



FOR MODEL NUMBER MSD824

OWNER'S MANUAL

TWO-PIECE FLOOD RESPONSE SUIT (TOP AND BIB)

3-in-1 versatility in the Quick-Lock™ waist closure system converts the top and bib into a single suit with strong dry suit performance.

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MSD824 – DESCRIPTION

The MSD824 is an innovative and unique waterproof breathable constant-wear floodwater response dry suit, ideal for flood and after-incident responses. Developed by Mustang Survival and First Responder operators who have years of field experience in after-event clean up and operations. The two-piece design provides maximum flexibility during after-incident and flood operations. The MSD824 is an excellent dry suit for the most demanding flood rescue and management technician.

- GORE-TEX® waterproof and breathable dry suit fabric
- 3-in-1 versatility in the Quick-Lock™ waist closure system: converts the top and bib into a single suit with strong dry suit performance
- YKK plastic relief zipper
- Rapid Repair Technology™ enables users to self-replace neck and wrist seals and repair small leaks in an hour or less
- Rapid Repair Adjustable Neck Seal, combines the benefits of our adjustable neck seal with our Rapid Repair Technology™
- Ballistic nylon reinforced elbows, knees, and seat
- CORDURA® reinforced wrist and leg overcuffs
- Removeable foam knee and elbow pads help prevent injury
- Adjustable tail bone protector pad
- Pull-adjust waist belt
- Integrated GORE-TEX® dry socks
- Neck collar for abrasion protection
- Two arm pockets and two thigh cargo pockets
- CORDURA® leg and wrist over cuffs have Velcro® closures for adjustability
- SOLAS retro-reflective tape for increased visibility

The Two-Piece Flood Response Suit is easily donned/doffed by the wearer using a Quick-Lock™ waist closure system that joins the top and the bottom bib together and includes a relief zipper. Customized fit can be achieved through adjustment of the internal suspenders to modify trunk length for improved range of motion.

Every flood response suit produced by Mustang is leak tested to ensure waterproof integrity prior to leaving our factory. All suits are 100% tested to ensure the highest level of reliability and performance.

Flood response suits require proper closure of the Quick- Lock™ waist closure system to achieve dry suit performance. Users should follow proper procedures to ensure that the closure system is closed and checked before attempting to use the flood response suit as a dry suit.

WARNING: DRY SUITS ALONE PROVIDE INADEQUATE PROTECTION FOR EXTREME CLIMATE DIFFERENCES. 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. WATER RESCUE AND SAR ARE INHERENTLY DANGEROUS. USERS SHOULD BE AWARE OF RISKS ASSOCIATED WITH THESE TYPES OF OPERATIONS AND COMPLETE TRAINING IN THE USE OF WATER RESCUE OPERATIONS EQUIPMENT AND TECHNIQUES.

SIZING GUIDE

The MSD824 is available in four sizes (M, L, XL, XXL) based off Mustang Survival's Mobility Based sizing. The sizing guide is available at www.mustangsurvival.com/mobility.

INSTRUCTIONS FOR USE

This manual supplies instructional, maintenance, and safety information for the Two-Piece Flood Response Suit.

CCS™ ADJUSTABLE NECK SEAL

Mustang'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 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 CLOSED COMFORT SYSTEM NECK SEAL (CCS™) 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 accidental immersion the neck seal should be closed enough so that there aren't 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 fingers between the neck and the neck seal while pinching the toggle. Then gently pull on the neck seal with your fingers to loosen.

NEOPRENE WRIST SEAL FITTING

The neoprene seals should only be trimmed if they are unreasonably tight and restrict blood flow. The below chart indicates the target body dimensions for the standard neoprene seals. The seals are designed to fit the individuals with the smallest measurements. If your neck and/or wrist is larger than the target dimensions, you will likely have to trim your seals. If your measurements are better suited to another size, you can order a Rapid Repair replacement kit in the appropriate size.

SUIT SIZE	TARGET NECK CIRCUMFERENCE		TARGET WRIST CIRCUMFERENCE		RAPID REPAIR REPLACEMENT KIT	
	INCH	CM	INCH	CM	NECK SEAL	WRIST SEAL
M	12"	30.5CM	5.75"	14.6CM	RE0012	RE0009-S
L			5.75"	14.6CM		RE0009-M
XL			6.25"	15.9CM		RE0009-L
XXL			6.75"	17.1CM		RE0009-L
	15.25"	38.7CM				

Trim seals with extreme caution. A smooth trim line is essential. Excessive or careless trimming could result in loose seals that leak and necessitate replacement. Avoid nicking seal fabric, as this could result in tearing the seals when donning and doffing, and also could result in skin irritation. Trim only $\frac{1}{8}$ " at a time. You can always trim more, but you can't replace what you have cut off.

If seal trimming is required, proceed as follows:

Required materials:

- Ruler
- Sharp scissors
- A white china marker or silver pen

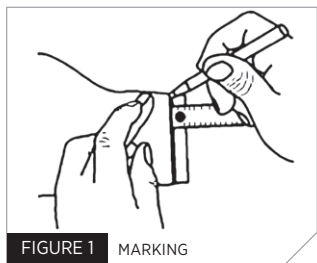


FIGURE 1 MARKING

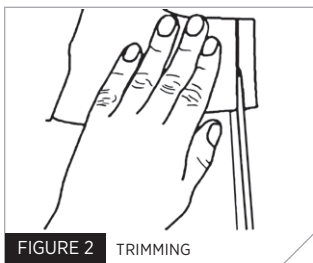


FIGURE 2 TRIMMING

ONLY NEOPRENE SEALS CAN BE TRIMMED USING THIS PROCEDURE.

1. Trim only $\frac{1}{8}$ " at a time. Using a ruler, mark a circular line around the seal that is offset from the edge of the cuff end by $\frac{1}{8}$ ".
2. Using sharp scissors carefully cut the cuff end at the marked line. Evaluate the fit and repeat steps 1 and 2 until there is a proper fit.

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

3. After trimming the seals, have the user don the suit to determine seal restriction and water-sealing characteristics. Make any additional adjustments to the seal.

DONNING AND DOFFING

DONNING THE SUIT

1. Slide your legs into the bib until your toes reach the end of the socks.
2. Don the suspenders and adjust them for an appropriate fit.
3. Apply talcum powder to the inside of wrist seals before donning the top.
4. Put on the top by carefully placing your hands into the cuffs and 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.
5. Roll the Velcro® wrist covers back and refasten to a snug fit.
6. Loosen the adjuster on the neck seal to maximize space for head entry.
7. 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.

SEALING THE QUICK-LOCK™ WAIST CLOSURE SYSTEM

1. Lift up the outer shell of the top to reveal the Quick-Lock™ waist closure track.
2. Ensure the break apart webbing tab color of the top matches the break apart webbing tab color of the bibs.

WARNING: IF THE TOP AND BOTTOM ARE NOT SIZE MATCHED THE QUICK-LOCK™ CLOSURE SYSTEM WILL NOT PROVIDE A WATERTIGHT SEAL.

3. Starting at the back, reach around with both hands and join the two tracks together. You should feel it seat in place.
4. Work from the back around one side to the front.
5. Continue working the track around the body, joining the top track to the bib track till you complete the sealing of the track.
6. Have a fellow team member double-check the seal to ensure they are completely joined and there are no gaps in the track.
7. Ensure the waterproof relief zipper is completely closed and the slider is fully engaged with the zipper stop. Stow the zipper toggle in the yellow loop located under the zipper cover.

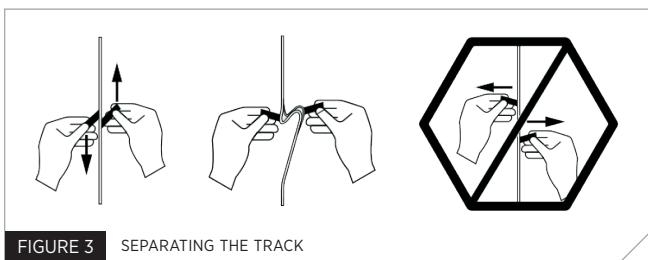
WARNING: FAILURE TO COMPLETELY CLOSE THE WATERPROOF ENTRY ZIPPER AND THE RELIEF ZIPPER WILL RESULT IN LEAKAGE OF WATER INSIDE THE SUIT AND REDUCTION OF SURVIVAL TIME WHEN IN THE WATER. HAVE A FELLOW TEAM MEMBER CHECK THE QUICK-LOCK™ WAIST CLOSURE SEAL AND WHETHER THE RELIEF ZIPPER SLIDER IS FULLY SEALED AGAINST THE SEALING PLUG.

8. Tighten the ankle Velcro® covers to a snug fit.
9. Burp the suit before water entry: cross arms in front and gently slide fingers between the neck seal and your neck, squat down and force excess air through the neck opening.



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 Velcro® waist and ankle adjustment tabs.
4. Separate the Quick-Lock™ waist closure top from the bib by pulling in opposite directions on the pull tabs.



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

5. Insert fingers between neck seal and neck. Gently stretch the seal outward and upward while pulling neck seal over your head.
6. Remove hands from wrist seals by holding onto the cuff or pull tab. Point your fingers straight, tucking the thumb underneath the seal. Slowly pull your hand through the wrist seal. Do not make a fist or pull on the seal when putting your wrist through the seal. Once your hands are out, invert the seals back out of the suit sleeve so that they are oriented away from the suit.
7. Pull suit down past hips and slide legs from the suit.

AVOID PULLING ON THE WRIST SEAL WITH FORCE OR FINGERNAILS AS THIS MAY DAMAGE THE SEAL.

CLEANING AND MAINTENANCE

CLEANING

1. Thoroughly rinse your dry suit after every use.

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

2. Treat stains with a pre-wash treatment such as Shout® or Spray 'n Wash®. Follow the manufacturer's instructions. Rinse well.
3. Machine wash warm (104° F/40° C) on gentle cycle using a mild powder or liquid detergent. Do not use fabric softener, bleach, or wash-in treatments, as they can affect the suit's breathability.

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.

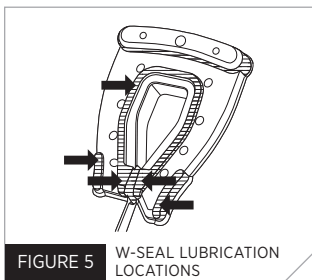
4. Tumble-dry using an air setting.

ZIPPER MAINTENANCE

Regular zipper maintenance is recommended to maintain a water-tight seal, inhibit corrosion, and keep the zipper gliding freely. These steps are essential to zipper longevity:

FOR PLASTIC YKK AQUASEAL® RELIEF ZIPPER:

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.



WARNING: LUBRICANT IS FOR USE ON RELIEF ZIPPER ONLY. DO NOT USE ON QUICK-LOCK™ WAIST CLOSURE SYSTEM AS IT MAY COMPROMISE THE WATERTIGHTNESS OF THE SEAL.

2. YKK zippers need to be lubricated on the docking end approximately every 15-20 days of field use. One package of Molykote® Lightning Grease lubricant is included with your suit. Only use the Molykote® Lightning Grease lubricant.

DO NOT DISCARD THE BLISTER PACKAGE. LUBRICANT CAN BE STORED IN THE ZIPLOCK BAG AND REUSED

- a. Open the zipper to expose the W-SEAL.
 - b. Open the lubricant, seen in Figure 4, by ripping the package seal.
 - c. Squeeze the package gently and apply a small amount of lubricant to the W-SEAL as indicated in Figure 5. Only apply to the arrow indicated areas.
 - d. Flip over the zipper end and lubricate the back in the same highlighted areas as the front.
 - e. Close the zipper.
3. Repeat before long term storage.

DO NOT LUBRICATE THE ZIPPER TEETH.

STORING THE SUIT

Hang the suit with the Quick-Lock™ waist closure disengaged and the relief zipper closed.

FOLDING AND PACKING

1. Ensure that the suit is thoroughly clean and dry and that the Quick-Lock™ waist closure system is disengaged and the relief zipper is in the closed position before folding and packing.
2. Lay the suit flat on its back on a horizontal clean surface, allowing the suit to be fully extended with none of the parts overlapping.
3. Fold wearer's left sleeve, from the shoulder straight across the body of the suit. Fold the opposite sleeve, from the shoulder straight across the body of the suit on top of the folded left arm.
4. Fold the socks over top of the legs until they reach crotch level.
5. Fold the legs from the crotch up to the chest level, right below the folded sleeves.
6. Stack the top and bottom halves.
7. Pack, roll, or fold the stack ensuring that the zippers do not crease.

REPAIRS

The protection provided by this suit relies very much on its watertight characteristics. It is extremely important that damaged suits are handled in accordance with repair requirements.

The Two-Piece Flood Response Suit takes advantage of Mustang's Rapid Repair Technology™ enabling users to self-replace neck and wrist seals and repair small leaks in an hour or less.

For detailed information on repair procedures, please visit www.mustangsurvival.com/rapid-repair-technology and download the user manual.

All major repairs should be performed by the manufacturer. For inspection, testing, and repair information, please contact Mustang Survival:

Telephone: 1 800 526 0532

Email: custserv@mustangsurvival.com

ACCESSORIES

The following accessories are available for your Two-Piece Flood Response Suit:

- Neoprene survival hood (part #MA7348)
- Plastic YKK AQUASEAL® zipper lubricant (part #MA0094)
- Replacement top suit (part #MA0501)
- Replacement bottom bib (part #MA0502)

For more information on these items, please visit:

www.mustangsurvival.com.

WARRANTY INFORMATION

LIMITED WARRANTY : Mustang Survival products are warranted to be free from defects in materials and workmanship for a period of one year 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 and 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.

CONTACT

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

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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

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