN6129B	NUE7232C	NCN6129B	D64W
H01SDC9AA3DN	UHF B2 16-F Closed 4-1W	NUE7232C	NCN6129C	NUE7232C	NCN6140C	D64W
H01SDC9AA3DN	UHF B2 16-F Closed 4-1W	NUE7268A	NCN6141A	NUE7268B	NCN6140C	F91P-3
H01SDC9AA3DN	UHF B2 16-F Closed 4-1W	NUE7268B	NCN6141B	NUE7268B	NCN6140C	F91P-3
H01SDC9AA3DN	UHF B2 16-F Closed 4-1W	NUE7268B	NCN6140C	NUE7268B	NCN6140C	F91P-3
H01SDC9AA3DN	UHF B2 16-F Closed 4-1W	NUE7273B	NCN6140C	NUE7273B	NCN6140C	F91P-3
H01UCC6AA3AN	800MHz 16-F Closed 3W	NUF6394A	NTN7090A	NUF6394B	NCN6129B	D64W
H01UCC6AA3BN	800MHz 16-F Closed 3W	NUF6394B	NTN7092B	NUF6394B	NCN6129B	D64W

Appendix B Table 1. HT 1000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacement		
				Xcvr Bd	Ctrl Bd	Codeplug
H01UCC6AA3CN	800MHz 16-F Closed 3W	NUF6394B	NCN6129A	NUF6394B	NCN6129B	D64W
H01UCC6AA3CN	800MHz 16-F Closed 3W	NUF6394B	NCN6129B	NUF6394B	NCN6129B	D64W
H01UCC6AA3DN	800MHz 16-F Closed 3W	NUF6394B	NCN6129C	NUF6394B	NCN6140C	D64W
H01UCC6AA3DN	800MHz 16-F Closed 3W	NUF6497A	NCN6145A	NUF6497B	NCN6140C	F91P-3
H01UCC6AA3DN	800MHz 16-F Closed 3W	NUF6497B	NCN6145B	NUF6497B	NCN6140C	F91P-3
H01UCC6AA3DN	800MHz 16-F Closed 3W	NUF6497B	NCN6140C	NUF6497B	NCN6140C	F91P-3
H01UCC6AA3DN	800MHz 16-F Closed 3W	NUF6500D	NCN6140C	NUF6500D	NCN6140C	F91P-3

Appendix B Table 2. JT 1000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcrr Bd	Ctrl Bd	Codeplug
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7070A	NTN7089A	NUD7070E	NCN6146A	D64W
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7070B	NTN7089B	NUD7070E	NCN6146A	D64W
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7070C	NTN7089C	NUD7070E	NCN6146A	D64W
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7070E	NTN7089C	NUD7070E	NCN6146A	D64W
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7095A	NCN6146A	NUD7095B	NCN6146A	F91P-3
H01KDH9PA3AN	VHF 16-Ch Front Display	NUD7095B	NCN6146A	NUD7095B	NCN6146A	F91P-3
H01RDH9PA3AN	UHF B1 16 Ch Front Display	NUE7213B	NTN7089B	NUE7213C	NCN6146A	D64W
H01RDH9PA3AN	UHF B1 16-Ch Front Display	NUE7213C	NTN7089C	NUE7213C	NCN6146A	D64W
H01RDH9PA3AN	UHF B1 16-Ch Front Display	NUE7272A	NCN6146A	NUE7272B	NCN6146A	F91P-3
H01RDH9PA3AN	UHF B1 16-Ch Front Display	NUE7272B	NCN6146A	NUE7272B	NCN6146A	F91P-3
H01SDH9PA3AN	UHF B2 16-Ch Front Display	NUE7214B	NTN7089B	NUE7232C	NCN6146A	D64W
H01SDH9PA3AN	UHF B2 16-Ch Front Display	NUE7214C	NTN7089C	NUE7232C	NCN6146A	D64W
H01SDH9PA3AN	UHF B2 16-Ch Front Display	NUE7232C	NTN7089C	NUE7232C	NCN6146A	D64W
H01SDH9PA3AN	UHF B2 16-Ch Front Display	NUE7273A	NCN6146A	NUE7273B	NCN6146A	F91P-3
H01SDH9PA3AN	UHF B2 16-Ch Front Display	NUE7273B	NCN6146A	NUE7273B	NCN6146A	F91P-3

Appendix B Table 3. MT 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7070A	NLD8896A	NUD7070E	NCN6147A	D64W
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7070B	NTN7091C	NUD7070E	NCN6147A	D64W
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7070C	NTN7091C	NUD7070E	NCN6147A	D64W
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7070D	NTN7091D	NUD7070E	NCN6147A	D64W

Appendix B Table 3. MT 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7070E	NTN7091D	NUD7070E	NCN6147A	D64W
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7095A	NCN6147A	NUD7095B	NCN6147A	F91P-3
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7095B	NCN6147A	NUD7095B	NCN6147A	F91P-3
H01KDD9AA4AN	VHF 48-F Top Display 5-1W	NUD7095B	NCN6147B	NUD7095B	NCN6147B	F91P-3
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7070A	NTN7091A	NUD7070E	NCN6147A	D64W
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7070B	NTN7091C	NUD7070E	NCN6147A	D64W
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7070C	NTN7091C	NUD7070E	NCN6147A	D64W
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7070D	NTN7091D	NUD7070E	NCN6147A	D64W
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7070E	NTN7091D	NUD7070E	NCN6147A	D64W
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7095A	NCN6147A	NUD7095B	NCN6147A	F91P-3
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7095B	NCN6147A	NUD7095B	NCN6147A	F91P-3
H01KDH9AA7AN	VHF 16-Ch Front Display 5-1W	NUD7095B	NCN6147B	NUD7095B	NCN6147B	F91P-3
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NCN6111A UHF Only	NTN7091A	NUE7231C	NCN6147A	D64W
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7213B	NTN7091B	NUE7231C	NCN6147A	D64W
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7231C	NTN7091B	NUE7231C	NCN6147A	D64W
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7231C	NTN7091D	NUE7231C	NCN6147A	D64W
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7272A	NCN6147A	NUE7272B	NCN6147A	F91P-3
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7272B	NCN6147A	NUE7272B	NCN6147A	F91P-3
H01RDD9AA4AN	UHF B1 48-F Open Top Display 4-1W	NUE7272B	NCN6147B	NUE7272B	NCN6147B	F91P-3
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7213A	NTN7091A	NUE7231C	NCN6147A	D64W
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7213B	NTN7091B	NUE7231C	NCN6147A	D64W
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7231C	NTN7091B	NUE7231C	NCN6147A	D64W
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7231C	NTN7091D	NUE7231C	NCN6147A	D64W

Appendix B Table 3. MT 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7272A	NCN6147A	NUE7272B	NCN6147A	F91P-3
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7272B	NCN6147A	NUE7272B	NCN6147A	F91P-3
H01RDH9AA7AN	UHF B1 16-Ch Front Display 4-1W	NUE7272B	NCN6147B	NUE7272B	NCN6147B	F91P-3
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7214A	NCN6111A UHF Only	NUE7232C	NCN6147A	D64W
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7214B	NTN7091B	NUE7232C	NCN6147A	D64W
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7232C	NTN7091B	NUE7232C	NCN6147A	D64W
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7232C	NTN7091D	NUE7232C	NCN6147A	D64W
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7273A	NCN6147A	NUE7273B	NCN6147A	F91P-3
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7273B	NCN6147A	NUE7273B	NCN6147A	F91P-3
H01SDD9AA4AN	UHF B2 48-F Top Display 4-1W	NUE7273B	NCN6147B	NUE7273B	NCN6147B	F91P-3
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7214A	NTN7091A	NUE7232C	NCN6147A	D64W
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7214B	NTN7091B	NUE7232C	NCN6147A	D64W
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7232C	NTN7091B	NUE7232C	NCN6147A	D64W
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7232C	NTN7091D	NUE7232C	NCN6147A	D64W
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7273A	NCN6147A	NUE7273B	NCN6147A	F91P-3
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7273B	NCN6147A	NUE7273B	NCN6147A	F91P-3
H01SDH9AA7AN	UHF B2 16-Ch Front Display 4-1W	NUE7273B	NCN6147B	NUE7273B	NCN6147B	F91P-3
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6394A	NTN7091A	NUF6394B	NCN6147A	D64W
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6394B	NTN7091B	NUF6394B	NCN6147A	D64W
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6394B	NTN7091D	NUF6394B	NCN6147A	D64W
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6498A	NCN6147A	NUF6498B	NCN6147A	F91P-3
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6498B	NCN6147A	NUF6498B	NCN6147A	F91P-3
H01UCD6AA4AN	800MHz 48-F Top Display 4-1W	NUF6500D	NCN6147B	NUF6500D	NCN6147B	F91P-3

Appendix B Table 3. MT 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6394A	NTN7091A	NUF6394B	NCN6147A	D64W
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6394B	NTN7091B	NUF6394B	NCN6147A	D64W
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6394B	NTN7091D	NUF6394B	NCN6147A	D64W
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6498A	NCN6147A	NUF6498B	NCN6147A	F91P-3
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6498B	NCN6147A	NUF6498B	NCN6147A	F91P-3
H01UCH6AA7AN	800MHz 160-Ch 4-1W	NUF6500D	NCN6147B	NUF6500D	NCN6147B	F91P-3

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDD9PW1AN	VHF 3-SYS/Zone Top Display	NUD7070A	NTN7091A			
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7070A	NLD8897A	NUD7070E	NCN6150A	D64W
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7070B	NTN7620D	NUD7070E	NCN6150A	D64W
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7070C	NTN7620D	NUD7070E	NCN6150A	D64W
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7070D	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7070E	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7095A	NCN6150A	NUD7095B	NCN6150A	F91P-3
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7095B	NCN6150A	NUD7095B	NCN6150A	F91P-3
H01KDD9PW1BN	VHF 16-Mode Top Display 5-1W	NUD7095B	NCN6150B	NUD7095B	NCN6150B	F91P-3
H01KDF9PW1AN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7070A	NTN7091A	NUD7070E	NCN6150A	D64W
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7070B	NLD8897A	NUD7070E	NCN6150A	D64W
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7070C	NTN7620D	NUD7070E	NCN6150A	D64W
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7070D	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7070E	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7095A	NCN6150A	NUD7095B	NCN6150A	F91P-3

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7095B	NCN6150A	NUD7095B	NCN6150A	F91P-3
H01KDF9PW1BN	VHF 16-Mode Front Display Limited Keypad 5-1W	NUD7095B	NCN6150B	NUD7095B	NCN6150B	F91P-3
H01KDH9PW1AN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7070A	NTN7091A	NUD7070E	NCN6150A	D64W
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7070B	NLD8897A	NUD7070E	NCN6150A	D64W
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7070C	NTN7620D	NUD7070E	NCN6150A	D64W
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7070D	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7070E	NTN7620E	NUD7070E	NCN6150A	D64W
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7095A	NCN6150A	NUD7095B	NCN6150A	F91P-3
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7095B	NCN6150A	NUD7095B	NCN6150A	F91P-3
H01KDH9PW1BN	VHF 16-Mode Front Display Full Keypad 5-1W	NUD7095B	NCN6150B	NUD7095B	NCN6150B	F91P-3
H01RDD9PW1AN	UHF B1 16-Mode 4-1W	NUE7213A	NTN7091A	NUE7231C	NCN6150A	D64W
H01RDD9PW1BN	UHF B1 16-Mode 4-1W	NUE7231B	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDD9PW1BN	UHF B1 16-Mode Top Display 4-1W	NUE7231C	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDD9PW1BN	UHF B1 16-Mode Top Display 4-1W	NUE7231C	NTN7620E	NUE7231C	NCN6150A	D64W
H01RDD9PW1BN	UHF B1 16-Mode Top Display 4-1W	NUE7272A	NCN6150A	NUE7272B	NCN6150A	F91P-3
H01RDD9PW1BN	UHF B1 16-Mode Top Display 4-1W	NUE7272B	NCN6150A	NUE7272B	NCN6150A	F91P-3
H01RDD9PW1BN	UHF B1 16-Mode Top Display 4-1W	NUE7272B	NCN6150B	NUE7272B	NCN6150B	F91P-3
H01RDF9PW1AN	UHF B1 16-Mode 4-1W	NUE7213A	NTN7091A	NUE7231C	NCN6150A	D64W
H01RDF9PW1BN	UHF B1 16-Mode 4-1W	NUE7231B	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDF9PW1BN	UHF B1 16-Mode Front Display Limited Keypad 4-1W	NUE7231C	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDF9PW1BN	UHF B1 16-Mode Front Display Limited Keypad 4-1W	NUE7231C	NTN7620E	NUE7231C	NCN6150A	D64W
H01RDF9PW1BN	UHF B1 16-Mode Front Display Limited Keypad 4-1W	NUE7272A	NCN6150A	NUE7272B	NCN6150A	F91P-3
H01RDF9PW1BN	UHF B1 16-Mode Front Display Limited Keypad 4-1W	NUE7272B	NCN6150A	NUE7272B	NCN6150A	F91P-3

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01RDF9PW1BN	UHF B1 16-Mode Front Display Limited Keypad 4-1W	NUE7272B	NCN6150B	NUE7272B	NCN6150B	F91P-3
H01RDH9PW1AN	UHF B1 16-Mode 4-1W	NUE7213A	NTN7091A	NUE7231C	NCN6150A	D64W
H01RDH9PW1BN	UHF B1 16-Mode 4-1W	NUE7231B	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDH9PW1BN	UHF B1 16-Mode Front Display Full Keypad 4-1W	NUE7231C	NTN7620C	NUE7231C	NCN6150A	D64W
H01RDH9PW1BN	UHF B1 16-Mode Front Display Full Keypad 4-1W	NUE7231C	NTN7620E	NUE7231C	NCN6150A	D64W
H01RDH9PW1BN	UHF B1 16-Mode Front Display Full Keypad 4-1W	NUE7272A	NCN6150A	NUE7272B	NCN6150A	F91P-3
H01RDH9PW1BN	UHF B1 16-Mode Front Display Full Keypad 4-1W	NUE7272B	NCN6150A	NUE7272B	NCN6150A	F91P-3
H01RDH9PW1BN	UHF B1 16-Mode Front Display Full Keypad 4-1W	NUE7272B	NCN6150B	NUE7272B	NCN6150B	F91P-3
H01SDD9PW1AN	UHF B2 16-Mode 4-1W	NUE7214A	NTN7091A	NUE7232C	NCN6150A	D64W
H01SDD9PW1BN	UHF B2 16-Mode 4-1W	NUE7232B	NTN7620C	NUE7232C	NCN6150A	D64W
H01SDD9PW1BN	UHF B2 16-Mode Top Display 4-1W	NUE7232C	NTN7620C	NUE7232C	NCN6150A	D64W
H01SDD9PW1BN	UHF B2 16-Mode Top Display 4-1W	NUE7232C	NTN7620E	NUE7232C	NCN6150A	D64W
H01SDD9PW1BN	UHF B2 16-Mode Top Display 4-1W	NUE7273A	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDD9PW1BN	UHF B2 16-Mode Top Display 4-1W	NUE7273B	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDD9PW1BN	UHF B2 16-Mode Top Display 4-1W	NUE7273B	NCN6150B	NUE7273B	NCN6150B	F91P-3
H01SDF9PW1AN	UHF B2 16-Mode 4-1W	NUE7214A	NTN7091A	NUE7232C	NCN6150A	D64W
H01SDF9PW1BN	UHF B2 16-Mode 4-1W	NUE7232B	NTN7620C	NUE7232C	NCN6150A	D64W
H01SDF9PW1BN	UHF B2 16-Mode Front Display Limited Keypad 4-1W	NUE7232C	NTN7620C	NUE7232C	NCN6150A	D64W
H01SDF9PW1BN	UHF B2 16-Mode Front Display Limited Keypad 4-1W	NUE7232C	NTN7620E	NUE7232C	NCN6150A	D64W
H01SDF9PW1BN	UHF B2 16-Mode Front Display Limited Keypad 4-1W	NUE7273A	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDF9PW1BN	UHF B2 16-Mode Front Display Limited Keypad 4-1W	NUE7273B	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDF9PW1BN	UHF B2 16-Mode Front Display Limited Keypad 4-1W	NUE7273B	NCN6150B	NUE7273B	NCN6150B	F91P-3
H01SDH9PW1AN	UHF B2 16-Mode 4-1W	NUE7214A	NTN7091A	NUE7232C	NCN6150A	D64W
H01SDH9PW1BN	UHF B2 16-Mode 4-1W	NUE7232B	NTN7620C	NUE7232C	NCN6150A	D64W

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01SDH9PW1BN	UHF B2 16-Mode Front Display Full Keypad4-1W	NUE7232C	NTN7620C	NUE7232C	NCN6150A	D64W
H01SDH9PW1BN	UHF B2 16-Mode Front Display Full Keypad4-1W	NUE7232C	NTN7620E	NUE7232C	NCN6150A	D64W
H01SDH9PW1BN	UHF B2 16-Mode Front Display Full Keypad4-1W	NUE7273A	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDH9PW1BN	UHF B2 16-Mode Front Display Full Keypad4-1W	NUE7273B	NCN6150A	NUE7273B	NCN6150A	F91P-3
H01SDH9PW1BN	UHF B2 16-Mode Front Display Full Keypad4-1W	NUE7273B	NCN6150B	NUE7273B	NCN6150B	F91P-3
H01UCD6PW1AN	800MHz 16-Mode 3W	NUF6410A	NTN7091A	NUF6410B	NCN6150A	D64W
H01UCD6PW1BN	800MHz 16-Mode 3W	NUF6410B	NTN7620C	NUF6410B	NCN6150A	D64W
H01UCD6PW1BN	800MHz 16-Mode Top Display 3W	NUF6410B	NTN7620D	NUF6410B	NCN6150A	D64W
H01UCD6PW1BN	800MHz 16-Mode Top Display 3W	NUF6410B	NTN7620E	NUF6410B	NCN6150A	D64W
H01UCD6PW1BN	800MHz 16-Mode Top Display 3W	NUF6500A	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCD6PW1BN	800MHz 16-Mode Top Display 3W	NUF6500B	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCD6PW1BN	800MHz 16-Mode Top Display 3W	NUF6500D	NCN6150B	NUF6500D	NCN6150B	F91P-3
H01UCF6PW1AN	800MHz 16-Mode 3W	NUF6410A	NTN7091A	NUF6410B	NCN6150A	D64W
H01UCF6PW1BN	800MHz 16-Mode 3W	NUF6410B	NTN7620C	NUF6410B	NCN6150A	D64W
H01UCF6PW1BN	800MHz 16-Mode Front Display Limited Keypad 3W	NUF6410B	NTN7620D	NUF6410B	NCN6150A	D64W
H01UCF6PW1BN	800MHz 16-Mode Front Display Limited Keypad 3W	NUF6410B	NTN7620E	NUF6410B	NCN6150A	D64W
H01UCF6PW1BN	800MHz 16-Mode Front Display Limited Keypad 3W	NUF6500A	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCF6PW1BN	800MHz 16-Mode Front Display Limited Keypad 3W	NUF6500B	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCH6PW1BN	800MHz 16-Mode Front Display Limited Keypad 3W	NUF6500D	NCN6150B	NUF6500D	NCN6150B	F91P-3
H01UCH6PW1AN	800MHz 16-Mode 3W	NUF6410A	NTN7091A	NUF6410B	NCN6150A	D64W
H01UCH6PW1BN	800MHz 16-Mode 3W	NUF6410B	NTN7620C	NUF6410B	NCN6150A	D64W
H01UCH6PW1BN	800MHz 16-Mode Front Display Full Keypad 3W	NUF6410B	NTN7620D	NUF6410B	NCN6150A	D64W
H01UCH6PW1BN	800MHz 16-Mode Front Display Full Keypad 3W	NUF6410B	NTN7620E	NUF6410B	NCN6150A	D64W

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01UCH6PW1BN	800MHz 16-Mode Front Display Full Keypad 3W	NUF6500A	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCH6PW1BN	800MHz 16-Mode Front Display Full Keypad 3W	NUF6500B	NCN6150A	NUF6500B	NCN6150A	F91P-3
H01UCH6PW1BN	800MHz 16-Mode Front Display Full Keypad 3W	NUF6500D	NCN6150B	NUF6500D	NCN6150B	F91P-3
H01WCD4PW1AN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395A	NTN7093A	NUF6395C	NCN 6153A	D64W
H01WCD4PW1BN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NTN7093B	NUF6395C	NCN 6153A	D64W
H01WCD4PW1CN	900MHz 16-Mode Top Display 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NCN6106C	NUF6395C	NCN 6153A	D64W
H01WCD4PW1CN	900MHz 16-Mode Top Display 2.4W (Typ.), 2.9W (Max.)	NUF6499A	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCD4PW1CN	900MHz 16-Mode Top Display 2.4W (Typ.), 2.9W (Max.)	NUF6499B	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCD4PW1CN	900MHz 16-Mode Top Display 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153A	NUF6499D	NCN 6153A	F91P-3
H01WCD4PW1CN	900MHz 16-Mode Top Display 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153B	NUF6499D	NCN 6153B	F91P-3
H01WCF4PW1AN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395A	NTN7093A	NUF6395C	NCN 6153A	D64W
H01WCF4PW1BN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NTN7093B	NUF6395C	NCN 6153A	D64W
H01WCF4PW1CN	900MHz 16-Mode Front Display Limited Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NCN6106C	NUF6395C	NCN 6153A	D64W
H01WCF4PW1CN	900MHz 16-Mode Front Display Limited Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499A	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCF4PW1CN	900MHz 16-Mode Front Display Limited Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499B	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCF4PW1CN	900MHz 16-Mode Front Display Limited Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153A	NUF6499D	NCN 6153A	F91P-3
H01WCF4PW1CN	900MHz 16-Mode Front Display Limited Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153B	NUF6499D	NCN 6153B	F91P-3
H01WCH4PW1AN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395A	NTN7093A	NUF6395C	NCN 6153A	D64W
H01WCH4PW1BN	900MHz 16-Mode 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NTN7093B	NUF6395C	NCN 6153A	D64W

Appendix B Table 4. MTS 2000 Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01WCH4PW1CN	900MHz 16-Mode Front Display Full Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6395C	NCN6106C	NUF6395C	NCN 6153A	D64W
H01WCH4PW1CN	900MHz 16-Mode Front Display Full Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499A	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCH4PW1CN	900MHz 16-Mode Front Display Full Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499B	NCN 6153A	NUF6499B	NCN 6153A	F91P-3
H01WCH4PW1CN	900MHz 16-Mode Front Display Full Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153A	NUF6499D	NCN 6153A	F91P-3
H01WCH4PW1CN	900MHz 16-Mode Front Display Full Keypad 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN 6153B	NUF6499D	NCN 6153B	F91P-3

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDC9DB3AN	MTX838 VHF 16-Mode 5-1W	NUD7085A	NTN7857A	NUD7085E	NCN6147A	D64W
H01KDC9DB3AN	MTX838 VHF 16-Mode 5-1W	NUD7085B	NTN7857C	NUD7085E	NCN6147A	D64W
H01KDC9DB3AN	MTX838 VHF 16-Mode Closed 5-1W	NUD7085C	NTN7857D	NUD7085E	NCN6147A	D64W
H01KDC9DB3AN	MTX838 VHF 16-Mode Closed 5-1W	NUD7085E	NTN7857D	NUD7085E	NCN6147A	D64W
H01KDC9DB3AN	MTX838 VHF 16-Mode Closed 5-1W	NUD7096A	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDC9DB3AN	MTX838 VHF 16-Mode Closed 5-1W	NUD7096B	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDC9DB3AN	MTX838 VHF 16-Mode Closed 5-1W	NUD7095B	NCN6147B	NUD7095B	NCN6147B	F91P-3
H01KDD9DB4AN	MTX838 VHF 99-Mode Trunked 5-1W	NUD7085A	NTN7857A	NUD7085E	NCN6147A	D64W
H01KDD9DB4AN	MTX838 VHF 99-Mode Trunked 5-1W	NUD7085B	NTN7857C	NUD7085E	NCN6147A	D64W
H01KDD9DB4AN	MTX838 VHF 99-Mode Trunked 5-1W	NUD7085B	NTN7857C	NUD7085E	NCN6147A	D64W
H01KDD9DB4AN	MTX838 VHF 99-Mode Top Display Trunked 5-1W	NUD7085C	NTN7857D	NUD7085E	NCN6147A	D64W
H01KDD9DB4AN	MTX838 VHF 99-Mode Top Display Trunked 5-1W	NUD7085E	NTN7857D	NUD7085E	NCN6147A	D64W
H01KDD9DB4AN	MTX838 VHF 99-Mode Top Display Trunked 5-1W	NUD7096A	NCN6147A	NUD7096B	NCN6147A	F91P-3

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01KDD9DB4AN	MTX838 VHF 99-Mode Top Display Trunked 5-1W	NUD7096B	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDD9DB4AN	MTX838 VHF 99-Mode Top Display Trunked 5-1W	NUD7095B	NCN6147B	NUD7095B	NCN6147B	F91P-3
H01KDF9DB5AN	MTX838 VHF 160-Mode Trunked 5-1W	NUD7085A	NTN7512A	NUD7085E	NCN6147A	D64W
H01KDF9DB5AN	MTX838 VHF 160-Mode Trunked 5-1W	NUD7085B	NTN7512C	NUD7085E	NCN6147A	D64W
H01KDF9DB5AN	MTX838 VHF 160-Mode Front Display Limited Keypad Trunked 5-1W	NUD7085C	NTN7512D	NUD7085E	NCN6147A	D64W
H01KDF9DB5AN	MTX838 VHF 160-Mode Front Display Limited Keypad Trunked 5-1W	NUD7085E	NTN7512D	NUD7085E	NCN6147A	D64W
H01KDF9DB5AN	MTX838 VHF 160-Mode Front Display Limited Keypad Trunked 5-1W	NUD7096A	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDF9DB5AN	MTX838 VHF 160-Mode Front Display Limited Keypad Trunked 5-1W	NUD7096B	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDF9DB5AN	MTX838 VHF 160-Mode Front Display Limited Keypad Trunked 5-1W	NUD7096B	NCN6147B	NUD7096B	NCN6147B	F91P-3
H01KDH9DB7AN	MTX838 VHF 160-Mode Trunked 5-1W	NUD7085B	NTN7512C	NUD7085E	NCN6147A	D64W
H01KDH9DB7AN	MTX838 VHF 160-Mode Trunked 5-1W	NUD7085B	NTN7512C	NUD7085E	NCN6147A	D64W
H01KDH9DB7AN	MTX838 VHF 160-Mode Front Display Full Keypad Trunked 5-1W	NUD7085C	NTN7512D	NUD7085E	NCN6147A	D64W
H01KDH9DB7AN	MTX838 VHF 160-Mode Front Display Full Keypad Trunked 5-1W	NUD7085E	NTN7512D	NUD7085E	NCN6147A	D64W
H01KDH9DB7AN	MTX838 VHF 160-Mode Front Display Full Keypad Trunked 5-1W	NUD7096A	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDH9DB7AN	MTX838 VHF 160-Mode Front Display Full Keypad Trunked 5-1W	NUD7096B	NCN6147A	NUD7096B	NCN6147A	F91P-3
H01KDH9DB7AN	MTX838 VHF 160-Mode Front Display Full Keypad Trunked 5-1W	NUD7095B	NCN6147B	NUD7095B	NCN6147B	F91P-3
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Trunked 4-1W	NUE7240A	NTN7857A	NUE7240D	NCN6147A	D64W

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Trunked 4-1W	NUE7240B	NTN7857C	NUE7240D	NCN6147A	D64W
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Closed Trunked 4-1W	NUE7240C	NTN7857D	NUE7240D	NCN6147A	D64W
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Closed Trunked 4-1W	NUE7240D	NTN7857D	NUE7240D	NCN6147A	D64W
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Closed Trunked 4-1W	NUE7274A	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Closed Trunked 4-1W	NUE7274B	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDC9DB3AN	MTX838 UHF B1 16-Mode Closed Trunked 4-1W	NUE7272B	NCN6147B	NUE7272B	NCN6147B	F91P-3
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Trunked 4-1W	NUE7240A	NTN7857A	NUE7240D	NCN6147A	D64W
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Trunked 4-1W	NUE7240B	NTN7857C	NUE7240D	NCN6147A	D64W
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Top Display Trunked 4-1W	NUE7240C	NTN7857D	NUE7240D	NCN6147A	D64W
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Top Display Trunked 4-1W	NUE7240D	NTN7857D	NUE7240D	NCN6147A	D64W
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Top Display Trunked 4-1W	NUE7274A	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Top Display Trunked 4-1W	NUE7274D	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDD9DB4AN	MTX838 UHF B1 99-Mode Top Display Trunked 4-1W	NUE7272B	NCN6147B	NUE7272B	NCN6147B	F91P-3
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Trunked 4-1W	NUE7240A	NTN7512A	NUE7240D	NCN6147A	D64W
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Trunked 4-1W	NUE7240B	NTN7512C	NUE7240D	NCN6147A	D64W
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Front Display Limited Keypad Trunked 4-1W	NUE7240C	NTN7512D	NUE7240D	NCN6147A	D64W
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Front Display Limited Keypad Trunked 4-1W	NUE7240D	NTN7857D	NUE7240D	NCN6147A	D64W
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Front Display Limited Keypad Trunked 4-1W	NUE7274A	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Front Display Limited Keypad Trunked 4-1W	NUE7274B	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDF9DB5AN	MTX838 UHF B1 160-Mode Front Display Limited Keypad Trunked 4-1W	NUE7274B	NCN6147B	NUE7274B	NCN6147B	F91P-3

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Trunked 4-1W	NUE7240A	NTN7512A	NUE7240D	NCN6147A	D64W
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Trunked 4-1W	NUE7240B	NTN7512C	NUE7240D	NCN6147A	D64W
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7240C	NTN7512D	NUE7240D	NCN6147A	D64W
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7240D	NTN7512D	NUE7240D	NCN6147A	D64W
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7274A	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7274B	NCN6147A	NUE7274B	NCN6147A	F91P-3
H01RDH9DB7AN	MTX838 UHF B1 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7272B	NCN6147B	NUE7272B	NCN6147B	F91P-3
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Trunked 4-1W	NUE7241A	NTN7857A	NUE7241D	NCN6147A	D64W
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Trunked 4-1W	NUE7241B	NTN7857C	NUE7241D	NCN6147A	D64W
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Closed Trunked 4-1W	NUE7241C	NTN7857D	NUE7241D	NCN6147A	D64W
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Closed Trunked 4-1W	NUE7241D	NTN7857D	NUE7241D	NCN6147A	D64W
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Closed Trunked 4-1W	NUE7275A	NCN6147A	NUE7275B	NCN6147A	F91P-3
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Closed Trunked 4-1W	NUE7275B	NCN6147A	NUE7275B	NCN6147A	F91P-3
H01SDC9DB3AN	MTX838 UHF B2 16-Mode Closed Trunked 4-1W	NUE7275B	NCN6147B	NUE7275B	NCN6147B	F91P-3
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Trunked 4-1W	NUE7241A	NTN7857A	NUE7241D	NCN6147A	D64W
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Trunked 4-1W	NUE7241B	NTN7857C	NUE7241D	NCN6147A	D64W
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Top Display Trunked 4-1W	NUE7241C	NTN7857D	NUE7241D	NCN6147A	D64W
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Top Display Trunked 4-1W	NUE7241D	NTN7857D	NUE7241D	NCN6147A	D64W
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Top Display Trunked 4-1W	NUE7275A	NCN6147A	NUE7275B	NCN6147A	F91P-3

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Top Display Trunked 4-1W	NUE7275B	NCN6147A	NUE7275B	NCN6147A	F91P-3
H01SDD9DB4AN	MTX838 UHF B2 99-Mode Top Display Trunked 4-1W	NUE7275B	NCN6147B	NUE7275B	NCN6147B	F91P-3
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Trunked 4-1W	NUE7241A	NTN7512A	NUE7241D	NCN6147A	D64W
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Trunked 4-1W	NUE7241B	NTN7512C	NUE7241D	NCN6147A	D64W
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7241C	NTN7512D	NUE7241D	NCN6147A	D64W
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7241D	NTN7512D	NUE7241D	NCN6147A	D64W
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7275A	NCN6147A	NUE7275B	NCN6147A	F91P-3
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7275B	NCN6147A	NUE7275B	NCN6147A	F91P-3
H01SDH9DB7AN	MTX838 UHF B2 160-Mode Front Display Full Keypad Trunked 4-1W	NUE7275B	NCN6147B	NUE7275B	NCN6147B	F91P-3
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Trunked Type I 3W	NUF6423A	NTN7857A	NUF6423B	NCN6147A	D64W
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Trunked Type I 3W	NUF6423B	NTN7857C	NUF6423B	NCN6147A	D64W
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Closed Trunked Type I 3W	NUF6423B	NTN7857D	NUF6423B	NCN6147A	D64W
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Closed Trunked Type I 3W	NUF6501A	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Closed Trunked Type I 3W	NUF6501B	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCC6DB3AN	MTX8000 800MHz 16-Mode Closed Trunked Type I 3W	NUF6500D	NCN6147B	NUF6500D	NCN6147B	F91P-3
H01UCC6DF3AN	MTX838 800MHz 16-Mode Trunked Type II 3W	NUF6423A	NTN7857A	NUF6423B	NCN6147A	D64W
H01UCC6DF3AN	MTX838 800MHz 16-Mode Trunked Type II 3W	NUF6423B	NTN7857C	NUF6423B	NCN6147A	D64W
H01UCC6DF3AN	MTX838 800MHz 16-Mode Closed Trunked Type II 3W	NUF6423B	NTN7857D	NUF6423B	NCN6147A	D64W
H01UCC6DF3AN	MTX838 800MHz 16-Mode Closed Trunked Type II 3W	NUF6501A	NCN6147A	NUF6501B	NCN6147A	F91P-3

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01UCC6DF3AN	MTX838 800MHz 16-Mode Closed Trunked Type II 3W	NUF6501B	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCC6DF3AN	MTX838 800MHz 16-Mode Closed Trunked Type II 3W	NUF6501B	NCN6147B	NUF6501B	NCN6147B	F91P-3
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6423A	NTN7512A	NUF6423B	NCN6147A	D64W
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6423B	NTN7512C	NUF6423B	NCN6147A	D64W
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6423B	NTN7512D	NUF6423B	NCN6147A	D64W
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6501A	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6501B	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCF6DB5AN	MTX8000 800MHz 160-Mode Front Display Limited Keypad Trunked 3W	NUF6500D	NCN6147B	NUF6500D	NCN6147B	F91P-3
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6423A	NTN7512A	NUF6423B	NCN6147A	D64W
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6423B	NTN7512C	NUF6423B	NCN6147A	D64W
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6423B	NTN7512D	NUF6423B	NCN6147A	D64W
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6501A	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6501B	NCN6147A	NUF6501B	NCN6147A	F91P-3
H01UCH6DB7AN	MTX8000 800MHz 160-Mode Front Display Full Keypad Trunked 3W	NUF6500D	NCN6147B	NUF6500D	NCN6147B	F91P-3
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424A	NTN7858A	NUF6424B	NCN6153A	D64W

Appendix B Table 5. MTX Series Models

Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7858C	NUF6424B	NCN6153A	D64W
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Closed Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7858C	NUF6424B	NCN6153A	D64W
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Closed Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502A	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Closed Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502B	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Closed Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153A	NUF6499D	NCN6153A	F91P-3
H01WCC4DB3AN	MTX9000 900MHz 16-Mode Closed Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153B	NUF6499D	NCN6153B	F91P-3
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424A	NTN7513A	NUF6424B	NCN6153A	D64W
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7513C	NUF6424B	NCN6153A	D64W
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Front Display Limited Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7513D	NUF6424B	NCN6153A	D64W
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Front Display Limited Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502A	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Front Display Limited Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502B	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Front Display Limited Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153A	NUF6499D	NCN6153A	F91P-3
H01WCF4DB5AN	MTX9000 900MHz 160-Mode Front Display Limited Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153B	NUF6499D	NCN6153B	F91P-3
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424A	NTN7513A	NUF6424B	NCN6153A	D64W

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Model Number	Description	Xcvr Bd	Ctrl Bd	Replacements		
				Xcvr Bd	Ctrl Bd	Codeplug
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7513C	NUF6424B	NCN6153A	D64W
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Front Display Full Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6424B	NTN7513D	NUF6424B	NCN6153A	D64W
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Front Display Full Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502A	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Front Display Full Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6502B	NCN6153A	NUF6502B	NCN6153A	F91P-3
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Front Display Full Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153A	NUF6499D	NCN6153A	F91P-3
H01WCH4DB7AN	MTX9000 900MHz 160-Mode Front Display Full Keypad Trunked 2.4W (Typ.), 2.9W (Max.)	NUF6499D	NCN6153B	NUF6499D	NCN6153B	F91P-3



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