

Memo. :

Temperature Controller































Model : Aum-2KND2S



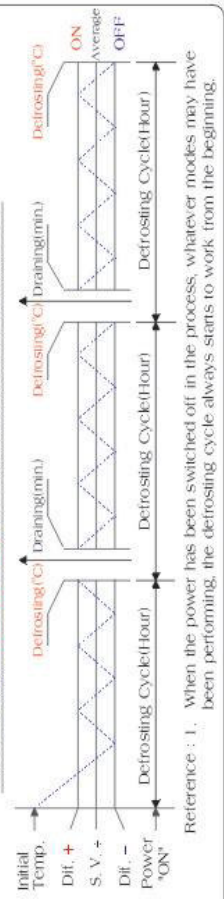
(For Cooling only)

Method of Program Loading

Mod. : Aum-2KND2S

- Selection Value :** Check the S.V. lamp   Adjust the Selection Value  Set the Selection Value 
 To be continued the next function with push again.
- Differential :**   Adjust the Differential Value  Set the Differential Value 
- Interval(Hour) :**     Adjust the Interval for Defrosting  Set the Interval
- Dry(Drain) :**   Adjust the Draining Time  Set the Draining time 
- Calibration :**   Adjust the Calibration value  Set the Calibration value 
 If necessary
- Defrost(By temperature) :**   Adjust the temp. for stop to defrost  Set the temp. for stop to defrosting 
- Stop by time(minute) :**   Adjust the time for stop to defrost  Set the time for stop to defrost.
 If the sensor for defroster has been fault. Set the time for stop to defrost.
- Fault of Sensor :** Check the I/O(in/out) lamp  Adjust the ON/OFF for Comp.  Check the Relay(Comp.) ON/OFF

The cooling & De-frosting and draining cycle in the process



- The Aum-2KND2S require the power supply of 12-15V AC/DC. As soon as the sensor for temperature and the power supply is switched on, the present temperature from the sensor will be shown in the window.
- Whenever the 'Set' key is pressed, the next function will be selected. But the defrosting interval needs to be pressed by the 'Set' key and the 'Def' key at the same time.
- Press the 'Set' key to select a function, and then adjust the required value of the direct parameter with the 'Up' key or the 'Down' one. At last, press the 'SET' key again to finalize the selected set value.
- Otherwise the initial setting of the unit continues to work toward the value of the previous settings.
- A function needs to be corrected, press the 'Up' or the 'Down' one. Consequently a status light of the function will be blanking, it means that the correction is working out now.
- Although either a function has been selected by the 'Set' key, or the set values has been corrected, and finalized by the 'Set' key, there is no change on the window. After 20 seconds, the mode will automatically be returned to a position that the present temperature is shown on the window.
- In case of a manual operation, press the 'Set' key for 5 seconds to start the defrosting function of all the related temperature controllers, in addition, an automatic operation also applies to the same way.
- The precedent defrosting performances will also be all returned to the mode of compressor when the last temperature controller completes the draining function.
- Right from the moment when the power has been switched on, the defrosting interval repeatedly tracks the setting values of a defrosting function. The actual defrosting time by no means affects the settings of the defrosting interval, in the mean time the 'DEF' will be shown on the window for the extended 10 minutes while the defrosting function and the draining function is performing. And also, the mode of the temperature performs as usual during the extended 10 minutes.
- When the setting of predetermined, defrosting completion is higher than the temperature that the sensor for a defrosting mode detects actually, the defrosting function of either an automatic or the one of a manual starts it's operation. On the contrary it is lower than the temperature, the only draining time is controlled.
- Press the 'Down' key under the mode of present temperature and then, the present temperature of the defrosting sensor will be checked.
- Connect the signal wires of the No.7 and No.8 so as to link a temperature controller to the other one.
- The way of the connection must be parallel with same numbers.
- The defrosting mode must be based on an "Electric Heater" only.

Mod. : Aum-2KND2S

| No. | Status Light | Mode | Working Range | Initial Settings | Unit | Apply | Definition |
|---|--------------|-------|---------------|------------------|--------|-----------------------|--|
| 1. | ① | S. V. | -40.0~50.0 | 5.0 | °C | Comp. | S.V. : The value of selection |
| 2. | ② | Dif. | 10.0~12.7 | (1.5) | °C | S. V. | Dif. : Differential |
| <p>a. The working range of a differential simultaneously applies to both set values, which can be sum up with by this way of (S.V.+Dif.). For instance, the value of a selected temperature is 5.0°C, and the selected value of a differential is 1.5°C. Eventually the working range of a differential is from 3.5°C to 6.5°C.</p> <p>b. At least 0.3°C is recommended to protect a mechanical system from an excessive operation.</p> | | | | | | | |
| 3. | ③ | Int. | 0 ~ 255 | n004 | Hour | Defrosting | Int. : Interval of defrosting cycle |
| <p>a. Press the 'Set' key and the 'Def' key at the same time. Then, check whether the light of an interval has been turned on.</p> <p>b. Set the interval values of a defrosting interval with the 'Up' key or the 'Down' one.</p> <p>c. Set the zero(in-not) as a value of a defrosting interval in case a defrosting mode is a manual.</p> | | | | | | | |
| 4. | ④ | Dry | 0 ~ 15 | 10 | Minute | [Draining Time] + DRY | Drain |
| <p>a. The purpose of this function is to get rid of the droplets of water, which tends to remain in the evaporating sector after the completion of a defrosting performance.</p> <p>b. Right after the draining time ran out, the compressor will keep to a position from which it's function is automatically carried out as per a waiting mode until the final freezers have completed the draining time.</p> | | | | | | | |
| 5. | ⑤ | Ca. | +/- (0.0~6.3) | 0.0 | °C | Sensors | Ca. : Calibration |
| <p>a. The purpose of this function is to correct the differences of present temperature that happens when the led wire of a sensor for the temperature has been extended considerably.</p> <p>b. The extended sensor requires being installed in a long distance, keep it away from a generator or an electrical noise.</p> | | | | | | | |
| 6. | ⑥ | Def | -40.0~50.0 | 8.0 | °C | DC | DC : Defrosting completion |
| <p>a. Set a predetermined value of the temperature to rule the completion of a defrosting function that is related to a sensor for the defrosting function of an evaporating sector.</p> <p>b. The defrosting function is performing based on the defrosting interval. Meanwhile, it reaches the predetermined value of a defrosting completion, which means that it's function is to be completed.</p> <p>c. As soon as the defrosting function is completed automatically, the droplets remaining all around the evaporating sector will be dried out by the performance that is ruled by the set values of a draining time.</p> <p>d. No matter what either one of the automatic defrosting function and the manual defrosting function may be working on, press the 'Def' key for 3 seconds to stop the defrosting function.</p> <p>e. While the defrosting function is performing, the defrosting light will be lit.</p> | | | | | | | |
| 7. | ⑦ | T. S. | 01 ~ 63 | 30 | Minute | Defrosting | T.S: Defrosting completion by time set |
| <p>a. When the led wire of a sensor for a defrosting function has been disconnected, the mode of a temperature control in terms of a defrosting completion turns automatically into the mode of a time control upon the defrosting completion. Thereafter, the defrosting function fulfills it's role according to the set values of time.</p> | | | | | | | |
| 8. | ⑧ | F. S. | - | - | - | - | Fault of Sensor |
| <p>a. When the led wire of a sensor for the compressor has been disconnected, the light of a fault is lit and immediately the 'Err.1' and a sensor for the defroster 'Err.2' will be shown on the display.</p> <p>b. Meanwhile, the compressor keeps on working, regardless of changes of temperature, and also the defrosting function works as usual. When the led wire of a sensor for a defrosting function has been disconnected, the light of a fault will be lit while the defrosting and the function of a draining time is performing. But the compressor works on continuously. In addition, the defrosting function stops working due to the function of a time control.</p> | | | | | | | |
| 9. | ⑨ | ON | - | - | - | Comp. | Comp. : Compressor |
| <p>a. The light is lit while the compressor is performing.</p> | | | | | | | |