BOAT HOIST
USA

Contact Boat Hoist USA
For All Your Boat Lifting Needs

Boat Hoist USA
P.O. Box 2883
Longview TX 75606

1-800-259-8715
Fax 903-758-3646

www.bh-usa.com

G.E. Motors
East Bay Motors
Leeson Motors

Furnas Switch
Bremuas Switch

Information Packet

Review All Pages Of Packet
Before Installation

If you are not a licensed electrician
DO NOT attempt to wire or re wire any electrical component.
Contact a licensed electrician.

BOAT HOIST
USA

1-800-259-8715

Please keep this instruction book in a safe place for future reference

BREMAS

Maintain & Spring Switch

Wiring Diagram
110 volt or 220 volt

GFCI Plug to Switch:

GFCI Plug Black Wire to Switch Terminal L1

GFCI Plug White Wire to Switch Terminal L2

GFCI Plug Green Wire to Control Cable Green Ground Wire with Wire Nut
(Control cable ground wire may be Yellow)

Control Cable from Motor to Switch:

Orange Wire to Switch Terminal # 12

Red Wire to Switch Terminal # T-2

Black Wire to Switch Terminal # 8

White Wire to Switch Terminal # T-1

Connect Control Cable Green Ground Wire to GFCI Plug Green Wire with Wire Nut
(Control Cable ground wire may be Yellow)

For Switch to GE Motor Wiring Instructions, See Page 2 of this Pamphlet

For Switch to East Bay Motor Wiring Instructions, See Page 4 of this Pamphlet

GE MOTOR
1.5 HP Motor only
Switch to Motor Wiring Procedures

115VAC Operation with Reversing Switch

1. Connect Switch Black Wire to Motor Terminal 1.
2. Connect Motor Red Wire to Switch White Wire with Wire Nut.
3. Connect Motor Blue Wire to Motor Terminal 5.
4. Connect Motor Black Wire to Switch Red Wire with Wire Nut.
5. Connect Motor White Wire to Motor Terminal 2
6. Connect Switch Orange Wire to Motor Terminal 2.
7 Connect Switch Green Wire to Ground Screw.

230VAC Operation with Reversing Switch

1. Connect Switch Black Wire to Motor Terminal 1.
2. Tie off Switch White Wire with wire nut.
3. Connect Motor Red Wire and Motor White Wire to Motor Terminal 5.
4. Connect Motor Blue Wire to Motor Terminal 4.
5. Connect Motor Black Wire to Switch Red Wire with wire nut.
6. Connect Orange Wire to Motor Terminal 2.
7. Connect Switch Green Wire to Ground Screw.

For Wiring Motor To Switch See Page 6 For Furnas and Page 7 For Bremas

East Bay Motor
Wiring Procedure for East Bay 3/4 hp, 1 hp & 1.5 hp From Switch to Motor

115VAC Operation with Reversing Switch

1. Remove motor connection box cover
2. Cut and strip wires on switch harness, slightly bend wires on switch harness and position through connector opening.
3. Insert and crimp fork or eye type terminal on SWITCH GREEN and female spade type terminals on SWITCH RED, SWITCH BLACK, SWITCH WHITE & SWITCH ORANGE.
4. Position SWITCH GREEN under case grounding screw—tighten down. Check to make sure wire will not pull free.
5. Position SWITCH WHITE on motor spade terminal B.
6. Position SWITCH RED on motor spade terminal A.
7. Position SWITCH BLACK on motor spade terminal D. .
8. For 115VAC operation, make sure MOTOR YELLOW is connected to motor terminal 5 and MOTOR BLUE is connected to motor terminal 2.

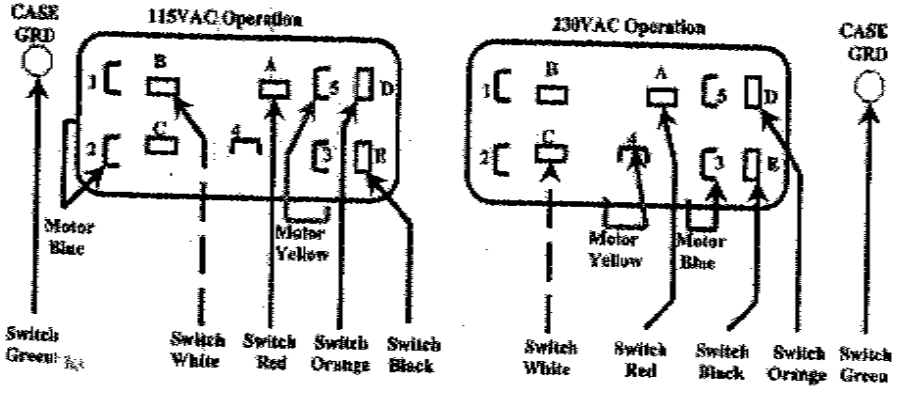
230VAC Operation with Reversing Switch

Steps 1 through 4 same as above.

5. Position SWITCH WHITE on motor terminal C.

Step 6 through 8 same as above.

9. For 230VAC operation, make sure that MOTOR YELLOW is connected to motor terminal 4 and MOTOR BLUE is connected to motor terminal 3.



For Wiring Motor To Switch See Page 6 For Furnas and Page 7 For Bremas

Furnas

Maintain & Spring Switch

Wiring Diagram

110 volt or 220 volt

GFCI Plug to Switch:

GFCI Plug Wire Black to Switch Terminal L1

GFCI Plug Wire White to Switch Terminal L2

GFCI Plug Green Wire to Control Cable Green Ground Wire with Wire Nut.
(Control cable ground may be yellow.)

Control Cable from Motor to Switch:

Black Wire to Switch Terminal #1

Red Wire to Switch Terminal #2

Orange Wire to Switch Terminal #3

White Wire to Switch Terminal #4

Connect Control Cable Green Ground Wire to GFCI Plug Green Wire with Wire Nut.
(Control Cable ground wire may be Yellow)

For Switch to G E Motor Wiring Instructions, See Page 2 of this Pamphlet

For Switch to East Bay Motor Wiring Instructions, See Page 4 of this Pamphlet

GE Motor

Converting 115VAC to 230VAC Operation

For GE 3/4 hp and 1 hp Motors Only

1. Remove motor connection box cover
2. Remove wire nut connecting MOTOR RED to SWITCH WHITE. Insert & crimp spade connector on MOTOR RED lead.
3. Connect MOTOR RED to terminal #5
4. Tie off SWITCH WHITE (put wire nut on end of wire)
5. For 230V operation, move MOTOR BLUE from terminal #5 to terminal #4
6. Remove wire nut connecting MOTOR YELLOW, MOTOR WHITE, & SWITCH ORANGE. Insert and crimp spade connector on MOTOR WHITE.
7. Re-connect MOTOR YELLOW & SWITCH ORANGE using wire nut, check tightness to make sure wires do not pull free.
8. Connect MOTOR WHITE to terminal #5
9. Verify motor is wired correct for 230V operation by checking 230V wiring schematic for motor and reversing switch.
10. Check operation of motor.
11. Put cover on motor....load test.

NOTE:
To reverse direction of motor, swap Switch Orange with Switch Black

WIRE SIZE CHART

# Motors	hp	Amps to run 120V	Amps to run 240V	50ft @ 120V	50ft @ 240V	100ft @ 120V	100ft @ 240V	200ft @ 120V	200ft @ 240V	300ft @ 120V	300ft @ 240V	400ft @ 120V	400ft @ 240V
1	½	8.8	4.4	#14	#14	#12	#14	#8	#12	#6	#12	#6	#10
1	¾	10.8	5.4	#14	#14	#10	#14	#8	#12	#6	#12	#4	#10
1	1	12.8	6.4	#12	#14	#10	#14	#6	#12	#4	#12	#4	#10
1	1½	17.0	8.5	#12	#14	#8	#12	#6	#10	#4	#10	#2	#8
2	½	17.6	8.8	#10	#12	#8	#12	#6	#10	#4	#8	XX	#6
2	¾	21.6	10.8	#10	#12	#8	#12	#4	#10	#2	#8	XX	#6
2	1	25.6	12.8	#8	#10	#8	#10	#4	#10	#2	#6	XX	#4
2	1½	34.0	17.0	#8	#10	#6	#10	#2	#8	#0	#4	XX	#2
4	½	XX	17.6	XX	#12	XX	#10	XX	#8	XX	#6	XX	#4
4	¾	XX	21.3	XX	#10	XX	#10	XX	#8	XX	#6	XX	#4
4	1	XX	26.0	XX	#10	XX	#8	XX	#6	XX	#4	XX	#2
4	1½	XX	34.0	XX	#8	XX	#6	XX	#4	XX	#2	XX	#0

G E Motor

115VAC Wiring Procedure for 3/4 and 1 hp GE Motor only From Switch to Motor

1. Remove motor connection box cover.
2. With needle nose pliers, pull Motor Yellow. Motor White and Motor Red leads from terminal board. Clip and strip ends
3. For 115V operation, move Motor Blue from terminal 4 to terminal 5.
4. Pop out plug on top of motor and position connector. Tighten ring connector.
5. Remove clamp cover on connector.
6. Cut & strip wires on switch harness. Slightly bend wires on switch harness and position through connector opening.
7. Insert clamp cover on connector. Tighten screws all the way in.
8. Insert and crimp fork type terminal on Switch Green and spade type terminals on Switch Red and Switch Black.
9. Position Switch Green under green grounding screw—tighten down. Check to make sure wire does not fall free.
10. Position Switch Black on spade terminal 1.
11. Position Switch Red on spade terminal 2.
12. Tie Motor Red to Switch White with wire nut. Check tightness and insure wires do not pull free.
13. Tie Motor Yellow and Motor White to Switch Orange with wire nut. Check tightness to insure wires don't pull free.
14. Check operation of motor.
15. Put cover on motor. Load Test

G E Motor

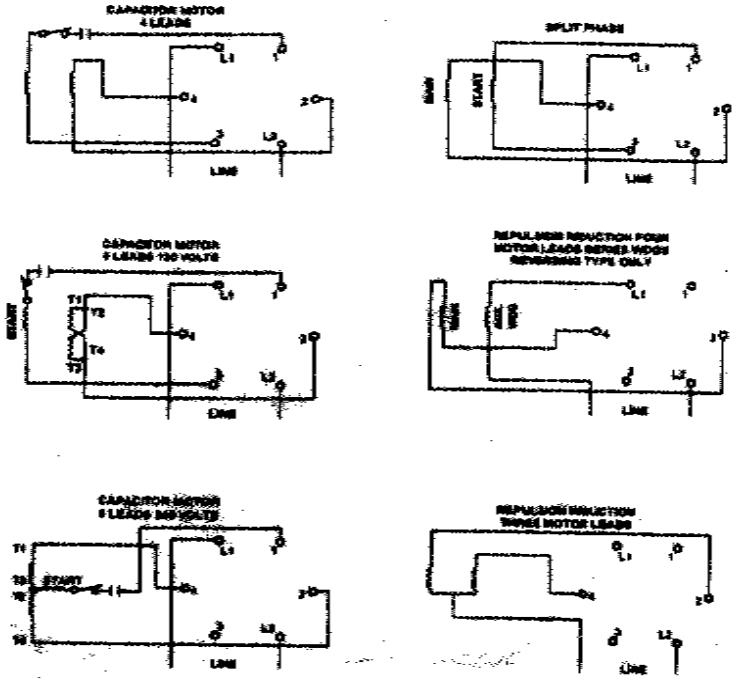
230VAC Wiring Procedure for 3/4 hp and 1 hp Motor only From Switch to Motor

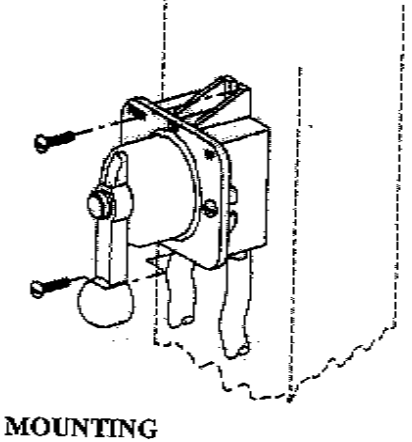
1. Remove motor connection box cover.
2. With needle nose pliers, pull Motor Yellow lead from terminal board. Clip and strip ends.
3. For 230V operation, insure that Motor White and Motor Red are connected to terminal 5, and Motor Blue is connected to terminal 4.
4. Pop out plug on top of motor and position connector. Tighten ring on connector
5. Remove clamp cover on connector.
6. Cut & Strip wires on switch harness. Slightly bend wires on switch harness and position through connector opening.
7. Insert clamp cover on connector, tighten screws all the way in.
8. Insert and crimp fork type terminal on Switch Green and spade type terminals on Switch Red and Switch Black.
9. Position Switch Green under green grounding screw—tighten down. Check to make sure wire does not pull free.
10. Position Switch Black on spade terminal 1.
11. Position Switch Red on spade terminal 2.
12. Tie Motor Yellow to Switch Orange with wire nut. Check tightness and insure wires do not pull free.
13. Tie-off Switch White with wire nut. Check tightness to insure that copper is not exposed.
14. Check operation of motor.
15. Put cover on motor, load test.

For Wiring Motor To Switch See Page 6 For Furnas and Page 7 For D

Furnas Switch

Wiring Diagrams for common AC single phase motors



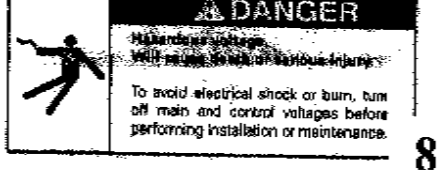


MOUNTING

1. The switch is designed to be mounted in a vertical position, such as on a post, with two screws or bolts. The handle of the switch will point downward and the wires protrude from the bottom when the switch is mounted properly. There are also instructions on the back side of the switch with an arrow showing how to mount the device: "THIS SIDE UP"

WIRING

1. Insert the wires through the holes in the bottom of the case. Trim off any unnecessary parts of the strain relief.
2. The wiring diagrams shown above are for some common AC single phase motors. Connect the wires to the terminal numbers molded into the switch according to the motor that is being used. Insulated type connectors must be used to attach to terminals. Stripped bare wire can not be used on these terminals.
3. If you have a different motor than the GE, East Bay or the ones shown above or if further information is required, please consult the manufacturer of the motor you are using.



LIMITED WARRANTY

G.E. , East Bay Motors
Switch and GFCI

Boat Hoist USA guarantees to the original purchaser that the G.E. or East Bay Motor and wiring components are free from defective materials and workmanship for a period of 1 year from the date of purchase from Boat Hoist USA or an authorized Boat Hoist USA dealer. Boat Hoist USA will replace motor, switch or GFCI that is found to be a manufacturers' defect. This limited warranty is valid only when this product is used under normal conditions of recommended use as outlined in this packet. Boat Hoist USA will only replace merchandise or products manufactured or supplied by Boat Hoist USA. If this motor is purchased without wire harness supplied and wired to motor by Boat Hoist USA it will be the consumer's responsibility to have a licensed electrician perform all wiring procedures.

Boat Hoist USA requires the following procedure to obtain credit for warranted items:

1. Item must be returned to Boat Hoist USA at consumer's expense, with a letter detailing the defect, date purchased and where purchased. Consumer must call Boat Hoist USA to receive a RMA number before returning item.
2. Item will be tested and if determined to be under warranty, a replacement will be sent at Boat Hoist USA's expense.
3. If Boat Hoist USA determines item is not covered under warranty, consumer will be contacted. Item will be returned at consumer's expense if requested.
4. Consumer mailing and shipping address must accompany all returned items.

The following items, but not limited to these items, will void warranty

1. Motor has been operated with low voltage. Motor must maintain adequate voltage while under load.
2. The motor has been wired incorrectly.
3. Motor has been subjected to a power surge or lightning strike.
4. Motor, GFCI or switch has been submerged under water.
5. Totally Enclosed Non-Venting (TENV) motors being operated in excess of 15 minute limit.
6. Using motor to lift more than rating.
7. Using motor for any use other than what it is intended to be used for.
8. Any physical damage to the motor caused by abuse.

In order to make a warranty claim the consumer should send item to

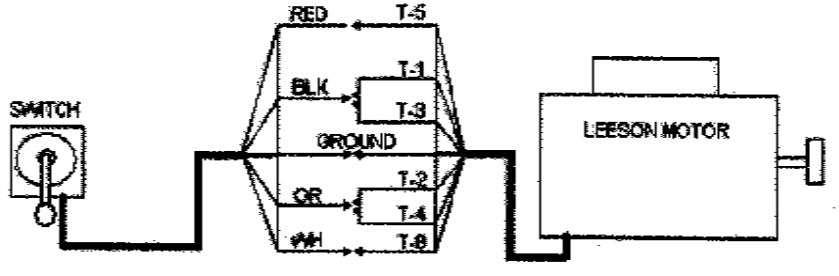
Boat Hoist USA Warranty Department at P.O. Box 2883, Longview TX 75606
or ship large items to 2368 FM 2087 N, Longview TX 75603

1 800 259 8715

LEESON MOTORS
3/4hp 1hp 1.5hp
Switch to Motor Wiring Procedures

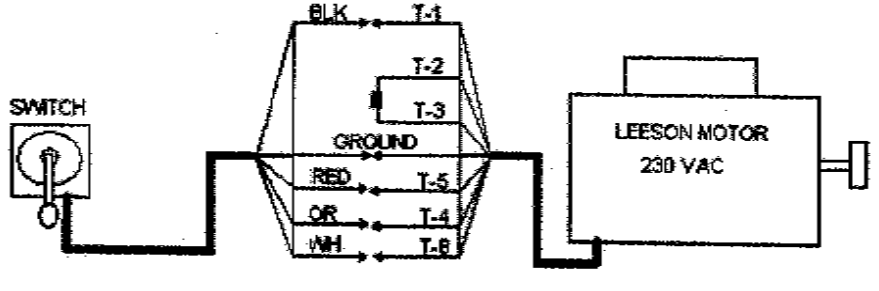
115VAC Operation with Reversing Switch

1. Connect Switch Black With Motor Wire T-1and T-3
2. Connect Switch White With Motor Wire T-8
3. Connect Switch Orange With Motor Wire T-2 and T-4
4. Connect Switch Red With Motor Wire T-5
5. Connect Switch Ground to Motor Ground



230VAC Operation with Reversing Switch

1. Connect Switch Black With Motor Wire T-1
2. Connect Switch White With Motor Wire T-8
3. Connect Switch Orange With Motor Wire T-4
4. Connect Switch Red With Motor Wire T-5
5. Connect Motor Wire T-2 and T-3 Together
6. Connect Switch Ground to Motor Ground



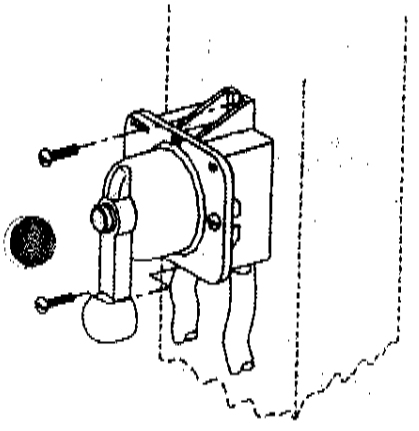
Boat Hoist USA Switch Wiring Instructions
(for use with the Salzer Switch)

From Motor Wire to Switch:

Connect Wire Color	to	Switch Terminal Number
White		2
Red		4
Black		8
Orange		12
Green		Wire nut together with Line in green

Line in from GFCI to Switch:

Connect Wire Color	to	Switch Terminal Number
Black		1
White		3
Green		Wire nut together with motor wire green



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