MODEL 108B
MODEL 125C

Phase Sequence Detector



- **Indicates Phase Sequence**
- **Detects Loss of One or More Phases**
- **Compact & Lightweight**
- **Color-coded Leads**

DESCRIPTION

The Models 108B (50/60 Hz) and **Model 125C** (400 Hz) **Phase Sequence Detectors** permit the operator to quickly and easily determine proper phase sequence (either ABC or CBA). This can be vitally important information when installing, or making wiring changes to motors, wattmeters, transformers, electrical installations, power factor meters or generators.

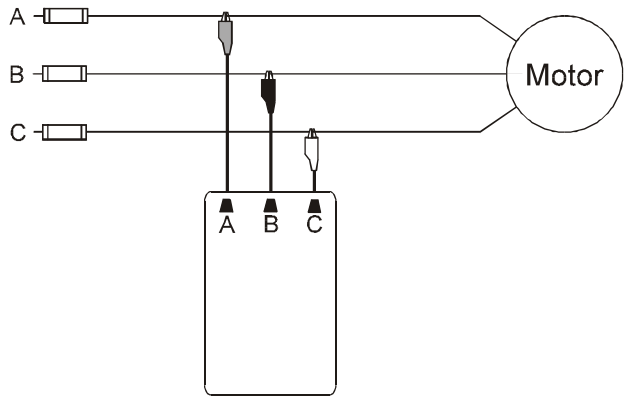
To use, connect the Detector to any 3-phase circuit from 208 to 480 volts, Wye or Delta. Proper phase sequence, and all phases present will illuminate the ABC lamp. An open phase condition will illuminate both lamps. If two or more phases are open, neither lamp will illuminate. See the Condition Chart.

SPECIFICATIONS

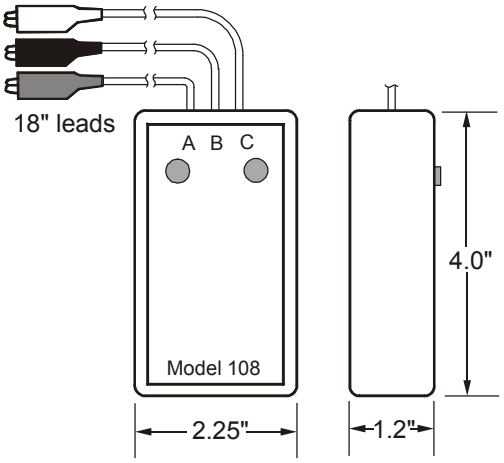
MODEL	108B	125C
Frequency	50/60 Hz	400 Hz
Voltage (phase to phase)	208 - 480 VAC	
Leads	18" color-coded	
Lead Termination	Alligator clips	
Weight	8 oz. max.	
Enclosure Material	ABS plastic	

CONDITION CHART	LAMP(S) LIT	
	ABC	CBA
A B C Rotation	●	
C B A Rotation		●
ONE Phase Open	●	●
2 OR MORE Phases Open		

TYPICAL APPLICATION



DIMENSIONS



Access Control Sales
6110 Ordan Drive, Unit 9
Mississauga, Ontario
Canada L5T 2B4
E-Mail: sales@accesscontrolsales.com

Access Control Sales
Tel: 905 564-1472
Fax: 905 564-3349
Toll Free: 1-800-567-1041
Web Site: www.accesscontrolsales.com

MODEL 108B
MODEL 125C
Phase Sequence Detectors

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

GENERAL SAFETY

POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 108B OR 125C DETECTORS. ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING. THIS DEVICE AND WIRING SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

OPERATOR INSTRUCTIONS

CONNECTION

Connect the three clip leads to the 3-phase power source.

Apply AC power. One of the detector lamps should illuminate, indicating the phase sequence as connected. If the desired phase sequence is not lit, change any two of the three leads.

Read the 3-phase designation on the front panel; connect the corresponding leads to your equipment.

If both lamps illuminate, check for a loss of voltage on one of the three phases. If neither lamp illuminates, check for a loss of voltage.

3-PHASE POWER BASICS

In 3-phase power there are three lines which carry the voltage, normally designated as A-B-C. In some installations however, they may be designated L1-L2-L3 or T1-T2-T3. The phase sequence as generated is A-B-C.

As the voltage on these lines rotates through 360 degrees, phase B lags phase A by 120 degrees; while phase C lags phase A by 240 degrees. The voltage on each of these lines vary as shown in *figure 1*, a graph of voltage versus degrees of rotation.

figure 1.

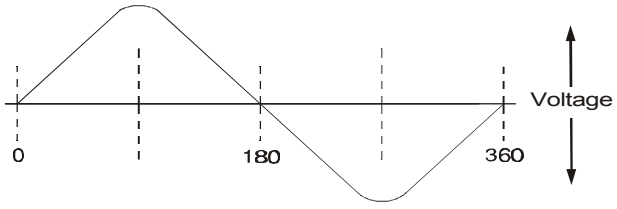
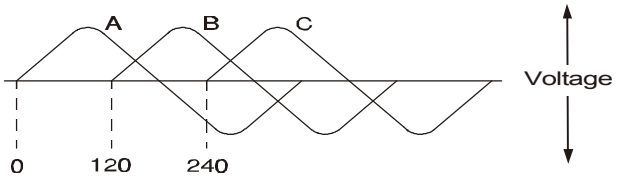


figure 2.



If all phases are shown on the same graph, they would appear as shown in *figure 2.*

Pictured on a rotating phasor diagram, the angle between each phase is fixed at 120 degrees as they rotate in unison at the line frequency (see *figure 3*).

In *figure 4* you can see that if any two phases are reversed, the direction of rotation will be in the opposite direction. This reversal of the rotating sequence will cause motors to run in the opposite direction. Many other types of equipment are phase sensitive and will not perform as intended if the phase sequence is incorrect.

figure 3.

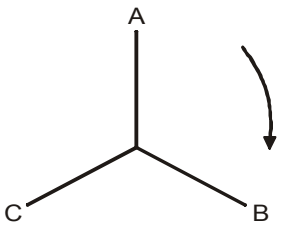
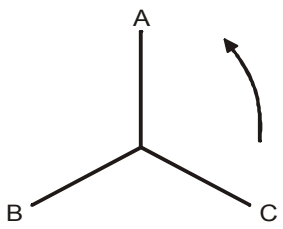


figure 4.



WARRANTY

The **Model 108B and 125C Detectors** are covered by Time Mark Corporation's exclusive **5-Year Unconditional Warranty**. Should this device fail, for any reason, within five years from the date of purchase, we will repair or replace it, free. Contact the Time Mark Sales department, Monday through Friday; 8 a.m. to 5 p.m., CST, for further details.

Access Control Sales
6110 Ordan Drive, Unit 9
Mississauga, Ontario
Canada L5T 2B4
E-Mail: sales@accesscontrolsales.com

Access Control Sales
Tel: 905 564-1472
Fax: 905 564-3349
Toll Free: 1-800-567-1041
Web Site: www.accesscontrolsales.com