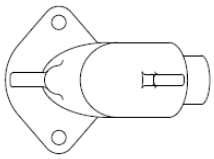
ELKHART BRASS
Fire Fighting Equipment

REPLACEMENT PART NUMBER GUIDE FOR USE WITH 8494 SIDEWINDER TROUBLESHOOTING GUIDE P/N 98184020

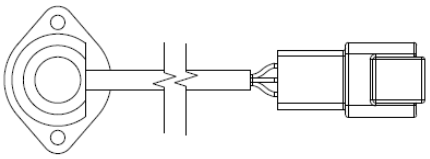
Refer to the following 8494 Electric monitor system layout drawings.
P/N 8494010 for the 12v system and 8494510 for the 24v system.

STEPS 1a & 2a VERTICAL AND HORIZONTAL POSITION SENSOR REPLACEMENT

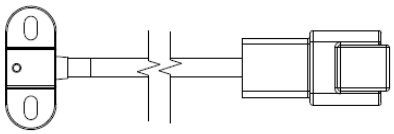
The same position sensors are used on the 12v and 24v systems. Identify the sensor needing replaced and see parts required below.



P/N 81133001



P/N 81280001



P/N 65104000

- **P/N 81133001 (used Pre 2004)** can be identified by the metal housing and the threaded connection for the harness attachment. The attached harness leads are yellow in color. These sensors are no longer available so both sensors and the monitor harness must be replaced with the following parts.
  - P/N 81280001 (sensors) – 2 Req'd.
  - P/N 57519000 (sensor o-rings) – 2 Req'd.
  - P/N 36833100 (monitor harness part 1) – 1 Req'd.
  - P/N 36791200 (monitor harness part 2) – 1 Req'd.

- .**P/N 81280001 (used from 2004 – 2007)** can be identified by the metal housing with a football shaped mounting flange. It has a 6" long lead with a grey 3 pin Deutsch connector for attachment to the monitor harness.
  - Replace with P/N 81280001

- **P/N 65104000 (used since 2007)** can be identified by the plastic housing with an oval shaped mounting flange. It has a 6" long lead with a grey 3 pin Deutsch connector for attachment to the monitor harness.
  - Replace with P/N 65104000

STEP 1c & 2c MONITOR MOTOR REPAIR OR REPLACEMENT

Identify the voltage and speed for the motor assembly that needs repaired or replaced by pilling the motor cover back to expose the motors label. Look for the motors voltage (12v or 24v). Look for the motor speed 65.5:1 is SLOW, 19.7:1 is FAST. Once these Two things have been determined choose the desired part number from the list below.

- For replacing the motor only order 2 each of o-ring p/n 57348000. These two o-rings are to be coated with grease and put onto the motors output shaft before attaching it to the mounting plate. The motor only part numbers are;
    - 46043000 – Slow 12v
    - 46067000 – Slow 24v
    - 46062000 – Fast 12v
    - 46074000 – Fast 24v
- For replacing the motor assemblies painted RED the part numbers are;
    - 81119SP1 – Slow 12v
    - 81207SP1 – Slow 24v
    - 81147SP1 – Fast 12v
    - 81240SP1 – Fast 24v

  For unpainted motor assemblies change the last 3 digits of the part number to 001.

STEP 3 NOZZLE REPAIR OR REPLACEMENT

- Identify model of nozzle. The 5000E series nozzles will have the flow rating stamped on the stem of the nozzle.
    - Model 5000-04E will have the number 15, 30, or 45 stamped on its stem to indicate its flow rating at 100 psi.
    - Model 5000-14E will have the number 60, 75, 95, 125, or 150 stamped on its stem to indicate its flow rating at 100 psi.
    - Model 5000-24E will have the number 175, 200, 250, 300, 350,400, or 475 stamped on its stem to indicate its flow rating at 100 psi.

- Identify the nozzles operating voltage (it will be 12v or 24v and will be the same as the monitor system operating voltage). The nozzles electric actuator will have a label with the 8 digit part number for the actuator and if it is a;
    - 12vdc actuator it will have only the 8 digit part number or the part number and 12vdc below the part number.
    - 24vdc actuator it will have the 8 digit part number 24vdc below the part number.

STEP 4a, STEP 13b, & STEP 14b REPAIR OR REPLACE SWITCH BOX OR JOYSTICK CONTROLLER

The same controllers are used for both the 12v & 24v systems. Elkhart Brass does not repair these controllers but some parts may be purchased individually to facilitate repair in the field.

- P/N 81122001 (Item 2) is the switch box controller. It has four toggle switches 2 for monitor functions and 1 each to control the nozzle and optional water valve.
- P/N 81172001 (Item 7) is the joystick controller. It has a joystick to control the monitor, nozzle, and optional water valve functions and a toggle switch that can set to hold the optional valve open or allow the joystick trigger to control the valve.

STEP 4b, STEP 12b, STEP 15b, & STEP 16 REPLACE MONITOR CONTROL HARNESS

This harness connects to the joystick or switch box controllers at one end and the monitor and valve control modules at the other.

- P/N 36787000 (Item 5) is 12 feet long.

STEP 6a REPLACE MONITOR HARNESS

This harness attaches to monitor and connects to the vertical and horizontal motors and sensors and the nozzle motor.

- **P/N 36786000 (used Pre 2004)** can be identified by the yellow harness leads with metal threaded connections for the sensors. These harnesses are no longer available so both the monitor harness and both sensors must be replaced with the following parts.
    - P/N 81280001 (sensors) – 2 Req'd.
    - P/N 57519000 (sensor o-rings) – 2 Req'd.
    - P/N 36833100 (monitor harness part 1) – 1 Req'd.
    - P/N 36791200 (monitor harness part 2) – 1 Req'd.

- **P/N 36833000 (used from 2004 to 2007)** can be identified by the grey 3 pin Deutsch connectors for attachment to the sensors. The 10 pin Packard connector for the monitor control module is located about 5 feet from the monitor inlet.
    - P/N 36833000 is a direct replacement.
    - 1 each of P/N 36833100 and P/N 36791200 can also be used to replace P/N 81330000.

- **P/N 36833100 (used since 2007)** can be identified by the grey 3 pin Deutsch connectors for attachment to the sensors. The 10 pin Packard connector is located close to the monitor inlet.
    - P/N 36833100 is a direct replacement.

STEP 6b1, STEP 9, & STEP10b REPLACE MONITOR CONTROL MODULE

- P/N 81713000 (Item 3) can be used for both 12v & 24v systems and can be used in place of all older models.

STEP 6b2 & STEP 8 REPLACE MODULE TO MONITOR EXTENSION HARNESS

This harness (Item 13) attaches between the monitor harness and the monitor control module connects to the vertical and horizontal motors and sensors and the nozzle motor.

- P/N 36791000 length is 30 feet.
- P/N 36791100 length is 1 foot.
- P/N 36791200 length is 5 feet.