20. Unification Adaptor for Computerized Control

20.1 DCS302A52

- **Function**
  When connected to the central remote controller, this kit enables unified display (operation/malfunction) and unified control (operation/stop).

1. **Unified display**
   - Control input terminal board (Tes2)
     - Transmission wiring is connected here to enable external input from the host computer monitor panel, etc.
   - Changeover Switch (SS1)
     - Factory set: VOLT.
     - Switch to non-voltage when input to control input terminal board (Tes2) is non-voltage.
   - Control Mode Switch (RS1)
     - Factory set: 2
     - Switches control input mode.
   - Terminal board for fetching operation/malfunction display signal (Tes1)
     - Connect wires to W1 and W2 for operation display, and to W3 and W4 for malfunction display.
     - Power supply can be selected from amongst 24 V, ~24 V, 200–240 V.

2. **Unified control**
   - Control input terminal board (Tes2)
     - Transmission wiring is connected here to enable external input from the host computer monitor panel, etc.
   - Changeover Switch (SS1)
     - Factory set: VOLT.
     - Switch to non-voltage when input to control input terminal board (Tes2) is non-voltage.
   - Control Mode Switch (RS1)
     - Factory set: 2
     - Switches control input mode.
   - Terminal board for fetching operation/malfunction display signal (Tes1)
     - Connect wires to W1 and W2 for operation display, and to W3 and W4 for malfunction display.
     - Power supply can be selected from amongst 24 V, ~24 V, 200–240 V.
■ Installation

- Securely install the adaptor inside the electric panel box (field supplied) with the 4 attached screws.
- Install the adaptor in a place within 5 m from the central remote controller to enable cable connection.

![Image of an adaptor](image)

**NOTE**
1. Do not damage the PC board with your screwdriver, etc.
2. Install the adaptor inside an electric panel box to protect from electromagnetic waves and dust.

■ Electric wiring work and initial setting

First, wire between the indoor and outdoor units, and between each unit and the power supply source. Then, wire between the indoor unit and remote controller. Finally, check operation is normal.

- For details, refer to the installation manuals for the indoor and outdoor units.

Next, wire between the indoor unit and the central remote controller. Then, wire the central remote controller to the power supply source and make the necessary settings. Finally, check operation is normal.

- For details, refer to the installation manual for the central remote controller.

Wire between the unification adaptor for computerized control and the central remote controller.

- Refer to [WIRING TO THE CENTRAL REMOTE CONTROLLER](#).

Set the CHANGE OVER SWITCH and CONTROL MODE SWITCH. And, wire to the host computer monitor panel or other external input device.

- Refer to [WIRING TO EXTERNAL INPUT DEVICES](#).

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**WIRING TO THE CENTRAL REMOTE CONTROLLER**

- Host computer monitor panel
- Unification adaptor DCS302A52
- Central remote controller DCS302C(A)61

Max. 64 groups (Max. 128 units)

Connect the adaptor to X2A of the central remote controller.
WIRING TO EXTERNAL INPUT DEVICES

(Wire specifications)
0.75 – 1.25 mm² gauge sheathed vinyl cord or cable (2-wire)
Max. length: 150 m

1. Control input (Unified operation/stop)
Wire as explained here following, depending on whether input carries a voltage (VOLT.) or
not (NON VOLT.).
① Input with voltage

Set the CHANGE OVER SWITCH(SS1) to VOLT.. (Factory set: VOLT.)

The ■ mark indicates switch position.

Use a small voltage contact of a minimum current load of ≦ 12 V, 1 mA or less.

Utilize an external ≦ 12–24 V power supply. Each contact requires approximately 10 mA, therefore carefully select power supply capacity.

② Input with non voltage

Set the CHANGE OVER SWITCH to NON VOLT.. (Factory set: VOLT.)

The ■ mark indicates switch position.

Use a small voltage contact of a minimum current load of ≦ 12 V, 1 mA or less.

2. CONTROL MODE SWITCH (RS1) setting
Control mode can be selected from input A and B at this switch on the PC board adaptor.
(Factory set: 2)

① For normal operation by input A

<table>
<thead>
<tr>
<th>Position</th>
<th>Input A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>OFF → ON: Unified operation</td>
</tr>
<tr>
<td></td>
<td>ON → OFF: Unified stop</td>
</tr>
</tbody>
</table>

• Input B can be disregarded.

② For instantaneous operation by input A and B
(Use an instantaneous input of 400 msec or more at ON time.)

<table>
<thead>
<tr>
<th>Position</th>
<th>Input A</th>
<th>Input B</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ON: Unified operation</td>
<td>ON: Unified stop</td>
</tr>
</tbody>
</table>
3. Fetching the display signal
Terminals W1 - W4 are non voltage contacts used in normal operation to output operation display (W1 and W2) and malfunction display (W3 and W4) signals.

(The allowable current per contact is 10 mA – 3 A.)

NOTE
When using a ~ 200 – 240 V power supply, keep power supply wiring away from wiring of input side.

Output conditions are indicated as below.

<table>
<thead>
<tr>
<th>When Ry1 and Ry2 are OFF</th>
<th>When only Ry1 is ON</th>
<th>When only Ry2 is ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>All indoor units are stopped.</td>
<td>No error has occurred with the indoor units, and at least 1 unit is operating.</td>
<td>At least 1 unit has stopped operating due to malfunction, or a communications error has occurred between the central remote controller and the indoor unit.</td>
</tr>
</tbody>
</table>