11-2. Primary Judgment
To diagnose the troubles, use the following methods.
1) Judgment by flashing LED of indoor unit
2) Self-diagnosis by service check remote controller
3) Judgment of trouble by every symptom

Firstly use the method 1) for diagnosis. Then, use the method 2) or 3) to diagnose the details of troubles.

11-3. Judgment by Flashing LED of Indoor Unit
While the indoor unit monitors the operation status of the air conditioner, if the protective circuit operates, the contents of self-diagnosis are displayed with block on the indoor unit indication section.

Table 11-3-1

<table>
<thead>
<tr>
<th>Item</th>
<th>Check code</th>
<th>Block display</th>
<th>Description for self-diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>OPERATION (Green) Flashing display (1 Hz)</td>
<td>Power failure (when power is ON)</td>
</tr>
<tr>
<td>B</td>
<td>00</td>
<td>OPERATION (Green) Flashing display (5 Hz)</td>
<td>Protective circuit operation for indoor P.C. board</td>
</tr>
<tr>
<td>C</td>
<td>01</td>
<td>TIMER (Yellow) Flashing display (5 Hz)</td>
<td>Protective circuit operation for connecting cable and serial signal system</td>
</tr>
<tr>
<td>D</td>
<td>02</td>
<td>OPERATION (Green) FILTER (Orange) Flashing display (5 Hz)</td>
<td>Protective circuit operation for outdoor P.C. board</td>
</tr>
<tr>
<td>E</td>
<td>03</td>
<td>TIMER (Yellow) FILTER (Orange) Flashing display (5 Hz)</td>
<td>Protective circuit operation for others (including compressor)</td>
</tr>
</tbody>
</table>

NOTES:
1. The contents of items B and C and a part of item E are displayed when air conditioner operates.
2. When item B and C, and item B and a part of item E occur concurrently, priority is given to the block of item B.
3. The check codes can be confirmed on the remote controller for servicing.
11-4. Self-Diagnosis by Remote Controller (Check Code)

1. If the lamps are indicated as shown B to E in Table 11-3-1, execute the self-diagnosis by the remote controller.

2. When the remote controller is set to the service mode, the indoor controller diagnoses the operation condition and indicates the information of the self-diagnosis on the display of the remote controller with the check codes. If a fault is detected, all lamps on the indoor unit will flash at 5Hz and it will beep for 10 seconds (Beep, Beep, Beep ...). The timer lamp usually flashes (5Hz) during self-diagnosis.

11-4-1. How to Use Remote Controller in Service Mode

1. Press [CHECK] button with a tip of pencil to set the remote controller to the service mode.
   - “00” is indicated on the display of the remote controller.

2. Press [ON ] or [OFF ] button
   - If there is no fault with a code, the indoor unit will beep once (Beep) and the display of the remote controller will change as follows:
     - The TIMER indicator of the indoor unit flashes continuously. (5 times per 1 sec.)
     - Check the unit with all 52 check codes (00 to 33) as shown in Table-11-4-1.
     - Press [ON ] or [OFF ] button to change the check code backward.

   If there is a fault, the indoor unit will beep for 10 seconds (Beep, Beep, Beep...).
   - Note the check code on the display of the remote controller.
   - 2-digits alphanumeric will be indicated on the display.
   - All indicators on the indoor unit will flash. (5 times per 1 sec.)

   - "7F" is indicated on the display of the remote control.

4. Press [START/STOP] button to release the service mode.
   - The display of the remote controller returns to as it was before service mode was engaged.

Fig. 11-4-1
11-4-2. Caution at Servicing

1. After servicing, press the START/STOP button to return to the normal mode.
2. After servicing by the check code, turn off breaker of the power supply, and turn on breaker of the power supply again so that memory in the microcomputer returns the initial status.
   However, the check codes are not deleted even if the power supply is turned off because they are stored in the fixed memory.
3. After servicing, press [CLR] button under check mode status and then send the check code “7F” to the indoor unit. The error code stored in memory is cleared.

<table>
<thead>
<tr>
<th>Table 11-4-1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block distinction</strong></td>
</tr>
<tr>
<td><strong>Check code</strong></td>
</tr>
<tr>
<td>00</td>
</tr>
<tr>
<td>01</td>
</tr>
<tr>
<td>02</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>Block distinction</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Check code</strong></td>
</tr>
<tr>
<td>02</td>
</tr>
</tbody>
</table>
|                   |                                 | 16                 | Position-detected circuit error or short-circuit between windings of compressor | All off | Displayed when error is detected. | 1. Even if connecting lead wire of compressor is removed, position-detected circuit error occurred. : Replace P.C. board.  
2. Measure resistance between wires of compressor, and perform short-circuit. : Replace compressor. |
|                   |                                 | 17                 | Current-detected circuit error | All off | Displayed when error is detected. | Even if trying operation again, all operations stop immediately. : Replace P.C. board. |
|                   |                                 | 18                 | Being out of place, disconnection or short-circuit of the outdoor heat exchanger sensor (TE) or suction temp. sensor (Ts) | All off | Displayed when error is detected. | 1. Check sensors (TE, TS). 
2. Check P.C. board. |
|                   |                                 | 19                 | Disconnection or short-circuit of discharge temp. sensor | All off | Displayed when error is detected. | 1. Check discharge temp. sensor (TD). 
2. Check P.C. board. |
|                   |                                 | 14                 | Outdoor fan drive system error | All off | Displayed when error is detected. | Position-detect error, over-current protective operation of outdoor fan drive system, fan lock, etc. : Replace P.C. board or fan motor. |
|                   |                                 | 16                 | Outdoor heat exchanger temp. sensor error | Operation continues | Displayed when error is detected. | 1. Check outdoor temp. sensor (TO). 
2. Check P.C. board. |
|                   |                                 | 15                 | Compressor drive output error, Compressor error (lock, missing, etc.) | All off | Displayed when error is detected. | When 20 seconds passed after start-up, position-detected circuit error occurred. : Replace compressor. Trouble on P.M.V. |
| 03                | Others (including compressor)    | 07                 | Return serial signal has been sent when operation started, but it is not sent from halfway.  
1) Compressor thermo. operation  
Gas shortage  
Gas leak  
2) Instantaneous power failure | Operation continues | Operation continues | Flashes when trouble is detected on return serial signal, and normal status when signal is reset. | 1. Repeat Start and Stop with interval of approx. 10 to 40 minutes. (Code is not displayed during operation.) Supply gas. 
(Check also gas leak). 
2. Unit operates normally during check. 
If return serial signal does not stop between indoor terminal block 2 and 3, replace inverter P.C. board. 
If signal stops between indoor terminal block 2 and 3, replace indoor P.C. board. |
|                   |                                 | 14                 | Compressor does not rotate. (Current protective circuit does not operate when a specified time passed after compressor had been activated.) | All off | Displayed when error is detected. | 1. Trouble on compressor 
2. Trouble on wiring of compressor (Missed phase) |
|                   |                                 | 16                 | Discharge temp. exceeded 117°C | All off | Displayed when error is detected. | 1. Check discharge temp. sensor (TD). 
2. Gas leakage 
3. Trouble on P.M.V. |
|                   |                                 | 17                 | Break down of compressor | All off | Displayed when error is detected. | 1. Check power voltage. (220–230–240 V +10%) 
2. Overload operation of refrigeration cycle 
Check installation condition (Short-circuit of outdoor diffuser). |
|                   |                                 | 08                 | 4-way valve inverse error (TC sensor value lowered during heating operation.) | Operation continues | Displayed when error is detected. | 1. Check 4-way valve operation. |