The Power Xpert® C445 motor management relay display stand is designed to be a compact, interactive sales and training tool. It simulates a fully line-powered C445 system with ground fault module and ELC I/O. The system can be configured and controlled using the Power Xpert inControl software or the user interface module.

24 Vdc display stand features
• Base control module, measurement module, user interface ground fault module, digital I/O and IEC contactor
• User interface is used for start, stop, auto, reset, configuration and monitoring
• File pilot devices used for simulated line voltage, low power fault, overvoltage fault, overload fault, zero sequence ground fault and ground fault pulse detection

This demo stand can function:
1. As a standalone tool utilizing the instructions on the reverse side of this pamphlet.
2. As a training aid and can be used in conjunction with Power Xpert inControl software.

Using the Power Xpert inControl PC tool for this demo:
1. Launch the online demo website through Eaton.com/c445demo by clicking the Power Xpert C445 demo icon and then the Fault Diagnostics tab.
2. Follow the step-by-step directions as displayed on the screen.
**Initial Setup**

1. Ensure all four pushbuttons are not depressed and the selector switch is in the OFF or center position.
2. Apply power to the demo stand by plugging the power cord into a standard outlet.
3. Allow the unit to conduct power-up diagnostics.
4. Push the "Simulated Line Power” on the demo stand. This is a maintain button and should remain pushed in. If a fault occurs, reset the unit by pressing “Reset” on the user interface.

**Motor Control**

The motor can be controlled from the user interface module:

1. To energize the contactor (motor run), press the Green button. The red LED in the upper left corner of the button should turn red.
2. To de-energize the contactor (motor off), press the Red button. The green LED in the upper left corner of the button should turn green and the LED on the Green button should turn off.
3. If the unit is configured to work with a PLC or other controller, the Black auto button can be pressed. The LED in the upper left corner should turn orange.

**Overload Fault**

1. Set the user interface to TC% by pressing the MODE/BACK button until the “T” is selected at the top of the display. Then press the left most button under the display (▲) until TC% is selected.
2. Press the “Overload Fault” button.
3. The TC% will increment to 100% and the unit will “FAULT”. Overload Fault will be displayed (Fault Code: 19).
4. The unit can be reset once the “TC%” is below 75%. Restart the motor.

**Overvoltage Fault**

1. Set the user interface to Vavg by pressing the MODE/BACK button until the “V” is selected at the top of the display. Then press the left most button under the display (▲) until Vavg is selected.
2. Press the “Overvoltage Fault” button.
3. The Vavg will go to 721 V and the unit will “FAULT” after a few seconds. Overvoltage Fault will be displayed (Fault Code: 2).
4. The unit can be reset once the “Overvoltage Fault” button is released. The Vavg will go to 480 V. Restart the motor.

**Low Power Fault**

1. Set the user interface to PWatts by pressing the MODE/BACK button until the “P” is selected at the top of the display. Then press the left most button under the display (▲) until PWatts is selected.
2. Press the “Low Power Fault” button.
3. The PWatts will drop to 315 W and the unit will “FAULT” after a few seconds. The Low Power Fault will be displayed (Fault Code: 16).
4. The unit can be reset once the “Low Power Fault” button is released. The PWatts will go to 0. Restart the motor.

**Ground Pulse Detection**

1. Set the user interface to I by pressing the MODE/BACK button until the “I” is selected at the top of the display. Then press the left most button under the display (▲) until Ia is selected.
2. Set the selector switch to Ground Pulse Detection.
3. The Ia will cycle between 1.77 and 2.77 A. The unit will go to a “WARNING” after 8 transitions or a few seconds.
4. The unit WARNING will clear in a few seconds after the selector switch is set to the OFF or neutral position. Restart the motor. PWatts will settle at 629 W.

**HRG/Zero Sequence**

1. Set the user interface to I by pressing the MODE/BACK button until the “I” is selected at the top of the display. Then press the left most button under the display (▲) until IGF is selected.
2. Set the selector switch to “HRG/Zero Sequence”.
3. The unit will “FAULT” after immediately. The unit is configured to “FAULT” no trip in this mode. The Ground Current Fault will be displayed (Fault Code: 4).
4. The unit can be reset once the selector switch is set to the OFF or neutral position. Because the C445 is configured to Fault No Trip, no restart is required.

**Note:** For a more in-depth overview, utilize the Power Xpert inControl software in conjunction with the Online Demo that can be found at Eaton.com/c445.