#### **Velcro® Care**

The genuine Velcro brand hook and loop closures used in all Aerostich garments are of the best quality available. Even so, they require careful cleaning and maintenance to maximize their useful life. The 'hook' component of Velcro is actually comprised of hundreds of tiny hooked plastic fibers which have an affinity for dirt, hair, fibers, and even snow. Clean these materials by gently pulling debris off at an angle. When washing this garment, close all Velcro tabs and flaps to prevent snagging other fabrics. Do not subject these closures to bleach or hot drying. Fraying is caused by excessive dryer heat which weakens the resins bonding the base of the woven hook or loop closures. Use low heat settings when drying. Because Velcro wears after long use, some loss of strength is not considered a warrantable defect of materials or workmanship. Velcro replacement service is available separately as needed.

### **Falstaff Cleaning and Rewaxing**

Waxed cotton fabric cannot be laundered or dry cleaned. This tightly woven cotton fabric is impregnated with a paraffin formula derived from fabric finishes developed in the late 1800's and early 1900's for use in foul weather gear. When hung in a warm room, or outdoors on a warm day in sunlight, it re-finishes itself and relaxes, so some use marks will fade. A Falstaff jacket is one of the most waterproof riding jackets available, but fabric care is important for maximum waterproofness after long use and in severe conditions. To clean, hand wash only using cool water and a mild Woolite or Ivory solution. Air dry only, keeping away from heat (radiators, etc.). Wipe off any grit with cold water and sponge. Blot stains and spot clean with a damp cloth and small amount of a mild detergent and warm water. The oily wax finish effectively repels most stains. Wetting and wiping fabric should remove stains, but will not remove abrasion marks. After cleaning, re-proofing is recommended. Do not iron. Do not hang near flame. Store in an airy place to dry. Apply wax following the directions supplied with re-waxing preparations. Use fingers to work wax into fabric. Re-wax intervals depend on wear and use. Once every few years is average. It may not be desirable to re-wax the entire garment....re-waxing only the primary wear areas may be sufficient for renewing overall function.

#### **Glove Care**

To help protect your gloves through rain showers and from perspiration, the leather should be periodically treated with a water repellent. Put both gloves on and while wearing them, spray lightly (all over) with a silicone waterproofing (Camp Dry, etc.). Leather colors other than black will darken when sprayed, but will later return to their original color as solvents evaporate. Do not soak or saturate. Just one light spray. Too much will limit the leather's ability to breathe and absorb perspiration.

Carefully apply a small gob of Snow Seal, Mink Oil, or similar waxy shoe grease onto

the backside (across the knuckles and back of the hand areas only). Do not get any of this material on the palm and fingertip side. Allow gloves to dry fully before use. Depending on how much you ride, and how much rain you encounter, this treatment should last about a season of riding, and your favorite gloves will last longer.



#### **Combat Touring Boots**

Boots can be re-soled by most cobblers. Soles and buckles are available separately in the Rider-WearHouse Catalog. Regular applications of leather waterproofing products (Nikwax, Aqua Seal, etc.) are an important key to long boot life and water repellent performance. Depending on your local climate and riding patterns, apply a waterproofing product about two times a year, following directions on the manufacturer's package. The stitching around the sole and cuff can be additionally waterproofed using a thin urethane seam sealer (Aqua Seal, etc.) which soaks into each needle hole to block water from entering the boot.

### **Snap Tuning/Adjusting**

Occasionally snaps can become stiff and hard to engage/disenagage. Usually this is due to the female snap's mounting rivet not being 'peened' down sufficiently. As shown in the illustration, place the female snap half on a firm, resilient surface (like a densely woven carpet or doormat) and position an appropriate punch over the rivet inside the head of the female snap and strike it lightly with a hammer. Take it easy as you don't want to overdo it or dent the domed top of the snap. Proceed incrementally and check the results each time until the snap works easier.

# GENERAL SERVICE/REPAIR MANUAL

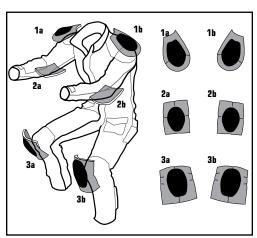


### 77F Pad Removal and Replacement (Roadcrafter/Darien/Falstaff)

The pads used in Roadcrafter and Darien suits should be removed periodically for inspection or when laundering the garment. To identify Knee, Elbow, and Right and Left Shoulder pads, refer to the illustrations below. Knee and elbow pads are interchangeable left to right but have a top and bottom orientation. The upward side of the knee pad is closest to the pad's radius. To remove or replace the elbow pads, first turn the sleeves inside out. After replacing the pads and pulling the sleeves right side out, recheck the position of the pads (and the engagement of the Velcro if Darien) within the sleeve and re-position if needed. Refer to these (1-6) illustrations for pad removal and replacement sequence. Refer to these (1a-2b) illustrations to identify the correct position and orientation for the elbow and shoulder pads. The shoulder pads have a left and right, and elbow pads have a top and bottom orientation. All pads are available in S, M, and L sizes in both TF2, TF3 and TF4 hard shell or soft versions. Pads may also be made smaller by cutting around outside edges as needed, up to .25°, to increase freedom of movement and obtain a better overall fit. If pads become torn they can be reglued using most contact-type adhesives including Barge Cement or Elmers Contact Adhesive.

1 2 3 4 5 6

- 1. On hard-armor pads, avoid bending foam too near glued area
- 2. Roll and flatten pad for installation.
- 3. Insert pad into pocket and allow to "unroll" inside pocket.
- 4 & 5. Insert folded elbow pad (turn sleeve inside out first).
- 6. Insert right sleeve shoulder pad (pointed end goes towards back of suit)



# Roadcrafter and Darien Laundering

Remove the TF pads and the contents of all the pockets. Close all vent zippers. Wash using the regular cycle, and a "warm" water setting. Use only a mild liquid detergent. Run the complete wash/rinse cycle a second or third time with no soap. The second or third water-only rinse is required to remove any residual soap. Hang dry or machine dry at a medium temperature. When dry, tumble your garment on warm dryer setting for 20 minutes to reactivate the DWR (Durable Water Repellent) treatment. Do not use an anti-static product when using a dryer. Reinsert the TF pads. Your suit's Velcro® fasteners will pick up lint if you wash the suit with towels, etc. You may also apply spray-on or wash-in DWR product following the directions on the product label. Stains and spots can be removed using 'spot cleaning' stain removal products. Citrus based cleaners work well for cleaning oil stains. Machine washing is recommended. Do not dry clean unless clear distilled solvent and a spray repellent are used.

### **Maintaining Cordura/PTFE Fabric**



These procedures will help your suit continue to function well in wet conditions even after long use and multiple launderings. The manufacturing process that attaches the breathable/waterproof membrane to the back of the Cordura outer fabric is completed by applying a DWR (Durable Water Repellent) chemical treatment that prevents water from being absorbed into the Cordura's fibers. Rain water should bead and run off the outer surface of your suit's fabric so sweat vapor can pass through the PTFE membrane (laminated to the inner side

of the Cordura fabric). If the outer fabric becomes saturated in rainy conditions, this water layer forms a barrier that causes sweat vapor to condense on the inside surfaces of the garment so you become wet, even though rainwater is not passing through the fabric. The original DWR chemical treatment wears away over time and should be renewed to prevent this. By periodically laundering your suit (see above) with a wash-in repellant like Nikwax®, or thoroughly spraying it's exterior with a water repellent product like Tectron® or ReviveX® you can insure that water will bead and run off, and that sweat vapor will be able to pass through, even in rainy conditions. Using a water repellent treatment will also help your suit dry faster after being in rain.

**Snap Replacement** 

STUD

2. Cap is flattened

POST

1. Material is sandwiched between male parts.

SOCKET

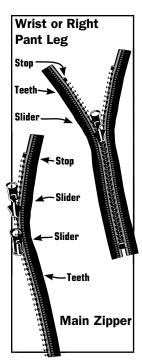
STUD

5. Finished? The result should look like

(View of right leg)

Instructions\*

CAP



### **Zipper Slider Replacement**

### Wrist or Right Pant Leg

- 1. With zipper open, carefully remove both stops with needle nose pliers by pinching the center of the stop and working them off. It is possible to accidently rip the zipper tape, so be careful.
- **2.** Move slider down to zipper end and remove slider without allowing teeth to separate. Keep zipper teeth together. If the teeth separate. You will need to re-mesh the teeth together by hand before the replacement slider can be installed.
- **3.** Work new slider on, backing and pulling it up to open the zipper.
- **4.** Clamp new stops as close to the zipper teeth as possible. Squeeze stops firmly into place.

### Main Zipper

- 1. Open the zipper completely, so both halves of the zipper are separated.
- **2.** Carefully remove the stops with needle nose pliers by pinching the top and working them off. It is easy to accidentally rip the zipper tape, so be careful. The one piece Roadcrafter main zipper, two piece Roadcrafter left leg zipper, and Darien pant right and left leg zipper stops are located at the bottom of the zipper.

Note: The main zipper on a two piece Roadcrafter jacket and on the main zipper of a Darien jacket may have plastic stops attached at the top of the zipper. These are removed by cutting off the plastic stop. Use a pair of wire snips and be careful not to cut the zipper tape.

- **3.** Once the stops are removed, discard sliders A and B by sliding them to where you removed the zipper stops and pull them off the zipper tape. You should note how the sliders are oriented on the zipper before you remove them.
- **4.** With suit facing toward you, install slider A and B in the same direction and order as the original sliders. Clamp (crimp) new stops as close to the zipper teeth as possible. Squeeze stops firmly into place.
- **5.** Insert free sides of zipper into both sliders. Zip normally to close zipper.

### **Zipper Maintenance**

All zippers eventually wear out, but their life span can be lengthened by maintenance. Keep the teeth or coils free from dirt or fibers, treat them with a lubricant, and periodically check the slider for wear. In most instances where the teeth of the zipper will not close, the metal zipper slider has worn down inside, and will not engage the separate sides effectively. Worn zippers are not considered to be a warrantable defect of materials or workmanship, but repairs are available separately. Self-service zipper slider replacement kits are also available. (Complete kit #381) (Expedition/Tour kit #380)

# **Waterproofing Roadcrafter Zippers**

Your Aerostich Roadcrafter garment features a unique zipper arrangement that is key to it's convenience and superior function for everyday riding. This design can become a source of water entry in extremely wet conditions. If you are experiencing leaks at the entry zippers and underarm zips, they can be handsealed using Aqua Seal®, Seam Grip® or similar liquid seam sealer. When using these seam sealing products, make sure they are thin enough to partially soak into the fabrics fibers, thread, and stitching. (Because Seam Grip is thinner it works better than Aqua Seal for these kinds of seam sealing jobs.) Use two coatings and allow the sealer to dry between applications. In addition to the stitning attaching the zipper to the garment, apply sealer to the knit nylon zipper tape that the zipper's teeth are attached to. Do not apply sealer too heavily in this area or it will interfere with the zipper's slider. Seam sealer should soak into the knit zipper tape and dry invisibly. Use two applications here also. Use these techniques to seal these areas:

- **1.** The outer stitching around the perimeter of both underarm zips (and the knit zipper tape);
- 2. The outer stitching on both sides of the right leg zipper (and the knit zipper tape) from the top to a few inches below the bend in the knee.
- **3.** The outer stitching on both sides of the left leg zipper (and the knit zipper tape) from about two inches above the bottom of the outer Velcro flap to a few inches below the bend in the knee.

# Sticking Wrist Zippers (Roadcrafter/Darien)

Wrist zipper sliders jam if the sleeve gusset's fabric is drawn between the slider and the zipper's teeth. This can be caused by a 'ridge' of fabric stiffness directly beneath the row of zipper teeth (caused by an underlying layer of seam sealing tape). To prevent this 'ridge' from jamming the slider, open the zipper fully and locate the stiff edge of the seam tape beneath the gusset's fabric. It is located directly beneath the row of zipper teeth and may be folded/creased inward, away from the zipper. Making a firm, sharp crease will help the fabric stay permanently in this position and will eliminate wrist slider sticking.



# **Temporary Zipper Pulls**

Adding oversize zipper pulls to make sliders easier to handle with gloves can also make it easier to accidentally break the zipper. When this occurs it is not always convenient to replace the slider. Paper clips and duct tape can last a few weeks as a substitute for the pull handle, but this method works better. From a locksmith shop or hardware store, purchase several little split rings (under 1/2" diameter). The size you want should fit in the hole on the back of the zipper pull where the slider handle was before it broke. Thread a loop of nylon cord (or an Aerostich fabric zipper pull) through the ring as a handle. - Tip submitted by Dr. Flash Gordon

# **TL**EC™ Fleece Laundering

Wash or Dry clean. Use mild detergent and dry on low or medium heat, or hang dry.

### TL™ Fleece Care

Periodically treating fleece garments with a water repellent (Nikwax, Tectron, etc.) can help it wear warmer, stay dryer and feel better. Treated fleece will also shed light rain yet remain fully breathable. Apply repellent following manufacturers directions.

### **Triple Digit Raincovers**

Periodically spray the fabric with Tectron or treat with ReviveX or a similar waterproofing preparation so water will bead and run off the surface of the fabric. If water is absorbed into the fabric's fibers, it can block the passage of moisture from the inside of the glove covers to the surrounding atmosphere. DWR (Durable Water Repellent) maintained Triple Digit Glove Raincovers continue to breathe and allow moisture to escape even during direct rain conditions. After long use and wear, small leaks may occur in seam taped areas. These can be identified by turning the glove inside out, filling it with water and marking the places that leak with a waterproof marker. (Or filling the glove with air and immersing. Bubbles will indicate leaks.) After thoroughly drying out the Triple Digit Raincover, apply a urethane seam sealant (Aqua Seal, etc.) to close each opening.

### Adhesive Velcro Pad Attachments/Seam Tape Repair (Darien)

The unique adhesive Velcro pad attachment system makes your Darien jacket lighter and cooler wearing than jackets with separate linings. This unique, highly functional design exposes the seam sealing tape to wear, and also requires the use of adhesive Velcro to locate the impact pads (without stitching or snaps that would be visible from the outside of the garment). The adhesives used are very reliable and should last the life of the jacket, but if a part of the adhesive beneath the tape or Velcro begins to detach, repairs are easy. The easiest way is to simply repair where needed using urethane adhesive (Aqua Seal, Barge Cement, etc.) or any other available contact type cement that will remain flexible. Additional repair tape and replacement adhesive Velcro is available separately on request. If you send the garment to us for repair, mark the areas that need to be checked.

### **Fabric Color Durability**

Weather and strong direct sunlight may cause some color fading of the dye used in the manufacture of the Roadcrafter and Darien's Cordura Plus nylon fabric. Similar fading can occur in all types of clothing from leathers to blue jeans. This is considered by fabric manufacturers to be normal wear and does not affect the strength, waterproofness or overall performance of this garment. Red dyes show color loss faster than blues, hi-viz, blacks or grays. Colorfastness can be maximized by washing with milder soaps, drying at low temperatures and occasionally re-applying a water and stain repellent and/or a sunscreen and UV inhibitor product. Fading is not normally a warrantable defect in materials and workmanship.

### **Fabric Color Matching**

Dyeing synthetic fabrics is an exact science. Even so, color variations do occur, sometimes on a small roll of textile. Darien and Roadcrafter suits can be mixed for sizing, so they may be manufactured from like colored fabrics from different dye lots. Slight shade or tint differences that are the result of our manufacturing processes are not considered a warrantable defect of materials or workmanship.

# **General Repairs**

Broken zippers, torn linings, melted Ballistics, and other repairs of this nature are estimated based on the materials and labor required. Replacing a zipper or some Velcro is usually between \$10 and \$30, but we will contact you with an estimate before performing any work. Repairs are done and the suit is returned in about 10 days.

#### Repair Materials

Cordura, waxed cotton, all lining fabrics, all zippers and all other replacement materials are available on a no-charge basis for patching and repair work. Depending on the materials ordered there may be a separate shipping charge.

### **Crash Repairs**

The actual amount of crash damage varies depending on the circumstances of each accident. The suit is a "total" and cannot be repaired if the price of the repairs exceeds half of the price of a new replacement. You will be contacted with an itemized estimate of repairs needed, based on time and materials, before work is begun. Repairs are done and the suit is returned in about 10 days.