VEXILAR FISH SCOUT UNDERWATER CAMERA OWNER'S MANUAL

Contents

Fish Scout Configurations

The Vexilar Fish Scout underwater camera and monitor system is offered in two basic configurations:

- Fish Scout Standard (#FS1000 & FS2000DT)
  Includes color camera, 7" color monitor, and carrying case with soft pack

- Fish Scout Double Vision Underwater Camera And Monitor
  Includes color camera, 7" color monitor and carrying case with soft pack. The Double Vision case allows you to attach any FL series flasher above the camera, giving you the ultimate view of what's below.

- DTD Option: This is a camera only feature that adapts to any Fish Scout Monitor to display depth, temperature and direction. It is available on all Fish Scout systems. Only the gray/black camera housing with the DTD decal is capable of showing Depth, Temperature and Direction. Also, a camera control box is required to fit between the end of the camera cable and the monitor input.

VEXILAR — PIONEERS IN MARINE ELECTRONICS

Established in 1960, Vexilar, Inc. has been a leading innovator of marine electronics in the sport fishing industry for over 50 years. Some of their innovations include:

- The first straight-line paper graph for sportfishing (model 155)
- The first CRT (television) display (model 660)
- The first color display (model DE-12)
- The first fish alarm (model 120-SOS)
- The first Liquid Crystal Display (LCD) (model 480)
- The first self-leveling ice fishing transducer design (Ice-Ducer)
- The first split-screen zoom flasher (model FL-18)
- The first shoot-through-aluminum transducer design (AlumaDucer)
- The first Tri-Beam ice fishing transducer (Ice-Ducer)

The FL series three-color flashers continue to lead the way in real-time high definition flasher performance. Quality products backed by great customer service is the bedrock of Vexilar, Inc. The Fish Scout Underwater Camera systems continue this great tradition.

A Long History of Vexilar Products

INTRODUCTION

Fish Scout

Fish Scout
Double Vision

Congratulations, and thank you for purchasing a Fish Scout, Fish Scout Double Vision, Fish Scout Double Vision without sonar or one of our Fish Scout systems with DTD (Depth, Temperature and Direction). All Fish Scout systems are basically the same in operation, so this Owner's Manual will cover all current Fish Scout camera systems. For care and operation of your Vexilar FL Flasher system on your Double Vision system, please review the Vexilar FL flasher series Owner's Manual. For this manual, we will be referring to both the Fish Scout Underwater Viewing Systems and the Fish Scout Double Vision Underwater Camera Systems as "Fish Scout" and will highlight items that relate to the DTD systems.

Vexilar has incorporated cutting edge technology in producing the most advanced and versatile underwater viewing systems possible. Your new Fish Scout monitor and camera can be used to view underwater structure, view bottom composition, watch fish and see how fish react to your lure presentation. You can even discover sunken treasures or just inspect the bottom of your boat. Vexilar's mission is to create a tough and reliable product you can enjoy for years. The Fish Scout Color Underwater Camera will be fun to use in both open water and on the ice when safe conditions permit. Underwater viewing is a great educational tool for young and old to experience the underwater world without getting wet.

FISH SCOUT FEATURES

- 7" High resolution LCD monitor equipped with thermostatically controlled heater that engages at –4°F to enhance your viewing experience in extremely cold conditions. This monitor also has a built-in light contrast sensor to automatically brighten or dim the display as the light conditions change.
- Sony 1/4" CCD Super HAD 100 degree camera performs like two separate camera systems in one. You will receive a high definition color image when light conditions permit or it automatically shifts to black and white mode if you are in low light conditions.
- Tri-light lighting camera system not only gives you two variable power super bright LED white lights for night viewing, but also side and directional internal lights so you can easily see the direction the camera is pointed in the dark.
- 80 feet of super thin, high strength, camera cable has depth markings every 5 feet on all non DTD camera systems. You will find the cable is easy to wind and easy to keep from tangling. The buckle on the handle allows you to clip the cable wrap to your Fish Scout's soft pack carrying case.
- The camera is designed to be used effectively in many ways: Resting on the bottom, hanging at a 90 degree angle down to 80 feet, Down-View option for looking straight downward, trolling where you can use of the optional tail fin and the use of a rigid arm to suspend the camera at any angle. The Vexilar camera housing has a special DOUBLE chamber system, so the outer protective shell DOES take-on water for better balance and smaller profile and the inner lexan camera chamber is 100% water proof.
- Easy touch keypad control panel automatically lights up in low light.
- On screen monitor adjustments by using menu keys.
- Video output jack. (connects to any camcorder that has a AV-IN port)
- Waterproof and weatherproof cable connections.
- Padded soft pack carrying case with cable and camera pouch. The features of this soft pack and pouch combination allows you to mount the cable wrap and pouch on the back of the soft pack so it can be transported inside a five gallon bucket for added protection. The super strong ABS molded internal frame holds the battery with an easy-charge jack and a D-130 battery status indicator along with a Master Power on/off Switch.
- 9 amp hour, 12v rechargeable battery with 1-amp V-410 Vexilar digital charger.
- Low power consumption allows you to view for over 10 hours on a full charge, and over 8 hours using the Double Vision system.
- 2-Year limited warranty

ABOUT YOUR FISH SCOUT

The Monitor

The Fish Scout features a high resolution 1414 by 234, 7 inch LCD with two viewing options, a 16:9 wide screen monitor display or the more traditional 4:3 perspective for close-up viewing. Your Fish Scout gives you a bright, sharp and clear view under most conditions, but if the water is stained, dirty or has a lot of suspended materials, the viewing WILL BE limited. The daylight viewable display should not require a sun shield for most outdoor viewing. When viewing outdoors, the brightness can be increased or decreased to improve your viewing experience manually, but your Fish Scout system is equipped with an internal light sensor that will automatically adjust your display for ideal viewing. You will find that the best visibility will always be achieved when you turn the display away from direct sunlight. Light conditions under water will dictate if you see your image as color or black and white. The system automatically shifts from color in good light conditions to black and white display, this is the normal operation of the system to maximize your display contrast.

The ultra-thin monitor housing is sealed with a rubber gasket and all plug-in connections are potted to protect the internal electronics from the harsh elements. The Fish Scout may be used in the outdoor elements under most conditions, but cannot be submerged underwater. The digital keypad on the monitor activates an on-screen menu display for making adjustments to the monitor brightness, contrast, color and camera perspective. In addition to adjusting the display screen settings, the digital keypad also controls underwater lighting with 38 levels of lighting intensity. It also turns your monitor and camera on and off and even tells you when you have power to your system. It is important to know that your Master Power ON/OFF Switch, located in the back of the unit, controls all power drain to your battery, so it must be in the off position when not in use to prevent over-draining your battery and voiding your battery warranty.

Important: You will need to turn OFF the Master Power Switch in the back of the unit to shut off all power drain from your system. Leaving your Master Power Switch ON means you have power running to your system and this will over-discharge the battery in about three weeks. You will want to keep the Master Power Switch in the OFF position when not in use.

While operating in cold temperatures (under –4°F), the Fish Scout utilizes a thermostatically controlled LCD heating element that allows the display to operate at peak performance. You may experience some delay in start up on extremely cold days, this is normal. When

you turn on your monitor in cold weather it will flash red & green when the internal sensor on the heating element detects the monitor temperature is below -4°F degrees. The red light will continue to flash until the heating element has heated up the monitor enough to give you the best image possible. The heating cycle will vary, but can take up to five minutes for the light to stop flashing. This is normal on very cold days. Because the liquid in the LCD can freeze, prolonged exposure to extreme temps can result in monitor damage.

Remember: A flashing red & green light and a delay in the monitor coming on when temperatures are very cold is normal and is done to protect the LCD monitor. On very cold days, expect the display to be a little blurry at first as the camera display may take a few minutes to reach its optimum performance brightness. This procedure is done to protect your investment and avoid excessive battery drain. Storing your camera in a warm place at all times is ideal.

The Fish Scout Camera

In order to create an ultra clear, high-resolution picture, Vexilar matched it with a high quality camera. The Fish Scout uses a Sony 1⁄4' Super HAD ultra low lux CCD camera. This camera offers a wide 100° viewing angle, giving you a wide coverage area for maximum visibility.

This camera has a very wide performance range, giving you great picture quality. It offers both a color camera, during good lighting conditions and automatically changes to a black and white camera display for low light conditions. The Fish Scout camera sensor will automatically switch between a color display or black and white depending on light conditions. The Fish Scout will automatically switch between color modes depending on the light conditions. You can check this yourself by turning on the camera and watching as you lower the system under a table for example. While you may not be able to see much detail under a dark table with the human eye, the low lux performance of your camera clearly shows you in great detail what is under the table. While in the water, a cloud passing in front of the sun could change the monitor from a color image to black and white, this is normal. Note that the image you see out of the water with your camera is not the same as what you will see under the water. Water distorts the perspective you normally expect to see. Your Fish Scout camera is designed to function BELOW the water, not above it, for the best image possible.

Your Vexilar Fish Scout camera has two high intensity white LEDs for low-light conditions. This lighting control is easily accessible from the monitor control panel. These lights are specifically positioned to flood all 100 degrees of your camera viewing angle with light. The monitor control panel also lets you change the intensity of the lights by simply pressing the plus or minus keys right after you hit the LED "ON" button on the far left side. A good rule to remember is to use the least amount of additional light as possible to reduce the amount of reflective particles seen in the water. Sharing your video images is easy with

the pre-wired video-out RCA plug. The yellow video output jack located on the rear of the monitor makes it possible to add an external monitor such as a big screen TV or a video recording devise. Remember, not all camcorders have an AV-IN option so be sure to check your camcorder before you head out on the water.

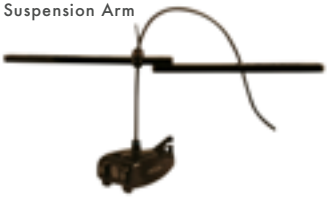
The camera and power cables have a custom-built waterproof and sealed connector. It is critical you unscrew the connector before trying to disconnect. This connection routes power and signals to your camera, so you want to make sure this connection is tight at all times when in use. Your system has 80 feet of a super thin, super strong transmission cable. It is NOT a good thing if you cut or damage your cable as water in the cable will, over time destroy the cable. If you have any doubts as to the damage to your cable, please contact the Vexilar service center for specific instructions. See page 24.

Waterproof Monitor to Camera Connection

Camera Mounting Options

Your Fish Scout comes with two cable holding options. One is an elbow suspension arm attached directly to the bottom of your internal ABS frame. The elbow arm is ideal for when you wish to look down an ice fishing hole directly next to the monitor. The elbow support arm easily folds out of way when not in use. The "egg" attaches to your cable and allows you to suspend the camera at whatever depth you wish to hold. By simply rotating the cable and dropping the egg back into the round slot on the elbow arm, you can hold the camera at any depth or direction.

Another option is to use the folding over-the-hole suspension arm. This arm is kept in the long pocket on the side of your Fish Scout soft pack case. This is used when you want to suspend the camera over the ice fishing hole away from the monitor. This is a common application since having the camera too close to where you are fishing will result in the fish getting tangled in the cable. By using the larger over-hole suspension arm, you can place the camera in a secure viewing position four to eight feet from where you are fishing to avoid hooking the cable while fishing. The over-the-hole suspension arm also has a compass mounted in the arm so you will be able to know which direction your camera is pointing with a (DTD systems only) camera system.



The camera incorporates a custom designed zinc cast waterproof housing. The amount of weight in this camera housing is balanced and designed to give you good camera control while still-fishing or trolling. The housing WILL fill with water, to make for better balance in the water. It is normal for water to drain out of the housing for a few seconds when it is removed from the water. The optional tail fin (included) screws into position in the back of the housing.

With the trolling fin on the camera housing, you are also able to attach it to a long pole to hold the camera at various angles. This feature is popular with marinas and boat owners who want to see the bottom of a boat or look for something nearly impossible to see underwater without a camera. The actual pole is not available from Vexilar but is commonly found at hardware stores in the paint or the window cleaning departments.

The housing is also designed to make it easy to attach to your cable and use in the popular Down-Viewing perspective.

Battery and Charge Indicator Location

Following Vexilar's superior standards, the Fish Scout monitor face is protected with a padded soft pack case. Inside the soft pack is a molded ABS hard frame with an enclosed battery compartment and D-130 battery status indicator to help keep track of power consumption. You also have a Master Power Switch which is critical to eliminate battery drain when not in use. Any time your Master Power Switch is in the "ON" position, your battery will be draining, so the Master Switch should be turned "OFF" whenever you are not using your system.

The sealed 9 amp rechargeable lead-acid battery can provide over 10 hours of continuous use with ideal conditions on the Fish Scout, and over 8 hours on the Double Vision systems. Battery run time will vary depending on the condition of the battery, use of underwater LED lighting, level of display brightness and the ambient temperature (LCD heater system). The 1 amp, fully automatic charger will quickly charge the battery back to full capacity. See page 9 for complete battery charging and care instructions.

To remove the battery from the case for replacement, simply remove the ABS hard frame from the soft pack case. Then remove the two screws securing the bottom battery door and swing it open. When replacing the battery and reinstalling the door, be sure to be careful with the wire positions so nothing gets pinched as the door is screwed back into place.

Remove Screws to Access Battery Compartment

Battery Charging CHARGE AFTER EACH USE

1 Amp Digital Automatic Charger (model V-410 / 1 Amp)

Easy Charge Jack

1. Allow the battery to warm up before charging. This makes it easier for the charger to charge the battery and the battery is more accepting of a charge.
2. Plug the charger into a wall outlet, verify that it is operating by noting the illuminated RED light.
3. Connect the charger to the Easy Charge Jack attached to the unit. The charger's light will switch to RED, indicating that it is connected correctly and the battery is charging.

If your charger is NOT equipped with an Easy Charge Jack, remove the battery and connect connect the terminals to the battery with the RED (+) connected to positive and BLACK connected to negative (–). The charger's light will switch to RED, indicating that it is connected correctly and the battery is charging.
FLASHING RED INDICATES A REVERSE CONNECTION.

4. Keep the charger plugged in and connected until the RED light turns on. This indicates the battery is at full charge.
5. Unplug the charger from the wall outlet and disconnect from the battery.

Charging times will vary depending on how much the battery has been drained. If the battery has been completely drained (approx. 8 to 10 hours of use on a 9 amp battery) the battery will require about 9 hours of charging. Once the battery is fully charged and the charger's light returns to RED, the charger is then operating in a "Maintenance Mode". At this stage, the charger can remain connected to the battery indefinitely and the battery will be maintained at full charge.

BATTERY DO'S

- Allow the battery to FULLY recharge after each use. Recharge after every use.
- Give cold batteries extra time to charge. Charge at room temperature if you can.
- Keep flames, sparks, and metal objects away from batteries and terminals.
- Charge periodically during battery storage.
- Disconnect the battery when not in use.

BATTERY DON'TS

- OVER DISCHARGE the battery, You should never drain a battery to the point where your Fish Scout stops.
- DISCONNECT exposed battery clips before switching the charger OFF.
- Damage the battery or terminals by dropping.
- Use another device to determine if your battery is fully charged. Go by the charger's light alone.

DID YOU KNOW? If you leave your main power switch on, in two weeks the power drain from your D-130 will drain your battery to a point it may no longer accept a charge. This battery miss-use is NOT covered under your warranty. Charge your battery after every use and make sure the Master Power Switch is OFF before storing your unit.
Remember to charge after each use.

SOFT PACK FEATURES

Your Fish Scout system comes standard with a soft pack carrying case. This case is an important part of your viewing system. The soft pack has some innovative features to protect your display system, so be sure to keep the front padded door over your screen when not in use. Sharp impacts on a LCD display will damage your monitor, so protect it at all times.

The camera/cable pouch is another innovative feature on your Fish Scout. You can clip the cable pouch to the side and have it locked into position using the heavy Velcro strip. Or you can clip the cable pouch to the top of your bag so the entire system can fit into a five gallon bucket for transport. You will find cable management is a big part of owning a underwater viewing system and this easy-to-use winder system with a quick drain pouch is very convenient.

Side-Mount Pouch Option

Rear-Mount Pouch Option

If you own a Double Vision system, your front panel does not roll up like the standard Fish Scout. On the Double Vision, the Vexilar Flasher is mounted on top, so the front panel folds in half so you can just use the flasher portion of the system. When you want to also use the camera, simply swing the front panel to the left like a door to expose the camera section. The lower support arms of your Double Vision system extends out so you have a better viewing angle when you want to use the Vexilar flasher and camera at the same time.

Double Vision Side-Mount Pouch Option

Double Vision
Side-Mount Pouch
Option

Double Vision
Rear-Mount Pouch
Option

The Fish Scout Soft Packs provide essential protection for the monitor as well as additional storage for the cable and camera with a separate snap-on pouch.

- Front Cover Flap: On the Fish Scout camera-only systems the front access doors actually roll upwards and secures into position. On the Double Vision system the front door folds down if you wish to just watch your Vexilar flasher, and then fold back to the left to expose the monitor.

- Rear Access Flap: On each style of soft pack, you have an easy access rear door that makes it easy to access your Master Power Switch and to check-out your battery status indicator. This is also where you will find the "Easy Charge Jack" that is pre-wired into your enclosed battery compartment, so it is easy to plug into your Vexilar charger.

Easy Charge Jack

The Fish Scout soft pack also has a long storage pouch on the side. This pocket is for storing the over-the-hole suspension arm assembly.

Suspension Arm Compass

FISH SCOUT OPERATION

Like all Vexilar products, the Fish Scout has been assembled and tested before shipment. After removal from the packaging, locate the Master Power Switch at the rear of the unit and turn it "ON". The Battery Status Indicator will turn on and display the current level of battery charge. It is always a good idea to check the charge in your battery periodically whenever it is not in use to prevent battery damage. You NEVER want to drain your battery to near zero since it will greatly shorten the life of your battery.

When the Master Power Switch is in the "ON" position, the unit has power and is ready to go. Looking at the back side of your system, you will see the D-130 battery status is also showing the current battery level. NOTE: the power drain from D-130 is minor, but it will in time, completely drain your battery of energy. This is not covered under warranty. It is always best to keep your Master Power Switch in the "OFF" position when not in use.

When you hit the button on the far right side of your monitor touch pad, the red ON light on the touch pad will now turn on. This tells you your monitor is ready to receive your camera signals. If you find the red & green light flashing, this is a safety feature to alert you to the fact that the monitor temperature is below -4°F. At this point the automatic heating sensor kicks in and the red & green light will be flashing until the monitor is warm enough to function normally. It may take several minutes before the internal heating element does its job and the light stops flashing. This is normal.

Sun Hood or No Sun Hood?

Your Fish Scout system is designed not to use a sun hood since the monitor sits inside the soft pack. If you keep the sun behind the unit, you should have no problem seeing the display. While most other portable monitors have a lux factor brightness of 250 to 300, the Fish Scout monitor has a 400 Lux display brightness making it one of the brightest on the market today.

Your Fish Scout system comes pre-wired and requires no special connections to start operation other than turning the Master Power Switch to the "ON" position. To gain access to the battery compartment, simply remove the two screws located in the underside of your case. Remove those two screws to expose the battery compartment and the wiring harness. With this system, it is important to remember that if you take wires apart, black is negative and red is positive. Removing the battery is simple, just remember how it came out of the compartment. You will want to be sure the wires are all to the one side as you re-inset the battery to avoid any rubbing of wires.

Important: The main power and camera cable has a screw-lock waterproof connector. Don't try to pull this connector apart until you unscrew the outer ring first. Your camera will not function unless this connector is secure.

LED Button
Turns the camera's LED On, Off, and with + and – buttons, controls brightness.

Minus Button
Used to adjust the menu setting lower.

Menu Button
Access and exit the display menu.

Plus Button
Used to adjust the menu setting higher.

Power Button
Turns the camera On and Off

Turning "ON" Your System

To turn "ON" the Fish Scout, press the Master Power Switch located in the back of the carrying case to the "ON" position. When your D-130 battery indicator is on, you have power. From the front of your unit, press the far right Power button. When the monitor is ON, the red light will be on.

You may experience a flashing red & green light when you try to turn on your monitor and camera. This flashing red light is telling you the internal heater is activated when the monitor is at -4° F degrees or less. At this point the monitor display is being internally warmed to allow you to get a good image. Depending on the temperature of the monitor, a visual image can be fuzzy or not sharp. This will pass quickly. If at all possible, try to store your camera in a warm location prior to turning on. Your goal will be to never store your camera in a sub-zero environment overnight.

Operation of the Fish Scout's Controls

The Fish Scout and Fish Scout systems with DTD use the same menu options. The Fish Scout has a simple menu display with four different adjustments that can be made by utilizing the on-screen display. These adjustments can be made to enhance the image on the display to the user's preference. (Note: All Fish Scout systems have been pre-set with factory defaults for normal viewing.) To access the system menu, press the menu key on

the keypad of the monitor. (Note: if you wait too long before selecting an adjustment, the menu screen will time out and disappear). To change between on-screen adjustment choices (brightness, contrast, color, perspective and reset), continue to press the menu key. The selected on-screen adjustment will be highlighted on the LCD screen. To change the settings within a selected menu, use the UP and DOWN arrows located on the far right of the digital keypad. You will see the numbers of the selected adjustment increase or decrease depending on the arrow direction you are depressing. To accept the changes, release the UP/ DOWN arrow and settings will be saved. Once the settings are adjusted properly, the on-screen menu will shut off automatically.

Display Brightness

Use the brightness adjustment to change the overall brightness of a picture. You can lighten a picture that's too dark, or darken one that's too light. Different lighting conditions and water clarity will affect the brightness of the picture. By adjusting the brightness, the backlight of the display will increase making the picture brighter. This can be helpful when viewing the Fish Scout outdoors. During daylight hours, adjusting the brightness can make the display easier to see.

Your Monitor is equipped with an "Auto Brightness" sensor feature inside that will automatically adjust the display as light conditions change, but you can override it manually if you wish using the menu keys.

Display Contrast

Contrast is the difference in brightness between lightest and darkest tones in a picture. A picture with too much contrast has highlights (lighter tones) that are too bright and no detail and shadow areas that are too black. A picture with too little contrast looks dull, with no true blacks and more grayish highlights. Different water clarities coupled with the amount of light available will affect the contrast. Adjust the contrast to the desired setting for the best overall picture.

Display Color

Increasing the color saturation will increase the vividness but can make the picture look darker overall. Decreasing the color saturation will make the colors look washed out and gray. As light conditions change, don't be afraid to adjust your color display to improve the over-all image of what you see. This is especially true at dawn or sunset where changing light conditions will greatly change what you can see clearly.

Perspective

This setting allows you to change your viewing perspective from a wide 16:9 to a more standard 4:3 viewing perspective with less image distortion.

Reset

Reset simply enables you to bring the monitor back to the factory default settings.

Low Battery Operation Alerts

Your Fish Scout system offers two ways to keep track of battery condition. Your D-130 digital battery status indictor on the back side of your unit gives you a working status of your battery whenever it is connected. It is critical to note that while your D-130 may drop to zero, your camera system may still operate. This is because your D-130 is programmed to tell you that 11 volts is zero and very near the actual run time remaining on your system. Depending on the health of your battery, you may get 5 minutes or you may get 2 more hours of camera operation. At 9.5 volts, a "BATT LOW" signal will pop-up in the upper left corner of the screen telling you the system will shut down within two minutes of operation.

Remember that you must turn "OFF" the Master Power Switch in the back of the unit when not in use. Failure to do so over time will drain your battery completely and this failure is NOT covered by your warranty.

Please follow the charging directions to get your battery back to a full charge. Do not let the battery stay in a drained state for more than 24 hours as it will greatly shorten the life of your battery.

CAMERA LIGHTING

The Fish Scout Camera utilizes two, super bright, white LED lights. The Fish Scout Camera housing has placed the lights farther from the camera lens to reduce the bounce back reflection of suspending objects in the water. This increases nighttime viewing distance and also allows the two LED lights to fill the entire 100° degree viewing angle of the camera lens. To turn the lighting system ON, press the control key marked "LED", located on the monitor's digital keypad. By pressing the key, a yellow graphic on the monitor will show if the LED is "ON" or LED is "OFF".

You also have almost unlimited control of light intensity with your Fish Scout camera's LED lights. When the yellow letters say LED ON, you can use the plus or minus buttons on the monitor control panel to control how bright you want the LED's to be. To decrease the intensity of the lights while the lights are ON, press the down key on the right side of the digital keypad (Note: the lights always come on at the last intensity level, so you may need to re-set light levels each time the LED lights are turned on). The amount of LED light required will depend on the water clarity and amount of particulates in the water. Darker, stained water will require more light while clear water will allow for better light penetration, therefore decreasing the need for super bright LEDs.

Important: Be sure to check with your state's regulations with regard to underwater lights and camera usage.

DTD (Depth Temperature and Direction) Camera Use

DTD Switch Box

This great option is available for all Fish Scout Camera systems. It gives the user the ability to use Swiss digital sensor technology to tell you the depth of the camera, the temperature of the water the camera is at and the direction the camera is pointing under the water. This information graphic will be on screen inside a round graphic in the lower right corner of the monitor. A Master Control box for the DTD system is mounted below the monitor and is used to calibrate depth and to turn the display ON or OFF.

Attaching your cable to the Master Control Box starts first with simply connecting your DTD camera (all DTD cameras are two tone color of gray and black) to the "camera" connector side of the control box and connecting the monitor to the "monitor" connector on the other side of the control box.

Once connected and you turn your system on, you will see the round white dial on the lower right corner of the display in white. Note that the white graphic will be very visible in water, but may not be seen well above the water. The control panel has only one button, the button controls both the calibration of the unit and the ability to turn the DTD display graphics ON or OFF.

It is recommended you calibrate your depth setting only if you do not have a 0.0 feet reading before you submerge the camera. Simply depress the control box switch once and the display will set depth back to zero. You will no longer need to use the control box unless you decide you no longer wish to see the DTD display on the monitor while you are fishing and that means you will simply press and hold the control button for 5 seconds and the display will leave the screen. This is commonly used when connecting to larger monitor or recording the image you see on the display.

Calibrating Your DTD Display

Located under and behind your monitor/TV is a small box called the Calibration Switch Box with two short cables, one coming out of each end. The box is firmly mounted to your system base. If you bypass this Calibration Switch, your monitor will work perfectly, but the DTD display information will not be shown on the lower right portion of the monitor.

Control Box

First, you will need to connect your DTD camera cable to the short cable coming out for the Calibration box marked "camera". On the other side of the switch is a short lead marked "monitor" that connects to your monitor/TV.

Note: Be sure to hand tighten all connections as a loose connection will often cause a bad image or no image at all on the monitor.

With your Monitor turned on, the DTD information will be displayed in the lower right-hand corner of your monitor. Direction is factory set, so no problem there, but you will note that in air the depth reading will be off. The depth senor ONLY works in water. If you want an accurate depth reading, each time you power-up your system you should calibrate your depth sensor by pressing the raised button on the calibration switch once. You will see the display be set back to zero. DO NOT re-set while in water.

Note: The temperature reading in air will slowly rise as the sensor inside the camera housing reacts to the heat generated by the camera. In water, the temperature readings will be accurate.

If you wish to turn off the DTD display, simply press the same calibration switch and hold it for five seconds and the display will go off. Turning the system off and on again will make the DTD display re-appear. This is an option for anglers wishing not to see the DTD display on a big screen or while recording images.

Mounting Tri-Beam or Dual Beam Control Box

If you wish to mount your switch box to your Double Vision system without sonar you will find that there are holes pre-drilled to fit either your Tri-Beam control switch or your Dual Beam control switch. Use a flat screwdriver or even a butter knife to slowly pry off your switch box you're your current Pro Pack or Ultra Pack case and save the little plastic rivets that hold your switch box into position. Use the same plastic rivets to re-attach your switch box to your Double vision by pressing them into the new hole positions.

Double Vision

Reading Your DTD Display

There are three items listed inside your display circle and are very easy to understand. The top numbers represent the direction the camera is pointed. It will first state the bearing based off a true north heading. This function is used to give you a very exact camera direction. The classic Cardinal points of North , South, East and West as well as intercardinal points of Northeast, Southeast, Southwest and Northwest will follow the bearing numbers to make it very easy for you to get a general direction of where the camera is pointing.

Note: Your folding over hole suspension arm located in the side pocket of your soft pack bag has a compass you can use to help establish True North if you are unsure of direction.

The second number is the depth reading in feet. If at the surface the reading is NOT 0.0 feet you need to re-calibrate the camera and this is easily done by pressing the control box button mounted under the monitor on the base of your system. By pressing the control box button once and you will see the display re-set back to 0.0 feet.

The bottom number is the water temperature in Fahrenheit at the camera level, allow 30 seconds to insure an accurate reading.

Ice Fishing Usage


Down View

The Fish Scout Color Underwater Viewing System is a fun way to improve your ice fishing experience and help you learn more about the underwater world below. Many anglers find that using a Vexilar Flasher along with their Fish Scout camera will teach you even more about what you are seeing on your Vexilar flasher system. The Fish Scout can be used to search for an ideal weed line or locate a rock pile where fish will generally congregate. Winter waters are often the clearest, so you are often able to easily move from hole to hole looking for some type of fish activity or change in bottom content. The Fish Scout is designed to be easy to transport and use, so moving from hole to hole is not a problem. Once you've located an area where you wish to fish, use the over-the-hole suspension arm or the elbow support arm connected to the base. The supplied cable stopper (egg) will then hold your camera in perfect position.

To assist in keeping the camera at the desired depth and direction, use the adjustable egg stopper that is pre-installed on your cable. The egg locks your camera at a specific direction and depth. You can use either the elbow support arm mounted on the bottom of the case or the folding cross-hole suspension arm to hold your camera in position. Try not to bounce the camera on the bottom as it will stir-up the bottom and it may take several minutes for the cloud of dust to settle. For best results it is advised that you not actually fish in the same holes as the camera to avoid tangling in the camera cable.

The Fish Scout also includes a Down-Viewing hook on the back of the camera tail fin that allows you to point the camera straight down. Now in some situations, you can fish in the same hole and have the camera suspended just below the surface and you can watch the fish from a "top-down" perspective.

Viewing Tip: If you are looking to watch your lure while fishing, for ease of use, it is always best to do this near the bottom where you can find your lure relating to the bottom. Using the camera to help you find and catch suspended fish can be done, but it may take several attempts to find your lure.

Open Water Usage

For open water use, simply turn the camera power ON and lower the camera into the water. If you're drifting with the wind or using a trolling motor with the Fish Scout, attach the supplied trolling fin to the rear of the camera for added stability. The internal weight is enough to keep the camera down while the fin will assist in keeping the camera tracking straight through the water as the boat moves. If the camera becomes hung up on an underwater object, back up in the direction you were traveling and slowly try to back the camera out of the snag. You only want to pull directly upward with force as a last resort.

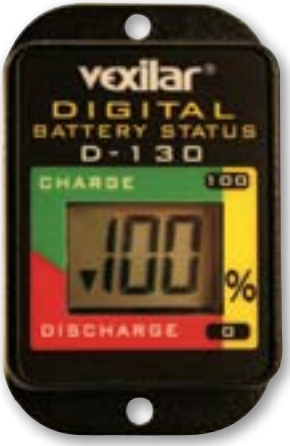
Pole Cam

There are many different uses for your underwater camera. One popular use is to use the camera to inspect boat or lower unit damage while still in the water. You can attach to the hole on the trolling fin to mount a pole or long arm. Again, these telescopic poles are available at most hardware stores in the window cleaning or painting departments. This can make viewing in those hard to reach spots possible.

The D-130 Battery Status Indicator

Digital Battery Status Indicator

A unique battery fuel gauge that recognizes both the discharge and charge cycle of your battery. It will sense the current charging condition of the battery, display the percentage of remaining capacity and display a charge trend arrow...
(▼ or ▲).



D-130

The D-130 will continue to measure capacity and trend as long as it is connected to the battery. When an additional "load" is applied to the battery, the capacity will decrease according to the load applied.

When the load is removed, the digital readout will remain at the last shown level and the trend arrow will switch to point up. This rebound indicates the battery is starting to recover, but the digital readout of the capacity will hold at its lowest level unless you reset it by disconnecting and reconnecting the D-130 to the battery.

*If you continue to use the D-130 without disconnecting it, the D-130 will show the last capacity until the battery falls below this point, then continue to decline with use.

When a charger is attached to the system, the digital readout of capacity will remain the same, up to an hour, with an (▲) arrow indicating that it is receiving a charge before the digital readout will start to advance. Note, with some batteries, the very top rating for a charged battery (12.7 volts) or 100% rating will not stay at 100% even though it might be fully charged. This is normal.

Each battery charges differently and may be fully charged but reads 95%, instead of 100%. This is a normal occurrence with batteries since not all batteries will hold the same top-end percentage when fully charged and is not an indication of a poor or defective battery.

When you reconnect the D-130 to the battery, the display will show the current status of the battery at that moment. Note that the D-130 needs to be connected to the battery before a charger is connected to give an accurate reading.

IMPORTANT: Be sure the indicators are not on during long storage periods, as excessive battery drain can result. This battery failure is NOT covered under your warranty, so do not excessively drain your battery.

Caring for Your Fish Scout

Important - Turn the Master Power Switch OFF during extended storage periods to avoid excessive draining of the battery. Remember to recharge after each use, as well as monthly during extended storage period.

Clean the display screen and camera lens using a 50/50 mixture of vinegar and water and a soft cloth towel. Do not use harsh chemical cleaners on the display or damage may result.

Clean the display housing, camera body and cable with a mild detergent.

Be sure to avoid any sudden impacts to the front monitor face as nothing can be done to repair the monitor if display is broken. This is not covered by warranty.

If at all possible, do not store the system in a sub-zero environment. Prolonged exposure to extreme cold will affect the monitor's display.

Cable management is key to preventing cuts or crimping of your cable. When not using the camera, be sure to wind the cable onto the supplied cable wrap instead of allowing the cable to lay on the ground or in the bottom of your boat where it could be stepped on or damaged.

Camera Specifications

- 1/4" Sony SUPER HAD CCD (color)
- Color / Black & White
- Resolution 420 horizontal lines Light Sensitivity lux:
- Color .51 – B&W .05
- Field of View 100 degrees
- Auto gain control
- Dual external super-bright LED lights

Monitor Specifications

- LCD Display 7" Dual Perspective 16:9 or 4:3 LCD display 1414 by 234)
- Auto light and temperature sensors
- Voltage 12 volt DC (9.5 volt minimum)
- Video out option
- Auto low light backlight control sensor on panel

Power Consumption

- Camera and monitor current draw: 500 mA (Fish Scout)
- Camera and monitor current draw: 725 mA (Fish Scout Double Vision)

ACCESSORIES

Ultra Pack Carrying Case Only
This portable case has all the features. Upgrade your older system or build a custom new system.

UC-100

Pro Pack II Carrying Case Only
The latest generation of our most popular portable carrying case.

PC-100

Genz "Blue Box" Carrying Case Only
A solid carrying case for your Vexilar flasher or other electronics.

BC-100

Soft Pack for the Genz Pack
Encloses and protects the system. Offers Velcro sealable access locations and side pocket storage.

SP0005

Soft Pack for the Pro & Ultra Carrying Cases
Encloses and protects the system. Offers a clear zippered window and access locations.

SP0007

FlexLight
Provides a bright white light with very low current draw. It's adjustable so you can put the light where you need it.

L-200

S-Cable
The suppression cable reduces your flasher's output power. This allows clearer readings in shallow or cluttered waters.

S-140

Sun Hood
Shields the display on FL-8s, FL-8SLTs, FL-8SEs, and FL-18s. Easy assembly and installation.

S-240

Mag Shield
Both magnifies and protects the FL-8se or FL-18 displays. Not compatible with the FL-12 or FL-20

MS0001

Flasher Cover
Neoprene cover will protect the flasher face during transport and storage. Fits models FL-12, FL-20 & FL-22HD.

COV001

Tri-Beam Ice-Ducer
Gives you the option to select from a wide 20° beam, a mid 12°, or a narrow 8° beam angle. Switch included.

TB0033

Digital LCD Battery Status Indicator
Shows the current level of charge as a percentage with charge or discharge mode indication.

D-130

Pro Mount
Offers a swivel action and quick removal for your flasher or other electronics. It's durable and economical.

SMC001

Deptherm
Gives depth and temperature. Just attach it to your line and drop it down.

104

A.C.E. Adhesive
This acoustically conductive epoxy system is designed for maximum performance with minimal in-hull transducer installation effort

ACE001

Tackle Tote
A handy soft sided tackle box that holds three of our 4 by 6 inch Vexilar tackle boxes. Use it for all seasons.

TT-100

Beverage Holder
Fits into the rod holder on the Ultra Pack and Pro Pack II and allows you to keep your favorite beverage close at hand.

CH-100

Vexilar Clothing
From caps to shirts and sweats to jackets, Vexilar offers a wide range of styles and colors with the Vexilar logo. Visit the Vexilar web site or your local Vexilar Pro Shop to find quality affordable clothing you'll enjoy wearing day after day.

Visit vexilar.com for more great gear and wear!

TROUBLE SHOOTING

Red light on, no monitor or camera.

Check your battery status indictor, if your camera will turn on, your D-130 will still tell you how much power you have in your battery. In low power situations, the red light may be on, but there is not enough power to display an image.

Flashing Red & Green light when I turn the system on.

This is normal to let you know the auto heating element has been engaged. Any time the heating element is on, the red & green light will flash.

Camera lights on, but no image on monitor?

You might have a loose or broken connection in your system. Unscrew and pull apart the monitor to cable connector and re-connect it and be sure to hand tighten the connection again.

ON camera light is on, but no monitor.

Check battery level on the battery status indicator, this is a common problem of low battery.

Water seems too dirty to see.

This is not at all uncommon in dirty or heavily stained waters. Visibility will be limited and the lights will not help in these situations. Understand the camera only shows you what is possible to see and there will be limitations as to how far the water clarity will let you see.

Turned on main power switch and nothing turns on.

Remove the Internal structure from the soft pack and remove the two screws found on the bottom side of the case. This will reveal the battery. Be sure all connections are intact and wires are in good shape. Most likely, the battery drained to a point so low, nothing lights up.

Battery so low, charger won't charge.

This is a very common occurrence and one we hope to solve with time. Most batteries if left to simply stand with nothing attached to them will bounce back a little in 6 to 12 hours. This might be enough to trigger the charger to turn on and start the re-charging process. It will not hurt to connect the battery to the charger even if it is not charging and simply wait to see if it engages with time. Please try this for at least 24 hours, if it does not work you should look to replace the battery.

Can't solve the problem? Call Vexilar service for support. If problems with your camera persist, do not send it back to where you purchased it. It is always best to send it directly to Vexilar for prompt service.

SERVICE AND SUPPORT

If you find that you need help, please contact us. Have ready the model number and, if possible, the serial number of your product. Please be sure to read this manual thoroughly first.

Address

Vexilar, Inc.
6667 West Old Shakopee Road, Suite 101
Minneapolis, MN, 55438-2622

Telephone

(952) 884-5291

Email

service@vexilar.com

Web Site

www.vexilar.com

Warranty Information

This VEXILAR product is warranted against factory defects in material and workmanship for a period of 2 years from the date of purchase or receipt as a gift*. During the warranty period, VEXILAR will repair or at its option, replace at no cost to you for labor, materials or return transportation provided the unit is returned, shipped prepaid to Vexilar, Inc., 6667 West Old Shakopee Road, Suite 101, Minneapolis, MN 55438-2622. This warranty does not apply if the product has been damaged by accident or misuse, or as a result of service or modification by other than the factory.

Except as otherwise expressly stated in this previous paragraph, the COMPANY MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR APARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THIS PRODUCT. Company shall not be liable for, and purchaser assumes responsibility for, all personal injury and property damage resulting from the handling, possession or use of the product by Purchaser or others who obtain it through purchaser.

* A sales receipt with date of purchase may be requested before service work is done under warranty if no warranty registration information is on file. It is impossible to establish a date of purchase with a serial number or UPC code. Sorry.