

**MUSTANG SURVIVAL
DRY SUIT TEST KIT
MUSTANG MODEL MA8836 Version 2**

**USER MANUAL
08 February 2012, REV: 0.4**



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1.0 INTRODUCTION

1.1 GENERAL

1.1.1 This manual provides user procedures for the Mustang Survival Dry Suit Test Kit Model MA8836, to assist qualified Life Support Equipment Technicians.

1.1.1 Periodic Inspection

1.1.1.1 The suit manufacturer, or a qualified Life Support Equipment Technician with the appropriate equipment, should carry out the in-depth periodic inspection (every 180 days). Heavy use, may require more frequent inspect cycles.

This inspection includes:

- a. Visual inspection (see the suit's owner's manual)
- b. Leak testing every second periodic inspection (unless damage is suspected)
- c. Zipper, or slide fastener inspection (see the suit's owner's manual)

1.1.2 Leak Testing

1.1.2.1 The following suit leakage test uses Mustang Survival Dry Suit Test Kit (MA8836). Your equipment may differ and, if so, the test should be adjusted accordingly. Mustang Survival offers an opportunity to purchase the Dry Suit Test Kit (MA8836) used in this test. Contact us for more information.

Figure 1. Suit Leakage Test Kit



- a. Ensure the Outer Shell has been separated from the Thermal Liner. Completely loosen the adjustable neck seal, if equipped. Turn the Outer Shell inside out.
- b. Place the neck plug into the Outer Shell, through the main entry zipper. Close the main entry zipper by reaching in through the neck opening to pull the zipper toggle.

Figure 2. Step b. Suit Leakage Test



- c. Pull the end of the neck plug with the air fittings through opening of the neck seal.

Figure 3. Step c. Suit Leakage Test



- d. Stretch neck seal to fit securely around neck plug ensuring top of seal extends past the groove in the neck plug.

Figure 4. Step d. Suit Leakage Test



- e. Fit the cinching strap over the neck seal aligning it in the neck plug's groove.

Figure 5. Step e. Suit Leakage Test



- f. Secure the cinching strap by pulling up the excess strap and fasten the Velcro closure.

Figure 6. Step f. Suit Leakage Test



- g. Clamp both wrist seals with the clamps provided.

Figure 7. Step g. Suit Leakage Test



- h. Connect two coiled pneumatic hoses to the outputs on the right side of the control box. The two hoses are interchangeable.

Figure 8. Step h. Suit Leakage Test



- i. Connect the other ends of the coiled hoses to the neck plug. It does not matter which hose connects to which plug. Figure 9 shows the correct configuration.

Figure 9. Step i. Suit Leakage Test



- j. Ensure your configuration matches figure 10, which shows two coiled pneumatic hoses correctly attached to the control box and the neck plug.

Figure 10. Step j. Suit Leakage Test



- k. Connect high-pressure air source to the input side of the control box. The air pressure should be no greater than 150 psi.

NOTE: Ensure the control lever is set in the off position before the high-pressure air is connected.

Figure 11. Step k. Suit Leakage Test



- I. The control box has one pressure gauge and two controls. The black control lever has three positions as labeled on the control box. The knurled knob can be turned to restrict the airflow traveling into the dry suit.

Figure 12. Step I. Suit Leakage Test

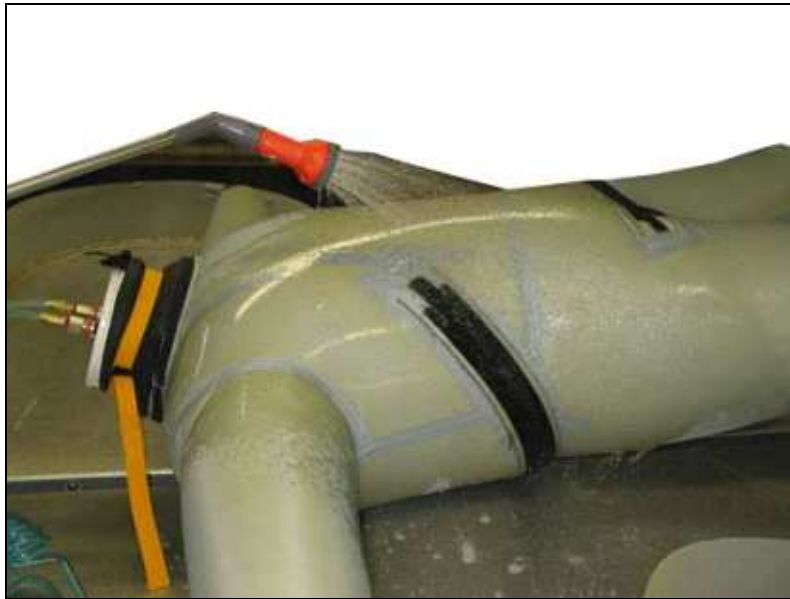


- m. Move the control lever to the fast position. The suit should inflate rapidly. Once the suit appears $\frac{3}{4}$ inflated, move the lever to the slow position. Turn the knurled knob to the right to restrict the airflow rate until the suit inflates up to 12 in. water pressure. Adjust the knurled knob further to hold pressure inside the suit at 12 in. water.
- n. Spray the entire suit with a gentle soap and water solution of 0.5% soap to water by weight. Pay particular attention to the seams and zippers.

Examine any area of the suit where bubbles are forming and take action depending on the severity as follows (note that bubbles forming at a rate of less than one per second are probably not leaks):

- i. Small foamy bubbles collecting slowly on seam: Entrapped air. No leak present, no action required.
- ii. Small foamy bubbles collecting quickly on seam: Uncertain. Agitate seam around bubbles to remove any entrapped air. If bubbles persist after 10 minutes then consider as leak, mark leak area with a china marker, and document on the inspection record.
- iii. Steady stream of larger bubbles: Leak. Mark leak area and document on the inspection record.
- iv. Any other type of bubble formation or any sign of bubbles on a panel shall be treated as a leak.

Figure 13. Step n. Suit Leakage Test



- o. When the test is completed, move the control lever to the off position. Remove the clamps from the suit and disassemble the rest of the test kit. Hang the suit to dry.

2.0 SUMMARY

The Mustang Survival Dry Suit Test Kit Model MA8836 is to be used with Mustang Survival dry suits. Ensure qualified technicians use this equipment. A well-maintained suit means survival in emergencies for which normal clothes were not designed.