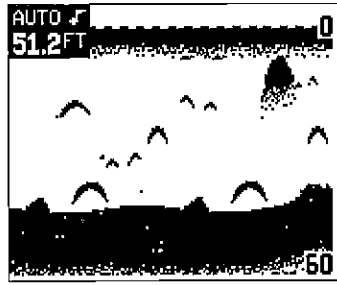


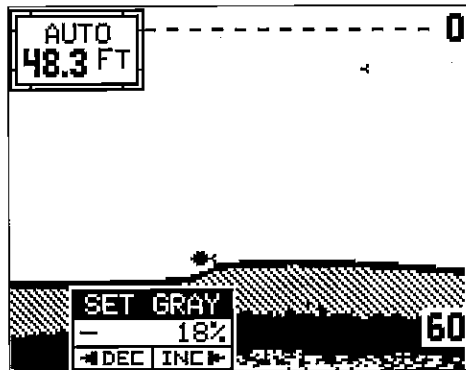
GRAYLINE® ON



GRAYLINE® OFF

GRAYLINE level, also. The level chosen by the Ultra III at power on is usually adequate for most conditions. Experiment with your unit to find the GRAYLINE setting that's best for you.

To adjust GRAYLINE, press the MENU key, then press the key adjacent to the "ADJUST GRAYLINE" label. A screen similar to the one at right appears. Now press the left arrow key to decrease the gray level. Press the right arrow key to increase it. The percentage of GRAYLINE in use changes as the arrow keys are pressed. The bar chart also gives a graphical indication of the GRAYLINE level. You can see the change on the screen (both on the menu and on the chart record) as you press the keys. After you've made the adjustment, press the CLEAR key to erase the menu.



FISH I.D.

The Fish I.D. feature identifies targets that meet certain conditions as fish. The micro-computer analyses all echoes and eliminates surface clutter, thermoclines, and other signals that are undesirable. In most instances, remaining targets are fish. The Fish I.D. feature displays symbols on the screen in place of the actual fish echoes. There are four fish symbol sizes: tiny, small, medium, and large. These are used to designate the relative size between targets. In other words, it displays a small fish symbol when it thinks a target is a small fish, a medium fish symbol on a larger target, etc.

The micro-computer is sophisticated, but it can be fooled. It can't distinguish between fish and other suspended objects such as trotlines, turtles, submerged floats, air bubbles, etc. Individual tree limbs extending outwards from a group of limbs is the hardest object for the Fish I.D. feature to distinguish from fish.

You may see Fish I.D. symbols on the screen when actually, there are no fish. Practice with the unit in both the Fish I.D. mode and without to become more familiar with the Fish I.D. feature.

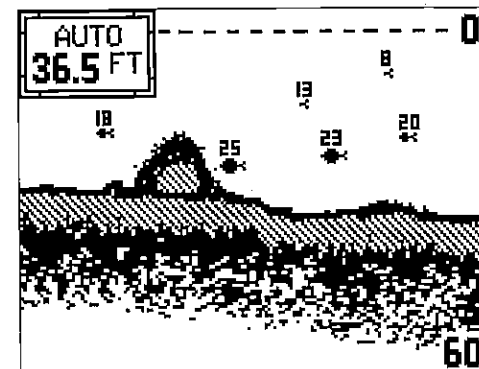
When the Ultra III is turned on, the Fish I.D. feature is automatically turned on, also. To turn the Fish I.D. feature off, press the menu key, then press the key adjacent to the "Turn Fish-ID Off" label. Or press the AUTO key. This turns the Fish I.D. feature and automatic off at the same time. To turn the Fish I.D. feature on again, first press the menu key. Next, press the key adjacent to the "Turn Fish I.D. On" label. The menu immediately disappears and the sonar screen returns. Echoes will continue to scroll across the screen, however, the surface clutter at the top will no longer be displayed. Any targets the micro-computer determines are fish will be displayed as fish symbols.

Remember, the Fish I.D. feature can't be used when the Ultra III is in the manual mode. If you turn the Fish I.D. feature on when the Ultra III is in manual, the micro-computer will turn the automatic feature on. If you turn automatic off when the Fish I.D. feature is on, the Fish I.D. feature will be turned off also.

FISHTRACK™

The FishTrack feature shows the depth of a fish symbol when it appears on the display. This lets you accurately gauge the depth of targets. This feature is available only when the Fish ID feature is on.

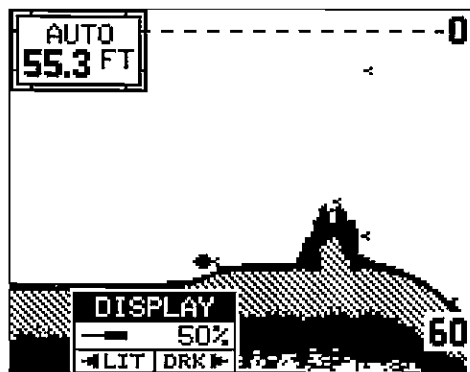
To turn the FishTrack feature on, press the menu key, then press the key adjacent to the "Fish-ID On Off FishTrack" label until the blackbox surrounds the "FishTrack" label. Echoes will continue to scroll across the screen, with the depth of fish symbols showing above them as they appear on the display. To turn the FishTrack feature off again, first press the



menu key. Next, press the key adjacent to the "Fish-ID On Off FishTrack" label until the black box surrounds the "ON" label to leave Fish ID on or the "OFF" label to turn both Fish ID and FishTrack off.

DISPLAY CONTRAST

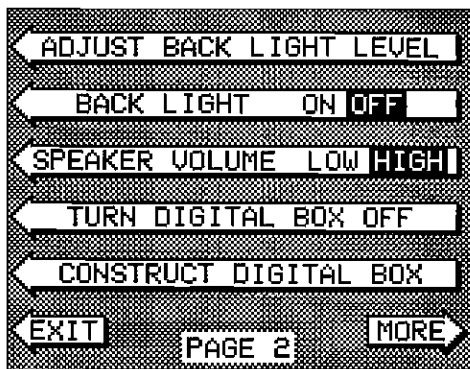
The unit's display contrast is adjustable to suit different lighting conditions. To adjust it, first press the menu key. The first menu page appears. Now press the key next to the "ADJUST DISPLAY CONTRAST" label. A screen similar to the one below appears. Now press the key adjacent to the left arrow to decrease the contrast. Press the key adjacent to the right arrow to increase it. The percentage of contrast in use changes as the arrow keys are pressed. The bar chart also gives a graphical indication of the contrast level. You can see the change on the screen as you press the keys. After you've made the adjustment, press the CLEAR key to erase the menu.



MENU - PAGE 2

ADJUST BACK LIGHT LEVEL

The Ultra III has internal lights for the display and keyboard. To adjust the intensity of the lighting, press the MENU key twice, then press the key adjacent to the "ADJUST BACK LIGHT LEVEL" label. The screen shown at the top of the next page appears. Now press the left arrow key to decrease the light level. Press the right arrow key to increase it. The percentage of back light in use changes as the arrow keys are pressed. The bar chart also gives a graphical indication of the level. After you've made the adjustment, press the CLEAR key to erase the menu.



MENU - PAGE 1

CHART SPEED

The rate echoes scroll across the screen is called the chart speed. It's adjustable by first pressing the menu key, then pressing the key adjacent to the "ADJUST CHART SPEED" label. The chart speed menu appears at the bottom of the screen. Increase the chart speed by pressing the right arrow key or decrease it by pressing the left arrow key. The percentage of

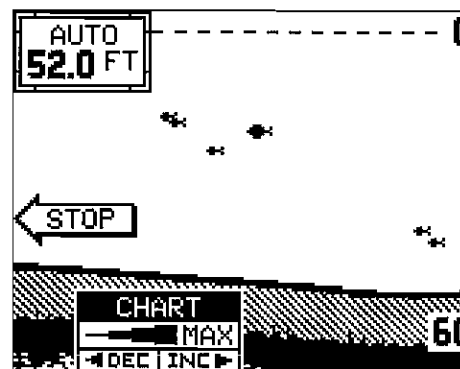
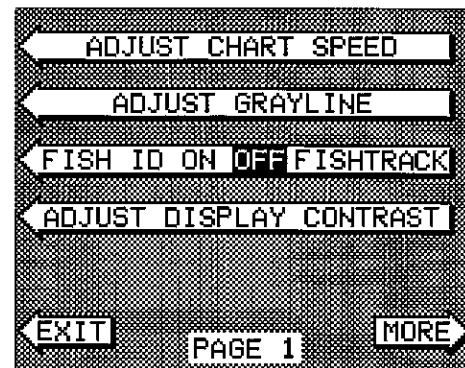


chart speed in use changes as the arrow keys are pressed. The bar chart also gives a graphical indication of the chart speed. You can see the change on the screen (both on the menu and on the chart record) as you press the keys. After you've made the adjustment, press the CLEAR key to erase the menu.

To stop the chart, press the "STOP" key in the unit's lower left corner. To start the chart, press the "STOP" key again.

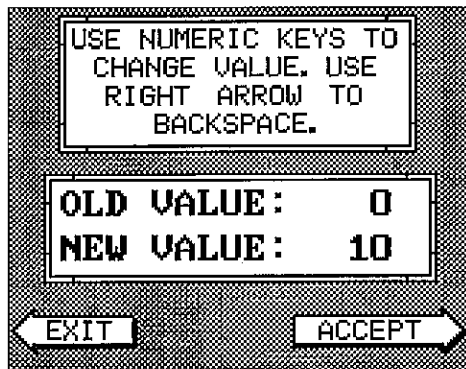
GRAYLINE®

GRAYLINE lets you distinguish between strong and weak echoes. It "paints" gray on targets that are stronger than a preset value. This allows you to tell the difference between a hard and soft bottom. For example, a soft, muddy or weedy bottom returns a weaker signal which is shown with a narrow or no gray line. A hard bottom returns a strong signal which causes a wide gray line.

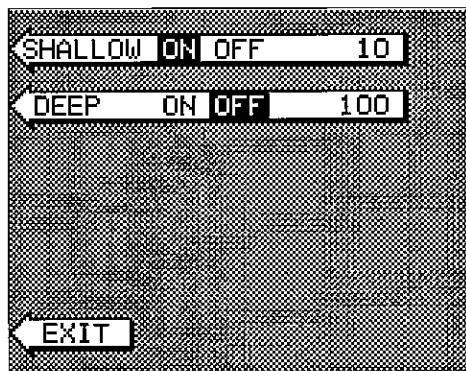
If you have two signals of equal size, one with gray and the other without, then the target with gray is the stronger signal. This helps distinguish weeds from trees on the bottom, or fish from structure.

GRAYLINE is adjustable. Since GRAYLINE shows the difference between strong and weak signals, adjusting the sensitivity may require a different

After you've entered the desired alarm depth, press the key next to the "ACCEPT" label. This enters the alarm depth into memory and automatically turns the shallow alarm on. Now press the key next to the "ACCEPT" label.



The screen shown at right appears next. The shallow alarm is now set. If the bottom goes shallower than 10 feet, the alarm will sound and a warning message appears on the screen at the same time. A label also appears letting you mute the alarm, if desired.



To return to the sonar screen, press the key next to the "EXIT" label.

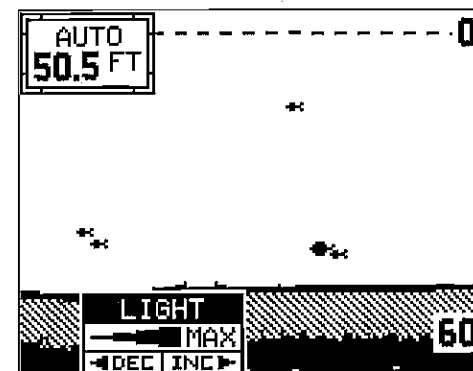
ALARM MUTE

When either the shallow or deep alarm is triggered, an audio tone sounds. A different tone sounds for the shallow than the deep alarm, thus letting you know which alarm is sounding without looking at the unit. Once a depth alarm is triggered, it keeps sounding until you change depth. For example, if the shallow alarm is set to 10 feet, and you move into and stay in water that's five feet deep, you're going to get tired of listening to the alarm beeping all the time.

To keep this situation from happening, a new label appears on the sonar screen whenever a depth alarm sounds. This label says "Silence Alarm". This turns the alarm's sound off until it's triggered again.

BACK LIGHT ON/OFF

To turn the back lighting on, press the menu key twice, then press the key adjacent to the "BACK LIGHT" label. This moves the blackbox from "OFF" to the "ON" position. To turn the backlights off, repeat the same steps.



SPEAKER VOLUME

The speaker volume has two levels: high or low. When the Ultra III is first turned on, the speaker volume is high. To change it, press the MENU key twice, then press the key next to the "SPEAKER VOLUME LOW HIGH" key. This switches the volume from high to low. A short tune sounds, letting you hear the volume. To switch back to high, simply press the key again.

To exit from this menu, press the CLEAR key.

TURN DIGITAL BOX OFF (Ultra III Only) REMOVE DIGITAL DEPTH

The digital box is displayed in the upper left corner of the full sonar screen. It has the digital depth and automatic/manual indicators. To turn this box off, press the MENU key twice, then press the key adjacent to the "TURN DIGITAL BOX OFF" label. Repeat the above steps to turn the box on.

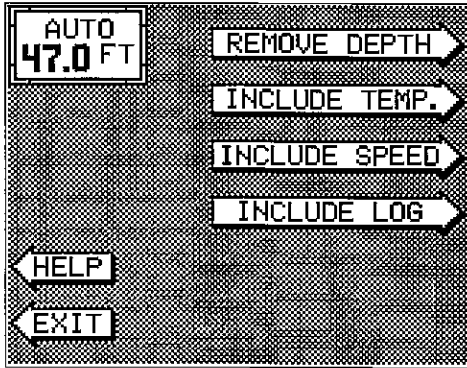
You can also turn just the digital depth display off and leave the automatic/manual indicator on. To do so, first press the MENU key twice, then press the key adjacent to the "REMOVE DIGITAL DEPTH" label. Repeat the above steps to turn it on again.

CONSTRUCT DIGITAL BOX (Ultra III Plus Only)

The Ultra III Plus can display the depth, speed, surface water temperature, and distance log in the upper left portion of the screen. When the Ultra III Plus is first turned on, only the depth is displayed. You can turn each digital display on as desired or turn all of them off, as desired.

To select the digital displays menu, first press the menu key three times. Next, press the key adjacent to the "CONSTRUCT DIGITAL BOX" menu.

A screen appears that is similar to the one below.



Now press the key adjacent to the desired display. For example, to turn the temperature display on, press the key adjacent to the "INCLUDE TEMP." label. Once you do this, the digital display in the corner of the screen will show the temperature in addition to the depth. The temperature menu label now shows "REMOVE TEMP." You can turn each display on or off individually.

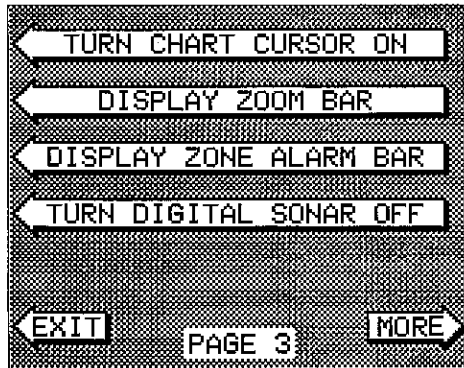
Press the CLEAR key to exit from this menu or wait approximately ten seconds and the menus will automatically clear.

To turn the entire digital box off, press the MENU key twice, then press the key next to the "TURN DIGITAL BOX OFF" label. The unit will return to the sonar display with the digital box erased from the screen. To turn it on again, repeat the above steps. The label on the second menu page now reads "TURN DIGITAL BOX ON."

MENU - PAGE 3

CHART CURSOR

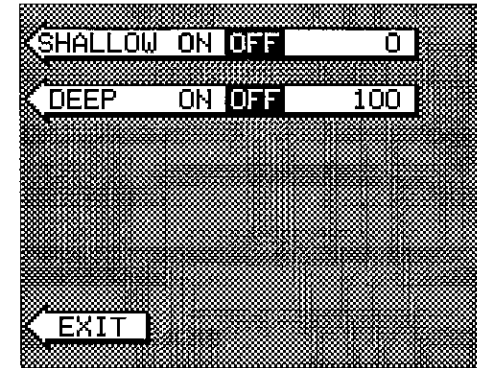
The Ultra III has a chart cursor that allows you to pinpoint a target's depth. The cursor is simply a horizontal line that extends across the display from left to right. A depth box at the end of the line on the right side shows the line's depth. In the example below, the cursor (line) is at 30.0 feet.



To display the chart cursor, press the menu key three times. Now press the key adjacent to the "TURN CHART CURSOR ON" label. A screen similar to the one at the top of the next page appears. Use the up or down arrow keys to move the cursor up or down to the desired depth.

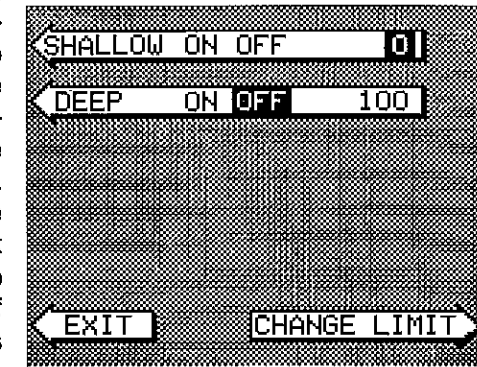
DEPTH ALARMS

The depth alarms sound a tone when the bottom signal goes shallower than the shallow alarm's setting or deeper than the deep alarm's setting. For example, if you set the shallow alarm to ten feet, the alarm will sound a tone if the bottom signal is less than ten feet. It will continue to sound until you mute it or until the bottom goes deeper than 10 feet. The deep alarm works just the opposite. It sounds a warning tone if the bottom depth goes deeper than the alarm's setting. Both depth alarms work only off the digital bottom depth signals. No other targets will trip these alarms. These alarms can be used at the same time or by themselves.



To set the depth alarms, first press the ALARM key, then press the key next to the "Set Depth Alarms" label. The screen at the top of this page appears.

To adjust the shallow alarm, press the key next to the "Shallow" label. To adjust the deep alarm, press the key next to the "Deep" label. Both alarms adjust identically. We'll use the shallow alarm as an example. Pressing the key next to the "Shallow" label moves the black box from the "OFF" position to the number on the right side of the arrow. A new label appears at the bottom of the screen: "CHANGE LIMIT." Press the key next to that label. A new screen appears as shown at the top of the next page. Use the numbered keypad on the right side of the unit to enter the shallow alarm setting. We used 10 feet in this example.

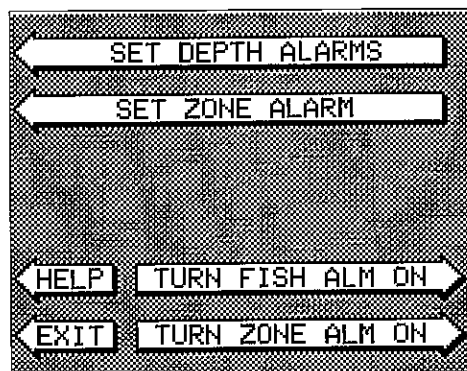


ZONE ALARM

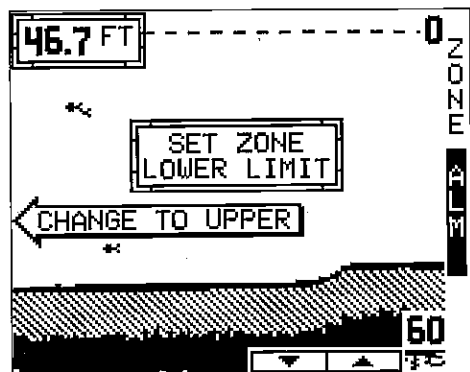
The zone alarm consists of a bar that appears on the right side of the screen. Any echo that appears on the screen between the top and bottom of the zone alarm's bar will "trip" the zone alarm.

Note: The zone alarm isn't available in the Windows mode.

To set the zone alarm, press the ALARM key. Now press the key next to the "Set Zone Alarm" label. A screen similar to the one shown below appears.



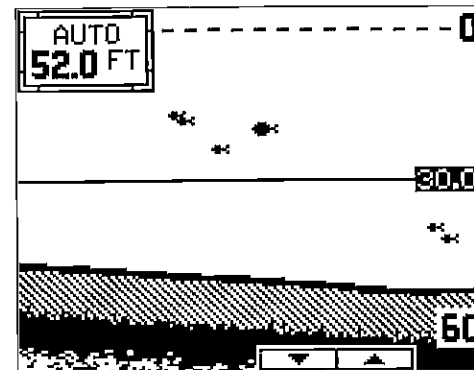
The zone alarm bar shows on the right side of the screen. Use the arrow keys to move the bottom of the bar higher or lower. To move the top of the bar, first press the key next to the "CHANGE TO UPPER" label. Now use the arrow keys to move the top of the bar higher or lower. When you have the zone alarm bar set as desired, press the CLR key to erase the menus.



The above steps automatically turn the zone alarm on if it was off. To turn the zone alarm off, press the ALARM key, then press the key next to the "Turn Zone Alarm Off" label at the bottom of the screen.

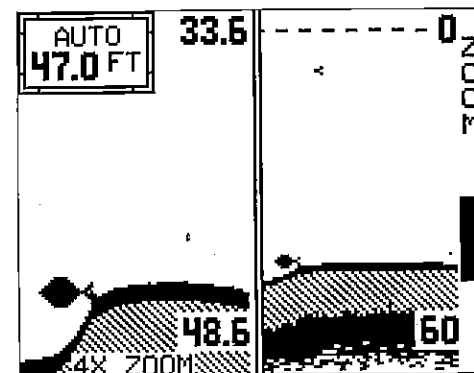
Normally, the zone alarm bar disappears from the screen after you make adjustments. To leave the zone alarm bar on the screen all of the time, see the "Display Zone Alarm Bar" section in this manual for instructions.

To turn the chart cursor off, press the menu key three times. Now press the key adjacent to the "TURN CHART CURSOR OFF" label. The Ultra III returns to the sonar screen without the chart cursor.



DISPLAY ZOOM BAR

When the unit is in the zoom mode, the zoom bar doesn't normally show on the screen. The zoom bar shows the section of water on the right side of the screen that the zoom feature displays on the left side. To turn the zoom bar on continuously, first press the MENU key until the 3rd menu page appears. Now press the key next to the "DISPLAY ZOOM BAR" label.



To turn the zoom bar off, press the MENU key until the third menu page appears, then press the key adjacent to the "REMOVE ZOOM BAR" label.

Note: Turning the zoom bar on also turns the zoom feature on.

DISPLAY ZONE BAR

When the zone alarm is on, the zone bar doesn't normally show on the screen. To turn the zone bar on continuously, first press the MENU key until the 3rd menu page appears. Now press the key next to the "DISPLAY ZONE BAR" label.

To turn the zone bar off, press the MENU key until the third menu page appears, then press the key adjacent to the "REMOVE ZONE BAR" label.

Note: Turning the zone bar on also turns the zone alarm on.

DIGITAL SONAR

When the Ultra III is turned on for the first time, the digital depth display is located at the top left corner of the screen. This display comes from a separate digital sonar built into the unit. It displays only the bottom depth. If it loses the bottom, the last known depth will flash on the display. When the digital finds the bottom, it will automatically display the bottom depth again.

The digital sonar can be turned off, however this also turns all automatic features off also, such as auto sensitivity, auto ranging, and the Fish I.D. feature.

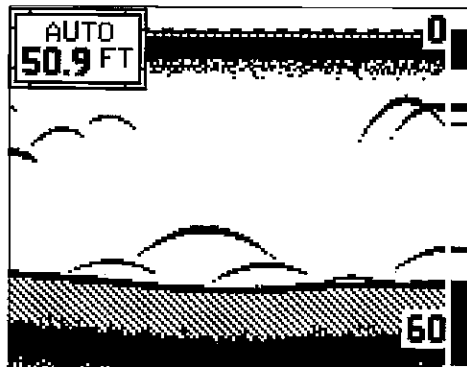
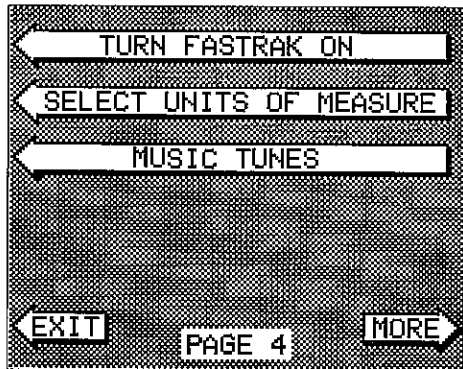
To turn the digital sonar off, press the Menu key three times. Now press the key adjacent to the "TURN DIGITAL SONAR OFF" label. To turn it back on again, repeat the same steps.

MENU - PAGE 4

FASTRAK

This feature converts all echoes to short horizontal lines on the display's far right side. The graph continues to operate normally. FASTRAK gives you a rapid update of conditions directly under the boat. This makes it useful for ice fishing, or when you're fishing at anchor. Since the unit is not moving, fish signals are long, drawn out lines on a normal chart display. FASTRAK converts the graph to a vertical bar graph that, with practice, makes a useful addition to fishing at a stationary location.

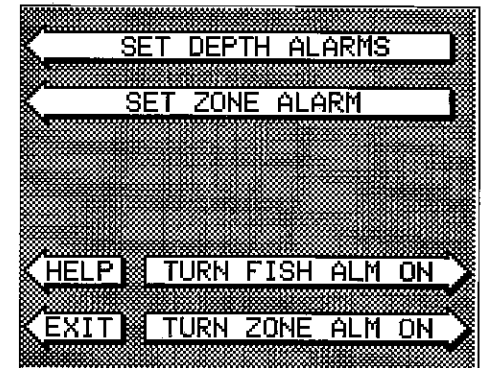
To turn FASTRAK on, press the menu key four times, then press the key adjacent to the "TURN FASTRAK ON" label. To turn it off, repeat the same steps. The "TURN FASTRAK OFF" label appears instead of the "TURN FASTRAK ON" label.



SONAR ALARMS

The Ultra III has three different types of sonar alarms. The first is the Fish Alarm. It sounds when the Fish I.D. feature determines an echo or group of echoes is a fish. Another alarm is the Zone Alarm which consists of a bar. Any echo that appears inside this bar triggers the alarm. The last alarm is called the Depth Alarm. Only the bottom signal will trigger this alarm. This is useful as an anchor watch, a shallow water alert, or for navigation.

To adjust an alarm, first press the ALARM key. The screen shown below appears. Press the key next to the "SET DEPTH ALARMS" to adjust the shallow or deep digital alarms. When you press the key next to the "SET DEPTH ALARMS", the menu shown at the top of the next page appears. The zone alarm has its own menu which is shown and described in the zone alarm section. Once you see this screen, press the down arrow key until the black box is on the desired alarm. In this example, the shallow alarm is selected. Now press the key next to the "CHANGE VALUE" label. Use the numbered keys to set the alarm. For example, to set the shallow alarm's value to 10 feet, press the 1 key, then press the 0 key. When the desired value has been entered, press the key next to the "ENTER" label. The unit returns to the ALARMS screen.



When either depth alarm sounds, a "Silence Alarm" label appears at the bottom of the screen. Press the "CLEAR" key to mute the alarm. When the alarm is triggered again, the alarm will also sound.

The following section describes each sonar alarm and its limits.

FISH ALARM

Use the fish alarm for a distinctive audible alarm when fish or other suspended objects are detected by the Fish I.D. feature. A different tone sounds for each fish symbol size shown on the display. To turn the fish alarm on, press the ALARM key, then press the key next to the "TURN FISH ALM ON" label. The unit will revert to the sonar display with automatic, the Fish I.D. feature, and the fish alarm turned on. Repeat the above steps to turn the fish alarm off.

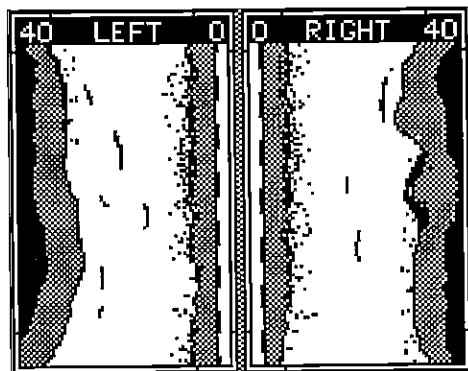
of the display to the bottom, instead of from right to left. On the example screens on the previous page, both the right and left transducer elements are in use. The bottom echo shows on the far left side of the left element's display and the far right side of the right element's display. The closer a target is to the zero line, the closer the target is to your boat.

When the Fish ID feature is on, Fish ID symbols appear on the screen when the unit's computer thinks targets are fish. If the FishTrack™ feature is on, the distance from the boat to the symbol shows beneath the fish symbol. (Note: Fish ID and FishTrack™ only work when the automatic mode is on. These features are not available when the sonar unit is in the manual mode.) The label at the top of the screen shows which transducer element is in use and the range. In the example screen on the previous page, the range is 60 feet and the unit is using both the left and right transducer elements. To change elements, press the WINDOWS key, then press the up or down arrow key until the desired screen appears. The Ultra III and Ultra III Plus can show left and down, right and down, or both left and right views at the same time.

AUTOMATIC vs MANUAL OPERATION

Your sonar unit can use the BroadView™ transducer in either the automatic or manual mode. The screen shown on the previous page shows a screen with automatic and Fish ID on. The screen shown below shows a much different view with automatic and Fish ID off. This view shows the scattered signals (called "surface clutter") near the surface and actual sonar returns from objects in the water, structure, and the bottom.

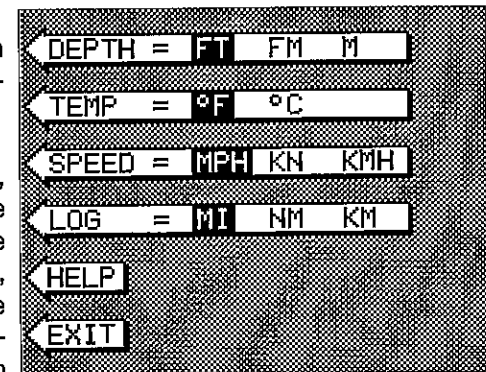
To switch between automatic and manual modes, press the AUTO key to view the automatic/manual menu, then press the AUTO key again to switch it. Press the CLEAR key to erase the AUTO/MAN menu.



SELECT UNITS OF MEASURE

The Ultra III can display the water depth in feet, fathoms, or meters, surface water temperature in degrees Fahrenheit or Celsius, speed in statute miles per hour, kilometers per hour, or knots, and distance (log) in miles, kilometers, or nautical miles.

(Note: Only the Ultra III Plus can show temperature, speed, or distance.)



To change the units of measure, first press the menu key five times. The screen shown on the previous page appears. Next, press the key adjacent to the "SELECT UNITS OF MEASURE" label. The screen shown below appears. The black box on each line shows the unit of measure currently in use. In the screen shown below, the units of measure are in feet for the depth, temperature in degrees Fahrenheit, and both speed and log are in statute miles per hour.

Press the key adjacent to the unit that you wish to change. For example, press the key next to the DEPTH label two times to switch from feet to meters. This moves the black box two times from the "FT" to the "M".

When you have the units of measure set as desired, press the key next to the "EXIT" label.

MENU - PAGE 5

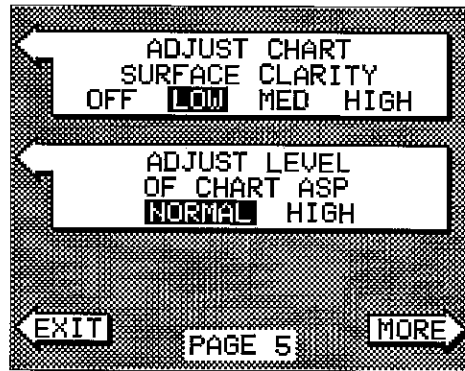
ADJUST CHART SURFACE CLARITY

The markings extending downward from the zero line on the chart are called "surface clutter." These markings are caused by wave action, boat wakes, temperature inversion, and other natural causes.

The Surface Clarity Control (SCC) reduces or eliminates surface clutter signals from the display. SCC varies the sensitivity of the receiver, decreasing it near the surface and gradually increasing it as the depth increases. The maximum depth that SCC will affect is 75% of the selected depth range. For example, on a 0-60 foot range with maximum SCC,

surface clutter will be reduced down to 45 feet.

There are three levels of SCC available on the Ultra III: low, medium, and high. When it's turned on for the first time, the SCC level is low. To change it, press the MENU key five times, then press the key adjacent to the "ADJUST CHART SURFACE CLARITY" label until the black box is on the desired SCC level.



Press the key next to the "EXIT" label when you're finished.

ASP (Advanced Signal Processing)

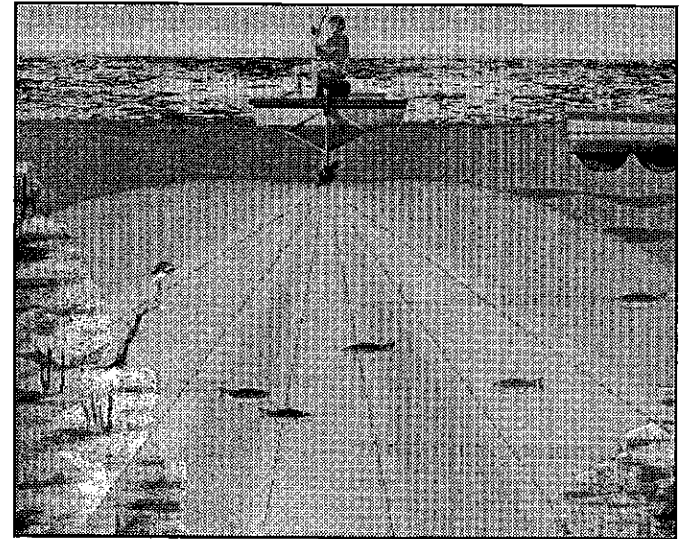
The ASP feature is a noise rejection system built into the Ultra III that constantly evaluates the effects of boat speed, water conditions, and interference. This automatic feature gives you the best display possible under most conditions.

The ASP feature is an effective tool in combating noise. In sonar terms, noise is any undesired signal. It is caused by electrical and mechanical sources such as bilge pumps, engine ignition systems and wiring, air bubbles passing over the face of the transducer, even vibration from the engine. In all cases, noise can produce unwanted marks on the display.

The ASP feature has two levels - Normal and High. If you have high noise levels, try using the "High" ASP setting. However, if you are having trouble with noise, we suggest that you take steps to find the interference source and fix it, rather than continually using the unit with the high ASP setting. However, there are times when you may want to turn the ASP feature off. This allows you to view all incoming echoes before they are processed by the ASP feature.

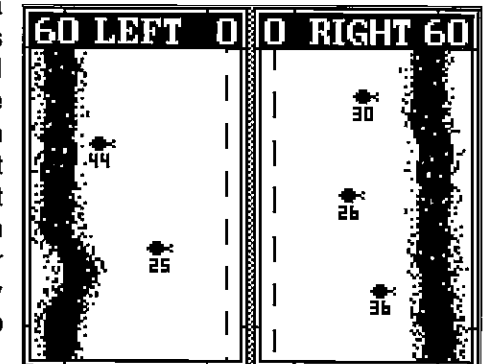
To change the ASP level, press the MENU key five times. Then press the key next to the "ADJUST LEVEL OF CHART ASP" label until the desired level is obtained.

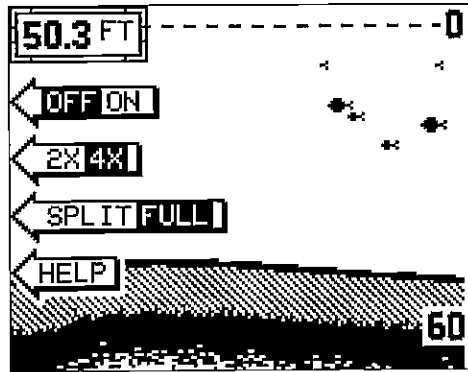
BROADVIEW™



Your unit has the unique ability to view targets not only straight down, but also out to the left or right of the boat. This requires the optional "BroadView™" transducer. This transducer has three elements that view to the right, left, and down. The transducer attaches to your boat's transom or it can mount on a trolling motor using hardware supplied with the transducer. The BroadView™ transducer cable attaches directly to your sonar unit's transducer connector. See the BroadView's installation instructions included with the BroadView transducer for more detail.

When your sonar unit is first turned on with a BroadView™ transducer, the down transducer element is in use. To see echoes from either the left or right transducer elements, first press the WINDOWS key. Next, press the up or down arrow keys until a Broadview window appears as shown at right. The Ultra III automatically switches to the transducer element shown on the screen. If both left and right elements are showing, then it shows echoes from both. When either the left or right transducer elements are in use, the display scrolls the echoes from the top





Pressing the key adjacent to the "2X/4X" label enlarges echoes from two times to four times their normal size.

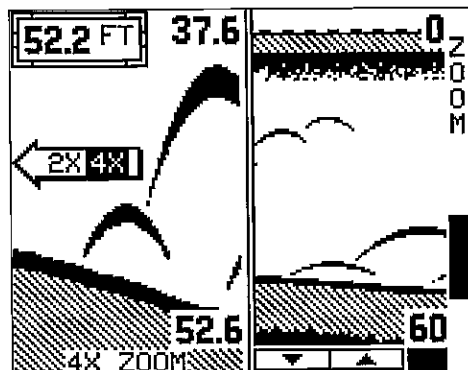
To switch between the split screen zoom and full screen zoom, press the key adjacent to the "SPLIT/FULL" label. The screen instantly splits into two sections. All targets on the left are shown at four times the size of the ones on the right. If you switch to the 2X zoom

mode, echoes on the left side of the screen are shown at twice the size as the ones on the right. The echoes that scroll across the screen are the exact same echoes on both sides of the screen. They're simply enlarged on the left side. This feature tracks the bottom, keeping it on the display at all times, when the automatic feature is on. Once you've set the zoom as desired, press the CLEAR key to erase the menus.

ZOOM - MANUAL MODE

When you press the zoom key while the unit is in the manual mode, the screen shown below appears. All of the menus on this screen work identically as described above. However, one additional menu item is shown when the unit is in the manual mode: "ADJUST".

To adjust the zoom, press the key adjacent to the "ADJUST" label. A screen similar to the one below appears. A zoom bar and adjust arrows appear on the screen. The echoes on the left side of the screen are the ones that appear between the top and the bottom of the zoom bar. Press the up or down arrow keys to move the zoom bar up or down. As you adjust the zoom bar, the echoes move on the left side of the screen at the same time. The zoom adjust menus will automatically clear a few seconds after you've pressed the last key. Remember, the Ultra III won't track the bottom when it's in the manual mode.



CLEAR DISTANCE LOG (Ultra III Plus Only)

The Ultra III Plus can display the log (distance travelled) in the digital block. This feature starts counting distance as soon as the UltraNav II is turned on. To reset the distance log to zero, press the MENU key until the "CLEAR DISTANCE LOG" label appears, then press the key adjacent to that label.

SIGNAL INTERPRETATION

Your Ultra III gives an accurate picture of the bottom that your boat is passing. A bottom of firm sand, gravel, shell, or hard clay returns a fairly wide signal. If the automatic mode is off and the signal narrows down, then it means that you have moved over a mud bottom. Mud absorbs the sound wave and returns a weak signal. Turn up the sensitivity to see a better bottom signal.

Big rocks or stumps on a smooth bottom send back signals above the bottom level signal. The height of the signal depends on the target's height. As you pass over a post, it should be clearly visible as a short line extending above the bottom signal.

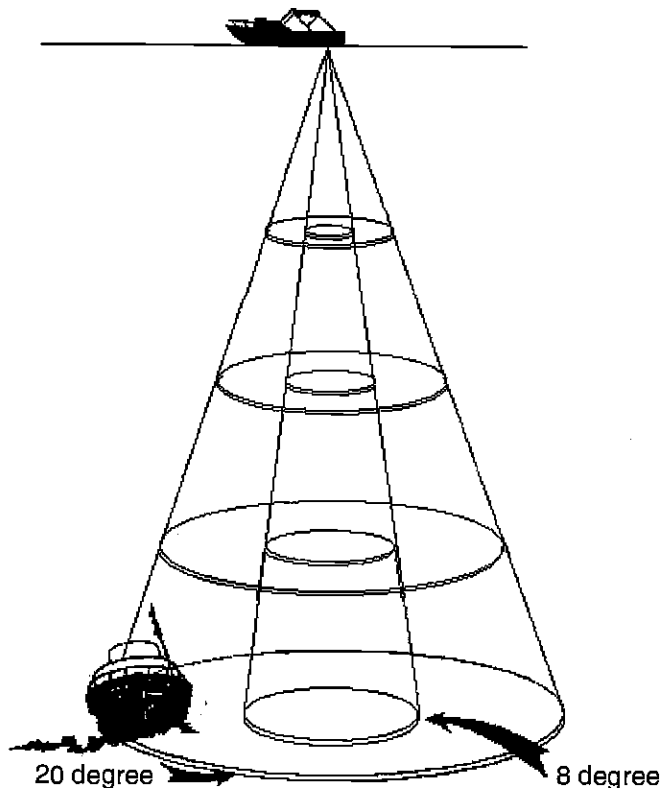
A steep slope returns a wide signal, the steeper the wider. Signals returned from a high underwater cliff are usually the widest of all.

When the Fish I.D. mode is off, the depth of the water will affect the size and shape of the fish arch due to the cone angle diameter. For example, if the cone passes over a fish in shallow water, the signal displayed on the Ultra III may not arch at all. This is due to the narrow cone diameter and the resolution limitations of the display.

TRANSDUCER CONE ANGLES

The sound waves from the transducer spread out into the water in a cone shaped beam. This looks much like the beam from a flashlight. The angle between the outside edges of the cone is the cone angle. (See the top of the next page.)

Eagle offers a choice of transducers with either an 8 or 20 degree cone angle. The transducer supplied with the Ultra III has a 20 degree cone angle. Typically, wide cone angle transducers (20 degrees) are ideal for operating in shallow to medium water depths. The 20 degree cone angle allows you to see more of the underwater world. In 15 feet of water the 20 degree cone covers an area about six feet across. The 8 degree transducer covers only about a two foot circle.



TRANSDUCER CONE ANGLES

The 20 degree transducer is almost always the best to use in fresh water, the 8 degree mostly in salt water. In a deep water environment, (300 feet - fresh water, 100 feet - salt water) the narrow cone angle is more desirable. Since the sound energy is concentrated in a smaller area, it can penetrate to much deeper depths.

Both 8 degree and 20 degree transducers give accurate bottom readings, even though the bottom signal is much wider on the 20 degree model. This is because you are seeing more of the bottom. Remember, the shallow edge of the signal shows you the true depth. The rest of the signal tells you whether you are over rocks, mud, etc.

if the cone passes over a fish in shallow water, the signal displayed on the Ultra III may not arch at all. This is due to the narrow cone diameter and the resolution limitations of the display.

RANGE - Automatic

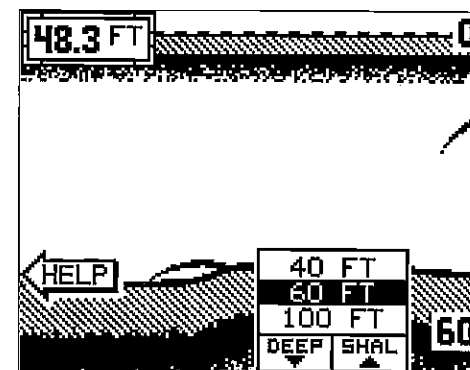
When turned on for the first time, the Ultra III automatically places the bottom signal in the lower half of the screen. This is called Auto Ranging and is part of the automatic function. The range cannot be changed manually while the unit is in automatic.

RANGE - Manual

The Ultra III gives you control over the range when it's in the manual mode.

To change the range, first make certain the Ultra III is in the manual mode. Next, press the RANGE key. The range adjustment menu appears in the lower right corner of the display. Press the up or down arrow keys to decrease or increase the range.

The available ranges are 0-5, 10, 20, 30, 40, 60, 100, 150, 200, 300, 500, 800, and 1000 feet. After the desired range is displayed, press the CLEAR key to erase the range menu.



NOTE: The depth capability of the Ultra III depends on the transducer installation, water and bottom conditions, and other factors.

ZOOM

Enlarging or "zooming" the picture is a common method used to show small detail and fish signals. The Ultra III gives you two different zoom sizes, plus a split screen zoom option. The zoom operation and adjustment is different in the automatic and manual modes.

ZOOM - AUTOMATIC MODE

To zoom the display in the automatic mode, first press the ZOOM key. All targets on the display are enlarged four times normal size automatically. The menus shown at the top of the next page also appear.

Turn the zoom feature on (or off) by pressing the key adjacent to the "OFF/ON" label.

SENSITIVITY

The sensitivity key on the Ultra III controls the ability of the unit to pick up echoes. A low sensitivity level excludes much of the bottom information, fish signals, and other target information. High sensitivity levels enables you to see this detail, but it can also clutter the screen with many undesired signals. Typically, the best sensitivity level shows a good solid bottom signal with Grayline and some surface clutter.

When the Ultra III is in the Automatic mode, the sensitivity is automatically adjusted to keep a solid bottom signal displayed, plus a little more. This gives it the capability to show fish and other detail.

However, situations occur where it becomes necessary to increase or decrease the sensitivity. This typically happens when you wish to see more detail, so an increase in sensitivity is indicated. The procedure to adjust it is the same whether the unit is in the automatic or manual mode.

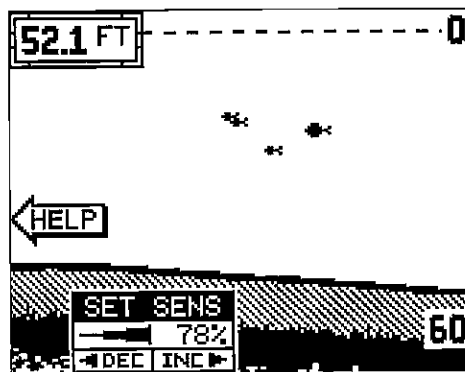
To adjust the sensitivity, press the SENS key. The sensitivity adjust menu appears at the bottom of the screen.

The sensitivity menu has left and right arrows, plus a horizontal bar graph. The graph gives a visual indication of the sensitivity level. The number above the INC arrow also shows the percentage of sensitivity in use.

To increase the sensitivity level, press the right arrow key. As you press the key, the menu's bar graph will grow wider and the percentage will increase in value. You can also see the difference on the chart record as it scrolls. When the sensitivity is at the desired level, release the key.

To decrease the sensitivity level, press the key adjacent to the left arrow. The bar graph and percentage will decrease. When the sensitivity is at the desired level, release the key. When you reach either the maximum or minimum limit, a tone sounds.

To turn the menus off, press the key adjacent to the CLEAR key at the bottom left side of the unit or wait a few seconds and the menu will disappear.

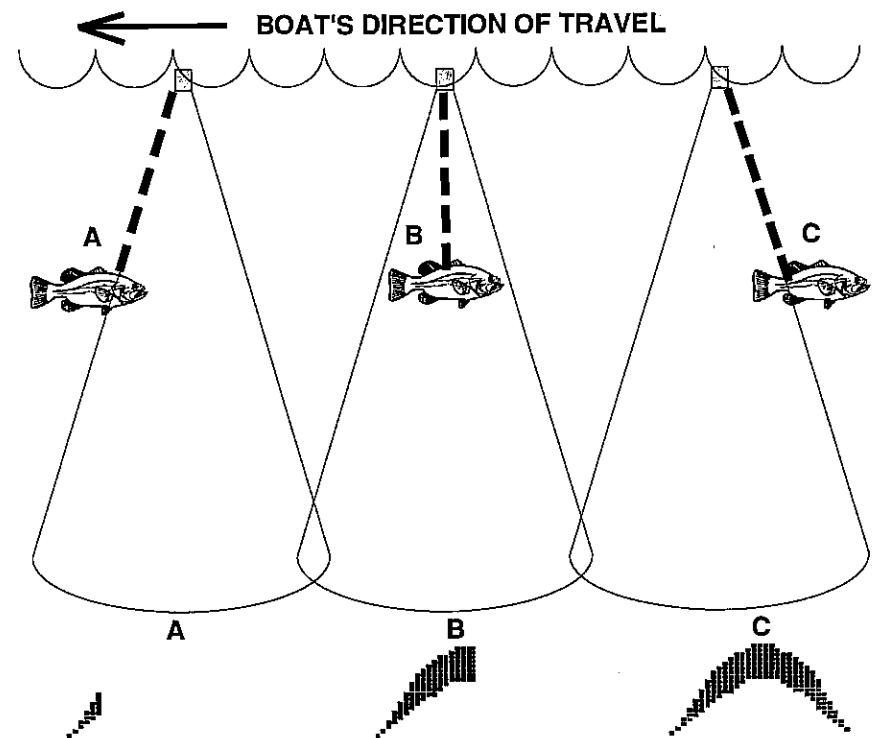


FISH ARCHES

Fish arches are created when the cone of sound passes over a fish. The distance to a fish when the cone first strikes it is shown as "A" on the next page. When the center of the cone strikes the fish, the distance is shorter as shown "B". As the cone leaves the fish, the distance increases again as shown in "C".

Very small fish probably will not arch at all. Medium sized fish will show a partial arch, or a shape similar to an arch if they're in deep water. Large fish will arch, but turn the sensitivity up in deeper water to see the arch. Because of water conditions, such as heavy surface clutter, thermoclines, etc., the sensitivity sometimes cannot be increased enough to get arches.

One of the best ways to get fish arches is to expand or "zoom" a segment of the water. For example, from 45 to 60 feet. The smaller the segment, the better the screen resolution will be. The easiest way to do this on the Ultra III is with the Zoom feature. This feature expands the echoes, making it easier to see detail. For the best results, turn the sensitivity up as high as possible without getting too much noise on the screen. In medium to deep water, this method should work to display fish arches.



If you see fish signals when the unit is in the manual mode, but don't get fish symbols when the Fish I.D. feature is on, try increasing the sensitivity.

WATER TEMPERATURE AND THERMOCLINES

Water temperature has an important-if not controlling-influence upon the activities of all fish. Fish are cold blooded and their bodies are always the temperature of the surrounding water. During the winter, colder water slows down their metabolism. At this time, they need about a fourth as much food as they consume in the summer.

Most fish don't spawn unless the water temperature is within rather narrow limits. A surface temperature meter helps identify the desired surface water spawning temperatures for various species. Trout can't survive in streams that get too warm. Bass and other fish eventually die out when stocked in lakes that remain too cold during the summer. While some fish have a wider temperature tolerance than others, each has a certain range within which it tries to stay. Schooling fish suspended over deep water lie at the level that provides this temperature. We assume they are the most comfortable here.

The temperature of water in the lake is seldom constant from top to bottom. (See the picture on the next page.) Layers of different temperatures form, and the junction of a warm and cool layer of water is called a thermocline. The depth and thickness of the thermocline can vary with the season or time of day. In deep lakes there may be two or more at different depths. Thermoclines are important to fishermen because they are areas where fish are active. Many times bait fish will be above the thermocline while larger game fish will suspend in or just below it.

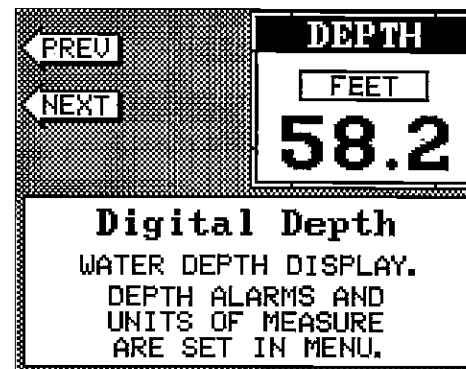
The Ultra III can detect this invisible layer in the water, but the sensitivity will probably have to be turned up to see it.

SURVEYING A LAKE

The most successful anglers on any body of water are those who fish it day after day and year after year. Eventually, they learn the hot spots that produce fish consistently. They discover through experience where, and at what depth, they can expect to find the fish they want at any season. And they realize that these productive areas change throughout the year depending on water level, temperature, food, and other factors. With the Ultra III, anyone can eliminate guesswork and concentrate on the areas where fish are likely to be. Even if it's the first time on the lake!

VIEWING WINDOWS

To see all of the available windows, press the WINDOWS key, then press the MENU key. Now press the key adjacent to the "MAIN MENU" label. Finally, press the key next to the "VIEW ALL WINDOWS" label. The screen at right appears.



The first window appears in the upper right corner of the screen. A description of the screen shows in the box at the bottom of the screen. Now press the key adjacent to the "NEXT" label. This changes the displayed window and description.

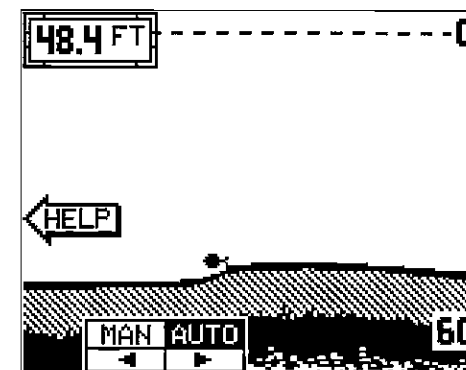
When you've finished viewing the windows, press the CLEAR key.

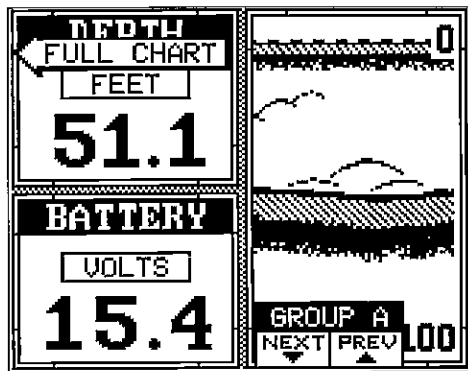
OPERATION

AUTOMATIC

When the Ultra III is first turned on, the Automatic feature is enabled. This is indicated by the word "AUTO" at the top of the screen. The Automatic feature adjusts the sensitivity and range so the bottom signal is displayed in the lower half of the screen at all times.

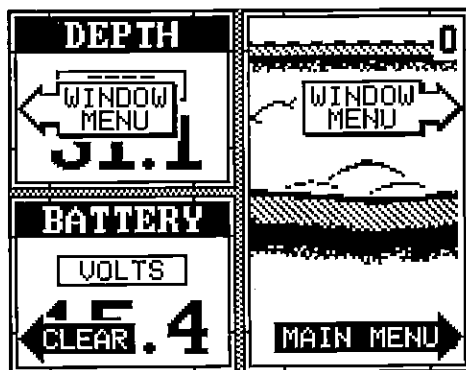
To turn Automatic off, first press the AUTO key. A menu appears at the bottom of the screen above the left and right arrows. Press the left arrow key to switch to the manual mode. The letters "Man" appear in the upper left corner of the display, indicating the unit is in the manual mode. To turn Automatic on, press the AUTO key again, then press the right arrow key.



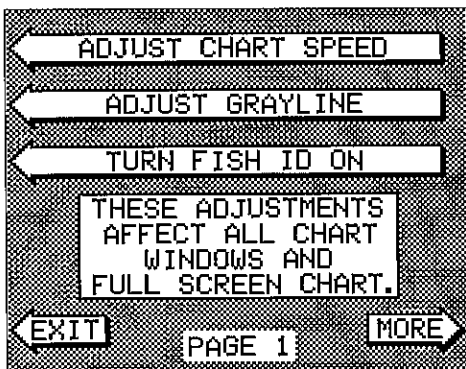


To use the windows feature, first press the WINDOWS key. A screen similar to the one shown at left appears. The menu at the bottom of the screen lets you switch between the "pages" of displays. These are lettered "A" through "E" on the Ultra II, ("A" through "L" on the Ultra III Plus.) Group "A" shows first. Press the down arrow key to move forward

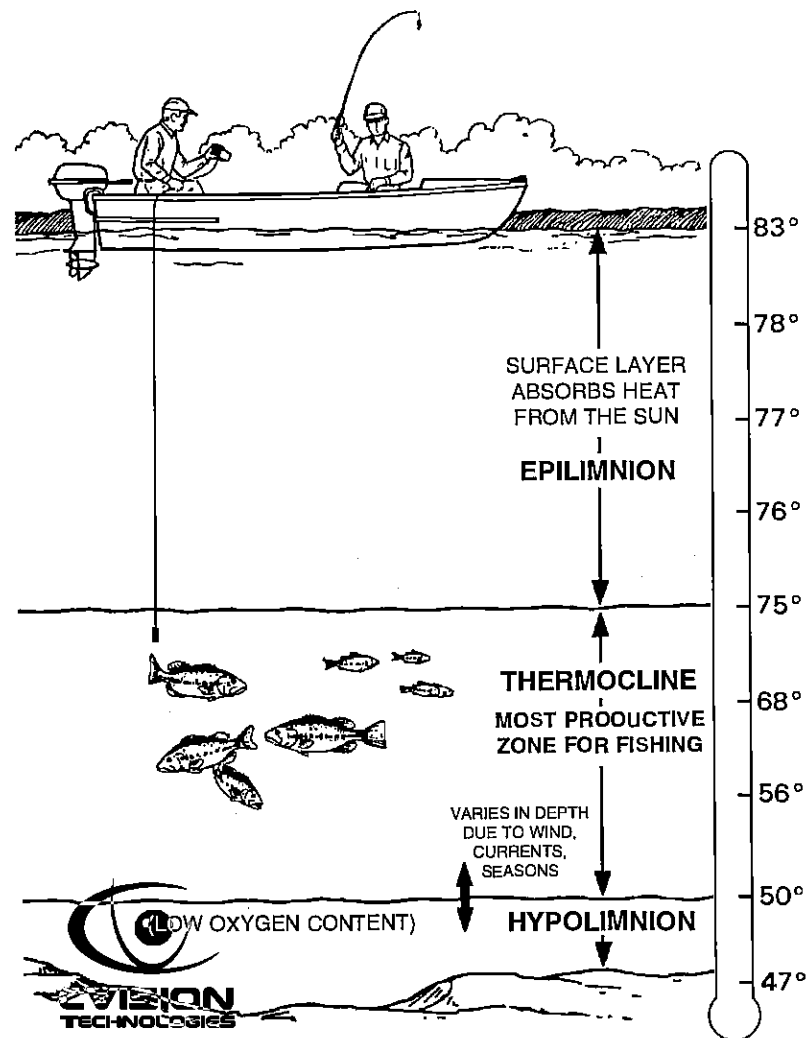
through the screens. Press the up arrow key to move backward. For example, pressing the down arrow key once shows the group "B" screen which is a BroadView™ screen. To return to the full sonar screen, press the key next to the "FULL CHART" label at the top of the screen.



Every one of the group screens can be modified to some extent. For example, press the MENU key while group "A" is displayed. Four new labels appear on the display as shown above right. Two of these labels are window menus. Pressing the key adjacent to one of the "window menu" labels gives you a menu with functions that relate only to that window. For example, if you press the key adjacent to the "WINDOW MENU" label on the right side sonar chart window, the screen will clear and you will have a new menu with selections such as "ADJUST CHART SPEED" and "ADJUST GRAYLINE" as shown at left. Pressing the key next to the "MORE" label shows other window menus that let you change the units of measure or other features.



To exit from a window menu, press the CLEAR key.



The most efficient way to become acquainted with a body of water is to survey it with your Ultra III. Start with a map of the lake, if possible, and indicate the promising spots in relation to landmarks on shore. As you go about your survey, your Ultra III will tell you the depth and type of bottom. It will also reveal suspended fish.

Keep a few marker buoys in the boat, ready to toss overboard. When the Ultra III indicates a school of fish, throw the buoy out. With the school thus marked, you can make your turn and come back to fish in exactly the right spot. This is essential when you're far from shore on a big lake. Unless you mark the school of fish, you may not be able to find it again.

TROUBLESHOOTING

If your unit is not working, or if you need technical help, please use the following troubleshooting section before contacting the factory customer service department. It may save you the trouble of returning your unit.

Unit won't turn on:

1. Check the power cable's connection at the unit. Also check the wiring.
2. Make certain the power cable is wired properly. The red wire connects to the positive battery terminal, black to negative or ground.
3. Check the fuse.
4. Measure the battery voltage at the unit's power connector. It should be at least 11 volts. If it isn't, the wiring to the unit is defective, the battery terminals or wiring on the terminals are corroded, or the battery needs charging.

Unit freezes, locks up, or operates erratically:

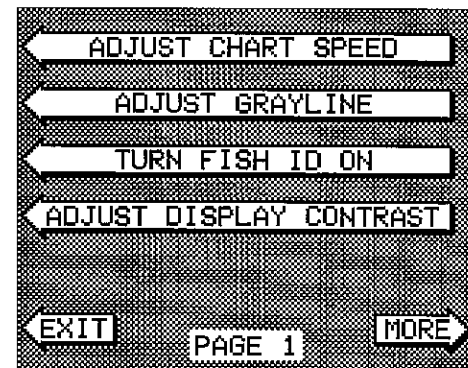
1. Electrical noise from the boat's motor, trolling motor, or an accessory may be interfering with the sonar unit. Re-routing the power and transducer cables away from other electrical wiring on the boat may help. Route the sonar unit's power cable directly to the battery instead of through a fuse block or ignition switch.
2. Inspect the transducer cable for breaks, cuts, or pinched wires.
3. Check both the transducer and power connectors. Make certain both are securely plugged in to the unit.

Weak bottom echo, digital readings erratic, or no fish signals:

1. Make certain transducer is pointing straight down. Clean the face of the transducer. Oil, dirt, and fuel can cause a film to form on the transducer, reducing its effectiveness. If the transducer is mounted inside the hull, be sure it is shooting through only one layer of fiberglass and that it is securely bonded to the hull. Do NOT use RTV silicone rubber adhesive or Marinetex.
2. Electrical noise from the boat's motor can interfere with the sonar. This causes the sonar to automatically increase its Discrimination or noise rejection feature. This can cause the unit to eliminate weaker signals such as fish or even structure from the display.
3. The water may be deeper than the sonar's ability to find the bottom. If the sonar can't find the bottom signal while it's in the automatic mode, the

MENUS

The Ultra III uses menus extensively to guide you through the functions and features of the unit. The menu key accesses many of these features, allowing you to customize the unit to your particular needs and water conditions. Although you may have to leave one menu and enter another to reach the desired function, all you have to do is press the menu key to select the next menu. If you ever get lost in a menu, simply press the CLEAR key.



The Ultra III Plus' menus differ somewhat from the Ultra III's due to the different features available on the Plus model.

HELP

An extremely useful feature incorporated into the Ultra III series is the Help menus. Virtually every feature has a help menu label that, when pressed, gives one or more pages of text describing how to use that feature. For example, pressing the AUTO key brings up a menu letting you switch the unit into or out of the automatic mode. A help label also appears on the screen. Pressing the key adjacent to the help label gives you a description of how automatic works and how it affects different functions.

WINDOWS

You can change the displays on the Ultra III and Ultra III Plus by using the windows feature. This lets you use different displays for your own fishing or boating situations. This feature gives you 8 different display screens on the Ultra III and 14 on the Ultra III Plus.

The screens available in the windows mode are divided into two or more windows per screen. Each screen of windows is called a "group". Group "A" as shown at the top of the next page has the digital depth display in one window, battery voltage in another, and the sonar chart in a third.

Note: Most window groups are different between the Ultra III and Ultra III Plus. The Ultra III Plus also has more groups. However, selecting the groups is identical for both of the units. All of the following examples will be for the Ultra III.

ARROW KEYS - These keys are used to make menu selections and to move objects on the screen.

ON - The ON key turns the Ultra III on.

OFF - Press and HOLD the Off key to turn the Ultra III off.

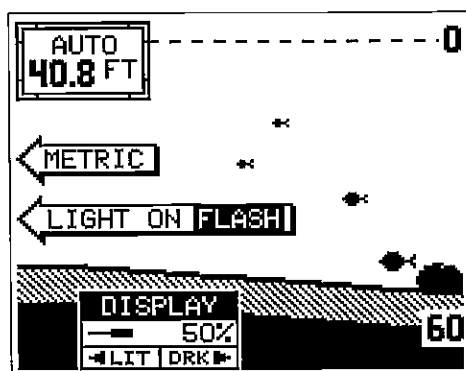
DISPLAY - General

The lights are turned on for approximately ten seconds when the Ultra III is first turned on. Menus appear at the same time. To keep the lights on, press the key adjacent to the Light label. It controls the backlighting used on the display and keyboard. If you don't want the lights on, wait ten seconds and the lights will automatically turn themselves off. The menus will also disappear after ten seconds, or you can turn them off by pressing the CLEAR key at the bottom of the screen.

The Metric label at the top of the screen works the same way. Press the key adjacent to the Metric label to change the depth from feet to meters. This also changes the temperature display to degrees Celsius, speed to knots, and log to kilometers on the Ultra III Plus.

The Display menu at the bottom of the screen lets you adjust the display's contrast for the best viewing angle. Pressing the left arrow key decreases the contrast, the right arrow increases it. After setting the contrast for the best viewing angle, press the CLEAR key to erase the menu or wait approximately ten seconds and it will automatically erase. See the Display Contrast section for more information on this feature.

When the Ultra III is first turned on, the display will appear similar to the one below. The word "AUTO" in the upper center of the display indicates the automatic feature is on. The digital bottom depth is also displays here.



digital will flash continuously. It may change the range to limits far greater than the water you are in. If this happens, place the unit in the manual mode, then change the range to a realistic one, (for example, 0-100 feet) and increase the sensitivity. As you move into shallower water, a bottom signal should appear.

4. Check the battery voltage. If the voltage drops, the unit's transmitter power also drops, reducing its ability to find the bottom or targets.

Bottom echo disappears at high speeds or erratic digital reading or weak bottom echo while boat is moving

1. The transducer may be in turbulent water. It must be mounted in a smooth flow of water in order for the sonar to work at all boat speeds. Air bubbles in the water disrupt the sonar signals, interfering with its ability to find the bottom or other targets. The technical term for this is Cavitation.

2. Electrical noise from the boat's motor can interfere with the sonar. This causes the sonar to automatically increase its Discrimination or noise rejection feature. This can cause the unit to eliminate weaker signals such as fish or even structure from the display. Try using resistor spark plugs or routing the sonar unit's power and transducer cables away from other electrical wiring on the boat.

No fish arches when the Fish ID feature is off:

1. Make certain transducer is pointing straight down. This is the most common problem if a partial arch is displayed. See the Fish Arch section in your owner's manual for more information.

2. The sensitivity may not be high enough. In order for the unit to display a fish arch, it has to be able to receive the fish's echo from the time it enters the cone until it leaves. If the sensitivity is not high enough, the unit displays the fish only when it is in the center of the cone.

3. Use the Zoom feature. It is much easier to display fish arches when zoomed in on a small range of water than a large one. For example, you will have much better luck seeing fish arches with a 30 to 60 foot range than a 0 to 60 foot range. This enlarges the targets, allowing the display to show much more detail.

4. The boat must be moving at a slow trolling speed to see fish arches. If the boat is motionless, fish stay in the cone, showing on the display as straight horizontal lines.

NOISE

A major cause of sonar problems is electrical noise. This usually appears on the sonar's display as random patterns of dots or lines. In severe cases, it can completely cover the screen with black dots, or cause the unit operate erratically, or not at all.

To eliminate or minimize the effects of electrical noise, first try to determine the cause. With the boat at rest in the water, the first thing you should do is turn all electrical equipment on the boat off. Make certain the engine is off, also. Turn your Ultra III on, then turn off ASP (Advanced Signal Processing). There should be a steady bottom signal on the display. Now turn on each piece of electrical equipment on the boat and view the effect on the sonar's display. For example, turn on the bilge pump and view the sonar display for noise. If no noise is present, turn the pump off, then turn on the VHF radio and transmit. Keep doing this until all electrical equipment has been turned on, their effect on the sonar display noted, then turned off.

If you find noise interference from an electrical instrument, trolling motor, pump, or radio, try to isolate the problem. You can usually re-route the sonar unit's power cable and transducer cable away from the wiring that is causing the interference. VHF radio antenna cables radiate noise when transmitting, so be certain to keep the sonar's wires away from it. You may need to route the sonar unit's power cable directly to the battery to isolate it from other wiring on the boat.

If no noise displays on the sonar unit from electrical equipment, then make certain everything except the sonar unit is turned off, then start the engine. Increase the RPM with the gearshift in neutral. If noise appears on the display, the problem could be one of three things; spark plugs, alternator, or tachometer wiring. Try using resistor spark plugs, alternator filters, or routing the sonar unit's power cable away from engine wiring. Again, routing the power cable directly to the battery helps eliminate noise problems. Make certain to use the in-line fuse supplied with the unit when wiring the power cable to the battery.

When no noise appears on the sonar unit after all of the above tests, then the noise source is probably cavitation. Many novices or persons with limited experience make hasty sonar installations which function perfectly in shallow water, or when the boat is at rest. In nearly all cases, the cause of the malfunction will be the location and/or angle of the transducer. The face of the transducer must be placed in a location that has a smooth flow of water at all boat speeds. Read your transducer owner's manual for the best mounting position.

KEYBOARD

The keyboard has keys arranged in two vertical columns plus a horizontal row at the bottom. The keys in the left column are used to enter numbers and menu selections. The keys in the right column activate the windows feature and the basic sonar functions. The menu key in the bottom right corner of the keyboard activates the first menu page. The keys along the bottom of the screen are used to activate the alarm menu, stop the chart, and make menu selections with the arrow keys.

WINDOWS - This key gives you access to the windows mode, which lets you customize displays.

SENS - Press this key to adjust the unit's sensitivity and Grayline.

RANGE - This key lets you adjust the range when the unit is in the manual mode.

ZOOM - The Ultra gives you 2X and 4X zoom capability with this key.

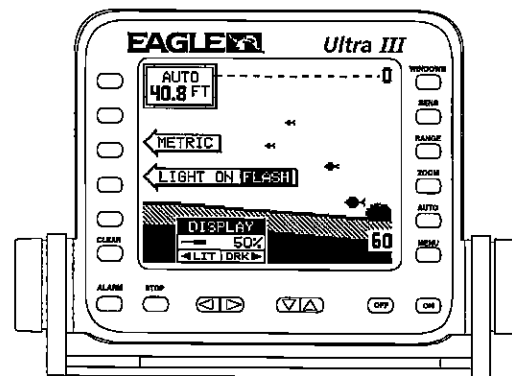
AUTO - This turns the automatic feature off and on.

MENU - Press this key to show the menus and gain access to most functions.

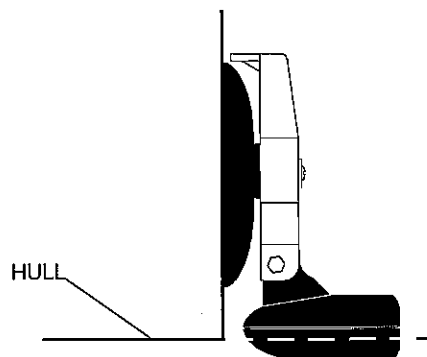
CLEAR - This key clears menus and erases entries from the screen.

ALARM - Press this key to activate any of the sonar alarms.

STOP - When this key is pressed, the chart stops scrolling. This doesn't affect the digital display, however.



Clean the chosen area of the hull before attaching the suction cup. Locate the transducer on the hull as shown below. Don't allow the bracket to go below the hull, as water pressure against it can cause the suction cup to come off at speed. Moisten the cup, then press it onto the hull as firmly as possible. Tie the nylon cord to the boat and route the transducer cable to the sonar unit. Plug the transducer connector into the connector on the back of the Ultra III portable. Your portable sonar is now ready for use.

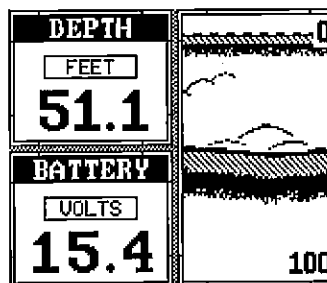


PERMANENT MOUNT TRANSDUCER INSTALLATION

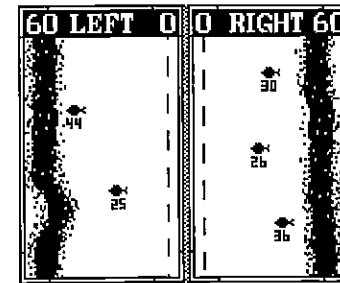
The HS-WSBK supplied with your Ultra III is a transom mount transducer. It can be installed on any outboard or stern-drive (inboard/outboard) powered boat. It can also be permanently installed inside the boat to "shoot-through" the hull on some fiberglass boats.

The "kick-up" mounting bracket helps prevent damage if the transducer strikes an object while the boat is moving. If the transducer does "kick-up", the bracket can easily be pushed back in place without tools.

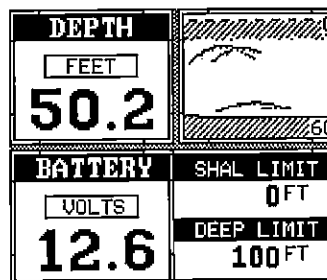
Read the enclosed transducer installation manual carefully before attempting the installation. Determine which of the mounting positions is right for your boat. Use extreme care if mounting the transducer inside the hull, since once it is epoxied into position, the transducer usually can't be removed without damaging it. Remember, the transducer location is the most critical part of a sonar installation. If it isn't done properly, the sonar can't perform to its designed potential.



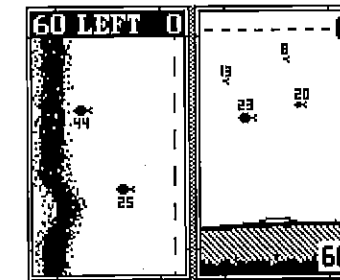
GROUP "A"



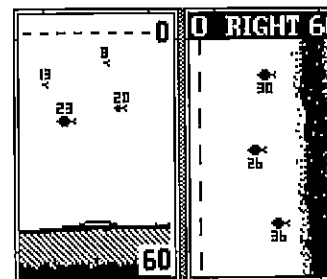
GROUP "B"



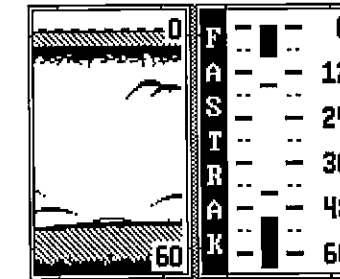
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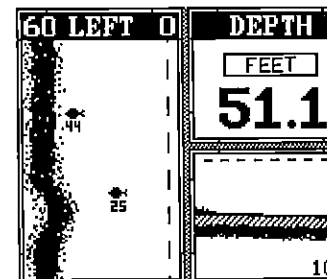
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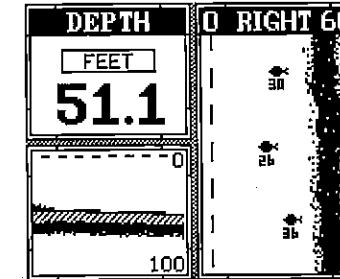
GROUP "E"



GROUP "F"



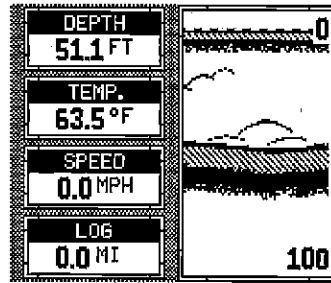
GROUP "G"



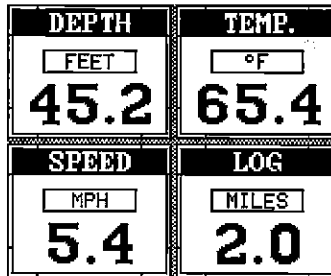
GROUP "H"

WINDOWS SUMMARY

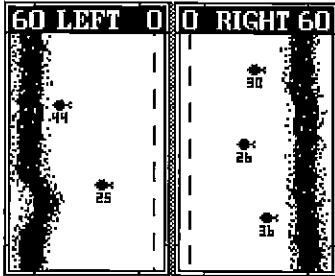
All of the window groups used by the Ultra III and Ultra III Portable are shown on the previous page. All of the window groups used by the Ultra III Plus are shown on this and the following pages.



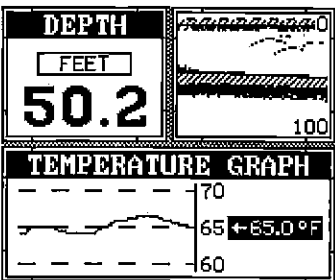
GROUP "A"



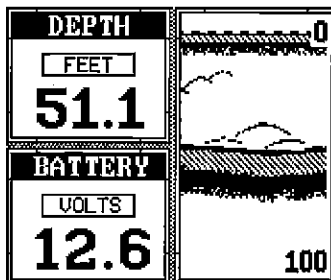
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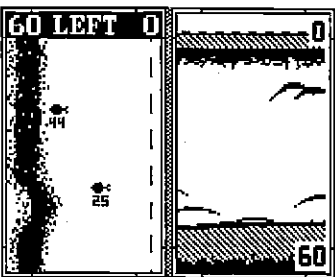
GROUP "B"



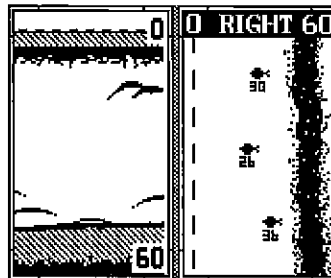
GROUP "D"



GROUP "E"



GROUP "F"



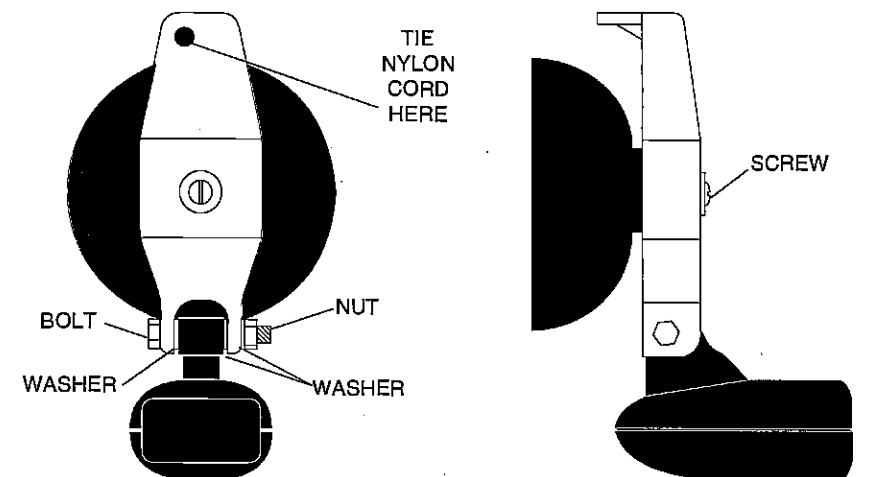
GROUP "G"

receive about portable units result from stale batteries. Make certain the ones you buy are fresh. Always remove batteries from the battery compartment before storing the unit as dead batteries can leak and corrode the contacts.

In cold weather the efficiency of dry cell batteries drops with the temperature. It's a good idea to have the Ultra III Portable good and warm along with the batteries before we leave home. If the batteries do lose a charge, you can sometimes restore them by placing them in a warm room or car interior. A better way is to replace them with batteries that have been kept warm. Don't ever heat the batteries over an open flame or direct hot air onto them. A fire or explosion could result.

PORTABLE TRANSDUCER ASSEMBLY

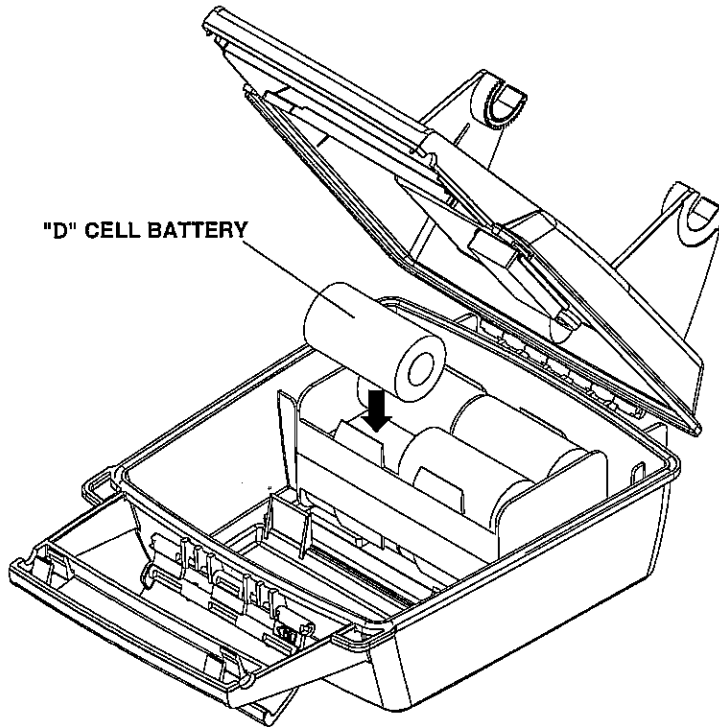
Assemble the transducer and bracket as shown below. Attach the transducer to the bracket with the supplied hardware. Make certain there is one washer on each side of the transducer, inside the bracket. Slide the other washer over the end of the bolt and thread the nut onto it. Screw the suction cup onto the bracket using the supplied screw and flat washer. Tie the nylon cord through the hole in the top of the bracket. When using this transducer, tie the other end of the nylon cord to the boat. This will help prevent the loss of the transducer if it comes off the boat.



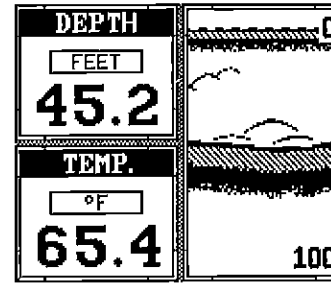
ULTRA III PORTABLE ASSEMBLY

INSTALLING THE BATTERIES

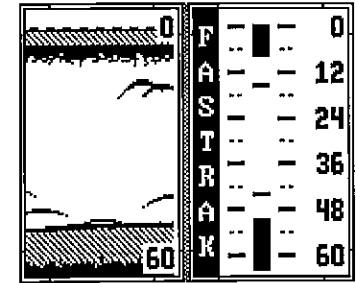
Release the latch on the front of the battery case. Open the compartment and install four "D" cell batteries into the adapter. For the longest life, we recommend you use alkaline batteries. This battery case will also hold one rechargeable battery instead of the "D" cells. See the enclosed coupon for more information on the rechargeable battery.



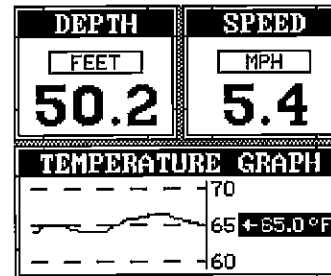
After installing the batteries, close the case and plug the power cable on the battery case into the Ultra III Portable. Turn the sonar unit on. If it doesn't work, make certain the battery terminals are making good contact against the battery contacts. Also check the wiring connections on the D-cell battery adapter. The red wire on the power cable should be attached to the red wire on the D-cell battery adapter and the power cable's black wire should be connected to the black wire on the D-cell battery adapter. If it still doesn't work, check the battery voltage. Most of the complaints we



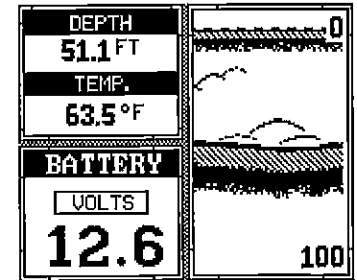
GROUP "H"



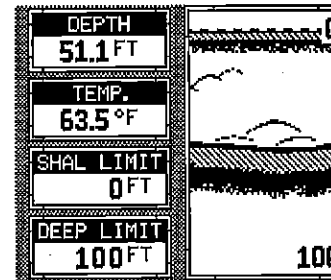
GROUP "I"



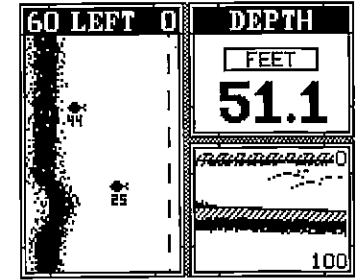
GROUP "J"



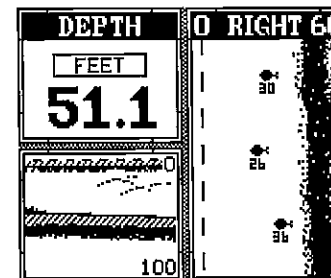
GROUP "K"



GROUP "L"



GROUP "M"



GROUP "N"

EAGLE ELECTRONICS FULL ONE-YEAR WARRANTY

"We", "our", or "us" refers to EAGLE ELECTRONICS, a division of LEI, the manufacturer of this product. "You" or "your" refers to the first person who purchases this product as a consumer item for personal, family, or household use.

We warrant this product against defects or malfunctions in materials and workmanship, and against failure to conform to this product's written specifications, all for one year (1) from the date of original purchase by you. WE MAKE NO OTHER EXPRESS WARRANTY OR REPRESENTATION OF ANY KIND WHATSOEVER CONCERNING THIS PRODUCT. Your remedies under this warranty will be available so long as you can show in a reasonable manner that any defect or malfunction in materials or workmanship, or any non-conformity with the product's written specifications, occurred within one year from the date of your original purchase, which must be substantiated by a dated sales receipt or sales slip. Any such defect, malfunction, or non-conformity which occurs within one year from your original purchase date will either be repaired without charge or be replaced with a new product identical or reasonably equivalent to this product, at our option, within a reasonable time after our receipt of the product. If such defect, malfunction, or non-conformity remains after a reasonable number of attempts to repair by us, you may elect to obtain without charge a replacement of the product or a refund for the product. THIS REPAIR, REPLACEMENT, OR REFUND (AS JUST DESCRIBED) IS THE EXCLUSIVE REMEDY AVAILABLE TO YOU AGAINST US FOR ANY DEFECT, MALFUNCTION, OR NON-CONFORMITY CONCERNING THE PRODUCT OR FOR ANY LOSS OR DAMAGE RESULTING FROM ANY OTHER CAUSE WHATSOEVER. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us, (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product, (3) when any serial number has been effaced, altered, or removed, or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

REMINDER: You must retain the sales slip or sales receipt proving the date of your original purchase in case warranty service is ever required.

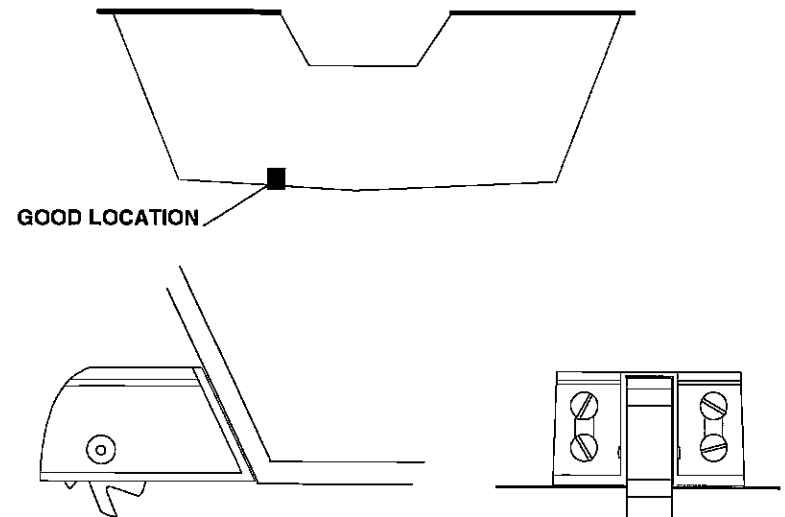
SPEED/TEMPERATURE SENSOR INSTALLATION (Ultra III Plus Only)

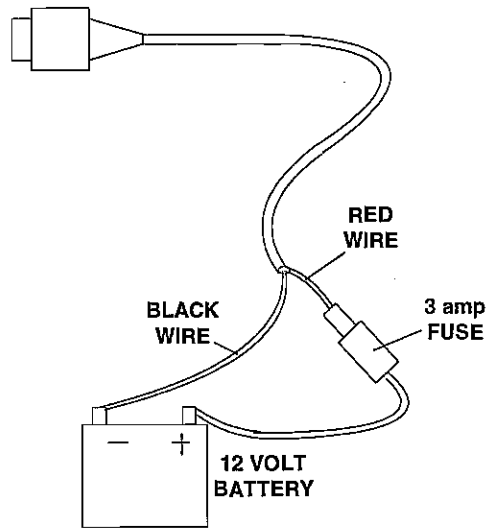
Mount the speed/temp sensor on the boat's transom in a location where the flow of water is the smoothest. There should be a minimum of turbulence and air bubbles in the chosen location. The port (left) side of the transom is preferred, however, the starboard (right) side can be used if necessary. Do not mount the speed sensor behind strakes, ribs, or thru-hull fittings. These will disturb the flow of water to the speed sensor. In a typical installation, the speed sensor is mounted six to twelve inches from the centerline of the hull. The sensor must always be in the water to function properly. Make certain the chosen location is in the water even at high speed or when the boat is on plane.

Once you determine the proper location, place the sensor on the transom. Make certain the sensor's bottom is flush with the bottom of the hull. Mark the transom in four places, two in each slot. Drill a 5/32" mounting hole at each location. Mount the sensor to the hull with four #10 stainless steel screws. Use a good grade of caulking compound to seal the screws. Adjust the sensor so it is flush with the bottom of the hull and tighten the screws.

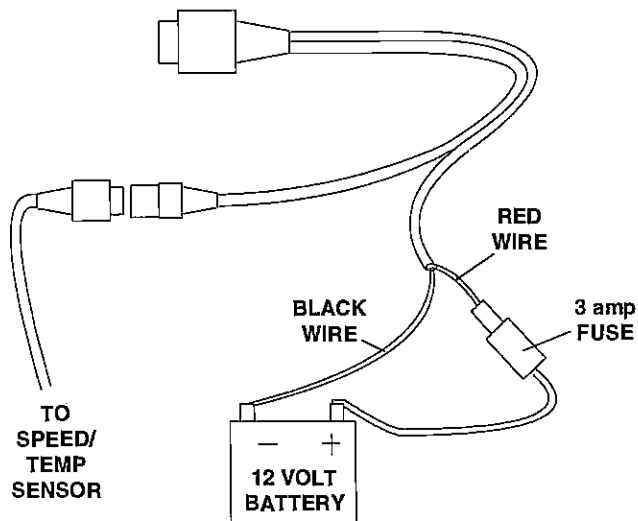
If the base of the transom has a radius, fill the gap between the transom and the sensor with caulking compound. This will help ensure a smooth water flow.

Route the sensor cable to the in-line connector on the Ultra III Plus' power cable. The speed/temp sensor is now ready for use.





ULTRA III POWER CONNECTIONS



ULTRA III PLUS POWER CONNECTIONS

Eagle's UPS Return Service

Eagle Electronics and United Parcel Service (UPS) are proud to offer all of our customers free shipping for all units sent to us for repair or service. If you have to send this unit to the factory, and you are in the continental United States, use the enclosed UPS shipping label for easy, free shipping to our factory customer service department. There are six easy steps:

1. Call Eagle at the toll-free number on the front of this flyer for a Return Authorization (RA) number and instructions about what accessories to return. **Do not return a product to the factory without a Return Authorization (RA) Number!**
2. Pack your unit and any accessories in the original shipping container, if possible. **Be sure to include proof of purchase for warranty verification!**
3. Write a brief note detailing the problem you're having with the unit. Please include your name, address, and daytime telephone number.
4. Please include payment for non-warranty repairs. Check, money order, Visa, or MasterCard may be used.
5. Fill in your name, address, zip code, date, and RA number in the blanks provided on the UPS form included with your unit.
6. Attach the label to the shipping box, tear off the tab for your receipt and give the package to any UPS driver or take the package to any UPS Customer Center. You will not be charged for this shipment.

That's it! Your unit will be shipped to Eagle's customer service department at no charge to you. Our normal in-plant turnaround on repairs is 3 working days. Units under warranty will be returned to you at no charge.

NOTE!

Eagle will pay UPS surface shipping charges both to and from the factory for this unit in the event it needs repair. Your unit is insured against loss or shipping damage when you use the enclosed UPS label.

INTRODUCTION

The Ultra III is a high quality, wide screen sonar with performance that is second to none in its class. Using menu features and "soft-key" operation, the Ultra III is also one of the easiest-to-use sonars that Eagle has ever built. The wide "Ultravision" screen shows the underwater world with high resolution and detail. The display and keyboard are also lighted for night operation. If you purchased an Ultra III Plus, then you also get digital boat speed, surface water temperature, and distance travelled (log) displays. The Ultra III Portable lets you go anywhere with its self-contained battery compartment and suction-cup style mounting bracket.

SPECIFICATIONS

Dimensions	5 7/8"H x 7 3/4"W x 3 7/8"D
Transmitter Frequency (all channels)	192 kHz
Transmitter Power (down channel)	600 watts (p-p, typical) 75 watts (RMS, typical)
Transmitter Power (left & right channels) ...	275 watts (p-p, typical) 34.4 watts (RMS, typical)
Display	Supertwist "Ultravision" LCD 128 vertical x 160 horizontal 20, 480 total pixels

NOTICE!

The storage temperature for your unit is from -4 degrees to +167 degrees Fahrenheit (-20 degrees to +75 degrees Celcius). Extended storage in temperatures higher or lower than specified will damage the liquid crystal display in your unit. This type of damage is not covered by the warranty. For more information, contact the factory's Customer Service Department or your local service center.

This product uses threaded nuts inside the case to hold the gimbal knobs onto the unit. These nuts will rattle when you shake the unit. It's normal for this to happen and shouldn't be a cause for concern. This doesn't affect the watertight integrity of the unit. The unit won't rattle when it's installed with the gimbal knobs onto its bracket.

MOUNTING

Install the Ultra III in any convenient location, provided there is clearance behind the unit when it is tilted for the best viewing angle. Holes in the bracket base allow wood screw or through-bolt mounting. You may need to place a piece of plywood on the back of thin fiberglass panels to secure the mounting hardware. Make certain there is enough room behind the unit to attach the power and transducer cables.

NOTICE!

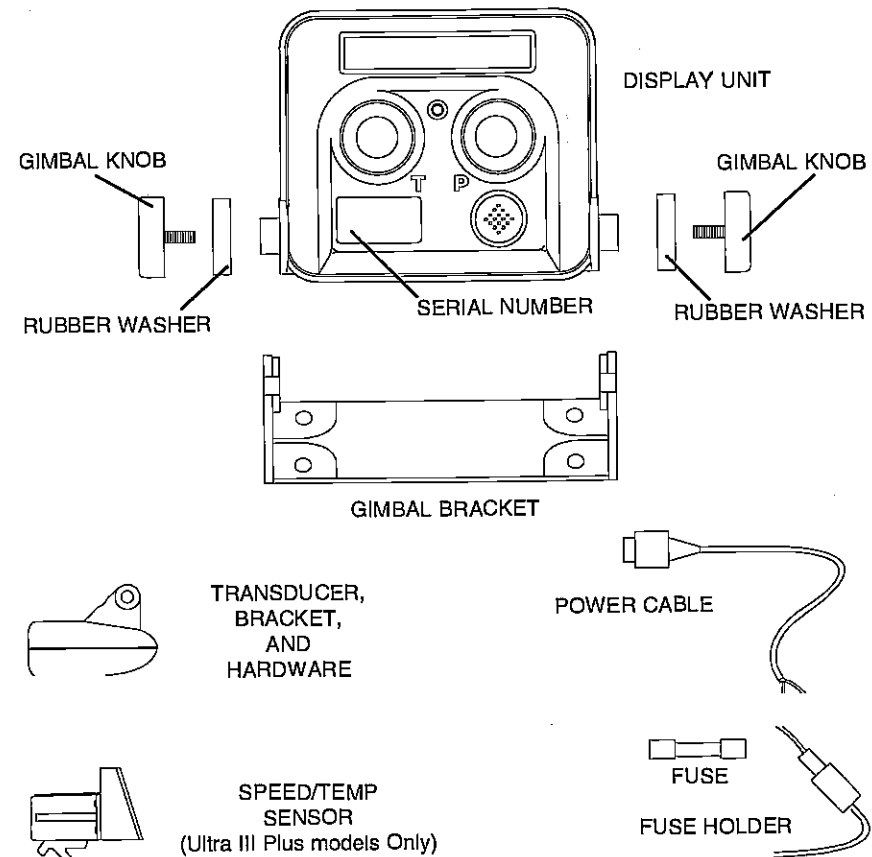
Please check the items in the box against this list. You should have all of the items shown on this page. If you are missing any of the items, please call our special toll-free number:

1-800-324-1353

A RECORDED MESSAGE will request the following information. Please have it ready before you call.

1. Your name, shipping address, and telephone number.
2. The part that's missing.
3. The model, serial number, and DATE AND PLACE OF PURCHASE OF YOUR UNIT.
4. The best time of day to call you if we have questions.

Provided that all of the requested information is recorded and approved by our Customer Service Department, the missing item(s) will be shipped directly to you free of charge.



How to Obtain Service

(Canadian Customers Only)

We back your investment in quality products with quick, expert service and genuine Eagle replacement parts. If you need service or repairs, contact the Eagle Factory Customer Service Department at the toll-free number listed below. A technician may be able to solve the problem and save you the inconvenience of returning your unit. You will be asked for your unit's serial number.

800-324-1354

Canada Only. Monday through Friday 8:00 A.M. - 8:00 P.M. Central Time.

How to Obtain Service

(International Customers Only)

If you need service or repairs, contact the dealer in the country you purchased your unit.

WARRANTY REPAIR WILL BE HONORED ONLY IN THE COUNTRY UNIT WAS PURCHASED.

Please follow the shipping instructions shown below on this page if you have to mail your unit to the dealer. For proper testing, repair, and service, send a brief note with the product describing the problem. Be sure to include your name, return shipping address, and a daytime telephone number.

Shipping Information

When sending a product for repair, we recommend you do the following:

1. Always use the original shipping container and filler material the product was packed in when shipping your product.
2. Always insure the parcel against damage or loss during shipment. Eagle does not assume responsibility for goods lost or damaged in transit.
3. For proper testing, repair, and service, send a brief note with the product describing the problem. Be sure to include your name, return shipping address, and a daytime telephone number.

Accessory Ordering Information

To order accessories such as power cables or transducers, please contact:

1. Your local marine dealer. Most quality dealers that handle marine electronic equipment should be able to assist you with these items. Consult your local telephone directory for listings.
2. Canadian customers only can write:
Lowrance/Eagle Canada, 919 Matheson Blvd., E. Mississauga, Ontario
L4W2R7
or fax 416-629-3118

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All features and specifications subject to change without notice.
All screens in this manual are simulated.

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How to Obtain Service (U.S.A. Only)

We back your investment in quality products with quick, expert service and genuine Eagle™ replacement parts. If you're in the United States and you have questions, please contact the Factory Customer Service Department using our toll-free number listed below. You must send the unit to the factory for warranty service or repair. Please call the factory before sending the unit. You will be asked for your unit's serial number. Use the following toll-free number:

800-324-1354

U.S.A. only. Monday through Friday 8:00 A.M. - 8:00 P.M. Central time, except holidays.

Your unit is covered by a full one-year warranty. (See inside for complete warranty details.) If your unit fails and the failure is not covered by the original warranty, Eagle has a flat-rate repair policy that covers your unit and accessories packed with the unit at the factory. There is a 180-day warranty on all non-warranty repairs from the factory, which is similar to the original warranty, but is for 180 days rather than one year. For further details, please call us at the above number.

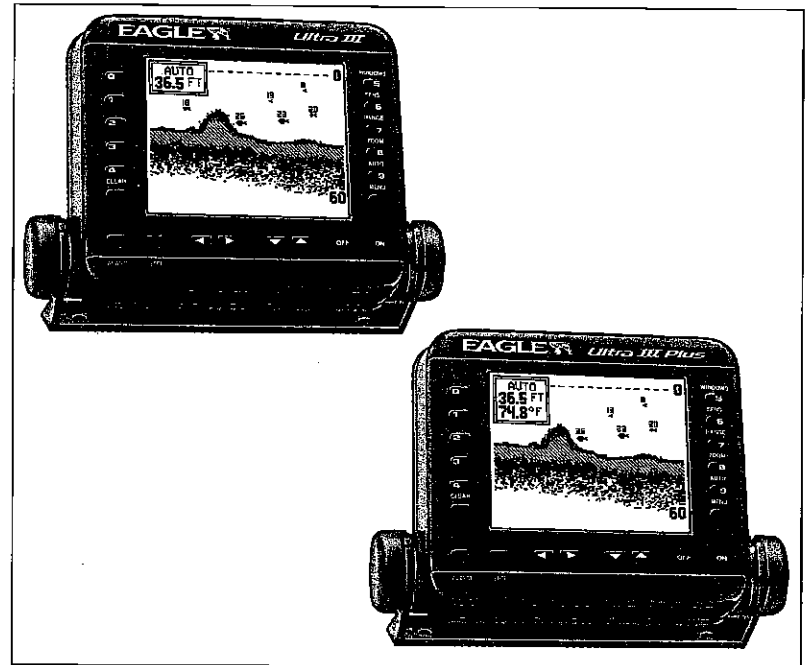
Eagle also gives you free UPS shipping from anywhere in the continental United States both to and from the factory for all warranty repairs. You can also use the enclosed UPS shipping label for non-warranty shipments. See the UPS Return Service section in this manual for more information.

Remember, non-warranty repairs are subject to Eagle's published flat-rate charges and 180-day warranty.

EAGLE ELECTRONICS PO BOX 669 CATOOSA OK 74015

LITHO IN U.S.A.

988-0135-14



Ultra III and Ultra III Plus

INSTALLATION AND OPERATION INSTRUCTIONS

EAGLE ™