MOTOROLA *SOLUTIONS*

APX™ VEHICULAR ADAPTER

The APX Vehicular Adapter provides customers the ability to adapt portable radios to operate in a vehicular environment and allows in-vehicle radio battery charging.

The Motorola **APX Vehicular Adapter (VA)** has been designed to pack a lot of features and functionality. When installed in a vehicle, the APX VA utilizes the mobile antenna providing **enhanced transmit** and **receive range.** The APX VA is powered by the vehicle's 12 volt battery and provides **charging** capabilities ensuring the radio is operational at all times and battery capacity is optimized for use outside the vehicle.

PURPOSEFUL DESIGN

The APX VA with its compact design is easy to install. Its open face design allows access to key radio controls as well as rapid radio insertion and removal. The mechanical locking feature holds the radio ensuring safety while driving. A key locks the radio in place providing security from theft.

ENHANCED CAPABILITIES

The APX VA has been designed for use with various accessory options. Mobile microphones and external push-to-talk buttons ensure that your eyes are on the road while giving you the ability to communicate smarter and safer while driving. The optional external speaker offers increased audio for improved communications even in loud environments.

CHARGING CAPABILITIES

With IMPRES functionality identical to our APX vehicular charger (NNTN7624), the VA keeps communication running at all times since the radio is fully operational even with a completely discharged battery. Charge status indication and microphone operating modes are displayed through a dedicated LED. The mobile microphone and optional external loudspeaker allow for safer operation of the portable radio in the APX VA.

RADIO FEATURES SUPPORTED

The APX VA also supports Motorola's Mission Critical Wireless portfolio and will allow an officer to continue to utilize the radios internal Bluetooth and communicate on his wireless earpiece or wireless remote speaker microphone when the portable is in the vehicular adapter.

The radio's compatible GPS antenna will continue to work with the APX vehicular adapter, given that the VA is installed in a location where a good GPS signal can be attained.

GENERAL

Kit Number	NNTN8527
Radio Compatibility	APX 8000, APX 8000XE, APX 6000, APX 6000Li, APX 6000XE, and SRX 2200
Battery Compatibility	NNTN7038, NNTN8092, PMNN4403, NNTN8182, PMNN4547, PMNN4485, PMNN4486, PMNN4504, NNTN8930, PMNN4547
Supply Voltage	
Nominal	13.8 Volts
Temperature	
Charging	+10°C to +40°C
Operating	-30°C to +60°C
Storage	-55°C to +85°C
Dimensions	
(L x W x H) in	10 x 5.4 x 3.3

Specification*	VHF	UHF (Band 1/Band 2)	7/800 MHz
Frequency Range (MHz)	136-174	380-470/450-520	RX: 764-776 / 851-870 TX: 764-776, 794-806 / 806-825, 851-870
Power (Watts)	6	5	3
Analog Sensitivity (12dB SINAD)	0.17µV	0.229/0.215µV	0.283µV

*Based on APX 6000 Radio Specification.

PERFORMANCE

Charge Time	Three Hours Maximum	
Vehicle Current	**Discharged Battery**	**Charged Battery**
Vehicle OFF (mAdc)	2	2 (If radio is out of the VA; 10mA if in)
Vehicle ON/Radio ON		
Radio Standby (mAdc)	1000	220
Radio Rx (mAdc)	1000	220
Radio Rx w/External Speaker (mAdc)	2000	1000
Radio Tx (mAdc)	1000	220
Audio Output		
Basic	500 mW (with less than 5% distortion)	
Optional External Speaker	7.5W (with less than 10% distortion)	

For optimum receiver sensitivity it is recommended that a 3 dB gain antenna with low-loss co-ax be ordered with 800 MHz systems.

DATA SHEET | APX VEHICULAR ADAPTER

ENVIRONMENTAL	
Low Temperature Operational	MIL-STD-810G, Method 502.5, Procedure II
High Temperature Operational	MIL-STD-810G, Method 501.5, Procedure II
Low Temperature Storage	MIL-STD-810G, Method 502.5, Procedure I, Category 3 (Severe Cold)
High Temperature Storage	MIL-STD-810G, Method 501.5, Procedure I-A1
Thermal Shock	MIL-STD-810G, Method 503.5, Procedure I - C
High Humidity Endurance	MIL-STD-810G, Method 507.5, Procedure II (507.5-7 Aggravated Temperature Cycle)
Shock Functional	MIL-STD-810G, Method 516.6, Procedure I
Shock Crash Hazard	MIL-STD-810G, Method 516.6, Procedure V
Shock Bench Handling	MIL-STD-810G, Method 516.6, Procedure VI
Life Cycle	100,000 cycles

APX VEHICULAR ADAPTER ORDERING GUIDE

VERIFY RADIO COMPATIBILITY
APX 8000
APX 8000XE
APX 6000
APX 6000XE
APX 6000Li
SRX2200

Radios require firmware version, R13.00.00 or later.
VHF radios must have RF PCB revision NUD7120DZ or later

VERIFY BATTERY COMPATIBILITY	
KIT NUMBER	DESCRIPTION
PMNN4485	IMPRES 2 Li-Ion 2550mAh battery, rugged, IP68
PMNN4486	IMPRES 2 Li-Ion 3400mAh typical, rugged, IP68
PMNN4504	IMPRES™2 Li-Ion Battery, 3400 mAh, UL2054 DIV2, rugged, IP68
NNTN8930	IMPRES 2 Li-Ion 2650 mAh battery, TIA 4950, rugged, IP68
PMNN4547	IMPRES 2 Li-Ion 3100 mAh battery, TIA4950, rugged, IP68
NNTN7038	Li-Ion IMPRES IP67 3100 mAh
NNTN8092	Li-Ion FM IMPRES Ruggedized 2350 mAh
PMNN4403	Li-Ion Slim IMPRES IP67 2150 mAh
NNTN8182	Li-Ion Ruggedized Military Coyote Brown 3100 mAh

ORDER THE APX VA NNTN8527
THE FOLLOWING ITEMS ARE INCLUDED WITH THE VEHICULAR ADAPTER

DESCRIPTION
Fused power cable
2 keys for the lock
Screws for attaching VA to the trunnion
Safety leaflet / quick start guide

A TRUNNION MOUNTING BRACKET IS REQUIRED FOR INSTALLATION	
UNLESS XTVA BRACKET IS AVAILABLE FOR REUSE	
KIT NUMBER	DESCRIPTION
NTN8940	Trunnion mounting bracket

AN EXTERNAL ANTENNA IS REQUIRED. SELECT FROM THE LIST OF COMPATIBLE ANTENNAS:	
KIT NUMBER	DESCRIPTION
HAD4006	¼-wave (136 – 144)
HAD4007	¼-wave (144 – 150.8)
HAD4008	¼-wave (150.8 – 162)
HAD4009	¼-wave (162 – 174)
HAD4021	Wideband (136 – 174)
HAD4022	3 dB gain (136 – 174)
HAE4003	¼-wave (450 – 470)
HAE4004	¼-wave (470 – 512)
HAE4011	3.5 dB gain (450 – 470)
HAE4013	3.5 dB gain (494 – 512)
HAE6010	3.5 dB gain (380 – 433)
HAE6011	5 dB gain (380 – 433)
HAE6012	¼-wave (380 – 433)
HAE6013	3 dB gain, Stubby (762 – 870)
HAF4013	3 dB gain, Stubby (762 – 870)
HAF4014	3 dB gain, Elevated Feed (762 – 870)
HAF4016	¼-wave (762 – 870)
HAF4017	3 dB gain, Co – Linear (762 – 870)

APX VEHICULAR ADAPTER ORDERING GUIDE

OPTIONAL ACCESSORIES ALLOW YOU TO CUSTOMIZE THE VA FOR YOUR APPLICATION

KIT NUMBER	DESCRIPTION
AUDIO ACCESSORIES	
CONNECTION OF THE BELOW AUDIO ACCESSORIES WILL REQUIRE THE HLN6961 MOBILE ACCESSORY PORT CONNECTOR AND 3980034F04 PINS.	
HMN1090	Handheld Palm Microphone
HMN4079	Keypad Microphone
RMN5054	IMPRES Visor Microphone
HSN4038	External Speaker, 7.5Watt
HLN5391	Microphone Hang-Up Clip
PMKN4093	Microphone Extension Cable, 2-feet for HMN1090
EXTERNAL CONTROLS	
HLN5131	Emergency Push Button
HLN5113	Emergency Footswitch
GLN7278	External Push-to-Talk Foot Switch
RLN5926	External Push Button Push-to-Talk Switch
WIRELESS AUDIO ACCESSORIES	
NTN2570	Mission Critical Wireless Earpiece with 12.5" cable
RLN6544	APX Wireless RSM w/ Battery, Clip
RLN6554	APX Wireless RSM w/Battery , Clip, DUC, Power Supply
	For complete portfolio of wireless accessories **click here.**

RMN5054

HMN4079

HLN5131

HLN5113

RLN6544

*Specifications subject to change without notice.

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