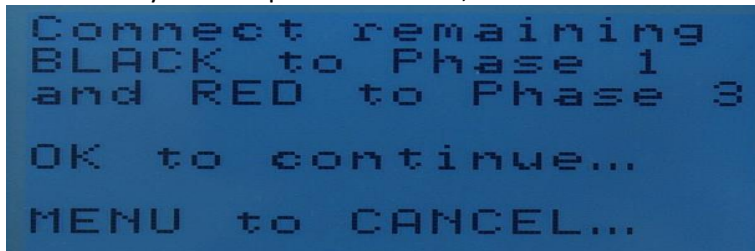


Rotor Compensated Test

It's recommended that if the motor being tested is an AC induction squirrel cage rotor motor <1000V that the IND/DYN test be used. When the parameter of impedance, inductance, phase angle and I/F are given alarms, the way to determine whether the fault comes from stator or rotor is to apply rotor compensated test which requires both AT31 and AT5 instruments.

1. Find rotor positions of maximum impedance corresponding to every two phases.
 - a. Connect AT31 to two phases, e.g. Phase 32, then turn shaft until the maximum impedance value is obtained.
 - b. Mark the rotor position.
 - c. In the same way, mark the rotor positions for Phase 21 and Phase 13 where maximum impedance occurs.
2. Start Z/ ϕ test. Skip the DF/C test and insulation test. The yellow test lead does not have to be connected.
3. Go directly to the 3 phase static test, i.e. the test screen will be displayed as shown below.



```
Connect remaining  
BLACK to Phase 1  
and RED to Phase 3  
  
OK to continue...  
  
MENU to CANCEL...
```

4. Do not follow the instructions on the display. Instead, do the following
 - a. Connect Kelvin test leads 32 from AT5 to the Phase 3 and Phase 2 terminals on the motor.
 - b. Leave Test lead 1 open, i.e. not connected to anything
 - c. Turn the rotor to the marked position of maximum impedance for Phase 32
 - d. After the measurement of Phase 32, AT5 will start beeping due to test lead 1 not connected
 - e. Ignore the beeping, turn the rotor to the position of maximum impedance for Phase 21. Keep test lead 2 connected, disconnect test lead 3 (do not connect it to anything), connect test lead 1.
 - f. AT5 stops beeping and starts the measurement. Once it's completed, AT5 will start beeping again.
 - g. Ignore the beeping, turn the rotor to the position of maximum impedance for Phase 13. Keep test lead 1 connected, disconnect test lead 2 (do not connect it to anything), connect test lead 3.
 - h. AT5 stops beeping and start the measurement.
 - i. Then the rotor compensated test is completed. Save the test results in the same way as described in Section "Test Save and Reference Comparison".
 - j. Run MCA software to upload the test data and perform the 3 Phase AC individual analysis. If no WARN or BAD alarm shows up on the parameters of impedance, inductance, phase angle and I/F, it means the motor is in good condition.