

## INSULATING GLOVES

### DESCRIPTION, CARE, AND MAINTENANCE

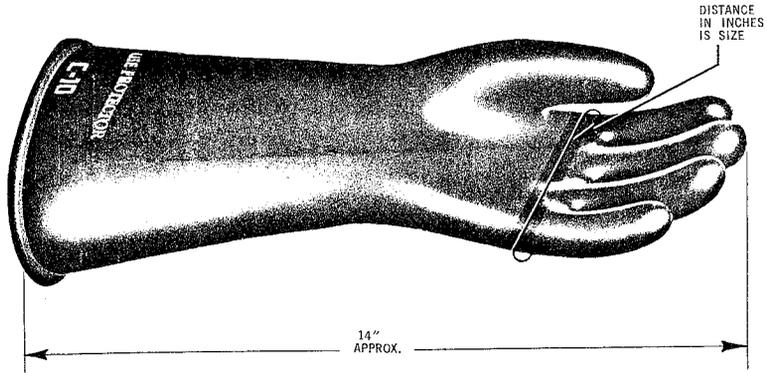
CONTENTS	PAGE
1. GENERAL . . . . .	43
2. TYPES OF INSULATING GLOVES . . . . .	44
3. C LEATHER PROTECTOR GLOVES . . . . .	44
4. B FABRIC LINER GLOVES . . . . .	44
5. INSULATING GLOVE BAGS . . . . .	45
6. ELECTRICAL TEST . . . . .	45
7. TESTS OF INSULATING GLOVES . . . . .	45
8. MAINTENANCE OF INSULATING GLOVES . . . . .	47
9. USE OF INSULATING GLOVES . . . . .	47
10. STORING INSULATING GLOVES . . . . .	48
11. DISPOSITION OF INSULATING GLOVES REQUIRING ELECTRICAL TEST . . . . .	48

#### 1. GENERAL

**1.01** This section covers the description, care, maintenance and general use of insulating gloves, provided for electrical protection of workmen and the safety precautions to be followed in their use. Information on the C Leather Protector Glove, B Fabric Liner Glove, which are associated with C and E Insulating Gloves, and on the Insulating Glove Bag, is also included.

**1.02** This section is reissued to up-date the information and add additional tests. As this is a general revision marginal arrows normally used to indicate changes have been omitted.

**1.03** *The C and E Insulating Gloves are a personal tool, therefore, each employee must at all times assume full responsibility for the condition of his own Insulating Gloves.*



C OR E INSULATING GLOVE

**SECTION 081-710-200CA**  
**SECTION 075-141-501CA**

**2. TYPES OF INSULATING GLOVES**

**2.01** There are two types of Insulating Gloves.

The D Insulating Gloves for Central Office use and the C or E Insulating Gloves for Outside Plant use. The manufacturing, testing and retesting specifications require that all types of gloves be capable of withstanding 10,000 volts.

**2.02** The size of the gloves is measured by the number of inches around the glove measured midway between the thumb and the finger crotches. The length of both types of glove is 14 inches from the tip of the second finger to the cuff. The D glove is furnished in size 10 only. The C or E Glove is furnished in sizes 10, 11 and 12. Fabric Liner Gloves can be worn with both types, especially in Outside Plant to keep the hands warm in winter and to absorb perspiration in summer.

**2.03** The C and E Insulating Glove is made of lightweight rubber to permit maximum flexibility. The E type is constructed with two plies of rubber. The outer ply is black and the inner ply is red. It is a requirement that C Leather Protector Gloves be worn over these gloves to prevent mechanical damage. The words "USE PROTECTOR" are marked on the outside near the edge of the gauntlet on the palm side.

**2.04** The C Insulating Glove is made of all black rubber and is electrically identical to the E Insulating Glove but will gradually be replaced by the latter type.

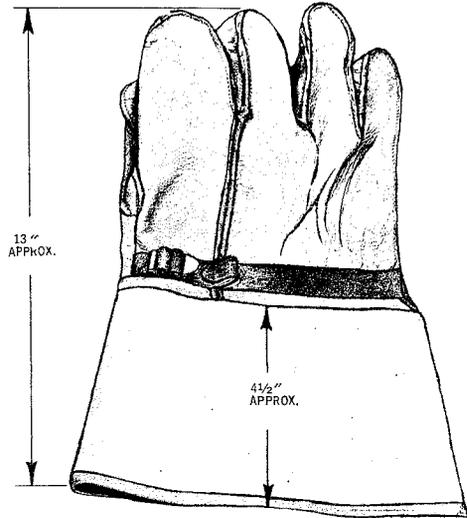
**2.05** The D Insulating Glove is made of rubber of such thickness that protector gloves are not required.

**3. C LEATHER PROTECTOR GLOVES**

**3.01** The C Leather Protector Gloves are used over C or E Gloves to prevent mechanical damage to the rubber. Remember that the leather protector gloves provide no protection from electrical shock. They must not be worn as a substitute for work gloves.

**3.02** C Leather Protector Gloves are made of deer skin, of moccasin style construction

(seams sewn outside at back of the fingers and thumb) and have gauntlet cuffs about 4½ in. wide. They are available in sizes 10, 11 and 12 and should be ordered in the same size as the Insulating Glove.



C LEATHER PROTECTOR GLOVE

**3.03** Leather protector gloves shall be given reasonable care in use. Oil, grease, pentox, creosote, paint, etc., on the palm and finger surfaces of the gloves will impair their usefulness for work operations and could deteriorate the rubber of the Insulating Glove underneath. Foreign matter should be immediately wiped off the gloves with a soft dry cloth.

**3.04** Inspect leather protector gloves before and after using them. Remove all foreign particles imbedded in the surface, especially splinters of wood or metal, which may have damaged the rubber of the Insulating Gloves.

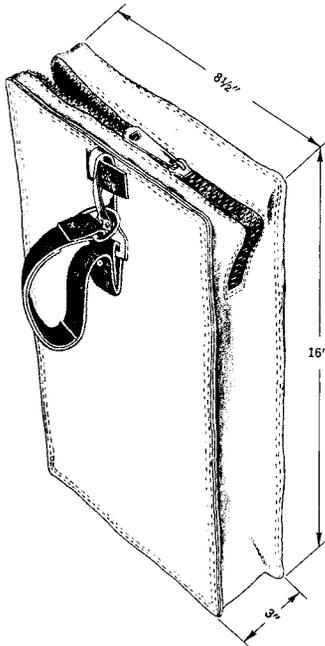
**4. B FABRIC LINER GLOVES**

**4.01** B Fabric Liner Gloves are knitted cloth gloves with an inside woolly surface. These gloves should be worn inside C or E Insulating Gloves for warmth in cold weather and for absorbing perspiration in warm weather.

## 5. INSULATING GLOVE BAGS

5.01 The Insulating Glove Bag is provided for carrying and storing insulating gloves and associated leather protector and fabric liner gloves.

5.02 The Insulating Glove Bag is made of cotton duck with a liner of polyethylene. A zipper is provided for opening and closing the top of the bag. A web strap, terminated in a snap hook and a dee ring is provided for suspending the bag from the body belt and for suspension in the vehicle.



INSULATING GLOVE BAG

5.03 Dead air space is provided within the bag by the polyethylene liner and by the use of a zipper instead of a flap closure. The bag should be tightly zippered when gloves are stored in it. This is essential to minimize deterioration of the rubber of the Insulating Gloves while in storage.

## 6. ELECTRICAL TEST

6.01 Insulating Gloves are inspected and subjected to an electrical test when purchased from the manufacturer to insure that they do not contain any defects which might cause breakdown of the gloves when employees are using them.

6.02 To insure that insulating gloves held in stock and those in use by the field forces are maintained in safe condition **Workmen And Storekeeper Shall See That The Gloves Are Returned For Periodic Inspection And Electrical Test, As Outlined In Part 7.**

## 7. TESTS OF INSULATING GLOVES

7.01 **Each Employee Must At All Times Assume Full Responsibility For Determining That His Insulating Gloves Are In Good Condition. He Shall See That Their Appearance Indicates Neither Deterioration Nor Injury From An Electrical Or A Mechanical Standpoint. He Shall See That They Are Being Used Within The Specified Electrical Test Period As Indicated By The "Return For Test" Date Stamped On The Back Of The Gauntlet.**

7.02 **Each Employee Shall Test His Insulating Gloves.**

- (a) **At The Time He Receives The Gloves**
- (b) **Each Time Before Using Them**
- (c) **Each Time After Using Them**

7.03 A visual inspection of Insulating Gloves shall be made to determine their condition. If any of the following conditions are found to exist or if the condition of the gloves is such that there is any doubt as to their safety, they shall be exchanged at once for a pair in good condition.

- (a) **EXPIRED OF MISSING "Return for Test (Month) (Year)".** Printed on the back of the cuff of each glove. Make sure that the date is not expired. Turn in the gloves one month before the expiry date.
- (b) Squeeze the fingers of the glove together, let go quickly, the glove should return to normal, fingers should not stick together. If there is any sign of stickiness, the gloves must be exchanged at once for a pair in good condition.

**SECTION 081-710-200CA**  
**SECTION 075-141-501CA**

(c) To test the mechanical strength and the deterioration of the gloves, grasp the end of the gauntlet with one hand and pull strongly on each finger of the glove with the other hand. Look for signs of abrasion or deterioration on the sides, palms, and back of the glove. Grasp the thumb and the little finger and pull strongly, looking for cracks between the fingers. Now grasp the index finger and the 4th finger and do the same test. Worn spots will be indicated by undue stretching or by tearing of the glove.

(d) Stretch the glove along both edges, (thumb side and little finger side) while looking for cracks and tears. Do not be afraid of tearing the gloves. This is the purpose of the test.

**7.04** With the E Insulating Gloves, if the appearance of one colour is showing through the other it means that the glove is defective and not safe for use, they shall be exchanged at once for a pair in good condition.

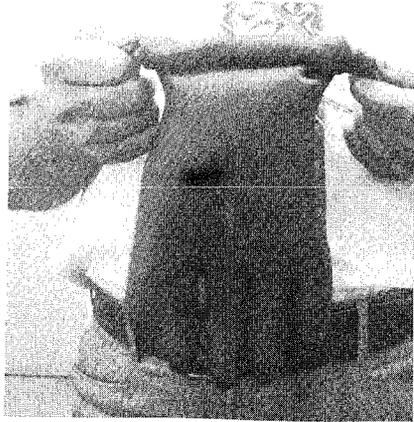
**7.05** The air test shall be made on Insulating Gloves after performing the above tests and just prior to the gloves being used.

(a) Hold the glove at each side of the gauntlet and stretch.



OPERATION 1

(b) Revolve the glove about the edge of the gauntlet as an axis, thus rolling it toward the palm and confining the air in the palm and fingers.



OPERATION 2

(c) Hold the rolled-up gauntlet tightly in one hand.

(d) Squeeze the palm of the glove with the other hand so as to put the confined air under pressure.



OPERATION 3

7.06 To detect air leaks, hold the back side and then the palm side of the glove close to your face.

7.07 If any puncture exists, it will be detected by feeling or hearing the escaping air and the hole in the glove may be evident.

7.08 If a puncture is found or if the condition of the gloves is such that there is *any doubt* as to their safety, they must be exchanged at once for a pair in good condition.

## 8. MAINTENANCE OF INSULATING GLOVES

8.01 **In No Circumstance Shall Repairs Be Made To Insulating Gloves In The Field.**

8.02 Insulating Gloves having obvious defects shall be tagged "Defective" and shall be returned to the Telephone Distributing House for repairs. **The Cuffs Of Insulating Gloves Shall Not Be Cut.**

8.03 Insulating Gloves should be turned inside out and wiped clean when they become wet from perspiration. The outside surface should be wiped clean when the gloves are subjected to contact with dirt, mud, paint, creosote or other foreign matter.

8.04 Use clear water to remove perspiration, mud, dirt or other foreign matter which does not adhere firmly to the rubber.

8.05 Remove paint and creosote as soon as practical, as they may deteriorate the rubber.

8.06 The following method has been found satisfactory for removing paint and creosote from Insulating Gloves:

- (a) Wipe off the gloves with a dry cloth so as to remove as much wet paint or creosote as practical.
- (b) Wash them with water. If the paint or creosote residue cannot be removed, turn the gloves in for another pair.

8.07 After Insulating Gloves are used, they should be thoroughly dried so that the moisture from the hands will not become entrapped and cause the glove to deteriorate. Each time after use, gloves should be turned inside out to dry. After the gloves have been dried, they shall be turned right side out and placed in the containers ready for use.

## 9. USE OF INSULATING GLOVES

9.01 The C or E Insulating Gloves *must* be worn while performing the following job operations.

- (a) Placing poles in joint use lines.
- (b) Operating derricks or other aerial devices near power lines.
- (c) Stringing or removing strand, wire or cable on joint-use lines, or when crossing under a power line in the portion of the line in which the work is being performed.
- (d) While tending reels when conditions in (c) apply.
- (e) When using the Z Voltage Tester.

9.02 Telephone employees shall not handle electric power or trolley wires or telephone plant crossed with electric power except in the following emergency situations. **Under The Following Conditions, C or E Insulating Gloves, Fabric Liners and Leather Protective Gloves Must Be Worn.**

- (a) In cases of emergency to prevent injury or loss of life to an employee or to the public.
- (b) After storm damage, when some work on the telephone plant is imperative, before obtaining the assurance that the plant is clear.
- (c) On line troubles, when fuses or protectors have operated indicating the possible existence of an abnormal voltage.
- (d) On line troubles when the tester has cautioned the workman regarding the possible presence of foreign voltage on any part of our plant.

(e) In ascending, descending or working on poles where the employee is exposed to possible contact with electric street lights, power or trolley wires or their associated equipment.

(f) In handling line wires, terminals, protectors or other parts of plant on which foreign voltage is, or is suspected of being present.

(g) Where there is a possibility of wires, suspension strand, cables, or guys which are being placed or removed coming in contact with electric light, power, trolley or other foreign conductors.

#### 10. STORING INSULATING GLOVES

10.01 B Fabric Liner Gloves and C Leather Protector Gloves, where required, shall be stored with the C or E Insulating Gloves so that they are available for use. Each of these gloves shall be dry before being stored.

10.02 Fabric liner gloves and leather protector gloves shall be separated from the Insulating Gloves before being stored.

#### 10.03 Suggested Storing Methods:

(a) Fold the leather part of the Protective Gloves inside the cuff to prevent creosote, paint, metallic clips or other foreign matter from contacting the Insulating Gloves. Place them in the bottom of the bag and place the B Fabric Liners on top. Stand the Insulating Gloves upright with the fingers to the top for drainage purposes.

*Caution: When closing the bag, make sure that the fingers of the Insulating Gloves will not get pinched by the zipper.*

(b) With forearm outstretched and palm of hand upward, place one Protective Glove palm down on your hand and arm, place one Insulating Glove over the Protective Glove, place both Fabric Liners, place the second Insulating Glove over the liners and then place the second Protective Glove over the others with the palm out. All gloves should have the fingers pointing towards your body. Slide all gloves in the bag holding them together with one hand.

*Caution: When closing the bag, make sure that the fingers of the Insulating Gloves will not get pinched by the zipper.*

10.04 Insulating Gloves deteriorate even when not in use. This deterioration is caused by ozone in the atmosphere reacting with the glove material to produce fine surface cracks. Do not store Insulating Gloves in unventilated rooms containing ozone-producing apparatus or equipment such as commutator-type electric motors and generators. Never place Insulating Gloves near steam pipes, radiators, or in places where they will be subject to heat, as heat will impair the strength of the glove material. For maximum protection of the gloves, the following methods of storage shall be employed.

(a) In the STOREROOM Insulating Gloves shall be kept in the cardboard containers in which they are supplied. These containers are sealed and should not be opened until the gloves are disbursed to the workmen or until returned for periodic inspection and electrical test.

(b) On MOTOR VEHICLES and in SPLICER'S CARTS, Insulating Gloves and associated leather protector and fabric liner gloves shall be kept in the Insulating Glove Bag tightly zippered and hung up in locations suitable for the purpose so as to avoid contact with edged tools.

10.05 Insulating Gloves and associated leather protector and fabric liner gloves being carried for intermittent use shall be kept tightly zippered in the Insulating Glove Bag. Insulating Gloves in Insulating Glove Bags may, if desired, be attached to the body belt.

#### 11. DISPOSITION OF INSULATING GLOVES REQUIRING ELECTRICAL TEST

11.01 Storekeepers are responsible for Insulating Gloves in the storerooms, and workmen for the Insulating Gloves which they have in the field.

11.02 The dates when Insulating Gloves shall be returned for periodic inspection and electrical test are stamped up on the backs of the gloves and on the cardboard containers.

**11.03** All Insulating Gloves in the field shall be returned to the Telephone Distributing House not later than the last day of the month specified on the gloves. Wherever possible, return the gloves in their containers to prevent damage.

**11.04** Before returning a pair of Insulating gloves for test, a replacing pair should be secured. The new pair should be ordered not later than the 15th day of the last month stamped on

the pair which is in use to assure arrival before that date.

**11.05** Storekeepers shall see that all Insulating Gloves in their possession are returned to the Telephone Distributing House by the date stamped on the gloves.

**11.06** All Insulating Gloves which are being returned shall be carefully inspected in accordance with Part 7.