

XPS OWNERS MANUAL



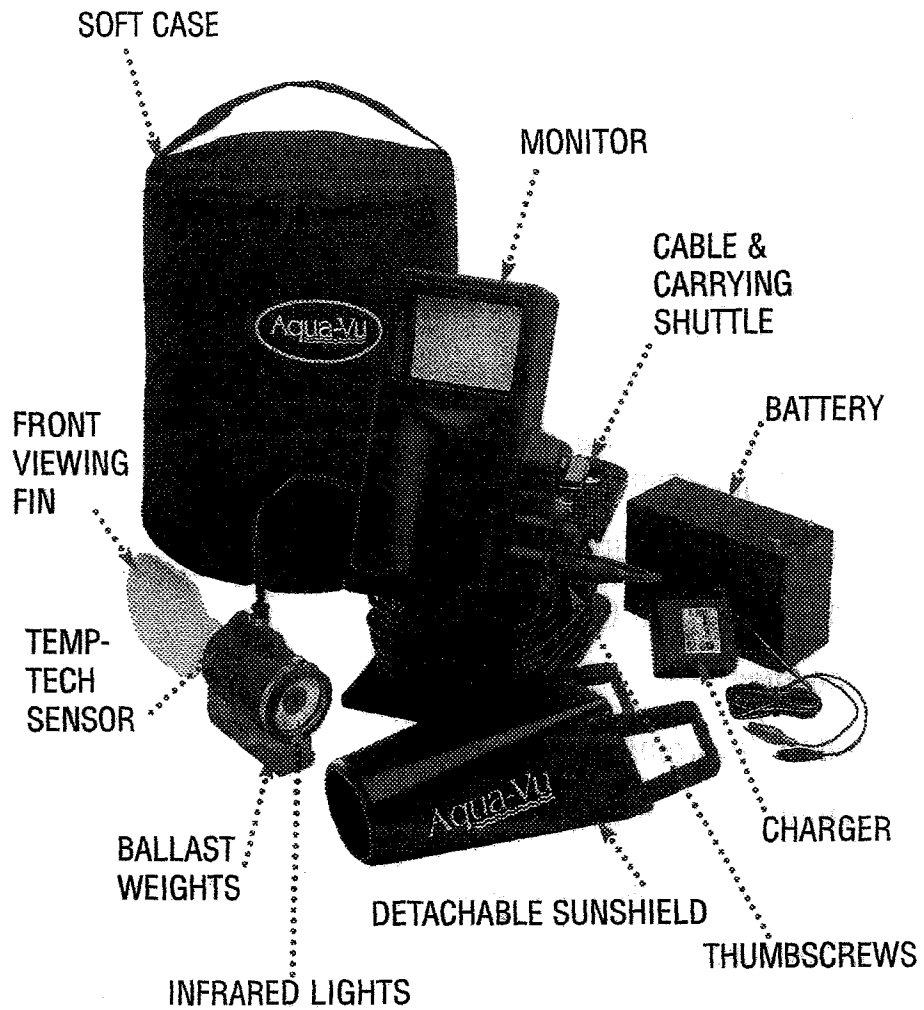


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EASY SETUP

Your Aqua-Vu XPS requires no complex assembly. Follow these simple steps:

1. Connect the monitor to the Carrying Shuttle (a one-time procedure) using the two black plastic headed thumbscrews provided. (You will tighten and loosen these thumbscrews every time you use the Aqua-Vu XPS - for positioning/tilting the monitor for the most convenient viewing, as well as for carrying and stowing the unit.)
2. Plug the camera cable into the "CAMERA IN" port. (We recommend disconnecting camera cable from monitor when not in use and for transporting.) If you fail to see an image on the monitor after conducting these tests, please see the "troubleshooting" section of this manual.
3. Place the battery into the battery well in the Carrying Shuttle, with battery terminals towards the lower end of the unit (opposite from handle). Position the battery lock tabs to secure the battery in place. Connect the red wire clip to the red terminal on the battery (red to red). Connect the black wire clip to the black terminal on the battery (black to black).

You may also power the Aqua-Vu XPS by means of an Auxiliary Power Cord accessory that plugs into a cigarette lighter in vehicle or boat. The XPS can operate off any 12-volt power source. (The Auxiliary Power Cord accessory is available through retailers, or online at www.aquavu.com.)

TESTING CAMERA AND MONITOR

1. **VIEWING AN IMAGE.** Locate the ON-OFF-ON/LIGHT switch at the right end of the control line-up. Turn the switch to the ON position. Look at the monitor screen. You should see an image. Slowly move the camera, pointing it towards room furniture, your dog, or even your feet. You should see a "live" image!
2. **CHECKING THE CAMERA'S INFRARED LIGHTS.** Turn the switch to the ON/LIGHT position and place the camera in a dark room, you should have no problem seeing the contents of the room on the monitor. REMEMBER: Infrared light is invisible to the human eye and must be tested in the dark.

To experience your Aqua-Vu XPS's Temp-Tech and Direct-Tech features for water temperature and camera directional readings, use the MODE and TEMP buttons located below the handle on the Carrying Shuttle (while unit is turned on). See appropriate sections in this manual: Mode and Temp Buttons, Direct-Tech Feature: Knowing Camera Direction, and Temp-Tech Feature: Knowing Water Temperature.

TROUBLE-SHOOTING

NOTHING HAPPENS (SCREEN FAILS TO LIGHT UP) WHEN THE SWITCH IS IN EITHER THE ON OR ON/LIGHT POSITION.

- * Battery not connected. Properly connect the battery: red to red, black to black.
- * Battery not charged.
- * Fuse may be blown. (See The Fuse section of this manual.)

THE SCREEN LIGHTS UP, BUT I SEE NO PICTURE.

- * Camera cable is disconnected. (Plug the camera cable into the "Camera In" jack.
- * Camera cable might be damaged. (Consult the "Service" section in this manual.)

SCREWS FOR BALLAST WEIGHTS AND FRONT-VIEWING FIN WON'T GO THROUGH HOLES IN THE RUBBER CAMERA HOUSING

- * With a screwdriver, screw the bolts through the predrilled holes. (The holes are a little undersized for firmly gripping the bolts to prevent their loss.)

I LOWER THE CAMERA TO THE BOTTOM BUT CAN'T SEE ANYTHING.

- * The camera may be buried in soft bottom! (Raise the camera off the bottom.)
- * The water might be very murky.

THERE IS A NICK IN THE CAMERA CABLE.

- * See the "Service" section of this manual for instructions on returning the camera for repair.

THE IMAGE ON MY SCREEN HAS A DARK MARGIN AROUND IT, OR GETS BLURRY.

- * You're seeing on-screen symptoms of a weakening battery. Charge the battery, or install a charged battery.

I GET NO DIRECTIONAL DISPLAY ON THE SCREEN - NO ARROW (RELATIVE DIRECTION MODE) AND/OR NO COMPASS READING (ABSOLUTE DIRECTION MODE).

- * The unit might be in the wrong mode. Remember, neither Temp-Only nor Standard Operating mode displays direction information. With unit turned on, try pressing the MODE button (below handle on Carrying Shuttle) to change modes. Press it again and pause. Press it again. If you see no directional reading on the screen, see the "How to Obtain Service" section in this manual.

THERE'S NO WATER TEMPERATURE READING ON THE SCREEN.

- * The unit might be in Standard Operating mode, which doesn't show temperature. Press the MODE button and wait a few seconds. Press it again, if necessary. If no on-screen temperature reading appears regardless of Mode, see the "How to Obtain Service" section in this manual.

VIDEO RECORDING WITH THE AQUA-VU XPS

Your Aqua-Vu XPS's "Video-Out" jack is for connecting your XPS to a hand-held camcorder, or to a larger external monitor. The XPS will work with any camcorder or any monitor that accepts the NTSC video signal (the North American standard) and has a "Video-In" jack. Use an RCA-style patch cord that comes with most camcorders (also available at most consumer electronics stores.) For video recording, plug one end of the cord into the "Video-Out" jack on the XPS; plug the other end into the "Video-In" jack on your camcorder. You should be able to watch your Aqua-Vu monitor and record at the same time.

CARING FOR YOUR AQUA-VU XPS

Your XPS requires minimal "common sense" maintenance.

1. The battery requires regular charging. (See battery charging instructions.) Always disconnect the XPS red and black power leads before charging the battery. Never charge while the unit is connected.
2. Clean the monitor and camera lens periodically by using mild dishwashing soap, warm water, and a very soft cloth. Do NOT use window cleaner or alcohol-based products, since they may cause permanent fogging.
3. Periodically run your fingers over the entire length of the cable, feeling for nicks or other cable damage. A damaged cable should be returned to the factory for repair. (See the Service section of this manual.)
4. As a precautionary measure, dry off your monitor after it gets wet from rain or boat spray.
5. Never tug on fishing line that accidentally gets wrapped around the camera cable. Line can cut and damage the cable..

Remove the Ballast Weight and Front-viewing Fin for ice fishing

For ice fishing, most camera users remove the open-water Ballast Weight and Front-viewing Fin. If weight is needed, a simple clamp-on lead depthfinder is usually enough for ice fishing use. This weight can be positioned along the bottom or back keel of the camera to control the viewing angle. In most cases the camera will work best in a horizontal position, but there may be times when you'll want to view at an up or down angle.

The "Mode" and "Temp" Buttons

There are two membrane-protected push buttons located below the carrying handle on the Carrying Shuttle. Use these buttons for selecting which Aqua-Vu XPS camera direction and water temperature features you want to use.

Mode Button - Press the MODE button to choose from four modes -Relative, Absolute, Temp-only, or Standard Operating mode. Relative and Absolute modes deal with camera direction. Temp-only is for viewing with only a temperature reading (not directional readings) on screen; and Standard operating mode is for just plain viewing - watching lure, bait, fish, bottom structure, etc. - without any directional or temperature information on the screen.

Temp Button - Press the TEMP button to select either Fahrenheit or Celsius for the temperature reading on your monitor screen.

DIRECT-TECH FEATURE: KNOWING CAMERA DIRECTION

Which way is your camera looking?

When an underwater camera is submerged and out of sight - in deep or murky water, or below the ice - the user might ask, "Which way am I looking? In which direction is my camera facing? Which way must I turn the camera to bring my ice fishing lure into view?" Nature Vision's sophisticated Direct-Tech technology enables the Aqua-Vu XPS user to know the direction in which the camera is "looking." This advantage simplifies the tasks of aiming the camera at structure or bait, as well as helping to verify the direction or location of fish or some underwater discovery.

Using the two directional modes - Relative and Absolute

The Aqua-Vu XPS offers two modes for indicating camera direction. Choose either RELATIVE or ABSOLUTE directional mode by pressing the MODE button (next to the TEMP button) located below the carrying handle on the Carrying Shuttle. (The MODE button is also used for selecting Temp-only and Standard Operating modes.)

RELATIVE mode - The RELATIVE mode indicates camera direction (which way the camera is looking) in relation to you and your XPS monitor. In RELATIVE mode, an arrow appears somewhere at the periphery of the screen. If the camera faces directly forward (looking ahead of you and your monitor), the upward-pointing arrow appears in the middle of the top of the screen. When the camera faces perfectly backwards (looking directly to your rear), the downward pointing arrow appears centered at the bottom of the screen. When the camera is aimed directly to your left, the directional arrow points left and appears centered along the left side of your screen.

When looking directly to your right, the arrow points right and appears centered along the right side of the screen. Move the camera to look more forward, backward, left, or right, and the arrow moves accordingly - pointing up or down (forward or backward), or left or right - always showing the direction the camera is facing relative to the direction your monitor is facing. Any movement of camera or monitor will result in movement of the arrow. The arrow's accuracy is within 5 degrees.

ABSOLUTE mode - The ABSOLUTE mode displays a continuous compass reading to indicate camera direction. In addition to compass direction (N, NE, E, E, S, SW, W, and NW), the compass bearing in degrees appears on screen. If you want the camera to look north, south, east, west, or anywhere in between, slowly twist the camera cable until the desired direction appears on screen. With your Aqua-Vu XPS in ABSOLUTE mode, the compass direction of the camera's "aim" will be indicated on-screen - no matter which way you and your monitor are facing. The ABSOLUTE mode makes it easy to relocate bottom structure or anything else previously viewed. When ice fishermen return to the same fish house or set of holes in the ice, they can easily aim the camera in the right compass direction to quickly bring into view one's bait, lure, and nearby bottom or structure. (Some XPS users take notes, while other simply remember relevant compass readings.)

TEMP-ONLY mode - In TEMP-ONLY mode, the two directional modes are shut off. Only the water temperature reading appears on screen with your underwater view.

STANDARD OPERATING mode - STANDARD OPERATING mode is for plain and simple viewing, without directional indications and/or temperature readings on the screen.

NOTE: The four mode names - "Absolute," "Relative," "Temp-only," and "Standard Operating" - do not appear on buttons, switches, or the monitor screen. Simply press the MODE button to advance among your Aqua-Vu XPS's viewing modes.

TEMP-TECH FEATURE: KNOWING WATER TEMPERATURE

Your Aqua-Vu XPS is equipped with Nature Vision's Temp-Tech. While viewing the underwater world, the user sees a continuously updated water temperature reading on the lower right portion of the monitor screen. The temperature reading comes up automatically, about 10 seconds after the unit is turned on or after selecting Relative, Absolute, and Temp-Only modes. (In Standard Operating mode your XPS monitor shows only the underwater view with no temperature or directional readings.)

Temp-Tech enables the angler to link water temperature and fish location patterns, and to explore relationships between temperature and fish behavior - including responsiveness to baits and lures. (Note: The temperature reading is accurate only in the water, not in the air.)

THE BATTERY AND CHARGER

The Aqua-Vu XPS includes a 12-volt, 7-amp sealed and spillproof lead acid battery designed to fit securely in the carrying shuttle. The battery has a one-way relief valve to release excessive gas pressure in case of improper charging. (For battery installation, see No. 3 in the "Easy Setup" section towards the front of this manual.)

Make sure the battery is fully charged before each use. Recharging after every viewing session is recommended. Expect 8 to 12 hours of continuous operation from a fully charged battery, depending on use of the Infrared lights. Cold temperatures will also reduce operating time.

Following a few simple rules will prolong battery life and contribute to efficient use of your Aqua Vu XPS:

- Charge the battery as soon as possible after purchase.
- Store the battery at moderately cool temperatures. Service life is considerably shortened at temperatures above 85 degrees F.
- Fasten the battery securely in its compartment, and minimize shock to the battery.
- Guard against overcharging. The 500 mA charger provided will not overcharge the battery in most cases. Do not leave the charger connected for more than 24 hours. Do not use a charging system with more than a 2-amp output. High rates of charge can heat up and destroy a battery in a few hours.
- Avoid prolonged battery storage without charging. Batteries stored in a discharged state may initially appear to be damaged and will accept less current than normal. Usually the battery will accept increasing amounts of current, but may take longer than normal to reach a fully charged state. If there is no response the battery may have been discharged too long to recover. Freezing a discharged battery may permanently damage it.

* Always dispose of a battery in a legal and environmentally safe way.

THE FUSE

Between the "Camera In" and "Video out" ports is a "1 AMP" fuse compartment. (A fuse is factory installed.) This fuse is designed to blow when the battery is connected backwards, or if a short occurs in the system. If the fuse is blown replace it with a standard 1 amp automotive fuse available at hardware and auto parts stores. To remove the fuse, push the cap in and rotate counter-clockwise.

ON THE ICE

Your Aqua-Vu XPS is an invaluable ice fishing tool which steps beyond mysterious flashes on a depthfinder to actually "see" the real picture. Take advantage of these key benefits:

- **View bottom structure and distinguishing features** - Observe weedlines and weed characteristics, sand versus muck, big rocks versus small rocks, transitions from one bottom type to another. What a big help in precisely locating fishing holes or fish house!
- **Sharpen your fishing techniques** - Watch your bait and see how approaching fish react to it. Learn what lures, colors, and jigging actions attract fish and trigger strikes. (See the Direct-Tech section of this manual for tips on efficiently positioning the camera to view bait, lure, or particular bottom structure.)
- **Identify fish as to species and size** - Seeing the fish "in person" helps solve mysteries about depthfinder signals and helps with decisions about fishing techniques and whether to stay or leave.
- **Search out new fishing grounds** - Move from spot to spot, always boring two holes a few feet apart - one for your camera, the other for your bait. Test-fish for a few minutes in each spot. It's possible to choose or eliminate potential fishing spots on the basis of "seeing" or not seeing fish while prospecting.

For use of your Aqua-Vu XPS's Direct-Tech (on-screen indication of either relative or absolute camera directions) and Temp-Tech (on-screen water temperature readings) features, see Mode Buttons, Direct-Tech Feature: Knowing Camera Direction, and Temp-Tech Feature: Knowing Water Temperature sections below.

That special viewing hole!

Most ice fishing camera owners bore a special "camera hole" several feet from the fishing hole. With your Aqua-Vu XPS, you can position the camera the traditional manual way, or use the Direct Tech feature - Absolute or Relative directional modes - for more easily determining camera direction (detailed below). Traditional camera positioning: Lower your bait or lure to about 6 inches above bottom.

Turn ON your Aqua-Vu XPS and lower the camera through the camera hole and down to the bottom, while watching the monitor screen. Raise the camera slightly off bottom so you see bottom and the water above it. Slowly twist the camera cable until you glimpse your bait. Carefully adjust the cable so the bait is centered on the screen. This camera positioning provides a view of the bait plus areas just beyond and to each side of it - ideal for watching bait and approaching fish! Some anglers rest a bait bucket or other object on the cable to maintain camera depth and position. Others clamp the cable to a stick placed over the hole. Another option: Aqua-Vu's Ice Pod accessory makes it easier to maintain camera position for watching your lure and the surrounding area. (Available from retailers or online at www.aqua.vu.com.)

FREQUENTLY ASKED QUESTIONS

How far can I see?

Naturally, the clearer the water, the farther you can see. As a general rule, the camera can see twice as far as the human eye in water - meaning that if you can see 3 feet down you will be able to see approximately 6 feet in front of the camera. But this is just a rule of thumb, and all bodies of water will vary. For anglers studying bottom structure, 2 feet of visibility is sufficient for underwater viewing.

When do I use the Infrared lights?

The Infrared (IR) lights in your XPS unit are designed for use in low light situations such as deep water, dawn and dusk. By turning the power switch to the "ON/LIGHT" position you can turn your IR lights on for maximum visibility in low light.

How do I steer the camera?

For open-water viewing in the direction of travel use the Front-viewing Fin. Slowly troll (less than 2 mph) or drift along the structure you intend to view. With the Front-viewing Fin, the camera will face the boat's direction of travel. The opposite holds true when using the Back-viewing Fin which positions the camera for viewing in the direction opposite from the boat's travel. (The Back-viewing Fin, not included with the unit, is available from dealers or online at www.aquavu.com.)

Can I splice the camera cable to obtain more length?

No. Attempting to splice in additional cable violates the waterproof integrity of the camera and cable, voiding the warranty.

Can I attach my camera to a downrigger?

Yes, by using the Cam-Rigger accessory. You can attach your camera to your downrigger cable at any depth, allowing you to watch your lure - given adequate water clarity.

How fast can I troll with my camera?

It depends on depth, and also on the length of cable you have out, which determines water resistance or "drag." The deeper you go, with more cable out, the more drag there will be, requiring slower travel for good viewing. Generally, for best viewing, we recommend going less than 2 miles per hour. Remember, the slower you go, the more detail you will see.

Can I use my XPS in saltwater?

Yes. All Aqua-Vu cameras are saltwater-rated, using stainless steel hardware and materials that are impervious to corrosion.

Will my XPS work in subfreezing conditions?

Aqua-Vu systems are designed to operate at temperatures ranging from minus-40 to 120 degrees F. Expect your battery life to decrease in cold conditions.

ONE-YEAR LIMITED WARRANTY

Nature Vision, Inc., warrants this product to be free from defects in materials and workmanship for one year from the date of purchase. This warranty applies to customers who properly fill out, clip, and return the warranty card included on the back cover of this manual. Failure to complete and return the warranty card voids this warranty. Nature Vision, Inc., will, at its sole discretion and without charging the customer, repair or replace any components that fail in normal use. Failures due to abuse, misuse, or unauthorized alteration or repair, are not covered. The warranty is valid only for the original owner.

EXTENDED WARRANTY

A two-year extended warranty is available through Nature Vision, Inc. You may purchase this warranty within 30 days of purchasing the unit. Use the order form in this manual or visit www.aquavu.com

HOW TO OBTAIN SERVICE

We want our products to provide you with a pleasant on-the-water experience. That means maximum customer satisfaction. If you have a problem with your unit within 30 days of purchase, you may return it to your retailer for replacement (subject to retailer's stock). After 30 days, please contact the factory for a return authorization number (RA#). No service returns will be accepted without this pre-return authorization, which must be clearly marked on the outside of the returned package. Nature Vision, Inc., retains the exclusive right to repair or replace the unit at its discretion.

To obtain a Return Authorization Number, contact the factory at (866) 777-0733. You may also e mail service requests to aquavu@naturevisioninc.com.

The customer is responsible for shipping costs associated with returning the unit to Nature Vision, Inc. Nature Vision, Inc., will pay for shipping the repaired unit back to the customer. After obtaining a Return Authorization Number, the unit should be securely packed and shipped ("pre-paid freight" and insured) to Nature Vision, Inc., at:

Nature Vision, Inc.
RA# _____
213 NW 4th Street
Brainerd, MN 56401

Canadian customers please return to:
Nature Vision, Inc.
C/O Unicity One Step
RA# _____
1260A Clarence Ave
Winnipeg, MB R3T 1T2

ABOUT YOUR AQUA-VU XPS

This Aqua-Vu underwater viewing system has Nature Vision Inc.'s most advanced features, including our patent-pending Direct-Tech which provides on-screen indication of camera direction -RELATIVE (in relation to the monitor's position), and ABSOLUTE (magnetic compass reading). By watching either a moving arrow or compass direction/degrees on the monitor screen, ice fishermen and other XPS users know which way their camera is "looking." This Direct-Tech innovation makes camera positioning - aiming the camera at a particular field of view for watching bait and fish - much easier and quicker! And you won't have to guess about the directions of the appearances and exits of approaching fish!

With your Aqua-Vu XPS underwater viewing system you will become an aquatic explorer much like a skin diver - but without getting wet! Swim your camera over the bottom landscape of your fishing grounds while watching "what's really down there." Or, with camera suspended down a hole in the ice, see how approaching fish react to your bait.

Turn on the Infrared camera lights to experience the mystique of viewing bottom and fish in low-light conditions.

Your Aqua-Vu XPS system is equipped with Nature Vision, Inc.'s Temp-Tech feature. A sensor in the camera sends continuous water temperature reading to the lower right portion of the monitor display. You can know the water temperature while viewing and fishing.

However you employ your Aqua-Vu XPS- for pure fun as a discovery tool, for learning while fishing and observing nature, for watching small children or pets, or for security purposes - you will experience a fascinating new "view." Your eyes will be glued to the monitor screen!

IN YOUR XPS PACKAGE. . .

The package contains Aqua-Vu XPS components. You'll be viewing-ready in a few minutes!

- Monitor (weatherproof; attaches to the Carrying Shuttle; tilts up and down for convenient viewing, holds ON-OFF-ON/LIGHT switch)
- Carrying Shuttle with handle (allows cable and camera storage; tiltable monitor attaches to it; holds Mode and Temp buttons.)
- Soft custom Carrying Case
- Camera with Infrared light option and 60' foot cable
- Detachable Sunshield (stores conveniently on carrying shuttle when not in use)
- Battery (12-volt., 7-amp)
- Battery Charger
- Ballast Weights (for open-water viewing)
- Front-viewing Fin (keeps camera forward-looking as it's pulled through the water)

If any of the above items are missing, contact your retailer immediately.

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