

Minerva™ Microprocessor Control

Prime Series Microprocessor Controller

- **Intelligent Self-Diagnosis (I.S.D)**

System controller automatically diagnoses system situation, and adjusts running situation, as well as displaying alarm on time.

- **Digital Display**

LCD Digital display is clear and easy to read all functions.

- **Audible/Visual Warning**

Automatically activated by alarm. Clear alarm signal.

- **Automatic Delay Restart (ADR)**

Auto restart delay ensures the on line quality after power failure, decreases power circle loading, and protects compressor.

- **Voltage monitor**

Regular monitoring of the voltage and punctual voltage checking.

- **Automatic restart**

Automatic restart by resetting on return of power.

- **Security grade**

Standard (4 digit password)
Optional (Personal Identify System (PIS))

- **Amperage monitor**

Punctual monitoring of running current, and determining health of freezer.

- **Real Time Clock (RTC)**

Built in Real Time Clock, helping confirm the alarm time and highest temperature.

- **Alarm histories**

Recording alarm, temperature, time; for the simple temperature recorder.

Kaltis Unusual

Minerva™ microprocessor controllers combine control, electronic alarm and monitor function. Minerva™ provides optimum safety protection for storage and refrigeration components. Minerva™ scan ambient condition and refrigeration system several times per second, this instant communication provides optimum temperature control with minimal power consumption.

- **Heavy Loading Behave**

Automatically diagnoses chamber temperature and informs Heavy Loading Behave model. In turn it will decrease compressor heavy loading time, and prolong compressor life.

- **Temperature deviation**

Independent high/low temperature alarm, when chamber temperature over range, this icon will light up.

- **Compressor Lifesaver**

Automatically adjusts interior and exterior situation when something damages the compressor.

- **Condenser Error**

Automatically decides condenser situation.

- **Power failure**

This icon will light up after power failure.

- **Voltage failure**

Reports voltage error after regulator, and adjusts freezer running situation accordingly.

- **LN2/LCO2 Backup system**

Optional factory installation. To advise on order. Combine with control panel.

- **Alarm indicator**

Clearly shows the alarm when ringing.

- **I/O Indicator**

Clearly show the freezer under start situation.

- **I/O Key**

4 digit password security. Stop or start freezer by keying in four digit security password.

- **Alarm Mute**

Alarm sound can be temporarily muted.

- **Alarm test**

Physical heating of the temperature probe to test visual and audio functionality of the alarm.

- **Door ajar**

Alarm monitors whether the outer door has been open for a long time and has not been suitably closed.

- **Ultimate climate**

Monitoring ambient temperature to maintain freezer stability.

- **Clean Filter**

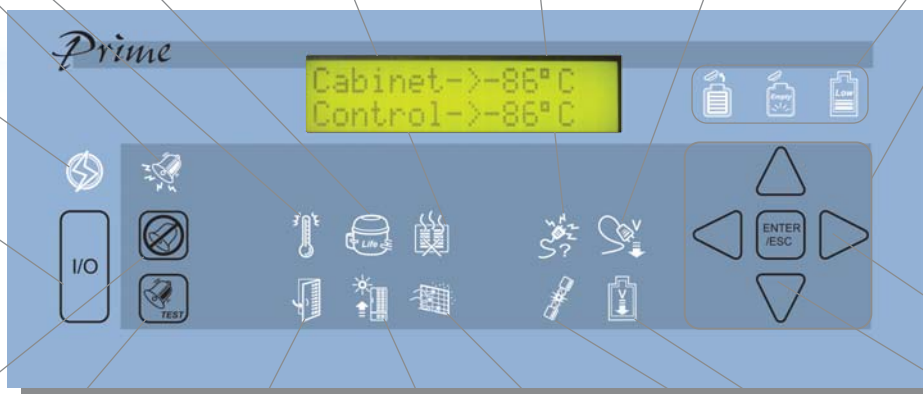
Monitoring filter performance to maintain condensation efficiency.

- **Current Breaker**

Protects freezer under extraordinary situation.

- **Alarm battery**

Automatically charges and discharges battery depending on power and battery situation. Alarm battery can continue to provide alarm and function monitoring even power after failure.



Minerva™ Microprocessor Control

Merit Series Microprocessor Controller



- **Intelligent Self-Diagnosis (I.S.D)**
System controller automatically diagnoses system situation, and adjusts running situation, as well as displaying alarm on time.
- **Digital Display**
LCD Digital display is clear and easy to read all functions.
- **Audible/Visual Warning**
Automatically activated by alarm. Clear alarm signal.
- **Automatic Delay Restart (ADR)**
Auto restart delay ensures the on line quality after power failure, decreases power circle loading, and protects compressor.
- **Real Time Clock (RTC)**
Built in Real Time Clock, helping confirm the alarm time and highest temperature.

- **Alarm histories**
Recording alarm, temperature, time; for the simple temperature recorder.
- **Automatic restart**
Automatic restart by resetting on return of power.
- **Security grade**
Standard(4 digit password)
Optional(Personal Identify System (PIS))

- **Heavy Loading Behave**
Automatically diagnoses chamber temperature and informs Heavy Loading Behave model. In turn it will decrease compressor heavy loading time, and prolong compressor life.

Temperature deviation

Independent high/low temperature alarm, when chamber temperature over range, this icon will light up.

Condenser Error

Automatically decides condense situation.

Power failure

This icon will light up after power failure.

Alarm indicator

Clearly show the alarm happen.

I/O Indicator

Clearly show the freezer under start situation.

I/O Key

4 digit password security. Stop or start freezer by keying in four digit security password.

Alarm Mute

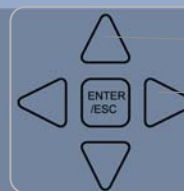
Alarm sound can be temporarily muted.

Alarm test

Physical heating of the temperature probe to test visual and audio functionality of the alarm.

Merit

Cabinet->-86°C
Control->-86°C



Setting Adjustment buttons

Scroll for function parameters

Membrane Setpoint keypad

Use this keypad to display and key in all settings, situations, and alarm histories; all settings are protected by four digit key. Can also be set using optional Personal Identify System.

Door ajar

Alarm monitors whether the outer door has been open for a long time and has not been suitably closed.

Alarm battery

Automatically charges and discharges battery depending on power and battery situation. Alarm battery can continue to provide alarm and function monitoring even power error.

LN2/LCO2 Backup system

Optional factory installation. To advise on order. Combine with control panel.