



US Department
of Transportation
Federal Aviation
Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

WP 27 NCB

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Republic	Model RC-3
	Serial No. 1000	Nationality and Registration Mark N5166B
2. Owner	Name (As shown on registration certificate) Davey Darrell L Davey Deborah A	Address (As shown on registration certificate) 6613 Santa Rosa Rd Camarillo Ca 93012-5672

3. For FAA Use Only

The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, Section 43.7

9-20-99 Mike Blase
DATE SIGNATURE OAK-FSDO

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				<input checked="" type="checkbox"/>
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Kenneth L. Thompson PO Box 411 Vineburg, Ca. 95487	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 545767051
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 9-20-99	Signature of Authorized Individual <i>Ken Thompson</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 9-20-99		Certificate or Designation No. 552273581	Signature of Authorized Individual Douglas P. Smith	

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

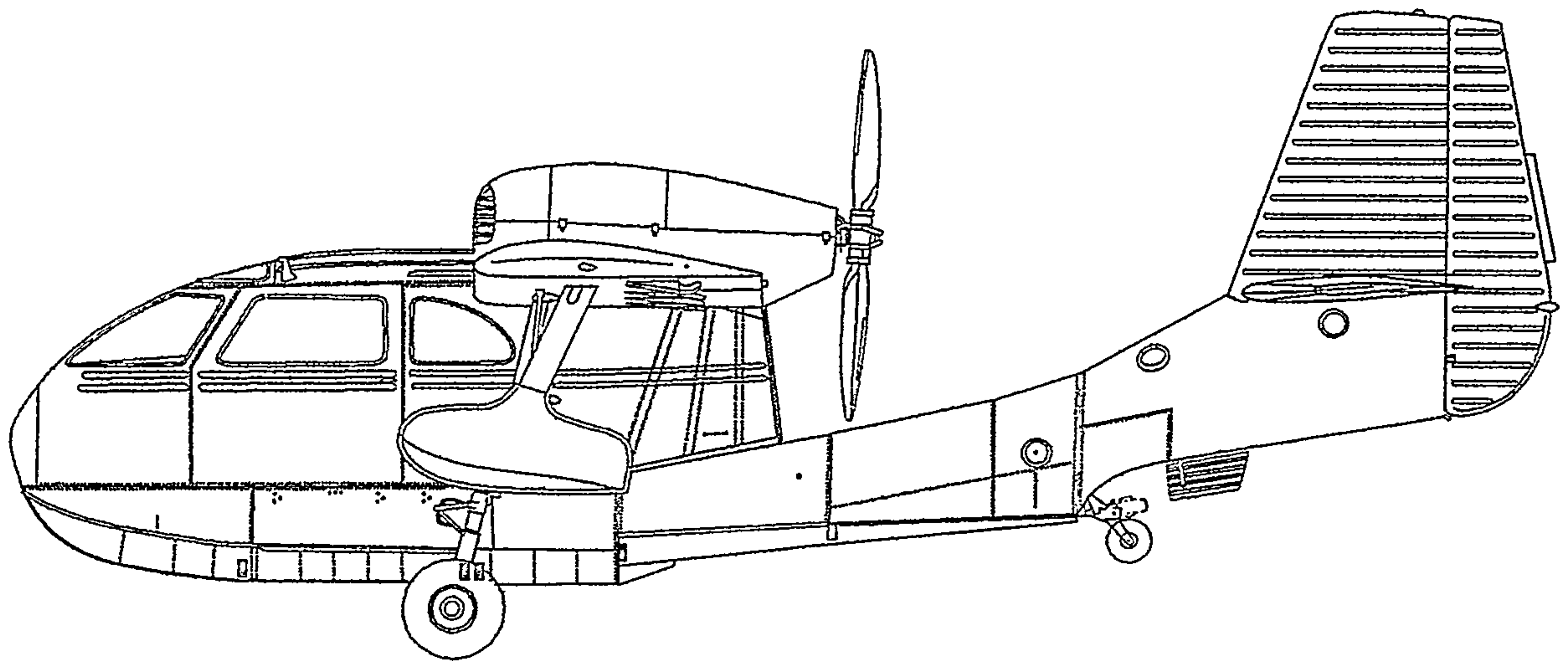
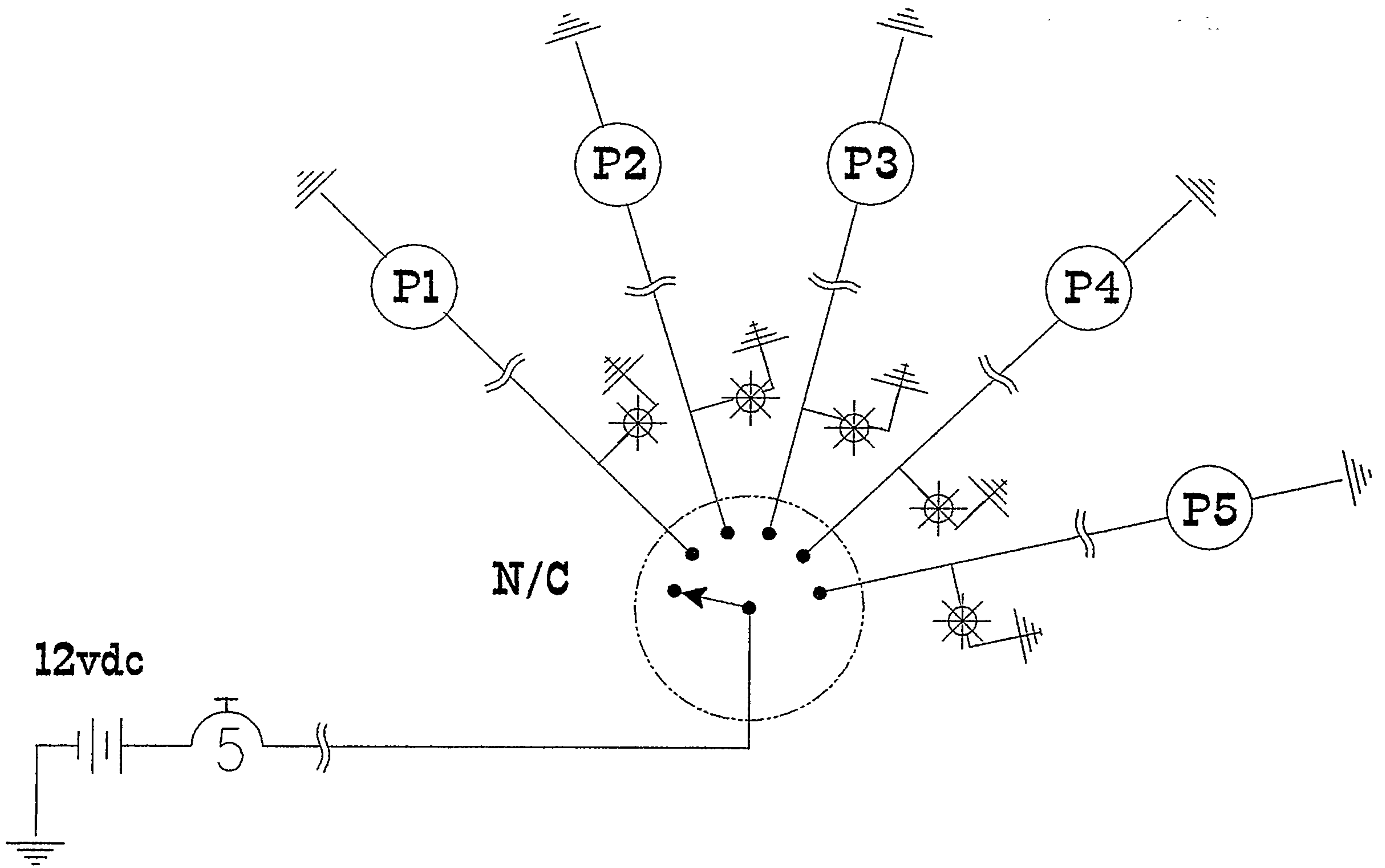
Republic RC-3 Ser#1000 N5166B

2. Description: Installed 5ea. ITT Jabsco submersible bilge pump mode# 30220-0012 to the bottom fuselage skin at locations shown in attached drawing. Pump housing secured to bottom skin with PRC 1422-B2 polysulfide sealant. Pumps are controlled with an instrument panel mounted 6 position rotary switch, Electroswitch series C4, type C4D0606 with LED indicator lights type MR3051. Pump circuit by passes the master switch with circuit protection provided by a 5 amp Potter & Brumfield circuit breaker part# W23X1A1G5 in accordance with FAR 23.1361 (b) (2) (3). Pump exhaust (5) fabricated from 1/2" tubing welded to .040 sheet and bonded to fuselage with polysulfide connect to pump with vinyl hose. Work done in accordance with ITT Jabsco installation instructions form 43000-0488 and AC 43.13 1A, Ch. 11, section 2, para.424, 429, section 3, para. 442, 443, 445 thru 451, fig. 11.7a, section 7, para. 514 thru 520
3. Control, operation information: Reference Kenair Bilge Pump Operation Sheet BP1
4. Servicing information: None
5. Maintenance instructions: Must be inspected annually in accordance with FAR 43 appendix D.
6. Trouble shooting information: None
7. Removal and replacement information: Reference ITT Jabsco installation instructions form 43000-0488
8. Diagrams: Attached
9. Special inspection requirements: None
10. Application of protective treatments: None
11. Data: None
12. List of special tools: None
13. For commuter category aircraft: N/A
14. Recommended overhaul periods: No additional overhaul time limitations
15. Airworthiness limitation section: Placard installed near switch "Water Use Only"
16. Revision: A letter will be submitted to the local FSDO with a copy of the revised FAA form 337

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Additional Sheets Are Attached

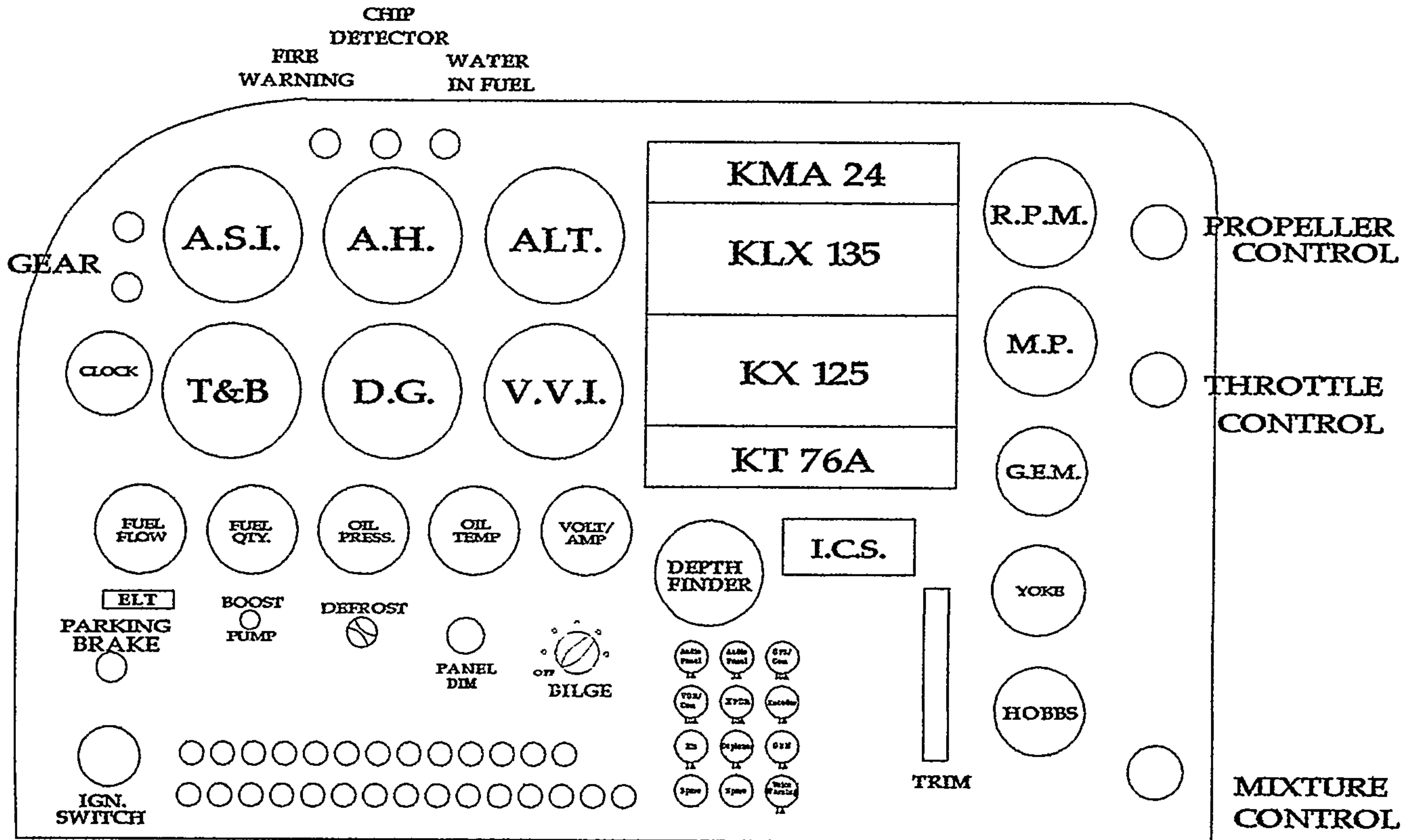
*U.S.GPO:1994-568-012/00019



8-25-99

RC-3 N5166B SER#1000

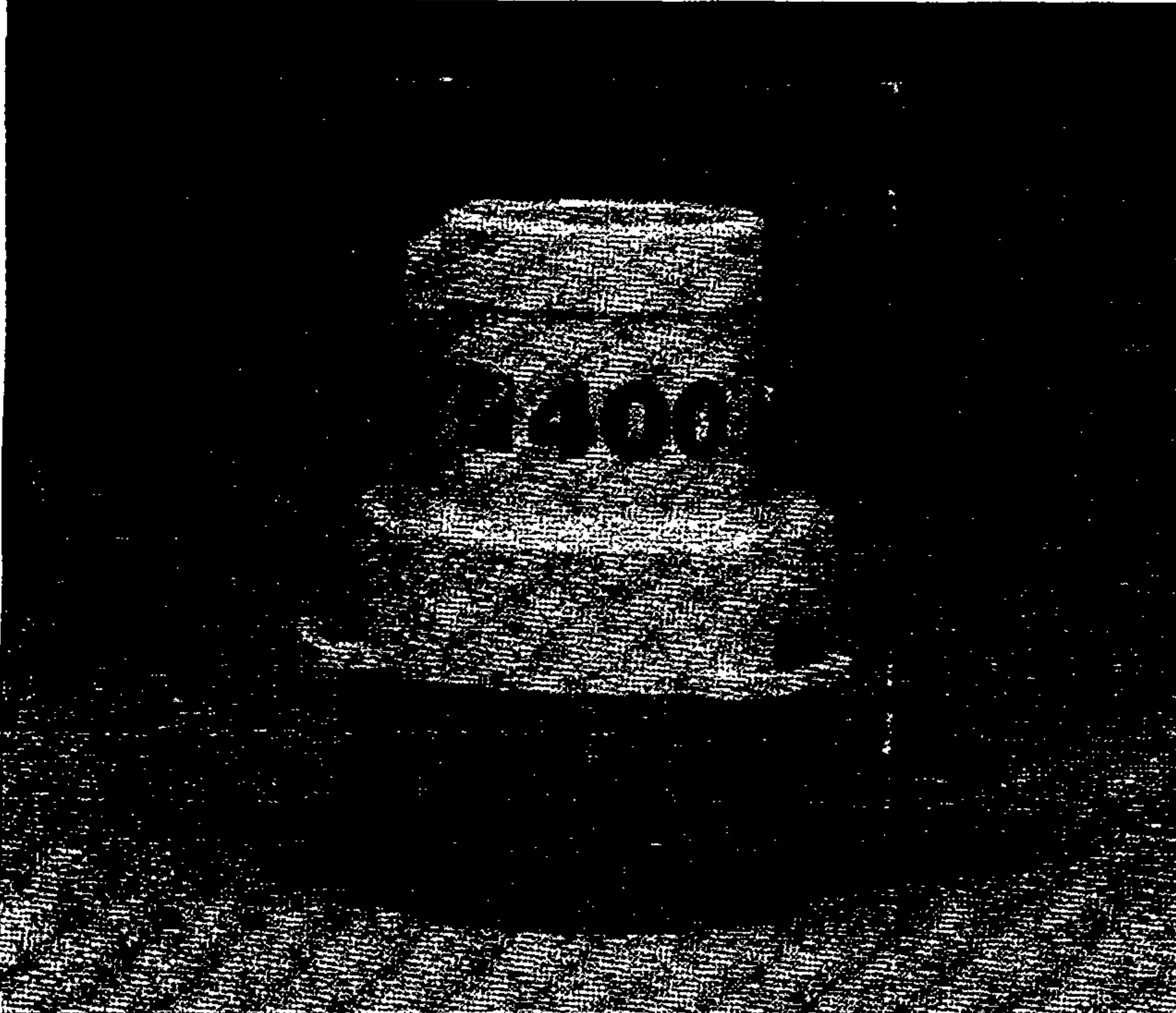
Bilge Pump control location



9-20-99

JABSCO

**Submersible
Bilge Pump
Model 30220-0012**



INSTALLATION

For maximum water evacuation the pump should be located in the lowest point of the bilge. Determine the best location and pump position for ease of plumbing and direct routing of discharge hose. Mark the location of the strainer base, and position of base locking tabs. Rotate pump housing counterclockwise to separate pump from base.

The strainer base may be attached to the Bilge with either small stainless steel sheet metal screws (#8 x 5/8" - 3/4" are adequate) or a polysulfide based sealing compound.

Use screws only if you are positive bottom thickness is greater than the depth of penetration of the screw. When drilling holes it is advisable to wrap a piece of tape around the drill bit so the edge of the tape marks the maximum hole depth required. Position base and align locking tabs with position previously marked and mark position of the two mounting screw holes in the base. Very carefully drill two (2) holes where marked and secure base to bottom with stainless steel screws. Do not crack base by over tightening screws. Position the pump housing onto the base and rotate clockwise until it stops.

A quality polysulfide based sealing compound may be used as an adhesive to secure the strainer base in the bilge. Ensure the area marked for mounting pump is thoroughly clean and free of oil residue. Apply a liberal amount of sealant on bottom of strainer base to 1/2" x 1/2" adhesive pads on each side of base. Press the base onto the bottom in the position marked, ensuring the base locking tabs align with their respective marked position.

Allow the sealant to cure in accordance with the manufacturer's instructions (generally 8 to 24 hours) then position the pump housing onto the base, and rotate clockwise until it stops.

DESIGN FEATURES

- Large Strainer Base To Protect Pump From Debris
- Low Amp Draw
- Pump Is Ignition Protected For Maximum Safety
- Stainless Steel Shaft Will Not Rust Or Corrode
- N.M.M.A. Type Accepted

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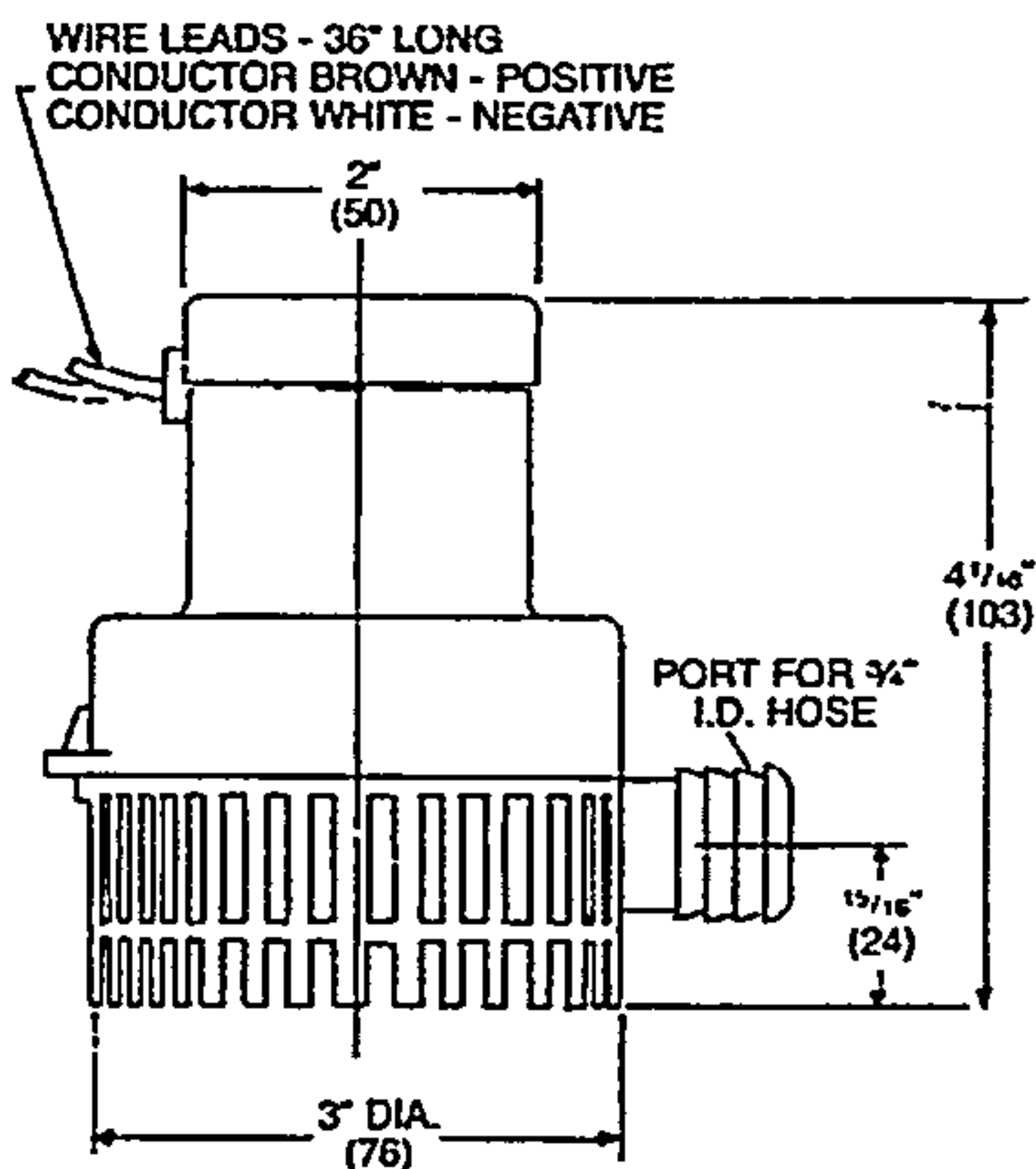
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PLUMBING

Submersible Bilge Pumps must be plumbed to a thru-hull fitting which remains above the waterline at all angles of heel or trim (sailboats generally discharge through or below the transom). If installing a new discharge hose, the pump will operate at its greatest capacity if bends are kept to a minimum and the overall length is as short as possible. To prevent water traps in the discharge hose, it should rise continuously from the pump to the thru-hull fitting with no dips where water can collect. Attach the 3/4" hose to the pump port (and thru-hull fitting) securely with stainless steel band clamps.

DIMENSIONS

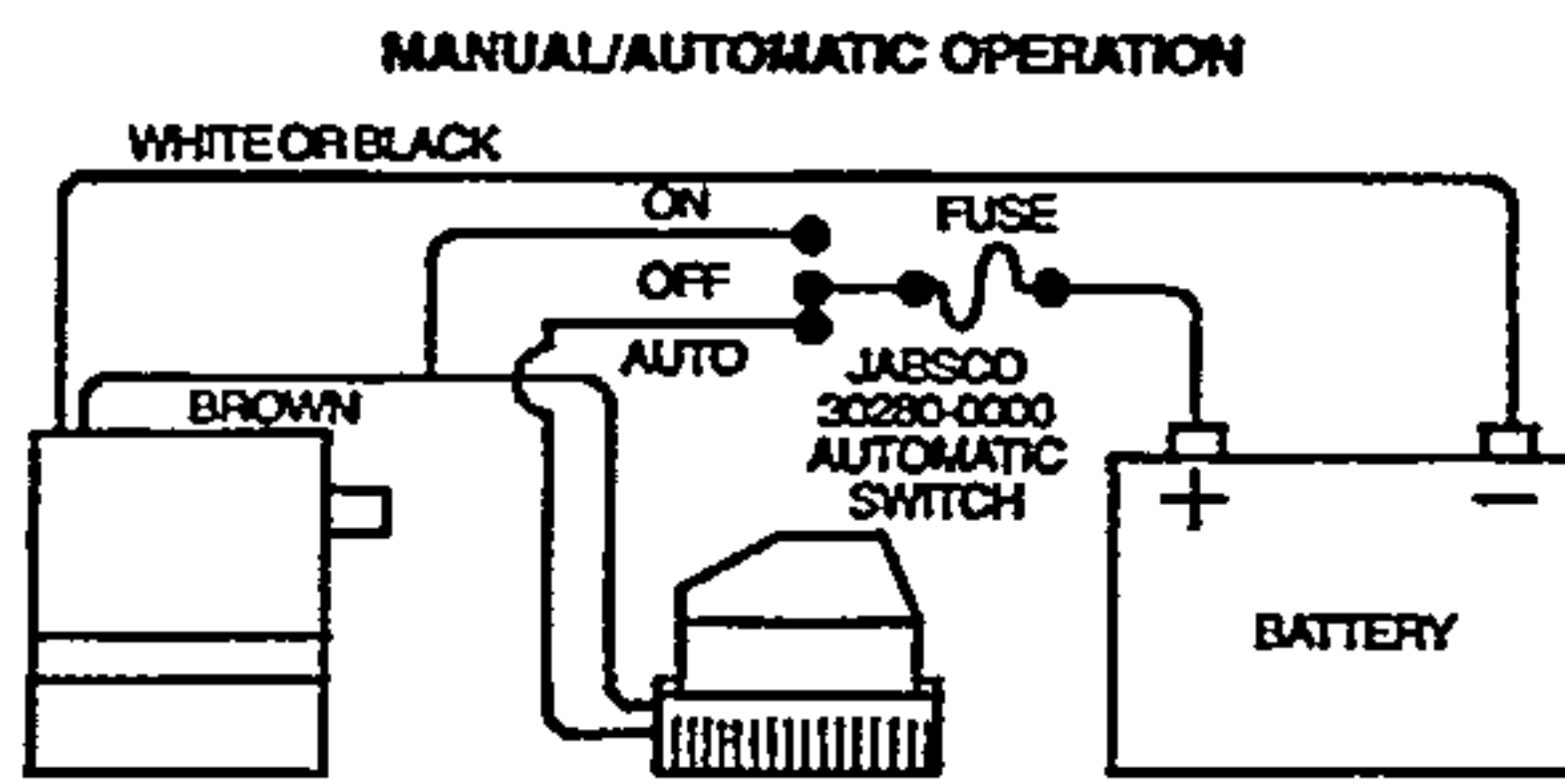
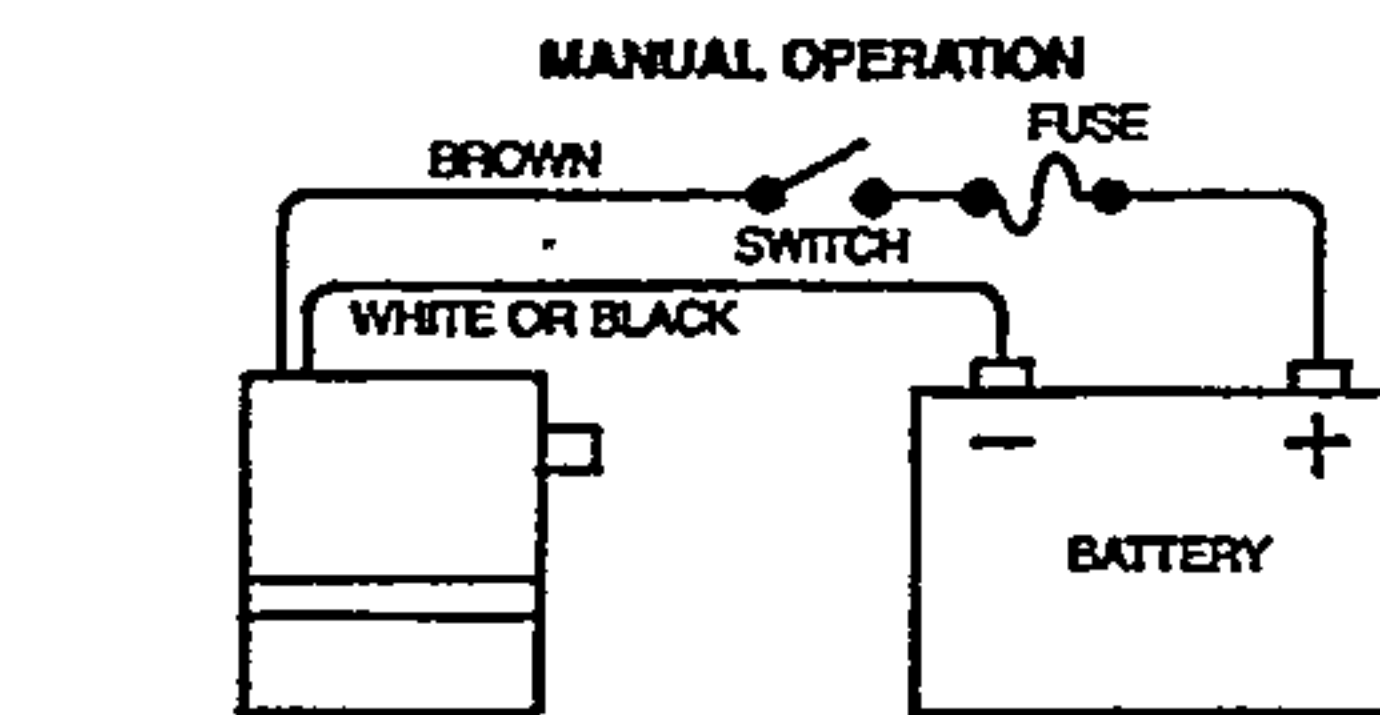
INCHES (MM)



ELECTRICAL WIRING

WARNING: FIRE HAZARD. ELECTRICAL CIRCUITS NOT PROTECTED WITH A PROPER SIZE FUSE OR CIRCUIT BREAKER MAY CAUSE A FIRE RESULTING IN INJURY OR DEATH. INSTALL A PROPER SIZE FUSE OR CIRCUIT BREAKER IN THE POSITIVE LEAD AS CLOSE TO THE POWER SOURCE AS POSSIBLE.

The Jabsco Submersible Pump may be wired for manual operation or for maximum security and versatility for both manual and automatic operation with the addition of a float switch. To ensure maximum performance, use a quality marine grade 16 gauge wire.* The circuit should be protected with a 2 1/2 amp fuse. To comply with A.B.Y.C. standards, the positive lead should be brown and negative lead white or black. They should be supported with non-metallic clamps every 18". When making wire connections use only mechanical locking connectors (crimp type or equivalent) and make all connections above the maximum bilge water level. Connections exposed to humid bilge environments may be sealed with silicone to prevent internal corrosion within the connector.



* Recommended wire size to allow no more than 10% drop in voltage.

OPERATION

When installed in the lowest part of the bilge the Jabsco Submersible Pump will evacuate water down to a depth of 1/2". If wired for automatic operation, however, this depth may vary due to the shut off limit of the control switch.

The pump can run dry periodically without damage. However, for maximum seal life, the run dry periods should be kept to a minimum.

MAINTENANCE

Jabsco Submersible Pumps require no periodic maintenance other than occasionally checking and possibly cleaning the pump strainer base. To do this, simply rotate pump housing counterclockwise and lift straight up. Inspect the strainer base and pump inlet port and remove any debris which is present. Realign pump assembly with base and push down, then rotate clockwise until it stops. When inspecting pump for debris it is advisable to check the hose connections to ensure they are tight.

THE PRODUCT DESCRIBED HEREIN IS SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.

ITT JABSCO

A Unit of ITT Corporation
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Kenair Aviation

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Bilge Pump Operation

The bilge pump is a 6 position rotary switch located in lower instrument panel. The master electrical switch does not need to be on for operation.

The extreme counter-clockwise position of the switch is "OFF". Rotating the switch clockwise will turn on 1 pump at a time. A red LED indicator will light when that pump is selected. Clockwise from "OFF" the pump sequence is #1, #2, #3, #4, #5 water compartments, with #1 compartment at the front of the aircraft.

If water is suspected to be present in bilge, such as an extended time in the water, before starting engine, move switch to activate each pump. Visually look at pump exhaust, located along left (pilot's) side of aircraft, for water jettison from pump exhaust ports. Continue running pump until there is no more water expelling from port. Repeat this procedure with all 5 positions. After all compartments are dry turn off pumps.

The bilge pump system in no way should be substituted for a visual inspection of the bilge for water accumulation.

To disable bilge pump system pull circuit breaker out located near battery compartment.