

DIAGNOSIS GUIDE FOR THE KIB MICRO MONITOR SYSTEM

ISOLATE THE MALFUNCTION

A. MONITOR PANEL

1. PRINTED CIRCUIT BOARD
 - a. DAMAGE
 1. SHORT CIRCUIT
 2. BROKEN COMPONENT
 - b. DEFECTIVE
 1. COMPONENT FAILURE
2. SWITCH
 - a. DAMAGE
 1. BROKEN
 - b. DEFECTIVE
 1. MECHANICAL FAILURE

1. COACH WIRING
 - a. OPEN WIRE
 - b. SHORTED WIRE
2. CONNECTORS
 - a. LOOSE OR OPEN

C. TANK

1. INSERTS (PROBES)
 - a. PLACEMENT
2. PIGTAIL (K101)
 - a. DAMAGE/DEFECTIVE
 1. OPEN CIRCUIT
 - a. CRACKED RESISTOR
2. SEE TEST PROCEDURE

B. WIRING

TROUBLE SHOOTING □ FULL SYSTEM

PROBLEM: NO LIGHTS ON PANEL WHEN SWITCH IS PUSHED

TEST: 1. MAKE SURE B+ WIRE (RED) HAS 12 VDC CONNECTED.
2. MAKE SURE GROUND (WHITE) IS CONNECTED TO PANEL.

DIAGNOSIS: 1. CORRECT WIRING OR VOLTAGE SUPPLY PROBLEM.
A. POLARITY
B. FUSE
C. OPEN WIRE
2. IF 12 VOLTS DC AND GROUND IS PRESENT AT PANEL BUT
DISPLAY IS STILL DEAD REPLACE PRINTED CIRCUIT BOARD.

TROUBLE SHOOTING □ TANKS

PROBLEM: DISPLAYS "E" ON ONE OR MORE TANKS BUT NOT ALL.

TEST: 1. VERIFY THAT LEVELS IN TANKS DO NOT MATCH DISPLAY.

2. SWAP TANK CONNECTIONS ON PANEL (I.E. , IF PROBLEM IS IN "FRESH" BUT GREY IS GOOD, SWAP THE FRESH WIRE "BLUE" WITH THE GREY TANK WIRE "GREY" . RETEST TANK FUNCTIONS TO SEE IF PROBLEM HAS ALSO CHANGED TO ANOTHER TANK OR IS STILL IN SAME TANK.

DIAGNOSIS: 1. IF STEP (2) STILL DISPLAYS "E" ON THE SAME TANK, REPLACE PRINTED CIRCUIT BOARD.

2. IF STEP (2) ABOVE DISPLAYS "E" ON DIFFERENT TANK THEN THE PROBLEM IS AN OPEN CONNECTION IN THAT TANK WIRING OR PIGTAIL. REPAIR OR REPLACE WIRING OR PIGTAIL.

3. OPEN CONNECTION IN EITHER GROUND OR SIGNAL WIRE WILL SHOW "E" ON TANK DISPLAY.

PROBLEM: DISPLAYS "F" ON ONE OR MORE TANKS, OTHERS TEST GOOD.

- TEST:
1. VERIFY THAT LEVELS IN TANKS DO NOT MATCH DISPLAY.
 2. SWAP TANK CONNECTIONS ON PANEL AS FOR PREVIOUS PROBLEM. RETEST TANKS TO SEE IF PROBLEM HAS ALSO CHANGED TO ANOTHER TANK OR IS STILL IN THE SAME TANK.

DIAGNOSIS: 1. IF STEP (2) ABOVE STILL DISPLAYS "F" ON THE SAME TANK, REPLACE PRINTED CIRCUIT BOARD.

2. IF STEP (2) ABOVE DISPLAYS "F" ON DIFFERENT TANK, THEN THE PROBLEM MAYBE A SHORT IN THE WIRING. A SIGNAL WIRE SHORTED TO GROUND WILL DISPLAY "F" ON THE PANEL. REPAIR OR REPLACE WIRING.

PROBLEM: FALSE READINGS (I.E. , 1/3 OR 2/3 INDICATION IN AN EMPTY TANK).

- TEST:
1. VERIFY TANK IS EMPTY.
 2. OPEN PIGTAIL GROUND WIRE (WHITE).
 3. CHECK PROBE PLACEMENT IN TANK. THIS VERY CRITICAL IN SINGLE WIRE SYSTEMS. SEE PLACEMENT DIAGRAMS.

- DIAGNOSIS: 1. IF DISPLAY CHANGES TO "E" AFTER STEP (2) ABOVE AND PROBES ARE NOT PLACED CORRECTLY ABANDON AND INSTALL PROBES IN THE PROPER POSITION.
2. RETEST TANK.