

EV-2 VERTICAL BREAK DISCONNECT SWITCH INSTALLATION REFERENCE GUIDE



This guide is intended to be used as a *recommended* sequence of work steps but does not supersede the instruction manual (IB-101-EV2) or assembly drawings. For assistance, contact the Southern States Service Division (available 24/7) at 770-946-4565.

Scan for full instruction manual

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REVIEW BILL OF LADING (BOL)

- A. Check the materials received against the packing list
- **B.** Report any shortages or damaged equipment to Southern States
- **C.** A typical shipment will include:
 - 3 phase switch (base, insulators, & live parts)
 - Operating mechanism box



Note: All material is marked with JO number

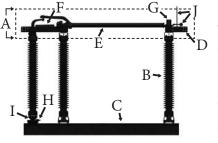




REVIEW BILL OF MATERIAL (BOM)

- A. Inventory all parts against the BOM found on the op-mech sheet inside the drawing package
- **B.** Report any missing or damaged parts to Southern States





TERMINOLOGY OVERVIEW

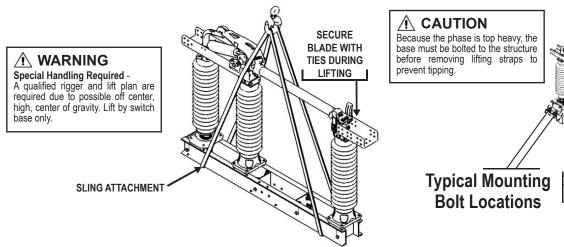
A: Live Parts

G: Contact Fingers

H: Switch Operating Arn

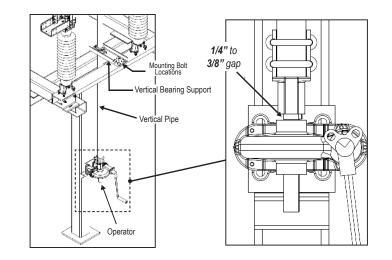
J: Arcing Horns

MOUNT PHASES PER ENGINEERING DRAWINGS Refer to operating mechanism drawing for pole orientation and mounting



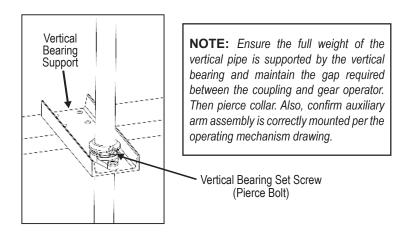
Refer To Instruction Book Section: Installation & Adjustment Procedures

MOUNT VERTICAL BEARING, PIPE, & OPERATOR



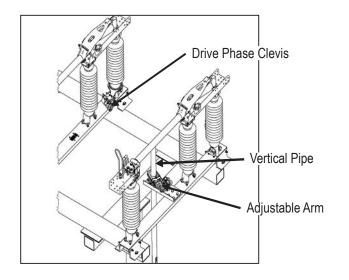
Refer To Instruction Book Section: Installation & Adjustment Procedures

PIERCE VERTICAL BEARING **SET-SCREW COMPLETELY**



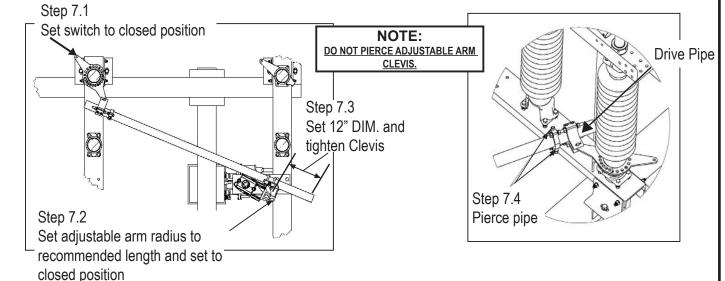
Refer To Instruction Book Section: Installation & Adjustment Procedures

INSTALL ADJUSTABLE ARM & DRIVE PHASE CLEVISES



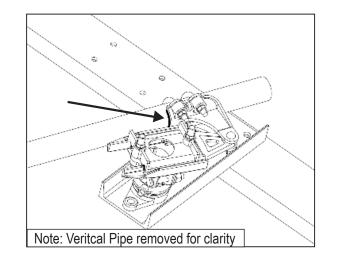
Refer To Instruction Book Section: Installation & Adjustment Procedures

CONNECT & TIGHTEN DRIVE PIPE BETWEEN ADJUSTABLE ARM & AUXILIARY ARM WITH APPROPRIATE CLEVISES



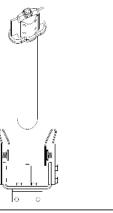
Refer To Instruction Book Section: Installation & Adjustment Procedures

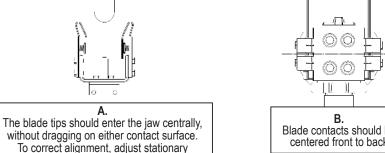
MATCH-MARK CLEVIS CONNECTIONS, ADJUSTABLE ARM, & OPERATOR COUPLING TO MONITOR SLIPPAGE

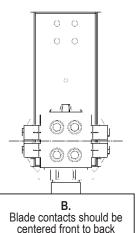


Refer To Instruction Book Section: Installation & Adjustment Procedures

TEST-OPERATE THE DRIVE PHASE TO VERIFY ALL CRITERIA BELOW ARE MET.

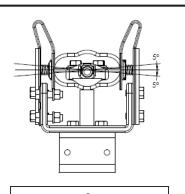




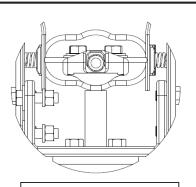


NOTES:

- THERE MAY BE VARIATIONS ON CONTACT PLACEMENT AT DIFFERENT AMPERAGE CLASSES.
- FOR ARCING HORN ADJUSTMENTS, REFER TO INSTRUCTION MANUAL.

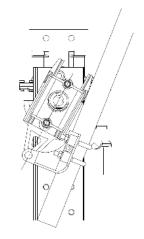


C.
Contact bar must be within or "-" 5 degrees from flat in the full closed position



Blade must fully rest on the blade stop inside the jaw in the full closed position

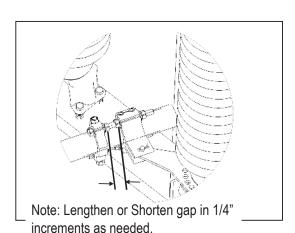
Blade angle must be at least 90° in the full open position if horizontally mounted (70° for vertical and underhung mounting)



Drive pipe on op-mech should be toggled (snapped in) when it reaches the full closed position (toggle in full open position also preferred if possible)

Refer To Instruction Book Section: Installation & Adjustment Procedures

IF CONTACT BAR IS NOT FLAT AT FULL CLOSED POSITION, EXTEND THE RAPID-SET CLEVIS TO ADVANCE IT.



insulators as necessary.

IF Operator Reaches Full Open Position & Switch Is Not Fully Opened:

- Check the match-marks of the adjustable arm and pipe clevis for signs of
- Return switch to almost closed but not toggled
- Lengthen both the adjustable arm radius by 1/4" increments and at the same time shorten the Rapid-Set clevis length by the same amount. Do this until full switch opening and operator rotation is achieved.

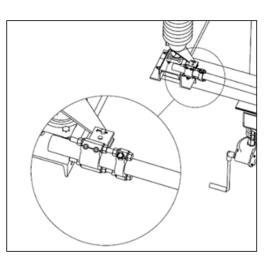
IF Switch Is Fully Opened Before Operator Reaches Full Open Position:

- Check for slippage
- Return switch to almost closed but not toggled
- Shorten the adjustable arm radius by 1/4" increments and at the same time lengthen the Rapid-Set clevis by the same amount. Do this until full switch opening and operator rotation is achieved.

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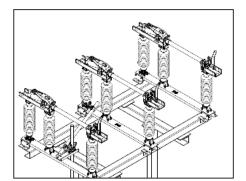
INSTALL INTERPHASE PIPE, CONNECTING DRIVE PHASE WITH OTHER TWO PHASES

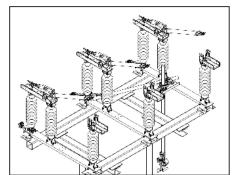
- 1. Set all phases to full closed position and install the Rapid-Set clevises and interphase pipe.
- 2. Pierce the pipe at all locations, and test operate.
- 3. If the other two phases are out of time, adjust the Rapid-Set clevises.

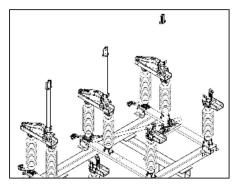


Refer To Instruction Book Section: Installation & Adjustment Procedures

TEST OPERATE TO ENSURE ALL PHASES FULLY OPEN / CLOSE & MEET STEP 9 GUIDELINES







Refer To Instruction Book Section: Installation & Adjustment Procedures

FINAL CHECK & ASSEMBLY

- **A.** Install any and all switch accessories (*whips*, *interrupters*, MACI®, arcing horns, etc.) per their assembly drawings.
- **B.** Test operate to ensure specification is met.
- C. Land conductors to terminal pads and retest switch. Readjust switch if necessary.
- **D.** Pierce all set-screws.
- E. If motor operator is being used, ensure limit switches are set.
- **F.** Ensure all accessories from the op-mech package are installed (ground shunt, VM-1 swing handle, etc.).

Refer To Instruction Book Section: Installation & Adjustment Procedures