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MANML100-05-01

NorCross
Taking You To New Depths.....

Wireless

OPERATOR'S MANUAL - Digital Depth Sounders

ML100R
ML100DR
ML100TDR
ML100TR

MarinLink
Wireless Technology

2 YEAR

2. Clean and dry both the selected area and the face of the transducer with a weak solvent to remove any dust, grease or oil.

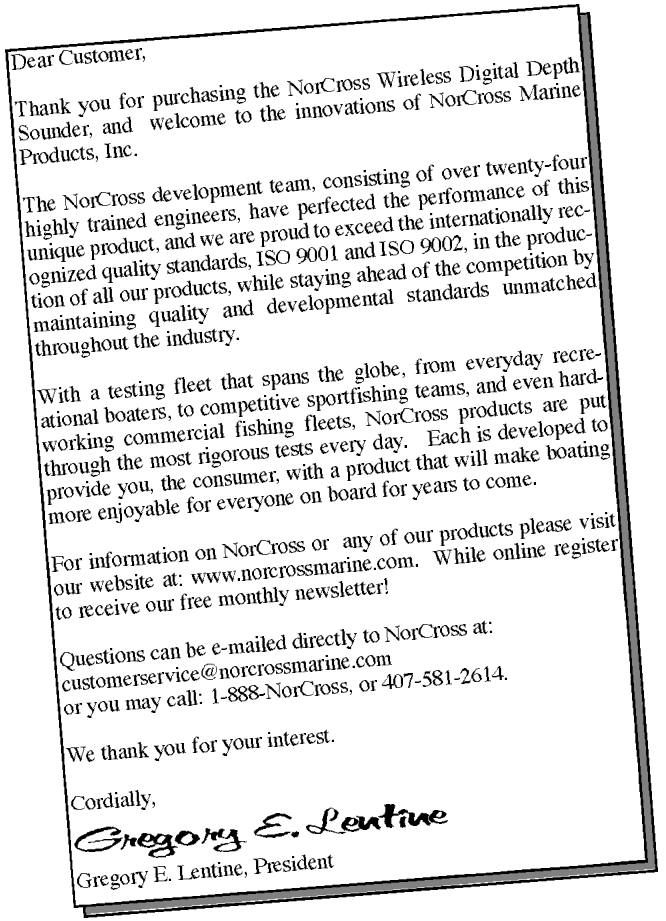
3. If the hull temperature is above 15º C (60º F), mix the epoxy until the color is uniform. Do not proceed if the hull temperature is below 15º C (60º F) because the cure time will be greatly extended.

NOTE!!!!
The working time of the epoxy is only 5 minutes.

4. Apply a generous amount of epoxy to the center of the face of the transducer (side opposite from the cable).

5. Press the transducer face onto the hull with a twisting motion to expel all air bubbles. (If the hull is slanted, temporarily secure the transducer in place with duct tape.) The adhesive is cured in 24 hours at 21º C (70º F). The lower the temperature the longer the cure time.

6. After the adhesive has cured, route the cable to the transmitter being careful not to tear the cable jacket when passing it through the bulkhead and other parts of the boat. To reduce electrical interference, separate the transducer cable from other electrical wiring and sources of interference. To prevent damage, cut the transducer cable to the desired length.



Dear Customer,

Thank you for purchasing the NorCross Wireless Digital Depth Sounder, and welcome to the innovations of NorCross Marine Products, Inc.

The NorCross development team, consisting of over twenty-four highly trained engineers, have perfected the performance of this unique product, and we are proud to exceed the internationally recognized quality standards, ISO 9001 and ISO 9002, in the production of all our products, while staying ahead of the competition by maintaining quality and developmental standards unmatched throughout the industry.

With a testing fleet that spans the globe, from everyday recreational boaters, to competitive sportfishing teams, and even hard-working commercial fishing fleets, NorCross products are put through the most rigorous tests every day. Each is developed to provide you, the consumer, with a product that will make boating more enjoyable for everyone on board for years to come.

For information on NorCross or any of our products please visit our website at: www.norcrossmarine.com. While online register to receive our free monthly newsletter!

Questions can be e-mailed directly to NorCross at:
customerservice@norcrossmarine.com
or you may call: 1-888-NorCross, or 407-581-2614.

We thank you for your interest.

Cordially,

Gregory E. Lentine

Gregory E. Lentine, President

TABLE OF CONTENTS

Model Identification

ML100DR In-Dash Wireless Display

**Included within the ML100TDR System. Additional displays can be added at any time by following the setup instructions on page 5.

ML100R Portable Wireless Display

**Included within the ML100TR System. Additional Display can be added at any time by following the setup instructions on page 5.

ML100T Wireless Depth Sounder Transmitter

**Included within the ML100TR and ML100DTR Systems. Both the ML100R and ML100DR wireless displays require the transmitter to function as a depth sounder display.

FIGURE 10C

If the hull surface is not smooth, grind it with a disc sander. Partially fill a thin plastic bag with water, place the transducer inside and close it tightly with a tie wrap. Wet the surface of the hull and press the transducer face against it through the bag (Figure 20 C).

Selecting the Adhesive

Hard adhesives, transmit sound best, but winter temperature extremes and flexing on trailer rollers can cause it to delaminate. However, soft adhesives absorb sound. To compromise, use a viscous slow-cure epoxy or a fairly rigid, one part adhesive sealant. In cold climates, a one-part polyurethane adhesive, such as Boat-Life's Life Seal, may be best. Do not use "5 minute" epoxies because they are generally brittle. RTV (silicone) adhesives are not recommended because most of the sound energy is lost.

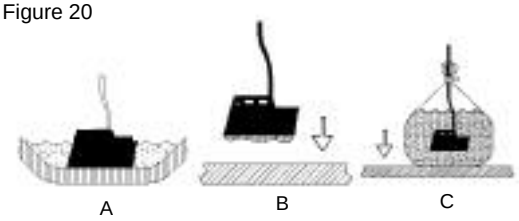
Installation

CAUTION!!!!

Always wear safety goggles and a dust mask when sanding.

1. All surfaces to be bonded must be smooth, clean and dry. If the surface is rough, use a disk sander to smooth an area a little larger in diameter than the length of the transducer.

Figure 20



CAUTION!!!!
Always wear safety goggles and a dust mask when sanding.

FIGURE 10A

- This method is practical if the transducer will be located near the stern and the boat has a low deadrise angle. Clean away any large build-up of grease and / or dirt. Place the transducer against the hull and allow bilge water to cover the surface where they touch (see Figure 20 A).

FIGURE 10B

- If the hull surface is not smooth, grind it with a disc sander. Coat the face of the transducer with petroleum jelly and press it against the hull with a twisting motion (see Figure 20 B).

WARNING!!!!

This depth sounder should not be used as a navigational aid to prevent grounding, boat damage, or personal injury. Always operate the boat at slow speeds in unfamiliar water, or if you suspect shallow water or submerged objects, as water depth may change too quickly to allow time for you to react.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for com - pliance could void the user 's authority to operate the equipment.

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.

TRANSDUCER SELECTION

IMPORTANT!!!!
Please read the instructions completely before proceeding with the installation.

P23 Transom/In-Hull Transducer Applications

- Powerboats with outboard, inboard / outboard, or jetdrives. Not recommended for use with large or twin screw inboard motors.
- Allows sound beam to be oriented vertically on hulls with a deadrise angle of up to 30°.
- Adjusts to transom angles from 3-20°.

P23 Transom/In-Hull Transducer

Thru-Hull Transducer Applications

- Inboard boats, sailboats, wooden boats, or metal hulled boats.

If, after completely reviewing the transducer installation instructions, you find that the supplied transducer is not appropriate for your vessel, please contact NorCross at 888-667-2767, or visit us on the internet at www.norcrossmarine.com for exchange information. You may exchange your new and unused transducer for another type, but keep in mind that some transducers may have additional costs.

Thru-Hull Transducer

Testing the Depth Sounder

Establish a performance baseline by operating the depth sounder with the transducer directly in the water. The results of this test are used as a basis of comparison to determine the best in-hull location for the transducer.

1. Anchor the boat in at least 15 m (50') of water. (If you have a digital unit, conduct this test in water as deep as that for which the depth sounder is rated.)

2. Tape the transducer to a pole, cable side up, and hold it over the side of the boat (Figure 19). The cable side must be parallel to the surface of the water.

3. Observe the depth sounder performance. Record the depth reading.

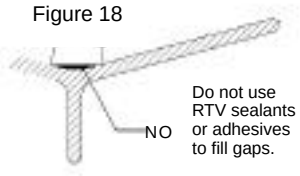
Figure 19

Testing at the Selected Location

While the boat is anchored, use one of the methods below to test the depth sounder with the transducer at the selected location. If the test readings differ markedly from the baseline or there is almost no reading, you will need to find another location. If the two readings are reasonably similar, mark the spot on the hull and proceed with the installation.

Never use adhesive to fill gaps between the transducer and the hull since this will greatly reduce performance (Figure 18).

Figure 18



Headroom

Choose a location with enough headroom inside the boat to complete the installation.

Hull material

Since the hull absorbs acoustic energy, transmitting through the hull reduces the transducers performance. Fiberglass hulls are often reinforced in places for added strength. These cored areas contain balsa wood or structural foam which are poor sound conductors. To achieve optimal performance, find a location where the hull laminate is solid (not cored).

TRANSDUCER INSTALLATION

Transom Mount Transducer Installation (P23 Transducer)

- Please follow the supplementary instruction provided in the transducer hardware package.

Thru-Hull Transducer Installation (P6 Transducer)

- Please follow the supplementary instruction provided in the transducer hardware package.

In-Hull Transducer Installation (P23 or P6 Transducer)

- Please follow the supplementary instructions provided in Appendix A of this manual.

SETTING UP THE TRANSMITTER AND RECEIVER

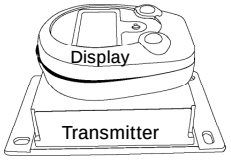
The ML100DR and ML100R wireless displays utilize a code learning function which allows the transmitter to exchange its unique operating code with the receiver. This code learning feature makes each wireless depth sounder unique, therefore eliminating the chance of your system interfering with a nearby vessels.

IMPORTANT!!!!

Before Installing the ML100DR and ML100R, it will be necessary to match the receiver to the transmitter. This can be completed before installing the system on the vessel by simply applying power to the trans - mitter and receiver and following steps 1 thru 3. The receiver retains this unique code in its memory, and will only need to be relearned if the channel on the transmitter is changed.

1. Upon applying power to the transmitter and receiver, place the display over the transmitter. Refer to Figure 1 for proper alignment.

Figure 1



ML100R

ML100DR

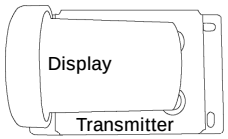
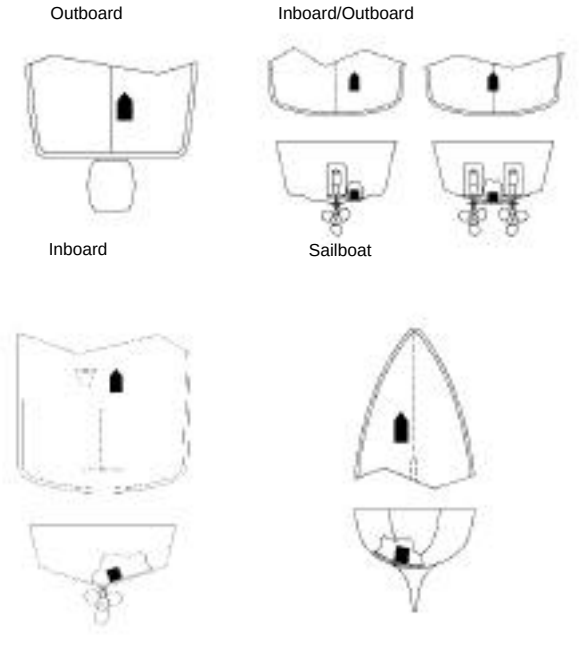


Figure 17



Location

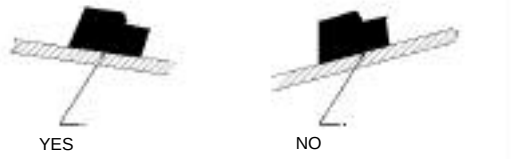
Consult the boat manufacturer for the best in-hull transducer placement. If this information is unavailable, follow the guidelines below and see Figure .

- Outboard powerboats - Install as far aft as is practical
- Inboard / outboard powerboats - Install close to the engine(s)
- Inboard powerboats - Install forward of the propeller(s) and shaft(s)
- Sailboats - Install near the centerline of the hull and forward of the leading edge of the keel

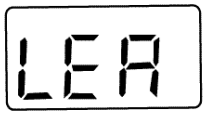
Deadrise Angle

Be sure the deadrise angle is less than 10º
(see Figure 16)

Figure 16



2. While the code is being generated the display will flash "LEA" to indicate that it is in LEARN mode. You may need to slowly move the display around the surface of the transmitter until "LEA" is indicated on the display.



3. Once "LEA" stops flashing the Code Learning process is complete and you can now proceed with installation.

NOTE!!!!

If the depth sounder displays "E" constantly during usage, the setup procedures on page 5 will have to be repeated.

INSTALLING THE TRANSMITTER (ML100T)

IMPORTANT!!!!

Please read the instructions completely before proceeding with the installation.

*** For optimal performance avoid installing the transmitter in engine compartments where sound suppression insulation may reduce the range.**

*** If the deck of your boat is constructed from metal (aluminum, steel, etc) the transmitter will need to be installed above deck.**

* **The mounting location of choice must be above the waterline of the vessel, and free from water spray, and/or water submersion.**

* **A mounting location that produces the furthest range should prove to be the optimal location.**

* **Do not mount the Transmitter within 12 inches of any magnetic producing devices (compass, auto pilot control, etc.)**

IMPORTANT!!!!

On most vessels the Transmitter (ML100T) can be mounted in a variety of locations. It is suggested that you test the installation location first by temporarily installing the display and transmitter. Consistent, steady depth readings on the display indicates interference free operation. A display reading of "E--" indicates reduced range conditions and may be corrected by moving the transmitter.

Wiring of the Transducer Cable

Refer to the following directions for connecting the transducer cable to the Transmitter (ML100T) (see Figure 2).

1. Connect the blue wire from the transmitter, to the blue wire on the transducer cable.

Appendix A

IN-HULL TRANSDUCER INSTALLATION INSTRUCTIONS

IMPORTANT!!!!

Please read the instructions completely before proceeding with the installation.

Applications

- Recommended for high speed boats to eliminate the acoustic noise generated by external mounting
- For hulls with a deadrise angle less than 10 degrees

Performance with Various Hull Materials

	Transducer Performance		
Hull Material	Good	Fair	Poor
Non-cored fiberglass	X		
Fiberglass with balsa core			X
Fiberglass with foam core			X
Fiberglass with core mat			X
Aluminum			X
"West" type hull (depends on construction)		X	

4. Consult the dealer or an experienced radio/TV technician for help

The Portable Wireless Depth Sounder Display (ML100R) Will Not Turn On

1. Place in the charging cradle and recharge.

2. If after charging the display still will not turn on, contact NorCross at 888-NorCross for battery replacement information.

Figure 2

2. Connect the black wire from the transmitter, to the black wire on the transducer cable.
3. Connect the shield (bare) wire from the transmitter, to the shield (bare) wire on the transducer cable.

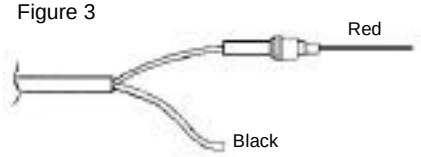
Wiring of the Power Cable

The Transmitter (ML100T) has no ON/OFF switch. Therefore, you will need to wire it to a power source that will turn the unit on as power is applied. The Key Switch or an ON/OFF power switch will be suitable for power.

1. Connect the BLACK wire to the negative (-) battery terminal or suitable ground (see Figure 3).

2. Connect the RED wire to a positive (+) 12 Volt switchable power source (key switch, on/off switch) (see Figure 3).

Figure 3



INSTALLING THE IN-DASH WIRELESS DISPLAY

IMPORTANT!!!!

Please follow the Setup Procedures on page 6 and read the instructions completely before proceeding with the installation.

Installation of the In-Dash Wireless Display (ML100DR)

1. Find a location on the boat that will allow clear viewing of the LCD Display. Please keep in mind that the power cable must reach the mounting location.

2. After finding the right location for the display, mark a 2-inch hole to be cut using a 2-inch hole-saw (use the template inserted in the manual marked Figure 4).

WARNING!!!!

Wear safety goggles and a dust mask.

3. Check behind the desired mounting location for any cables or wiring which could be damaged. Then cut out the 2-inch hole.

4. Insert the display from the front of the panel, and install the bracket and locking nut from the rear of the panel (see Figure 5). Make sure that the face of the display is rotated upright.

"E--" Appears on the Display:

This indicates that there is no RF signal being received from the transmitter .

1. Make sure that there is power to the transmitter. (A red or green LED on the transmitter will indicate power)

2. Move within range of the Transmitter.

2. Move the transmitter to a location that provides better coverage. Larger vessels may require the transmitter to be located in the center of the craft.

"E" Appears on the Display:

This indicates that the transmitter and receiver are not matched. Refer to the Set Up section on page 5.

"LO" and the Depth Appears on the ML100R Display:

This indicates a low battery condition. Place the Display in the charging cradle and recharge**.**

There is interference to radio or television reception:

1. Reorient/Relocate the transmitter or wireless display.

2. Increase the separation between the equipment and transmitter or wireless display.

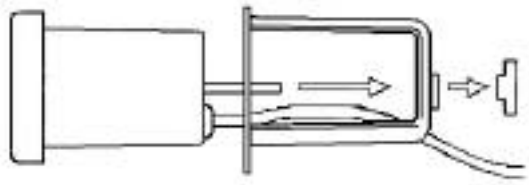
3. Connect the equipment to a power source different from that to which the transmitter or portable receiver is connected.

2. If this condition occurs only at high speeds, then a transducer adjustment is needed. Refer to the Transducer Installation Instructions for adjustment procedure.
3. Check the transducer cable connection to the transmitter. Make sure that the connection is made as per the instructions in the Transducer Wiring Section of this manual.

The Bottom Reading is Random, Flashing, or Appears as "---" on the display.

1. The depth is less than 2.5 feet or greater than 200 feet. Operate the unit under normal operating specifications and check to see if it operating properly.
2. If this condition occurs only at high speeds, then a transducer adjustment is needed. Refer to the Transducer Installation Instructions for adjustment procedure.
3. Under certain circumstances the ML100 Series may not perform at the best of its ability. Extremely dirty water, very soft bottom, high speeds, deep water, or a combination of the above will result in incomplete or inaccurate readings. Please refer to the Transducer Installation Instructions to minimize the effects of these conditions.
4. Check the transducer cable connection on the transmitter. Make sure that the connection is made as per the instructions in the Transducer Wiring Section of this manual.

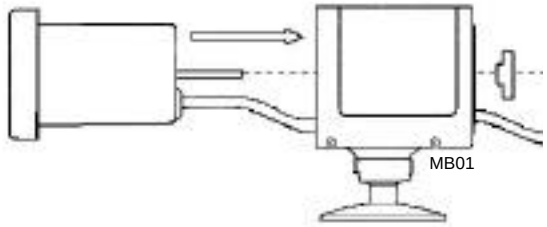
Figure 5



The In-Dash Wireless Display (ML100DR) can also be surface mounted using NorCross's exclusive MB01 Adjustable Surface Mount Bracket (see Figure 6). Please see your local retailer, or contact NorCross by phone 888-NorCross, or online at:

www.norcrossmarine.com for purchase information.

Figure 6

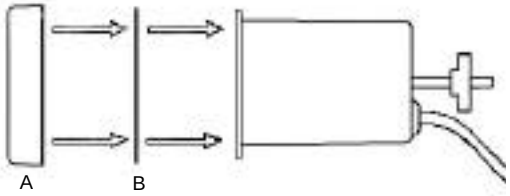


Installing the Face and Bezel

1. Place the face over the display (Figure 7B) making sure to line up the cut outs on the face with the notches on the display.

2. While holding the bezel (Figure 7A) place it over the display and turn counterclockwise until the bezel locks into place.

Figure 7



Wiring of the Power Cable

The 100DR has no ON/OFF switch. Therefore, you will need to wire it to a power source that will turn the unit on as power is applied. The Key Switch or an ON/OFF power switch will be suitable.

1. Connect the BLACK wire to the negative (-) battery terminal or suitable ground (see Figure 8).

2. Connect the RED wire to a positive (+) 12 Volt switchable power source (key switch, on/off switch) (see Figure 8).

TROUBLESHOOTING

There are no user repairable parts within this equipment. Attempting to repair it yourself will only void the warranty. If you have a problem with your ML100Series, consult the following troubleshooting guide. If this does not remedy your problem, please contact NorCross at 888-667-2767 for assistance.

The Equipment does not turn on.

1. Check the inline fuse located on the main power supply to the unit. If it is blown, replace it with a 1 amp, normal blow fuse. Clean all corrosion from the fuse housing, and replace the fuse holder assembly if necessary.
2. Check the power cable connection. Be sure that the unit is connected to a known power source: RED wire to positive, BLACK wire to negative or ground.
3. Ensure that the power source is powered using a test light, or some other reliable form of testing 12 volt power.
4. If you are sure that the unit is receiving power and is still not turning on, please refer to the warranty and service section.

The LED On the Transmitter is Flashing

This indicates that the transmitter is not receiving a signal from the transducer.

1. The depth is less than 2.5 feet or greater than 200 feet. Operate the unit under normal operating specifications and check to see if it operating properly.

Accessories

Adjustable Surface Mounting Bracket
For ML100DR Display

(Part Number - MB01)

Adjustable Surface Mounting Bracket
For ML100R Display

(Part Number - MB02)

Portable Transducer Bracket Kit
For P23 Transducer

(Part Number - 33-173)

In-Dash Wireless Depth Sounder Display
Can be added to either the ML100TR
or ML100DTR Depth Sounder systems.

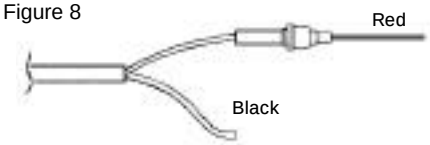
(Part Number - ML100DR)

Portable Wireless Depth Sounder Display
Can be added to either the ML100TR
or ML100DTR Depth Sounder systems.

(Part Number - ML100R)

To purchase accessories visit your local marine retailer, contact NorCross at 888-NorCross, or visit us on the web at www.norcrossmarine.com

Figure 8



Installing the ML100R

The Portable Wireless Display (ML100R) utilizes an internal rechargeable battery and an inductive charging base for recharging. This charging bracket does not have any exposed electrical connections that can corrode. Simply clip the ML100R into the charging stand, and the battery is charged through the plastic casing.

The charger control automatically turns the charger off when the unit reaches full charge. To indicate a proper connection to the bracket the backlite of the ML100R will remain ON while in the charging bracket.

Installing the Charger

WARNING!!!!
Because of the Magnetic Nature of the Charger and Display the mounting location of the Charger should be at least 12 inches from a magnetic bearing indicator (ie: compass, autopilot control, etc)

1. Find a suitable mounting location for the charging stand and fasten utilizing the two mounting holes.

2. Connect the BLACK wire to the negative (-) battery terminal or suitable ground (Figure 8).
3. Connect the RED wire to a positive (+) 12 Volt switchable power source (key switch, on/off switch) (Figure 8). For optimal charging the power source should be constant.

OPERATING THE ML100T TRANSMITTER

The ML100T has 2 user changeable operating channels. A dual color LED will show red color to indicate RF channel 1 has been selected (by default) and a green color to indicate RF channel 2. If you are experiencing interference on a channel ("E--"), the channels can be changed using the Channel "1" and "2" keys on the ML100T.

NOTE!!!!

If interference is not corrected by changing the operating channel, the ML100T will need to be repositioned for optimal performance.

To Set The RF Channel

1. Press and hold "1" key for 3 seconds to select Channel 1, the color of the LEDwill be Red
2. Press and hold "2" key for 3 seconds to select Channel 2, the color of the LEDwill be Green.
3. If a new RF channel has been selected, it will be necessary to repeat the set-up procedures on page 5.

If echoes are not received from the transducer, the transmitter LED will flash in either red or green color depending on which RF channel has been selected. Please refer to the troubleshooting section to correct this situation.

Depth Sounder Specifications

Readout	2.5'-99.9',100'-250'
Units of Measure	Feet and Meters
Transducer Frequency	200KHz
Transducer Power	250W (max)
Beam Angle	25 degree, -10db
Depth Range Max	200 feet
Depth Range Min	2.5 feet
Alarm Signaling	Visual and Audible
Audible Alarm Location	Internal
Upper Alarm Range	3-200ft, Full Range
Lower Alarm Range	3-200ft, Full Range

Wireless Technical Specifications

Frequency Control
Crystal Controlled Dual PLL Synthesizer

Transmit Frequency
Channel 1: 902.5 MHZ
Channel 2: 923 MHZ

Nominal Effective Range
Maximum power allowed by FCC. Actual operating range may vary according to environmental conditions at the time of use.

Since NorCross Marine Products continually strives to provide the finest products in the world, we reserve the right to make changes or improvements in our products and/or specifications.

If the problems are related to depth readings, please send the transducer along with the unit when sending for repair.

We will not under any circumstances be liable to anyone for any special, consequential, incidental, or other indirect damage of any kind, except where incidental or consequential damages are non-waivable as a matter of law.

NorCross goes to great lengths to provide the highest quality products, engineered and manufactured under the most stringent regulations in the world. We therefore reserve the right to make changes or improvements in our products without incurring the obligation to make these changes on equipment previously manufactured.

This Limited Warranty is the sole and entire warranty pertaining to the product, and operates in lieu of and to the exclusion and/or limitation of all other warranties of any nature, whether express, implied or extending from application of law.

BATTERIES ARE NOT COVERED UNDER THE LIMITED WARRANTY. PLEASE CONTACT NORCROSS CUSTOMER SERVICE FOR BATTERY RELATED QUESTIONS.

Repairs Not Covered Under the Warranty

If upon receipt of the defective unit NorCross determines that the defect is not covered under the NorCross Limited Warranty, we will contact you about your repair options and associated costs. We reserve the right to deem any product unserviceable if replacement parts are no longer available.

OPERATING THE WIRELESS DISPLAYS

The depth sounder's auto-ranging, auto-sensitivity features means that you never have to worry about adjustments. Simply turn the power on, and your ready to go. The transducer emits sound signals that travel through water, and the depth sounder then calculates the amount of time that elapsed while the signal traveled down to the bottom and returned back to the transducer. This time is calculated and is displayed as a depth reading. Extremely dirty water, very soft bottom, high speeds, deep water, or a combination of the above will result in incomplete or inaccurate readings. Under these conditions variable readings or "- - -" (Figure 9) will be displayed.

Figure 9

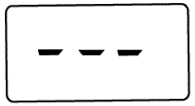


Figure 10

If the wireless display is not receiving a signal from the transmitter "E--" will appear in the LCD (Figure 10). If this occurs refer to the troubleshooting guide for more information.

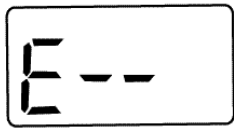
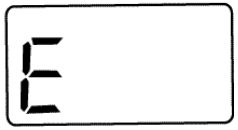


Figure 11

The display will show the current depth upon power up. Both the ML100R and ML100DR displays will read "E" (Figure 11) if the stored code does not match the transmitters. If this occurs, the setup procedures on page 5 will have to be repeated.



Turning the Displays On/Of f

ML100DR In-Dash Wireless Display

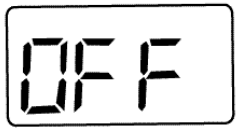
When installed to a switchable 12v power source the display will turn **ON/OFF** with the power supply.

ML100R Portable Wireless Display

To turn the ML100R **ON** press and hold the “UP” and “DOWN” keys at the same time for 5 seconds. When the display turns on release the keys.

To turn the ML100R **OFF** press and hold “UP” and “DOWN” keys at the same time for 5 seconds. When the display reads “OFF” release the keys (Figure 12). The display will also turn off automatically after 5 minutes if no signal is received from the transmitter.

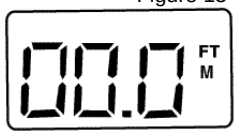
Figure 12



Setting the Units

The UNITS of measure for depth readout and alarm functions can be set in 4 easy steps. The two settings available are Feet (FT) and Meters (M). (Figure 13)

Figure 13



NorCross Limited Warranty

NorCross Marine Products, Inc. warrants, to the original purchaser, this product to be free from defects in materials and workmanship for two years from the date of purchase. If the unit fails to perform as described in the product’s written specifications, due to a defect in materials or workmanship, we will repair it free of charge to the customer for parts or labor. The customer, however, is responsible for any costs associated with returning the unit to NorCross. This warranty is void if damage or malfunction is due to abuse, misuse, accident, failure to reasonably maintain, improper installation or use, or unauthorized alteration or repairs. Norcross retains the exclusive right to repair or replace the unit at its sole discretion, and holds this right as the exclusive remedy available to the customer against NorCross for any defect, malfunction, or non-conformity concerning the product, or for any loss or damage resulting from any other cause whatsoever. Norcross will respond to all warranty claims within a reasonable time after receipt of the unit from the original purchaser, with such response time not to exceed thirty days without written notification of delay to customer.

To obtain warranty service, securely pack the unit, and mail prepaid via insured post to: NorCross Marine Products, Inc., Warranty Department, 1629 Prime Court - Suite 800,Orlando, FL 32809. A copy of the original sales receipt is required as the proof of purchase for warranty repairs. Please be sure to include your name, address, email address, and a daytime phone number within the package.

2 Year Limited Warranty

What Does Our Warranty Cover?
- Any defect in material or workmanship

For How Long After the Original Purchase?
- 2 Years

What Will NorCross Do?
- At our option repair or replace.

How Do I Obtain Service?
- Securely pack the unit, and mail prepaid via insured post to: NorCross Marine Products, Inc., Warranty Department, 1629 Prime Court - Suite 800,Orlando, FL 32809. A copy of the original sales receipt is required as the proof of purchase for warranty repairs. Please be sure to include your name, address, email address, and a daytime phone number within the package.

What Does Our Warranty Not Cover?
- Batteries
- Damage from misuse, neglect, or acts of nature (lightning, floods, power surges, etc.
- Products purchased outside the USA and Canada
- Products serviced by the owner or a service facility not expressly authorized by NorCross Marine Products
- Products purchased more than 24 months from the current date.

How Does State Law Relate to this Warranty?
- This warranty gives you specific rights. You may also have other rights which vary from state to state.

To Set the Units:

1. Turn on the Display

2. Press and hold the "up" and "down" keys at the same time for 2 seconds.

3. To set the units to feet press the “up” key. “FT” will flash on the Display.

4. To set the units to meters press the “down” key. “M” will flash on the Display.

5. The display will return to the normal mode automatically after five seconds.

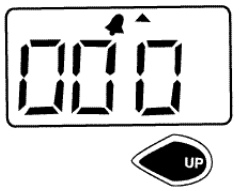
Shallow Alar m

The shallow alarm function can be set for depths ranging from 3 to 200 feet and triggers an alarm when the depth is less than the setting.

To set the SHALLOW ALARM (upper alarm):

1. Press and hold the "UP" key for 2 seconds (Figure 14). The current alarm setting will be displayed on the display. "000" is the default setting. The alarm will be reset to "000" if the power to the unit is turned off.

Figure 14



2. The "up" key will increase the selected value. The "down" key will reduce the value. Pressing either key will change the value in 1-foot increments. Holding down the key will change the value in 9 foot increments per second.

3. After your selection is made, the display will return to normal operation after 5 seconds.

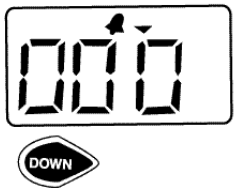
4. The "🔔"and "▲" icons will now be present.

When triggered, the alarm sounds an audible "buzzer" for ten seconds while flashing the warning LED and the "▲ "and "🔔" icons on the display. After 5 seconds the audible alarm mutes and the warning LED and the "🔔"and "▲" icons continue to blink until the depth increases, or the alarm is reset. To reset the alarm repeat step 1 thru 4. To turn the alarm off set to "000".

Deep Alar m

The DEEP alarm function can be set for depths ranging from 3 to 200 feet and triggers an alarm when the depth is more than the setting.

Figure 15



To set the DEEP ALARM (lower alarm):

1. Press and hold the "DOWN" key for 2 seconds (Figure 15). The current alarm setting will be displayed on the display. "000" is the default setting.

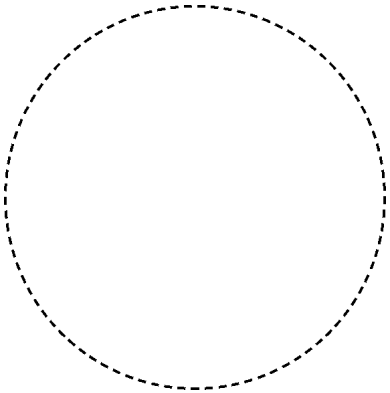
2. The "UP" key will increase the selected value. The "DOWN" key will reduce the value. Pressing either key will change the value in 1-foot increments. Holding down the key will change the value in 9 foot increments per second.

3. After your selection is made, the unit will return to normal operation after 5 seconds.

4. The "🔔"and "▼" icons will now be present.

When triggered, the alarm sounds an audible "buzzer" for ten seconds while flashing the warning LED and the "▼ "and "🔔" icons on the display. After 5 seconds the audible alarm mutes and the warning LED and the "🔔"and "▼" icons continue to blink until the depth increases, or the alarm is reset. To reset the alarm repeat step 1 thru 4. To turn the alarm of set to "000".

Figure 4



IMPORTANT!!!!

Before Installing the ML100DR and ML100R, it will be necessary to match the receiver to the transmitter. This can be completed before installing the system on the vessel by simply applying power to the transmitter and receiver and following steps 1 thru 3. The receiver retains this unique code in its memory, and will only need to be relearned if the channel on the transmitter is changed.

1. Upon applying power to the transmitter and receiver, place the display over the transmitter. Refer to Figure 1 for proper alignment.

Figure 1