

**MarCum**  
Technologies

**UNDERWATER VIEWING SYSTEM**



**USER MANUAL**

**VS350**

**MarCum**  
Technologies

# OPERATING INSTRUCTIONS

## Introduction

Thank you for purchasing the VS350 underwater viewing system from MarCum Technologies.

Welcome to the world of underwater viewing. MarCum Technologies has maintained its objective of incorporating quality, performance, and reliability while pursuing a value enhanced system. The VS350 is absolutely the finest viewing system for the money. Whether you're trying to locate the spot on the spot for great fishing, study fish behavior, entertain the kids, or looking for hidden treasure, the VS350 is the perfect choice.

## Features

The VS350 features a high quality Sony low lux camera with an adjustable infrared lighting system, 7-inch B & W monitor, adjustable ballast weight, 65 feet of metered cable, padded Soft-Pack with integrated view shroud, battery, and charger.

The infrared lighting system is controlled by a dimmer control switch located on the face of the monitor. This controls the intensity of the infrared LED's located around the camera lens. This allows the user to choose the correct intensity for the degree of light required as well as the clarity of the water encountered.

The 7-inch black & white monitor has a contrast control adjustment on the face of the monitor. This can be adjusted for the required screen contrast depending on the level of external light reflecting off the monitor screen as well as the desired contrast of the objects being viewed. The monitor also has a brightness control located at the rear of the monitor. The monitor will have to be removed from the Soft-Pack to adjust the brightness of the viewing screen. The controls are pre-set from the factory but may require adjustment depending on the viewing conditions encountered. The monitor also offers two video inputs for multiple cameras as well as a switch located on the rear of the monitor for switching. The monitor also has a video-out jack for recording or incorporation of a larger viewing screen.

The system has 65 feet of camera cable that is metered every 5 feet. This will assist the user in determining the viewing depth of the camera.

The underwater camera incorporates an adjustable metal ballast weight. This weight can be moved to any one of three different positions. This in turn will affect the viewing angle. The metal weight has two notched areas that allow that weight to slide forward or backward to the desired position and then lock in place.

The VS350 incorporates a padded Soft-Pack case with a collapsible view shroud. The face of the padded case can be opened for a full view of the entire monitor or the case can be left closed and the collapsible view shroud opened for viewing in brighter conditions.

## Getting Started

1. Locate the cable reel stored in the black mesh pouch on the side of the monitor Soft-Pack. Remove the camera housing and cable from the white box. To wrap the cable onto the cable reel, start with the plug end and measure back 30-36 inches from the camera plug. Begin by wrapping the cable onto the flat cable reel leaving the 30-36 inches of extra cable (plug end) hanging loose. Wrap all the cable onto the cable reel until you are 24 inches from the camera housing itself. It's best to wrap the cable by laying the cable next to itself until reaching one end of the cable reel and then doubling back onto itself. By maintaining a nice neat layered wrap, you will obtain the smallest amount of bulk when finished.

2. Remove the monitor from the Soft-Pack by detaching the Velcro flap located at the bottom of the Soft-Pack. This flap of fabric covers the battery. Place one hand on either side of the monitor and gently slide the monitor and attached battery from the Soft-Pack. The battery is attached to the bottom of the monitor with special foam tape. It is recommended that the monitor be slid from the Soft-Pack not lifted. This is a precaution to protect against damage if the tape attaching the battery to the monitor were to give way.

3. Gently insert the camera cable plug into camera port number one located at the rear of the monitor. Make sure the switch on the rear of the monitor is also switched to camera number one.

4. Tilt the monitor back so it's sitting at an angle (rear of monitor should be in contact with the table or floor where your working). Route the camera cable towards the front of the monitor by bringing the cable along the bottom right edge (as your facing the monitor). Run the power cord attached at the rear of the monitor along the bottom edge on the left side of the monitor. Slide the monitor and attached battery back into the Soft-Pack applying gentle pressure to ensure the monitor is all the way to the rear of the Soft-Pack. Attach the negative (black) and positive (red) leads of the power cord to the battery. Tuck any extra power cord wire into the Soft-Pack at the side of the monitor. With the camera cable routed out the lower right front corner, close the Velcro flap which covers the battery. If adjustments are made properly, the flap should cover the entire battery.

5. Place cable reel in mesh pouch on right side of monitor Soft-Pack and camera on opposite side. The front Velcro flap of the monitor case can be attached by applying upward pressure to the front while attaching at the top. Apply gentle outward pressure to sides while attaching the Velcro will ensure a snug fit.

6. To view the monitor in intense light conditions it is recommended that you utilize the built in sun shield. This can be unfolded by lifting upward on the Velcro flap on the face of the monitor Soft-Pack. Push the side flaps located at each side to the outside and the view shield will be lined up with the monitor screen. Although this will shield indirect light - direct sunlight will render the screen non viewable. When experiencing harsh sunlight, turn the monitor away from the sunlight and utilize the sun shield.

7. To adjust the infrared lighting system, roll the dimmer wheel clockwise or counter clockwise for the desired intensity. The required intensity will be determined by available light and clarity of the water. It is recommended that in water with a lot of particulates, the intensity of the infrared LED's should be turned down to minimize reflections.

8. To charge the battery, remove the negative and positive power leads attached to the battery. Attach the power leads with alligator clips to the appropriate battery posts. If the battery is completely dead it may take up to 14-18 hours to reach full charge. The output of the charger is 500 mA or 1/2 Amp. Do not leave the charger on for longer periods than needed. Although the charger is low output, it can still damage the battery if left on for extended periods of time after charge cycle is complete.

## WARRANTY

To activate your warranty, you must send the original sales receipt or Xerox copy with the warranty card. The warranty will be void without the accompanying sales receipt. For a period of one year from the date of purchase, MarCum Technologies will provide free parts and labor on any defects in materials or workmanship, with exception of the following conditions: damaged or cut cables, lost components, damage due to unauthorized modifications, repairs, or misuse. All warranty work or repairs must be performed by the manufacturer. For your convenience save the original box and packing materials for use if factory return is required.

**For warranty repair and/or service call (763) 493-3748.**

**MarCum Technologies  
P.O. Box 957  
Anoka, MN 55303**