#### **FCC/IC NOTICE**

FCC Compliance Statement: This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The distance between user and products should be no less than 7.9 in (20cm.).

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Avis de conformité à la FCC : Cet dispositif a été testé et s'avère conforme à l'article 15 des règlements de la Commission fédérale des communications (FCC). Ce dispositif est soumis aux conditions suivantes: 1) Ce dispositif ne doit pas causer d'interférences nuisibles et; 2) Il doit pouvoir supporter les parasites qu'il reçoit, incluant les parasites pouvant nuire à son fonctionnement.

Cet appareil est conforme aux normes RSS exemptes de licences d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'inteférences nuisibles et (2), il doit pouvoir accepter les interférences, incluant celles pouvant nuire à son fonctionnement normal.

La distance entre l'utilisateur et les produits ne devrait pas être moins de 20 cm (7,9 po).

Tout changement ou modification non approuvé expressément par la partie responsable pourrait annuler le droit à l'utilisateur de faire fonctionner cet équipement.

#### LIMITED WARRANTY

Save your receipt! It is proof of purchase and is required for warranty.

#### WARRANTOR: UNIDEN AMERICA CORPORATION (UNIDEN)

**ELEMENTS OF WARRANTY:** This warranty to the original user shall terminate and of no further effect 12 months after the date of original retail sale. The warranty is invalid if the product is: (A) damaged or not maintained as is reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configuration not sold by Uniden, (C) improperly installed, (D) serviced or repaired by someone other than an authorized Uniden service center for a defect of malfunction covered by this warranty, (E) used in conjunction with any equipment or parts or as part of a system not manufactured by Uniden, (F) installed or programmed by anyone other than as detailed in this Owner's Manual.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will repair the defect and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by the warrantor or its representatives in connection with the performance of this warranty. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO, ANYIMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROBIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion might not apply to you.

**LEGAL REMEDIES:** This warranty gives you specific legal rights, and you might also have other rights which vary from state to state. This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in this Operating Guide, you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). Include evidence of original purchase and a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, or delivered, to warrantor at:

Uniden America Corporation c/o Saddle Creek 743 Henrietta Creek Rd., Suite 100 Roanoke, TX 76262

(800) 297-1023, 8 a.m. to 4:30 p.m., Central, Monday through Friday

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This manual may contain information that is subject to change without notice.

# UNIDEN MARINE GPS RECEIVER

# **MRN-GPSK**



### WHAT'S IN THE BOX

- MRN-GPSK GPS Receiver
- Power Adapter Cable
- Accessory Cables (Branch and Free wire types)
- Suction Cup

If any items are missing or damaged, contact our Customer Care Line immediately. Never use damaged products!

Need help? Get answers 24/7 at our website: www.uniden.com.

## INTRODUCTION

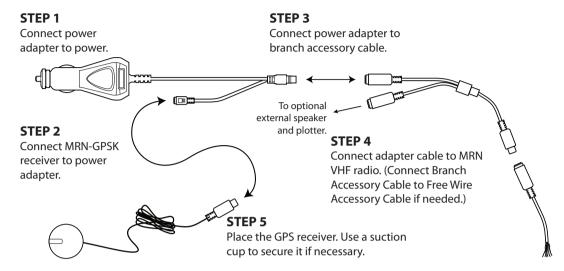
The MRN-GPSK receiver is a GPS receiver that provides NMEA 0183 standard output for your marine radio or other application that calls for an industry standard GPS output.

The MRN-GPSK is ideal for use with all of Uniden's fixed-mount Marine VHF radios.

## **INSTALLATION**

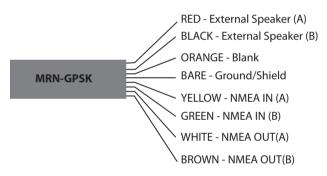
Place the MRN-GPSK receiver in a location that has a clear view of the sky. The receiver sticks to any steel surface as well as using a suction cup to stick to non-steel surfaces.

WARNING: Place the receiver in a location that will not be a hazard to the occupants of the boat in the event of an accident or sudden stop. Be sure the receiver and its wires will not interfere with your boat's safety features.



# **CONNECTING THE FREE WIRE ACCESSORY CABLE**

Connect your marine radio to the MRN-GPSK according to the wiring diagram below.



Your marine radio's color scheme may not match the MRN-GPSK's color scheme. Connect the wires according to the function shown in this wiring diagram.

# **USING THE GPS RECEIVER**

When power is applied to the MRN-GPSK receiver, it turns on and searches for satellite signals. LED status is:

- LED OFF: GPS receiver is off (no power).
- LED ON (Solid): GPS receiver is searching for GPS signals; no fix on a signal.
- LED ON (Flashing): Fixed position established and GPS signals received.

## **SPECIFICATIONS**

GPS Chipset	SIRF Star III e/LP
Horizontal Position Accuracy	5m 2D RMS WAAS received
	10m 2D RMS WAAS not recived
Velocity Accuracy	0.1m/sec 95% (SA off)
Time Accuracy	1 microsecond synchronized to GPS time

Datum	WGS-84
Hot Start	1 sec., average (with ephemeris and almanac valid)
Warm Start	38 sec., average (with almanac but not ephemeris)
Cold Start	42 sec., average (neither almanac nor ephemeris)
Reacquisition	0.1 sec., average (interruption recovery time)
GPS Protocol	NMEA 0183 NMEA0183 V2.2 protocol (Supposts GGA, GSA, GSV, and RMC commands)
GPS Transfer Rate	4,800bps
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3
Operating Temperature	- 40° ~ 185° F (- 40° ~ 85° C)
Storage Temperature	- 40° ~ 185° F (- 40° ~ 85° C)
Humidity	Up to 95% non-condensing
Voltage	13.8V DC Input (nominal)
Current	42mA typical

Due to continuous improvements, all specifications are subject to change without notice.

### **SAFETY AND LEGAL NOTICES**

Read this section carefully before using the GPS receiver.

Uniden America Corporation does not accept responsibility for accidents resulting from failure to observe common sense precautions.

#### Make sure that the MRN-GPSK receiver is secure and does not interfere with sailing visibility and safety.

Securely position the GPS and its cables so that they do not interfere with piloting or other boat safety devices. Do not mount the GPS where the occupants of the boat maybe injured during boat operation or in case of collision. Route all cables away from the throttle, accessory controls, and mechanisms.

#### Pilot your boat safely and use common sense.

Pilot your boat safely, observe all boating laws, and above all use good judgement. Do not let the operation of the Marine VHF radio – with or without the GPS connected – interfere with your attention to boating.

WARNING: Do not remove covers or open housings. There are no user serviceable parts inside. Doing so will void your warranty. Refer servicing to qualified personnel.