SUPPLEMENT TO GENERAL INSTRUCTIONS

THE ADJUSTMENT HOLE ON THE FAR RIGHT CORRESPONDS TO THE NUMBER ONE TANK IN THE TOP LEFT CORNER THE NEXT HOLE TO THE LEFT TO THE NEXT TANK DOWN AND SO ON

PUSH ON THE PIGTAIL SECURELY

WIRING TANK ONE - PURPLE TO MODULE RED
YELLOW TO MODULE BLUE
WIRING TANK TWO - GREEN TO MODULE RED
BROWN TO MODULE BLUE
WIRING TANK THREE - ORANGE TO MODULE RED
BLUE/WHITE TO MODULE RED
WIRING TANK FOUR - GRAY TO MODULE RED
BLUE TO MODULE BLUE

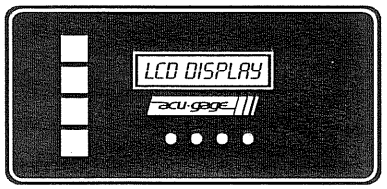
GROUND - WHITE

12 VOLT - RED

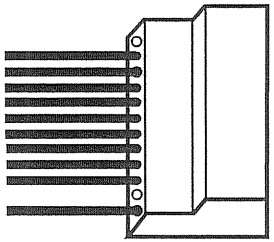
PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING

You are a valued customer and we look forward to answering any questions you may have regarding the installation or operation of this system.

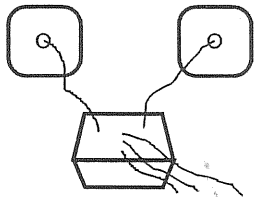
INCLUDED IN THIS KIT



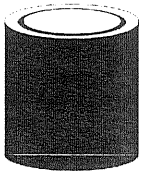
ONE PANEL



ONE PANEL CONNECTOR

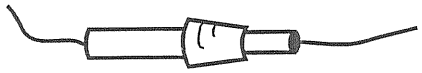


FOUR MODULES

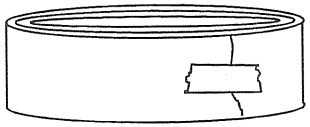


ONE CAN ADHESIVE

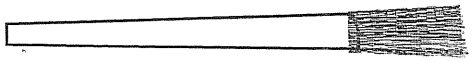
APPROXIMATELY 1 OZ.



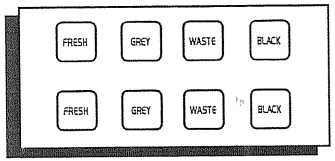
ONE FUSELINK



ONE ROLL FOIL TAPE



ONE APPLICATOR BRUSH



PANEL BUTTON STICKERS

2-FRESH 2-GREY
2-WASTE 2-BLACK

21 - BUTT CONNECTORS & 2 - WIRE NUTS

(NOT INCLUDED IN MARINE KITS)

ONE ADJUSTER TOOL

YOU WILL NEED TO PROVIDE:

A. 18 Gauge Hookup Wire
B. 4 Screws To Secure Panel

The design of this system allows you to customize the wiring and the display panel to monitor one, two, three or four holding tanks.

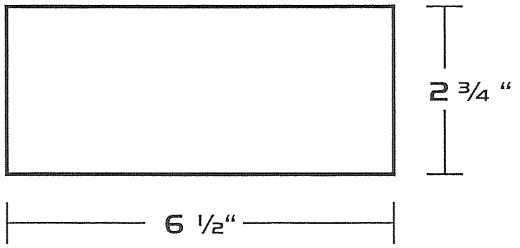
STEP ONE:
Location and Installation of Monitor Panel

NOTES: READ CAREFULLY

Choose a panel location that is convenient to see and reach and does not interfere with drawers, cabinets, existing wiring, etc. In choosing a location you must also give major consideration to the fact that wires must be routed from the panel to the holding tanks. MAKE CERTAIN the proposed wiring routes are not blocked by behind the wall stringers or other structural supports.

REFER TO FIGURE #1 and cut the panel opening as indicated. The panel will attach to the wall with 4 screws (not included), at the corners. Do no attach the panel to the wall until all other installation, calibration and testing has been completed.

FIGURE #1
Panel Cutout



STEP TWO:
Install Sensors Onto The Tank(s)

The sensors are comprised of two parts: The FOIL TAPE and the MODULE, (see illustrations on pages 1 and 2). Refer to Figure #2 and repeat the following steps for each tank.

A. Measure and cut to length two strips of foil tape. Each strip will run 1/2" from the top and 1/2" from the bottom of the tank or lowest water level. NOTE: Each strip of foil tape should be between 15 and 40 square inches, (multiply the length times the width), and it may be necessary to trim away or add to the tape width to stay within these figures.

If your tank is less than 8" tall and you are adding additional tape width, see Figure #2A.

C. Prepare the tank area where the foil tape is to be placed by rubbing down with common isopropyl alcohol. Then apply a thin coating of the supplied adhesive. IMPORTANT: PROVIDE ADEQUATE VENTILATION WHEN APPLYING THE ADHESIVE, particularly if working in a confined area.

IMPORTANT: The foil tape strips must be an inch or more away from large metal objects such as framework, metal siding, stored items, etc.

D. Remove the paper backing from the foil tape strips and place them against the tank. Smooth out any trapped air bubbles. Follow the dimensions on Fig. #2.

E. Remove the paper backing from the copper pads and from the module. Place a copper pad onto each of the two foil tape strips, attach the module to the tank. Do not use the supplied adhesive when attaching the copper pads to the foil tape.

NOTES: The copper pads can be trimmed if they exceed the width of the foil tape; they can also be placed anywhere up or down the length of the tape.

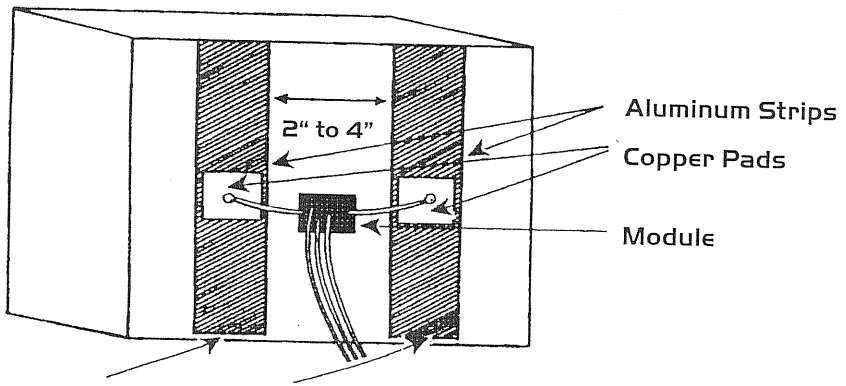


FIGURE #2

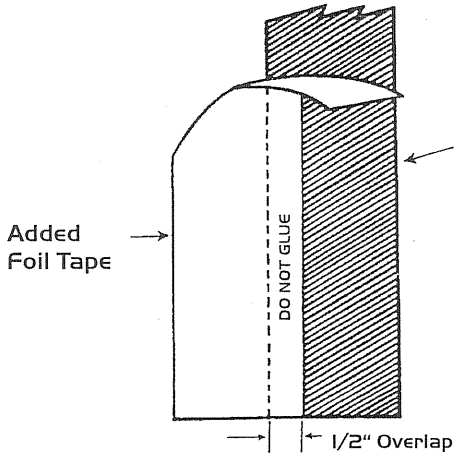


FIGURE #2A

STEP THREE:
Wiring Installation

NOTES: READ CAREFULLY. Do not use staples or nails to secure wiring. Also route wires so they do not interfere with storage areas and away from potential sources of heat (oven, exhaust pipes, etc.). Due to the vast range of application possibilities it is not practical for us to include hookup wire in the kit. It is however, commonly available and inexpensive. Use 18 gauge standard wire and make certain you have enough to perform all connections.

You will be using your hookup wire to make connections to a 12 volt D.C. power source and for connecting the panel to the tank(s). After studying the wiring installation procedures you can cut your hookup wire to required lengths, then strip the insulation on all wire ends approximately 1/4" and use the supplied butt connectors to join wires.

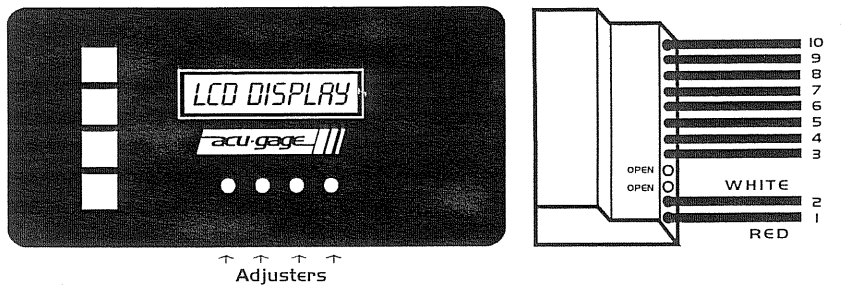
A. Take time to study Figure #3 ,the "HOOKUP GUIDE" and page 9 for the color code. The first connections are made to wires 9 and 10. IMPORTANT: The other ends of these wires must also be identified as 9 and 10. Use an adhesive sticker or masking tape. These wires are then routed to the holding tank and wire 10 will connect to the red module lead and wire 9 will connect to the blue module lead. Repeat the procedures for your other holding tanks.

A fairly common 3 tank application is Button #1: Fresh; Button #2: Grey; Button #3: Black or Waste. Insulate the ends of any unused panel connector leads (except red and white), with electrical tape.

B. Refer to Figure #4 and finish wiring by connecting wire 1, (red), to 12 volt D.C. Positive then wire 2, (white), together with all black module wires to 12 Volt D.C. Negative. If you are using more than one module, use the larger wire nut to accommodate the extra wires. NOTE: It is recommended that the power wires, (red and white), be hooked to a battery voltage source. The 0.5 amp fused link is wired in line on the red wire as shown in Figure #4.

If possible, avoid wiring to a convertor power source or to wires that power flourescent lights. This could result in electrical "noise" which may effect accurate panel readings.

FIGURE #3



Panel

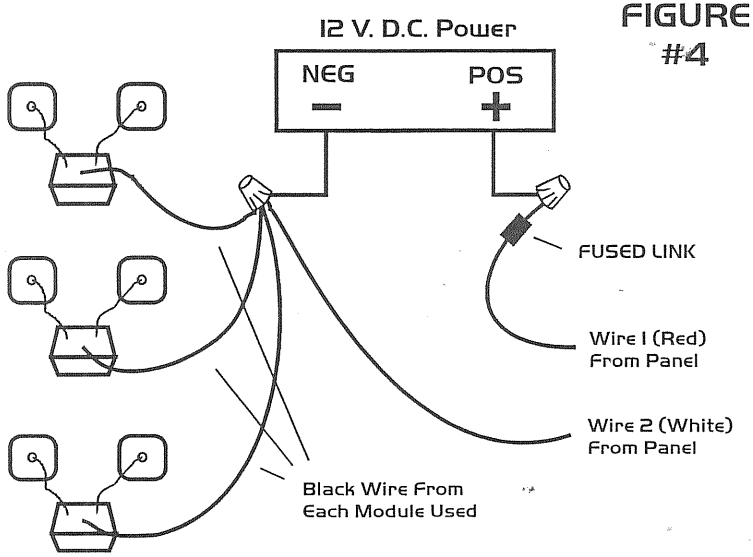
Panel Connector

NOTE: TANK ONE IS TOP LEFT BUTTON AND ADJUSTER FOR TANK ONE IS FAR RIGHT

HOOKUP GUIDE

Wires 9 and 10 are controlled by Button 1
Wires 7 and 8 are controlled by Button 2
Wires 5 and 6 are controlled by Button 3
Wires 3 and 4 are controlled by Button 4
Wires 3,5,7 and 9 connect to blue wires on modules
Wires 4,6,8 and 10 connect to red wires on modules

FIGURE #4



STEP FOUR:

Apply Button Indicator Stickers

You can customize your panel now by choosing from among the supplied adhesive button stickers. Place sticker in the CENTER of the gold square.

STEP FIVE:

Testing and Calibration

Follow these procedures for each holding tank. Start with tank #1 (Button #1), which is usually your fresh water tank.

A. Fill tank with water.

B. Push the panel button for that tank. Use the adjuster tool and rotate the adjuster screw counter-clockwise until some of the tank designations turn off in sequence. Then slowly rotate the adjuster clockwise. Stop rotation right at the point the full reading comes back on steady (no flickering).
NOTE: If tank #1 is fresh water, you may be able to direct that water into the next tank by use of your pump system.

TROUBLESHOOTING

PROBLEM:
Tank is empty - panel reads ¼ full.

REMEDY:
A. The foil strips may extend below the tank's drain opening. Trim about ½" from the bottom of these strips.
B. Check for large metal objects in proximity to the foil strips. You may need to relocate the sensor system.
C. Re-calibrate - fill tank approximately 90% full and follow procedure in Step 5, Section B.

PROBLEM:
Tank level lights not operating.

REMEDY:
A. Using a voltmeter, make certain panel is receiving 12 volt power.
B. Check for proper ground connection.
C. Check ALL wire connections. Check fuse.

If remedies are not effective or if any other problem occurs, contact Snake River Electronics (Retain this book for future reference).

Notes: read carefully

Your kit may contain a module that will read diesel.
It measures 2" x 2" and is applied in the same manner.

The adjustment on the module itself are set and sealed at the Factory.
Do not attempt to adjust the module.
Adjust at the panel level like all other modules.

LIMITED WARRANTY

Snake River Electronics warrants this product to be free from defects in material and workmanship under normal use, for a period of one year from the date of purchase. This includes the replacement of parts and the labor involved to repair or replace the part.

This warranty is valid for the original retail purchaser and is NOT TRANSFERABLE. Keep original sales receipt and validate warranty by filling out and returning the enclosed warranty registration card. Proof of purchase is required to obtain warranty.

This warranty does not cover damages resulting from accident, misuse, abuse, improper installation, or lack of reasonable care. If the product was damaged in transit, file a claim with the carrier.

Snake River Electronics is not responsible for incidental of consequential damages resulting from installation or use of product.

Except as provided above, no warranty or affirmation of fact, expressed or implied, is made or authorized by Snake River Electronics, and Snake River Electronics liability in all events is limited to the purchase price.

This warranty gives purchasers specific legal rights. Purchasers may also have rights which vary from state to state. Certain aspects of disclaimers are not applicable to consumer products; e.g. (A) Some states do not allow the exclusion of limitation of accidental or consequential damages, so the above limitation or exclusion may not apply to you, (B) Also, some states do not allow the exclusion or limitations on how long an implied warranty lasts, consequently the above limitation may not apply to you; and copyright by law, during the period of this warranty, any implied warranties or merchantability of fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION: Snake River Electronics will make a good faith effort for prompt correction or other adjustments with respect to any Acugage Monitor System which proves to be defective within warranty.

WARRANTY PROCEDURE: Should you discover a defect in the Acugage Monitor System during the warranty period, YOU MUST FIRST CONTACT SNAKE RIVER ELECTRONICS AT 208-233-7290. At our discretion we will request the part be sent to us or we may direct you to the nearest authorized service center for repair. Parts returned to Snake River Electronics must be postage paid, and include check or money order for $7.00 to cover the cost of return shipping and handling. RETURN TO: Snake River Electronics, 1850 North Arthur Pocatello, Idaho 83204.

SUPPLEMENT TO GENERAL INSTRUCTIONS

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PUSH ON THE PIGTAIL SECURELY

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WIRING TANK FOUR - GREY TO MODULE RED
BLUE TO MODULE BLUE

GROUND - WHITE

12 VOLT - RED

acu·gage MONITOR SYSTEM

INSTALLATION
INSTRUCTIONS
FOR

LCD-102

FOUR
TANK
CAPABLE

Congratulations on your purchase!

You have selected the best holding tank monitor system available. With proper installation you will enjoy years of accurate and trouble free operation.

FOR USE ON NON-CONDUCTIVE HOLDING TANKS,
(Polyethylene, Fiberglass, etc.)

SNAKE RIVER ELECTRONICS

1850 North Arthur
Pocatello, Idaho 83204
(208) 233-7290