HD GPS ANCHOR+

Precision GPS Guided Trolling Motor

Owner's Manual

RHODAN
MARINE SYSTEMS

www.rhodanmarine.com

HD GPS ANCHOR+

Congratulations on choosing this unique product. The Rhodan Marine Systems HD GPS ANCHOR+ will dramatically add to your angling efficiency and enjoyment.

Powerful and quiet, this precision engineered product will automatically keep your boat positioned at your chosen location or at your command, maintain the boat on a chosen route, leaving you free to concentrate on fishing.

Note: This model has been optimized for use on 15-26 foot boats for the 24V system depending on weight and 12-18 foot boats for the 12V system depending on weight. Please refer to Appendix A for further information on use of the system with boats of other sizes.

WARNING!
READ AND UNDERSTAND ALL INSTRUCTIONS.
Failure to follow all enclosed instructions may result in personal injury or loss of warranty.

SPECIFICATIONS

Anchor Memory Locations	4
Multi-use Memory Locations (route or anchor)	8
Maximum Course Memory Length	1000+ Miles*
Thrust Rating	24V System @ 80lb
	12V System @ 55lb
Operating Voltage	24V or 12V (Depending on model)
Amperage	0-42 Amps**
Recommended Breaker Rating	50 Amps
Propeller	3 Blade Weedless

**The length of a recorded route will generally be limited by the time required to physically traverse a route or the battery capacity to retrace it. The system has sufficient memory capacity to store over 1000 miles of courses.*
***System current draw will vary with thrust level up to a maximum of 42 amps at 100% thrust.*

FCC COMPLIANCE STATEMENT

FCC ID:XA7-RMS-FOB1

This device complies with part 15 of the FCC Rules.
Operation is subject 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 FCC Rules. Changes or modifications not expressly approved by Rhodan could void the user's authority to operate the equipment.

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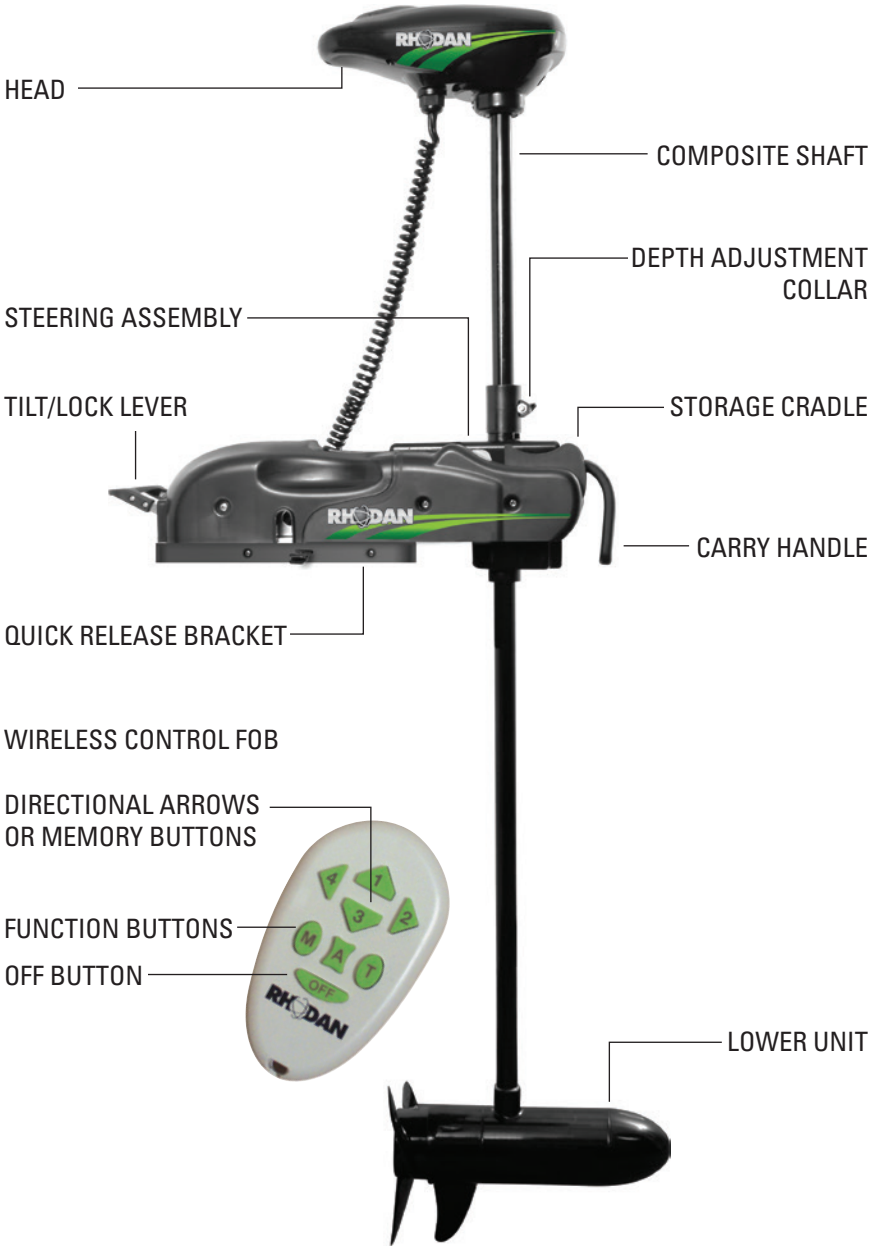
SYSTEM FEATURES



POWERING UP THE UNIT

The system is able to operate in Manual Mode immediately when powered up and deployed. The Anchor Mode and Track Mode will be available in approximately 30 seconds once the unit has acquired a GPS fix.

The unit will emit 1 "beep" to indicate that it is powered up.

The unit will emit 4 rapid "beeps" to indicate that it has acquired a GPS fix.

If there is an error with the unit at power up there will be a sequence of beeps which correlate to diagnosing the problem.
* Look to Troubleshooting (page 23) for further diagnosis if this occurs.

The GPS accuracy will continue to improve for several minutes after being powered up. It is suggested that you apply power to the GPS ANCHOR early in the trip so that it will achieve maximum accuracy before being used. The system is equipped with a "Tilt" sensor that prevents the propeller from running in the stowed position.

BATTERY LEVEL METER

Press and hold the off button for 5 seconds to check the state of charge of the system batteries.

The system will emit between one and five beeps which define the amount of energy remaining in the batteries.

5 beeps: > 95% charge (> 25.20V for 24V, > 12.60V for 12V)

4 beeps: 80% – 95% charge (24.84 – 25.20V for 24V, 12.42 – 12.60V for 12V)

3 beeps: 60% – 80% charge (24.40 – 24.84V for 24V, 12.20 – 12.42V for 12V)

2 beeps: 40% – 60% charge (23.80 – 24.40V for 24V, 11.90 – 12.20V for 12V)

1 beep: 20% – 40% charge (23.00 – 23.80V for 24V, 11.50 – 11.90V for 12V)

1 growl: < 20% charge (< 23.00V for 24V, <11.50V for 12V)

This function will stop all thruster and steering operations and use the precision voltage reference of the system to determine the battery's remaining charge. State of charge levels are based on voltage to charge references for ideal lead acid batteries from leading battery manufacturers.

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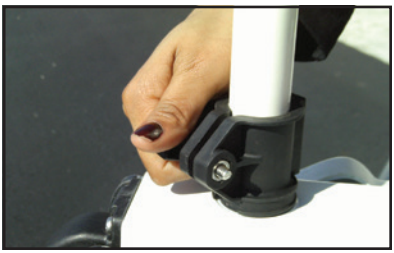
DEPLOYING THE UNIT

Loosen the depth adjustment collar and slide it up the shaft to a position that will give the desired motor depth. Firmly hand tighten the adjustment knob to secure the collar.

Step on the Tilt/Lock Lever and slide the motor forward until the lower unit is clear of the storage cradle.

Carefully tilt the unit forward and lower the motor until the depth adjustment collar is engaged with the steering bosses. The Tilt/Lock Lever can be released as soon as the motor begins to tilt. Once the unit is fully deployed, verify that the lever has fully returned to its up and locked position.



STOWING THE UNIT

Step on the Tilt/Lock Lever. Grasping the head of the unit, pull it up and then back until the lower unit rests securely in the storage cradle. Release the Tilt/Lock Lever and verify that it returns fully to its up and locked position. **Slide the depth adjustment collar down until it is in contact with the steering bosses, then very firmly hand tighten the adjustment knob to secure the unit.** Done properly the unit cannot deploy.

WARNING! Failure to secure the unit with the depth adjustment collar when stowed can result in accidental deployment during extremely rough pounding seas which will not be covered by the warranty.

MODES OF OPERATION
1. MANUAL MODE

To place the system in Manual Mode, press the button with the **"M"** symbol on the wireless fob..

The unit will emit 1 "beep" to indicate that it has entered Manual Mode.

In the **Manual Mode** the GPS ANCHOR system behaves much like a conventional trolling motor, by allowing the user to control the direction and thrust level using the directional controls on the wireless fob.

THRUST

The system is equipped with 10 forward and 10 reverse speeds. Momentarily pressing the Up-Arrow or Down-Arrow buttons will increment the thrust level accordingly. Holding the Up-Arrow or Down-Arrow buttons will cause the thrust level to ramp until the maximum level is reached or the button is released. It will take 2.5 seconds for the system to ramp from 0 to 100% thrust or vice versa.

The unit will emit 1 "beep" when it reaches 100% forward thrust, 0% thrust or 100% reverse thrust.

STEERING

Pressing the Left-Arrow or Right-Arrow buttons will cause the trolling motor to turn left or right, respectively. The steering travel is limited to avoid wrapping up the system power cord.

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2. ANCHOR MODE

To place the system in Anchor Mode, press the button with the "A" symbol on the wireless fob. The system will instantly lock in the anchor coordinates and begin maintaining position.

The unit will emit 1 "beep" to indicate that it has entered Anchor Mode.

The unit will emit two "growls" then exit this mode if there is no GPS fix

The Anchor Mode automatically controls the steering and thruster speed to maintain the position of the boat's bow, acting as a "Virtual Anchor".

The boat will slowly weathervane around the thruster and the bow will generally come to rest pointed into the disturbing wind or current. It is recommended that the boat be slowed or stopped prior to anchoring to minimize overshoot.

ADJUSTING THE ANCHOR LOCATION (JOGGING)

Pressing any of the directional controls on the wireless fob (Up, Down, Left, or Right) moves (jogs) the "Anchor Location" in precise 5-foot increments relative to the boat's heading. For example, pressing the Right-Arrow once moves the "Anchor Location" 5-feet to the right of the boat's bow.

The unit will emit 1 "beep" for each increment the Anchor location is moved.

The embedded system computer will be operating the trolling motor causing the bow of the boat to move as needed to maintain its location in this mode. Unexpected movement of the boat may tend to unbalance you. Be cautious until you have become familiar with the system dynamics.

STORING (OR OVERWRITING) AN ANCHOR SITE

From any mode, while holding down the "A" button, press and hold a directional button for 5 seconds. The buttons can then be released and your boat will be anchored at this newly recorded site.

The unit will emit a 1 second "beep" to indicate that the anchor site has been successfully saved.

RECALLING A STORED ANCHOR SITE

From any mode, while holding down the "A" button, press and release the appropriate directional button. The "A" button can then be released and your boat will navigate in a straight line directly to that location and anchor at the selected, previously recorded site.

The unit will "beep a tune" (multiple consecutive beeps) to indicate that the anchor site has been successfully retrieved.

The unit will emit two "growls" and exit if the memory location is empty or the boat is not within 1 mile of a memorized location.

When recalling a stored anchor site if you hold the buttons for more than 5 seconds you will over-write that existing memory location with the boat's present location, erasing it.

The system will calculate a beeline to the selected anchor site. Make sure there are no obstructions between you and the anchor site prior to recalling a location.

RECALLING LAST ANCHOR SITE

From any mode, press and hold the "A" button for 5 seconds. The "A" button can then be released and your boat will navigate directly to the last anchor location used.

The unit will "beep a tune" (multiple consecutive beeps) to indicate that the anchor site has been successfully retrieved.

The unit will emit two "growls" and exit if there is no active last memory location or the boat is not within 1 mile of the previous location.

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3. TRACK MODE

To place the system in Track Mode, press the button with the "T" symbol on the wireless fob. The Track Mode automatically locks in the boat's current heading and controls the steering to maintain a constant track, acting as an "Autotrack" to compensate for wind or current disturbances. The operator can adjust the speed or track heading by using the directional controls on the wireless fob.

The unit will emit 1 "beep" to indicate that it has entered Track Mode.

The unit will emit 2 "growls" and exit this mode if there is no GPS fix.

The direction the boat is pointed when this mode is selected will become the "Track Course". The thruster will pull the bow of the boat along this course in a straight line. The boat itself may seem to point somewhat "off track" due to cross-wind or cross-track currents.

ADJUSTING THE TRACK SPEED

The unit will maintain its previous speed if Track Mode is selected from the Manual Mode. Otherwise, the unit will gradually ramp to 40% forward speed to maintain the track. Pressing the Up-Arrow button increases the thruster's forward speed. The Down-Arrow button decreases the thruster's forward speed. Reverse operation is disabled in this mode.

The unit will "beep" when the thruster reaches 100% forward speed or when it is stopped.

ADJUSTING THE TRACK COURSE

The "Track Course" may be adjusted in precise 5-degree increments by pressing the Left or Right Arrow buttons on the wireless fob.

The unit will emit 1 "beep" each time the track heading is changed.

In this mode, the steering is automatic, but the thrust level is user selected. In extreme wind or current it is necessary for the user to select a speed setting with adequate thrust to overcome the disturbances and remain "on-track".

4. ROUTE MODE

STORING (OR OVER WRITING) A ROUTE

From any mode, while holding down the "M" or "T" button, press and hold a directional button for 5 seconds. The buttons can then be released and the system will now be in the function corresponding to the button you selected "M" or "T". The system is now recording your route.

The unit will emit a 1 second "beep" to indicate that the route is being recorded.

You can now navigate along your desired course, switching at will between manual and track modes. The recording will terminate when you press "OFF" or "A".

The unit will emit a 1 second "beep" to indicate that the route has been successfully saved.

Should you wish to record an anchor site using the "M" or "T" memory these locations, simply hit "OFF" or "A" as soon as the path begins to record, thus recording a path of zero length. A route can also be recorded at higher speeds with the system in the stowed position. Simply use the route storing procedure above and the system will accurately record your route at speeds of up to 60 knots. For safety, the thruster and steering motors will be disabled as long as the system is in the stowed position.

RECALLING A STORED ROUTE:

From any mode, while holding down the "M" or "T" button, press and release the appropriate directional button.

The unit will "beep a tune" (multiple consecutive beeps) to indicate that the route has been successfully retrieved.

The unit will emit two "growls" and exit if the memory location is empty or the boat is not within 1 mile of a point on the route.

The system will navigate directly to the nearest point on the route and then travel to the most distant end, anchoring when it arrives. At any time while retracing a route you can reverse the direction of travel by simply repeating the same recall command.

The unit will "beep a tune" to indicate that the boat is arriving at the end of the recorded route.

When recalling a stored route if you hold the buttons too long you will over-write that existing route memory location with the boat's present location, erasing it and begin recording a new route.

The system will calculate a beeline to the nearest point on the route. Make sure there are no obstructions between you and the route prior to recalling it.

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APPENDIX A: GENERAL INFORMATION

The HD GPS Anchor has been optimized for use on 15-26 foot boats for 24V depending on weight and 12-18 foot boats for 12V depending weight, such as a typical bass or flats boat. Generally speaking it can hold position in currents of 2+ knots or wind speeds up to about 30 knots, assuming wave action is not too great.

Boats larger than 26 feet, or those with larger draft or windage may require higher amounts of thrust to maintain position under adverse conditions such as high wind or current. Under fair weather conditions the system can generally be expected to perform reasonably well on larger boats.

Installation on boats smaller than 15 feet, or those of lighter weight, may result in overly aggressive movements. In extreme cases this could lead to injury or even death. Please contact Rhodan Marine Systems for additional information regarding use of these systems on small vessels.

It is recommended that a trained technician install the GPS Anchor. Contact Rhodan Marine Systems for a list of approved installers. Improper installation can lead to poor performance, injury or even death. It is the responsibility of the installer to verify proper installation.

DO NOT connect the HD GPS ANCHOR+ to a power source until installation is completed.

The HD GPS ANCHOR+ utilizes sensors which will likely be affected by nearby magnetic fields. DO NOT install unit with or near anything that produces a magnetic field (steel, magnets, etc.)

APPENDIX B: INSTALLATION CHECKLIST

- ☐ **PHYSICAL INSTALLATION**
- ☐ **ELECTRICAL INSTALLATION**
- ☐ **PROPELLER INSTALLATION**
- ☐ **ALIGNMENT CALIBRATION**
- ☐ **COMPASS CALIBRATION (OPTIONAL)**

APPENDIX C: PHYSICAL INSTALLATION

TOOLS REQUIRED

- 1/4"Drill Bit (included) and Drill
- #3 Phillips Screwdriver
- Marking Pen or Pencil
- Level (optional)

The following process is of moderate difficulty. Should you not feel comfortable performing the steps listed below, we recommend that you contact an authorized installer to complete this process for you.

Prior to beginning the installation process, give some consideration to the desired mounting location. Most commonly these systems are mounted on the bow at a slight angle to the keel so that the shaft of the motor does not obstruct the foredeck while stowed. The following instructions are based on that approach. Should your particular installation differ, please feel free to contact Rhodan Marine for additional guidance or recommendations.

There are two types of quick release brackets provided on the HD GPS anchor. Determine which bracket your system has and follow the appropriate instruction set for that model.

1. With system in the stowed and locked position place it so that the base rests on the deck, approximately in the desired mounting position. Rotate the system to the appropriate angle relative to the boat. Generally speaking you will want to position the head of the unit so that it is protected by the rub-rail, but off to one side to free up as much space on the fore-deck as possible. Once positioned in this manner, use your marking pen to draw a line on the deck along one side of the quick release bracket. This will provide a reference to position the motor at the correct angle in the next phase.
2. Deploy the system so that it is locked in the operational position.

The system can be quite awkward to handle at this stage, so it may be desirable to have a second person assist you with this step.

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3. Align the quick release bracket with the mark on the deck from the previous step. Shift the motor along that line until there is approximately 1" of clearance between the shaft of the system and the rub-rail of the boat. (In bow mount installations this is generally the critical clearance point. Refer to the table below for other recommended clearances.) Once in position, use the marking pen to draw a line on the deck around the back of the quick release bracket.

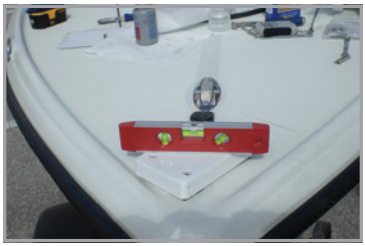
4A (Black Aluminum Mounts). Remove the system from the boat and detach the lower half of the quick release bracket. Place the lower half of the quick release bracket on the deck and align it with the marks made in the previous steps. Place your marking pen through the holes in the base and draw a circle to depict the location for the mounting holes. Depending on the shape of your boat it may not be possible to use the outer most holes, however it is desirable to choose the four mounting holes that are spaced as far apart as possible to provide the most stable installation.

4B (White Composite Mounts). Remove the system from the boat. Place the included mounting template on the deck and align it with the marks made in the previous steps. Use your pen to mark the locations of the mounting holes on the deck.

5. Once the holes are marked, verify that there are no wires or other components beneath the mounting hole locations that might be damaged. Drill a 1/4" hole at each of the four locations marked.

6. Place the lower half of the quick release bracket on the deck and align with the holes drilled in the previous step. Insert the four ¼"-20x3" mounting screws from the included hardware kit (note: it is helpful to apply a small amount of lubricant to the threads of the screws prior to insertion). At this point check to see that the base is sitting flat on the deck. If there are any gaps, or if you wish to level the base to the boat (optional), install washers or other spacers (not provided) as needed.

7. Once leveled, install fender washer and lock nut onto the mounting screw and tighten to a torque of 5 ft-lbs.



This completes the physical installation. Refer to the following steps for electrical installation and calibration.

APPENDIX D: ELECTRICAL INSTALLATION

The HD GPS ANCHOR+ requires one 12V battery for the 12V units and two 12V battery in series for the 24V units.

Batteries produce and contain harmful materials that may result in personal injury and/or property damage if improperly used. Refer to your battery manufacturer's guidelines for charging, discharging, storage and care instructions.

Be sure all switches/circuit breakers are in the OFF position and fuses are removed when making battery connections. Failure to do so may result in personal injury and/or property damage.

DO NOT connect the trolling motor batteries to any other device, including the main outboard engine.

Verify that all conductors and connectors are rated for at least 50 Amperes and 24VDC or 12VDC (depending on model). All circuits MUST be protected using a 50A fuse or circuit breaker in series with the positive lead. Failure to do so may result in personal injury and/or property damage.

LUG (BASIC) INSTALLATION

Your GPS Anchor system is provided with a factory installed 6' power cord with 5/16" ring terminals for connection to breaker/battery terminals or power lugs. Please note that it is mandatory to install a fuse or breaker protection for the system circuit. This protection should be rated for 50A, 24V or 12V (depending on model). If you boat is already wired with a 24V or 12V (depending on model) power system with appropriate circuit protection, simply connect the white wire to the positive lug and the black wire to the negative lug. Should you boat use a trolling motor plug or not have a 24V or 12V (depending on model) trolling motor circuit, please refer to additional instructions below or contact an approved system installer.

PLUG INSTALLATION

If your boat is already wired with a 24V or 12V (depending on model) trolling motor battery system it may be necessary to install a plug on the end of the main power conductor in order to work with your boat.

The following process is of moderate difficulty. Should you not feel comfortable performing the steps listed below, we recommend that you contact an authorized installer to complete this process for you.

There are many different plugs on the market, but generally it is possible to obtain the appropriate plug from your local boating supply store. Please make sure that the plug you install is rated for 50A, 24V or 12V (depending on model). Should you have difficulty locating the appropriate plug, please contact Rhodan Marine Systems, and we

will do our best to assist you.

Once the appropriate plug is obtained, it will need to be installed on the power cord. Depending on the location of the socket relative to your system it may be appropriate to trim the main power conductor to a shorter length. If shortening the power cable, be sure to leave adequate length to complete the connection to the plug and allow for the plug to be inserted with a small amount of slack remaining. Generally you should have 6" to 12" of slack in the cable when plugged in.

Using a volt meter, determine the positive 24V or 12V (depending on model) and ground (negative) terminals on the socket and plug. Following the instructions provided with the plug, connect the white power wire to the positive 24V or 12V (depending on model) terminal and the black power wire to the negative terminal.

When complete, reinstall any fuses or turn on your circuit breaker and insert the plug into the socket. At this point you should hear the system beep indicating that it is getting power.

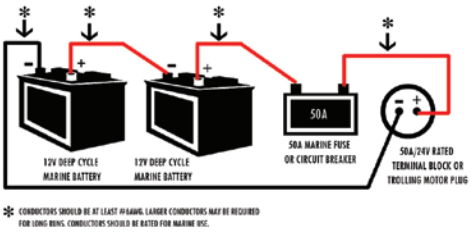
COMPLETE ELECTRICAL INSTALLATION

If your boat is not already equipped with a 24V or 12V (depending on model) battery power system it will be necessary to install one.

This process is of moderate difficulty and should only be attempted by experienced technicians. We recommend that you contact an authorized installer to complete this process for you.

24 VOLT TROLLING MOTOR BATTERY SYSTEM

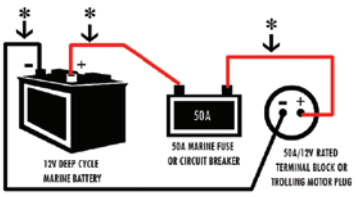
A 24 volt trolling motor battery system will generally consist of two, 12 volt deep cycle batteries, #6 (or larger for long runs) power conductors, a 24V, 50A rated circuit breaker, a 24V, 50A rated receptacle, and optionally a permanently installed 24V battery charger as per the following wiring schematic.



✻ CONDUCTORS SHOULD BE AT LEAST #6AWG. LARGER CONDUCTORS MAY BE REQUIRED FOR LONG RUNS. CONDUCTORS SHOULD BE RATED FOR MARINE USE.

12 VOLT TROLLING MOTOR BATTERY SYSTEM

A 12 volt trolling motor battery system will generally consist of a 12 volt deep cycle battery, #6 (or larger for long runs) power conductors, a 12V, 50A rated circuit breaker, a 12V, 50A rated receptacle, and optionally a permanently installed 12V battery charger as per the following wiring schematic.



✻ CONDUCTORS SHOULD BE AT LEAST #6AWG. LARGER CONDUCTORS MAY BE REQUIRED FOR LONG RUNS. CONDUCTORS SHOULD BE RATED FOR MARINE USE.

If you plan to attempt a complete installation yourself, please feel free to contact Rhodan Marine Systems for additional guidance and information.

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APPENDIX E: PROPELLER INSTALLATION

INCLUDED

- Three Bladed Propeller
- Propeller Nut
- Shear Pin
- Propeller Nut Key

Always verify that the trolling motor power is disconnected before installing or cleaning the propeller. Failure to do so may result in personal injury.

Never strike any part of the motor with a hammer. This may cause damage to the motor armature, which is not covered by the warranty.

INSTALLING THE PROPELLER

1. Install the shear pin in the hole near the end of the propeller shaft.
2. Slide the propeller onto the propeller shaft, taking care to ensure that it is properly engaged onto the shear pin.
3. Install the propeller nut on the propeller shaft.
4. Firmly hand tighten the propeller nut using the propeller nut key.
5. Be sure to periodically check the prop nut to ensure it is tight.

APPENDIX F: CALIBRATIONS

CENTERING CALIBRATION

Note: This procedure is required and is normally only completed once at the time of the installation. It should also be performed every time the system is transferred to another boat or after a compass calibration.

1. Power up the system and deploy it using the depth collar to adjust the height so that the motor can steer without any obstructions.

2. Press the 'M' button to enter Manual Mode. Please note that the system is in an operational mode: Stay a safe distance away from the propeller to avoid injury.

3. Using the left and right arrows (or manually rotating the head of the thruster), steer the unit so that it is aligned with the keel of the boat (pointing straight ahead with the propeller facing the stern of the boat).

4. Press and hold the up and down arrow simultaneously for 5 seconds until the system beeps.

5. The system will return to Manual Mode.

6. To verify that the system has been "centered", press the off button. The system will automatically steer to the centered position.

The accuracy of the steering calibration will impact the system's performance. Care must be taken to ensure that the thruster is aligned as accurately as possible (ideally within 1 or 2 degrees) during this calibration.

COMPASS MANUAL CALIBRATION (Recommended)

Note: Performing a compass calibration procedure is recommended as part of the installation process to improve the accuracy of the GPS Anchor. It will account for magnetic errors that can occur if the system is mounted close to other metallic objects (i.e. cleats, steel fasteners, etc.) which may cause the system functions to misbehave. This routine performs a similar but more accurate calibration than the "Compass Auto-Calibration" however it requires an external means of propulsion (i.e. outboard engine or paddle).

1. The boat must be in the water to perform this calibration. Make sure that there are no obstructions nearby (docks, pilings, other boats, etc.) and that the water is fairly calm.

2. Power up the system and deploy it using the depth collar to adjust the height so that the motor can steer without any obstructions.

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3. Press the 'M' button to enter Manual Mode. Please note that the system is in an operational mode: Stay a safe distance away from the propeller to avoid injury.

4. Using the left and right arrow buttons steer the unit so that it is aligned with the keel of the boat (pointing straight ahead with the propeller facing the stern of the boat).

5. Using another means of propulsion (main engine, paddle, etc.) begin to continuously rotate the boat in a tight circle at a rate of one full revolution every 20-30 seconds.

6. While holding down on the Manual 'M' button, press and hold on the Track 'T' button for 5 seconds until the system beeps.

7. After the boat has completed (2) full revolutions it will beep to indicate that the calibration is now complete.

8. The system will return to Manual Mode. The rotation may now be stopped.

9. It is required that the Centering Calibration is now performed.

COMPASS AUTO-CALIBRATION (Optional)

Note: This procedure is provided as an alternative to the "Compass Manual Calibration" for situations where external means of propulsion (i.e. outboard engine or paddle) are not available. Generally speaking the "Compass Manual Calibration" will provide a more accurate correction and is preferred. Performing a compass calibration procedure is recommended as part of the installation process to improve the accuracy of the GPS Anchor. It will account for magnetic errors that can occur if the system is mounted close to other metallic objects (i.e. cleats, steel fasteners, etc.) which may cause the system functions to misbehave.

1. The boat must be in the water to perform this calibration. Make sure that there are no obstructions nearby (docks, pilings, other boats, etc.) and that the water is fairly calm.

2. Power up the system and deploy it using the depth collar to adjust the height so that the motor can steer without any obstructions.

3. Press the 'M' button to enter Manual Mode. Please note that the system is in an operational mode: Stay a safe distance away from the propeller to avoid injury.

4. Using the left and right arrow buttons steer the unit so that it is aligned with the keel of the boat (pointing straight ahead with the propeller facing the stern of the boat).

5. While holding down on the Manual 'M' button, press and hold on the Anchor 'A' button for 5 seconds until the system beeps.

6. The motor will now automatically steer to the right and ramp up the thrust causing the boat to begin rotating. The boat will complete (2) full rotations and then the system will beep to indicate that the calibration is complete.

7. The system will return to Manual Mode.

8. It is required that the Centering Calibration is now performed.

APPENDIX G: FOB FEATURES

REPLACING A FOB BATTERY

The batteries in the wireless FOB should be capable of lasting a full fishing season or longer under normal usage conditions. If your system is powered up yet fails to respond to a FOB, or if you noticed decreased wireless range, try replacing the battery."

1. Using a #1 phillips screwdriver, remove the two screws on the back of the fob.
2. Separate the fob sections
3. Remove the rubber membrane and the circuit board from the back half of the fob shell.
4. Slide the battery out of its holder on the back of the circuit board and replace with a new CR2032 battery. Be sure to position the battery with the Positive side away from the board.

Use care not to press the small switch on the back of the circuit board near the battery holder. If this switch is accidentally pressed, or the unit does not respond to fob commands after replacing a battery, please contact Rhodan Marine Systems for further assistance.

5. Reinstall the circuit board in the back half of the fob shell, taking care to make sure it is properly positioned in the shell.
6. Place the rubber membrane over the lip on the back half of the fob shell and press into place.
7. Place the front half of the fob shell over the rubber membrane and press into place. Verify that all buttons are properly positioned within their opening and function correctly.
8. Reinstall the two screws into the fob shell, taking care not to over-tighten the screws.

PROGRAMMING A NEW WIRELESS CONTROL FOB

1. Power up the unit in the stowed position
2. Deploy, stow and re-deploy the unit prior to pressing any fob buttons.
3. The unit will begin "beeping" indicating that it is ready to learn new wireless controls.
4. Press any button on the new fob within 20 seconds
5. When the unit stops beeping, the new fob will be learned by your system and is ready to be used.

Warning, do not attempt to stow the unit until it has stopped beeping.

RHODAN MARINE SYSTEMS

ERASING ALL FOBS FROM MEMORY

1. Power the unit up in the stowed position
2. Deploy, stow and re-deploy the unit prior to pressing any fob buttons.
3. The unit will begin "beeping" indicating that it is ready to learn new wireless controls from the step above.
4. Within 20 seconds (while the system is still beeping) stow and deploy the system once more.
5. The system will sound a long beep indicating that all fobs have been erased from memory.

If this step is being performed because of concerns about a defective fob, it will be necessary to remove the batteries from all fobs in question prior to completing this process.

APPENDIX H: MAINTENANCE & STORAGE

Trolling motor must be disconnected from power source (ie. trolling motor plug or circuit breaker) when charging or stored at end of day. Failure to power down can result in damage that is not covered under warranty.

It is recommended that the following steps be taken after each use. Adhering to these recommendations can greatly increase the life of the unit. Failure to properly maintain the unit may void the warranty and can result in system damage, personal injury, and property damage.

- Rinse off any salt water deposits and wipe the motor down with a clean soft cloth. Do not use a pressure washer to clean the unit.
- Check that the propeller is clear of any fishing line or weeds.
- Use the prop nut tool to ensure the prop nut is properly secured.
- Lubricate all moving parts with a non-aerosol lubricant.
- Clean battery terminals regularly and check for loose terminal nuts.
- Store in a well-ventilated, dry area
- Do not leave the motor outside in the elements, especially in cold winter and/or salt water environments. Long exposure to sub-zero temperature will reduce the strength of the permanent magnets of the motor and result in reduced thrust.
- Never use chemicals (alcohol, solvents, and acids) on any of the system components.
- Use a Vinyl UV protector periodically on the power cables to avoid excessive sun damage.
- Periodically check for loose connections and/or excessive corrosion.

TROUBLESHOOTING

The most commonly heard sound is the dead battery sound. If this is heard at start up, please charge the batteries or correct the wiring problem before contacting Rhodan.

PROBLEM	POSSIBLE CAUSES AND/OR SOLUTIONS
MOTOR IS SHAKING	• Check for line or weed fouling of the propeller. • Check Prop and Prop Nut • Check to see if propeller shaft is bent
LOSS OF SPEED	• Check battery condition. Recharge and test for a bad cell. • Check battery connections for corrosion • The power wiring from the battery to the motor may be too small. Use #6 AWG.
SYSTEM DOES NOT RESPOND TO WIRELESS COMMANDS	• Verify that unit is locked in the deployed position • Cycle power off & back on • Replace battery in wireless fob
SYSTEM WILL NOT ANCHOR OR TRACK	• Allow at least 1-minute for system to acquire a GPS fix. Listen for (4) beeps indicating good GPS signal. • Make sure that nothing is blocking the sky view of the GPS antenna
AFTER SELECTING A MODE, SYSTEM BEEPS TWICE AND THEN DOES NOTHING	• Battery voltage is low • Check all connections • Recharge battery and test for a bad cell
BATTERY DRAINS	• A drain of approximately 100 milliamps will be imposed on the system batteries if powered-up when not in use • Always unplug the system when not in use

The above reference is included to assist you in troubleshooting some basic issues that you might encounter. At any time should you have a question or concern about the function of your HD GPS ANCHOR+, please feel free to contact Rhodan Customer Service.

RHODAN MARINE SYSTEMS

HD GPS ANCHOR+

GPS Guided Trolling Motor

RHODAN MARINE SYSTEMS 24 MONTH WARRANTY

All HD GPS ANCHOR+ Trolling motors produced by Rhodan Marine Systems that have been under normal and proper usage are warranted to be free of manufacturing defects for a period of 24 months after date of purchase. Proof of purchase may be necessary.

CUSTOMER SERVICE

Have your unit serial number ready and call:
1-888-HDGPSANCHOR (1-888-434-7726)

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