



**ASTRO® XTS™ 2500/XTS™ 2500I/
XTS™ 2250/XTS™ 1500/
MT 1500/PR 1500
Basic Service Manual**

This revision outlines changes that have occurred since the printing of your manual. 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 (SRNs).

REVISION CHANGE:

Please use the following information to supplement your existing basic service manual. The table that follows lists the pages attached to this PMR and their related basic service manual chapter.

Page	Section No.	Section Title	Description
xv	-	Specification for UHF Range 2 Radio	Added UHF 2 Specification Range
xvi - xviii	-	Astro XTS 2500/XTS 2500I/ XTS 2250 Model Chart	Added UHF Range 2 information
xix	-	Astro XTS 1500/MT 1500 Model Chart	Added UHF Range2 information
xx	-	Astro PR 1500 Model Chart	Added UHF Range 2 information
xxii - xxiv	-	Astro XTS 2500/XTS 2500I/ XTS 2250 Model Chart	Added PMUF1333_, PMUF1334_, PMUF1335_, PMUF1322_, PMUF1323_, PMUF1324_ part numbers and information
35 - 38	-	XTS 2500/XTS 2250/XTS 1500/ MT 1500/PR 1500 Exploded Views and Parts Lists	Added part number 2616192H02_, PMLN5005_, PMLN5006_, 3280524Z03
54	-	Speaker, Microphone, and Universal Connector Flex Reassembly	Added Important Note



Notes

Specifications for UHF Range 2 Radios

All specifications are per Telecommunications Industries Association TIA-603, unless otherwise noted.

GENERAL	RECEIVER	TRANSMITTER
FCC ID: 450-520 MHz: AZ489FT4866	Frequency Range: 450-520 MHz	Frequency Range: 450-520 MHz
Temperature Range: Operating: -30°C to +60°C Storage: -40°C to +85°C	Quieting Sensitivity (typical) (20dBQ): 0.23µV Usable Sensitivity (typical): (12dB SINAD): 0.25µV	RF Power: 380-470 MHz: 5 Watts
Power Supply: Nickel-Cadmium Battery (NiCd) or Nickel-Metal-Hydride Battery (NiMH)	Intermodulation (typical): -73dB	Frequency Stability (typical): (-30 to +60°C; 25°C ref.): 2.0ppm
Battery Voltage: Nominal: 7.5 Volts Range: 6 to 9 Volts	Selectivity (typical): (25kHz Channel): -73dB (12.5kHz Channel): -63dB	Emission (typical conducted): -70dBc<1GHz
Transmit Current Drain (typical): 2100mA Receive Current Drain (Rated Audio): 220mA Standby Current Drain: 80mA	Spurious Rejection (typical): -80dB	FM Hum and Noise (typical): (25 kHz channel): -45dB (12.5 kHz channel): -41dB
Recommended Battery: High-Capacity NiCd: NTN9815 or Ultra-High-Capacity NiMH: NTN9858 or High-Capacity NiCd FM: NTN9816* or Ultra-High-Capacity NiMH FM: NTN9857* or Ultra-High-Cap. NiMH Imrsble: NNTN6263* Optional FM (Factory Mutual) Battery: * FM Intrinsically Safe: Class I, II, III	Frequency Stability: (-30+60°C; 25°C reference): 2.0ppm	Distortion (typical): 1%
Dimensions: Height x Width x Depth Radio Less Battery: 6.0" x 2.3" x 1.5" With NiCd Ultra-High Cap.: 6.0" x 2.3" x 2.0" With NiMH Ultra-High Cap.: 6.0" x 2.3" x 2.0"	Rated Audio: 500mW	Modulation Limiting: 25 kHz chnls ±5.0kHz 12.5 kHz chnls ±2.5kHz
Weight Radio Less Battery: 11.0 oz. With NiCd Ultra-High Capacity: 20.0 oz. With NiMH Ultra-High Capacity: 20.5 oz.	FM Hum and Noise (typical): (25kHz channel): -52dB (12.5kHz channel): -40dB	Emissions Designators: 16K0F3E, 11K0F3E, 8K10F1D, 8K10F1E and 20K0F1E
	Distortion (at Rated Audio; typical): 2%	
	Channel Spacing: 12.5/25 kHz	

ASTRO XTS 2500/XTS 2500I/XTS 2250 Model Chart

MODEL NUMBER										DESCRIPTION	
H46SDC9PW5BN										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model I	
H46SDD9PW5BN										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model 1.5	
H46SDF9PW6BN										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model II	
H46SDH9PW7BN										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model III	
H46SDC9PW5BNI										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model I	
H46SDD9PW5BNI										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model I.5	
H46SDH9PW7BNI										450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model III	
ITEM NUMBER										DESCRIPTION	
X	X	X	X	X	X	X	X	X	X	-	Antenna (see "Accessories" in the BSM)
X	X	X	X	X	X	X	X	X	X	-	Battery (see "Accessories" in the BSM)
X	X	X	X	X	X	X	X	X	X	-	Carry Accessories (see "Accessories" in the BSM)
X	X	X	X	X	X	X	X	X	X	-	Hardware (see "Exploded Views and Parts Lists" in the BSM)
X	X	X	X							NNTN6263_	JedRay NiMH impres FM Immersible Battery
X	X	X	X	X	X	X	X	X	X	4385665D01_	Adapter, Remote Speaker Microphone
X	X	X	X	X	X	X	X	X	X	1505579Z01_	Cover, Dust, Accessory Connector
X	X	X	X	X	X	X	X	X	X	7285726C04	Display Module, VHF/UHF R1/UHF R2/700/800/900
X										PMLN4801_	Front Cover Kit, XTS 2500 Model I Non-Immersible, Non-Secure
	X									PMLN4783_	Front Cover Kit, XTS 2500 Model 1.5 Non-Immersible, Non-Secure
		X								PMLN4851_	Front Cover Kit, XTS 2500 Model II Non-Immersible, Non-Secure
			X							PMLN4773_	Front Cover Kit, XTS 2500 Model III Non-Immersible, Non-Secure
X										PMLN4772_	Front Cover Kit, XTS 2500 Model I Immersible, Non-Secure
	X									PMLN4791_	Front Cover Kit, XTS 2500 Model 1.5 Immersible, Non-Secure
		X								PMLN4792_	Front Cover Kit, XTS 2500 Model II Immersible, Non-Secure
			X							PMLN4794_	Front Cover Kit, XTS 2500 Model III Immersible, Non-Secure
				X						PMLN4784_	Front Cover Kit, XTS 2250 Model I Non-Immersible, Non-Secure
					X					PMLN4855_	Front Cover Kit, XTS 2250 Model 1.5 Non-Immersible, Non-Secure
						X				PMLN4856_	Front Cover Kit, XTS 2250 Model III Non-Immersible, Non-Secure
X	X	X	X	X	X	X	X	X	X	PMLN4426_	RF Board Kit, UHF Range 2, Commercial & Trade Agreement
X	X	X	X							NLE4297_	RF Board Kit, UHF Range 2, Buy-US
X										PMUE2698_	Tanapa, XTS 2500 Model I Non-Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
	X									PMUE2699_	Tanapa, XTS 2500 Model 1.5 Non-Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
		X								PMUE2700_	Tanapa, XTS 2500 Model II Non-Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
			X							PMUE2702_	Tanapa, XTS 2500 Model III Non-Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
	X									PMUE2576_	Tanapa, XTS 2500 Model 1.5 Non-Immersible, Secure, UHF R2 Commercial/Trade Agreement
		X								PMUE2577_	Tanapa, XTS 2500 Model II Non-Immersible, Secure, UHF R2 Commercial/Trade Agreement
			X							PMUE2578_	Tanapa, XTS 2500 Model III Non-Immersible, Secure, UHF R2 Commercial/Trade Agreement
X										PMUE2498_	Tanapa, XTS 2500 Model I Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
	X									PMUE2499_	Tanapa, XTS 2500 Model 1.5 Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
		X								PMUE2502_	Tanapa, XTS 2500 Model II Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
			X							PMUE2505_	Tanapa, XTS 2500 Model III Immersible, Non-Secure, UHF R2 Commercial/Trade Agreement
	X									PMUE2501_	Tanapa, XTS 2500 Model 1.5 Immersible, Secure, UHF R2 Commercial/Trade Agreement
		X								PMUE2504_	Tanapa, XTS 2500 Model II Immersible, Secure, UHF R2 Commercial/Trade Agreement
			X							PMUE2507_	Tanapa, XTS 2500 Model III Immersible, Secure, UHF R2 Commercial/Trade Agreement
X										NUE3607_	Tanapa, XTS 2500 Model I Non-Immersible, Non-Secure, UHF R2 Buy-US
	X									NUE3602_	Tanapa, XTS 2500 Model 1.5 Non-Immersible, Non-Secure, UHF R2 Buy-US
		X								NUE3603_	Tanapa, XTS 2500 Model II Non-Immersible, Non-Secure, UHF R2 Buy-US
			X							NUE3605_	Tanapa, XTS 2500 Model III Non-Immersible, Non-Secure, UHF R2 Buy-US
	X									NUE3601_	Tanapa, XTS 2500 Model 1.5 Non-Immersible, Secure, UHF R2 Buy-US
		X								NUE3604_	Tanapa, XTS 2500 Model II Non-Immersible, Secure, UHF R2 Buy-US
			X							NUE3606_	Tanapa, XTS 2500 Model III Non-Immersible, Secure, UHF R2 Buy-US
X										NUE3592_	Tanapa, XTS 2500 Model I Immersible, Non-Secure, UHF R2 Buy-US
	X									NUE3591_	Tanapa, XTS 2500 Model 1.5 Immersible, Non-Secure, UHF R2 Buy-US
		X								NUE3588_	Tanapa, XTS 2500 Model II Immersible, Non-Secure, UHF R2 Buy-US

NOTE: X = Item included.
(Model chart continues on next page.)

ASTRO XTS 2500/XTS 2500I/XTS 2250 Model Chart

MODEL NUMBER					DESCRIPTION
H46SDC9PW5BN					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model I
H46SDD9PW5BN					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model 1.5
H46SDF9PW6BN					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model II
H46SDH9PW7BN					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2500 Model III
H46SDC9PW5BNI					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model I
H46SDD9PW5BNI					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model 1.5
H46SDH9PW7BNI					450-520 MHz, 1-5 Watt, ASTRO Digital XTS 2250 Model III
ITEM NUMBER					DESCRIPTION
		X			NUE3585_ Tanapa, XTS 2500 Model III Immersible, Non-Secure, UHF R2 Buy-US
X					NUE3589_ Tanapa, XTS 2500 Model 1.5 Immersible, Secure, UHF R2 Buy-US
	X				NUE3583_ Tanapa, XTS 2500 Model II Immersible, Secure, UHF R2 Buy-US
		X			NUE3575_ Tanapa, XTS 2500 Model III Immersible, Secure, UHF R2 Buy-US
			X		PMUE2701_ Tanapa, XTS 2250 Model I Non-Immersible, Non-Secure, UHF R2
				X	PMUE2703_ Tanapa, XTS 2250 Model 1.5 Non-Immersible, Non-Secure, UHF R2
				X	PMUE2704_ Tanapa, XTS 2250 Model III Non-Immersible, Non-Secure, UHF R2
				X	PMUE2508_ Tanapa, XTS 2250 Model 1.5 Non-Immersible, Secure, UHF R2
				X	PMUE2509_ Tanapa, XTS 2250 Model III Non-Immersible, Secure, UHF R2
X	X	X	X		3316369H01_ Nameplate, XTS 2500, Model I/1.5/II/III, Non-Immersible
X	X	X	X		3316369H06_ Nameplate, XTS 2500I, Model I/1.5/II/III, Immersible
		X	X	X	3316369H02_ Nameplate, XTS 2250, Model I/1.5/III, Non-Immersible
X			X		PMLN4924_ ASSY,PCB,MN,SECURE BRD M1.5 AES
X			X		PMLN4925_ ASSY,PCB,MN,SECURE BRD M1.5 DES,DES-XL,DES-OFB
X			X		PMLN4926_ ASSY,PCB,MN,SECURE BRD M1.5 ADP
	X				PMLN4927_ ASSY,PCB,MN,SECURE BRD M2 AES
	X				PMLN4928_ ASSY,PCB,MN,SECURE BRD M2 DES,DES-XL,DES-OFB
	X				PMLN4929_ ASSY,PCB,MN,SECURE BRD M2 ADP
		X		X	PMLN4930_ ASSY,PCB,MN,SECURE BRD M3 AES
		X		X	PMLN4931_ ASSY,PCB,MN,SECURE BRD M3 DES,DES-XL,DES-OFB
		X		X	PMLN4932_ ASSY,PCB,MN,SECURE BRD M3 ADP
			X		6871190L01_ User's Guide, XTS 2250 Model I
				X	6871201L01_ User's Guide, XTS 2250 Model 1.5
				X	6871202L01_ User's Guide, XTS 2250 Model III
X	X	X	X		PMLN4940_ User's Guide CD, XTS 2500 Model I, 1.5, II, III
X	X	X	X		PMLN4940_ User's Guide CD, XTS 2500I Model I, 1.5, II, III
		X	X	X	PMLN4940_ User's Guide CD, XTS 2250 Model I, 1.5, III

NOTE: X = Item included.
(Model chart continues on next page.)

ASTRO XTS 1500/MT 1500 Model Chart

MODEL NUMBER				DESCRIPTION
H66SDC9PW5BN				450-520 MHz, 1-5 Watt, ASTRO Digital XTS 1500 Model I
H66SDD9PW5BN				450-520 MHz, 1-5 Watt, ASTRO Digital XTS 1500 Model 1.5
H67SDC9PW5BN				450-520 MHz, 1-5 Watt, ASTRO Analog MT 1500 Model I
H67SDD9PW5BN				450-520 MHz, 1-5 Watt, ASTRO Analog MT 1500 Model 1.5
ITEM NUMBER				DESCRIPTION
X	X	X	X	- Antenna (see "Accessories" in the BSM)
X	X	X	X	- Battery (see "Accessories" in the BSM)
X	X	X	X	- Carry Accessories (see "Accessories" in the BSM)
X	X	X	X	- Hardware (see "Exploded Views and Parts Lists" in the BSM)
X	X	X	X	4385665D01_ Adapter, Remote Speaker Microphone
X	X	X	X	1585746D04_ Cover, Dust, Accessory Connector
	X		X	7285726C04_ Display Module, VHF/UHF R1/UHF R2/700/800/900
X				PMLN4915_ Front Cover Kit, XTS 1500 Model I Non-Immersible, Non-Secure
	X			PMLN4900_ Front Cover Kit, XTS 1500 Model 1.5 Non-Immersible, Non-Secure
		X		PMLN4916_ Front Cover Kit, MT 1500 Model I Non-Immersible, Non-Secure
			X	PMLN4901_ Front Cover Kit, MT 1500 Model 1.5 Non-Immersible, Non-Secure
X	X	X	X	PMLE4426_ RF Board Kit, UHF Range 2
X				PMUE2705_ Tanapa, XTS 1500 Model I Non-Immersible, Non-Secure, UHF R2, 9600 Digital, Trunked
X				PMUE2700_ Tanapa, XTS 1500 Model I Non-Immersible, Non-Secure, UHF R2, 3600 Analog/Digital, Trunked
X				PMUE2707_ Tanapa, XTS 1500 Model I Non-Immersible, Non-Secure, UHF R2, P25 Conventional
	X			PMUE2568_ Tanapa, XTS 1500 Model 1.5 Non-Immersible, Non-Secure, UHF R2, 9600 Digital, Trunked
	X			PMUE2569_ Tanapa, XTS 1500 Model 1.5 Non-Immersible, Non-Secure, UHF R2, 3600 Analog/Digital, Trunked
	X			PMUE2570_ Tanapa, XTS 1500 Model 1.5 Non-Immersible, Non-Secure, UHF R2, P25 Conventional
		X		PMUE2708_ Tanapa, MT 1500 Model I Non-Immersible, Non-Secure, UHF R2, Analog, Conventional
		X		PMUE2709_ Tanapa, MT 1500 Model I Non-Immersible, Non-Secure, UHF R2, 3600 Analog
			X	PMUE2571_ Tanapa, MT 1500 Model 1.5 Non-Immersible, Non-Secure, UHF R2, Analog, Conventional
			X	PMUE2572_ Tanapa, MT 1500 Model 1.5 Non-Immersible, Non-Secure, UHF R2, 3600 Analog
X	X			3316369H03_ Nameplate, XTS 1500, Model I/1.5, Non-Immersible
		X	X	3316369H04_ Nameplate, MT 1500, Model I/1.5, Non-Immersible
X	X	X	X	PMLN4940_ User's Guide CD, XTS 1500 and MT 1500 Model I, 1.5

NOTE: X = Item included.

PR 1500 Model Chart

MODEL NUMBER			DESCRIPTION	
AAH79KDC9PW5BN			136-174 MHz, 1-5 Watt, PR 1500 Model I	
AAH79QDC9PW5BN			380-470 MHz, 1-5 Watt, PR 1500 Model I	
AAH79SDC9PW5BN			450-520 MHz, 1-5 Watt, PR 1500 Model I	
ITEM NUMBER			DESCRIPTION	
X	X	X	-	Antenna (see "Accessories" in the BSM)
X	X	X	-	Battery (see "Accessories" in the BSM)
X	X	X	-	Carry Accessories (see "Accessories" in the BSM)
X	X	X	-	Hardware (see "Exploded Views and Parts Lists" in the BSM)
X	X	X	4385665D01_	Adapter, Remote Speaker Microphone
X	X	X	1585746D04_	Cover, Dust, Accessory Connector
X	X	X	PMLN4902_	Front Cover Kit, PR 1500 Model I Non-Immersible, Non-Secure
X			PMLD4303_	RF Board Kit, VHF
	X		PMLE4425_	RF Board Kit, UHF Range 1
		X	PMLE4426_	RF Board Kit, UHF Range 2
X			PMUD2211_	Tanapa, PR 1500 Model I Non-Immersible, Non-Secure, VHF, Analog, Conventional
	X		PMUE4449_	Tanapa, PR 1500 Model I Non-Immersible, Non-Secure, UHF R1, Analog, Conventional
		X	PMUE2710_	Tanapa, PR 1500 Model I Non-Immersible, Non-Secure, UHF R2, Analog, Conventional
X	X	X	3316369H05_	Nameplate, PR 1500, Model I, Non-Immersible
X	X	X	PMLN4943_	User's Guide CD, PR 1500 Model I

NOTE: X = Item included.

Notes

Specifications for 700 MHz/800 MHz Radios

All specifications are per Telecommunications Industries Association TIA-603 unless otherwise noted

GENERAL	RECEIVER	TRANSMITTER
FCC ID: 700/800 MHz: AZ489FT5804 Temperature Range: Operating: -30°C to +60°C Storage: -40°C to +85°C Power Supply: Nickel-Cadmium Battery (NiCd) or Nickel-Metal-Hydride Battery (NiMH) Battery Voltage Nominal: 7.5 Volts Range: 6 to 9 Volts Transmit Current Drain (Typical): 1250mA Receive Current Drain (Rated Audio): 220mA Standby Current Drain: 70mA Recommended Battery: High-Capacity NiCd: NTN9815 or Ultra-High-Capacity NiMH: NTN9858 or High-Capacity NiCd FM: NTN9816* or Ultra-High-Capacity NiMH FM: NTN9857* or Ultra-High-Cap. NiMH Imrsble: NNTN6263* <i>Optional FM (Factory Mutual) Battery:</i> * FM Intrinsically Safe: Class I, II, III Dimensions Height x Width x Depth Radio Less Battery: 6.0" x 2.3" x 1.5" With NiCd Ultra-High Cap.: 6.0" x 2.3" x 2.0" With NiMH Ultra-High Cap.: 6.0" x 2.3" x 2.0" Weight Radio Less Battery: 11.0 oz. With NiCd Ultra-High Capacity: 20.0 oz. With NiMH Ultra-High Capacity: 20.5 oz.	Frequency Range: 700 MHz: 764 to 767; 773 to 776 MHz 800 MHz: 851 to 870 MHz Quieting Sensitivity (typical) (20dBQ): 0.23µV Usable Sensitivity (typical) (12dB SINAD): 0.25µV Intermodulation (typical): -74dB Selectivity (typical) (25kHz Channel): -72dB (12.5kHz Channel): -63dB Spurious Rejection (typical): -75dB Frequency Stability (-30+60°C; 25°C reference): 1.5ppm Rated Audio: 500mW FM Hum and Noise (typical) (25kHz channel): -47dB (12.5kHz channel): -40dB Distortion (At Rated Audio; typical): 2.5% Channel Spacing: 12.5/20/25 kHz	RF Power 806 - 870 MHz: 3 Watts 764 - 806 MHz: 2.5 Watts Frequency Range: 700 MHz: 764 to 767; 773 to 776; 794 to 797; 803 to 806 MHz 800 MHz: 806 to 824; 851 to 870 MHz Frequency Stability (typical) (-30 to +60°C; 25°C ref.): 1.5ppm Emission (typical conducted): -75dBc<1GHz FM Hum and Noise (typical) (25 kHz channel): -43dB (12.5 kHz channel): -40dB Distortion (typical): 2% Modulation Limiting: 25 kHz chnls ±5.0kHz 20 kHz chnls ±4.0kHz 12.5 kHz chnls ±2.5kHz Emissions Designators: 16K0F3E,11K0F3E, 8K10F1D,8K10F1E and 20K0F1E

ASTRO XTS 2500/XTS 2500I/XTS 2250 Model Chart

MODEL NUMBER										DESCRIPTION	
H46UCD9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model I.5	
H46UCF9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model II	
H46UCH9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model III	
H46UCC9PW5BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model I	
H46UCD9PW5BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model 1.5	
H46UCF9PW6BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model II	
H46UCH9PW7BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model III	
H46UCC9PW5BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model I	
H46UCD9PW5BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model 1.5	
H46UCH9PW7BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model III	
ITEM NUMBER										DESCRIPTION	
X	X	X	X	X	X	X	X	X	X	–	Antenna (See "Accessories")
X	X	X	X	X	X	X	X	X	X	–	Battery (See "Accessories")
X	X	X	X	X	X	X	X	X	X	–	Carry Accessories (See "Accessories")
		X	X	X	X	X	X	X	X	–	Hardware (See "Exploded Views and Parts Lists")
			X	X	X	X				NNTN6263_	NiMH impres FM Immersible Battery
X	X	X	X	X	X	X	X	X	X	4385665D01_	Adapter, Remote Speaker Microphone
X	X	X	X	X	X	X	X	X	X	1505579Z01_	Cover, Dust, Accessory Connector
X	X	X	X	X	X	X	X	X	X	7285726C04_	Display Module, VHF/UHF R1/UHF R2/700/800/900
			X							PMLN4801_	Front Cover Kit, XTS 2500 Model I Non-Immersible, Non-Secure
X			X							PMLN4783_	Front Cover Kit, XTS 2500 Model 1.5 Non-Immersible, Non-Secure
	X			X						PMLN4851_	Front Cover Kit, XTS 2500 Model II Non-Immersible, Non-Secure
		X			X					PMLN4773_	Front Cover Kit, XTS 2500 Model III Non-Immersible, Non-Secure
			X							PMLN4772_	Front Cover Kit, XTS 2500 Model I Immersible, Non-Secure
				X						PMLN4791_	Front Cover Kit, XTS 2500 Model 1.5 Immersible, Non-Secure
					X					PMLN4792_	Front Cover Kit, XTS 2500 Model II Immersible, Non-Secure
						X				PMLN4794_	Front Cover Kit, XTS 2500 Model III Immersible, Non-Secure
							X			PMLN4784_	Front Cover Kit, XTS 2250 Model I Non-Immersible, Non-Secure
								X		PMLN4855_	Front Cover Kit, XTS 2250 Model 1.5 Non-Immersible, Non-Secure
									X	PMLN4856_	Front Cover Kit, XTS 2250 Model III Non-Immersible, Non-Secure
X										PMUF1333_	Tanapa, XTS 2500 Model I.5 Non-Immersible, Non-Secure, 700/800 Rebanding
	X									PMUF1334_	Tanapa, XTS 2500 Model II Non-Immersible, Non-Secure, 700/800 Rebanding
		X								PMUF1335_	Tanapa, XTS 2500 Model III Non-Immersible, Non-Secure, 700/800 Rebanding
X										PMUF1322_	Tanapa, XTS 2500 Model 1.5 Non-Immersible, Secure, 700/800 Rebanding
	X									PMUF1323_	Tanapa, XTS 2500 Model II Non-Immersible, Secure, 700/800 Rebanding
		X								PMUF1324_	Tanapa, XTS 2500 Model III Non-Immersible, Secure, 700/800 Rebanding
X			X					X		PMLN4924_	Secure Board, Model 1.5 AES
X			X					X		PMLN4925_	Secure Board, Model 1.5 DES, DES-XL, DES-OFB
X			X					X		PMLN4926_	Secure Board, Model 1.5 ADP
X			X							PMLN4927_	Secure Board, Model II AES
X			X							PMLN4928_	Secure Board, Model II DES, DES-XL, DES-OFB
X			X							PMLN4929_	Secure Board, Model II ADP
	X			X				X		PMLN4930_	Secure Board, Model III AES
	X			X				X		PMLN4931_	Secure Board, Model III DES, DES-XL, DES-OFB
	X			X				X		PMLN4932_	Secure Board, Model III ADP
		X	X	X	X	X	X	X	X	PMLF4041_	RF Board Kit, 700/800, Commercial & Trade Agreement
		X	X	X	X					NUF6650_	RF Board Kit, 700/800, Buy - US

NOTE: X = Item included.
(Model chart continues on next page.)

ASTRO XTS 2500/XTS 2500I/XTS 2250 Model Chart

MODEL NUMBER		DESCRIPTION
H46UCD9PW2BN		700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model I.5
H46UCF9PW2BN		700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model II
H46UCH9PW2BN		700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model III
H46UCC9PW5BN		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model I
H46UCD9PW5BN		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model 1.5
H46UCF9PW6BN		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model II
H46UCH9PW7BN		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model III
H46UCC9PW5BNI		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model I
H46UCD9PW5BNI		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model 1.5
H46UCH9PW7BNI		700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model III
ITEM NUMBER		DESCRIPTION
X		PMUF1332_ Tanapa, XTS 2500 Model I Non-Immersible, Non-Secure, 700/800 Commercial
	X	PMUF1333_ Tanapa, XTS 2500 Model 1.5 Non-Immersible, Non-Secure, 700/800 Commercial
	X	PMUF1334_ Tanapa, XTS 2500 Model II Non-Immersible, Non-Secure, 700/800 Commercial
	X	PMUF1335_ Tanapa, XTS 2500 Model III Non-Immersible, Non-Secure, 700/800 Commercial
	X	PMUF1322_ Tanapa, XTS 2500 Model 1.5 Non-Immersible, Secure, 700/800 Commercial
	X	PMUF1323_ Tanapa, XTS 2500 Model II Non-Immersible, Secure, 700/800 Commercial
	X	PMUF1324_ Tanapa, XTS 2500 Model III Non-Immersible, Secure, 700/800 Commercial
X		PMUF1251_ Tanapa, XTS 2500 Model I Immersible, Non-Secure, 700/800 Commercial
	X	PMUF1239_ Tanapa, XTS 2500 Model 1.5 Immersible, Non-Secure 700/800 Commercial
	X	PMUF1240_ Tanapa, XTS 2500 Model II Immersible, Non-Secure 700/800 Commercial
	X	PMUF1243_ Tanapa, XTS 2500 Model III Immersible, Non-Secure 700/800 Commercial
	X	PMUF1238_ Tanapa, XTS 2500 Model 1.5 Immersible, Secure 700/800 Commercial
	X	PMUF1234_ Tanapa, XTS 2500 Model II Immersible, Secure 700/800 Commercial
	X	PMUF1237_ Tanapa, XTS 2500 Model III Immersible, Secure 700/800 Commercial
X		PMUF1336_ Tanapa, XTS 2500 Model I Non-Immersible, Non-Secure 700/800 Trade Agreement
	X	PMUF1337_ Tanapa, XTS 2500 Model 1.5 Non-Immersible, Non-Secure 700/800 Trade Agreement
	X	PMUF1338_ Tanapa, XTS 2500 Model II Non-Immersible, Non-Secure 700/800 Trade Agreement
	X	PMUF1339_ Tanapa, XTS 2500 Model III Non-Immersible, Non-Secure 700/800 Trade Agreement
	X	PMUF1325_ Tanapa, XTS 2500 Model 1.5 Non-Immersible, Secure 700/800 Trade Agreement
	X	PMUF1326_ Tanapa, XTS 2500 Model II Non-Immersible, Secure 700/800 Trade Agreement
	X	PMUF1327_ Tanapa, XTS 2500 Model III Non-Immersible, Secure 700/800 Trade Agreement
X		PMUF1267_ Tanapa, XTS 2500 Model I Immersible, Non-Secure 700/800 Trade Agreement
	X	PMUF1268_ Tanapa, XTS 2500 Model 1.5 Immersible, Non-Secure, 700/800 Trade Agreement
	X	PMUF1271_ Tanapa, XTS 2500 Model II Immersible, Non-Secure, 700/800 Trade Agreement

NOTE: X = Item included.
(Model chart continues on next page.)

ASTRO XTS 2500/XTS 2500I/XTS 2250 Model Chart

MODEL NUMBER										DESCRIPTION	
H46UCD9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model I.5	
H46UCF9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model II	
H46UCH9PW2BN										700-800 MHz Reband, 1-3 Watt, ASTRO Digital XTS 2500 Model III	
H46UCC9PW5BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model I	
H46UCD9PW5BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model 1.5	
H46UCF9PW6BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model II	
H46UCH9PW7BN										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2500 Model III	
H46UCC9PW5BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model I	
H46UCD9PW5BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model 1.5	
H46UCH9PW7BNI										700/800 MHz, 1-3 Watts, ASTRO Digital XTS 2250 Model III	
ITEM NUMBER										DESCRIPTION	
								X		PMUF1274_	Tanapa, XTS 2500,Model III Immersible, Non-Secure, 700/800 Trade Agreement
							X			PMUF1270_	Tanapa, XTS 2500,Model 1.5 Immersible, Secure, 700/800 Trade Agreement
								X		PMUF1273_	Tanapa, XTS 2500,Model II Immersible, Secure, 700/800 Trade Agreement
									X	PMUF1276_	Tanapa, XTS 2500,Model III Immersible, Secure, 700/800 Trade Agreement
							X			NWF1213_	Tanapa, XTS 2500,Model I Non-Immersible, Non-Secure, 700/800 Buy-US
								X		NWF1124_	Tanapa, XTS 2500,Model 1.5 Non-Immersible, Non-Secure, 700/800 Buy-US
								X		NWF1214_	Tanapa, XTS 2500,Model II Non-Immersible, Non-Secure, 700/800 Buy-US
									X	NWF1216_	Tanapa, XTS 2500,Model III Non-Immersible, Non-Secure, 700/800 Buy-US
								X		NFW1125_	Tanapa, XTS 2500,Model 1.5 Non-Immersible, Secure, 700/800 Buy-US
									X	NFW1215_	Tanapa, XTS 2500,Model II Non-Immersible, Secure, 700/800 Buy-US
									X	NFW1129_	Tanapa, XTS 2500,Model III Non-Immersible, Secure, 700/800 Buy-US
							X			NFW1136_	Tanapa, XTS 2500,Model I Immersible, Non-Secure, 700/800 Buy-US
								X		NFW1144_	Tanapa, XTS 2500,Model 1.5 Immersible, Non-Secure, 700/800 Buy-US
								X		NFW1138_	Tanapa, XTS 2500,Model II Immersible, Non-Secure, 700/800 Buy-US
									X	NFW1140_	Tanapa, XTS 2500,Model III Immersible, Non-Secure, 700/800 Buy-US
								X		NFW1142_	Tanapa, XTS 2500,Model 1.5 Immersible, Secure, 700/800 Buy-US
								X		NFW1139_	Tanapa, XTS 2500,Model II Immersible, Secure, 700/800 Buy-US
									X	NFW1141_	Tanapa, XTS 2500,Model III Immersible, Secure, 700/800 Buy-US
									X	PMUF1340_	Tanapa, XTS 2250,Model I Non-Immersible, Non-Secure, 700/800
									X	PMUF1341_	Tanapa, XTS 2250,Model 1.5 Non-Immersible, Non-Secure, 700/800
									X	PMUF1342_	Tanapa, XTS 2250,Model III Non-Immersible, Non-Secure, 700/800
									X	PMUF1277_	Tanapa, XTS 2250,Model 1.5 Non-Immersible, Secure, 700/800
									X	PMUF1278_	Tanapa, XTS 2250,Model I Non-Immersible, Secure, 700/800
X	X	X	X	X	X	X	X			3316369H01_	Nameplate, XTS 2500, Model I/1.5/II/III, Non-Immersible
X	X	X	X	X	X	X	X			3316369H06_	Nameplate, XTS 2500I, Model I/1.5/II/III, Immersible
								X	X	3316369H02_	Nameplate, XTS 2250, Model I/1.5/III, Non-Immersible
									X	PMLN4940_	User's Guide, XTS 2500 Model I
X									X	PMLN4940_	User's Guide, XTS 2500 Model 1.5
	X								X	PMLN4940_	User's Guide, XTS 2500 Model II
		X							X	PMLN4940_	User's Guide, XTS 2500 Model III
									X	PMLN4942_	User's Guide, XTS 2250 Model 1.5
									X	PMLN4942_	User's Guide, XTS 2250 Model III
			X							PMLN4940_	User's Guide, XTS 2500I Model I
				X						PMLN4940_	User's Guide, XTS 2500I Model 1.5
					X					PMLN4940_	User's Guide, XTS 2500I Model II
						X				PMLN4940_	User's Guide, XTS 2500I Model III
		X	X	X	X					PMLN4940_	User's Guide CD, XTS 2500/2500I Model I,1.5,II,III
X	X	X						X	X	PMLN4942_	User's Guide CD, XTS 2250 Model I,1.5,III

NOTE: X = Item included.

XTS 2500/XTS 2250/XTS 1500/ MT 1500/PR 1500 Exploded Views and Parts Lists

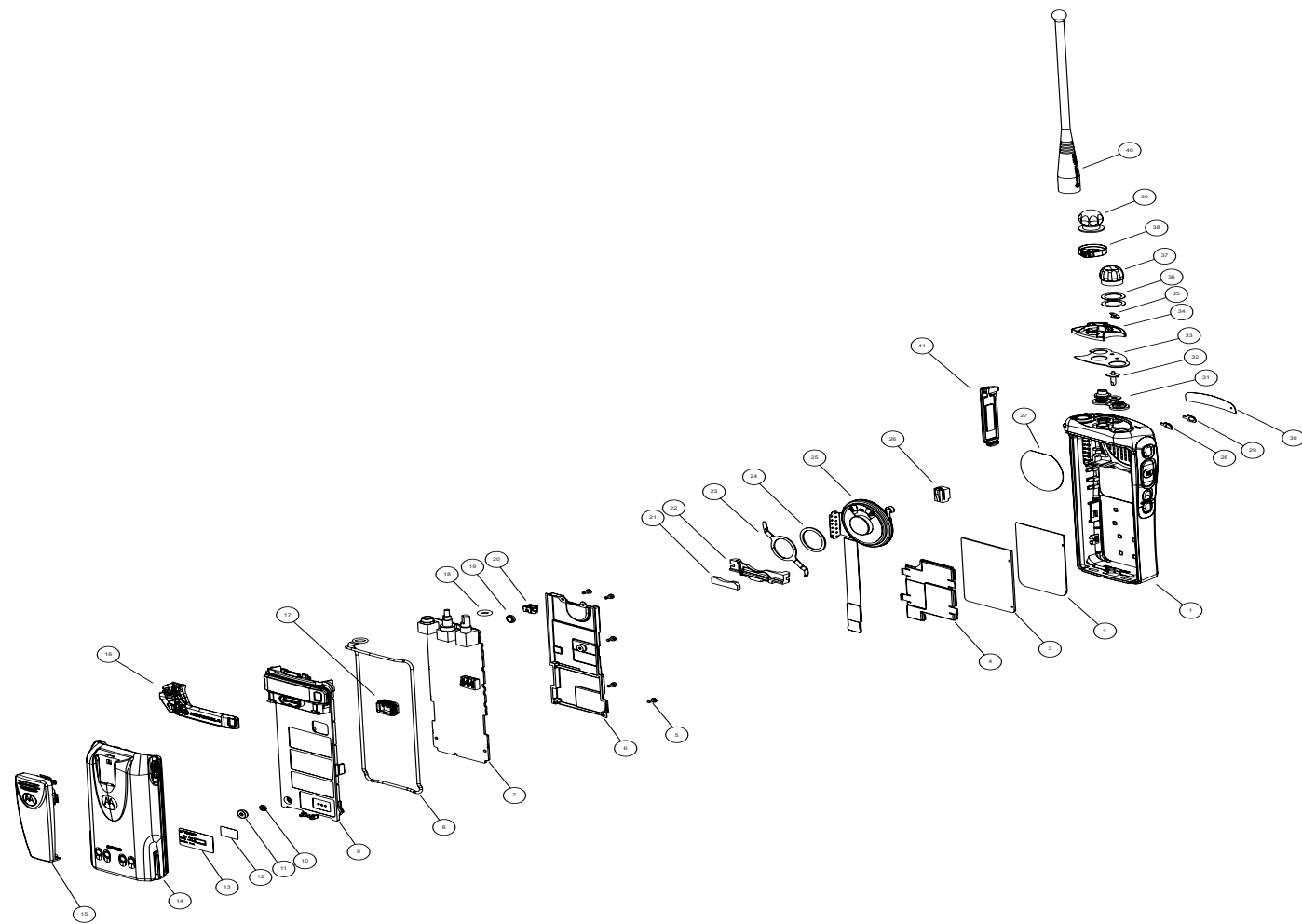


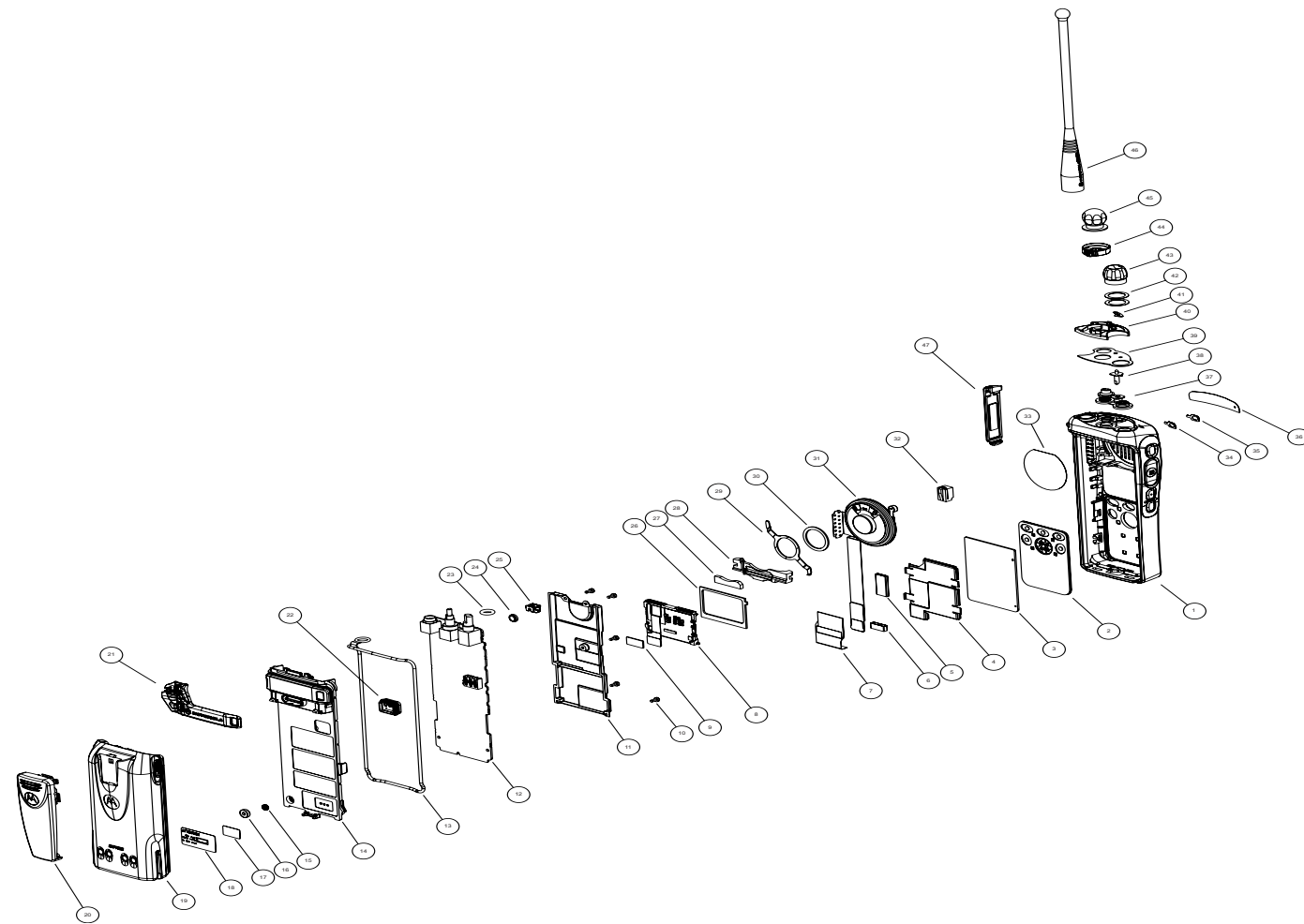
Table 1. XTS 2500 Model I / XTS 2250 Basic Model / XTS 1500 / MT 1500 / PR1500 Exploded View Parts List

Item Number	Motorola Part Number	Description
1	1516331H01	Cover, Assy, Front Model 1
2	7515058H01	Spcr, SQ61.7MML, 8MMThk
3	8416317H01	PCB, Dummy Keypad
4	4216345H01	Retainer
5	0385563D01	Screw
6	2616192H02	Shield, Main
7	Typical	Main Board
8	3216366H01	Seal, Main
9	PMLN5005_	Chassis Assembly
	PMLN5006_	Chassis (Standard)
10	3216463H01	Seal Base Plate
11	0286165A03	Nut, Spanner
	0216965H01	Nut, Spanner (Non-Submersible)
12	3216155H02	Seal, Port
13	3316152H01	Label, Seal
14	Typical	Battery
15	Typical	Belt Clip
16	4385665D01	Adaptor, Remote Speaker Mic
17	3280534Z03	Seal, Cust, Slcn Rub
18	3285027E01	O-Ring Freq Switch
19	6003710K08	Battery, Backup
20	4285633D01	Retaining Clip
21	7585737D01	Pad Shock
22	4385717D01	Spacer Plastic
23	4285446D01	Retainer Speaker
24	7516153H01	Pad, Speaker Retainer
25	8416579H01	Board, Circuit, Flex Speaker Mic

Item Number	Motorola Part Number	Description
26	1485218D01	Boot, Mic
27	3585339D01	Speaker Mesh
28	3216389H01	Membrane, Microphone
29	3516396H01	Mesh Microphone, Front
30	3316396H01	Nameplate, Front
31	3216348H01	Sel, Top Control
32	6116359H01	Light Pipe
33	1116352H01	Adhesive, Top Control
34	1385783C01	Escutcheon, Top
35	1385855C01	Label, ABC
36	0485667D01	Washer Teflon
37	3680529Z01	Knob, Volume
38	4585782C01	Lever Secure
39	3685779C01	Knob Frequency (w/d-clip)
40	Typical	Antenna
41	1505579Z01	Cover, Dust, Universal Connector

XTS 2500/XTS 2250/XTS 1500/MT 1500/PR 1500 Model I Exploded View

Table 2. XTS 2500 Model II Exploded View Parts List

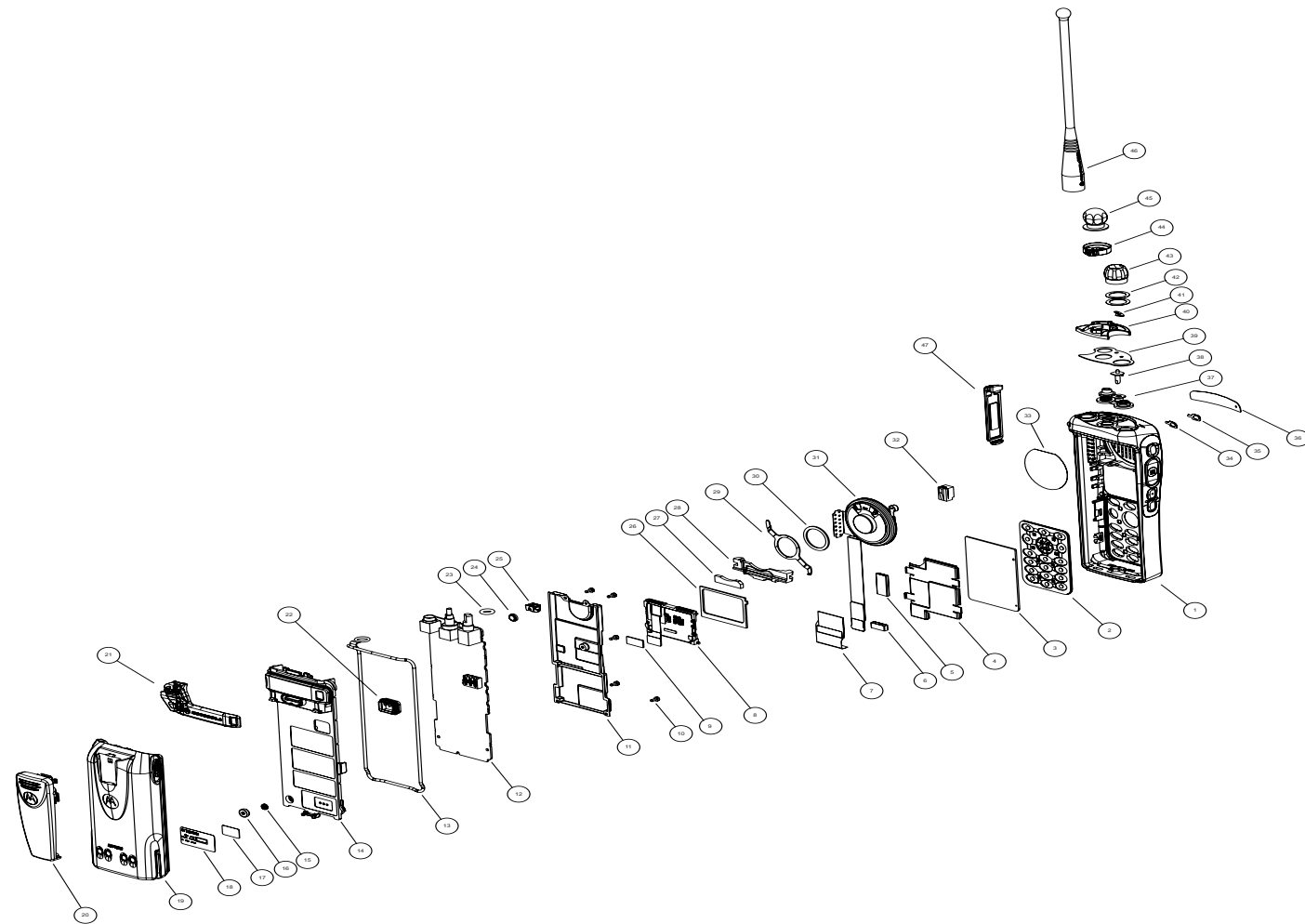


Item Number	Motorola Part Number	Description
1	1516331H03	Cover, Assy, Front Model II
2	7516330H02	Keypad, Limited
3	0104021J67	Assembly Board Model II Limited
4	4216345H01	Retainer
5	2671104L01	Gasket, EMI/FRI, Plas-Polyu
6	2616342H02	EMI Shield, Elec Cond. Gasket
7	8416620H01	Board Flex Jumper
8	7285726C04	Disp, Flat Panel, LCD MDL
9	7585011E01	Pad, LCD IC
10	0385563D01	Screw
11	2616192H02	Shield Main
12	Typical	Main Board
13	3216366H01	Seal, Main
14	PMLN5005_	Chassis Assembly
	PMLN5006_	Chasis (Standard)
15	3216463H01	Seal Base Plate
16	0286165A03	Nut, Spanner
	0216965H01	Nut, Spanner (Non-Submersible)
17	3216155H02	Seal, Port
18	3316152H01	Label, Seal
19	Typical	Battery
20	Typical	Belt Clip
21	4385665D01	Adaptor, Remote Speaker Mic
22	3280534Z03	Seal, Cust, Slcn Rub
23	3285027E01	O-Ring Freq Switch
24	6003710K08	Battery, Backup
25	4285633D01	Retaining Clip

Item Number	Motorola Part Number	Description
26	7585915C01	Pad Shock LCD
27	7585737D01	Pad Shock
28	4385717D01	Spacer, Plastic
29	4285446D01	Retainer Speaker
30	7516153H01	Pad, Speaker Retainer
31	8416579H01	Board, Circuit, Flex Speaker Mic
32	1485218D01	Boot, Mic
33	3585339D01	Speaker Mesh
34	3216389H01	Membrane, Microphone
35	3516396H01	Mesh Microphone, Front
36	3316396H01	Nameplate, Front
37	3216348H01	Sel, Top Control
38	6116359H01	Light Pipe
39	1116352H01	Adhesive, Top Control
40	1385783C01	Escutcheon, Top
41	1385855C01	Label, ABC
42	0485667D01	Washer Teflon
43	3680529Z01	Knob, Volume
44	4585782C01	Lever Secure
45	3685779C01	Knob Frequency (w/d-clip)
46	Typical	Antenna
47	1505579Z01	Cover, Dust, Universal Connector

XTS 2500 Model II Exploded View

Table 3. XTS 2500 Model III / XTS 2250 Advanced Model Exploded View Parts List



Item Number	Motorola Part Number	Description
1	1516331H04	Cover, Assy, Front Model III
2	7516330H01	Keypad, Full
3	0104021J68	Assem Board Model III Full Keypad
4	4216345H01	Retainer
5	2671104L01	Gasket, EMI/FRI, Plas-Polyu
6	2616342H02	EMI Shield, Elec Cond. Gasket
7	8416620H01	Board Flex Jumper
8	7285726C04	Disp, Flat Panel, LCD MDL
9	7585011E01	Pad, LCD IC
10	0385563D01	Screw
11	2616192H02	Shield Main
12	Typical	Main Board
13	3216366H01	Seal, Main
14	PMLN5005_	Chassis Assembly
	PMLN5006_	Chasis (Standard)
15	3216463H01	Seal Base Plate
16	0286165A03	Nut, Spanner
	0216965H01	Nut, Spanner (Non-Submersible)
17	3216155H02	Seal, Port
18	3316152H01	Label, Seal
19	Typical	Battery
20	Typical	Belt Clip
21	4385665D01	Adaptor, Remote Speaker Mic
22	3280534Z03	Seal, Cust, Slcn Rub
23	3285027E01	O-Ring Freq Switch
24	6003710K08	Battery, Backup
25	4285633D01	Retaining Clip

Item Number	Motorola Part Number	Description
26	7585915C01	Pad Shock LCD
27	7585737D01	Pad Shock
28	4385717D01	Spacer, Plastic
29	4285446D01	Retainer Speaker
30	7516153H01	Pad, Speaker Retainer
31	8416579H01	Board, Circuit, Flex Speaker Mic
32	1485218D01	Boot, Mic
33	3585339D01	Speaker Mesh
34	3216389H01	Membrane, Microphone
35	3516396H01	Mesh Microphone, Front
36	3316396H01	Nameplate, Front
37	3216348H01	Sel, Top Control
38	6116359H01	Light Pipe
39	1116352H01	Adhesive, Top Control
40	1385783C01	Escutcheon, Top
41	1385855C01	Label, ABC
42	0485667D01	Washer Teflon
43	3680529Z01	Knob, Volume
44	4585782C01	Lever Secure
45	3685779C01	Knob Frequency (w/d-clip)
46	Typical	Antenna
47	1505579Z01	Cover, Dust, Universal Connector

XTS 2500 Model III / XTS 2250 Advanced Model Exploded View

NOTE: There are notches on the ends of the 13-pin printed circuit backer board. If necessary, you can insert a small screwdriver in one of the notches to pry the backer board away from the front cover.

After the universal connector portion of the speaker-microphone flex circuit is detached, the assembly can be completely removed. If it is necessary to replace the speaker or the microphone, or both, do it while the flex circuit is removed from the front cover.

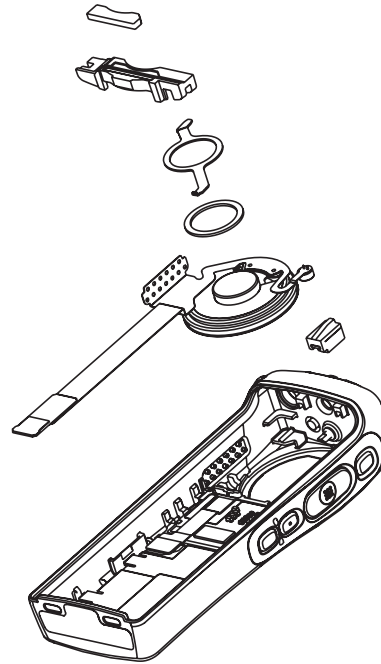


Figure 37. Speaker-Microphone Removal

Radio Reassembly— Detailed

The following steps describe how to reassemble the radio. This includes the following major components:

- Keypad/option board
- Display
- Speaker, microphone, universal connector flex
- Chassis
- Backup Battery
- Chassis and front cover

Keypad and Keypad Option Board Reassembly

1. Insert the keypad into the front cover. Align the keypad to the pins in the front cover.
2. Replace the board on the locator pins.
3. Replace the keypad retainer legs on the PTT side first. Then, press the retainer down and snap the other two legs into place on the universal connector side; make sure that all four legs snap into place. If necessary, use a small, flat-bladed screwdriver to put pressure on the corner bend of each retainer leg.

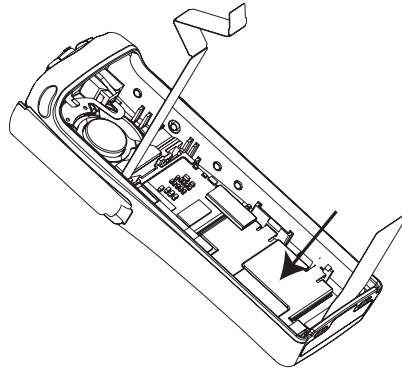


Figure 38. Lock Retainer Catches to Radio Body

Display Reassembly

1. Slide the two bottom tabs of the display module, with the LCD facing the front housing lens, into the grooves located above the keypad assembly area in the front cover housing. Gently press on the upper portion of the display until it snaps into place past the two small hooks in the housing.

2. Connect the display flex to the keypad option board connector.

Speaker, Microphone, and Universal Connector Flex Reassembly

1. Insert the microphone boot into the pocket in the front cover housing.
2. Insert the microphone boot plastic retainer. Make sure the retainer is securely hooked to the front cover.
3. Center the speaker in the speaker recess. Make certain the speaker is correctly nested inside the front cover.

4. Before you replace the speaker retainer, be sure the retainer is placed between the speaker-microphone flex circuit and the speaker. Insert the flat end of the speaker retainer into the opening in the front cover. Press the other end of the retainer against the speaker. Hold the retainer in place with your thumb while pushing down on the retainer with a flat-bladed screwdriver. Use the screwdriver to push down on the portion of the speaker retainer that is pointing toward the bottom of the radio. Move the retainer by pushing it toward the bottom of the radio. Slide it into the front cover slot above the display.

5. Connect the universal flex to the pins and press into place.

IMPORTANT NOTE: Always replace the 2 conductive pads (P/N: 2671104L01 and 2616342H02 - EMI shield, electrically conductive gasket) after rework.