

# COVER-UP CARE & MAINTENANCE

Hot line maintenance began in the early 1900's with a few homemade tools. Tools and working methods improved vastly in the 1920s and 1930s. During that era linemen realized the value of a protective shield to guard them and the equipment they were using from accidentally contacting an energized conductor.

Much of this early "cover-up" was made of natural rubber or some type of phenolic material. Even wood was used during the 1940s when World War II efforts created a shortage of rubber. Materials and manufacturing methods have advanced a great deal since those early days, but one basic principle persists: You must respect and care for your equipment.

## Field Care and Maintenance

CHANCE® covers are visually inspected and design tested per the applicable ASTM and IEC standards. Covers leaving the factory are new and ready to use. While in use, the covers are subjected to the elements, contamination, wear and tear and possible abuse.

What protection do the covers provide after they have been in service? This will largely depend on how they are cared for. Here are some important steps for cover-up care:

1. Visual inspection
2. Careful handling
3. Cleaning
4. Periodic electrical testing
5. Proper storage

### 1. Take a close look - Daily.

Visual inspection of each cover must be performed prior to use. Do not assume that a cover is safe and ready to use without closely examining it. Both the interior and exterior surfaces must be inspected looking for: contamination, moisture, swelling, excessive wear, punctures, cracks, gouges, deep scratches, loose or missing components, etc. If there is any question that a cover may not be suitable for use, it should be immediately removed from service, tagged or marked and set aside for later cleaning, electrical testing, or disposal.





While damage to hard plastic covers is usually more obvious, defects in rubber covers can be difficult to detect. The rubber material can appear undamaged even after being cut or mechanically punctured. The established method of inspecting rubber covers is to stretch the surface, which exposes the damage. This can usually be accomplished with a rolling or peeling action.

## 2. Proper Handling

It is important that lineworkers become acquainted with any unfamiliar cover-up equipment on the ground before using it up on the pole. A lineworker needs to know how it is to be adjusted, installed, coupled, and removed. Rough handling can damage and shorten the life of the covers. At the end of a work session, never drop the covers from the pole top to the ground. Instead, lower them carefully with a hand line. Remember that both plastic and rubber cover-up become stiffer and more difficult to flex as the temperature drops. It can be helpful to warm a cover in the truck cab before using on a cold day.



## 3. Keep it clean

Proper and frequent cleaning may be the most neglected procedure of all. Dirt, creosote, wire markings, and other contamination can be conductive, especially if combined with moisture. Many covers are slid along a conductor, pole, or crossarm surface during installation and removal. This sliding action causes the cover-up to pick up many kinds of contaminants, as well as scratches and gouges. The point at which a cover should be cleaned before further use is whenever it appears "dirty." Some covers could be considered dirty after only one use, while others could be used many times before needing to be cleaned. Some utilities inspect and clean cover-up on a regularly-scheduled basis.



Strong household and industrial cleaners can cause permanent damage to some cover-up materials. For example, some industrial solvents will dissolve ABS plastic and swell some rubber compounds.

Mild non-abrasive soap and water are recommended for cleaning all of the cover-up materials. For more stubborn spots a nonabrasive pad may help. Be sure to wipe away all moisture and soap residue from the cover surfaces before using. If anything stronger than mild soap and water is to be used, it is essential to first know what material is being cleaned and what effect the cleaner will have. The product descriptions in the CHANCE catalog (Section 2400) usually specify what material can be used to clean each cover.

**Routine, thorough inspection reveals contamination inside and out on rubber cover-up.**

**Ozone-safe Moisture Eater II solvent makes cleaning quick and easy.**

**CHANCE® Silicone Spray or Wipes return line hose interior to like-new condition for easy application and removal.**

Please use this information with caution since designs and materials can be changed without notice. If a lineworker is still unsure of the material being cleaned, wipe a cloth saturated with the intended cleaner along one edge of the cover. If any orange color is transmitted to the cloth or the cover surface dulls, do not use that cleaning solution.

Polyethylene covers can be cleaned with most cleaners, but ABS plastic and rubber covers should only be cleaned with water and mild non-abrasive soap. Moisture Eater II cleaning solvent is excellent for cleaning stubborn dirt, tar, and metal rubbings from CHANCE® rigid polyethylene covers.

#### 4. Testing in-service cover-up.

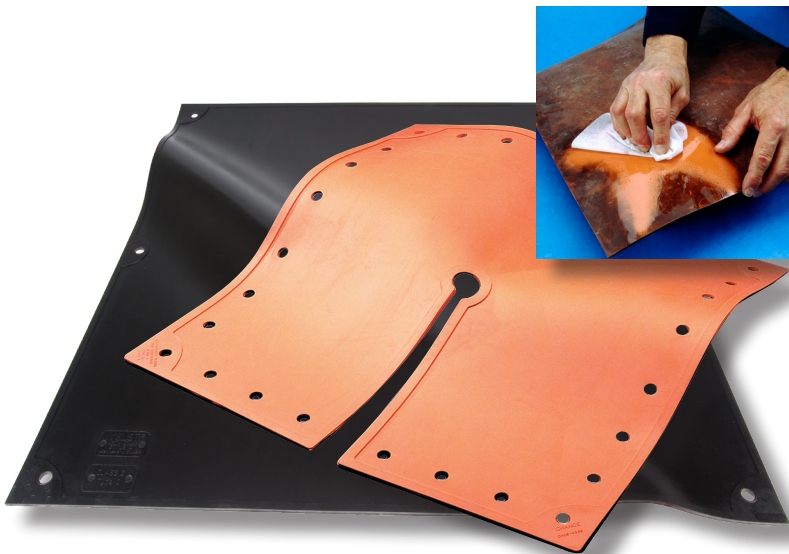
Some electric utilities have established periodic retesting programs for their cover-up. New cover-up from CHANCE meets or exceeds industry electrical standards and can be placed into immediate service after initial inspection for shipping damage. After visual inspection, if the electrical integrity of a cover is in question, it should be tested at a prescribed withstand voltage according to its rating or discarded. ASTM standards F478 and F479 describe testing methods for rubber equipment while ASTM F712 deals with testing of rigid plastic covers. ASTM F479 also requires electrical retesting of in-service blankets at a maximum interval of every 12 months. If it is determined that a cover does not meet electrical requirements, it should be permanently marked or cut up so that it will not be placed back in service.



On cover-up made of ABS plastic, do not use Moisture Eater II cleaner. Too harsh a solvent will pick up the material's color on the cleaning pad.



Soapy water and complete rinsing can remove most contaminants.



Electrically testing CHANCE cover-up prior to shipment.



**Careless transport and storage can destroy the integrity of cover-up. Store it separate from other tools to keep it clean, dry and in its original shape.**

**Some spiral line covers can be nested.**



## **5. Store properly.**

Improper storage can cause a cover to become distorted, making it hard to use and possibly unsafe. Cover-up equipment should always be stored in such a way that the original intended shape is preserved and the material is not stressed. Many covers are designed to have specific air gaps and flashover distances in order to achieve a designated electrical rating.

Any distortion can alter the electrical characteristics. All cover-up should be stored in a cool, clean, dry, indoor location and positioned so that the original shape is maintained. Prolonged exposure to sunlight, ozone and weather can cause plastic and rubber to degrade, losing some of its flexibility, impact resistance, and electrical withstand properties. Do not store protective covers on top of a line truck.



Rubber blankets can be stored flat or loosely rolled and placed in a blanket canister (see CHANCE® catalog numbers C4032998 and C4032999).

Flexible line hose should be laid horizontal and straight. If piled, be sure that the bottom units are not distorted by the weight of those above. Plastic covers can sometimes be nested together as long as there are no distorting forces applied.

Take good care of your cover-up equipment so that it will perform the duties for which it was designed.



*Hubbell has a policy of continuous product improvement. Please visit [hubbellpowersystems.com](http://hubbellpowersystems.com) to confirm current design specifications.*

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