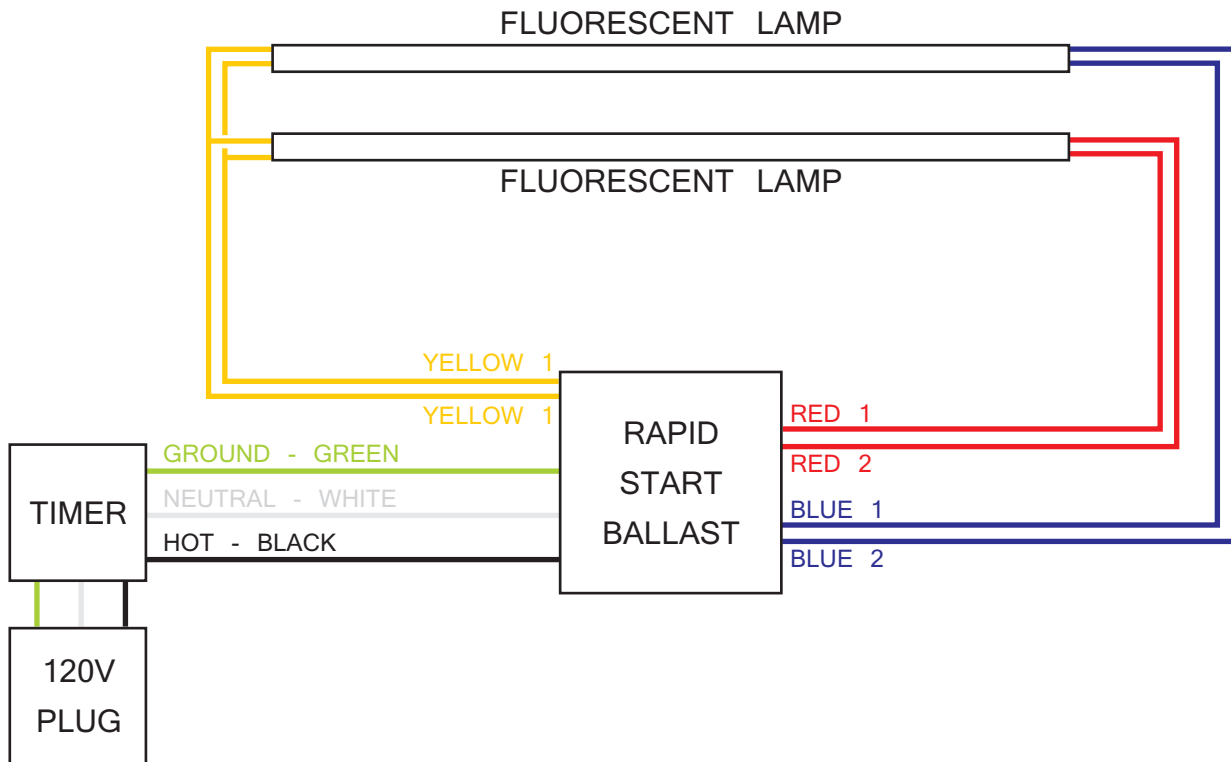


DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE



These plans were designed for an aquarium with the dimensions below...

OVERALL DIMENSIONS:

TANK: 60" x 18" x 24"

Aquarium sizes vary - be sure you measure your aquarium for actual size. Users of these plans must know they need to be adapted to the exact size of their particular aquarium.

NOTE: To ensure everything goes smoothly - be sure you are comfortable with basic wiring and review all of the instructions, diagrams and materials list before you begin.

DIY projects are at your own risk. Use reasonable care when dealing with electricity, especially near salt water! Plans involving electrical wiring may not meet local code requirements - When in doubt consult a qualified electrician. IF YOU ARE NOT SURE WHAT YOU'RE DOING...WIRING SHOULD BE CHECKED BY A QUALIFIED ELECTRICIAN. PLEASE CONSULT BEFORE ATTEMPTING THIS PROJECT.

DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE

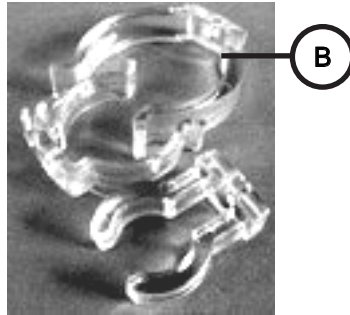
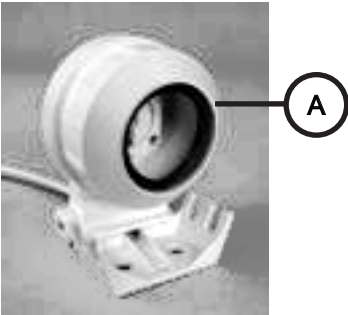
MATERIAL LIST

DESCRIPTION	PART ID	QUANTITY	MATERIAL	SIZE
LAMP HOLDER LEADS (PAIR)	A	2	-	38mm
SPRING CLIP (PAIR)	B	2	-	38mm
40 RS BALLAST	C	1	-	5-1/8" x 1-7/8" x 1-3/8"
AQUARIUM LIGHT TIMER	D	1	-	-
FLUORESCENT AQUARIUM BULB	E	1	-	40W TS12 (48") WHITE DAYLIGHT 50/50
HARDWARE				
PLASTIC FASTENERS		2 packs of 10	3/8" fasteners	
WIRE NUTS (MEDIUM SIZE)		1 pack		
PLASTIC TIE-WRAPS		1 pack		
POWER CORD & GROUNDED PLUG		48" #12	standard power cord & general duty AC plug	
WIRE (yellow, red, blue, white and black)		48" #12	of each	
TOOLS				
HACKSAW				
ELECTRICIANS TAPE				
SCREWDRIVER				
WIRE CUTTER AND/OR NEEDLENOSE PLIERS				
DRILL WITH 3/8" BIT				

DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE

STEP 1: LAMP HOLDER



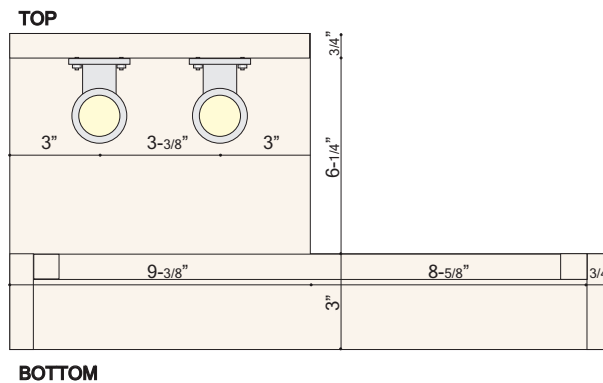
A- LAMP HOLDER LEADS 38mm (PAIR) (QTY2)

B- SPRING CLIP 38mm (PAIR) (QTY2)

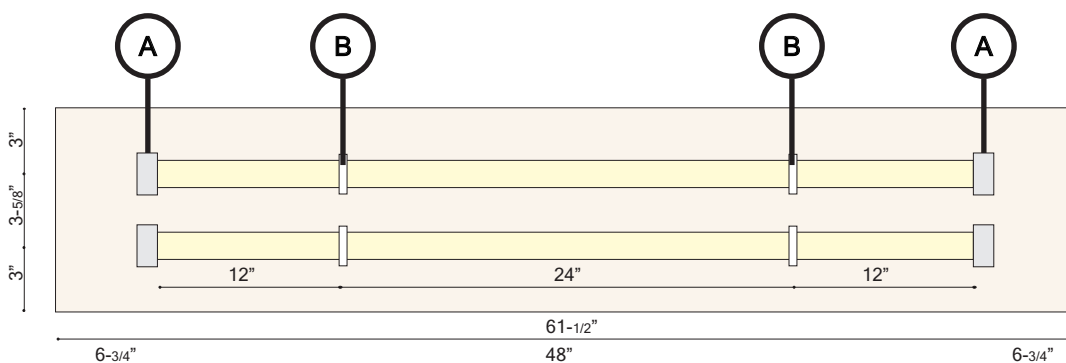
These are the leads that are used to connect to the end caps of a fluorescent tube. Please observe that the light units will be waterproof only if the caps are tightly and securely fastened onto the tube holders.

Mount the leads on the hood with plastic fasteners (a threaded screw and nut manufactured from white nylon), since many metallic screws can corrode and even cause poisoning. Make sure to mark the location of the leads and pre-drill with a smaller drill bit. If you don't pre-drill these holes, they have a tendency to move slightly when they're screwed in place.

Use a moulded transparent plastic clip that grips the body of a fluorescent tube in order to be mounted into the lamp holder. When attaching spring clips to aquarium hoods use plastic fasteners. Make sure to mark the location of the clips and pre-drill with a smaller drill bit.



LIGHTING FIXTURE (SECTION)



LIGHTING FIXTURE (FROM BELOW)

DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE

STEP 2: BALLAST & TIMER

C.- 40W RS BALLAST

(QTY.1)

D- AQUARIUM LIGHT TIMER

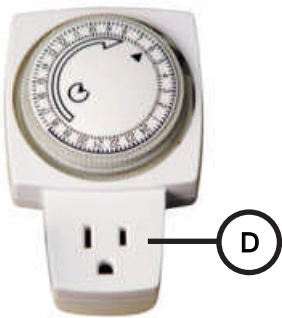
(QTY.1)



You will need one Rapid Start (RS) 40W ballast (5-1/8" x 1-7/8" x 1-3/8") for the pair of lamps.

The ballast limits current and provides the starting kick to ionize the gas in the fluorescent tubes. The rapid start system, requires no starter. Instead, the ballast keeps a low flow of current running through the filaments at all times or during the start-up period. This system establishes a brief but high voltage potential between one or both cathodes of the lamp and a metal surface in the fixture that must be within a certain distance (usually less than 0.5 inches) of the lamp along its full length.

Ballasts should come with wiring diagrams, wiring guidelines and specifications that will allow you to change this design to fit your needs. Follow the manufacturer's instructions as closely as possible.



Timer regulated lighting helps control algae growth, provides fish with a dependable stress-minimizing waking/sleep cycle, and is ideal for maintaining a plant-healthy environment while you're away. Designed especially for use with all freshwater and marine aquarium lights, this light timer is easy to set up, with 15 minute increments and also features a manual override.

Since there is no power switch, simply plug the ballast into the timer.
Set the timer to reflect lighting needs for your particular aquarium set-up.

DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE

STEP 3: CONNECTION

Cut the wires at both ends of the ballast to a length of 6".

Check the wiring diagram provided by the manufacturer of the ballast.

Connect the black and white ballast wires to the power cord wire - black to black and white to white. The green wire on the power cord is the ground and should be attached with a screw to one of the mounting holes on the ballast. The grounded plug will be connected to the timer.

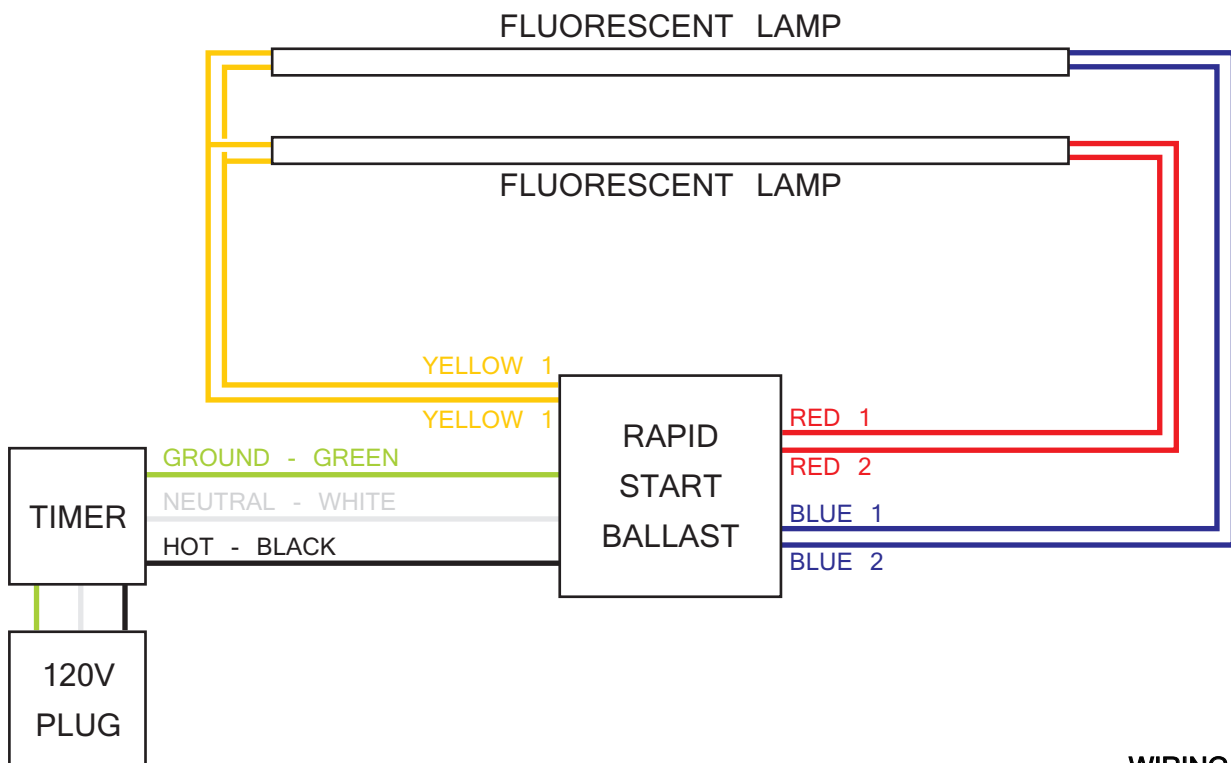
Connect the colored wires of the lamp holder leads with wire nuts to the corresponding colored wires from the ballast. Make sure that every wire is conncted properly and that wire nuts are tight.

Once the wiring is complete, pop the bulbs into the clips and lamp holder leads (previously attached to the half round rain gutter lamp holder).

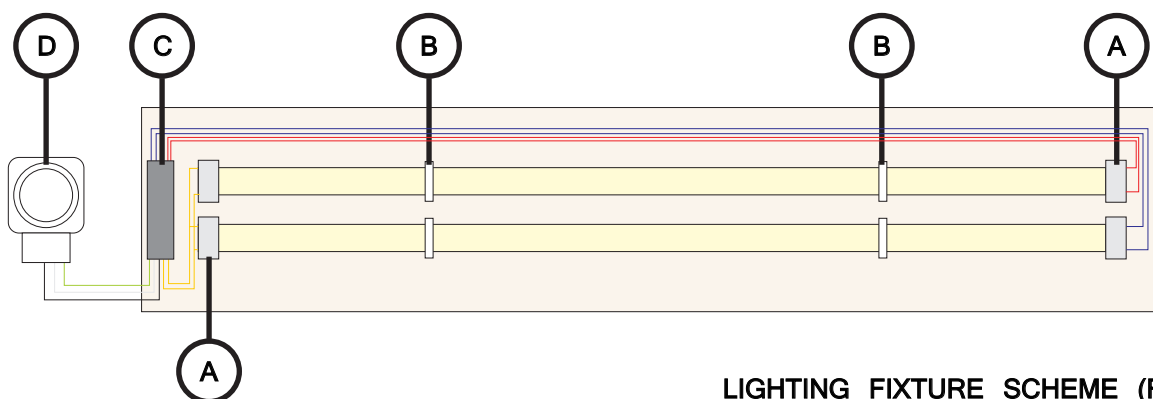
Set the timer to reflect lighting needs for your particular aquarium set-up.

Congratulations! Your Flourescent Lighting Fixture is completed.

NOTE: Mount ballast as far away from heat sources as possible. Avoid unnecessarily removing Fluorescent bulbs once they are in place. Make sure they are pushed all the way into their sockets. Replace them every 12-14 months.



WIRING DIAGRAM



LIGHTING FIXTURE SCHEME (FROM BELOW)

DIY AQUARIUM STAND PLANS

HOOD WIRING DIAGRAM FOR SIMPLE FLOURESCENT LIGHTING FIXTURE

STEP 4: BULB SELECTION & RECOMMENDATIONS

E.- 40W T12 FLUORESCENT
AQUARIUM BULB (48 in.)

(QTY.2)



Aquarium tubes use special phosphors to produce a light spectrum that not only shows up the fishes colours, but also promotes the growth of desirable plants or corals rather than algae.

We chose a pair of 40W T12 Fluorescent Aquarium White Daylight 50/50. A blend of actinic and rare earth phosphors make this lamp suitable for both marine and fresh water biospheres.

Consult your local aquarium shop for recommendations on fluorescent lights and your particular needs...