



BE BETTER EQUIPPED TO BE MISSION READY

APX™ 4500 PROJECT 25 MOBILE RADIO

A downed power line or the city transit system coming to a halt during rush hour, when the unexpected strikes, you must interoperate seamlessly and securely with other agencies and responders – often across multiple Project 25 (P25) systems. You need to instantly connect and be informed to make better decisions and respond effectively. While the advanced technology of APX™ radios expertly equips you for the unexpected, your organization may be challenged to improve operating expenses.

That's where the APX 4500 P25 mobile radio fits the bill perfectly. It delivers all the benefits of TDMA technology in a compact P25 capable mobile. The APX 4500 brings together powerful technology in an easy-to-use radio that's easy on your budget. It seamlessly unifies public works, utility, rural public safety and transportation users to first responders so they can communicate effectively in the moments that matter.

CONVENIENTLY SMALL, EASY TO INSTALL

The APX 4500 is designed to get the job done without getting in the way. A simplified dash mount design makes installation quick and easy, fitting into the existing XT1™ footprint so you can reuse mounting holes and cables.

KEEPS CREWS IN TOUCH, AND UP TO THE MINUTE

Safety runs in the APX family and the APX 4500 mobile is no exception. Like all our APX P25 radios trusted by responders worldwide, the APX 4500 mobile redefines safety. Your crews can count on quick, seamless interoperability and extended range – whether they are talking from the top of a pole or the bottom of a trench. You can depend on AES encryption for secure, tamperproof voice and data communications every time they connect.

With integrated GPS in the APX 4500, you can keep an eye on workers and assets you can't see, tracking their locations continuously. The O2 control head with color display is easy to read and operate in all lighting conditions, from bright sunlight to dark streets. The intelligent lighting on the O2 control head notifies your workers when a call is received, an emergency arises, or when they are out of range. Plus, an enlarged multifunction knob makes it easy to use talk-group and volume settings when they're wearing gloves.

Over-the-air programming on the APX 4500 keeps your crews current in the field. You can update the latest mobile without interrupting voice communications while they work.

SIZED RIGHT FOR YOUR BUDGET

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO



APX™ 4500 SPECIFICATIONS

FEATURES AND BENEFITS:

Available in 700/800 MHz, VHF, UHF, UHFH1, UHFH2, and 900 MHz.
Supports NPPCS band (901-902 MHz and 940-941 MHz)

Channels: Standard 512

Trunking Standards supported:

- Clear or digital encrypted Trunked Operation
 - Capable of SmartZone®, SmartZone Omnilink, SmartNet®
- Analog MDC-1200 and Digital APCO P25
Conventional System Configurations

Narrow and wide bandwidth digital receiver
(6.25KHz/12.5KHz/25KHz/30 KHz)

Embedded digital signaling (ASTRO and ASTRO 25)

Integrated GPS capable

Integrated Encryption Hardware

Intelligent lighting

Radio profiles

Unified Call List

Meets applicable MIL-STD 810C, D, E, F, G

Ships standard IP56

Utilizes Windows XP, Vista and Windows 7
Customer Programming Software (CPS)

- Supports USB Communications
 - Built in FLASHport™ support
- Re-use of most XTL™ accessories, plus new
IMPRES accessories

OPTIONAL FEATURES:

AES Encryption

Programming over Project 25 (POP25)

Text Messaging

12 character RF-ID asset tracking

Tactical OTAR

APX 4500 CONTROL HEAD PORTFOLIO



02 RUGGED CONTROL HEAD

- Large color display with intelligent lighting
- 3 lines of text 14 characters max / 1 line of icons / 1 line of menus
- Built in 7.5 watt speaker
- Multifunction volume/channel knob
- Night/day mode button

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2	900 MHz
Frequency Range/Bandsplit	164-776 MHz 794-808 MHz	808-824 MHz 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz	886-902MHz 935-941MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj*	2.30 Watts (2.3 Watts linear)	2.35 Watts	1.50 Watts	1.40 Watts	1.45 Watts (450-485 MHz) 1.40 Watts (485-512 MHz) 1.25 Watts (512-520 MHz)	1.30W/895-901MHz 1.3W 901-940MHz 1.3W 940-941MHz
Frequency Stability* (-30°C to +60°C, +25°C Ref.)	0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM
Modulation Limiting*	±5 kHz / ±2.5 kHz	±5 kHz / ±4 kHz (NPSFAC) ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±2.5 kHz
Modulation Fidelity (CFM) 12.5kHz Digital Channel	1.5%	1.5%	2.5%	1.1%	1.1%	1.5%
Emissions*	Conducted+ Radiated+ -75/-85 dBc	Conducted Radiated -75 dBc -20 dBm	Conducted Radiated -85 dBc -20 dBm	Conducted Radiated -85 dBc -20 dBm	Conducted Radiated -85 dBc -20 dBm	Conducted+ Radiated+ -70 dBc -20 dBm
Audio Response*	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)
FM Hum & Noise	25 & 20 kHz 12.5 kHz	-50 dB -48 dB	-52 dB -51 dB	-51 dB -48 dB	-51 dB -48 dB	-45 dB
Audio Distortion*	25 & 20 kHz 12.5 kHz	0.50% 0.50%	0.50% 0.50%	0.50% 0.50%	0.50% 0.50%	0.80 %

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2	900 MHz
Frequency Range/Bandsplit	764-776 MHz	851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz	935-941MHz 12.5 kHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at 3% distortion*	7.5 W or 15 W++	7.5 W or 15 W++	7.5 W or 15 W++	7.5 W or 15 W++	7.5 W or 15 W++	7.5 W or 15 W++
Frequency Stability* (-30°C to +60°C, +25°C Ref.)	±0.00008%	±0.00008%	±0.00008%	±0.00008%	±0.00008%	±0.8 PPM
Analog Sensitivity*	12 dB SINAD -120 dBm	-120 dBm -121 dBm	Pre-Amp Standard -123 dBm -119 dBm	Pre-Amp Standard -123 dBm -119 dBm	Pre-Amp Standard -123 dBm -119 dBm	Standard -120dBm -121dBm
Digital Sensitivity	5% BER	5% BER	-123 dBm	-123 dBm	-123 dBm	-121dBm
Intermodulation	25 kHz 82 dB	25 kHz 82 dB	82 dB 83 dB	81 dB 82 dB	86 dB 85 dB	-
Spurious Rejection	91 dB	91 dB	86 dB	82 dB	85 dB	82 dB
Audio Distortion at rated*	1.20%	1.20%	96 dB	91 dB	91 dB	91 dB
Selectivity*	25 kHz 85 dB 12.5 kHz 75 dB 30 kHz	25 kHz 85 dB 12.5 kHz 75 dB	1.20% 85 dB 75 dB 90 dB	1.20% 85 dB 75 dB	1.20% 85 dB 75 dB	2 % 74dB

DIMENSIONS

	Inches	Millimeters
Mid Power Radio Transceiver	2 x 7 x 6.4	50.8 x 178 x 163
O2 Control Head	2.7 x 8.1 x 2.1	69 x 207 x 53
Mid Power Radio Transceiver and O2 Control Head - Dash Mount	2.7 x 8.1 x 8.8	69 x 207 x 223
Mid Power Radio Transceiver and O2 Control Head Weight	5.28 lbs	2.45 kg

RADIO MODELS

	700/800 (764-870 MHz)	UHF Range 1 (380-470 MHz)	UHF Range 2 (450-520 MHz)	900 MHz (896-941 MHz)
M22URSPW1AN				
M22KSSPW1AN				
M22SSSPW1AN				
M22SSSSPW1AN				
M22WRSPW1AN				

SIGNALING (ASTRO MODE)

Signaling Rate	9.6 kbps
Digital ID Capacity	10,000,000 Conventional / 48,000 Trunking

GPS SPECIFICATIONS

Channels	12
Tracking Sensitivity	-15.3 dBm

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO

POWER AND BATTERY DRAIN

Model Type	136-174 MHz, 380-470 MHz, 450-520 MHz, 764 870 MHz, 896-941MHz
Minimum RF Power Output	2.30 Watts (764-776 MHz), 2.30 Watts (794-806 MHz), 2.35 Watts (806-824 MHz), 2.35 Watts (851-870 MHz), 1.50 Watts (136-174 MHz), 1.40 Watts (380-470 MHz), 1.45 Watts (450-485 MHz), 1.40 Watts (485-512 MHz), 1.25 Watts (512-520 MHz), 1.30Watts (896-901MHz), 1.3Watts (901-907MHz), 1.30W (935-940MHz), 1.3Watts (940-941MHz)
Operation	13.8V DC ±20% Negative Ground
Standby at 13.8V	0.85A (764-870 MHz), 0.85A (136-174 MHz), 0.85A (380-470 MHz), 0.85A (450-520 MHz), 0.85A (896-941MHz)
Receive Current at Rated Audio at 13.8V	3.2A (764-870 MHz), 3.2A (136-174 MHz), 3.2A (380-470 MHz), 3.2A (450-520 MHz), 3.2A (896-941MHz)
Transmit Current (A) at Rated Power	136-174 MHz (1-50 Watts) 13A (150W) 764-870 MHz (2***-35W) 12A (135W) 8A (15W) 380-470 MHz (1-40 Watts) 11A (40W) 8A (15W) 896-901MHz (1-30W) 10A (30W) 7A (15W) 450-520 MHz (1-45 Watts) 11A (45W) 8A (15W) 935-940MHz (1-30W) 10A (30W) 7A (15W) 901-907MHz (1-3W) 5A (3W) 940-941MHz (1-3W) 5A (3W)

MOBILE MILITARY STANDARDS 810 C, D, E, F, G

	MIL-STD 810C	MIL-STD 810D	MIL-STD 810E	MIL-STD 810F	MIL-STD 810G
	Method	Proc./Cat.	Method	Proc./Cat.	Method
Low Pressure	500.1	500.2	500.3	500.4	500.5
High Temperature Storage	501.1	501.2	501.3	501.4	501.5
High Temperature Operation	501.1	501.2	501.3	501.4	501.5
Low Temperature Storage	502.1	502.2	502.3	502.4	502.5
Low Temperature Operation	502.1	502.2	502.3	502.4	502.5
Temperature Shock	503.1	503.2	503.3	503.4	503.5
Solar Radiation	505.1	505.2	505.3	505.4	505.5
Rain Blowing	506.1	506.2	506.3	506.4	506.5
Rain Steady	506.1	506.2	506.3	506.4	506.5
Humidity	507.1	507.2	507.3	507.4	507.5
Salt Fog	509.1	509.2	509.3	509.4	509.5
Blowing Dust	510.1	510.2	510.3	510.4	510.5
Blowing Sand	510.1	510.2	510.3	510.4	510.5
Vibration Min. Integrity	514.2	514.3	514.4	514.5	514.6
Vibration Loose Cargo	514.2	514.3	514.4	514.5	514.6
Shock Functional	516.2	516.3	516.4	516.5	516.6

ENCRYPTION

	ACS and ADP
Supported Encryption Algorithms	Single
Encryption Algorithm Capacity	Module capable of storing 1024 keys. Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PII)
Encryption Keys per Radio	P25 CA1 300 mSec
Encryption Frame Rate Interval	Key Loader
Encryption Keying	XL – Counter Addressing, OFB – Output feedback
Synchronization	National Institute of Standards and Technology (NIST) approved random number generator
Vector Generator	Digital
Encryption Type	Tamper-protected volatile or non-volatile memory
Key Storage	Keyboard command and tamper detection
Key Erasure	FIPS 140-2 Level 3
Standards	FIPS 197

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C / +60°C
Storage Temperature	40°C / +85°C
Humidity	Per MIL-STD
ESD	IEC 801-2 KV
Water and Dust Intrusion	IP56, MIL-STD

TRANSMITTER CERTIFICATION

700/800 (764-775, 793-805, 806-824, 834-863 MHz)	AZ492F17055
VHF (136-174 MHz)	AZ492F14916
UHF RT (380-470 MHz)	AZ492F14915
UHF RT (450-520 MHz)	AZ492F14916
900 MHz (896-901, 901-907, 935-940, 940-941 MHz)	AZ492F15865

FCC EMISSIONS DESIGNATORS

FCC Emissions Designators	8K10F1D, 8K10F1E, 8K10F1W, 11K0F3E, 18K0F3E, 20K0F1E
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* Measured in the analog mode per 11A/EIA 603 under normal conditions
 ** Accuracy applies only for long term tracking (95th percentile values -5-sigma) visible at a nominal -130 dBm signal strength
 *** 2W, transient frequencies
 + Specs includes performance for the non-GNSS/GNSS bands
 + + Thermal runaway in 10 min at 177 from ambient (Celsius) (reference only)



Guideline

******NOTE: APX 4500 digital radios require either a SOFTWARE KEY (QA01749) OR HARDWARE KEY (QA01648) to be ordered to operate/program on a trunking system. IF QA01648- HARDWARE KEY is ORDERED, SUPPLEMENTAL DATA is required to be entered. Please be sure the CORRECT SYSTEM ID is entered. If an incorrect ID is entered, FLASHport will need to be ordered to FIX this error. ******

<http://ecat.comm.mot.com/ecat/pricebooks/dup/ASK.htm>

Online APX4500 Resources:

[APX4500 Wiki Page](#)

APX4500 is not approved for use on motorcycle configurations.

Please be sure to use the most current version of Motorola APX Customer Programming Software (CPS) when programming new radios

******Please note that NEW version of Customer Programming Software (CPS) (Part #RVN5224) is required for initial customer orders for APX radios. ******

****** APX CPS version CPS R12.00.00 and greater ordered after June 2014 will only support Windows 7 and 8. ******

Section A: Required Main Model and Options

For standard Radio Operation (including Motorcycle) Steps 1 - 10 must be selected.

PLEASE READ ALL OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

1: Main Model (Must Select One)

*****Low/Mid Power*****

Description	Nomenclature	APC	Price
APX4500 7/800	M22URSS9PW1 N	471	\$1,099.00
APX4500 VHF	M22KSS9PW1 N	471	\$1,099.00
APX4500 UHF R1	M22QSS9PW1 N	471	\$1,099.00
APX4500 UHF R2	M22SSSS9PW1 N	471	\$1,099.00
APX4500 900MHZ	M22WRS9PW1 N	471	\$1,099.00

2: Software Packages (Must Select One)

Description	Nomenclature	APC	Price
ADD: 3600 OR 9600 TRUNKING BAUD SINGLE SYSTEM	QA02756	471	\$1,570.00

Software Package INCLUDES: Digital 3600 or 9600 Baud (CPS Configurable), SmartZone, and Omnilink. When ordering

trunking mode, you must select a QA01749 software key, QA01648 hardware key or a QA02018 WACN Key.

ADD: SOFTWARE ANALOG 3600 BAUD	QA43	471	\$1,100.00
Software Package INCLUDES: 3600 Baud, SmartZone, and Omnilink.			
ADD: SOFTWARE P25 CONVENTIONAL	QB11	471	\$650.00
ADD: ANALOG CONVENTIONAL	QA02829	471	\$400.00

3: Advanced System Key Options (Must Select One if Trunking is ordered)

Description	Nomenclature	APC	Price
ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	QA01648	655	\$5.00
A SOFTWARE or ADVANCED SYSTEM KEY or WACN KEY is REQUIRED to be purchased with any APX Radio operating in trunking. A SUPPLEMENTAL ID is REQUIRED to be entered when this option is ordered. Please be sure the CORRECT SYSTEM ID is entered. If an incorrect ID is entered, FLASHport will need to be ordered to FIX this error. ADVANCED SYSTEM KEY or WACN KEY will still REQUIRE a DVN4046 to be purchased.			
SW KEY SUPPLEMENTAL DATA	QA01749	655	\$0.00
A SOFTWARE or ADVANCED SYSTEM KEY or WACN KEY is REQUIRED to be purchased with any APX Radio operating in trunking.			
ADD: ADVANCED WACN KEY SUPP DATA	QA02018	655	\$0.00
A SOFTWARE or ADVANCED SYSTEM KEY or WACN KEY is REQUIRED to be purchased with any APX Radio operating in trunking. A SUPPLEMENTAL ID is REQUIRED to be entered when this option is ordered. Please be sure the CORRECT SYSTEM ID is entered. If an incorrect ID is entered, FLASHport will need to be ordered to FIX this error. ADVANCED SYSTEM KEY or WACN KEY will still REQUIRE a DVN4046 to be purchased.			

3b: Optional System Enhancement Software (Not Required)

Description	Nomenclature	APC	Price
ADD: TDMA OPERATION	GA00580	471	\$400.00
Requires QA02756 software package			

3c: Optional Data Link Manager CD (Not Required)

Description	Nomenclature	APC	Price
ADD: DATA LINK MANAGER	QA00205	471	\$0.00
Option provides the NVN5424 Data CD. Please order this option if you would like the Data CD, and are unable to obtain it through other sources such as MOL.			

4: Control Head Hardware

O2 Control Head Hardware

Description
ADD: APX O2 CONTROL HEAD (Grey)

Nomenclature	GA00804	APC	656	Price	\$492.00
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O2 Control Head Colored Housing Trigger

FOR THE IMPACT GREEN HOUSING YOU MUST STILL ORDER GA00804 ALONG WITH G201

Description
ADD:IMPACT GREEN COLOR HOUSING (O2)

Nomenclature	G201	APC	656	Price	\$25.00
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When ordered in conjunction with GA00804 you will get a green colored O2 housing.

5: Control Head Software

Description
ADD: APX CONTROL HEAD SOFTWARE

Nomenclature	G444	APC	656	Price	\$0.00
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6: Mounting (Must Select One for Mid Power Models)

If a remote mount cable other than 5 meters (177f) is desired for G67, please reference the "Remote Mount Cables" section below in Section C: Optional Features

Description
ADD: DASH MOUNT

Nomenclature	G66	APC	500	Price	\$125.00
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Required for Control Station Operation. O3 Dash mount is identical to remote mount minus the 177 extension cable PMLN4958A

ADD: REMOTE MOUNT O2 WMM

Nomenclature	G67	APC	656	Price	\$297.00
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7: RF Antenna

No Antenna Needed is Valid For All Bands

Description
ADD: NO RF ANTENNA NEEDED

Nomenclature	G89	APC	656	Price	\$0.00
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7/800

Description
ADD: ANT 3DB LOW-PROFILE 762-870

Nomenclature	G174	APC	471	Price	\$43.00
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Motorcycle Approved
 Corresponding Kit: HAF4013
 Corresponding Motorcycle Kit: HAF4018

ADD: ANT 3DB ELEVATED FEED 762-870					
Not Compatible with Motorcycle					
Corresponding Kit: HAF4014.					
ADD: ANT 1/4 WAVE 762-870MHZ					
Motorcycle Approved					
Corresponding Motorcycle Kit: HAF4015					
Corresponding Kit: HAF4016					
ALT: ANT 3DB GAIN 762-870MHZ					
Not Compatible with Motorcycle.					
Corresponding Kit: HAF4017.					

VHF

Description	Nomenclature	APC	Price
ADD: 3BD ANT 136-174MHZ	G301	471	\$38.50
ADD: 1/4 WAVE WHIP ROOF TOP 136-144	G296	471	\$13.50
Corresponding Kit: HAD4006			
ADD: 1/4 WAVE ROOF TOP 144-150.8	G297	471	\$13.50
Corresponding Kit: HAD4007			
ADD: 1/4 WAVE ROOF TOP 150.8-162	G299	656	\$19.50
Corresponding Kit: HAD4008			
Corresponding Motorcycle Kit: RAD4004ARB			
ADD: 1/4 WAVE ROOF TOP ANT VHF	G300	471	\$13.50
Corresponding Kit: HAD4009			
ADD: 1/4 WAVE BROADBAND ANT 146-174	G629	471	\$64.00
Corresponding Kit: HAD4017.			
ADD: VHF ANT WIDEBAND 136-174 MHZ	G792	471	\$75.00
Corresponding Kit: HAD4021.			
ALT: 1/4 WV BDBD ANT 136-162 MHZ	W652	471	\$47.75

UHF R1

Description	Nomenclature	APC	Price
ADD: ANT 3.5DB 380-420 MHZ MAXRAD	G427	656	\$55.00
Not Compatible with Motorcycle			
Corresponding Kit: HAE6010.			
ADD: ANT 5.0DB 380-420 MHZ MAXRAD	G429	656	\$62.00
Not Compatible with Motorcycle			
Corresponding Kit: HAE8011.			
ADD: ANT 5.0DB 445-470 MHZ	G430	656	\$110.00
Not Compatible with Motorcycle			

Corresponding kit: RAE4014ARB.				
ADD: ANT 1/4 WAVE WHIP 380-420 MHZ		G425	656	\$25.00
Not Compatible with Motorcycle				
Corresponding kit: HAE6012.				
DESIGN MODIFICATIONS ARE BEING MADE TO THIS ANTENNA. THE NEW DESIGN INCLUDES TITANIUM BLACK PLATING, TEARDROP TOP, AND GOLD BUTTON PLATING.				
ADD: ANT 1/4 WAVE WHIP 450-470 MHZ		G426	656	\$25.00
Not Compatible with Motorcycle				
TEMPORARY: Not compatible with U2-7/800 Bandsplit.				
Corresponding kit: HAE4003.				
ADD: ANT 3.5DB 450-470 MHZ		G428	656	\$50.00
Not Compatible with Motorcycle				
Corresponding kit: HAE4011.				
ADD: ANT WIDEBAND 380-470 MHZ MAXRA		G431	656	\$58.00
Not Compatible with Motorcycle				
Corresponding kit: HAE6013.				
ADD: ANT 2DB WIDEBAND 380-520 MHZ		GA00505	656	\$50.00
TEMPORARY: Not compatible with U2-7/800 Bandsplit.				
Corresponding kit: HAE6031_				

UHF R2

Description	Nomenclature	APC	Price
ADD: ANT 5.0DB 445-470 MHZ	G430	656	\$110.00
Not Compatible with Motorcycle			
Corresponding kit: RAE4014ARB.			
ADD: ANT 1/4 WAVE WHIP 450-470 MHZ	G426	656	\$25.00
Not Compatible with Motorcycle			
TEMPORARY: Not compatible with U2-7/800 Bandsplit.			
Corresponding kit: HAE4003.			
ADD: ANT 3.5DB 450-470 MHZ	G428	656	\$50.00
Not Compatible with Motorcycle			
Corresponding kit: HAE4011.			
ADD: 5DB GAIN ANT 494-512 MHZ	G486	656	\$58.00
Not Compatible with Motorcycle			
Corresponding kit: RAE4016ARB.			
ADD: ANT 1/4 WAVE 470-512 MHZ	G490	656	\$14.00
Not Compatible with Motorcycle			
Corresponding kit: HAE4004.			
ADD: ANT 3 DB ROOF TOP 470-495 MHZ	G493	656	\$33.00
Not Compatible with Motorcycle			
Corresponding kit: HAE4012.			
ADD: ANT 3 DB ROOF TOP 494-512 MHZ	G494	656	\$33.00
Not Compatible with Motorcycle			

Corresponding Kit: HAE4013.
 ADD: ANT LOW PROFILE 450-512 MHZ
 Not Compatible with Motorcycle
 Corresponding Kit: HAE6016
 ADD: 2DB ANT WIDEBAND 450-520 MHZ
 TEMPORARY: Not compatible with U2-7/800 Bandsplit. Corresponding Kit:HAE6015
 Corresponding Motorcycle Kit:HAE6015
 ADD: ANT 2DB WIDEBAND 380-520 MHZ
 TEMPORARY: Not compatible with U2-7/800 Bandsplit.
 Corresponding Kit: HAE6031_
 ADD: ANT ROOF TOP 5 dB 470-494 MHZ
 Not Compatible with Motorcycle.
 Corresponding Kit: RAE4015ARM.

900MHz

Description	Nomenclature	APC	Price
ADD: 900MHZ ANT 3DB LRT 14'	B925	722	\$43.00
ADD: 900MHZ ANT 3DB LRT 22'	B926	623	\$75.00

8: Microphones (Must Select One)

Description	Nomenclature	APC	Price
ADD: NO MICROPHONE NEEDED	G90	656	\$0.00
Select this option when ordering O3 Handheld Control Head (G72)			
ADD: PALM MICROPHONE	W22	656	\$72.00
Corresponding kit: HMN1090			
ADD: KEYPAD MIC GCAI	W20	656	\$180.00
Corresponding kit: HMN4079			
ADD: CONTROL STATION DESK GCAI MIC	W382	656	\$169.00
Dash Mount Required			
Corresponding Kit: RMN5070			
ADD: HANDSET/HANGUP COILED CABLE	G876	656	\$415.00
Coiled Cable, No Toggle Switch			
Accessory Kit: HKN1017			
ADD: VISOR MIC REMOTE MOUNT	W872	656	\$30.00
Requires G235 Footswitch PTT.			
Kit Number: RMN5054_			
ADD: MODEL III GCAI KEYPAD HANDSET	GA00221	656	\$295.00
Corresponding kit: HMN4097A			

ADD: GOOSENECK PTT			
Requires W872 Visor Mic. Kit Number: HMN1087A			
ADD: HANDSET/HANGUP MIC ARMORED CABLE			
Armored Cable, No Toggle Switch Accessory Kit: HKN1018			
ADD: PTT FOOTSWITCH			
Requires W872 Visor Mic. Kit Number: GLN7278_			
ADD: PUSHBUTTON PTT			
	G233	656	\$56.00
	W874	656	\$300.00
	G235	656	\$51.00
	GA00304	656	\$56.00

9: Speakers (Must Select One)

*****O2 Control Head includes a built in speaker. G142 should always be selected unless additional external speaker is required*****

*****G142 NO SPEAKER Required for Control Station*****

Description	Nomenclature	APC	Price
ADD: SPKR 15W WATER RESISTANT	G831	656	\$60.00
ADD: NO SPEAKER NEEDED	G142	656	\$0.00
ADD: AUXILIARY SPKR 7.5 WATT	B18	656	\$60.00
Corresponding Kit: HSN4031.			
ADD: AUXILIARY SPKR 13W (3.2OHM)	W432	656	\$71.50

10: Service Options (Must Select One)

Description	Nomenclature	APC	Price
ENH: 1 YR SFS LITE	G400	185	\$64.00
ENH: 2 YR SFS LITE	G24	185	\$121.00
ENH: 3 YR SFS LITE	G398AU	185	\$152.00
ENH: 4 YR SFS LITE	GA00318	185	\$197.00
Provides 4 years of extended hardware repair coverage beginning after the standard warranty period expires. Repairs will be made only at the designated Motorola repair depot. Local services are not included. Motorola will pay the inbound shipping charges only with use of the Motorola designated delivery service. Motorola will pay for outbound shipping via Motorola's normal shipping methods. No discounts are allowed on this option.			
ENH: SFS COMPREHENSIVE	GA00249AC	185	\$221.00
ENH: CANADA 3 YR SFS LITE	GA00314	386	\$200.00
ENH: CANADA 5 YR SFS LITE	GA00317	386	\$274.00
DEL:NO SFS-STD WARRANTY/APPLIES	GA05100	185	\$0.00

Provides no extended repair coverage after the standard warranty period expires

Section B: Control Station Requirements

CONTROL STATION OPERATION

(Dash Mount Only)

- I. First, you must review your selection of the following options from "Section 1: Required Options".
 - Step 1 (Note: Main Mode)
 - Step 2 (Note: All listed options are compliant)
 - Step 3 (Note: All listed options are compliant)
 - Step 4 (Note: O2 Control Head is compatible with Control Station Application- Must only select one).
 - Step 5 (Note: Must Select G444. The O2 Control Head Software is compatible with Control Station Application).
 - Step 6 (Note: Must Select G66. Control Station operation is only offered in Dash mount configuration)
 - Step 7 (Note: All listed options are compliant)
 - Step 8 (Note: Some Microphones are NOT compatible. Please read option description).
 - Step 9 (Note: Must Select G142 - No Speaker Needed)
- II. You Must Select W665. G91 is needed for control station operation, but is an optional purchase.

SPECIFIC CONTROL STATION OPTIONS

Control Station Operation and Power Supply

Description	Nomenclature	APC	Price
ADD: CONTROL STATION POWER SUPPLY	G91	656	\$269.00
ADD: BASE STATION APEXWMM	W665	656	\$70.00

III. Features listed in "Section C: Optional Features" are optional, if applicable. Please read the option's description to determine compatibility.

ASTRO Text Messaging Service

ASTRO Text Messaging Service is available on the ASTRO 25 APX 4500 mobile radio. Text Messaging Service (TMS) allows subscriber users to send and receive text messages to other subscribers or dispatch operators. Users can select messages and addresses from a predefined list or enter freetext messages and addresses via the keypad. Text Messaging Service is available on ASTRO P25 IV&D Systems and Subscribers.

For full Text Messaging functionality, including freetext text messaging and addressing, must order an O2 Control Head with Keypad Microphone. O2 without the Keypad Microphone supports Limited Text Messaging functionality such as selecting predefined messages or addresses from a list programmed in the radio.

Ordering requirements for APX 4500 Mobile:

- Requires O2 Control Head (GA00804)
- QA02756 or Q811 must be ordered
- Packet Data Interface (W947)

NOTE: There is no specific option to order for the Text Messaging Service on the subscribers as the functionality is included in the Packet Data option.

Section C: Optional Features

The following options are **optional** and will provide additional capabilities, if required.

Note: On January 1, 2015, the list price on the following features: GPS (GA00229), IVD (W947) & TDMA (GA00580) will increase by \$50.

System Enhancement Options

Description	Nomenclature	APC	Price
ADD: MULTICAST VOTING SCAN This feature allows for voting of the Conventional Channels ONLY.	G387	656	\$200.00
ENH: OVER THE AIR PROVISIONING Compatible with P25 Trunking OR ASTRO Conventional only. There is NO Analog Functionality for this feature. Requires W947 Date option. To do in field POP25 programming must use Advanced System Key (DVN4048A). Single unit POP25 with batch programming for trunking configuration coming in future.	G996	656	\$100.00
ADD: ASTRO 25 INTEGRATED VOICE & DATA	W947	656	\$200.00
ENH: APX GPS ACTIVATION Requires IV&D Activation.	GA00229	656	\$100.00
ENH: TRUNKED RADIO TRACE/ REMOTE MO Trunked Radio Trace and Remote Monitor	G170	471	\$75.00

ADD: One Touch/Status Msg			
ADD: APX MOBILE RADIO AUTHENTICAT			
Requires P25 Trunking (G361)			
ADD: ENHANCED DATA	QA03399	656	\$150.00
Smartzone (H38/G51), Digital (Q806/G606), IV&D (Q947/W947) and P25 Trunking (Q361/G361) are required when ordering the Enhanced Data option			
ADD: SITE SELECTABLE ALERT FOR P25 TRUNKING	GA00982	656	\$150.00
ENH: ENHANCEMENT LEVEL 1	GA01770	471	\$200.00

[Enhancement Level Reference Guide](#)

GPS Antennas

Selection is required when ordering GA00228, GPS Activation

Description	Nomenclature	APC	Price
ADD: NO GPS ANTENNA NEEDED	GA00235	656	\$0.00
ADD: GPS ANTENNA	GA00226	656	\$75.00
Corresponding Kit: HAG4000			
ADD: GPS ANTENNA GLASS MT	GA00270	656	\$75.00
Corresponding Kit: PMAN4001			

[GPS Outdoor Location Solution Overview](#)

Encryption Algorithms

All APX4500 Mobile Radios ship standard with Single Key Advanced Digital Privacy (ADP). Multiple algorithms are NOT supported on APX4500.
 ADP Privacy is not FIPS compliant - ADP Privacy not supported by OTAR - ADP is digital P25 conventional / P25 trunking only

Description	Nomenclature	APC	Price
ADD: MULTIPLE KEY ENCRYPTION OPERATION	W969	656	\$330.00
REQUIRED when using more than one encryption algorithm or encryption key.			
ADD: AES ENCRYPTION APX	G843	656	\$475.00
Requires P25 operation.			

Remote Mount Cables

(All cables are for 02 control head only)
 (The 5 meter (17 FT) Cable Ships Standard)

Description	Nomenclature	APC	Price
ADD:CBL REMOTE MOUNT 10 FEET	G618	656	\$10.00
Corresponding kit: HKN6170			
ADD: REMOTE MOUNT CBL 30 FEET	G610	656	\$25.00
Corresponding kit: HKN6188			
ADD: REMOTE MOUNT CBL 50 FEET	G609	656	\$35.00
Corresponding kit: HKN6167			
ADD:CBL REMOTE MOUNT 75 FEET	G607	656	\$45.00
Corresponding kit: HKN6166A			
ADD:REMOTE MOUNT CBL 115 FEET	G879	656	\$55.00
Corresponding kit: HKN6185			
ADD: REMOTE MOUNT CABLE 131 FT	G582	656	\$65.00

MOTOROLA SIREN

NOTE: THE SIREN IS COMPATIBLE WITH REMOTE MOUNT APX AND XTL MOBILES WITH "O" SERIES CONTROL HEADS ONLY. THIS SIREN IS NOT COMPATIBLE WITH ANY "W" SERIES CONTROL HEADS

THE SIREN BASE MODEL TT2592. ONE CABLE AND THE SIREN MOUNTING HARDWARE TT0507 MUST ALWAYS BE ORDERED (THIS SIREN IS ORDERED AS A SEPARATE LINE ITEM, TT2592 IS THE MODEL)

DEK OPTIONS ARE AVAILABLE AS OPTIONS TO THE SUBSCRIBER AS SHOWN BELOW

Description	Nomenclature	APC	Price
WHELEN/MOTOROLA SIREN	TT2592	571	\$395.00
SIREN HARDWARE INSTALL KIT	TT05707AA	571	\$20.00
ADD: SIREN TO RADIO CABLE (21-PIN D	TT05900AA	571	\$65.00
SIREN TO DEK CABLE - O3 CONTROL HEAD ONLY	TT05709AA	571	\$78.00

This cable is only required when using the DEK together with an O3 control head

DEK

Description	Nomenclature	APC	Price
ADD: DEK FOR WHELEN SIREN	GA00814	656	\$105.00

Corresponding Kit: H1837A.

ADD: STATUS/MESSAGE 8

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1838A

ADD: STATUS/MESSAGE 16

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1839A

Direct Mode Entry

Description

ADD: 8 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1835A

ADD: 16 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1836A

ADD: 24 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads or W269 Siren/PA or other DEK or Direct Mode Entry Selections. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1837A

Auxiliary WILDCARD

Description

ADD: AUXILIARY SWITCH PANEL

Corresponding Kit: HLN1196.
Remote Mount Required. NOT compatible with O3 control head or motorcycle.

Data Cables

Description
ADD: RS232 DATA INTFC CBL DASH

W355 656 \$475.00

W374 656 \$650.00

Nomenclature **APC** **Price**
W599 656 \$180.00

W614 656 \$360.00

W615 656 \$540.00

Nomenclature **APC** **Price**
W591 656 \$165.00

Nomenclature **APC** **Price**
G303 656 \$50.00

6 FT RS232 DATA CABLE
 Corresponding Kit: HKN6160A.
ADD: RS232 DATA INTFC CBL TRK
 20 FT RS232 DATA CABLE
 Corresponding Kit: HKN6161A.
ADD: USB DATA INTFC CABLE-DASH
 6 FT USB W/IGNITION SENSE
 Corresponding Kit: HKN6163B.
 Can be used to program APX Mobile Radios.
ADD:USB DATA INTFC CABLE-TRK
 16.5 FT USB W/IGNITION SENSE
 Corresponding Kit: HKN6172B.
 Can be used to program APX Mobile Radios.

RF Modem

Description
ENH: ENABLE RF MODEM
 The APX mobiles do not support Site Lens or System Watch. Therefore, the APX RF Modem function does not support the legacy System Watch or Site Lens applications. The APX RF Modem supports Conventional or 9600 Trunking only. Enabling the RF Modem in conventional mode allows provisioned APX portables to pass accountability data through the portable option Q445.

Nomenclature **APC** **Price**
 G319 656 \$0.00

Emergency

Description
ADD: SCHOOL SERURITY ENHANCEMENT PACKAGE
 Education O2 Emergency Push Button

Nomenclature **APC** **Price**
 GA01056 656 \$50.00

RF ID Tag

Description
ADD: RFID LABEL

Nomenclature **APC** **Price**
 GA00268 656 \$15.00

Service Options

Description
 ENH: 1 YR SFS LITE
 ENH: 2 YR SFS LITE
 ENH: 3 YR SFS LITE
 ENH: 4 YR SFS LITE

Nomenclature **APC** **Price**
 G400 185 \$64.00
 G24 185 \$121.00
 G398AU 185 \$152.00
 GA00318 185 \$197.00

Provides 4 years of extended hardware repair coverage beginning after the standard warranty period expires. Repairs will be made only at the designated Motorola repair depot. Local services are not included. Motorola will pay the inbound shipping charges only with use of the Motorola designated delivery service. Motorola will pay for outbound shipping via Motorola's normal shipping methods. No discounts are allowed on this option.

ENH: SFS COMPREHENSIVE	
ENH: CANADA 3 YR SFS LITE	GA00249AC 185 \$221.00
ENH: CANADA 5 YR SFS LITE	GA00314 386 \$200.00
	GA00317 386 \$274.00

Amplifier

(***UHF and VHF Only***)

Description	Nomenclature	APC	Price
ADD: RF PREAMP	W12	656	\$66.00
Option applies only to VHF & UHF radios.			

Test Results

Description	Nomenclature	APC	Price
ADD: PRINTED TEST RESULTS APEX	G799	656	\$10.00

Section D: Aftermarket Accessories

Antenna

	7/800		
Description	Nomenclature	APC	Price
ANTENNA (762-870 MHZ) 3DB LOW-PROFILE	HAF4013	554	\$43.00
ANTENNA (762-870 MHZ) 3DB ELEVATED FEED	HAF4014	500	\$75.00
ANTENNA (762-870 MHZ) 1/4 WAVE	HAF4016	500	\$23.00
ANTENNA (762-870 MHZ) 3DB GAIN COLLINEAR	HAF4017	500	\$38.00

VHF

Description	Nomenclature	APC	Price
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ANTENNA, VHF (136-144MHZ) 1/4 WAVE ROOF TOP	HAD4006	554	\$19.50
High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal			
ANTENNA, VHF (144-150.8 MHz) 1/4 WAVE ROOF TOP	HAD4007	554	\$19.50
High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal			
ANTENNA, VHF (150.8-162 MHz) 1/4 WAVE ROOF TOP	HAD4008	554	\$19.50
High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal			
ANTENNA, VHF (162-174 MHz) 1/4 WAVE ROOF TOP	HAD4009	554	\$19.50
High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal			
ANTENNA VHF 1/4 WAVE	RAD4002ARB	554	\$100.00
ANTENNA VHF 1/4 WAVE	RAD4004ARB	554	\$100.00
ANTENNA VHF 1/4 WAVE	RAD4005ARB	554	\$75.00
ANTENNA 132-174 3DB GAIN	HAD4022A	554	\$65.50
ANT ROOF MT WB VHF 146/174	HAD4017A	500	\$44.00

Adapters

Description	Nomenclature	APC	Price
AUDIO CABLE ADAPTER	HKN6158	500	\$49.00
ADAPTER CABLE DATA	HKN6159	500	\$49.00
KEYLOADING CABLE ADAPTER (GCAI)	HKN6182	514	\$41.50
Used to adapt keyload cable TKN8531 for all APX 7500, APX,6500, APX4500, XTL 5000 and XTL 2500. Not compatible with XTL1500.			

Control Station Tray and Power Supply

Description	Nomenclature	APC	Price
MOBILE DESK TRAY	HILN6042	617	\$77.00
PS 14V 10A 117/240 VAC	HPN4007C	500	\$296.00

Programming and Data Cables
(Please see [CPS PART NUMBER GUIDE](#) for cable descriptions)

Description	Nomenclature	APC	Price
CABLE CH, PROGRAMMING,USB	HKN6184C	518	\$51.00
HKN6184C - Used to program the radio with Customer Programming Software and Tuner Software. Compatible with APX mobile radios.			

CABLE, DATA, USB, 4.5M, XTL5000

HKN6172B

500

\$85.00

DEK/VIP

Description

AUDIO CABLE ADAPTER
ADAPTER CABLE DATA

Nomenclature

APC

Price

HKN6158

500

\$49.00

HKN6159

500

\$49.00

HKN6182

514

\$41.50

Used to adapt keyload cable TKN6531 for all APX 7500, APX,6500, APX4500, XTL 5000 and XTL 2500. Not compatible with XTL1500.

Emergency

Description

EMERGENCY FOOT SWITCH

Nomenclature

APC

Price

HLN5113

604

\$61.75

Microphones

Description

XTL5000 KEYPAD MICROPHONE
AS. SPECTRA & XTL5000 DESKTOP MIC
HANDSET/HANGUP (HANGUP CUP)
MODEL III KEYPAD TELEPH HANDSET KIT
PUSH BUTTON PTT

Nomenclature

APC

Price

HMN4079D

500

\$320.00

RMN5070A

706

\$172.00

HLN1457

706

\$285.00

HMN4097A

706

\$295.00

RLN5926A

706

\$39.00

Microphone Extension Cable

Description

CABLE, MOBILE MIC EXTENSION, 10FT
Not for use with the W20 GCAI Microphone.

Nomenclature

APC

Price

PMKN4033A

706

\$42.00

Power

Description

POWER CABLE, 10 FT. (LOW/MID POWER) 30 & 35 WATT
POWER CABLE, 20 FOOT TO 12V BATTERY
VHF & UHF models.

Nomenclature

APC

Price

HKN4191

412

\$18.00

HKN4192

508

\$38.25

CONTROL HEAD / IGNITION SENSE POWER CABLE HKN6188 514 \$20.75

Speakers

Description	Nomenclature	APC	Price
EXTERNAL WATER RESISTANT SPEAKER 15 WATTS	HSN4040A	795	\$76.00
MCS EXT SPKR 13W	HSN4032B	500	\$71.50
EXTERNAL 7.5 WATT WATER RESISTANT REMOTE MOUNT SPEAKER	HSN4038	476	\$60.50

Manuals

*** Currently, the APX4500 O2 User Guide and the APX4500 O2 Install Manual can be downloaded from [MOL \(Motorola Online\)](#). ***
 *** These documents can be found in Resource Center > Product Information >Manuals >Two-Way Mobile ***

Section E: Control Head Conversion AND Retrofit Allied Sales Models

PLEASE READ ALL ALLIED MODEL AND OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

FYI: THE FOLLOWING ALLIED SALES MODELS ARE ORDERABLE VIA COF, MOL, AND R12 ONLY - THESE KITS ARE NOT STOCKED IN THE AFTERMARKET PARTS DIVISION

NOTE: IF YOU WOULD LIKE AN EXTENSION CABLE FOR YOUR O3 CONTROL HEAD TO MAKE YOUR O3 A REMOTE MOUNT, PLEASE ORDER H1849B. (IF ORDERING THIS KIT ALONG WITH ANOTHER ALLIED SALES MODEL, PLEASE ORDER THEM AS SEPARATE LINE ITEMS)

Control Head Conversion Allied Sales Models

APX RETROFIT ALLIED SALES MODELS

MID POWER

02 Dash Control Head Kit (Grey)

Description	Nomenclature	APC	Price
O2 CH DASH (GREY) RETROFIT	H1872	656	\$750.00

MID POWER O2 CONTROL HEAD DASH MOUNT TO O2 CONTROL HEAD REMOTE MOUNT

Description	Nomenclature	APC	Price
O2 DASH TO O2 REMOTE MOUNT	H1877	656	\$325.00

MID POWER O2 CONTROL HEAD REMOTE MOUNT TO O2 CONTROL HEAD DASH MOUNT

Description	Nomenclature	APC	Price
O2 REMOTE TO O2 DASH MOUNT	H1879	656	\$159.00

Microphones

Description

ADD: NO MICROPHONE NEEDED

Select this option when ordering W3 Handheld Control Head (G92/G72)
For Remote Monitor with XTL 5000 with W4/W5/W7/W9 you must order mic option G787.
For Remote Monitor with XTL 5000 O5 and XTL 2500 you must order mic option W20.

ADD: PALM MICROPHONE

Corresponding kit for: W4, W5, W7: HMN1080
Corresponding kit for: W9: HMN1081
Corresponding kit for: O5 and XTL2500: HMN1090

ADD: KEYPAD MIC (GCAI)

Corresponding kit: HMN4079

Description	Nomenclature	APC	Price
G90		500	\$0.00

Description	Nomenclature	APC	Price
W22		500	\$72.00

Description	Nomenclature	APC	Price
W20		514	\$180.00

9: Speakers (OPTIONAL)

Description

ADD: SPKR 15W WATER RESISTANT

ADD: NO SPEAKER NEEDED

ADD: AUXILARY SPKR 7.5 WATT

Corresponding kit: HSN4031.

ADD: AUXILARY SPKR 13W (3.2OHM)

Description	Nomenclature	APC	Price
G831		656	\$60.00

Description	Nomenclature	APC	Price
G142		656	\$0.00

Description	Nomenclature	APC	Price
B18		656	\$60.00

Description	Nomenclature	APC	Price
W432		656	\$71.50

Section G: Remote Control Head Replacement

PLEASE READ ALL ALLIED MODEL AND OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

Remote Control Head Replacement

The APX 4500 Remote Control Head Replacement model provide the following:

- QTY 1: **REMOTE** mount control head assembly that includes a control head + flex cable + control head interface board rear housing (CHIB)
- Qty 1: Remote Control Head Power cable (HKN6188)
- Qty 1: Remote Control Head Mounting trunion and hardware
 - Qty 1: Manual CD and dust cover kit
 - OPTION: Must select a microphone option
 - OPTION: Must select a speaker option
 - OPTION: Must select a remote cable option

THE ALLIED SALES MODEL BELOW DOES NOT INCLUDE A FLASH FIRMWARE REFRESH. PLEASE SEE [FLASH UPGRADE PRICE PAGE](#) *
 FIRMWARE VERSION R09.00.00 OR HIGHER IS REQUIRED.**

TBD

Microphones
(Must Select One and Only One)

Description	Nomenclature	APC	Price
ADD: NO MICROPHONE NEEDED Select this option when ordering W3 Handheld Control Head (G92/G72) For Remote Monitor with XTL 5000 with W4/W5/W7/W9 you must order mic option G787. For Remote Monitor with XTL 5000 O5 and XTL 2500 you must order mic option W20.	G90	500	\$0.00
ADD: PALM MICROPHONE Corresponding kit for W4, W5, W7: HMN1080 Corresponding kit for W9: HMN1081 Corresponding kit for O5 and XTL2500: HMN1080	W22	500	\$72.00
ADD: KEYPAD MIC (GCAI) Corresponding kit: HMN4079	W20	514	\$180.00

Speakers
(Must Select One and Only One)

Description	Nomenclature	APC	Price
DEL: OMIT SPEAKER	G142	500	\$0.00
ADD: AUXILIARY SPKR SPECTRA 7.5 WATT Corresponding kit: HSN4031.	B18	500	\$60.00
ADD: INCREASED AUDIO POWER 13W Corresponding kit: HSN4032. NOT COMPATIBLE with W665 Control Station and Motorcycle Configuration.	W432	500	\$71.50
ADD: SPKR 7.5W WATER RESISANT Corresponding kit: HSN4038	G832	656	\$60.50

Remote Mount Cables
(Must Select One and Only One)

Description	Nomenclature	APC	Price
DEL: NO REMOTE CABLE NEEDED	GA00179	500	\$0.00
ADD: REMOTE MOUNT CABLE ? 3 METERS (10 FT) Corresponding kit: HKN6170	G618	514	\$10.00
ADD: REMOTE MOUNT CABLE 17 FT Corresponding kit: HKN6169	G628	514	\$15.00
ADD: REMOTE MOUNT CABLE ? 10 METERS (30 FT) Corresponding kit: HKN6168	G610	514	\$25.00
ADD: REMOTE MOUNT CABLE ? 15 METERS (50 FT) Corresponding kit: HKN6167	G609	514	\$35.00
ADD: REMOTE MOUNT CABLE ? 23 METERS (75 FT) Corresponding kit: HKN6166A	G607	514	\$45.00
ADD: REMOTE MOUNT CABLE ? 35 METERS (115 FT) Corresponding kit: HKN6165	G879	514	\$55.00
ADD: REMOTE MOUNT CABLE ? 40 METERS (131 FT) ***For Dual/Tri/Quad configurations, the total cable length may not be greater than 131 ft (40 meters). Therefore, this cable should not be used with a dual, tri, or quad control radio*** Corresponding kit: HKN6164	G582	514	\$65.00

**Control Station Radio
Radio Model: MOTOROLA APX 4500**

Included? Y/N		Control Station radio operating in the 700/800MHz frequency band.
Y		Convention Analog Operation
Y		P25 Conventional Operation
Y		APCO P25 Phase I trunked radio
Y		Software Upgradeable to APCO P25 Phase II
Y		Minimum 32 conventional channels
Y		Minimum 256 system/talkgroups
Y		Programmable time-out-timer
Y		Digital and analog talk-around
Y		Individual call
Y		Emergency operation
Y		Group scan
Y		PC programmable
Y		Alphanumeric display on the face of the radio
Y		Back lighting of display with dimmer control
Y		Encryption, AES multi-key (min. 15 key capacity)
Y (1 KNOB FOR VOLUME/CHSELECT)		On/off volume knob
Y		16 position rotary knob with stops
Y		Advanced System Key
Y		Dynamic regrouping capable
Y		Mil Specs 810C, D, E, F, and G
Y		Mixed Mode Operation (Trunked talk groups and Conventional Channels in the same bank of frequencies)
	One Time Discounts	
		Cost per Radio
		Cost for 50 radios
		Cost for 100 radios
		Cost for 160 radios
All pricing and discount information to be provided at auction event on January 14 th		

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO



BE BETTER EQUIPPED TO BE MISSION READY.

APX™ 4500 PROJECT 25 MOBILE RADIO

A downed power line or the city transit system coming to a halt during rush hour, when the unexpected strikes, you must interoperate seamlessly and securely with other agencies and responders – often across multiple Project 25 (P25) systems. You need to instantly connect and be informed to make better decisions and respond effectively. While the advanced technology of APX™ radios expertly equips you for the unexpected, your organization may be challenged to improve operating expenses.

That's where the APX 4500 P25 mobile radio fits the bill perfectly. It delivers all the benefits of TDMA technology in a compact P25 capable mobile. The APX 4500 brings together powerful technology in an easy-to-use radio that's easy on your budget. It seamlessly unifies public works, utility, rural public safety and transportation users to first responders so they can communicate effectively in the moments that matter.

CONVENIENTLY SMALL, EASY TO INSTALL

The APX 4500 is designed to get the job done without getting in the way. A simplified dash mount design makes installation quick and easy, fitting into the existing XTL™ footprint so you can reuse mounting holes and cables.

KEEPS CREWS IN TOUCH, AND UP TO THE MINUTE

Safety runs in the APX family and the APX 4500 mobile is no exception. Like all our APX P25 radios trusted by responders worldwide, the APX 4500 mobile redefines safety. Your crews can count on quick, seamless interoperability and extended range – whether they are talking from the top of a pole or the bottom of a trench. You can depend on AES encryption for secure, tamperproof voice and data communications every time they connect.

With integrated GPS in the APX 4500, you can keep an eye on workers and assets you can't see, tracking their locations continuously. The O2 control head with color display is easy to read and operate in all lighting conditions, from bright sunlight to dark streets. The intelligent lighting on the O2 control head notifies your workers when a call is received, an emergency arises, or when they are out of range. Plus, an enlarged multifunction knob makes it easy to use talk-group and volume settings when they're wearing gloves.

Over-the-air programming on the APX 4500 keeps your crews current in the field. You can update the latest mobile without interrupting voice communications while they work.

SIZES DISPLAYED ARE APPROXIMATE

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO



APX™ 4500 SPECIFICATIONS

FEATURES AND BENEFITS:

Available in 700/800 MHz, VHF, UHF, UHF/F, UHF/F2, and 900 MHz.
 Supports NACS band (901-902 MHz and 940-941 MHz)

Channels: Standard 512

Trunking Standards supported:

- Clear or digital encrypted Trunked Operation
- Capable of SmartZone®, SmartZone Omnilink, SmartNet®

Analog MDC-1200 and Digital APCO P25
 Conventional System Configurations

Narrow and wide bandwidth digital receiver
 (6.25kHz/12.5kHz/25kHz/30 kHz)

Embedded digital signaling (ASTRO and ASTRO 25)

Integrated GPS capable

Integrated Encryption Hardware

Intelligent lighting

Radio profiles

Unified Call List

Meets applicable MIL-STD 810C, D, E, F, G

Ships standard IP56

Utilizes Windows XP, Vista and Windows 7
 Customer Programming Software (CPS)

- Supports USB Communications
- Built in FLASHport™ support

Re-use of most XT™ accessories, plus new
 IMPRES accessories

OPTIONAL FEATURES:

AES Encryption

Programming over Project 25 (POP25)

Text Messaging

12 character RF ID asset tracking

Tactical OTAR

APX 4500 CONTROL HEAD PORTFOLIO



02 RUGGED CONTROL HEAD

- Large color display with intelligent lighting
- 3 lines of text 14 characters max / 1 line of icons / 1 line of menus
- Built in 7.5 watt speaker
- Multifunction volume/channel knob
- Night/day mode button

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2	900 MHz
Frequency Range/Bandwidth	764-776 MHz 784-806 MHz	806-824 MHz 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz	896-902 MHz 935-941 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj. (2-3 Watts (iterant))	2-30 Watts	2-35 Watts	1-50 Watts	1-40 Watts	1-45 Watts (450-485 MHz) 1-40 Watts (485-512 MHz) 1-25 Watts (512-520 MHz)	1-30W 896-901MHz 935-940MHz 1-3W 901-902MHz 940-941MHz
Frequency Stability (-30°C to +60°C; +25°C Ref.)	0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM	±0.8 PPM
Modulation Limiting	±5 kHz / ±2.5 kHz	±5 kHz / ±4 kHz (NPS/AC)	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±2.5 kHz
Modulation Fidelity (CAFM) 12.5kHz Digital Channel	1.5%	1.5%	2.5%	1.1%	1.1%	1.5%
Emissions*	Conducted+ -75/-85 dBc	Radiated+ -20/-40 dBm	Conducted -85 dBc	Radiated -20 dBm	Conducted -85 dBc	Radiated -20 dBm
Audio Response*	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)	+1, -3 dB (EIA)
FM Hum & Noise	25 & 20 kHz 12.5 kHz	-50 dB -48 dB	-52 dB -51 dB	-51 dB -48 dB	-51 dB -48 dB	-45 dB
Audio Distortion*	25 & 20 kHz 12.5 kHz	0.50% 0.50%	0.50% 0.50%	0.50% 0.50%	0.50% 0.50%	0.80%

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2	900 MHz
Frequency Range/Bandwidth	764-776 MHz	851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz	935-941 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at 3% distortion	7.5 W or 15 W ++	7.5 W or 15 W ++	7.5 W or 15 W ++	7.5 W or 15 W ++	7.5 W or 15 W ++	7.5 W or 15 W ++
Frequency Stability (-30°C to +60°C; +25°C Ref.)	±0.00008%	±0.00008%	±0.00008%	±0.00008%	±0.00008%	±0.8 PPM
Audio Sensitivity*	12 dB SINAD	-120 dBm	Standard -119 dBm	Standard -119 dBm	Standard -119 dBm	Standard -120 dBm
Digital Sensitivity	5% BER	-121 dBm	-123 dBm	-123 dBm	-123 dBm	-123 dBm
Intermodulation	25 kHz 12.5 kHz	82 dB 82 dB	82 dB 83 dB	81 dB 82 dB	81 dB 82 dB	82 dB
Spurious Rejection	91 dB	91 dB	95 dB	91 dB	91 dB	91 dB
Audio Distortion (at rated)	1.20%	1.20%	1.20%	1.20%	1.20%	2%
Selectivity*	25 kHz 12.5 kHz 30 kHz	85 dB 75 dB	85 dB 75 dB 90 dB	85 dB 75 dB	85 dB 75 dB	74 dB

DIMENSIONS

	Inches	Millimeters
Mid Power Radio Transceiver	2 x 7 x 8.4	50.8 x 178 x 163
O2 Control Head	2.7 x 8.1 x 2.1	69 x 207 x 53
Mid Power Radio Transceiver and O2 Control Head - Dash Mount	2.7 x 8.1 x 8.8	69 x 207 x 223
Mid Power Radio Transceiver and O2 Control Head Weight	5.28 lbs	2.45 kg

RADIO MODELS

700/800 (764-870 MHz)	M2ZURSPW1AN
VHF (136-174 MHz)	M2ZKSSPW1AN
UHF Range 1 (380-470 MHz)	M2ZOSSPW1AN
UHF Range 2 (450-520 MHz)	M2ZSSSPW1AN
900 MHz (896-941 MHz)	M2ZWRSPPW1AN

SIGNALING (ASTRO MODE)

Signaling Rate	9.6 kbps
Distortion Cancellation	10 dB to 100 dB (Nominal) / 40 dB (Typical)

GPS SPECIFICATIONS

Channels	12
Tracking Constellation	1575 dBm

PRODUCT SPEC SHEET
APX™ 4500 MOBILE RADIO

POWER AND BATTERY DRAIN

Model Type	13B-174 MHz, 3B0-470 MHz, 450-520 MHz, 764-870 MHz, 896-941MHz
Minimum RF Power Output	2-30 Watts (764-776 MHz), 2-30 Watts (794-806 MHz), 2-35 Watts (806-824 MHz), 2-35 Watts (851-870 MHz), 1-50 Watts (13B-174 MHz), 1-40 Watts (3B0-470 MHz), 1-45 Watts (450-485 MHz), 1-40 Watts (485-512 MHz), 1-40 Watts (512-520 MHz), 1-25 Watts (572-520 MHz), 1-30Watts (896-901MHz), 1-30Watts (901-902MHz), 1-30W (935-940MHz), 1-3Watts (940-941MHz)
Operation	13.8V DC ±20% Negative Ground
Standby at 13.8V	0.85A (764-870 MHz), 0.85A (13B-174 MHz), 0.85A (3B0-470 MHz), 0.85A (450-520 MHz), 0.85A (896-941MHz)
Receive Current at Rated Audio at 13.8V	3.2A (764-870 MHz), 3.2A (13B-174 MHz), 3.2A (3B0-470 MHz), 3.2A (450-520 MHz), 3.2A (896-941MHz)
Transmit Current (A) at Rated Power	13B-174 MHz (1-50 Watts) 13A (50W) 8A (15W) 764-870 MHz (2***-35W) 12A (35W) 8A (15W) 3B0-470 MHz (1-40 Watts) 11A (40W) 8A (15W) 896-901MHz (1-30W) 10A (30W) 7A (15W) 450-520 MHz (1-45 Watts) 11A (45W) 8A (15W) 925-940MHz (1-30W) 10A (30W) 7A (15W) 901-902MHz (1-3W) 5A (3W) 940-941MHz (1-3W) 5A (3W)

MOBILE MILITARY STANDARDS 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

	MIL-STD 810C	MIL-STD 810D	MIL-STD 810E	MIL-STD 810F	MIL-STD 810G
	Method	Proc./Cat.	Method	Proc./Cat.	Method
Low Pressure	500.1	I	500.2	II	500.5
High Temperature Storage	501.1	I	501.2	I/A1	501.5
High Temperature Operation	501.1	II	501.2	II/A1	501.5
Low Temperature Storage	502.1	I	502.2	I/C3	502.5
Low Temperature Operation	502.1	I	502.2	II/C1	502.5
Temperature Shock	503.1	-	503.2	I/A1-C3	503.5
Solar Radiation	505.1	II	505.2	I	505.5
Rain Blowing	506.1	I	506.2	I	506.5
Rain Steady	506.1	II	506.2	II	506.5
Humidity	507.1	II	507.2	II	507.5
Salt Fog	508.1	-	508.2	-	508.5
Blowing Dust	510.1	I	510.2	I	510.5
Blowing Sand		-	510.2	II	510.5
Vibration Min. Integrity	514.2	VIII/E, Curve-W	514.3	I/10	514.6
Vibration Loose Cargo	514.2	XI	514.3	II/3	514.6
Shock Functional	516.2	I	516.3	I	516.6

ENCRYPTION

	AES and ADP	ENVIRONMENTAL SPECIFICATIONS
Supported Encryption Algorithms	Single	Operating Temperature -30°C / +60°C
Encryption Algorithm Capacity	16	Storage Temperature -40°C / +85°C
Encryption Keys per Radio	Module capable of storing 1024 keys. Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PID)	Humidity Per MIL-STD
Encryption Frame Re-sync Interval	F25 CAI 300 mSec	IEC 801-2 KV
Encryption Keying	Key Loader	Water and Dust Intrusion IP56, MIL-STD
Synchronization	XL - Counter Addressing, OFB - Output Feedback	
Vector Generator	National Institute of Standards and Technology (NIST) approved random number generator	
Encryption Type	Digital	
Key Storage	Temper protected volatile or non-volatile memory	
Key Erasure	Keyboard command and tamper detection	
Standards	FIPS 140-2 Level 3 FIPS 197	

TRANS MILITARY CERTIFICATION

700/800 (764-775, 793-805, 806-824, 851-869 MHz)	AZ492FT7055
VHF (136-174 MHz)	AZ492FT4916
UHF R1 (380-470 MHz)	AZ492FT4915
UHF R2 (450-520 MHz)	AZ492FT4916
900 MHz (896-901, 901-902, 935-940, 940-941 MHz)	AZ492FT5865

FCC EMISSIONS DESIGNATORS

FCC Emissions Designators	8K10F1D, 8K10F1E, 8K10F1W,
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* Measured in the analog mode per TIA/EIA 603 under normal conditions
 ** Accuracy specs are for long-term tracking (95th percentile values >5 satellites, visible at a nominal -130 dBm signal strength)
 *** 2 W, 1600 frequencies.
 + Specs includes performance for the non-GNSS/GNSS bands



Guideline

******NOTE: APX 4500 digital radios require either a SOFTWARE KEY (QA01749) OR HARDWARE KEY (QA01648) to be ordered to operate/program on a trunking system. IF QA01648- HARDWARE KEY is ORDERED, SUPPLEMENTAL DATA is required to be entered. Please be sure the CORRECT SYSTEM ID is entered. If an incorrect ID is entered, FLASHport will need to be ordered to FIX this error. ******

<http://ecat.comm.mot.com/ecat/pricebooks/dup/ASK.htm>

Online APX4500 Resources:

[APX4500 Wiki Page](#)

APX4500 is not approved for use on motorcycle configurations.

Please be sure to use the most current version of Motorola APX Customer Programming Software (CPS) when programming new radios

****Please note that NEW version of Customer Programming Software (CPS) (Part #RVN5224) is required for initial customer orders for APX radios. ****

**** APX CPS version R12.00.00 and greater ordered after June 2014 will only support Windows 7 and 8. ****

Section A: Required Main Model and Options

For standard Radio Operation (including Motorcycle) Steps 1 - 10 **must be selected.**

PLEASE READ ALL OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

1: Main Model (Must Select One)

Low/Mid Power

Description	Nomenclature	APC	Price
APX4500 7/800	M22URS9PW1 N	471	\$1,099.00
APX4500 VHF	M22KSS9PW1 N	471	\$1,099.00
APX4500 UHF R1	M22QSS9PW1 N	471	\$1,099.00
APX4500 UHF R2	M22SS9PW1 N	471	\$1,099.00
APX4500 900MHZ	M22WRS9PW1 N	471	\$1,099.00

2: Software Packages (Must Select One)

Description	Nomenclature	APC	Price
ADD: 3600 OR 9600 TRUNKING BAUD SINGLE SYSTEM Software Package INCLUDES: Digital 3600 or 9600 Baud (CPS Configurable), SmartZone, and OmniLink. When ordering	QA02756	471	\$1,570.00

Description
 ADD: APX O2 CONTROL HEAD (Grey)

Nomenclature
 GA00804

APC
 656

Price
 \$492.00

O2 Control Head Colored Housing Trigger

FOR THE IMPACT GREEN HOUSING YOU MUST STILL ORDER GA00804 ALONG WITH G201

Description
 ADD: IMPACT GREEN COLOR HOUSING (O2)
 When ordered in conjunction with GA00804 you will get a green colored O2 housing.

Nomenclature
 G201

APC
 656

Price
 \$25.00

5: Control Head Software

Description
 ADD: APX CONTROL HEAD SOFTWARE

Nomenclature
 G444

APC
 656

Price
 \$0.00

6: Mounting (Must Select One for Mid Power Models)

If a remote mount cable other than 5 meters (17ft) is desired for G67, please reference the "Remote Mount Cables" section below in Section C: Optional Features

Description
 ADD: DASH MOUNT
 Required for Control Station Operation. O3 Dash mount is identical to remote mount minus the 177 extension cable PMLN4958A

Nomenclature
 G66

APC
 500

Price
 \$125.00

Description
 ADD: REMOTE MOUNT O2 VVWM

Nomenclature
 G67

APC
 656

Price
 \$297.00

7: RF Antenna

No Antenna Needed is Valid For All Bands

Description
 ADD: NO RF ANTENNA NEEDED

Nomenclature
 G89

APC
 656

Price
 \$0.00

7/800

Description
 ADD: ANT 3DB LOW-PROFILE 762-870
 Motorcycle Approved
 Corresponding kit: HAF4013
 Corresponding Motorcycle Kit: HAF4018

Nomenclature
 G174

APC
 471

Price
 \$43.00

ADD: ANT 3DB ELEVATED FEED 762-870
 Not Compatible with Motorcycle
 Corresponding kit: HAF4014.
 ADD: ANT 1/4 WAVE 762-870MHZ
 Motorcycle Approved
 Corresponding Motorcycle kit: HAF4015
 Corresponding kit: HAF4016
 ALT: ANT 3DB GAIN 762-870MHZ
 Not Compatible with Motorcycle.
 Corresponding kit: HAF4017.

VHF

Description
 ADD: 3BD ANT 136-174MHZ
 ADD: 1/4 WAVE WHIP ROOF TOP 136-144
 Corresponding kit: HAD4006
 ADD: 1/4 WAVE ROOF TOP 144-150.8
 Corresponding kit: HAD4007
 ADD: 1/4 WAVE ROOF TOP 150.8-162
 Corresponding kit: HAD4008
 Corresponding Motorcycle kit: RAD4004ARB
 ADD: 1/4 WAVE ROOF TOP ANT VHF
 Corresponding kit: HAD4009
 ADD: 1/4 WAVE BROADBAND ANT 146-174
 Corresponding kit: HAD4017.
 ADD: VHF ANT WIDEBAND 136-174 MHZ
 Corresponding kit: HAD4021.
 ALT: 1/4 WV BDBD ANT 136-162 MHZ

G175	471	\$75.00
G335	471	\$14.00
W484	471	\$38.00

Nomenclature	APC	Price
G301	471	\$38.50
G296	471	\$13.50
G297	471	\$13.50
G299	656	\$19.50
G300	471	\$13.50
G629	471	\$64.00
G792	471	\$75.00
W652	471	\$47.75

UHF R1

Description
 ADD: ANT 3.5DB 380-420 MHZ MAXRAD
 Not Compatible with Motorcycle
 Corresponding kit: HAE8010.
 ADD: ANT 5.0DB 380-420 MHZ MAXRAD
 Not Compatible with Motorcycle
 Corresponding kit: HAE8011.
 ADD: ANT 5.0DB 445-470 MHZ
 Not Compatible with Motorcycle

Nomenclature	APC	Price
G427	656	\$55.00
G429	656	\$62.00
G430	656	\$110.00

Corresponding kit: RAE4014ARB.				
ADD: ANT 1/4 WAVE WHIP 380-420 MHZ		G425	656	\$25.00
Not Compatible with Motorcycle Corresponding kit: HAE6012.				
DESIGN MODIFICATIONS ARE BEING MADE TO THIS ANTENNA. THE NEW DESIGN INCLUDES TITANIUM BLACK PLATING, TEARDROP TOP, AND GOLD BUTTON PLATING.				
ADD: ANT 1/4 WAVE WHIP 450-470 MHZ		G426	656	\$25.00
Not Compatible with Motorcycle TEMPORARY: Not compatible with U2-7/800 Bandsplit. Corresponding kit: HAE4003.				
ADD: ANT 3.5DB 450-470 MHZ		G428	656	\$50.00
Not Compatible with Motorcycle Corresponding kit: HAE4011.				
ADD: ANT WIDEBAND 380-470 MHZ MAXRA		G431	656	\$58.00
Not Compatible with Motorcycle Corresponding kit: HAE6013.				
ADD: ANT 2DB WIDEBAND 380-520 MHZ		GA00505	656	\$50.00
TEMPORARY: Not compatible with U2-7/800 Bandsplit. Corresponding kit: HAE6031_				

UHF R2

Description	Nomenclature	APC	Price
ADD: ANT 5.0DB 445-470 MHZ	G430	656	\$110.00
Not Compatible with Motorcycle Corresponding kit: RAE4014ARB.			
ADD: ANT 1/4 WAVE WHIP 450-470 MHZ	G426	656	\$25.00
Not Compatible with Motorcycle TEMPORARY: Not compatible with U2-7/800 Bandsplit. Corresponding kit: HAE4003.			
ADD: ANT 3.5DB 450-470 MHZ	G428	656	\$50.00
Not Compatible with Motorcycle Corresponding kit: HAE4011.			
ADD: 5DB GAIN ANT 494-512 MHZ	G486	656	\$58.00
Not Compatible with Motorcycle Corresponding kit: RAE4016ARB.			
ADD: ANT 1/4 WAVE 470-512 MHZ	G490	656	\$14.00
Not Compatible with Motorcycle Corresponding kit: HAE4004.			
ADD: ANT 3 DB ROOF TOP 470-495 MHZ	G493	656	\$33.00
Not Compatible with Motorcycle Corresponding kit: HAE4012.			
ADD: ANT 3 DB ROOF TOP 494-512 MHZ	G494	656	\$33.00
Not Compatible with Motorcycle			

Corresponding kit: HAE4013.
ADD: ANT LOW PROFILE 450-512 MHZ
 Not Compatible with Motorcycle
 Corresponding kit: HAE6016
ADD: 2DB ANT WIDEBAND 450-520 MHZ
 TEMPORARY: Not compatible with U2-7/800 Bandsplit. Corresponding kit: HAE6015
 Corresponding Motorcycle kit: HAE6015
ADD: ANT 2DB WIDEBAND 380-520 MHZ
 TEMPORARY: Not compatible with U2-7/800 Bandsplit.
 Corresponding kit: HAE6031
ADD: ANT ROOF TOP 5 dB 470-494 MHZ
 Not Compatible with Motorcycle.
 Corresponding kit: RAE4015ARM.

900MHz

Description	Nomenclature	APC	Price
ADD: 900MHZ ANT 3DB LRT 14'	B925	722	\$43.00
ADD: 900MHZ ANT 3DB LRT 22'	B926	623	\$75.00

8: Microphones (Must Select One)

Description	Nomenclature	APC	Price
ADD: NO MICROPHONE NEEDED Select this option when ordering O3 Handheld Control Head (G72)	G90	656	\$0.00
ADD: PALM MICROPHONE Corresponding kit: HMN1090	W22	656	\$72.00
ADD: KEYPAD MIC GCAI Corresponding kit: HMN4079	W20	656	\$180.00
ADD: CONTROL STATION DESK GCAI MIC Dash Mount Required Corresponding Kit: RMN5070	W382	656	\$169.00
ADD: HANDSET/HANGUP COILED CABLE Coiled Cable. No Toggle Switch Accessory Kit: HKN1017	G876	656	\$415.00
ADD: VISOR MIC REMOTE MOUNT Requires G235 Footswitch PTT. Kit Number: RMN5054_	W872	656	\$30.00
ADD: MODEL III GCAI KEYPAD HANDSET Corresponding kit: HMN4097A	GA00221	656	\$295.00

ADD: GOOSENECK PTT Requires W872 Visor Mic. Kit Number: HMN1087A	G233	656	\$56.00
ADD: HANDSET/HANGUP MIC ARMORED CABLE Armored Cable, No Toggle Switch Accessory Kit: HKN1018	W874	656	\$300.00
ADD: PTT FOOTSWITCH Requires W872 Visor Mic. Kit Number: GLN7278	G235	656	\$51.00
ADD: PUSHBUTTON PTT	GA00304	656	\$56.00

9: Speakers (Must Select One)

*****O2 Control Head includes a built in speaker. G142 should always be selected unless additional external speaker is required*****

*****G142 NO SPEAKER Required for Control Station*****

Description	Nomenclature	APC	Price
ADD: SPKR 15W WATER RESISTANT	G831	656	\$60.00
ADD: NO SPEAKER NEEDED	G142	656	\$0.00
ADD: AUXILARY SPKR 7.5 WATT Corresponding kit: HSN4031.	B18	656	\$60.00
ADD: AUXILARY SPKR 13W (3.2OHM)	W432	656	\$71.50

10: Service Options (Must Select One)

Description	Nomenclature	APC	Price
ENH: 1 YR SFS LITE	G400	185	\$64.00
ENH: 2 YR SFS LITE	G24	185	\$121.00
ENH: 3 YR SFS LITE	G398AU	185	\$152.00
ENH: 4 YR SFS LITE	GA00318	185	\$197.00

Provides 4 years of extended hardware repair coverage beginning after the standard warranty period expires. Repairs will be made only at the designated Motorola repair depot. Local services are not included. Motorola will pay the inbound shipping charges only with use of the Motorola designated delivery service. Motorola will pay for outbound shipping via Motorola's normal shipping methods. No discounts are allowed on this option.

ENH: SFS COMPREHENSIVE	GA00249AC	185	\$221.00
ENH: CANADA 3 YR SFS LITE	GA00314	386	\$200.00
ENH: CANADA 5 YR SFS LITE	GA00317	386	\$274.00
DEL:NO SFS-STD WARRANTYAPPLIES Provides no extended repair coverage after the standard warranty period expires	GA05100	185	\$0.00

Section B: Control Station Requirements

CONTROL STATION OPERATION

(Dash Mount Only)

I. First, you must review your selection of the following options from "Section 1: Required Options":

- Step 1 (Note: Main Model)
- Step 2 (Note: All listed options are compliant)
- Step 3 (Note: All listed options are compliant)
- Step 4 (Note: O2 Control Head is compatible with Control Station Application- Must only select one).
- Step 5 (Note: Must Select G444. The O2 Control Head Software is compatible with Control Station Application).
- Step 6 (Note: Must Select G66. Control Station operation is only offered in Dash mount configuration)
 - Step 7 (Note: All listed options are compliant)
- Step 8 (Note: Some Microphones are NOT compatible. Please read option description).
- Step 9 (Note: Must Select G142 - No Speaker Needed)

II. You Must Select W665. G91 is needed for control station operation, but is an optional purchase.

SPECIFIC CONTROL STATION OPTIONS

Control Station Operation and Power Supply

Description	Nomenclature	APC	Price
ADD: CONTROL STATION POWER SUPPLY	G91	656	\$269.00
ADD: BASE STATION APEXWWM	W665	656	\$70.00

III. Features listed in "Section C: Optional Features" are optional, if applicable. Please read the option's description to determine compatibility.

ASTRO Text Messaging Service

ASTRO Text Messaging Service is available on the ASTRO 25 APX 4500 mobile radio. Text Messaging Service (TMS) allows subscriber users to send and receive text messages to other subscribers or dispatch operators. Users can select messages and addresses from a predefined list or enter freeform text messages and addresses via the keypad. Text Messaging Service is available on ASTRO P25 IV&D Systems and Subscribers.

For full Text Messaging functionality, including freeform text messaging and addressing, must order an O2 Control Head with Keypad Microphone. O2 without the Keypad Microphone supports Limited Text Messaging functionality such as selecting predefined messages or addresses from a list programmed in the radio.

Ordering requirements for APX 4500 Mobile:

- Full functionality including free form messaging requires the Keypad Microphone (W20) for O2 Control Head
- Requires O2 Control Head (GA00804)
- QA02756 or Q811 must be ordered
- Packet Data Interface (W947)

NOTE: There is no specific option to order for the Text Messaging Service on the subscribers as the functionality is included in the Packet Data option.

Section C: Optional Features

The following options are **optional** and will provide additional capabilities, if required.

Note: On January 1, 2015, the list price on the following features: GPS (GA00229), IVD (W947) & TDMA (GA00580) will increase by \$50.

System Enhancement Options

Description	Nomenclature	APC	Price
ADD: MULTICAST VOTING SCAN This feature allows for voting of the Conventional Channels ONLY.	G387	656	\$200.00
ENH: OVER THE AIR PROVISIONING Compatible with P25 Trunking OR ASTRO Conventional only; There is NO Analog Functionality for this feature. Requires W947 Data option. To do in field POP25 programming must use Advanced System Key (DVN4046A). Single unit POP25 with batch programming for trunking configuration coming in future.	G996	656	\$100.00
ADD: ASTRO 25 INTEGRATED VOICE & DATA	W947	656	\$200.00
ENH: APX GPS ACTIVATION Requires IV&D Activation.	GA00229	656	\$100.00
ENH: TRUNKED RADIO TRACE/ REMOTE MO Trunked Radio Trace and Remote Monitor	G170	471	\$75.00

ADD: One Touch/Status Msg 471 \$75.00
 ADD: APX MOBILE RADIO AUTHENTICAT 527 \$100.00
 Requires P25 Trunking (G361)
 ADD: ENHANCED DATA 656 \$150.00
 Smartzone (H38/G51), Digital (Q806/G608), IV&D (Q947/W947)and P25 Trunking (Q361/G361) are required when ordering the Enhanced Data option
 ADD: SITE SELECTABLE ALERT FOR P25 TRUNKING 656 \$150.00
 ENH: ENHANCEMENT LEVEL 1 471 \$200.00

[Enhancement Level Reference Guide](#)

GPS Antennas

Selection is required when ordering GA00229, GPS Activation

Description	Nomenclature	APC	Price
ADD: NO GPS ANTENNA NEEDED	GA00235	656	\$0.00
ADD: GPS ANTENNA Corresponding kit: HAG4000	GA00226	656	\$75.00
ADD: GPS ANTENNA GLASS MT Corresponding kit: PMAN4001	GA00270	656	\$75.00

[GPS Outdoor Location Solution Overview](#)

Encryption Algorithms

All APX4500 Mobile Radios ship standard with Single Key Advanced Digital Privacy (ADP). Multiple algorithms are NOT supported on APX4500.
 ADP Privacy is not FIPS compliant - ADP Privacy not supported by OTAR - ADP is digital P25 conventional / P25 trunking only

Description	Nomenclature	APC	Price
ADD: MULTIPLE KEY ENCRYPTION OPERATION REQUIRED when using more than one encryption algorithm or encryption key.	W969	656	\$330.00
ADD: AES ENCRYPTION APX Requires P25 operation.	G843	656	\$475.00

Remote Mount Cables

(All cables are for 02 control head only)

(The 5 meter (17 FT) Cable Ships Standard)

Description

Description	Nomenclature	APC	Price
ADD: CBL REMOTE MOUNT 10 FEET Corresponding kit: HKN6170	G618	656	\$10.00
ADD: REMOTE MOUNT CBL 30 FEET Corresponding kit: HKN6168	G610	656	\$25.00
ADD: REMOTE MOUNT CBL 50 FEET Corresponding kit: HKN6167	G609	656	\$35.00
ADD: CBL REMOTE MOUNT 75 FEET Corresponding kit: HKN6166A	G607	656	\$45.00
ADD: REMOTE MOUNT CBL 115 FEET Corresponding kit: HKN6165	G879	656	\$55.00
ADD: REMOTE MOUNT CABLE 131 FT ***For Dual/Tri/Quad configurations, the total cable length may not be greater than 131 ft (40 meters). Therefore, this cable should not be used with a dual, tri, or quad control radio*** Corresponding kit: HKN6164	G582	656	\$65.00

MOTOROLA SIREN

NOTE: THE SIREN IS COMPATIBLE WITH REMOTE MOUNT APX AND XTL MOBILES WITH "O" SERIES CONTROL HEADS ONLY. THIS SIREN IS NOT COMPATIBLE WITH ANY "W" SERIES CONTROL HEADS

THE SIREN BASE MODEL TT2592, ONE CABLE AND THE SIREN MOUNTING HARDWARE TT0507 MUST ALWAYS BE ORDERED (THIS SIREN IS ORDERED AS A SEPARATE LINE ITEM, TT2592 IS THE MODEL)

DEK OPTIONS ARE AVAILABLE AS OPTIONS TO THE SUBSCRIBER AS SHOWN BELOW

Description

Description	Nomenclature	APC	Price
WHELEN/MOTOROLA SIREN	TT2592	571	\$395.00
SIREN HARDWARE INSTALL KIT	TT05707AA	571	\$20.00
ADD: SIREN TO RADIO CABLE (21-PIN D)	TT05900AA	571	\$65.00
SIREN TO DEK CABLE - O3 CONTROL HEAD ONLY	TT05709AA	571	\$78.00

This cable is only required when using the DEK together with an O3 control head

DEK

Description

Description	Nomenclature	APC	Price
ADD: DEK FOR WHELEN SIREN	GA00814	656	\$105.00

Corresponding kit: H1883A.

ADD: STATUS/MESSAGE 8

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1836A

ADD: STATUS/MESSAGE 16

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1839A

W355

656

\$475.00

W374

656

\$650.00

Direct Mode Entry

Description

ADD: 8 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1835A

ADD: 16 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1836A

ADD: 24 MODE DIRECT ENTRY

NOT compatible with O3 or Motorcycle Control Heads or W269 Siren/PA or other DEK or Direct Mode Entry Selections. Not compatible with Dash Mount configuration. Requires Remote Mount configuration.

CORRESPONDING KIT: H1837A

Nomenclature

W599

APC

656

Price

\$180.00

W614

656

\$360.00

W615

656

\$540.00

Auxiliary WILDCARD

Description

ADD: AUXILIARY SWITCH PANEL

Corresponding kit: HLN1196.
Remote Mount Required. NOT compatible with O3 control head or motorcycle.

Nomenclature

W591

APC

656

Price

\$165.00

Data Cables

Description

ADD: RS232 DATA INTFC CBL DASH

Nomenclature

G303

APC

656

Price

\$50.00

APX 4500 \ APX 4500/4500Li

8 FT RS232 DATA CABLE
 Corresponding kit: HKN6180A.
ADD: RS232 DATA INTFC CBL TRK
 20 FT RS232 DATA CABLE
 Corresponding kit: HKN6161A.
ADD: USB DATA INTFC CABLE-DASH
 6 FT USB W/IGNITION SENSE
 Corresponding kit: HKN6163B.
 Can be used to program APX Mobile Radios.
ADD:USB DATA INTFC CABLE-TRK
 16.5 FT USB W/IGNITION SENSE
 Corresponding kit: HKN6172B.
 Can be used to program APX Mobile Radios.

RF Modem

Description
ENH: ENABLE RF MODEM

The APX mobiles do not support Site Lens or System Watch. Therefore, the APX RF Modem function does not support the legacy System Watch or Site Lens applications. The APX RF Modem supports Conventional or 9600 Trunking only. Enabling the RF Modem in conventional mode allows provisioned APX portables to pass accountability data through the portable option Q445.

Emergency

Description
ADD: SCHOOL SERCUITY ENHANCEMENT PACKAGE
 Education O2 Emergency Push Button

RF ID Tag

Description
ADD: RFID LABEL

Service Options

Description
ENH: 1 YR SFS LITE
ENH: 2 YR SFS LITE
ENH: 3 YR SFS LITE
ENH: 4 YR SFS LITE

Nomenclature	APC	Price
G304	656	\$50.00
G308	656	\$50.00
G309	656	\$50.00
Nomenclature	APC	Price
G319	656	\$0.00
Nomenclature	APC	Price
GA01056	656	\$50.00
Nomenclature	APC	Price
GA00268	656	\$15.00
Nomenclature	APC	Price
G400	185	\$64.00
G24	185	\$121.00
G398AU	185	\$152.00
GA00318	185	\$197.00

Provides 4 years of extended hardware repair coverage beginning after the standard warranty period expires. Repairs will be made only at the designated Motorola repair depot. Local services are not included. Motorola will pay the inbound shipping charges only with use of the Motorola designated delivery service. Motorola will pay for outbound shipping via Motorola's normal shipping methods. No discounts are allowed on this option.

ENH: SFS COMPREHENSIVE	GA00249AC	185	\$221.00
ENH: CANADA 3 YR SFS LITE	GA00314	386	\$200.00
ENH: CANADA 5 YR SFS LITE	GA00317	386	\$274.00

Amplifier

(***UHF and VHF Only***)

Description	Nomenclature	APC	Price
ADD: RF PREAMP	W12	656	\$66.00

Option applies only to VHF & UHF radios.

Test Results

Description	Nomenclature	APC	Price
ADD: PRINTED TEST RESULTS APEX	G799	656	\$10.00

Section D: Aftermarket Accessories

Antenna

7/800

Description	Nomenclature	APC	Price
ANTENNA (762-870 MHZ) 3DB LOW-PROFILE	HAF4013	554	\$43.00
ANTENNA (762-870 MHZ) 3DB ELEVATED FEED	HAF4014	500	\$75.00
ANTENNA (762-870 MHZ) 1/4 WAVE	HAF4016	500	\$23.00
ANTENNA (762-870 MHZ) 3DB GAIN COLLINEAR	HAF4017	500	\$38.00

VHF

Description	Nomenclature	APC	Price
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ANTENNA, VHF (136-144MHZ) 1/4 WAVE ROOF TOP High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal	HAD4006	554	\$19.50
ANTENNA, VHF (144-150.8 MHZ) 1/4 WAVE ROOF TOP High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal	HAD4007	554	\$19.50
ANTENNA, VHF (150.8-162 MHZ) 1/4 WAVE ROOF TOP High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal	HAD4008	554	\$19.50
ANTENNA, VHF (162-174 MHZ) 1/4 WAVE ROOF TOP High Band Quarter Wave Antenna. Roof Mount, Mini UHF Connector, Frequency Range: 132-174 MHz., Power: 150 Watts Max., Gain: Unity, VSWR: Less than 1.5:1, Impedance 50 Ohms, nominal	HAD4009	554	\$19.50
ANTENNA VHF 1/4 WAVE	RAD4002ARB	554	\$100.00
ANTENNA VHF 1/4 WAVE	RAD4004ARB	554	\$100.00
ANTENNA VHF 1/4 WAVE	RAD4005ARB	554	\$75.00
ANTENNA 132-174 3DB GAIN	HAD4022A	554	\$65.50
ANT ROOF MT WB VHF 146/174	HAD4017A	500	\$44.00

Adapters

Description	Nomenclature	APC	Price
AUDIO CABLE ADAPTER	HKN6158	500	\$49.00
ADAPTER CABLE DATA	HKN6159	500	\$49.00
KEYLOADING CABLE ADAPTER (GCAI) Used to adapt keypad cable TKN8531 for all APX 7500, APX,6500, APX4500, XTL 5000 and XTL 2500. Not compatible with XTL1500.	HKN6182	514	\$41.50

Control Station Tray and Power Supply

Description	Nomenclature	APC	Price
MOBILE DESK TRAY	HLN6042	617	\$77.00
PS 14V 10A 117/240 VAC	HPN4007C	500	\$296.00

Programming and Data Cables (Please see [CPS PART NUMBER GUIDE](#) for cable descriptions)

Description	Nomenclature	APC	Price
CABLE CH, PROGRAMMING,USB HKN6184C - Used to program the radio with Customer Programming Software and Tuner Software. Compatible with APX mobile radios.	HKN6184C	518	\$51.00

CABLE, DATA, USB, 4.5M, XTL5000 HKN6172B 500 \$85.00

DEK/VIP

Description	Nomenclature	APC	Price
AUDIO CABLE ADAPTER	HKN6158	500	\$49.00
ADAPTER CABLE DATA	HKN6159	500	\$49.00
KEYLOADING CABLE ADAPTER (GCAI)	HKN6182	514	\$41.50

Used to adapt keypad cable TKN8531 for all APX 7500, APX,6500, APX,4500, XTL 5000 and XTL 2500. Not compatible with XTL1500.

Emergency

Description	Nomenclature	APC	Price
EMERGENCY FOOT SWITCH	HLN5113	604	\$61.75

Microphones

Description	Nomenclature	APC	Price
XTL5000 KEYPAD MICROPHONE	HMN4079D	500	\$320.00
AS. SPECTRA & XTL5000 DESKTOP MIC	RMN5070A	706	\$172.00
HANDSET/HANGUP (HANGUP CUP)	HLN1457	706	\$285.00
MODEL III KEYPAD TELEPH HANDSET KIT	HMN4097A	706	\$295.00
PUSH BUTTON PTT	RLN5926A	706	\$39.00

Microphone Extension Cable

Description	Nomenclature	APC	Price
CABLE, MOBILE MIC EXTENSION, 10FT	PMKN4033A	706	\$42.00

Not for use with the W20 GCAI Microphone.

Power

Description	Nomenclature	APC	Price
POWER CABLE, 10 FT. (LOW/MID POWER) 30 & 35 WATT	HKN4191	412	\$18.00
POWER CABLE, 20 FOOT TO 12V BATTERY	HKN4192	508	\$38.25

VHF & UHF models.

CONTROL HEAD / IGNITION SENSE POWER CABLE

HKN6188

514

\$20.75

Speakers

Description

EXTERNAL WATER RESISTANT SPEAKER 15 WATTS

MCS EXT SPKR 13W

EXTERNAL 7.5 WATT WATER RESISTANT REMOTE MOUNT SPEAKER

Nomenclature

HSN4040A

HSN4032B

HSN4038

APC

795

500

476

Price

\$76.00

\$71.50

\$60.50

Manuals

*** Currently, the APX4500 O2 User Guide and the APX4500 O2 Install Manual can be downloaded from [MOL \(Motorola Online\)](#). ***
 *** These documents can be found in Resource Center > Product Information > Manuals > Two-Way Mobile ***

Section E: Control Head Conversion AND Retrofit Allied Sales Models

PLEASE READ ALL ALLIED MODEL AND OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

FYI: THE FOLLOWING ALLIED SALES MODELS ARE ORDERABLE VIA COF, MOL, AND R12 ONLY - THESE KITS ARE NOT STOCKED IN THE AFTERMARKET PARTS DIVISION

NOTE: IF YOU WOULD LIKE AN EXTENSION CABLE FOR YOUR O3 CONTROL HEAD TO MAKE YOUR O3 A REMOTE MOUNT, PLEASE ORDER H1849B. (IF ORDERING THIS KIT ALONG WITH ANOTHER ALLIED SALES MODEL, PLEASE ORDER THEM AS SEPARATE LINE ITEMS)

Control Head Conversion Allied Sales Models

APX RETROFIT ALLIED SALES MODELS

MID POWER

02 Dash Control Head Kit (Grey)

Description

O2 CH DASH (GREY) RETROFIT

Nomenclature

H1872

APC

656

Price

\$750.00

MID POWER O2 CONTROL HEAD DASH MOUNT TO O2 CONTROL HEAD REMOTE MOUNT

Description	Nomenclature	APC	Price
O2 DASH TO O2 REMOTE MOUNT	H1877	656	\$325.00

MID POWER O2 CONTROL HEAD REMOTE MOUNT TO O2 CONTROL HEAD DASH MOUNT

Description	Nomenclature	APC	Price
O2 REMOTE TO O2 DASH MOUNT	H1879	656	\$159.00

Microphones

Description

ADD: NO MICROPHONE NEEDED

Select this option when ordering W3 Handheld Control Head (G92/G72)
 For Remote Monitor with XTL 5000 with W4/W5/W7/W8 you must order mic option G787.
 For Remote Monitor with XTL 5000 O5 and XTL 2500 you must order mic option W20.

ADD: PALM MICROPHONE

Corresponding kit for W4, W5, W7: HMN1080
 Corresponding kit for W8: HMN1081
 Corresponding kit for O5 and XTL2500: HMN1080

ADD: KEYPAD MIC (GCAI)

Corresponding kit: HMN4078

Nomenclature	APC	Price
G90	500	\$0.00

Nomenclature	APC	Price
W22	500	\$72.00

Nomenclature	APC	Price
W20	514	\$180.00

9: Speakers (OPTIONAL)

Description

ADD: SPKR 15W WATER RESISTANT

ADD: NO SPEAKER NEEDED

ADD: AUXILIARY SPKR 7.5 WATT

Corresponding kit: HSN4031.

ADD: AUXILIARY SPKR 13W (3.2OHM)

Nomenclature	APC	Price
G831	656	\$60.00
G142	656	\$0.00
B18	656	\$60.00
W432	656	\$71.50

Section G: Remote Control Head Replacement

PLEASE READ ALL ALLIED MODEL AND OPTION DESCRIPTIONS BEFORE MAKING YOUR SELECTION

Remote Control Head Replacement

The APX 4500 Remote Control Head Replacement model provide the following:

- QTY 1: **REMOTE** mount control head assembly that includes a control head + flex cable + control head interface board rear housing (CHIB)
- Qty 1: Remote Control Head Power cable (HKN6188)
- Qty 1: Remote Control Head Mounting trunion and hardware
 - Qty 1: Manual CD and dust cover kit
 - OPTION: Must select a microphone option
 - OPTION: Must select a speaker option
 - OPTION: Must select a remote cable option

THE ALLIED SALES MODEL BELOW DOES NOT INCLUDE A FLASH FIRMWARE REFRESH. PLEASE SEE [FLASH UPGRADE PRICE PAGE](#) *
 FIRMWARE VERSION R09.00.00 OR HIGHER IS REQUIRED.**

TBD

Microphones
(Must Select One and Only One)

Description	Nomenclature	APC	Price
ADD: NO MICROPHONE NEEDED Select this option when ordering W3 Handheld Control Head (G92/G72) For Remote Monitor with XTL 5000 with W4/W5/W7/W9 you must order mic option G787. For Remote Monitor with XTL 5000 O5 and XTL 2500 you must order mic option W20.	G90	500	\$0.00
ADD: PALM MICROPHONE Corresponding kit for W4, W5, W7: HMN1080 Corresponding kit for W9: HMN1081 Corresponding kit for O5 and XTL2500: HMN1080	W22	500	\$72.00
ADD: KEYPAD MIC (GCAI) Corresponding kit: HMN4079	W20	514	\$180.00

Speakers
(Must Select One and Only One)

Description	Nomenclature	APC	Price
DEL: OMIT SPEAKER	G142	500	\$0.00
ADD: AUXILIARY SPKR SPECTRA 7.5 WATT Corresponding kit: HSN4031.	B18	500	\$60.00
ADD: INCREASED AUDIO POWER 13W Corresponding kit: HSN4032. NOT COMPATIBLE with W665 Control Station and Motorcycle Configuration.	W432	500	\$71.50
ADD: SPKR 7.5W WATER RESISANT Corresponding kit: HSN4038	G832	656	\$60.50

Remote Mount Cables
(Must Select One and Only One)

Description	Nomenclature	APC	Price
DEL: NO REMOTE CABLE NEEDED	GA00179	500	\$0.00
ADD: REMOTE MOUNT CABLE ? 3 METERS (10 FT) Corresponding kit: HKN6170	G618	514	\$10.00
ADD: REMOTE MOUNT CABLE 17 FT Corresponding kit: HKN6189	G628	514	\$15.00
ADD: REMOTE MOUNT CABLE ? 10 METERS (30 FT) Corresponding kit: HKN6168	G610	514	\$25.00
ADD: REMOTE MOUNT CABLE ? 15 METERS (50 FT) Corresponding kit: HKN6167	G609	514	\$35.00
ADD: REMOTE MOUNT CABLE ? 23 METERS (75 FT) Corresponding kit: HKN6168A	G607	514	\$45.00
ADD: REMOTE MOUNT CABLE ? 35 METERS (115 FT) Corresponding kit: HKN6165	G879	514	\$55.00
ADD: REMOTE MOUNT CABLE ? 40 METERS (131 FT) ***For Dual/Tri/Quad configurations, the total cable length may not be greater than 131 ft (40 meters). Therefore, this cable should not be used with a dual, tri, or quad control radio*** Corresponding kit: HKN6164	G582	514	\$65.00

P25 DIGITAL VEHICULAR REPEATER SYSTEM



Firefighters need to reliably communicate with each other and be monitored and recorded by dispatch. However, dense structures, working below grade, or terrain can make communicating with fire teams challenging. The Futurecom P25 Digital Vehicular Repeater System (DVRS) is an ideal solution to keep firefighters connected.

The P25 DVRS is a small, rugged, self contained, 10W radio base station integrated with Motorola remote mount APX™ or XTL™ series mobile radios. It improves portable radio coverage for firefighters while keeping them connected to the network. The P25 DVRS is installed in a fire truck, battalion chief's vehicle or other fire apparatus.

Key Features & Benefits

- Programmable output power: 1-10 watts.
- Full duplex or simplex operation.
- P25 Digital / Analog operation.
- Available in VHF, UHF, 700 MHz and 800 MHz bands.
- In-Band or Cross-Band configurations.
- Integrates with remote mount APX™6500, APX™7500 XTL™2500 and XTL™5000 mobile radios.
- Operated through mobile radio control head.
- Superior multi-unit operation.
- Extends key P25 trunking features onto conventional simplex or duplex channel.
- Sold exclusively through Motorola Solutions.

Field proven by hundreds
of fire departments
around the world.



GENERAL SPECIFICATIONS



Dimensions: Height / Width / Depth / Weight

In-Band, Full Duplex / Simplex, 700 & 800MHz

DVR & Duplexer Housing:

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

Filter Housing:

108.9 mm (4.3") x 186 mm (7.3") x 315 mm (12.4")

36.4 lbs (17.4 Kg)

In-Band, Full Duplex / Simplex, VHF & UHF

DVR & Duplexer Housing:

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

Filter Housing:

187.2 mm (7.4") x 186 mm (7.3") x 315 mm (12.4")

VHF – 49.1 lbs (22.3 Kg)

UHF – 48.7 lbs (22.1 Kg)

Cross-Band, Simplex, VHF, UHF, 700MHz, 800MHz

95 mm (3.7") x 222.9 mm (8.8") x 315mm (12.4")

11.6 lbs (5.3 Kg)

Cross-Band, Full Duplex, VHF, UHF, 700MHz, 800MHz

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

VHF – 23.6 lbs (10.7 Kg)

UHF 22.5 lbs (10.2 Kg)

700/800 MHz – 22.9 lbs (10.4 Kg)

Operating Temperature

-30°C to +60°C

Channel Spacing

12.5 or 25 kHz programmable

Number of Channels

192

CTCSS / DCS

Programmable per channel

Power Supply

13.8V DC +/- 20%, negative ground only

DC Current Drain (DVR Only):

DVR Off

0.01 A Max

DVR Standby

0.8 A Max

DVR Receive

1.7 A @ 7.5W Audio, 13.8V DC

Transmit

6.0 A Max @ 20W RF output at PA Output

Storage Temperature

-40°C to +85°C

Water and Dust Intrusion

IP54

Antenna Impedance

50 Ohms

External Connectors

Antenna

Mini UHF

Computer Interface

USB

Mobile Radio

20 pin male circular: RS232: 115 kbps max., +/- 3V min. input; 5 kOhm input / 300 Ohm output impedance

Analog audio ports: 200 kOhm input / 15 Ohm output impedance

DC Power

6 pin male circular

GENERAL SPECIFICATIONS



Equipment Type	Acceptance	VHF	UHF	700 MHz	800 MHz
FCC		136 – 174 MHz LO6-DVRSVHF	380-406 MHz 406.1-512 MHz LO6-DVRSUHF	764-776 MHz 794-806 MHz LO6-DVRS700	806-824 MHz 851-869 MHz LO6-DVRS800
Industry Canada		138 – 174 MHz 2098B-DVRSVHF	406.1-430 MHz 450-470 MHz 2098B-DVRSUHF	768-776 MHz 798-806 MHz 2098B-DVRS700	806-824 MHz 851-869 MHz 2098B-DVRS800
Transmitter Specifications					
Frequency Band [MHz]		VHF 136 – 174 MHz	UHF 380-430 MHz 450-470 MHz 470-512 MHz	700 MHz 764-776 MHz	800 MHz 851-869 MHz
Power Output @ Antenna Port		10 W (programmable per channel from 1W to 10W)			
CTC Option		15 sec to 15 min or Disabled			
Max Spurious Output		-20dBm			
Frequency Stability		+/- 1.5ppm			
(-30°C to +60°C; +25°C Ref.)		37 dB / 43 dB			
FM Hum and Noise		+1, -3 dB of 6 dB / octave pre-emphasis characteristic over 300 Hz – 3 kHz			
Audio Response		<2%			
Audio Distortion					
Receiver Specifications					
Frequency Band [MHz]		VHF 136 – 174 MHz	UHF 380-430 MHz 450-470 MHz 470-512 MHz	700 MHz 794-806 MHz 764-776 MHz	800 MHz 806-824 MHz 851-869 MHz
Receiver Sensitivity		-115 dBm			
Analog 12 dB SINAD		-115 dBm			
Digital P25 5% BER		+/- 1.5ppm			
Frequency Stability		60 dB / 75 dB			
(-30°C to +60°C; +25°C Ref.)		70 dB			
Selectivity 12.5 / 25 kHz		+/-2.5 kHz / +/-5 kHz			
Intermodulation		37 dB / 43 dB			
Deviation 12.5 / 25 kHz		600 mV RMS nominal, flat response			
FM Hum and Noise 12.5 / 25 kHz		+1, -3 dB of 6 dB / octave de-emphasis characteristic over 300 Hz – 3 kHz			
Audio Output (Repeater Detect Audio)		<2%			
Audio Response					
Audio Distortion					

GENERAL SPECIFICATIONS



MILITARY STANDARDS COMPLIANCE

- High Temperature
- Low Temperature
- Temperature Shock
- Rain
- Humidity
- Salt Fog
- Vibration
- Mechanical Shock

MIL-STD-810G

- 501.5
- 502.5
- 503.5
- 506.5
- 507.5
- 509.5
- 514.6
- 516.6

*Note: DVRs are also available in inoperable and fixed wall mount versions.
Specifications subject to change without notice.*



DIGITAL VEHICULAR REPEATER 800MHZ

[Ship Card](#)

General Information

[Functional Description for APX mobile applications \(Product Planner\)](#)
[Functional Description for XTL mobile applications \(Product Planner\)](#)

[DVR Ordering Guide](#)

[DVR Brochures](#)

[ASTRO DVR Wiki](#)

NEW! The APX mobile platform is now fully certified for integration with the DVR. Please note the new ordering options required to distinguish APX from XTL applications.

When operating in system mode, the DVR utilizes a special Interface between its host mobile in the following configurations:

XTL

- Remote Mount XTL 5000 with O3 or O5 control heads
- Remote Mount XTL 2500 with M5 control head
- If any ASTRO digital functionality will be used end-to-end, the mobiles will require the G806 option (ASTRO operation). This option is not required if operating in analog-only mode.

APX

- Remote Mount APX 6500 or APX 7500 with O2, O3, O5, O7, or O9 control heads
- Transportable configurations are not available for use with O9 control heads
- APX mobiles must be configured with the DVR MSU Activation option GA00631 when used as the host for the DVR.

General Ordering Information:

- One mobile Operation Mode options is required for all In-Band and Cross-Band DVR models (but not for Tactical DVRs which do not utilize a mobile)
- Subscriber units must be loaded with the most current version of software to enable all DVR features.
- APX Portable Radios operating through a DVR utilizing the enhanced DVR digital feature set, require subscriber option QA00631. No special option is required for XTS Portable Radios.
- The DVR programming software (called Tweaker) is compatible with Windows 2000, XP, and Windows 7. Vista has not been certified.
- Standard lead time for this product is approximately 10 weeks upon approved orders - See ordering requirements below.
- Vehicular Mount (Side-by-Side) units can be ordered with the DVR-to-Mobile cable from 3-25 ft in length. Please specify this value in the order entry process.
- Due to FCC regulations, Fixed Mount DVRs operating in the 806-809 / 851-854MHz range in the US and Canada require a mandatory High Stability Oscillator - item DQDVR1017. Fixed Mount DVRs operating from 809-816 / 854-861MHz do NOT require this extra option.
- High power VHF mobile radios - M20KTS9PW1 (XTL5000), M21KTM9PW1 (XTL2500), M25KTS9PW1 (APX6500), M30KTS9PW1 (APX7500) - are NOT compatible with Transportable or Fixed Mount DVR models.

For questions regarding appropriate DVR equipment lists or verifying frequency plans, you may contact Futurecom Systems Group directly at: sales@futurecom.com or 1-800-701-9180 (ask for DVR Sales Support)

The Ordering Guide link above gives a pictorial view of how the DVR needs to be isolated from the accompanying mobile. To prevent interference between the two devices, a certain amount of frequency separation is required. In-Band DVR orders require a manual validation step by the vendor to verify that the frequency plan can be accommodated by the standard DVR models listed below.

IMPORTANT NOTE: To ensure that the DVR solution will function properly once fielded, all DVR orders must be validated prior to manufacturing. The form linked below is required to complete this step in the sales process for all DVR orders, AND is required before any In-Band DVR model is released from E3 hold. [DVR Supplemental Frequency Information Form](#)

Models

Description	Nomenclature	APC	Price
800 MHZ DVR SIDE-BY-SIDE IN-BAND APPLICATION A - Vehicular Mount hardware - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz above the mobile frequencies, and no 700 mobile frequencies in use	TT1255	571	\$10,603.00
800 MHZ DVR SIDE-BY-SIDE IN-BAND APPLICATION B - Vehicular Mount hardware - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use	TT1256	571	\$10,603.00
800 MHZ DVR SIDE-BY-SIDE IN-BAND APPLICATION C - Vehicular Mount hardware - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz above the mobile frequencies, and no 700 mobile frequencies in use	TT1259	571	\$11,388.00
800 MHZ DVR SIDE-BY-SIDE IN-BAND APPLICATION E - Vehicular Mount hardware - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use	TT1261	571	\$11,388.00
800 MHZ DVR SIDE-BY-SIDE CROSS BAND APPLICATION A - Vehicular Mount hardware - Used with a UHF or VHF remote mount mobile	TT1262	571	\$8,592.00
800 MHZ DVR SIDE-BY-SIDE TACTICAL APPLICATION A - Vehicular Mount hardware - Standalone repeater (no mobile in use)	TT1263	571	\$8,099.00
800 MHZ DVR TRANSPORTABLE IN-BAND APPLICATION A - Suitcase mounted (DC or AC power) - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz above the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included	TT1264	571	\$12,677.00
800 MHZ DVR TRANSPORTABLE IN-BAND APPLICATION B - Suitcase mounted (DC or AC power) - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use - Mobile not included	TT1265	571	\$12,677.00
800 MHZ DVR TRANSPORTABLE IN-BAND APPLICATION C - Suitcase mounted (DC or AC power) - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz above the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included	TT1266	571	\$13,463.00
800 MHZ DVR TRANSPORTABLE IN-BAND APPLICATION D - Suitcase mounted (DC or AC power) - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz below the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included	TT1267	571	\$13,463.00
800 MHZ DVR TRANSPORTABLE IN-BAND APPLICATION E - Suitcase mounted (DC or AC power) - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use - Mobile not included	TT1268	571	\$13,463.00

<ul style="list-style-type: none"> - Suitcase mounted (DC or AC power) - Used with a UHF or VHF remote mount mobile <p>800 MHZ DVR TRANSPORTABLE TACTICAL APPLICATION A</p> <ul style="list-style-type: none"> - Suitcase mounted (DC or AC power) - Standalone repeater (no mobile in use) <p>800 MHZ DVR FIXED MOUNT IN BAND APPLICATION A</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz above the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included <p>800 MHZ DVR FIXED MOUNT IN BAND APPLICATION B</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 5MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use - Mobile not included <p>800 MHZ DVR FIXED MOUNT IN BAND APPLICATION C</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz above the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included <p>800 MHZ DVR FIXED MOUNT IN BAND APPLICATION D</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz below the mobile frequencies, and no 700 mobile frequencies in use - Mobile not included <p>800 MHZ DVR FIXED MOUNT IN BAND APPLICATION E</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a 700/800 remote mount mobile - DVR frequencies must be at least 3MHz below the 800 mobile frequencies, and 10MHz above the 700 mobile frequencies in use - Mobile not included <p>800 MHZ DVR FIXED MOUNT CROSS BAND APPLICATION A</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Used with a UHF or VHF remote mount mobile - Mobile not included <p>800 MHZ DVR FIXED MOUNT TACTICAL APPLICATION A</p> <ul style="list-style-type: none"> - Indoor wall mounted case (AC power) - Outdoor enclosure option available - Standalone repeater (no mobile in use) 	<p>TT1269</p> <p>TT1270</p> <p>TT1300</p> <p>TT1301</p> <p>TT1302</p> <p>TT1303</p> <p>TT1304</p> <p>TT1305</p> <p>TT1306</p>	<p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p> <p>571</p>	<p>\$10,667.00</p> <p>\$10,667.00</p> <p>\$13,033.00</p> <p>\$13,033.00</p> <p>\$13,819.00</p> <p>\$13,819.00</p> <p>\$13,819.00</p> <p>\$11,023.00</p> <p>\$11,023.00</p>
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Options

Operation Mode

	Nomenclature	APC	Price
DVR FOR USE WITH XTL MOBILE A mobile operation option is required for all In-Band and Cross-Band units. Software is loaded accordingly in the DVR. XTL capability is not-compatible with APX mobiles and vice-versa. Please select accurately.	TT05714AA	571	\$0.00
DVR FOR USE WITH SINGLE BAND APX MOBILE A mobile operation option is required for all In-Band and Cross-Band units. Software is loaded accordingly in the DVR. XTL capability is not-compatible with APX mobiles and vice-versa. Please select accurately. Use this option for single band APX mobiles OR dual-band capable APX mobiles that are only utilizing one band.	TT05715AA	571	\$0.00
DVR FOR USE WITH DUAL BAND APX MOBILE A mobile operation option is required for all In-Band and Cross-Band units. Software is loaded accordingly in the DVR. XTL capability is not-compatible with APX mobiles and vice-versa. Please select accurately. Use this option for dual-band capable APX mobiles that are utilizing both bands.	TT05716AA	571	\$0.00

Mounting

Description	Nomenclature	APC	Price
FIXED MOUNT OUTDOOR ENCLOSURE UPGRADE This is an option for Fixed Mount DVR models. Add as a sub-item when ordering.	TT05130AA	571	\$9,446.00
CROSS BAND FLAT MOUNT OPTION FOR XTL5000/XTL2500 RADIOS This is an option for Cross-Band DVR models. Add as a sub-item when ordering. Allows duplexer to be mounted beside the DVRS to reduce height for installations in pickups, under seats etc.	TT05131AA	571	\$159.00

Accessories

Antenna

Description	Nomenclature	APC	Price
800 MHZ UNITY GAIN ANTENNA FOR TRANSPORTABLE DVR	DDN9016	571	\$145.00
ANTENNA (762-870 MHZ) 1/4 WAVE	HAF4016	500	\$23.00

Battery Pack

Description	Nomenclature	APC	Price
BATTERY BACK UP FOR TRANSPORTABLE DVR MODELS Provides 2 hour operation based on 50/50 duty cycle.	DDN9011	571	\$3,241.00

Cable(s)

Description	Nomenclature	APC	Price
UPGRADE OPTION-DVR TO XTL Y CONTROL CABLE (3FT TO 25FT) This cable is ONLY ordered when upgrading a standard DDN9028 cable to the DDN9029 Y-version. It is a variable length cable from 3-25 ft. Please include required cable length in ordering notes.	DDN9012	571	\$59.00
SPARE DVR TO XTL CONTROL CABLE (3FT TO 25FT) This is a variable length cable from 3-25 ft. Please include required cable length in ordering notes.	DDN9028	571	\$352.00

Standard 3 ft. version of the cable is also available through the Parts Dept (AAD)
 SPARE DVR TO XTL Y CONTROL CABLE (3FT TO 25FT)
 This is a variable length cable from 3-25 ft. Please include required cable length in ordering notes.

DVR POWER CABLE	571	\$49.00
Spare. Cable is also available through the Parts Dept (AAD)		
DVR OPTIONS CABLE	571	\$153.00
Spare		
DVR RF SWITCH CABLE	571	\$75.00
Spare		
DVR RF CABLE DVR TO DVR NOTCH FILTER 3FT	571	\$55.00
Spare		
DVR RF CABLE MOBILE TO MOBILE NOTCH FILTER 3 FT	571	\$51.00
Spare		
SPARE EXTERNAL DC CABLE FOR TRANSPORTABLE DVR	571	\$272.00
Spare. Cable is also available through the Parts Dept (AAD)		
SPARE EXTERNAL AC CABLE FOR TRANSPORTABLE DVR	571	\$204.00
Spare. Cable is also available through the Parts Dept (AAD)		

Kits

Description	Nomenclature	APC	Price
MAINTENANCE MANUAL PROGRAMMING SOFTWARE & CABLE KIT FOR APX DVRs	DDN1577	571	\$578.00
DVR XTL TO APX CONVERSION KIT FOR VEHICULAR MOUNTED UNITS	DDN1715	571	\$500.00
DVR XTL TO SINGLE BAND APX CONVERSION KIT FOR TRANSPORTABLE UNITS	DDN1716	571	\$600.00
MAINTENANCE MANUAL PROGRAMMING SW & CBL KIT FOR XTL DVRs	DDN9009	571	\$578.00
This is a package that includes all the same material found in individual items DDN9024, DDN9025, and DDN9020.			

This kit contains the tools to configure & maintain the DVR. At least one of these is required for each customer or install site.
TACTICAL MAINT MANUAL PROGRAM SOFTWARE & CABLE KIT
 This is a package that includes all the same material found in individual items DDN9024, DDN9025, and DDN9026.

This kit contains the tools to configure & maintain the DVR. At least one of these is required for each customer or install site.

Programming

Description	Nomenclature	APC	Price
DVR PROGRAMMING SOFTWARE FOR APX DVRs	DDN1576	571	\$385.00
FACTORY PROGRAMMING FIRST UNIT	DDN9005	571	\$844.00
FACTORY PROGRAMMING EACH ADDITIONAL UNIT	DDN9006	571	\$33.00
DVR PROGRAMMING SW FOR XTL DVRs	DDN9024	571	\$394.00
DVR PROGRAMMING CABLE	DDN9025	571	\$36.00

Software Subscription Agreement

Description

SOFTWARE SUBSCRIPTION PER UNIT PER YEAR - FOR APX DVRS
SOFTWARE SUBSCRIPTION PER UNIT PER YEAR - FOR XTL DVRS

Nomenclature	APC	Price
DDN1578	571	\$130.00
DDN9007	571	\$130.00

Data Compiled 01-Dec-2014 using DUP and all prices in USD