



FOR MODEL NUMBERS XXXXXX & XXXXXX

HELIX CCS

Dry Suit Owners Manual

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ABOUT MUSTANG SURVIVAL DRY SUITS

Our dry suits are waterproof and breathable. They are ideal for dynamic marine activities and are made with MarineSpec BP breathable fabric.

Every model of Mustang Survival dry suit utilizes lightweight YKK AQUASEAL® waterproof entry zippers feature reinforced seat and knees. Select models also include articulated removable knee pads and removable two-point attachment suspenders.

Our dry suits feature trimmable latex neck and wrist seals, or a patented Closed Comfort System (CCS) neck seal and trimmable neoprene wrist seals.

Every Mustang Survival dry suit is leak tested to ensure waterproof integrity and the highest level of reliability & performance prior to leaving the factory.

WARNING: DRY SUITS ALONE PROVIDE INADEQUATE PROTECTION FOR EXTREME CLIMATE CONDITIONS. ALL USERS SHOULD WEAR APPROPRIATE WICKING THERMAL UNDERGARMENTS TO PREVENT HYPOTHERMIA (IN COLD CLIMATES) AND MOISTURE WICKING UNDERGARMENTS TO PREVENT HEAT STROKE (IN WARM CLIMATES).

WARNING: DRY SUITS ARE NOT INHERENTLY BUOYANT. ALL USERS SHOULD WEAR APPROPRIATE FLOTATION DEVICES WITH THE DRY SUIT.

INSTRUCTIONS FOR USE

FITTING DRY SUIT NECK AND WRIST SEALS

This manual supplies instructions on the various neck and wrist seals offered by Mustang Survival, and how to ensure proper fit. There are step-by-step instructions on how to adjust the CCS adjustable neck seal, as well as instructions on how to trim your latex or neoprene neck and/or wrist seals for a proper fit.

For any additional information, please contact Mustang Survival Customer Service at 1 800 526 0532 or by email to custserv@mustangsurvival.com.

CCS ADJUSTABLE NECK SEAL

Mustang Survival's patented Closed Comfort System CCS can be worn loose to provide comfort out of the water and can quickly be drawn tight to keep the water out. The CCS is characterized by an elastic drawstring on the neck seal and a hook-and-loop tab.

The adjustable seal also provides increased durability compared to traditional latex seals and allows the suit to be worn by multiple users without compromising waterproof integrity.

THE CCS NECK SEAL MUST BE FULLY CLOSED TO PREVENT WATER INTAKE.

- 1 The CCS neck seal can be worn loose for comfort, but whenever there is a risk of immersion, the neck seal should be closed enough so that there are not any gaps between the neck seal and the wearer's neck.
- 2 To close, pinch the toggle while pulling the elastic drawstring away from the neck. For maximum effectiveness, the neck seal should be adjusted to be snug, but not uncomfortably tight.
- 3 Once the neck seal has been drawn tight, the Velcro® tabs can be attached to keep the elastic out of the way.
- 4 To loosen, insert your fingers between the neck and the neck seal while pinching the toggle. Then gently pull on the neck seal with your fingers.
- 5 Secure the loose end of the draw cord using the Velcro® on the neck seal.

NEOPRENE WRIST SEALS

The neoprene seals should only be trimmed if they are unreasonably tight and restrict blood flow. Neoprene seals will have a vertical seam along the length of the wrist seal.

The seals are designed to fit the individuals with the smallest measurements. If your wrist is larger than the target dimensions, you will likely have to trim your seals.

If seal trimming is required, proceed as follows:

Trim seals with extreme caution. A smooth trim line is essential for maintaining optimal sealing performance. Excessive or careless trimming could result in loose seals that leak and necessitate replacement. Avoid nicking seal material, as this could result in tearing the seals when donning and doffing and could result in skin irritation. Trim only 1/8" at a time. You can always trim more, but you cannot replace what you have cut off.

REQUIRED MATERIALS:

- Ruler
- Sharp scissors
- White wax marker or silver pen

NEOPRENE WRIST SEALS

ONLY NEOPRENE SEALS CAN BE TRIMMED USING THIS PROCEDURE.

- 1 Trim only 1/8" at a time to a maximum of 1". Using a ruler, mark a circular line around the seal that is offset from the edge of the cuff end by 1/8" (Fig. 1).
- 2 Using sharp scissors carefully cut the cuff end at the marked line (Fig. 2). Evaluate the fit and repeat steps 1 and 2 until there is a proper fit.
- 3 After trimming the seals, have the user don the suit to determine seal comfort and water-sealing characteristics. Make any additional adjustments to the seal.

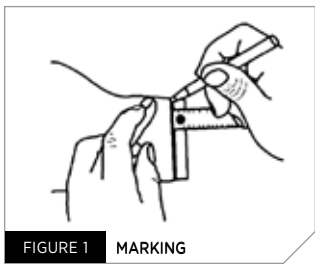


FIGURE 1 MARKING

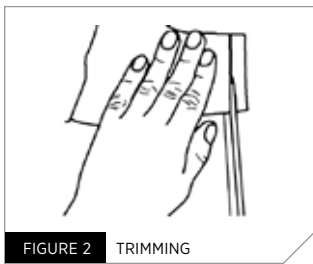


FIGURE 2 TRIMMING

VISUALLY INSPECT THE TRIMMED EDGE FOR NICKS. IF THE CUT IS NOT SMOOTH AND STRAIGHT, CAREFULLY TRIM OUT ANY NICKS. NICKS CAN CAUSE A TEAR DURING DONNING AND DOFFING.

ATTACHING SUSPENDERS

- 1 Completely unzip the entry zipper.
- 2 Open the suit so that the two attachment points are visible (Fig. 3).
- 3 Thread the end of the nylon strap attached to the suit through the rectangular clip on the suspenders (Fig. 4).
- 4 Once the nylon strap has been threaded, flare the sewn folds on the strap to prevent it from passing back through the rectangular clip (Fig. 5).
- 5 Repeat these steps for the other attachment point.
- 6 Use the suspender strap ends to adjust for a secure, comfortable fit.



FIGURE 3 ATTACHMENT POINT



FIGURE 4 THREADING STRAP



FIGURE 5 FLARING THE FOLD

REMOVING OR ADDING KNEE PADS

It is recommended to remove or add knee pads when the suit is off the body. Ensure the back of knee adjustment is undone before adding or removing the foam pads. The knee pads are added and removed from the exterior, at the base of the knee reinforcement.

ADDING

- 1 Pull open the knee pad pocket at the base of the Cordura® reinforcement area.
- 2 Fold foam knee pad in half lengthwise.
- 3 Insert into the opening, working the foam pad to the top of the pocket.
- 4 Flatten out the foam knee pad.
- 5 Pull the pocket flap open to set the knee pad into the lower Cordura® open hem fold.
- 6 Press hook-and-loop down sealing the pocket.

REMOVING

- 1 Pull open the knee pad pocket at the base of the Cordura® reinforcement area.
- 2 Push foam knee pad to top of pocket and out of the lower Cordura® open hem fold.
- 3 Fold foam knee pad in half lengthwise.
- 4 Pull foam knee pad out of the pocket.
- 5 Press hook-and-loop down sealing pocket.

DONNING AND DOFFING THE SUIT

DONNING THE SUIT

ALWAYS DON THE DRY SUIT ON A CLEAN SURFACE SUCH AS A TOWEL OR CLEAN TARP TO AVOID ATTRACTING DEBRIS. PEBBLES, SAND, DIRT, AND OTHER DEBRIS ON THE GROUND CAN CAUSE DAMAGE TO THE DRY SUIT'S SOCKS AND COMPROMISE THE SUIT'S INTEGRITY.

USE EXTREME CARE WHEN DONNING THE DRY SUIT. PRIOR TO DONNING, REMOVE ALL RINGS, WATCHES, EARRINGS, NECKLACES, AND EYEGLASSES THAT WILL CAUSE DAMAGE TO WRIST AND NECK SEALS. FOOTWEAR OTHER THAN SOCKS MUST NOT BE WORN INSIDE THE DRY SUIT.

- 1 In preparation, ensure that appropriate undergarments have been selected, the wrist covers are unfastened, the back knee tabs are loosened, the front waist adjusters are loosened, the entry zipper is fully opened, and the suspenders are pulled out of the suit legs.
- 2 Slide your legs into the suit until your toes reach the end of the socks.
- 3 Don the suspenders, adjust for a comfortable fit, and ensure they are not twisted in the front or back.
- 4 To make donning the wrist seals easier, apply a talc-free powder inside the wrist seals or wrap a plastic bag around your hand during donning.
- 5 Place the right arm into the right sleeve.
- 6 Carefully place the right hand into the right cuff by pointing the fingers straight, tucking the thumb underneath, and inserting the hand through the seal.

DO NOT MAKE A FIST WHEN PUTTING YOUR WRIST THROUGH THE SEAL. IF YOU NEED TO PULL ON THE SUIT TO GET YOUR HAND THROUGH THE SEAL, PULL ON THE SUIT CUFF AND NOT THE SEAL. PULLING ON THE SEAL CAN LEAD TO DAMAGE.

- 7 Roll the hook-and-loop on the wrist covers back and refasten to a snug fit.
- 8 Repeat steps 5 through 7 for the left arm.

DONNING AND DOFFING THE SUIT

DONNING THE SUIT

- 9 Bring the upper portion of the suit over your head, aligning the neck opening with the top of the head. Reach inside the top of the neck seal with your fingers and gently pull the seal outward and down as you push your head through. Flatten any folds or rolls of the seal against the skin.
- 10 To close the waterproof entry zipper, grasp the zipper toggle and while holding the top of the zipper, pull the toggle down along the line of the zipper closure. The zipper is sealed when the slider is completely docked at the docking end. This will require an extra bit of force to ensure the zipper is completely closed. Both sides of the zipper chain should remain parallel while closing to avoid zipper damage.

PLACING EXCESSIVE FORCE ON THE ZIPPER MAY DAMAGE THE SEAL AND HARM THE INTEGRITY OF THE SUIT. NEVER FORCEFULLY YANK ON THE ZIPPER.

- 11 Tighten waist adjusters and adjust knee tabs.
- 12 To remove excess air before water entry, cross your arms in front and gently slide your fingers between the neck seal and your neck, squat down and release excess air through the neck opening.

WARNING: FAILURE TO COMPLETELY CLOSE THE WATERPROOF ENTRY ZIPPER WILL RESULT IN LEAKAGE OF WATER INSIDE THE SUIT AND REDUCTION OF SURVIVAL TIME WHEN IN THE WATER.

DOFFING THE SUIT

- 1 Remove all equipment worn over the suit.
- 2 Thoroughly rinse down the exterior of the suit while wearing it, paying special attention to the seals and zippers. Remove all dirt, salt, and debris.
- 3 Loosen any waist adjusters and knee tabs.
- 4 Completely open the entry zipper; partially closed zippers face the risk of being damaged during doffing.

- 5 Loosen the neck seal and insert your fingers between neck seal and neck. Gently stretch the seal outward and upward while pulling the neck seal over your head.
- 6 Remove your hands from the wrist seals by holding onto the cuff. Point your fingers straight, tucking the thumb underneath the seal. Gently pull your hand through the wrist seal, turning the seal inside out. Do not pull on the seal or make a fist when putting your wrist through the seal. Once your hands are out of the seals, invert the seals back out of the suit sleeve so they are oriented away from the suit.

PULLING ON THE WRIST SEAL MAY DAMAGE THE SEAL.

- 7 If wearing suspenders, remove them and pull the suit down past hips and slide legs out of the suit. You do not need to un-thread the suspender attachment points.
- 8 Follow the cleaning and maintenance instructions for the suit.

CLEANING AND MAINTENANCE

CLEANING

- 1 Thoroughly rinse your dry suit after every use.
- 2 Treat stains with a pre-wash treatment, such as Shout® or Spray 'n Wash®, following the manufacturer's instructions. Rinse well.
- 3 Using a front-load washing machine only, wash warm (104° F/40° C) on delicate cycle using a gentle liquid detergent. Do not use fabric softener, bleach, or wash-in treatments as they can affect the dry suit's breathability.
- 4 Tumble-dry using an air setting.

DO NOT DRY CLEAN. DO NOT IRON. DO NOT BLEACH.

USE ONLY A FRONT-LOADING WASHING MACHINE OR A TOP LOADING WASHING MACHINE THAT DOES NOT HAVE AN AGITATOR POST. WASHING MACHINES WITH AGITATOR POSTS CAN DAMAGE THE SUIT.

MAINTENANCE

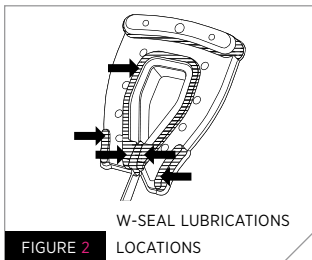
Regular zipper maintenance is recommended to maintain a watertight seal and keep the zipper gliding freely. These steps are essential to zipper longevity:

- 1 Clean the zipper of any heavy deposits of mud, sand, salt, or foreign substances by gently brushing and rinsing the zipper with fresh water.
- 2 YKK zippers need to be lubricated on the docking end approximately every 15-20 days (about 3 weeks) of field use. One package of lubricant is included with your dry suit. Only use lubricants compatible with the YKK® AQUASEAL® zippers.

DO NOT DISCARD THE BLISTER PACKAGE. THE LUBRICANT CAN BE STORED IN A ZIP LOCK BAG AND REUSED.

- a) Open the zipper to expose the W-SEAL (bottom of entry zipper).
- b) Open the lubricant (Fig. 6), by ripping the package seal.
- c) Squeeze the package gently and apply a small amount of lubricant to the W-SEAL as indicated (Fig. 7). Only apply to the indicated areas.
- d) Flip over the zipper end and lubricate the back in the same highlighted areas as the front.
- e) Close the zipper.
- f) Repeat before long term storage.

DO NOT LUBRICATE THE ZIPPER TEETH.



ACCESSORIES

The following accessories are available for Mustang Survival dry suits:

- Thermal base layers (Part #MSL500-MSL550)
- Zipper lubricant (Part #MA2292)
- Replacement suspenders for Hudson (Part #MA0201)
- Replacement suspenders for Helix (Part #MA0251)
- Replacement kneepads (Part #MA8008)

For more information on these items please visit:
www.mustangsurvival.com

WARRANTY INFORMATION

LIMITED WARRANTY: Mustang Survival recreational dry suits are warranted to be free from defects in materials and workmanship for a period of two years from the date of purchase by the initial purchaser (the Customer End user) under normal and intended conditions and use. Proof of purchase may be required at the discretion of Mustang Survival.

Products which, in the sole judgment of Mustang Survival, have received excessive or abusive use or have been altered in any way by a dealer, the Customer, or any other person, will not be covered by this limited warranty. Mustang Survival requires return of the product (postage or delivery costs prepaid by Customer) for inspection before determining whether the product will be covered under limited warranty.

A return authorization is required before the goods are returned and should be obtained by contacting our Customer Service Department. Once a product is returned, Customer Service, Quality Assurance and Sales Departments inspect the product as required. It is then determined whether the product will be covered under this limited warranty. If the product is deemed to be covered under our warranty policy, it will either be repaired or replaced at the sole discretion of Mustang Survival at no charge to the Customer.

The only obligation or liability of Mustang Survival under this limited warranty is to repair or replace the product. Mustang Survival shall not, under any circumstances, be liable for loss of use or any consequential damages sustained by the Customer. All other warranties expressed or implied, and remedies with respect to the condition or use of the product, which might otherwise be provided by law in any jurisdiction, are specifically excluded.

Visit mustangsurvival.com/warranty for full details.

CONTACT

For further information concerning this manual or the suit, contact Mustang Survival:

Telephone: 1 800 526 0532

Email: custserv@mustangsurvival.com

MUSTANG ENGINEERED

For 50 years Mustang Survival has been engineering high-performance marine gear for military, coast guard, and rescue personnel. With a focus on applied research and field-testing, we're committed to the protection and enhancement of those who push themselves to extremes. We build gear that saves lives and fuels exploration.

www.mustangsurvival.com

DO NOT REMOVE PRIOR TO SALE.

MUSTANG SURVIVAL AND SEAHORSE DESIGN ARE ALL
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