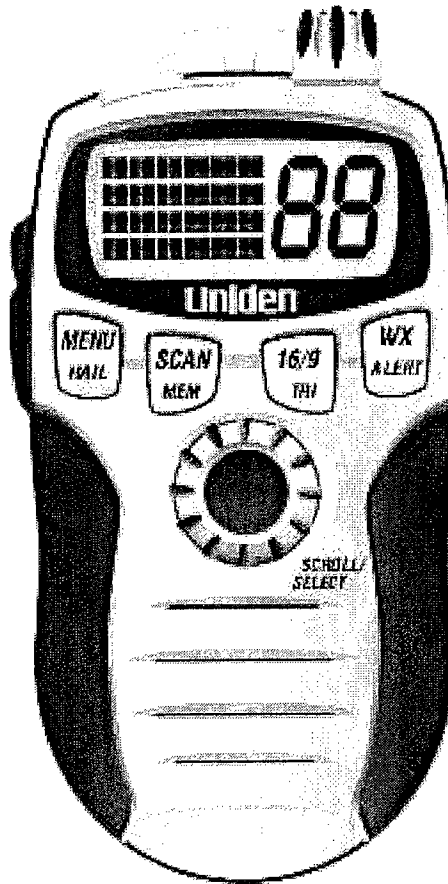


**POLARIS MARINE DSC MOBILE RADIO
WIRELESS MICROPHONE (W.H.A.M.)
Product Definition**



Version 2.1
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UNIDEN AMERICA CORPORATION
PRODUCT PLANNING GROUP

1. Executive Summary

The WHAM (Wireless Handheld Access Microphone) will add a unique feature to the Polaris radio. Currently, there are not any other products on the market that offers the remote microphone as a wireless device. The current FCC view of this product is that the wireless microphone must be able to control all mandatory functions of the host radio. The WHAM will compete in market share with the Horizon RAM wired mic. from Standard and the HM-127 wired mic. from ICOM.

2. Product Specifications

2-1) Wireless Mic specification

Channels	All US, International, and Canadian
Weather	All weather channels of NOAA, SAME Weather Alert
Waterproof	JIS 7 (Fully Submersible)
900MHz Wireless Microphone	Digital communications to the Control module (Black Box)
Control Module	Connects to the Polaris Radio through a 1.5 Meter data/power cable
Noise Canceling Microphone	No
Back lit	All Keys and LCD Screen, 3 levels of brightness. This will be changeable from the menu system. All illumination will be Green.
Audio Output	500mW
Battery Level Meter	Yes, to be displayed on the LCD (using the text area)
LCD Contrast Adjustment	Yes, multi levels with a multi-key reset (5 Levels Minimum)
Key Beep Volume Adjustment	Yes (On/Off)
Mounting Hardware	Stainless screws for mounting the drop-in charger
NMEA-0183	Not from WHAM (will display incoming and current Lat/Long on LCD)
UV Marine White Plastic	Yes
Stainless Steel Screws & Connectors	Yes, for all exposed to the elements on the wireless microphone and any other option
Power Source	4.8V 4 x AA (NiMH battery pack plug-in type or 4 x AA Alkaline batteries)

2-2) Remote function control operation by wireless mic to base radio

Channels	All US, International, and Canadian
Weather	All weather channels of NOAA, Weather Alert
DSC (Digital Selective Calling)	Yes
Programmable Scan	Yes
Triple Watch	Yes
High/Low Power	Yes, 1 Watt and 25 Watt
Memory Channel Review	Yes, from the menu system
High/Low Voltage Sensor	Yes, to be displayed on the LCD screen in each case
Hailer	Yes.
20 Name Individual Directory	Yes (20 locations minimum)
MMSI Programmable	No. Feature not available from the wireless mic. Only through the main Polaris unit.
NMEA-0183	Yes, Display of incoming GPS data on the wireless mic.

3. Keys and Controls

3-1 Wireless Microphone

On/Off/Volume	This is to control of wireless mic power on/off/volume only. Click when on, click steps for volume.
Channel selection	Scroll and select knob.
Weather/Alert Key	Pressing will enter the last used weather channel. In weather mode a press and hold will activate weather alert/SAME alert mode.
16/9/Triple Watch Key	Used to access channel 16 and nine at the touch of a button. It will also access the triple watch mode.
Scan/Memory/ Key	The scan key will allow the channels that have been programmed into memory to be scanned. A press and hold of this key will place the currently displayed channel into the memory for future scanning.
Menu/Hail Key	This key will allow the user to access the software menu. Pressing and holding this key will activate the Hailer feature.
Distress Key	This key will be used to send out a distress call in DSC

Backlight Key	Located above the PTT key. Also, any key press will activate the backlight.
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4. Packaging and Printed Materials

4-1) Printing materials

Display Box	Yes, UAC to supply film (4 Color)
Owners Manual	Yes, Manufacturer to issue draft for review and artwork/film at UAC. Manual needs to be both English and Spanish
Warranty	3 Year included in the Owners Manual
Registration Card	Yes- U# UTZZ44860ZZ
POP label attached through lanyard hole	Yes- UAC to issue film
Serial Number Sticker for Display Box	Yes
ID Label	Yes
Patent Engraving	Yes
Regulations	FCC, IC
UPC Code	05063350035 4

5. Issues

5.1 Communication protocol and ID match

ID code will be matched between wireless mic and Black box to avoid another wireless mic and black box communication. The code for Black box will be programmed by Polaris base radio and the code for wireless mic. will be programmed by wireless mic. User will do this programming. This is to insure if either the Black box or the wireless mic needs to be replaced, the reprogramming will be easy for the customer to complete.