

BATTERIES

M/A-COM portable radio battery packs are designed for safety and durability. Portable radio products that provide options for both trunked and conventional operation are for rugged use conditions found in public safety and industrial environments, while conventional only portable radio battery packs are designed for normal use conditions found in public service and commercial environments. All battery types are capacity tested and fully qualified to MIL-STD-810 conditions identical to those of the radio for which they are designed. This assures that a M/A-COM portable radio fitted with a M/A-COM battery will meet specifications.

M/A-COM battery packs include the following features:

- Vented for safety.
- Designed for use with M/A-COM chargers to prevent overheating while charging and prolong battery life.
- Built-in safety with short-circuit protection.
- Exclusive use of industry quality leader Sanyo battery cells.
- Assembled in USA (portable radio products that provide options for both trunked and conventional operation).

M/A-COM FM and CSA packs are certified to be intrinsically safe when used with the specified intrinsically safe radio and accessories. A green label identifies intrinsically safe battery packs, while a white or black label identifies non-intrinsically safe battery packs.



BATTERIES FOR P7200, P7100^{IP}, AND P5100 PORTABLES

The P7200, P7100^{IP}, and P5100 battery packs are listed below. All models have the same type of case, so their appearance and dimensions are identical.

P7200, P7100^{IP}, AND P5100 IMMERSIBLE BATTERY PACKS

These battery packs are qualified at 1-meter immersion for 2 hours (MIL-STD-810F method 512.4/1).

P7200 NiMH, Extra High Capacity	MAPT-PA7W
2400 mAh, 8.82 oz (250g)	
P7200 NiCd, High Capacity	MAPT-PA7V
1600 mAh, 7.79 oz (221g)	
P7100 ^{IP} NiMH, Extra High Capacity	HTPA7W
2400 mAh, 8.82 oz (250g)	
P7100 ^{IP} NiCd, High Capacity	HTPA7V
1600 mAh, 7.79 oz (221g)	
P7100 ^{IP} NiMH, Extra High Capacity Spare	HTPA7Y
2400 mAh, 8.82 oz (250g) <Intrinsically Safe>	
P5100 NiMH, Extra High Capacity Spare	MAHM-PA7Y
2400 mAh, 8.82 oz (250g) <Intrinsically Safe>	
P7100 ^{IP} NiCd, High Capacity Spare	HTPA7X
1600 mAh, 7.79 oz (221g) <Intrinsically Safe>	
P5100 NiCd, High Capacity Spare	MAHM-PA7X
1600 mAh, 7.79 oz (221g) <Intrinsically Safe>	

P7200, P7100^{IP}, AND P5100 DRIVEN RAIN BATTERY PACKS

These battery packs are qualified per MIL-STD-810F method 506.3 for 40 mph wind driven rain.

P7200 NiCd, High Capacity	MAPT-PA9P
2400 mAh, 8.82 oz (250g)	
P7100 ^{IP} NiMH, Extra High Capacity	HTPA9P
2400 mAh, 8.82 oz (250g)	
P5100 NiMH, Extra High Capacity	MAHM-PA9P
2400 mAh, 8.82 oz (250g)	
P7200 NiCd, High Capacity	MAPT-PA9N
1600 mAh, 7.79 oz (221g)	
P7100 ^{IP} NiCd, High Capacity	HTPA9N
1600 mAh, 7.79 oz (221g)	
P5100 NiCd, High Capacity	MAHM-PA9N
1600 mAh, 7.79 oz (221g)	

SPECIFICATIONS

Environmental Specifications

MIL-STD-810F*	Methods & Procedures
Low Pressure	500.4/1,2
High Temperature	501.4/1,2
Low Temperature	502.4/1,2
Temperature Shock	503.4/1
Solar Radiation	505.4/2
Blowing Rain	506.4/1
Humidity	507.4
Salt Fog	509.4
Blowing Dust	510.4/1
Immersion**	512.4/1
Vibration (Minimum Integrity)	514.5/1, Category 24
Vibration (Basic Transportation)	514.5/1, Category 4
Shock (Functional/Basic)	516.5/1
Shock (Transit Drop)	516.5/4

U.S. Forest Service Standard

Vibration (10-60 Hz)	USDA LMR Standard, Section 2.15
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TIA/EIA-603-A Standard

Shock	Paragraph 3.3.5.3
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* Also meets equivalent superseded MIL-STD-810C, -D, and -E.

** For immersion model only. (Availability to be announced.)

Current battery packs qualified at 1 foot for 2 hours.)

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G, Temp T3C, TA=+60°C; Nonincendive for Class I, Division 2, Groups A, B, C, and D, Temp T4, TA=+60°C.

CSA Intrinsically Safe for Class I, Groups C and D; Class II, Group G (Coal Dust); Class II, Group G (Coal Dust); Class III; Nonincendive for Class I, Division 2, Groups A, B, C, and D.

SPECIFICATIONS

Environmental Specifications

MIL-STD-810E*	Methods & Procedures
Low Pressure	500.3/1,2
High Temperature	501.3/1,2
Low Temperature	502.3/1,2
Temperature Shock	503.3/1
Solar Radiation	505.3/2
Blowing Rain	506.3/1
Humidity	507.3/2
Salt Fog	509.3/1
Blowing Dust	510.3/1
Vibration (Minimum Integrity)	514.4/1, Category 1
Vibration (Basic Transportation)	514.4/1, Category 10
Shock (Functional/Basic)	516.4/1
Shock (Transit Drop)	516.4/4

U.S. Forest Service Standard

Vibration (10-60 Hz)	USDA LMR Standard, Section 2.15
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Immersion** 1 foot for 2 hours

* Also meets equivalent MIL-STD-810C and -D

** For immersion model only

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G, Temp T3C, TA=+60°C; Nonincendive for Class I, Division 2, Groups A, B, C, and D, Temp T4, TA=+60°C.

CSA Intrinsically Safe for Class I, Groups C and D; Class II, Group G (Coal Dust); Class III; Nonincendive for Class I, Division 2, Groups A, B, C, and D.



BATTERIES FOR JAGUAR™ 700PI AND 700P PORTABLES

The six models of Jaguar battery packs are listed below. All models have the same type of case, so their appearance and dimensions are identical.

IMMERSIBLE BATTERY PACKS

These battery packs are qualified at 1-foot immersion for 2 hours.

NiMH, Extra High Capacity <Intrinsically Safe>	HAPA7Y
2400 mAh, 8.82 oz (250g)	
NiMH, Extra High Capacity	HAPA7W
2400 mAh, 8.82 oz (250g)	
NiCd, High Capacity <Intrinsically Safe>	HAPA7X
1600 mAh, 7.72 oz (221g)	
NiCd, High Capacity	HAPA7V
1600 mAh, 7.72 oz (221g)	

DRIVEN RAIN BATTERY PACKS

These battery packs are qualified per MIL-STD-810F method 506.3 for 40 mph wind driven rain.

NiMH, Extra High Capacity	HAPA9P
2400 mAh, 8.82 oz. (250g)	
NiCd, High Capacity	HAPA9N
1600 mAh, 7.72 oz. (221g)	



HIGH CAPACITY

BATTERIES FOR LPE-200™ PORTABLES

The four models of LPE-200 battery packs are listed below. Extra high capacity battery models are packaged in an L-shaped housing, while high capacity models are in a straight housing.



RADIO SIDE

CHARGER SIDE

EXTRA HIGH CAPACITY

BATTERIES FOR LPE-200™ PORTABLES

- NiCd, Extra High Capacity <Intrinsically Safe>H9PA7P
1600 mAH, 8.76 oz (248g)
- NiCd, Extra High CapacityH9PA7M
1600 mAH, 8.76 oz (248g)
- NiCd, High Capacity <Intrinsically Safe>H9PA7N
1500 mAH, 7.52 oz (213g)
- NiCd, High CapacityH9PA7L
1500 mAH, 7.52 oz (213g)

SPECIFICATIONS

Environmental Specifications

MIL-STD-810E*	Methods & Procedures
Low Pressure	500.3/1,2
High Temperature	501.3/1,2
Low Temperature	502.3/1,2
Temperature Shock	503.3/1
Solar Radiation	505.3/2
Blowing Rain	506.3/1
Humidity	507.3/2 (Cycle 5)
Salt Fog	509.3/1
Blowing Dust	510.3/1
Vibration	514.4/1, Category 1,10
Shock	516.4/1, 4

*Also meets equivalent MIL-STD-810C and -D.

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, II, and III, Division 1, Groups D, F, and G; Nonincendive for Class I, Division 2, Groups A, B, C, and D.

CSA approved for Class I, Groups C and D; Class II, Group G and Coal Dust; Class III; Class I, Division 2, Groups A, B, C, and D.

SPECIFICATIONS

Environmental Specifications

U.S. MIL-STD-810E*	Methods & Procedures
Low Pressure	500.3/1,2
High Temperature Storage	501.3/1
Operational	501.3/2
Low Temperature	502.3/1,2
Temperature Shock	503.3/1
Solar Radiation	505.3/2
Blowing Rain	506.3/1,2
Humidity	507.3/2 (Cycle 5)
Salt Fog	509.3/1
Blowing Dust	510.3/1
Vibration	514.4/1,10
Shock	516.4/1

*Also meets equivalent MIL-STD-810C and -D.

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G; Nonincendive for Class I, Division 2, Groups A, B, C, and D.

CSA approved for Class I, Groups C and D; Class II, Group G and Coal Dust; Class III.



BATTERIES FOR M-RK™ PORTABLES

The four models of M-RK battery packs are listed below. The extra high capacity battery pack is taller and wider than the high capacity pack.

BATTERIES FOR M-RK™ PORTABLES

NiCd, Extra High Capacity <Intrinsically Safe>.....	PKPA5X
1700 mAH, 12.4 oz (352g)	
NiCd, Extra High Capacity	PKPA1Y
1700 mAH, 12.4 oz (352g)	
NiCd, High Capacity <Intrinsically Safe>	PKPA5W
1200 mAH, 10.4 oz (296g)	
NiCd, High Capacity	PKPA1X
1200 mAH, 10.4 oz (296g)	

BATTERIES



BATTERIES FOR EDACS® 300P PORTABLES

The four models of EDACS 300P battery packs are listed below. All the models are packaged in similar casings; however,

the extra high capacity battery packs are thicker than the high capacity battery packs.

BATTERIES FOR EDACS® 300P PORTABLES

NiCd, Extra High Capacity <Intrinsically Safe>	KDPA9E
1450 mAH, 9.20 oz (261.9g)	
NiCd, Extra High Capacity.....	KDPA9C
1450 mAH, 9.20 oz (261.9g)	
NiCd, High Capacity <Intrinsically Safe>	KDPA9D
1100 mAH, 7.70 oz (220.6g)	
NiCd, High Capacity	KDPA9B
1100 mAH, 7.70 oz (220.6g)	



BATTERIES FOR P-801 AND P-800 PORTABLES

The OpenSky® P-801/P-800 battery pack model is listed below.

BATTERIES FOR P-801 AND P-800 PORTABLES

NiMH	MAHROS0014
2100 mAH, 8.8 oz (250g)	

SPECIFICATIONS

Environmental Specifications

U.S. MIL-STD-810E	Methods & Procedures
Low Pressure	500.3/1,2
High Temperature	501.3/1,2
Low Temperature	502.3/1,2
Temperature Shock	503.3/1
Solar Radiation	505.3/2
Dripping Rain	506.3/2
Humidity	507.3/2
Blowing dust	510.3/1
Vibration	514.4/1, Category 10
Shock	516.4/1
Transit drop	516.4/4

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, II, and III, Division 1, Groups C, D, E, F, and G; Nonincendive for Class I, Division 2, Groups A, B, C, and D.

SPECIFICATIONS

Environmental Specifications

MIL-STD-810E	Methods & Procedures
Low Pressure	500.3/1,2
High Temperature	501.3/1,2
Low Temperature	502.3/1,2
Temperature Shock	503.3/1
Solar Radiation	505.3/1
Blowing Rain	506.3/1,2
Humidity	507.3/2
Salt Fog	509.3/1
Blowing Dust	510.3/1
Vibration (Minimum Integrity)	514.4/1, Category 1
Vibration (Basic Transportation)	514.4/1, Category 10
Shock (Functional/Basic)	516.4/1
Shock (Transit Drop)	516.4/4

SPECIFICATIONS

Dimensions (H x W x D):

2000 mAH NiMH and all 1500 mAH NiCd:	4.65 x 2.44 x 0.94 in. (118 x 62 x 23.8 mm)
1100 mAH NiCd:	4.65 x 2.44 x 0.80 in. (118 x 62 x 20.5 mm)

Environmental Specifications

U.S. MIL-STD-810E	Methods & Procedures
Temperature - High and Low	501.3/I and 502.3/II
Blowing Rain	506.3/I (also 810C 506.1/I)
Humidity	507.3/III (Cycle 10)
Salt Fog	509.3/I
Blowing Dust	510.3/I
Blowing Sand	510.3/II
Shock (unpacked)	516.4/IV
Vibration	514.4/I
IP54	
Dust and water	IEC 529 1939

Intrinsically Safe Classification

Factory Mutual Intrinsically Safe for Class I, Division 1, Groups C, D, T3C. Nonincendive for Class I, Division 2, Groups A, B, C, D, T3C.



BATTERIES FOR PANTHER™ 405P AND PANTHER 605P

The four models of PANTHER 405P and PANTHER 605P battery packs are listed below. The 2000 mAH NiMH and

1500 mAH NiCd models have the same type of case, so their dimensions are identical. The 1100 mAH NiCd model has a case that is smaller in width but is otherwise identical to those for the other PANTHER 405P and PANTHER 605P models.

BATTERIES FOR PANTHER 405P AND PANTHER 605P

NiMH	GPPA9H
2000 mAH, 11.9 oz (338g)	
NiCd	GPPA9G
1500 mAH, 11 oz (313g)	
NiCd	GPPA9F
1100 mAH, 9.9 oz (283g)	
NiCd <Intrinsically Safe>	GPPA9T
1500 mAH, 11 oz (313g)	



BATTERIES FOR PANTHER™ 300P

The PANTHER 300P battery pack model is listed below.

BATTERIES FOR PANTHER 300P

NiCd, High CapacityKBPA7Z
1450 mAh, 7.4 oz (210g)

SPECIFICATIONS

Dimensions (H x W x D):

NiCd: 4.05 x 2.35 x 0.80 in.
(103 x 60 x 20.5 mm)

Environmental Specifications

U.S. MIL-STD-810E	Methods & Procedures
Dripping Rain	506.3/11
Humidity	507.3/11 (Cycle 5)
Salt Fog	509.3/1
Blowing Dust	510.3/1
Minimum Integrity Vibration	514.3/1, Category 10
Functional/Basic Shock	516.4/1
TIA/EIA-603	
Vibration Stability	Par. 2.3.4 and 5.3.4
Shock Stability	Par. 5.3.5
U.S. Forest Service	
Vibration Stability	Par. 7.15