

## 36 kV 400A IEC T-Body –Interface B Connector INSTALLATION & OPERATING INSTRUCTIONS

### DESCRIPTION

The CHARDON 36 kV 400A IEC T-body-Interface B connectors are used to terminate polymeric cable to equipment, such as transformers, switchgear, motors etc. equipped with bushings meeting type B interface per CENELEC EN 50180 and 50181. They are fully screened and fully submersible when mated with the proper bushing or plug and they meet the requirements of CENELEC HD 629.1 S2.

- 36kV 400A Class (18/30kV)



### T-body Interface B Kit Content:

- ⊙ - Compression Lug
- ⊙ - Cable Adapter
- ⊙ - Pin Contact
- ⊙ - Insulating Plug
- ⊙ - Locking Brace
- ⊙ - Rubber cap
- ⊙ - Silicone Lubricant
- ⊙ - Paper Towel
- ⊙ - Installation Instructions

**CAUTION:**

All associated apparatus must be de-energized during installation and/or maintenance. Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**DANGER:**

Do not touch or move energized product by hand. Otherwise it will result in death or serious injury.

### SAFETY INFORMATION

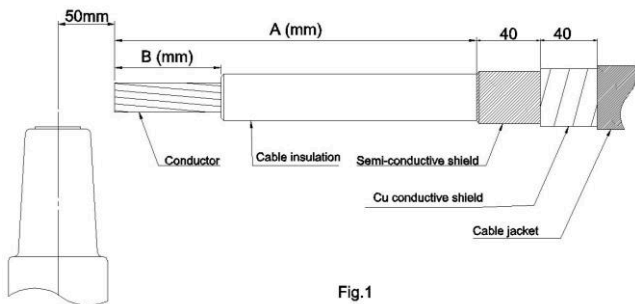
The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

# INSTALLATION PROCEDURE

## STEP 1

Check kit components to insure proper fit with the cable diameter dimensions, conductor size, and mating products.

## STEP 2



36kV	Sheal bolt range	A	B	Compression Lug	A	B
	T-SBC-B-25-50/1	200	50	25-35	190	50
	T-SBC-B-70-95/1	200	50	50-70	190	60
	T-SBC-B-70-120/2	197	70	95-150	190	65
	T-SBC-B-150-240/2	197	70	185-240	190	70
	T-SBC-B-300-400/3	190	80	300-400	190	80

Prepare the cable to the desired finished position and cut the cable. (See Fig. 1)

- 1) Remove the cable jacket for a distance of "A"+80 mm from the end of the cable. Do not damage the copper conductive shield or copper wire.(See step 3 to deal with the copper conductive shield or copper wire.)
- 2) Remove "A" +40(mm) of copper conductive shield. Do not damage the semi-conductive shield.
- 3) Remove "A" (mm) of insulation screen. Do not damage the cable insulation.
- 4) Remove "B" mm of cable insulation. Use PVC tape to secure the exposed ends of the cable conductors.
- 5) At the end of the insulation and semi-conductive shield chamfer the sharp end at a 45° angle.

## STEP 3

### For Tape Shielded Cable

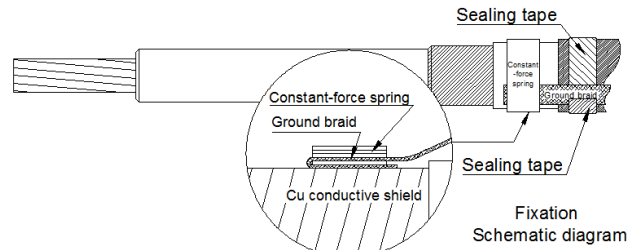


Fig.2-1

- Use sandpaper to grind the cable jacket to rough the surface and clean cable jacket and Semi-conductive shield.
- Wrap the sealing tape onto the cable jacket.
- Use constant-force spring to fix ground braid into Semi-conductive shield.
- Wrap the sealing tape onto the ground braid. as shown in Fig. 2-1.

### For Wire Shielded Cable / JNC Cable

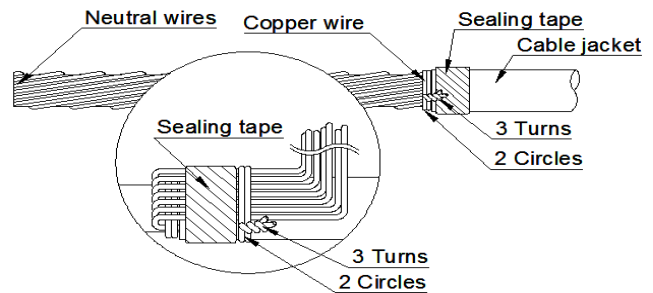
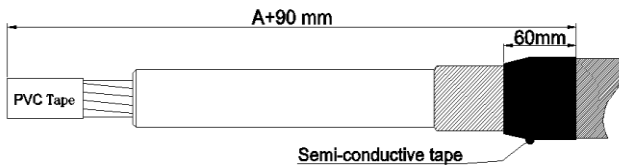


Fig.2-2

- Use tinned copper wire to lash the neutral wires
- Use sandpaper to grind the cable jacket to rough the surface, clean the grinded surface then bind the sealing tape on.
- Bend neutral wires down and parallel to cable.
- Use tinned copper wire to secure neutral wires to cable jacket
- Wrap the sealing tape onto the neutral wires.

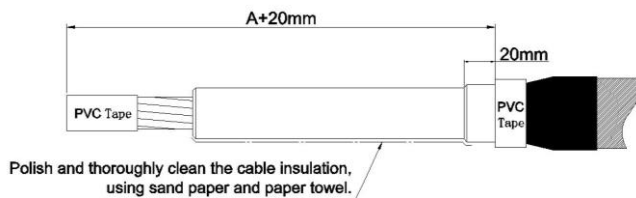
## STEP 4



(Fig. 3)

Wrap 2 layers a distance of 60mm of the semi-conductive tape for a distance of “A” +90mm from the end of cable, copper conductive shield and semi-conductive shield as shown in Fig. 3.

## STEP 5



(Fig. 4)

Polish and thoroughly clean the cable insulation, using sand paper and paper towel. Wrap two turns of PVC tape to serve as a marker at a position of 20 mm from end of the insulation screen (a distance of “A”+20 mm from the end of the cable, See Fig. 4).

## STEP 6

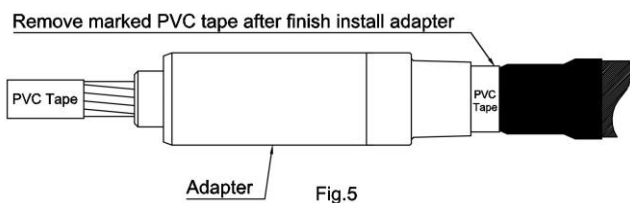
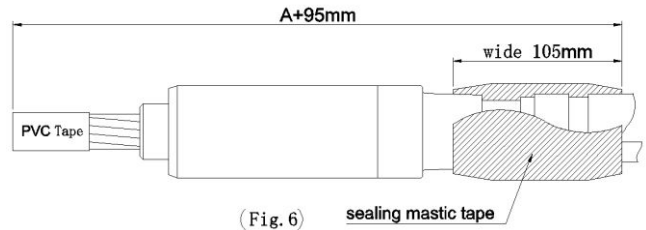


Fig.5

Lubricate the exposed cable insulation and adapter inside interface. Slide the cable adapter onto the cable, black end first, until the black end is flush with tape marker. Check the Critical Dimension as shown in Fig. 5 below.

Then remove the marker. Wipe off grease from end of cable adapter, preparing the surface for application of tape.

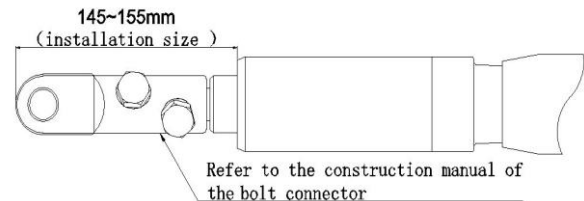
## STEP 7



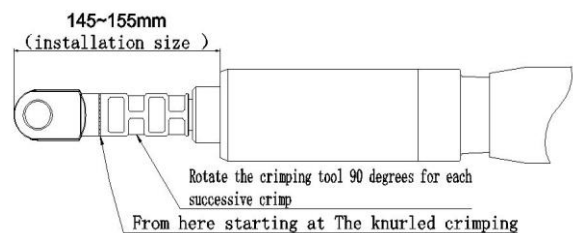
(Fig. 6)

Wrap 2 layers of sealing mastic tape “A” +95mm from the end of cable (wide 105mm). Wrap 2 layers of PVC tape on the sealing mastic tapes. (See Fig. 6)

## STEP 8



(Fig. 7-1)

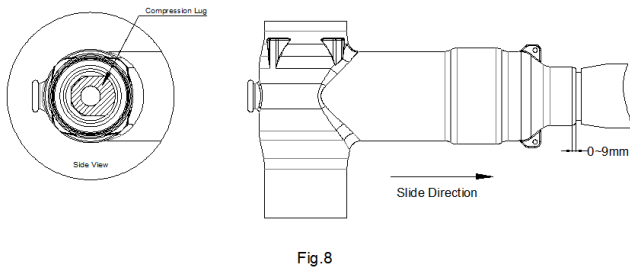


(Fig. 7-2)

Remove the PVC tape and clean conductor from the end of the conductor.

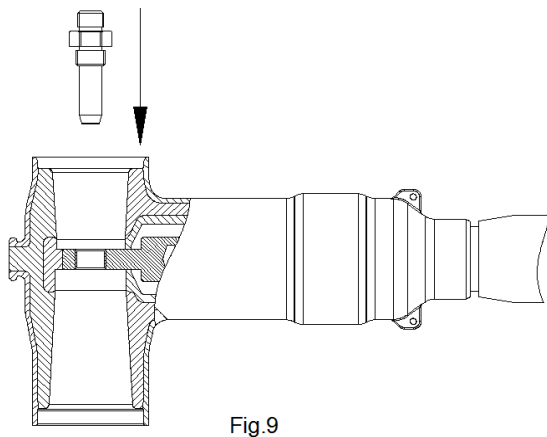
Immediately insert the conductor into the crimping barrel as far as it will go. Ensure that the flat of the lug spade is parallel to the face of the bushing. Stress from the tail cone to the terminals 145 ~ 155mm at the top of the terminals, installed as shown in Fig. 7.

## STEP 9



Clean the outer surface of the cable adapter and the interior of the cable entrance of the front T-body with a lint-free cloth. Apply a thin layer of lubricant to both surfaces. Push the front T-body over the cable adapter as far as it will go. Ensure that the hole in the top of the crimp connector is visible through the interface end of the T-body. (See Fig. 8)

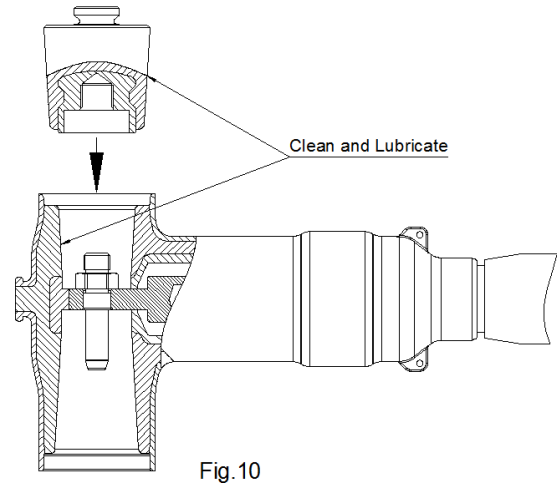
## STEP 10



Insert the Pin Contact into T-body and engage the threads of the threaded Pin Contact, tighten the Compression Lug to 50-55 Nm. (See Fig. 9)

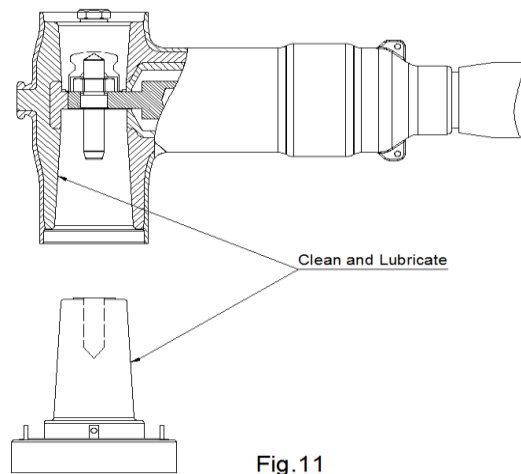
## STEP 11

Clean the insulating plug and front T-body interfaces. Apply a thin layer of lubricant to both surfaces.



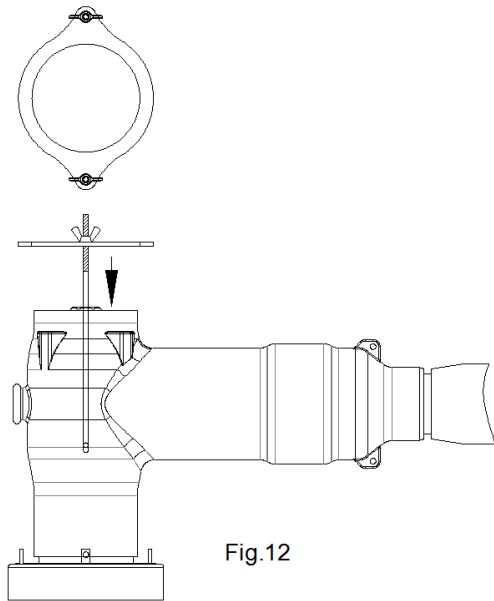
Insert the insulating plug into the front T-body and engage the threads of the threaded Pin Contact, tighten the insulating plug to 35-40 Nm. (See Fig. 10)

## STEP 12



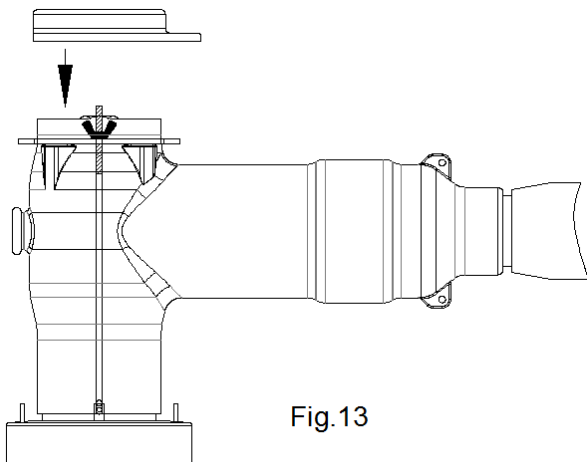
Clean the interface of T-body Interface B and the Equipment Bushings. Apply a thin layer of lubricant to both surfaces. Insert the T-body into the Equipment Bushings. (See Fig 11)

### STEP 13



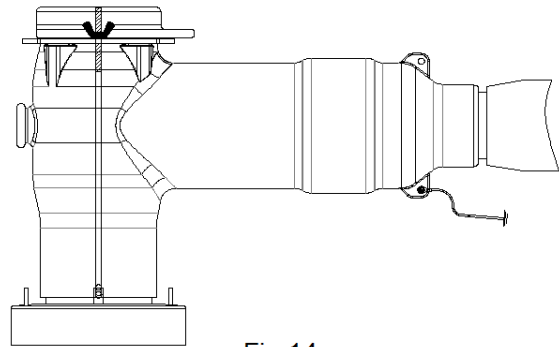
Insert the Locking Brace from the Insulating Plug, and insert the J-bolt bail hooks into the hole of the Equipment Bushings. Tighten the wing nuts to snug (See Fig.12)

### STEP 14



Clean the interior surface of the rubber cap. Place it over the insulating plug and push it until it snaps into place. (See Fig.13)

### STEP 15



Connect drain wire on T-body to the grounding system. (See Fig.14)

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