

When initially plugged in, or after a long power outage, the clock will flash "12" until the time has been set. The clock has several minutes of reserve power, so a brief outage or moving the clock to a different outlet is not a problem.

Press the SET button (located inside the former battery compartment, on the lower rear of the clock) to enter setting mode, starting with the hours. Additional presses of the SET button will step through the settable values in the table below. The value currently being set is indicated by a label (composed of two overlapped digits) on the left Nixie tube. Pressing the paddle switch on the back of the clock will increase (up) or decrease (down) the displayed value. Both switches auto-repeat at a rate of twice per second if held.

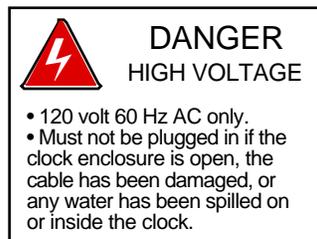
LABEL	DESCRIPTION		RANGE		
0	Hours	Always entered in 24 hour format - add 12 to hours after noon	0-23		
1	Minutes	Changing the minutes will reset the seconds to zero	0-59		
2	Month		1-12	Settings from Month on down are non-volatile	
3	Day		1-31		
4	Century		20-99		
5	Year		0-99	ORIG. VALUE	YOUR VALUE
6	Fish start hour	If set to 24, fish will never start automatically	0-24	24	
7	Fish stop hour	If set to 24, fish will never stop automatically	0-24	24	
8	Fish start/stop minute		0-59	0	
9	Normal display mode	Add together any of the following values: 1 - hours & minutes 2 - seconds 4 - month & day 8 - year 16 - test/demo mode	0-16	3	
A	Display mode when switch pushed up		0-16	12	
B	Display mode when switch pushed down		0-16	12	
C	Display options	Add together any of: 1 - 24 hour time format 2 - day before month 4 - year before date 8 - lead zero blanking	0-15	8	
D	Duration of digits	Units are 1/120 second	25-240	85	
E	Gap between digits	Units are 1/120 second	0-60	5	

Pressing the SET button one more time will exit setting mode.  
The clock will also exit setting mode automatically after several minutes of inactivity.

This is the label on  
the back of the clock:



This is the  
label on the  
power supply:



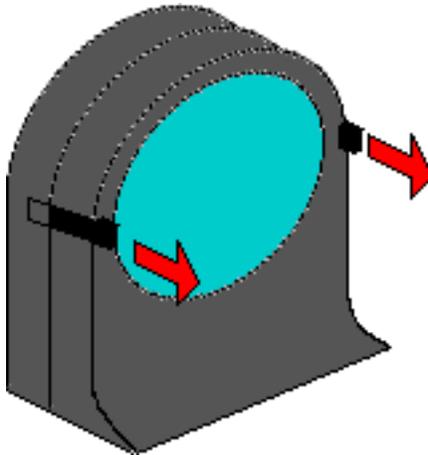
# Filling the Type 22a Nixie Clock/Aquarium

**1**

Unplug the clock before filling it, or moving it while filled! It is designed to minimize any danger from water spills, however I cannot guarantee that the circuitry will survive immersion while power is applied.

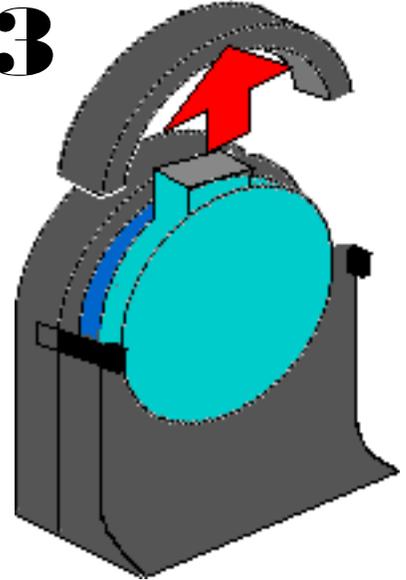
If any water is spilled inside the clock, make sure it has completely dried before plugging it in - a hair dryer should help.

**2**



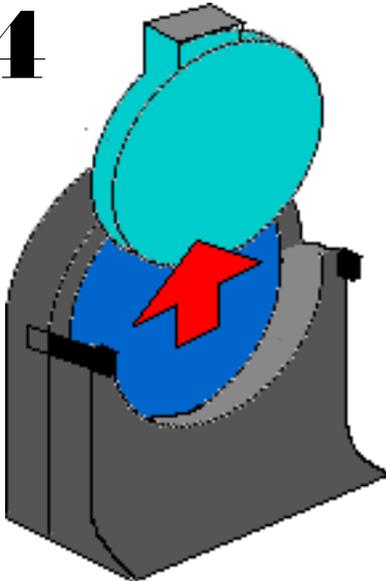
Slide the clips on the sides of the case forwards.

**3**



Remove the front top portion of the case.

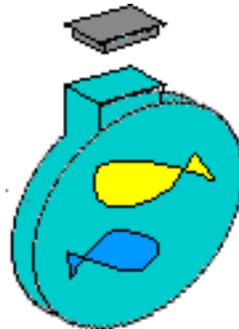
**4**



Lift the bowl straight up to remove it from the case.

Avoid touching the exposed circuitry.

**5**



Place the magnetic fish in the bowl. Add a drop of liquid soap - this keeps air bubbles from sticking to the fish. Fill with water: I would suggest filling no higher than an inch from the top.

Replace the rubber cap on the bowl. You may want to tape it in place to minimize spills.

**6**

Make sure the outside of the bowl is completely dry before returning it to the case.

Perform steps 1-4 in reverse order to reassemble the clock.

The swimming action of the fish can be turned on and off via the switch on the left rear of the clock. You can also set times at which they will automatically start and stop swimming.