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 internal 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.

DATA SHEET
APX VEHICULAR ADAPTER

GENERAL

Kit Number	NNTN8527		
Radio Compatibility	APX 6000, APX 6000Li, APX 6000XE, and SRX 2200 Compatible with VHF, UHF and 700/800 MHz radios - see order guide for additional details		
Battery Compatibility	NNTN7038, NNTN8092, PMNN4403, NNTN8182		
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.

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 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, coming soon.

VERIFY BATTERY COMPATIBILITY		
	KIT NUMBER	**DESCRIPTION**
	NNTN7038	Li-Ion IMPRES IP67 3100 mAh, typical
	NNTN8092	Li-Ion FM IMPRES Ruggedized 2350 mAh, typical
	PMNN4403	Li-Ion Slim IMPRES IP67 2150 mAh, typical
	NNTN8182	Li-Ion Ruggedized Military Coyote Brown 3100 mAh, typical

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	2 dB gain (380 – 470)
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	
	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.

MOTOROLA