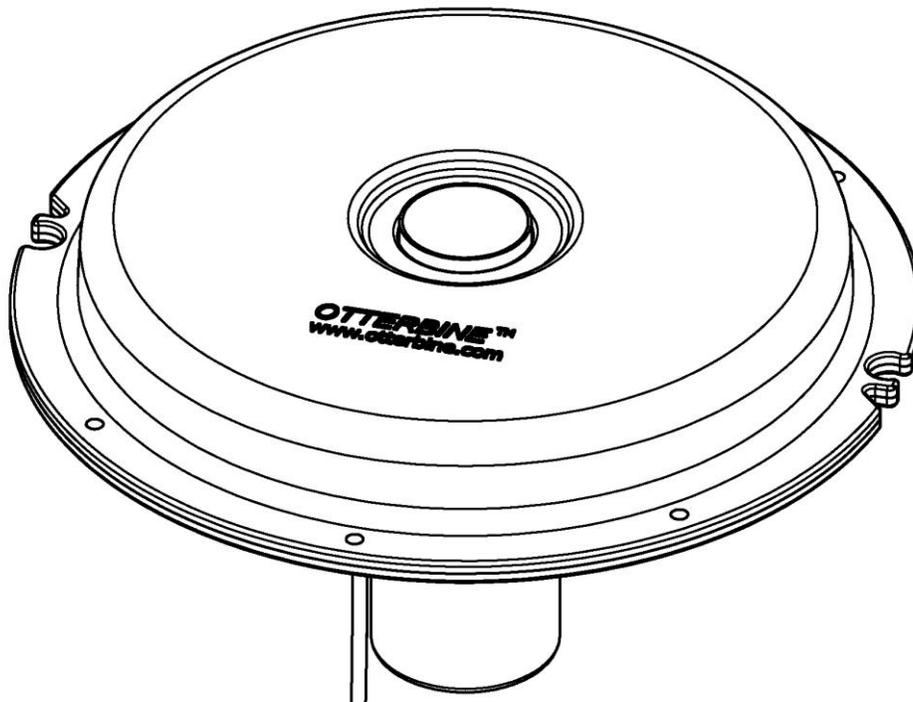
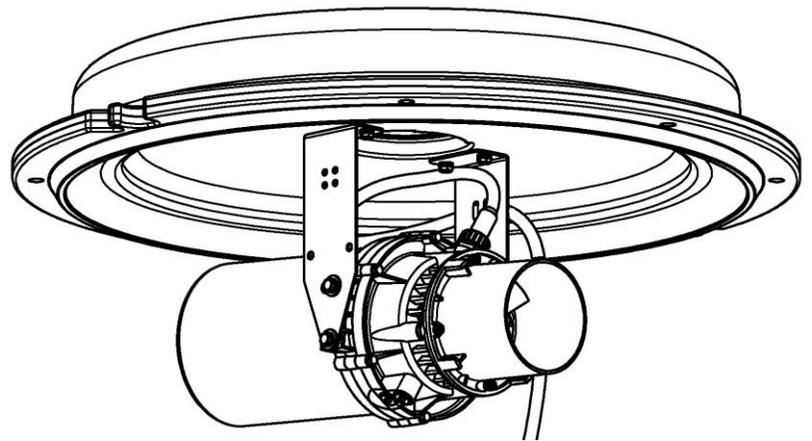
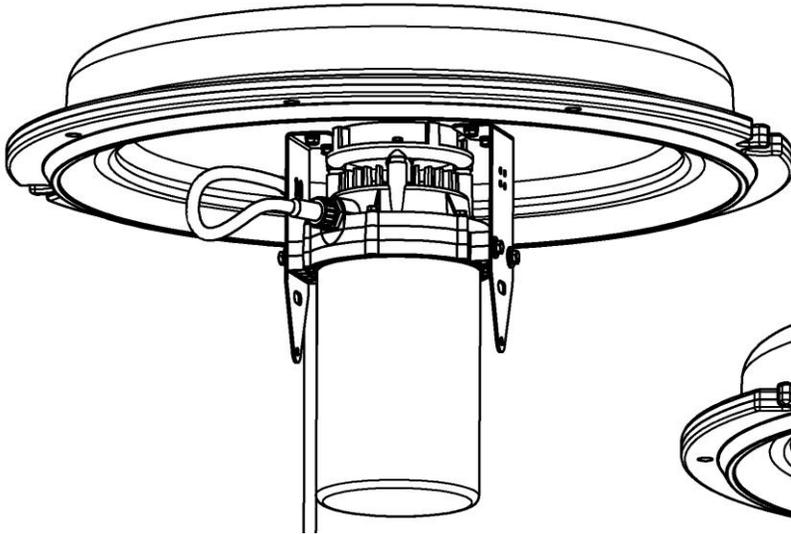




Otterbine Barebo Inc. Fractional Series 60Hz Installation Manual



SAFETY INSTRUCTIONS

ALL ELECTRICAL WORK MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM WITH ALL APPLICABLE ELECTRICAL SAFETY CODES

Tous travaux électriques doivent être effectués par un électricien professionnel qualifié et conforme à tous les codes applicables sécurité électrique

ALWAYS SWITCH OFF/DISCONNECT ALL EQUIPMENT IN THE WATER BEFORE SERVICING OR PERFORMING ANY MAINTENANCE

Toujours éteindre l'équipement dans l'eau avant entretien ou de tout entretien

DO NOT OPERATE EQUIPMENT WHEN PEOPLE ARE IN THE WATER

N'utiliser pas l'appareil lorsque les gens sont dans l'eau

CAUTION: KEEP HANDS CLEAR OF THE IMPELLER WHEN OPERATING!

ATTENTION: Garder les mains loin distance de l'impeller lors de l'utilisation!

CAUTION: THIS PUMP HAS BEEN EVALUATED FOR USE WITH WATER ONLY!

ATTENTION: Cette pompe a été évaluée pour l'usage avec l'eau seulement!



WARNINGS

- Before entering, wading in or swimming in **the water in** which Otterbine Aerators or Fountains are installed, make sure they are **PHYSICALLY** disconnected from their electrical power sources.
- Aerators located in or near garden ponds and similar locations must be equipped with Ground Fault Circuit Interrupter.
- The permissible temperature range for this equipment is -12°C to 40°C/10°F to 104°F.
- If the power cord is damaged, it must be replaced by a special cord or assembly available from Otterbine Barebo, Inc. or an authorized Otterbine Barebo, Inc. sales and service center.
- Avant d'entrer, pataugeant dans ou en nageant dans l'eau dans laquelle Aérateurs Otterbine ou fontaines sont installées, assurez-vous qu'ils sont physiquement déconnectés de leur source d'alimentation électrique.
- Aérateurs situés dans ou à proximité des bassins de jardin et des emplacements similaires doivent être équipés de disjoncteur.
- La plage de température admissible pour cet appareil est -12°C to 40°C/10°F to 104°F.
- Si le cordon d'alimentation est endommagé, il doit être remplacé par un cordon spécial ou de montage disponible à partir Otterbine / Barebo, Inc ou une autorisation Otterbine / Barebo, les ventes Inc et centre de service.

INSPECT EQUIPMENT

Inspect your equipment and immediately report any shipping damage to the carrier that delivered your unit.

Unit - Check nameplate located on the unit housing to be sure you have received the correct voltage rating.

Power Control Center - Verify the controls are compatible with the voltage rating of the aerator.

Power Cable Assembly - Verify the correct cable gauge and length.

FOR PROPER WARRANTY CONSIDERATION RETURN THE WARRANTY REGISTRATION CARD OR REGISTER ONLINE AT www.otterbine.com/warrantyform

ELECTRICAL/PCC INSTALLATION

ALWAYS DISCONNECT EQUIPMENT FROM ELECTRICAL SUPPLY
BEFORE SERVICING OR PERFORMING MAINTENANCE

CAUTION: GFCI Protection required. If GFCI protection is not used, serious or FATAL electrical shock may occur.
ATTENTION: GFCI/RCD de protection est nécessaire. Graves ou mortelles choc électrique peut se produire s'il n'est pas utilisé.

WARNING: RISK OF ELECTRIC SHOCK – Ground the aerator to the ground terminal provided within the power control center back to the service using a copper conductor at least the size of the circuit conductors supplying the aerator.

A. Feeder

1. **IMPORTANT:** An Electrical Disconnect must be provided before the Power Control Center and shall be mounted where easily visible from the shoreline where the unit is located. Acceptable disconnecting means are a molded case circuit breaker, cord and plug rated for the full load current rating or other device suitable as a motor disconnect.
2. Proper feeder circuit protection in accordance with all applicable state, local and national codes must be provided to the power control center.
3. Be certain to properly size feeder conductors to allow for no more than 5% voltage drop for the entire circuit from the feeder source to the unit. Failure to do so may damage the unit and void product warranty.

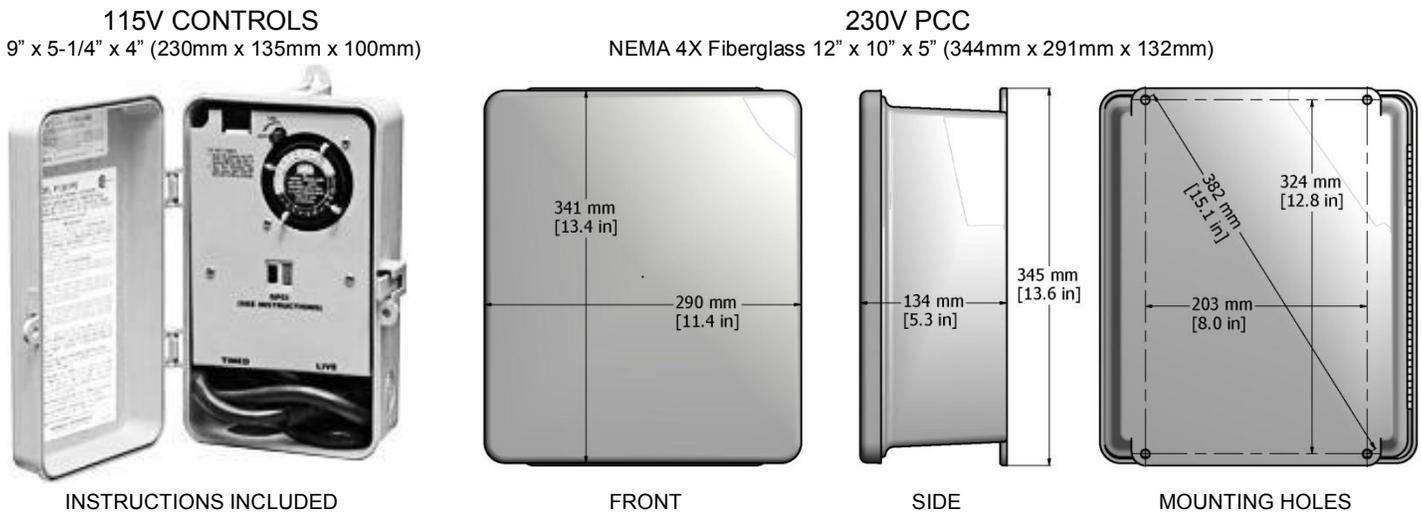
1/2HP, 1Ø, 60Hz ELECTRICAL SPECS		
Volts	Max. Amps	Maximum 12AWG Cable Length
115V	6.4	300
230V	3.2	600

B. PCC Location

1. The power control center **shall not** be accessible from the water.
Le Centre de Contrôle de la puissance ne doit pas être accessible à partir de l'eau.

C. PCC Mounting

1. To prevent damage to the enclosure use all mounting holes provided.
2. Whenever possible do not mount the PCC in direct sun light.

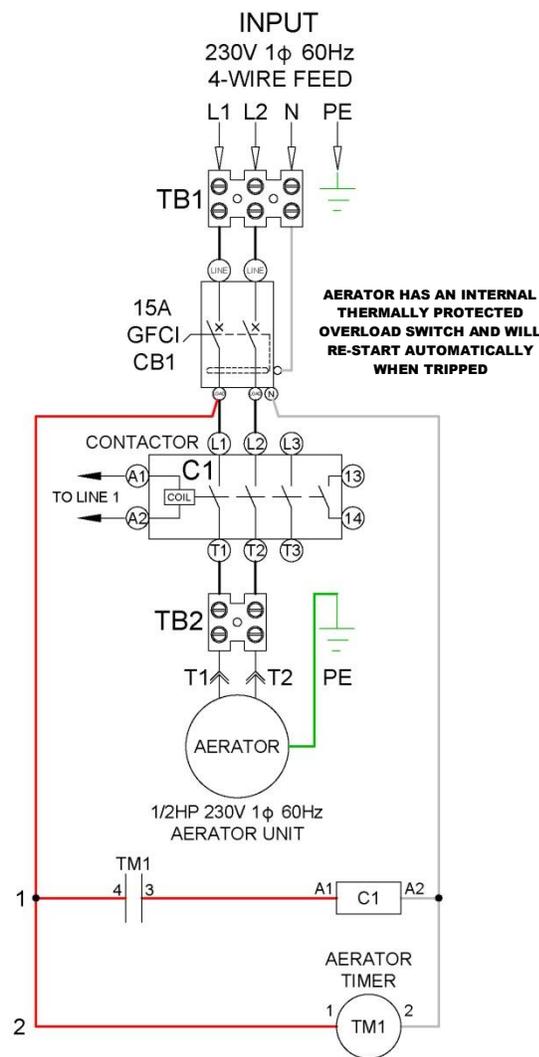
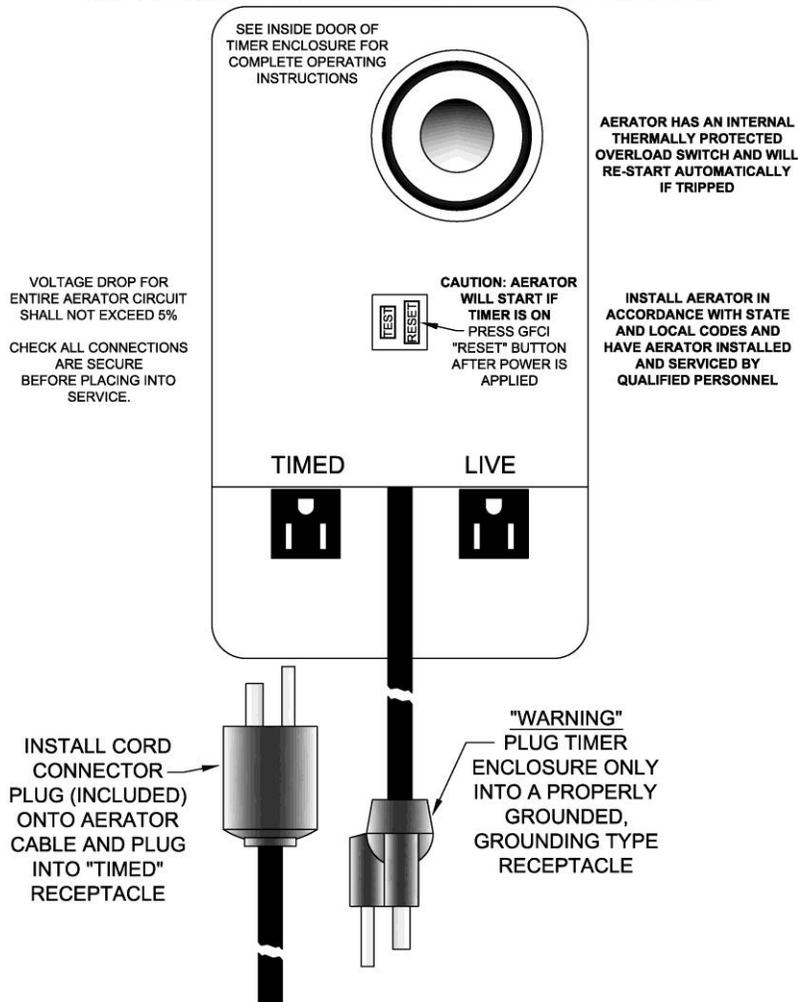


D. PCC Cables & Connections

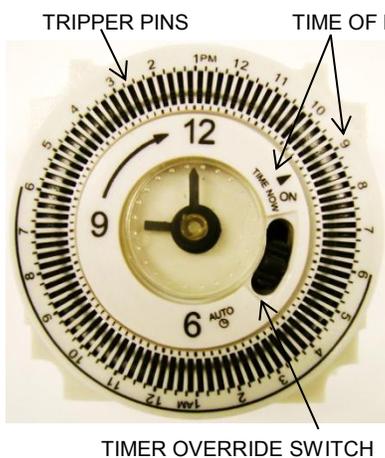
1. Only Otterbine Barebo, Inc. factory approved power cord is to be used from the PCC to the unit with no junction boxes or splices. **Only** use power cord gauges and lengths specified by Otterbine at the time of cable purchase (Contact your Otterbine Distributor for proper cable sizing). Use Only OTTERBINE power cord. Do not splice or repair the cord, replacement is necessary if damage occurs.
2. It is recommended that all exposed cable between the PCC and the shoreline be installed in non-metallic conduit. It is **important** the unit and lighting cables be installed in individual conduits to avoid induced interference between cables which causes random GFCI tripping.
3. **Always** use strain relief cord connectors to attach the Otterbine cable to the PCC.
4. Cables and conduits must only enter into the bottom of the PCC.
5. Factory connections may loosen during shipping. Verify tightness of all screw terminal connections before energizing.
6. Power input and output wiring connections are accessed from the bottom of the enclosure.

ELECTRICAL/PCC INSTALLATION (cont.)

FRACTIONAL SERIES AERATOR 1/2HP, 115V, 60Hz CONTROL BOX INSTALLATION INSTRUCTIONS



E. 230V PCC Timer Operation (Instructions Included With 115V PCC)



1. Push **in** (towards center) all tripper pins on the timer dial.
2. Pull **out** the tripper pins on the dial that are between the times you want the unit to operate. When the dial rotates to a tripper pin that is in, it will turn off.
3. Turn the outer dial clockwise to align the time of day to the stationary arrow positioned at "2 o'clock".
4. For timer operation move the timer override switch to the "AUTO" (down) position. To bypass timer operation turn the timer override switch to the "ON" (up) position.

ALWAYS TURN OFF THE POWER USING THE MAIN DISCONNECT BEFORE SERVICING OR PERFORMING ANY MAINTENANCE

Note: When the main disconnect is off or in the case of power failure the timer/s will not operate and the time of day will need to be reset.

F. GFCI (Ground Fault Circuit Interrupter) Circuit Breaker.

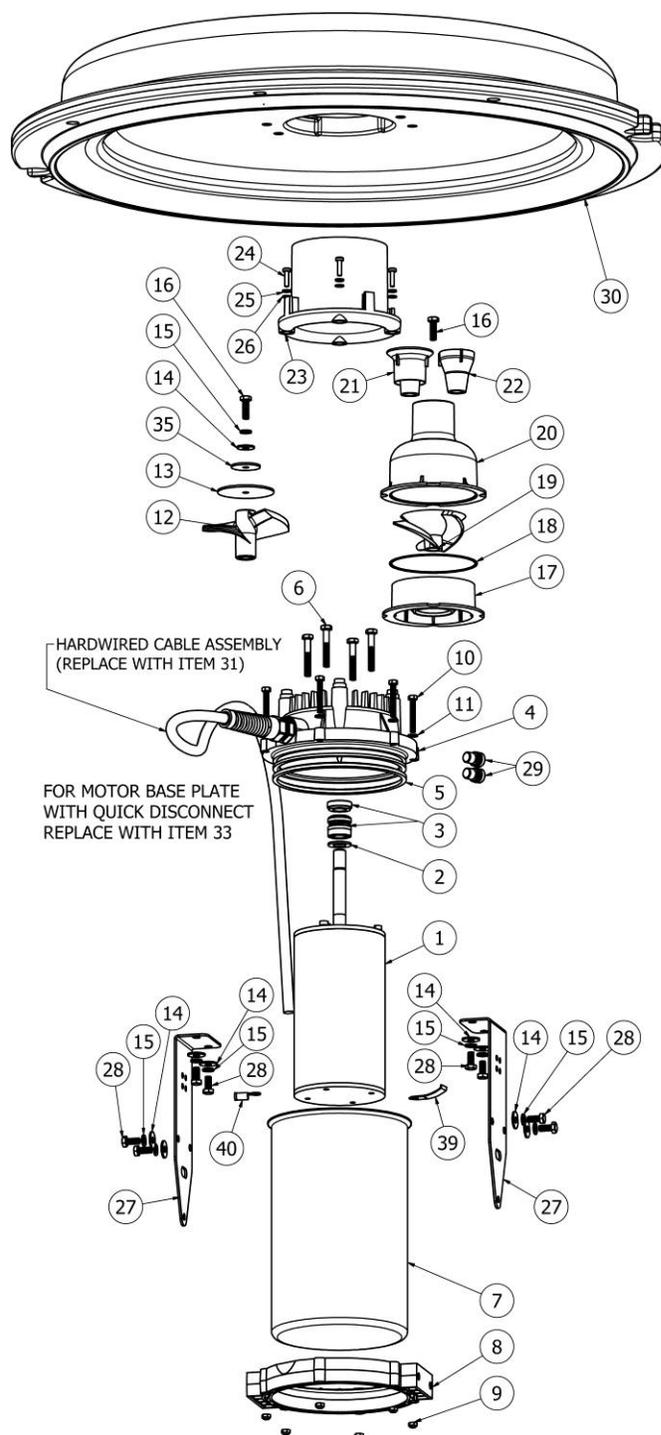
1. When finished with assembly and unit is ready to launch, apply power to the PCC and turn circuit breaker handle to on (UP).
UNIT WILL START IF TIMER IS ON. DO NOT OPERATE THE UNIT WHEN OUT OF THE WATER.
2. Test GFCI Circuit Breaker every 6 months.
3. Start the unit, record the operating voltage, amperage and power cable length on the door inside the power control center (230V).

TEST BUTTON



FRACTIONAL SERIES PARTS LIST & EXPLODED VIEW

Fractional Series Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	30-0001	Motor - 1/2HP 115/230V/1Ph/50&60Hz.
2	1	28-0005	Mechanical Seal Washer
3	1	49-0054	Mechanical Seal
4	1	42-0100	Motor Base Plate
5	1	49-0056	O-ring, Motor Base Plate
6	4	22-0040	Bolt, M6-1 x 40mm Sealing Hex
7	1	47-0012	Motor Housing, 316 S/S
8	1	42-0101	Housing Ring
9	6	26-0006	Nut, M5 Nylon Locknut
10	6	22-0006	Bolt, M5 x 35mm Hex
11	6	28-0016	Washer, M5 Flat
12	1	42-0107	Prop, Open Throat
13	1	40-0013	Slinger Disc, Gemini
14	4	28-0023	Washer, M6 Fender
15	9	28-0021	Washer, M6 Split Lock
16	2	24-0022	Bolt, M6-1 x 20mm Hex
17	1	42-0104	Intake, Decorative Impeller
18	1	49-0055	O-ring, Intake
19	1	42-0105	Impeller, 60Hz. Mixed Flow
20	1	42-0103	Chamber, Decorative Pump
21	1	42-0110	Nozzle, Phoenix
22	1	42-0111	Nozzle, Rocket
23	1	42-0102	Chamber, Open Throat
24	4	24-0010	Screw, M4 x 16mm
25	4	28-0015	Washer, M4 Split Lock
26	4	28-0014	Washer, M4 Flat
27	2	40-0012	Bracket, Float
28	8	22-0041	Bolt, M6-1 x 14mm Hex
29	2	10-0004	Oil Plug
30	1	42-0042	Float
31	1	12-0125	Motor Base Plate Assy, Hardwired
32	2	GP5008	Cable Tie (SHOWN ON PAGE 6)
33	1	12-0126	Motor Base Plate Assy, Quick Disc.
34	1	MP6511	Pigtail, Quick Disc. (SHOWN ON PAGE 8)
35	1	40-0022	Slinger Disc, High Volume
36	1	15-0026	Screen (SHOWN ON PAGE 6)
37	1	BP2803B	Screw, 10 x 3/4" S/S Hex Head (SHOWN ON PAGE 6)
38	1	800-011	Washer, 10 x 1" S/S Fender (SHOWN ON PAGE 6)
39	1	47-0002	Ground Clip
40	1	178-003B	Connector, Ring
41	1	13-0001 13-0002	Motor Unit, Hardwired 115V/1Ph/60Hz 230V/1Ph/60Hz
42	1	13-0003 13-0004	Motor Unit, Quick Disconnect 115V/1Ph/60Hz 230V/1Ph/60Hz



TO PREVENT DAMAGE TO YOUR FRACTIONAL SERIES AERATOR

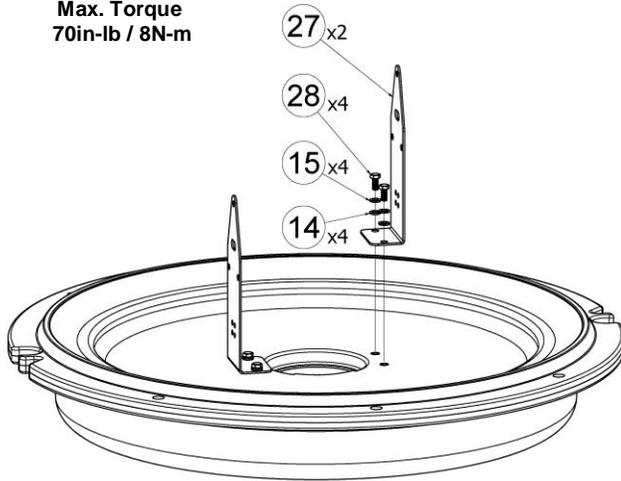
**DAMAGE CAUSED DUE TO FREEZING WILL NOT BE ELIGIBLE FOR WARRANTY CONSIDERATION
DO NOT ALLOW THE UNIT TO OPERATE "DRY" OUT OF THE WATER**

- **Never** operate the Fractional Series Fountain when not submersed (EXCEPT TO "JOG" FOR TESTING PURPOSES)
- Remove the unit from the water when temperatures are expected below 32°F (0°C)
- For longer unit life store the unit indoors at temperatures above 32°F (0°C)
- Operating Depth is 16in. (0.4m)
- Clean debris from screen and unit intake as necessary
- Inspect and clean the throat and nozzle components as required
- Annually clean and inspect the unit and cables for physical damage

FRACTIONAL SERIES AERATING FOUNTAIN ASSEMBLY

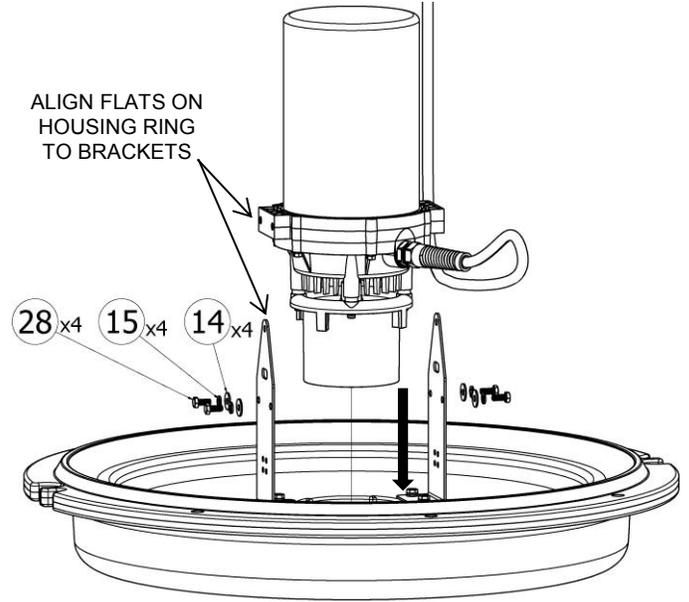
STEP 1 – FASTEN BRACKETS TO FLOAT

USE 10mm SOCKET
w/ EXTENSION
Max. Torque
70in-lb / 8N-m



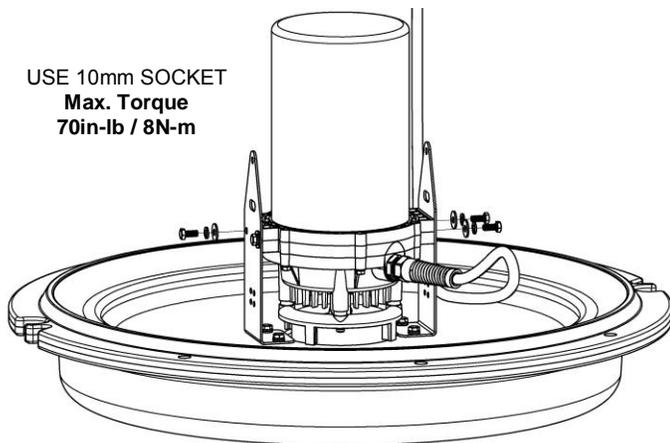
STEP 2 – PLACE POWER UNIT BETWEEN BRACKETS

ALIGN FLATS ON
HOUSING RING
TO BRACKETS



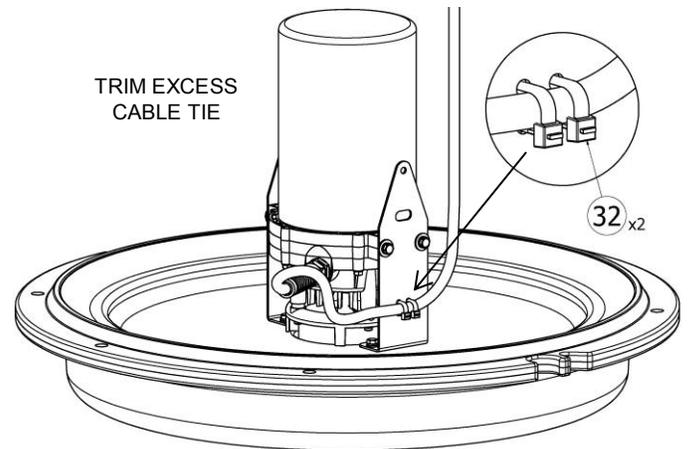
STEP 3 – POSITION UNIT & TIGHTEN BOLTS

USE 10mm SOCKET
Max. Torque
70in-lb / 8N-m



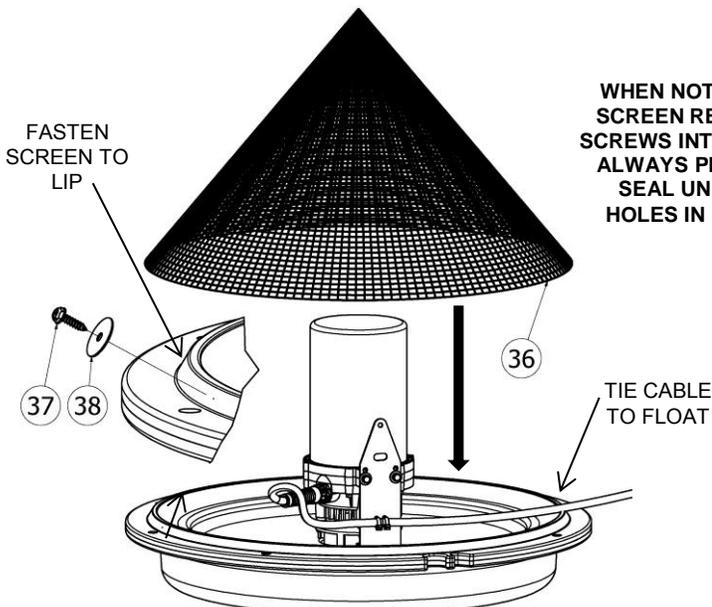
STEP 4 – INSTALL STRAIN RELIEF CABLE TIES

TRIM EXCESS
CABLE TIE



STEP 5 – ATTACH SCREEN (NOT USED WITH MIXER)

FASTEN
SCREEN TO
LIP

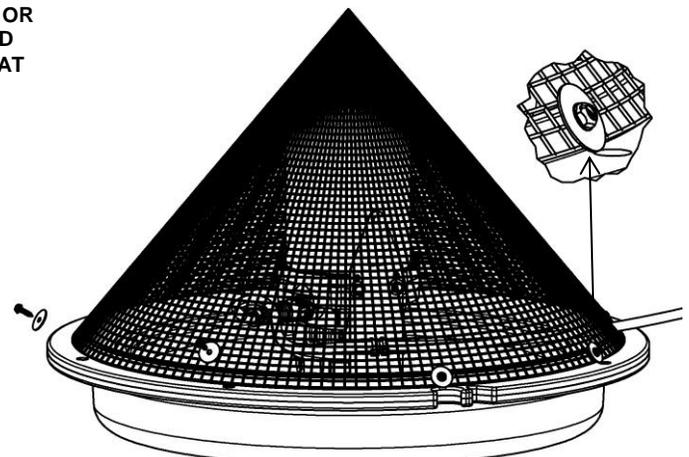


**WHEN NOT USING
SCREEN REPLACE
SCREWS INTO HOLES
ALWAYS PLUG OR
SEAL UNUSED
HOLES IN FLOAT**

TIE CABLE
TO FLOAT

USE SCREEN TO PREVENT PUMP CHAMBER
CLOGGING DUE TO LARGE DEBRIS
(GEMINI & HIGH VOLUME LESS PRONE TO CLOGGING)

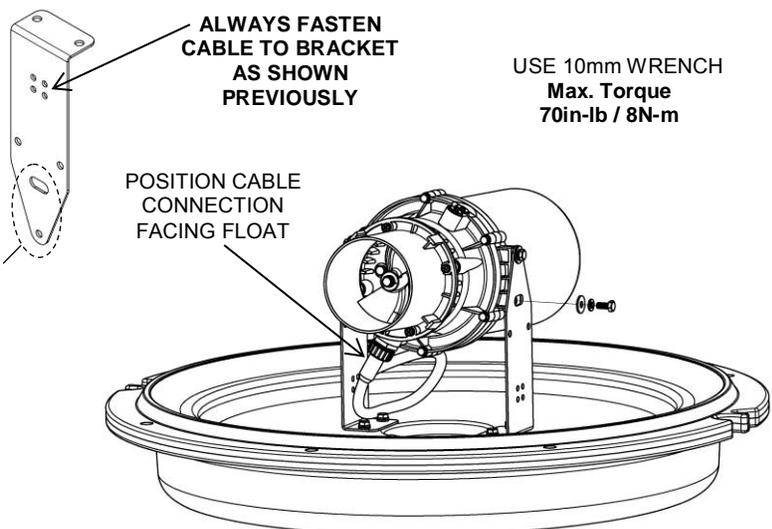
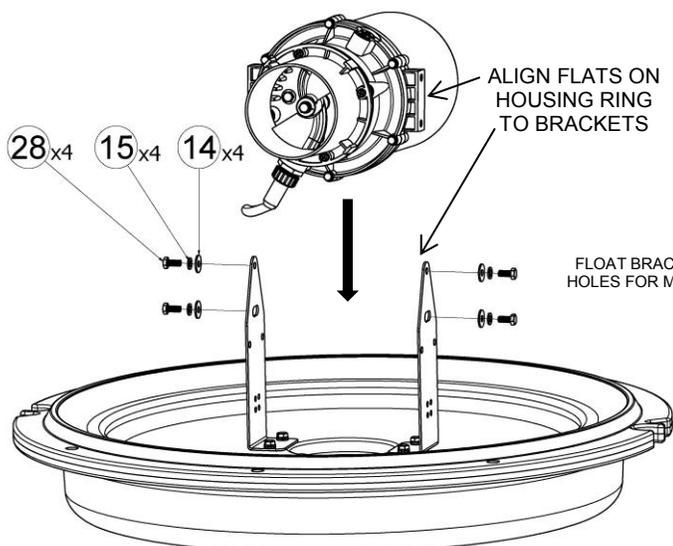
FASTEN SCREEN (8) PLACES EVENLY SPACED
USE DRIVER OR PRE-DRILL 3/32" (2.5mm) HOLES



FRACTIONAL SERIES MIXER ASSEMBLY

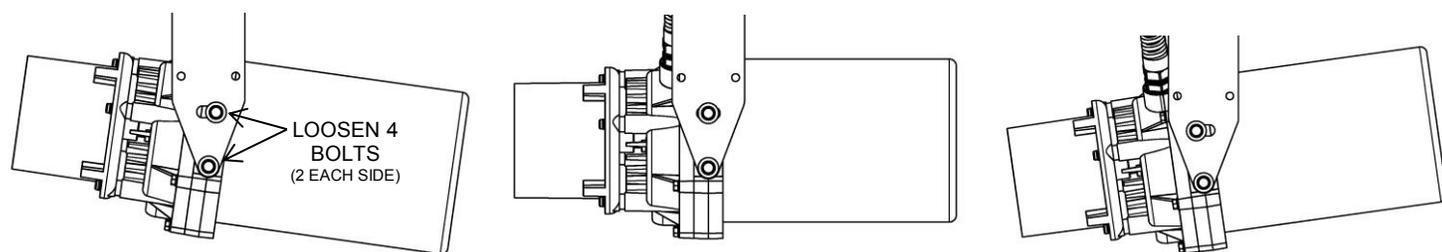
STEP 1 – PLACE POWER UNIT BETWEEN BRACKETS

STEP 2 – POSITION UNIT & TIGHTEN BOLTS



FRACTIONAL SERIES MIXER PITCH ADJUSTMENT

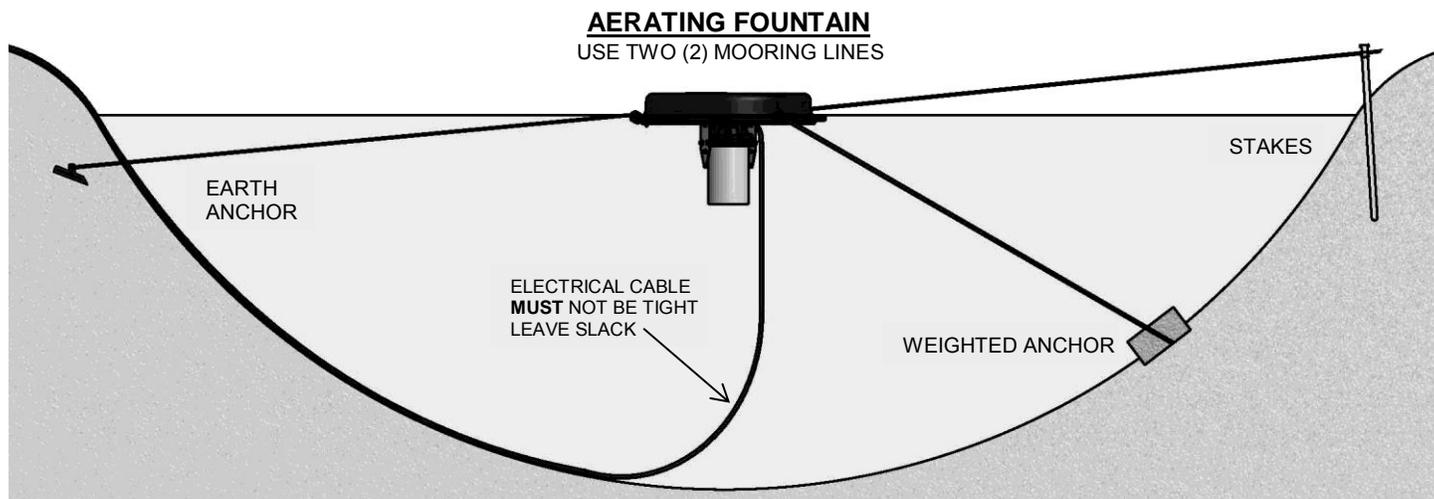
LOOSEN BOLTS, POSITION & TIGHTEN Max. Torque 70in-lb / 8N-m



PREPARE UNIT TO LAUNCH

WARNING: DISCONNECT POWER BEFORE INSTALLING, REMOVING, OR SERVICING UNIT

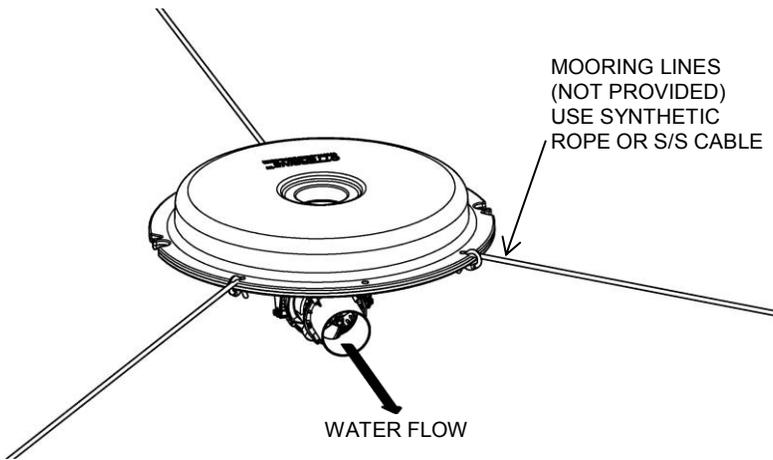
STEP 1 – FASTEN MOORING LINES (MOORING LINES NOT PROVIDED USE SYNTHETIC ROPE OR S/S CABLE)
TIE MOORING LINES TO SHORE MOUNTED STAKES, EARTH ANCHORS OR WEIGHTED ANCHORS (USE A MINIMUM OF 15lb/7kg EACH)



STEP 2 – FASTEN MOORING LINES & LAUNCH

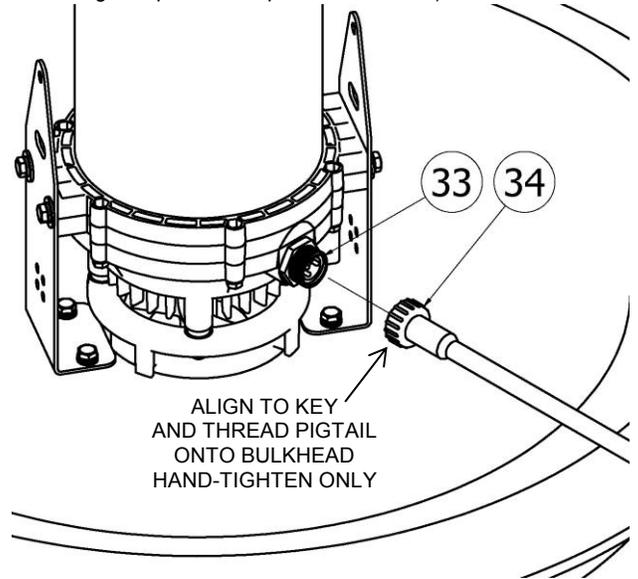
MIXER

TIE THREE (3) MOORING LINES TO FLOAT AS SHOWN BELOW

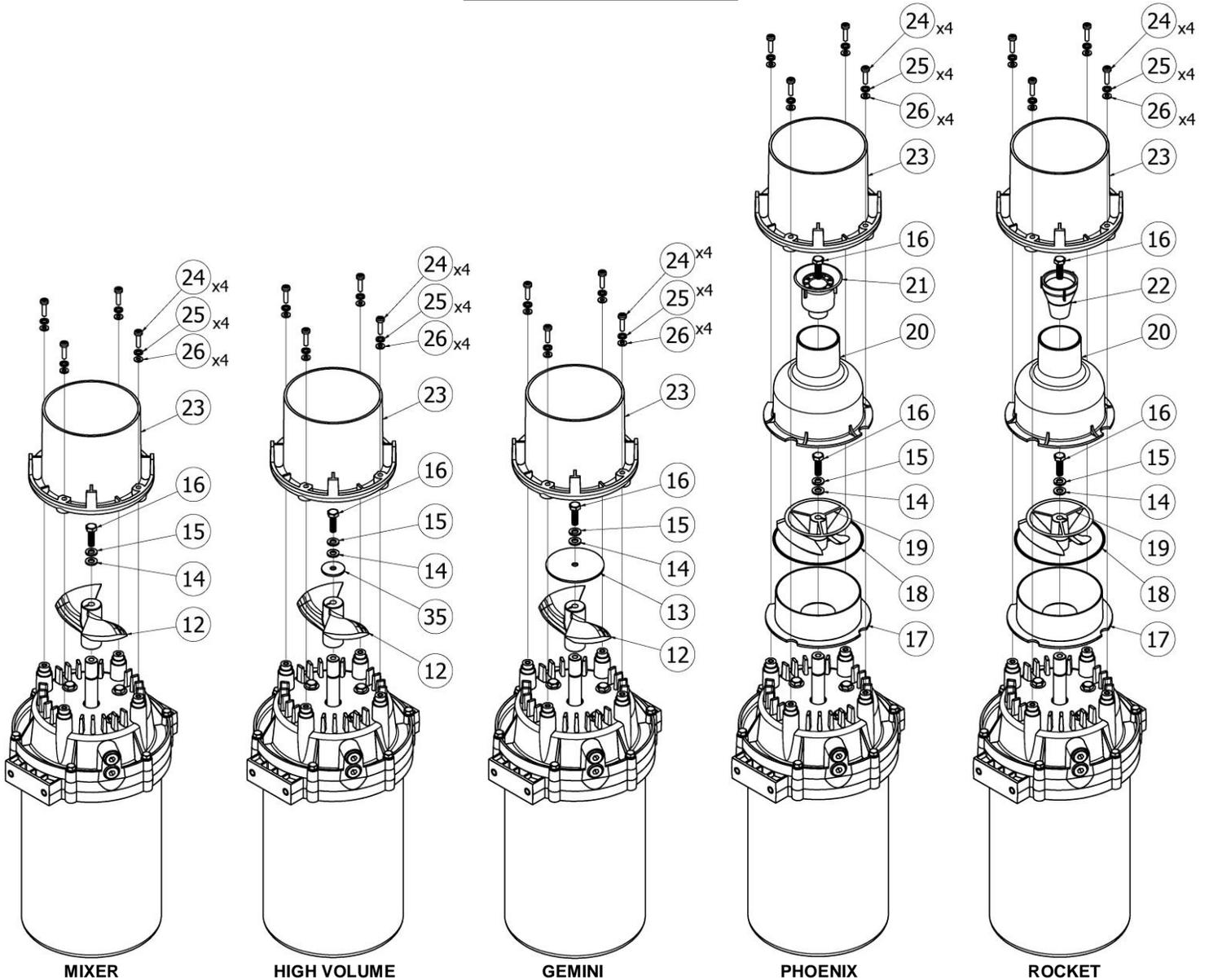


STEP 3 – ELECTRICAL CONNECTOR

(Bulkhead/Pigtail Optional - Skip when hardwired)



PATTERN ASSEMBLY



Limited 2 Year Warranty Otterbine® Product

WARRANTY: Barebo, Inc 3840 Main Road East, Emmaus Pennsylvania 18049, U.S.A. hereby warrants, subject to the conditions herein below set forth, that should the **OTTERBINE** product prove defective by reason of improper workmanship or materials at any time during the warranty period the Purchaser at retail will be guaranteed that **BAREBO** will repair or replace the said **OTTERBINE** product as may be necessary to restore it to satisfactory operating condition, without any charge for materials or labor necessarily incident to such repair or replacement, provided that:

- a) For proper warranty consideration register on line at: www.otterbine.com/warrantyform and/or return the warranty registration card by mailing it to **BAREBO** within fifteen (15) days of the original receipt by the Purchaser at retail in order to avoid delays:
- b) The OTTERBINE product must be delivered or shipped, prepaid, in its original container or a container offering an equal degree of protection, to BAREBO or a facility authorized by BAREBO to render the said repair or replacement services or, if purchased from an authorized OTTERBINE dealer, to such dealer;
- c) The OTTERBINE product must not have been altered, repaired or serviced by anyone other than BAREBO, a service facility authorized by BAREBO to render such service, or by an authorized BAREBO dealer, and the serial number of the OTTERBINE product must not have been removed or altered: and
- d) The OTTERBINE product must not have been subjected to lightning strikes and other Acts of God, vandalism, freezing-in, accident, misuse or abuse, and must have been installed in conformance with applicable electrical codes (including proper electrical protection), and also installed, operated and maintained in accordance with guidelines in the Owner's Manual shipped with the Otterbine product.

No implied warranties of any kind are made by BAREBO in connection with this OTTERBINE product, and no other warranties, whether expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, shall apply to this OTTERBINE product. Should this OTTERBINE product prove defective in workmanship or material, the retail Purchaser's sole remedy shall be repair or replacement as is hereinabove expressly provided and, under no circumstances, shall BAREBO be liable for any loss, damage or injury, direct or consequential, arising out of the use of, or inability to use, the OTTERBINE product, including but not limited to retail Purchaser's cost, loss of profits, goodwill, damages due to loss of product or interruption of service, or personal injuries to Purchaser or any person.

FRACTIONAL SERIES AERATOR

HORSEPOWER: 1/2 VOLTAGE (circle one): 115 230

PHASE: Single HERTZ: 60

CORD: GAUGE _____ LENGTH _____

UNIT SERIAL NUMBER _____

PANEL SERIAL NUMBER _____

OPTIONS _____



Water Works With Otterbine!

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