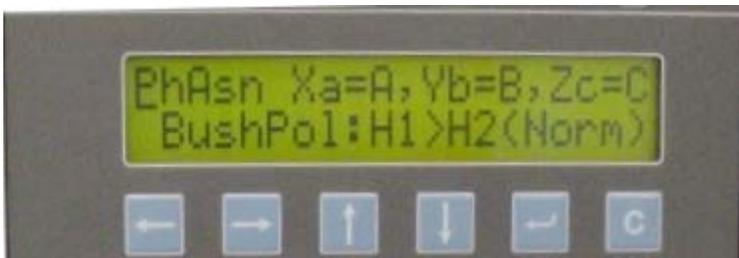




Application Note for V2.9 and Above
PCD Phase Assignment and Bushing Polarity Function
Glenn Goldfarb– Application Engineering

The PCD now has the ability to reassign Phases and Bushing Polarity. Phase and Bushing Polarity assignments **are only settable from the HMI**. When reassigned, all metering, protection, and fault logging will reflect the assigned phase or polarity. This applies to both single phase and three phase PCD control styles.



AFSuite v1.2 in Advanced Settings, Apparatus, can monitor Type of recloser:

- **VR3 or OVR**
- **Phase Assignment: ABC, BAC, ...**
- **Bushing Polarity: Normal or Reversed**

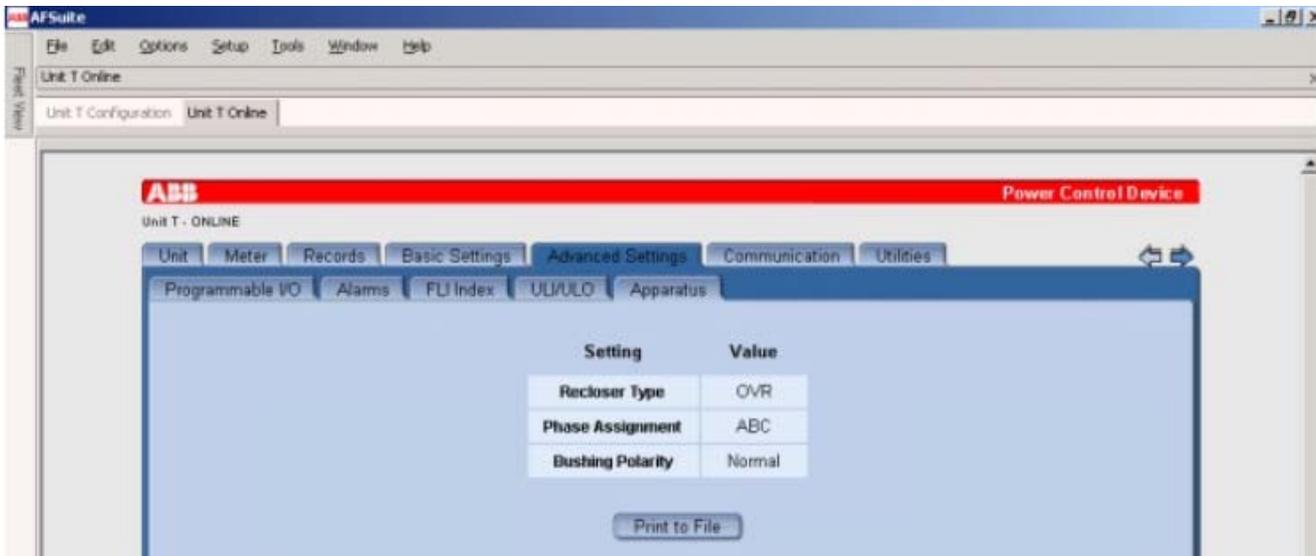


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Phase Assignment

The settings are Xa, Yb, Zc, where the “a”, “b”, and “c” correlate to the default phase assignment printed on the rear modules. When reassigning the phases via the HMI, the first selection will be Xa, where the choices are “A”, “B” or “C”. The Yb setting will allow the choice of the remaining two phases, and the Zc will be assigned to the last unselected phase.

Caution: When phases have been reassigned, care must be taken to identify the proper arrangement on the pole for operators. Labeling on the recloser is recommended.



Instructions for Assignable Phases

From the Current Metering Mode:

- 1) Press the ENTER KEY to access the MAIN MENU
- 2) Press the DOWN ARROW key to Settings
- 3) Press ENTER KEY, Press the DOWN ARROW key to Change Settings
- 4) Press ENTER KEY, then DOWN ARROW KEY to Configuration

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5) Press ENTER KEY to CHANGE CONF SETTI
(Password Default is 4 blanks- PRESS ENTER KEY)

6) Press DOWN ARROW KEY to
PhAsn Xa=A, Yb=B, Zc=C

7) Press ENTER KEY to Phase Assignment:
Edt<Xa=A, Yb=B, Zc=C>

8) Press DOWN ARROW KEY Xa=C, Yb=B, Zc=C

9) Press ENTER KEY to New Xa=C, Yb=B, Zc=A

(Note: Press CLEAR KEY once to go back)

10) Press ENTER KEY, then CLEAR KEY twice

11) Press RIGHT ARROW KEY to select <YES>

12) Press ENTER KEY to save settings

13) Press the CLEAR KEY 3 times to access the MAIN MENU

14) Check your work from the Show Settings menu.

PhAsn Xa=C, Yb=B, Zc=A

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Assigning Bushing Polarity

By default, the polarity is set so that when the line (source) side is connected to the H1 bushing, power flow is positive. However, if the line side is connected to the H2 bushing, power flow will show a negative value. The Bushing Polarity allows reassigning the direction so that the power flow is shown as positive. Also, it allows changing line/load side arrangement for programming directional overcurrent elements. This setting does not affect the non-directional protective elements.

Note: H1 – Line = Normal
H2 – Line = Reversed



Instructions for Assignable Bushing Polarity

From the Current Metering Mode:

- 1) Press the ENTER KEY to access the MAIN MENU
- 2) Press the DOWN ARROW key to Settings
- 3) Press ENTER KEY, Press the DOWN ARROW key to Change Settings
- 4) Press ENTER KEY, then DOWN ARROW KEY to Configuration

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- 5) Press ENTER KEY to CHANGE CONF SETTI
(Password Default is 4 blanks- PRESS ENTER KEY)
- 6) Press DOWN ARROW KEY to BushPol: H1>H2 (Norm)
- 7) Press ENTER KEY to Bushing Polarity
NEW <H1>H2(Norm)>
- 8) Press RIGHT ARROW KEY to Bushing Polarity
NEW <H2>H1(Rvrs)>
- 9) Press ENTER KEY, then CLEAR KEY twice
- 10) Press RIGHT ARROW KEY to select <YES>
- 11) Press ENTER KEY to save settings
- 12) Press the CLEAR KEY 3 times to access the MAIN MENU
- 13) Check your work from the Show Settings menu.

BushPol: H2>H1 (Rvrs)

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