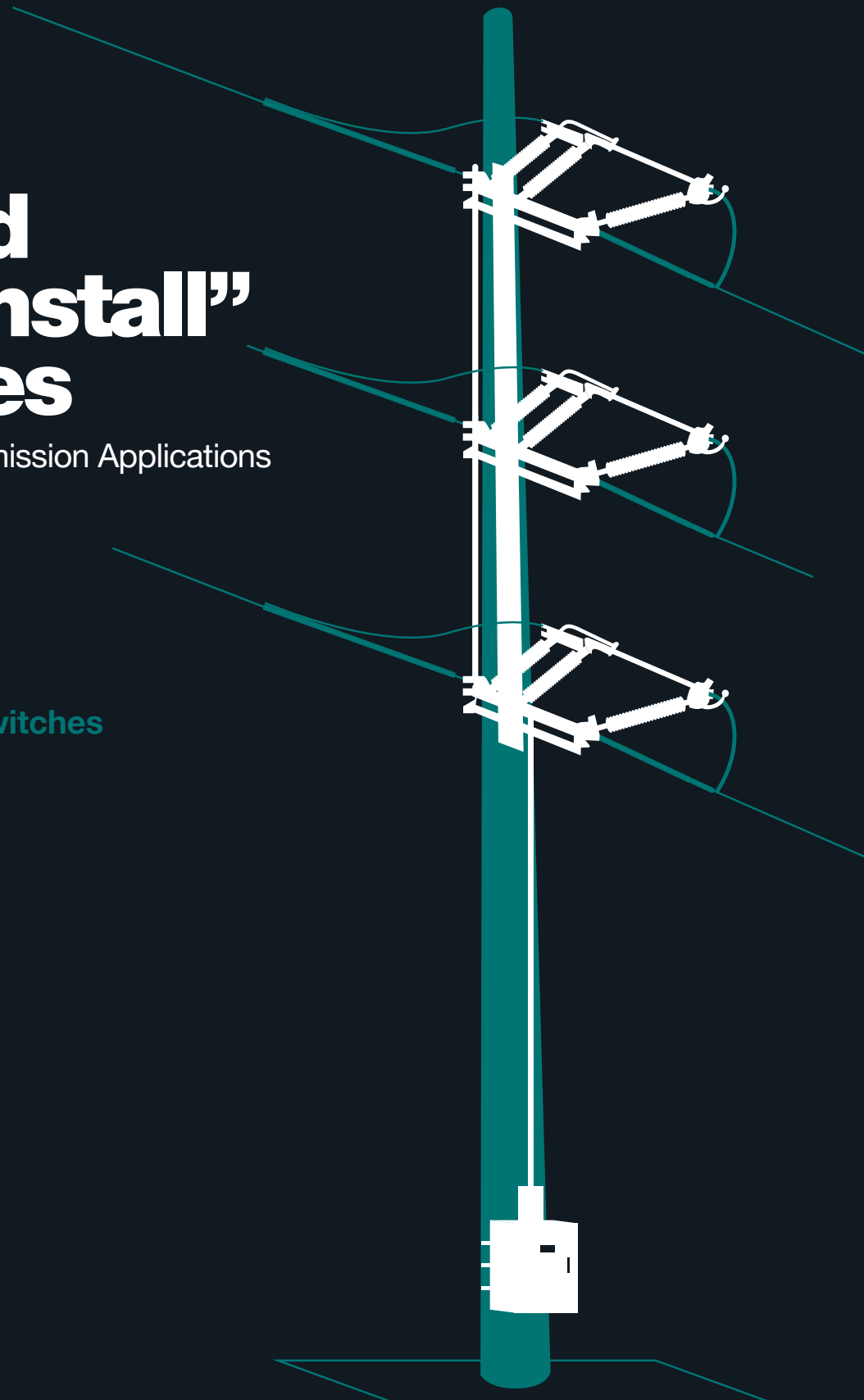


# Unitized “Quick Install” Switches

for 69kV-230kV Transmission Applications

Vertical Break and  
Center Break “V” Switches



# “Quick Install” Transmission Switches

Cleaveland/Price “Quick Install” switches are unitized transmission switches that ship from the factory fully assembled and adjusted.

These unitized switches are available in vertical break and center break designs and can be used in sectionalizing, tap, and multi-way transfer applications. Vertical break switches are provided with an inclined jaw end insulator to shorten the base and reduce weight. Center break switches are “V” type for the smallest base and to minimize steel weight. “Quick Install” switches are designed to address issues that customers have with other transmission switch designs.

Some customers have difficulty getting switches adjusted properly, particularly when mounted on tall transmission poles. This is the result of the torsional “windup” of the vertical operating pipe between phases, which causes the three pole units to operate out of sync. Cleaveland/Price has designed the “Quick Install” switches with “push-pull” interphase linkage so that the three pole units always move in unison, regardless of the length of the vertical operating pipe. The switch stays in adjustment after installation, just as it was tested and operated at the factory.

“Quick Install” switches are supplied to meet customers’ site requirements. The base is designed to match mounting hole locations on new or existing steel or concrete poles, as requested.

Switch phase spacing is set to match the transmission line conductor spacing as a standard. With this standardization,

it is not necessary to change spacing of conductors and money is saved on pole costs by not having to install extra high poles needed by knee brace switch mounting.

The switches typically are supplied with standard strength porcelain insulators. At voltages up to 115 kV, vertical break switches can be supplied with polymer insulators. On center break switches, polymer insulators are available on 69 kV and 115 kV switches with a maximum short time peak rating of 99 kA. Consult the factory for higher short circuit ratings.

Vertical break “Quick Install” switches can be supplied with arc horns, Cleaveland/Price Superwhip® or ReliaVac® vacuum interrupter, depending on current interrupting requirements. Center break switches can be supplied with arc horns, quick break whips, or single-bottle vacuum interrupters for loop splitting application.

## “Quick Install” Benefits

- Easy to install
- Low force operation
- Consistent full contact engagement on all three phases regardless of pole height and operating speed
- Cost effective



**Learn more about  
“Quick Install” procedures**



138 kV, 3000 A. “Quick Install” with whips, at the City of Austin Utilities.



138 kV, 3000 A. “Quick Install” center break switch with porcelain insulators and quick break whips, mounted on a steel pole.

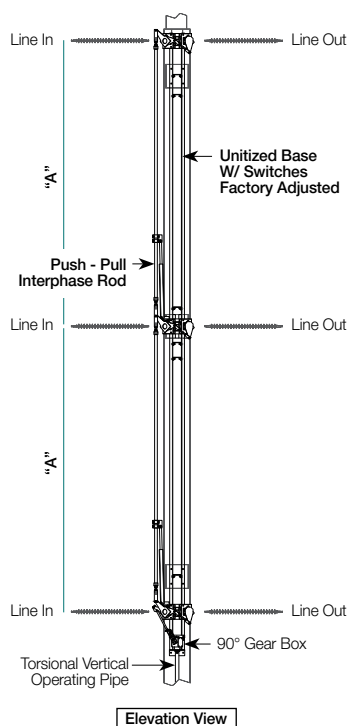
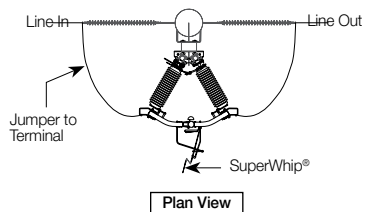


115 kV “Quick Install” vertical break switch with polymer insulators with ReliaVac®, mounted on a concrete pole.

# Unitized Switch Applications

## Single-Way Unitized Configurations

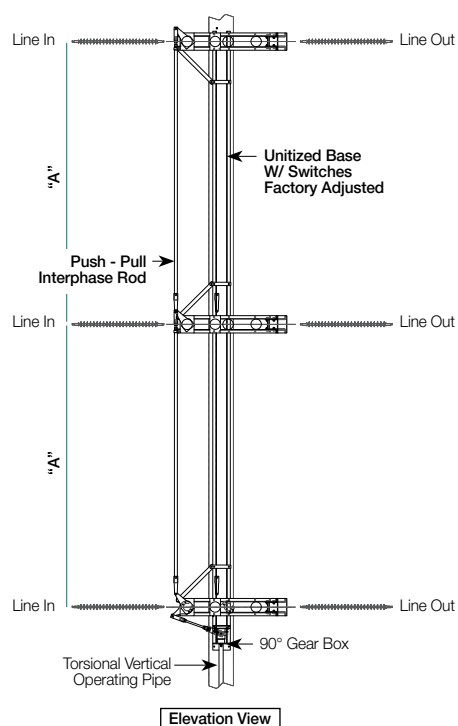
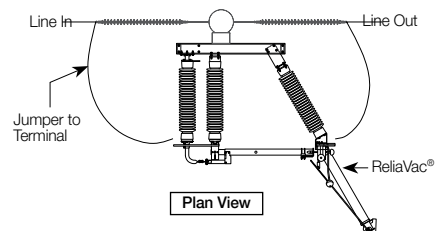
Center Break "V" Switch



Voltage (kV)	Typical "A" Dim (ft)	Switch Weight (lbs)
69	7'-0"	2,000
115	10'-0"	3,400
138	12'-0"	3,700
161	14'-0"	4,400

*Note: Weights are based upon a 1200 A. continuous rating, switch supplied with porcelain insulators, and without interrupters. Consult the factory for more information, custom design requests, and other configurations.*

Vertical Break Switch



Voltage (kV)	Typical "A" Dim (ft)	Switch Weight (lbs)
69	7'-0"	2,200
115	10'-0"	3,500
138	12'-0"	3,900
161	14'-0"	4,500
230/900	16'-0"	6,700
230/1050	18'-0"	8,200

**For additional information on other types of "Quick Install" multi-way switches contact [Sales@cleavelandprice.com](mailto:Sales@cleavelandprice.com)**

# SCADA-ready Installations

A “Quick Install” switch can be operated manually with a swing handle or a wormgear-type operator, depending upon the type of interrupter supplied on the switch. The switch also may be operated with a transmission class motor operator for remotely operating the switch through a customer’s SCADA system.

A SCADA-ready installation would consist of a “Quick Install” switch, Cleaveland/Price motor operator, customer’s choice of RTU, provision for customer’s choice of communication means, and any other specified equipment such as sensors or fault indicators.



**Motor operator**

The BT-T operator is a 17,000 in.-lb. torque operator that will open or close a switch in 3.4 seconds with 180° rotation of the vertical operating pipe. It comes with a padlockable safety cover that protects operating personnel from rotating parts and also prevents tampering with the mechanism. A padlockable torque-relief decoupler is also provided. The motor operator is supplied with contacts that will indicate the true switch position whether the vertical pipe is coupled or decoupled. For manual operation, a telescoping swing handle and handcrank are supplied.

At locations where low voltage AC is not available for charging the BT-T’s battery, a complete solar charging package can be offered. Consult the factory for more information, custom design requests, and other configurations.



**SCADA installation with BT-T motor operator and communication by satellite.**



**SCADA installation with BT-T motor operator and communication by radio.**

## Switch, Voltage, and Accessories Available

	Vertical Break Switches					Center Break Switches			
Voltage (kV)	69	115	138	161	230	69	115	138	161
SuperWhip® or standard whip	✓	✓	✓	✓		✓	✓	✓	✓
ReliaVac® for full load break	✓	✓	✓	✓	✓				
Single-bottle ReliaVac® for loop splitting	✓	✓	✓	✓	✓	✓	✓	✓	✓
Swing handle (depending on interrupter)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wormgear operator	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor operator	✓	✓	✓	✓	✓	✓	✓	✓	✓

*This brochure describes standard products and does not show variations in design that may be available. Contact the factory for additional details. Cleaveland/Price reserves the right to make changes or improvements to the product shown in this brochure without notice or obligation.*

