



NV5000 SERIES

1 NM AND 2 NM NAVIGATION LIGHTS

SIDELIGHT, VERTICAL MOUNT, LED, STAINLESS STEEL, PAIR

SAVE THESE INSTRUCTIONS
Form number 69570

1 NM SIDELIGHTS (SERIES NV5011)

- For boats up to 12 meters / 39.4 feet in length.
- Meets USCG CFR 183.810, ABYC A-16 and all applicable standards as tested by Imanna Laboratories and ISO19009 requirements.
- 1 nautical mile visibility.

2 NM SIDELIGHTS (SERIES NV5012)

- For boats up to 20 meters / 65.6 feet in length.
- Meets USCG CFR 183.810, ABYC A-16 and all applicable standards as tested by Imanna Laboratories and ISO19009 requirements.
- 2 nautical mile visibility.

REQUIRED FOR INSTALLATION

- Phillips screwdriver
- Drill
- 3/8 inch drill bit for wire clearance hole
- #21 drill bit for mounting holes
- Four #10 pan head stainless steel screws for mounting (not provided)

LOCATION

1. Before drilling mounting hole, position sidelights on a vertical surface of the gunwale or deck where all of the following statements are true:
 - Lights are parallel to center line of the boat (Figure 1)
 - Lights shine straight ahead
 - Lights shine within a $\pm 5^\circ$ of horizontal when the boat is floating
 - No front or side obstructions within each light beam (112.5°)
2. As you stand onboard facing bow of the boat, place red light on the port (left) and the green light on the starboard (right).
3. Using the gasket as a template, with the arrow on the gasket pointing toward the bow ($\pm 5^\circ$), mark locations for the clearance hole and the two mounting screws.
 - Both lights must be the same distance from the bow (Figure 1).

DRILLING INSTRUCTIONS / MOUNTING

1. Drill 3/8 inch wire clearance hole
2. Feed wires through center hole in gasket.
3. Feed wires through hole in deck.
4. Align housing and drill two pilot holes for each light using #21 drill bit.

CAUTION Position holes carefully on aluminum boats so that wires do not contact the hull.

5. Insert two #10 stainless steel mounting screws through housing and fasten housing to the deck for each light (Figure 2- C).
6. Secure stainless steel cover to mounting housing with assembly screw (Figure 2 - B).
7. Make connections according to WIRING INSTRUCTIONS.

NOTE: If area below the light will not be reachable after installation, attach a suitable length of 16-gauge red- and black-colored non-powered wire that can be routed to an accessible area.

WIRING INSTRUCTIONS

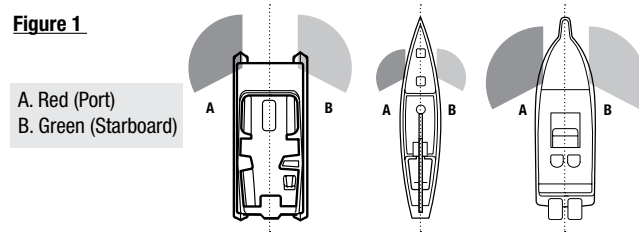
The power supply must be 12-volt DC only. Use crimp-type marine-grade connectors with suitable waterproof insulation. Protect all connections with suitable materials.

NOTE: Failure to make proper connections and fuse the light properly will void the product warranty.

CAUTION Polarity is important. If wiring is connected wrong the LED light will not operate.

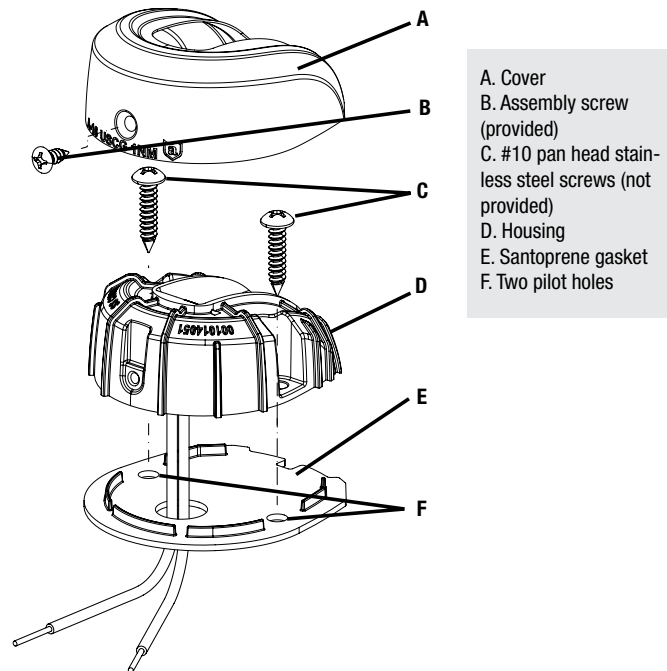
1. Connect wires to fused power source: (See Figure 3).
 - Connect the (-) black wire to the negative (-) wire from the 12-volt supply.
 - Connect the (+) gray or red wire along with proper fuse and switch to the positive (+) 12-volt supply.
 - Fuse must be 1-amp.
2. Navigation rules require sidelights to be operated separately from anchor lights. Use either two switches or one switch with three positions for off/anchor/running.

Figure 1



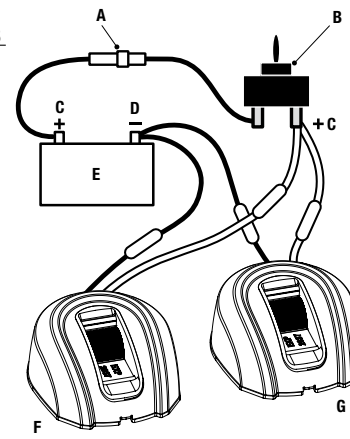
A. Red (Port)
B. Green (Starboard)

Figure 2



A. Cover
B. Assembly screw (provided)
C. #10 pan head stainless steel screws (not provided)
D. Housing
E. Santoprene gasket
F. Two pilot holes

Figure 3



A. 1-Amp Fuse
B. Switch
C. (pos)
D. (neg)
E. 12 V DC
F. Green (Starboard)
G. Red (Port)



NV3000 SERIES

1 NM AND 2 NM NAVIGATION LIGHTS SIDELIGHT, STAINLESS STEEL, PAIR

SAVE THESE INSTRUCTIONS
Form number 69571

1 NM SIDELIGHTS (SERIES NV3011)

- For boats up to 12 meters / 39.4 feet in length.
- Meets USCG CFR 183.810, ABYC A-16 and all applicable standards as tested by Imanna Laboratories and ISO19009 requirements.
- 1 nautical mile visibility.

2 NM SIDELIGHTS (SERIES NV3012)

- For boats up to 20 meters / 65.6 feet in length.
- Meets USCG CFR 183.810, ABYC A-16 and all applicable standards as tested by Imanna Laboratories and ISO19009 requirements.
- 2 nautical mile visibility.

REQUIRED FOR INSTALLATION

- Phillips screwdriver
- Drill
- 3/8 inch drill bit for wire clearance hole
- #21 drill bit for mounting holes
- Four #10 pan head stainless steel screws for mounting (not provided)

LOCATION

1. Before drilling mounting hole, position sidelights on a vertical surface of the gunwale or deck where all of the following statements are true;
 - Lights are parallel to center line of the boat (Figure 1)
 - Lights shine straight ahead
 - Lights shine within a $\pm 5^\circ$ of horizontal when the boat is floating
 - No front or side obstructions within each light beam (112.5°)
2. As you stand onboard facing bow of the boat, place red light on the port (left) and the green light on the starboard (right). Make sure there are no obstructions such as rail stanchions, chocks, anchors, cleats, etc..
3. Using the gasket as a template, with the arrow on the gasket pointing toward the bow ($\pm 5^\circ$), mark locations for the clearance hole and the two mounting screws.
 - Both lights must be the same distance from the bow (Figure 1).

DRILLING INSTRUCTIONS / MOUNTING

1. Drill 3/8 inch wire clearance hole
2. Feed wires through center hole in gasket.
3. Feed wires through hole in deck.
4. Align housing and drill two pilot holes for each light using #21 drill bit.

CAUTION Position holes carefully on aluminum boats so that wires do not contact the hull.

5. Insert two #10 stainless steel mounting screws through housing and fasten housing to the deck for each light (Figure 2- C).
6. Secure stainless steel cover to mounting housing with assembly screw (Figure 2 - B).
7. Make connections according to WIRING INSTRUCTIONS.

NOTE: If area below the light will not be reachable after installation, attach a suitable length of 16-gauge red- and black-colored non-powered wire that can be routed to an accessible area.

WIRING INSTRUCTIONS

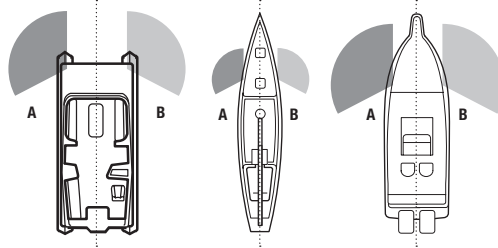
The power supply must be 12-volt DC only. Use crimp-type marine-grade connectors with suitable waterproof insulation. Protect all connections with suitable materials.

NOTE: Failure to make proper connections and fuse the light properly will void the product warranty.

CAUTION Polarity is important. If wiring is connected wrong the LED light will not operate.

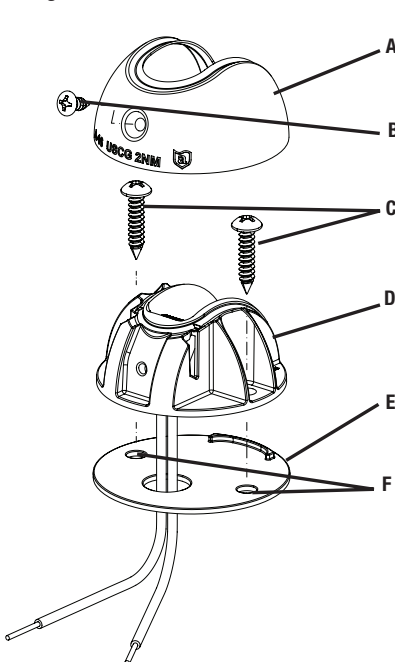
1. Connect wires to fused power source: (See Figure 3).
 - Connect the (-) black wire to the negative (-) wire from the 12-volt supply.
 - Connect the (+) gray or red wire along with proper fuse and switch to the positive (+) 12-volt supply.
 - Fuse must be 1-amp.
2. Navigation rules require sidelights to be operated separately from anchor lights. Use either two switches or one switch with three positions for off/anchor/running.

Figure 1



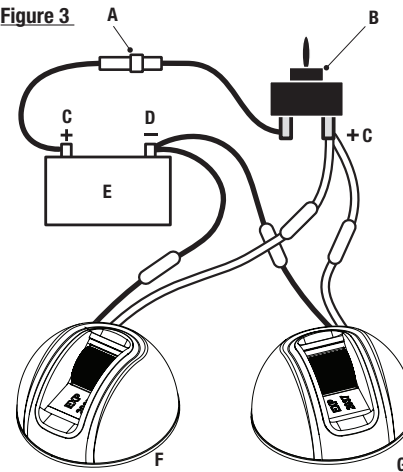
- A. Red (Port)
- B. Green (Starboard)

Figure 2



- A. Stainless steel cover
- B. Assembly screw (provided)
- C. #10 pan head stainless steel screws (not provided)
- D. Housing
- E. Santoprene gasket
- F. Two pilot holes

Figure 3



- A. 1-Amp Fuse
- B. Switch
- C. (pos)
- D. (neg)
- E. 12 V DC
- F. Green (Starboard)
- G. Red (Port)

attwood®

NV4000 SERIES

2 NM NAVIGATION LIGHTS

SIDELIGHT, VERTICAL MOUNT, LED

STAINLESS STEEL, PAIR

SAVE THESE INSTRUCTIONS
Form number 69572

2 NM SIDELIGHTS

- For boats up to 20 meters / 65.6 feet in length.
- Meets USCG CFR 183.810, ABYC A-16 and all applicable standards as tested by Imanna Laboratories and ISO19009 requirements.
- 2 nautical mile visibility.

REQUIRED FOR INSTALLATION

- Phillips screwdriver
- Drill
- 1.25 inch bit for wire clearance hole
- #29 inch bit for mounting holes
- Four #8 pan head stainless steel screws for mounting (not provided)

LOCATION

1. Before drilling mounting hole, position sidelights on a surface of the gunwale or deck where the following five statements are true;
 - Lights are parallel to center line of the boat (Figure 1)
 - Lights shines within a $\pm 5^\circ$ of horizontal when the boat is floating
 - No front or side obstructions within each light beam (112.5°)
 - Installed at the point of the bow at a 23° angle (Figure 2)
 - Mounted with logo surface (attwood) directed straight ahead (Figure 3)
2. As you stand onboard facing bow of the boat, place red light on the port (left) and the green light on the starboard (right). Make sure there are no obstructions such as rail stanchions, chocks, anchors, cleats, etc..
3. Using the gasket as a template, with the arrow on the gasket pointing toward the bow($\pm 5^\circ$), mark locations for the clearance hole and the two mounting screws.

DRILLING INSTRUCTIONS / MOUNTING

1. Remove the cover. (Figure 3).
2. Drill 1.25 inch wire clearance hole.
3. Drill two pilot holes for each light using #29 drill bit.
4. Feed wires through center hole in gasket.
5. Feed wires through the hole in the deck.

CAUTION Position holes carefully on aluminum boats so that wires do not contact the hull.

6. Insert two #8 stainless steel mounting screws through housing and fasten housing to the deck (Figure 3- C).
7. Secure stainless steel cover to housing with assembly screw (Figure 3- B).
8. Make connections according to WIRING INSTRUCTIONS.

NOTE: If area below the light will not be reachable after installation, attach a suitable length of 16-gauge red- and black-colored non-powered wire that can be routed to an accessible area.

WIRING INSTRUCTIONS

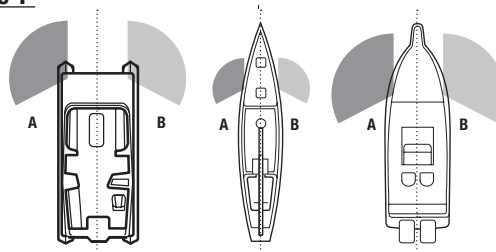
- The power supply must be 12-volt DC only.
- Use crimp-type marine-grade connectors with suitable waterproof insulation.
- Protect all connections with suitable materials.

NOTE: Failure to make proper connections and fuse the light properly will void the product warranty.

CAUTION Polarity is important. If wiring is connected wrong the LED light will not operate.

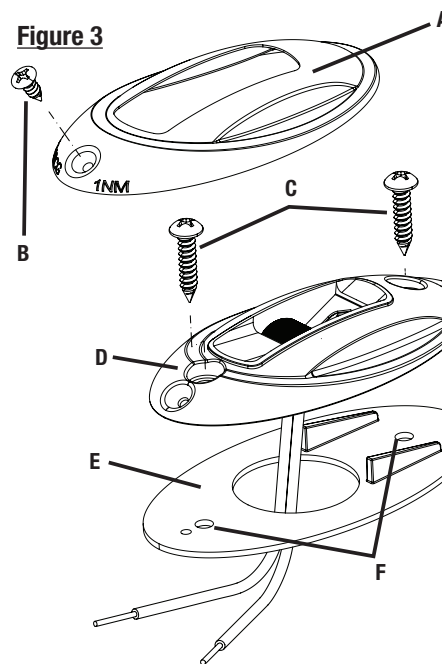
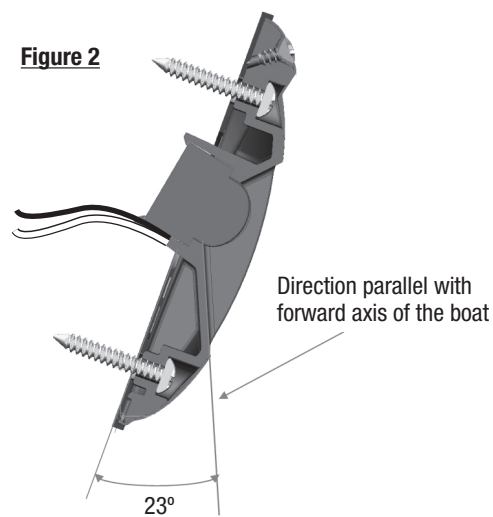
1. Connect wires to fused power source: (See Figure 4).
 - Connect the (-) black wire to the negative (-) wire from the 12-volt supply.
 - Connect the (+) gray or red wire along with proper fuse and switch to the positive (+) 12-volt supply.
 - Fuse must be 1-amp.
2. Navigation rules require sidelights to be operated separately from anchor lights. Use either two switches or one switch with three positions for off/anchor/running.

Figure 1



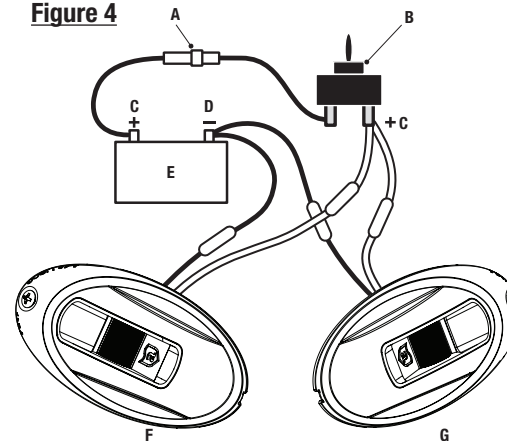
A. Red (Port)
B. Green (Starboard)

Figure 2



A. Stainless steel cover
B. Assembly screw (provided)
C. #8 pan head stainless steel screws (not provided)
D. Housing
E. Santoprene gasket
F. Two pilot holes

Figure 4



A. 1-Amp Fuse
B. Switch
C. (pos)
D. (neg)
E. 12 V DC
F. Green (Starboard)
G. Red (Port)