



Flounder Gigging

INSTRUCTIONS ON BUILDING YOUR OWN LIGHT

Ron Nakamoto | 2015

Copyright: This procedural guide is for personal use only and should be used for financial gain. If you have any questions or would like to use it please contact me at Ronnakamoto@gmail.com

Table of Contents

Introduction	2
Why Green?.....	2
Where do I buy my parts?	2
Items needed	3
Lights and Connectors.....	4
Let's Get Started	5
Preparing the light	5
Preparing the Switch (Optional).....	7
Preparing the PVC	9
Putting it all together.....	14
How to use the light	19
Gigging needs.....	19
Acknowledgments	20

Introduction

A few years back I started to get interested in flounder gigging and borrowed a friend's light to go flounder gigging by wading in the water. I was about 200 yards away from my small Gheenoe when the light went out and I realized I forgot my backup hand light in the boat. I had seen a few bull sharks earlier and needless to say I made a quick straight line back to the boat. I started to research light building and came across a flounder gigging thread at 2coolfishing.com that went back all the way to 2012 and continues today. I spent hours combing through that thread

(<http://2coolfishing.com/ttmbforum/showthread.php?t=410882>) and was able to see the development of people's lights as the years went on. There are a lot of smart and helpful people on the site that was willing to share their trials and errors as they built their own lights. This instruction is built on their trials, errors and successes. I've been building my own lights for a few years now and have added the arm rest to help with the light when you find yourself out there gigging for hours.

WHY GREEN?

Obviously, green is not the only light color there and for a lot of lights they are a white light. You really have to know your area and talk to people to find out what color light works for your waters. Green lights seem to best penetrate the particles floating in the water. What I've found is the green light worked better for the type of water I was in, didn't scare off the bait fish and didn't attract too many bugs. Not all lights are equal. As you will find in researching, some lights work better than others and just because they are bright doesn't mean they will work as well as you think. Sometimes this is a trial and error type of thing.

WHERE DO I BUY MY PARTS?

In this module you are going to find that I use specific types of lights from Ozmium.com. This is a preference I have and by no means are they only players out on the market. You can use this same module in building your own light using a light of your choice. On the other hand to give them a plug, I have been using this company for two years and have built a lot of lights for people and myself. They have always backed their products and Phil Suslow, owner of the company has been great to responding to my questions and backing up their products. I will include the part numbers of the items I used in the lists but again, it's up to you where you buy the items to build your light.

Items needed

This list is broken down into parts must have and nice to have. In order to make this light proof completely waterproof there are a few items that are going to be required, if not you will find yourself having to replace the wire after a while due to it corroding.



Tools Needed:

- Drill (3/16 inch and 5/16 inch bit)
- Step drill bit or 3/4 inch bit
- Wire strippers
- Needle nose pliers
- Heat gun or lighter
- Tape measure
- Knife
- Saw or PVC pipe cutter
- Pen or black marker
- Rivet gun

Items Needed:

- Light (see below for more information)
- IP68 Waterproof LED Push Button Switch (optional – so far I have had issues with the switch and recommend that you just go from the light to the battery)
- 96 inch 16 to 22 gauge wire (I prefer black jacketed wire)
- Butt Splice Connectors Heat Shrink Insulated
- Heat Shrink (large enough to go over the butt connectors.
- Plumbers Tape
- Purple Primer
- All Purpose Cement
- Marine clear silicone
- 5 foot 8 inches of one inch PVC pipe
Cut to: 3 foot, 2 foot, 6 inch, 2 inch
- 2 – one inch PVC Caps
- 1 – one inch 90-Degree PVC Tee
- 1 – one inch 45-Degree PVC elbow
- 1 – one inch adapter (threaded)
- 1 – 3 foot Coupling Fitting



LIGHTS AND CONNECTORS

As mentioned before you can choose whatever light you want and make it work with this module but I used the Eclipse 12V LED Flood light from Ozniium.com. They sell various colors and from 10 watt to 50 watt. The two lights that work for flounder gigging are the 20 watt and 50 watt. The 20 watt light comes with 3 feet of wire so you will need more wire if you plan on adding a switch to the light but it is not necessary. I would just go from light to the extra wire and then to the battery.





The 50 watt light was made specifically for gigging but in order to keep it carryable it was made in the same housing but can get hot fast and must be used underwater. It comes with 6.5 feet of wire, which gives you plenty of room to attach it to a switch. I recommend the IP68 Waterproof LED Push Button Switch as it is stainless steel and waterproof. The switch also goes off when you turn the light off in order not to continue to draining the battery. It also is cool if you get it in green to match the light.






Based on the type of battery you're going to use, determine the connectors you'll need. I've seen people use spade connectors, alligator clips and trolling motor quick connects. I have seen people use a small battery like a 12V 1.4AH UPS Battery for the 20 watt light and get 2 to 3 hours of run time and 12V 10.5AH UPS Battery to get the same for a 50 watt light.

Let's Get Started

PREPARING THE LIGHT

	<p>When you get the light from Oznum.com it comes in a box with the mount and the spot light installed. The box also comes with the flood lens so be careful when opening it.</p>
	<p>You're going to remove the mount and discard. You will not need this.</p>
	<p>You will need to switch out the spot light lens with the flood light lens. This lens allows the light to be dispersed at a wider angle to cover more area. This is done by unscrewing the cover and removing the lens.</p> <p>Note: when attempting to take out the spot lens the rubber ring can make it hard to remove. You can take a flat screw driver to get this out. The lens is also a great magnifying glass and my daughter plays with it when looking at her nature finds.</p>
	<p>The lights come with an AC adapter as they can be used for other purposes then gigging. This will need to be cut off and stripped to allow enough wire to be used in the butt connectors. Using the AC adapter will not work in this use as a gig light.</p>

	<p>In order to prepare the light to fit into the one inch PVC threaded adapter you have to remove the back. This piece unscrews but you have to be careful when you remove the back as you can strip the wire out of the light or tear the black silicone that makes the light waterproof.</p> <p>When you look at the top of the back you will notice that there is a small silicone piece in between the black wire and the metal top. I took a knife and cut two slits in this piece and took it off with little effort. Once you unscrew the top it should slide right off of the wire.</p>
	<p>Take the PVC thread adapter and wrap Teflon plumbers tape around the thread. Insert the threaded part of the adapter into the light.</p>
	<p>Optional: Some people will fill in the space behind the light with additional silicone. I chose not to do this so that I can unscrew the light as needed if water got into the PVC to allow it to dry. It also makes it harder to work on the light or replace it if there are any issues. Once you place the silicone in the light and you have to remove it there is a good chance it will pull on the black silicone in the light that makes the light waterproof.</p>



Optional: Might be redundant since there is already silicone in the holes you took the screws out for the mount but since you removed the screws I recommend that you put a few drops of silicone in each hole to fill up the space. Allow it to dry and then take the knife and cut it flush.

PREPARING THE SWITCH (OPTIONAL)



Using a 3/4 inch bit or step drill bit you're going to prepare the PVC cap for the switch.



Secure the PVC cap and drill a 3/4 inch hole so that the switch fits tight. If you're unsure of the measurements go slow and continue to test if the switch will fit snug in the hole. If not, cut a little more until you have a snug fit.



The switch comes with the nut and this will need to be removed in order to insert it into the hole of the PVC cap. Be careful when working with the switch as there is epoxy filling in the back of the switch in order to make it waterproof. You do not want to rip this out or bend the wire to the point where it puts cracks in the epoxy.

Note (Warning): I have not had very good success with the switch due to the salt water getting inside the wires. I would recommend that you hook the light directly to the battery and by-pass the switch. I am leaving this on the directions because some folks might still want to give it a try. If you decide to NOT use a switch (I recommend) then keep in mind that you need to make sure that you keep the 50 watt light in the water 95% of the time and disconnect when not in the water in order to keep the light working for a long time.

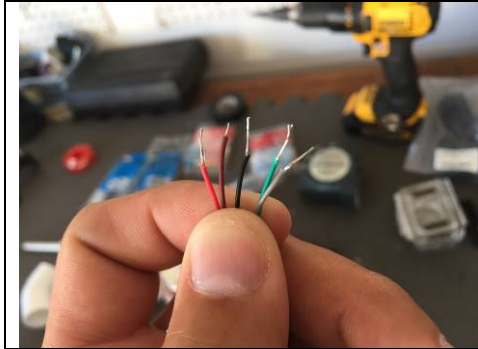


Before inserting the switch I recommend that you place a thin layer of silicone around the outer circle on the cap. Once you insert the switch into the cap take your silicone and fill in behind the switch in the cap (see note below). You only need enough to cover the radius of the switch and in order to fill in any space and reduce the chance of water coming in.

Note: If you do not have the tube that came with the silicone in order to reach the back of the cap and switch then place silicone around the back of the switch before inserting it in order to try and get a good seal. You can also take a thin plastic piece or cotton swab and try and put some additional silicone in the back before screwing in the nut that came with the switch.



This part can be tricky and will take patience. Take the other parts that came with the switch (nut and mount for the back). Place the mount in and then the nut. Using your fingers tighten as much as possible and then use the needle nose pliers to tighten the rest of the way. Set the cap aside and allow to dry completely.



The wires come stripped but I found that I would need to strip it a little more in order to get them to work with the butt connectors and to wrap them with the wires needed (see wiring section of this module).

PREPARING THE PVC



Most stores have PVC that comes in a 10 foot length for around \$3 or less. You will need to take a saw or PVC cutter and cut down the PVC into:

- 2 inch: this piece goes into the 45 degree angle and PVC adapter
- 3 foot: this is the bottom half of the light
- 2 foot: this is the top half of the light
- 6 inch: this is the handle for the light



For the arm rest you have two options. If your arm is small enough you can use the 3 inch or 4 inch coupling (based on your arm) and use the entire piece as your arm support.

Or you can cut the coupling in half. I recommend you sand the middle section that sticks out and the corners to add to the comfort.



In order to find out where the arm rest works for you, you are going to have to put the pieces together and test the arm rest out to fit you.



There are two ways you can test where the arm rest will work for you.

You can hold the PVC frame down as if you were gigging and place the arm rest in the right area and mark it with a pen.

The second option, is that you can place the PVC down on a flat surface and see where it would fit and mark with a pen.



With a pen, mark holes for rivets in the center of the arm rest. Drill holes using a 3/16 inch drill bit.

Test the rivet to make sure it goes through.



Place the arm rest back on the 2 foot PVC piece matching up the mark that you made when resting the location of the arm rest. Take your pen and mark the spot on the 2 foot PVC piece where you need to drill the rivet holes to connect the arm rest.

Drill holes using a 3/16 inch drill bit



Test the holes by placing the rivets into the arm rest and the 2 inch PVC piece. Once you've confirmed that it matches up you can seal the arm rest.

Take your silicone and place a dab on the holes on the 2 inch PVC piece. Place silicone on each end of the rivet that goes into the PVC. Then put the rivet into the arm rest and then 2 inch PVC piece. This silicone will fill in the holes and prevent water from entering.



Using your rivet gun secure the rivet.



Wipe off any excess silicone and allow it to dry.



Before using purple primer, make sure that you have either a protective cloth or similar laid down, so you don't make a mess on your work surface.

Using the applicator that comes with the primer, wipe the primer on all areas of the PVC that you will be connecting. Make sure to do the inside of the connectors and caps and the ends of the actual pipes. It will dry within 20 to 30 seconds.

PUTTING IT ALL TOGETHER



Note: This cement dries super-fast. When you connect the pieces, make sure you set them properly. Make sure when you place the cement on the PVC you get all around the pieces that will connect to make a good seal.

Using the 2 inch PVC piece, place cement on the inside of the adapter and then around one end of the 2 inch PVC.



Next you take the 45 degree elbow and connect it to the other half of the 2 inch PVC piece.



Note: WITH Switch/20 Watt - If you are using the 20 watt light and have decided to add a switch you must add about 8 inches of wire in order to allow it to reach through the PVC tee and connect with the other wires. Make sure to use the butt connectors and seal them with the heat gun or lighter. If using a lighter be careful on how close you place the flame to the wire as you do not want to burn through the wire. I always added additional heat shrink over the entire splice for extra precaution.

Note: WITHOUT Switch/20 Watt - I highly recommend this option for the 20 watt, as there is less possibilities of issue since there is less splices and connections. If you go this route then you will need to connect the remaining extra wire following the same connection directions as above.

Note: WITH Switch/50 Watt - If you are using the 50 watt, it comes with enough wire (see the section below on connecting the switch for a 50 watt light). For the 50 watt light and this point forward I would run the wires and connect them prior to sealing the rest of the PVC pipes. That way you can test the light to make sure the switch and light work prior to sealing everything.



Next you can put the 3 foot PVC piece into the 45 degree PVC elbow.



Important Note: This is vital, so listen up! When you connect the tee and handle its important to make sure everything is positioned in the right direction the first time around. Because it seals so quickly, if you're not careful, you might end up with a crooked light and will have to start all over.

In order to do this, place the light on a flat surface and connect the tee and handle so that it sits flat on the surface with both the light and the handle being flat on the surface. Remember the handle faces up in the same direction of the light



WITH Switch: Take the tee PVC piece and run the light wire completely through the tee to the right.

Take the 6 inch PVC piece and connect it to the PVC cap with the switch. Run the gray wire completely through and to the right of the tee so that both the grey switch wire and the light wire are both hanging outside of the right side of the tee.

WITHOUT Switch: Take the tee PVC piece and run the light wire completely through the tee to the right. Attach the 6 inch PVC piece to the center of the tee. Take the end of your wire and test the light by connecting the wires to the battery. The light should light up, if not you need to check the connections you made. You can seal all of the PVC up to this point as you have tested your light and connections. You can skip the next step and go straight to connecting the 2 foot PVC piece.

Normal diagram (green wire):

You're now going to connect the switch wires, light wires and power source wires. The diagram to the right will provide you the list of wires that need to be connected. If for some reason this connection doesn't work try one of the other options listed below it. In some cases the switch might come with



Blue wire diagram:



Last resort:



a blue wire. Make sure you follow the proper diagram. If neither set up works, try the last diagram or call the company.

Note: I recommend you connect all of the wires as shown in the corresponding diagram and test them before permanently splicing them together.

Optional: Now that you've connected all of the wires in the butt connectors and used a heat gun or lighter to seal them, I recommend you add another butt connector to the unused wire from the switch in order to seal it. This prevents any salt water that might get into the PVC from corroding the wire. I melted the end of the butt connector that was not attached to any other wire.



Take the 2 foot PVC piece with arm rest and pull the wire through to the end of the piece. Secure the 2 foot PVC piece into the tee connector.



Tie a knot in the wire to prevent the wire from pulling out of the light. Make sure to leave enough slack in the line so that if you want to pull the light off to get any water out that you have the extra wire to do it.

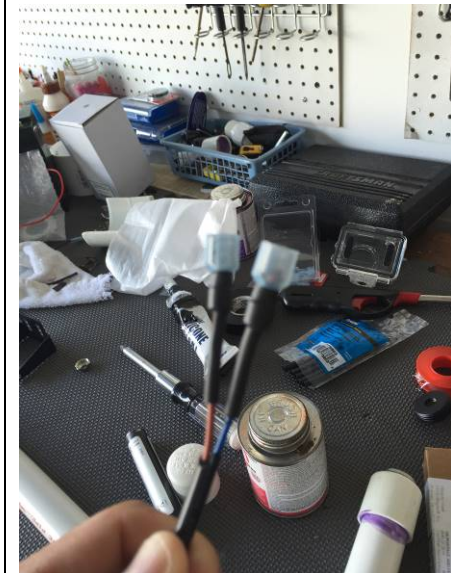
Drill a 5/16 inch hole on the top of the PVC cap and run the wire through.



Put some silicone inside the cap near the hole and secure the cap using the cement.



Place some silicone on the top side of the cap around the wire. Use a flat plastic object or cardboard to smooth out the silicone and then secure the wire so it doesn't move while you wait for the silicone to dry.



I like to have at least three feet of wire outside the top of the gigging light. You can try it out and then cut off any excess wire.

Place whatever connectors you think you'll need for your battery connection. If your connectors aren't easily identifiable as positive and negative, you can always color them red and black to make them easily visible.

How to use the light

Many people have their own way of gigging. If you're trying it out for the first time, I'll show you my setup here as a starter. Find out what works for you and adjust as needed. Take some time and research what works well in your area.

GIGGING NEEDS

- Fishing license
- Gigging light

- Giggling pole: some people use stainless steel gigs and others just get a cheap spear and put it on a broom stick. I use an 8 foot bamboo stick with a spear on the end. Check your state fishing laws to see if barbs are allowed.

- Head lamp: I use this when I am adding fish to the stringer. It also serves as a backup light.

- Stringer or float: I use the Berkley deluxe stringer (<http://www.walmart.com/ip/Berkley-Deluxe-Stringer/16880480>). Once I get my first flounder I tie one end to my belt and allow the flounder to swim behind me as I walk along the water. I carry a knife so if a shark decides he wants the fish more than I do, I can quickly let him have dinner. Some people make floats made from PVC to trawl the flounder and keep them out of the water.

- Backpack: I carry a fairly big 12-volt battery in the backpack and run a wire from the top of the light pole straight down the top of the backpack into the battery. I use electrical tape to secure the wires to the battery, so they aren't accidentally pulled out.

- A place to gig

Acknowledgments

I want to first thank the folks from the 2coolfishing forum who unknowingly contributed to this instruction. Many of the ideas for my build came from this site. You can find the forum feed at <http://2coolfishing.com/ttmbforum/showthread.php?t=410882>

I also want to thank Phil, owner of Ozniun.com, who has helped me in my build and provided some of the parts for me to put this instruction together.

To my fishing partner, my nine year old daughter that gigs with the best of them.

