INSTALLATION AND OPERATING INSTRUCTIONS:

Warnings:

- Always wear proper safety equipment (safety glasses and gloves)
- **Never use a power screwdriver** to install any **NAVI** products– use a standard #2 Phillips head screwdriver and tighten by hand
- **Disconnect power** before installation (remove positive terminal from battery or switch off)
- Never put excessive strain on power or video cables
- When drilling any holes make sure that there is nothing on the other side that might be cut when the drill passes through and that installation will not weaken the boat or Tee Top.
- Select a location that is greater than 3 feet from magnetic compass or EMI sources
- Make sure you have adequate cable length for your desired mounting location (additional extenders can be purchased online)
- Acrylonitrile Styrene Acrylate (ASA) is a robust thermoplastic, but it should be kept away from concentrated mineral acids, aromatic hydrocarbons, ethers, esters, and ketones (ACETONE). These chemicals can cause the plastic to dissolve, swell, or weaken significantly and will void warranty
- Never remove Serial Number sticker from cable as this will void warranty
- Keep these instructions as they have a backup copy of the serial number for your records

Tools needed:

- #2 Phillips Head Screwdriver
- Wire stripper/crimper
- Heat gun
- Drill w/ ¼" bit and ½" bit *(note)

* Drill is only needed if installing standard base with thru bolts and to install the switch. If you are using the rail or column mounts and an existing switch on your panel, no holes will need to be drilled.

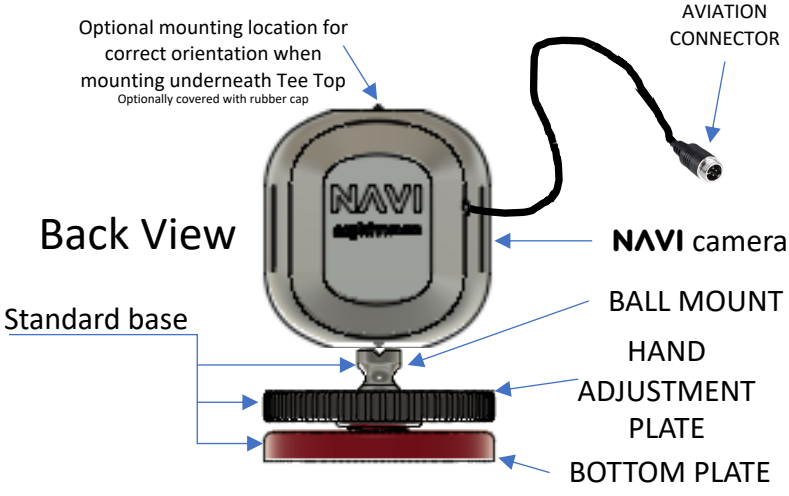
Customer Supplied Materials

- Short pieces of 24 AWG wire (black and red color)*

Red wire needs to be long enough to get from your main 12V battery source to the switch (marine tinned copper wire is recommended).
Black wire needs to be long enough to get from your main grounding terminal to the black wire of the **NAVI** wire harness (marine tinned copper wire is recommended).

Camera location and orientation

The **NAVI** camera can be mounted above or below any of the **NAVI** mounting hardware. In order to have the video in the correct orientation, after unscrewing the HAND ADJUSTMENT PLATE, simply remove the screw holding the BALL MOUNT and replace it on the top or bottom of the **NAVI** camera after removing the rubber cap. Align the BALL MOUNT so the notch aligns with the protrusions on the camera. Always make sure that the **NAVI** writing on the back of the camera is not upside down when it is mounted in place. It is recommended to place the mount as close to the center line of the boat as possible for symmetrical view looking forward. Place rubber cap onto the unused mounting hole and press firmly to seat in place.



Mounting Hardware

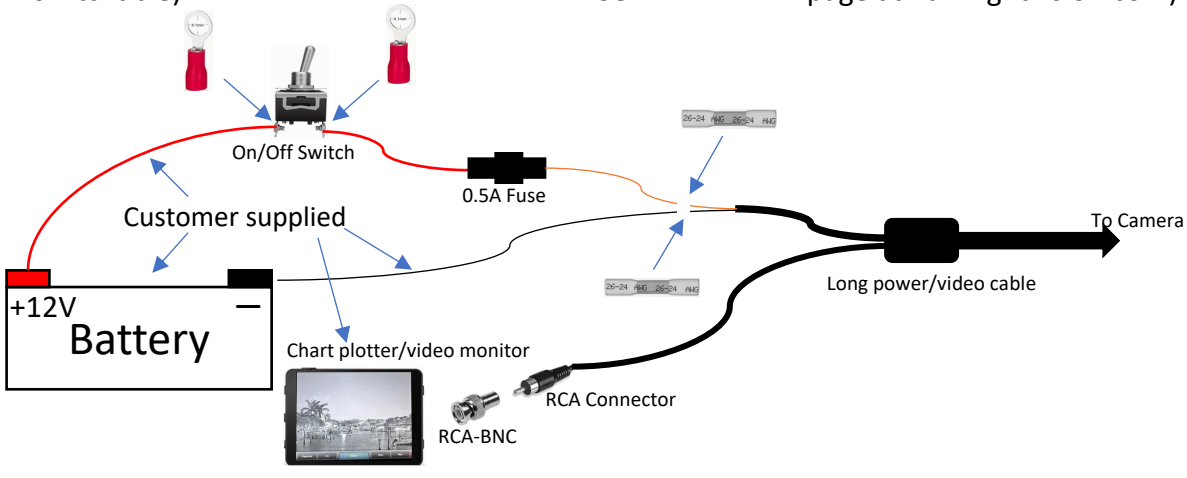
Prior to installing the mount, it is recommended that you hook up the camera to your display temporarily to check the mounting location is not obstructed and that your display it capable of operation with the **NAVI** camera.
If using the standard base, acquire the desired fasteners and drill appropriately sized holes for fasteners selected. We highly recommend 316 Stainless Steel fasteners (either 1/4-20 flat head bolts with elastic stop nuts, or #14 flat head sheet metal screws). They must be flat head screws to fit into the countersink in the mounting base. The HAND ADJUSTMENT PLATE can be unscrewed by hand to remove the BOTTOM PLATE to have access to the mounting holes. Once BOTTOM PLATE is secure, screw camera in place by rotating the HAND ADJUSTMENT PLATE clockwise. Hold camera in desired viewing position and tighten HAND ADJUSTMENT PLATE. Other (Rail and Column) mounts include 316 SS screws and only a Phillips head screwdriver is needed for installation.

ELECTRICAL RIGGING

Connect long power/video cable to camera with the mating end (AVIATION CONNECTOR). Add some Dielectric grease to the pins prior to connection and slide the heat shrink tubing onto the wire between the connector and camera for later use. Carefully feed (do not use excessive force) the power/video cable through any rigging tubes or holes to route it to the power, switch and video connection. Either install power switch or use an existing on/off switch (the unit must be switchable).

ELECTRICAL CONNECTION

Connect the red wire from power/video cable to either side of the power switch, and connect the other side of the switch to stable +12V with customer supplied wire. Connect the black wire from the power/video cable to negative battery terminals with customer supplied wire. Please note that this must be the same negative source for the chart plotter/video monitor. Connect the video RCA connector from the power/video cable to your chart plotter/video monitor (use RCA-BNC adapter if needed). Some chart plotters do not have RCA or BNC connection directly, but may be connected via their specific video cables (see MFC COMPATABILITY page at navinightvision.com).



We recommend you add the remaining dielectric grease to all connections/connectors (including your chart plotter). Reconnect the battery positive terminal. If you have any issues powering up, please check that the positive and negative voltages are correctly hooked up, and that the fuse is still good (replace if necessary). If still having issues reconnect the AVIATION CONNECTOR and cycle the power switch to reset the camera. After testing, slide the heat shrink tubing over the aviation connector and heat with heat gun just until it shrinks sealing the connector (do not use an open flame or blow torch).

Operating Instructions

Turn on **NAVI** night vision camera by flipping the switch. The **NAVI** camera can be used in daylight as well as at night. Make sure that your multifunction display is set to the correct video channel (set to **PAL** video format). The **NAVI** camera will send the video signal within 7 seconds of powering up. All **NAVI** cameras and cables are tested prior to shipment and should function properly if connected correctly. At night, adjust the display to very low brightness so your natural night vision is not significantly impacted.