

Basic and Professional Air-Conditioning Systems

Catalogue Number	77-8301-0002
Category	Vocational
Duration	

Panel replacing instructions:

The professional air conditioning system is composed of 2 modules:

Main Platform Unit

Professional Air Conditioning Panel

The Main Platform Unit cannot be used without the Professional Air Conditioning Panel.

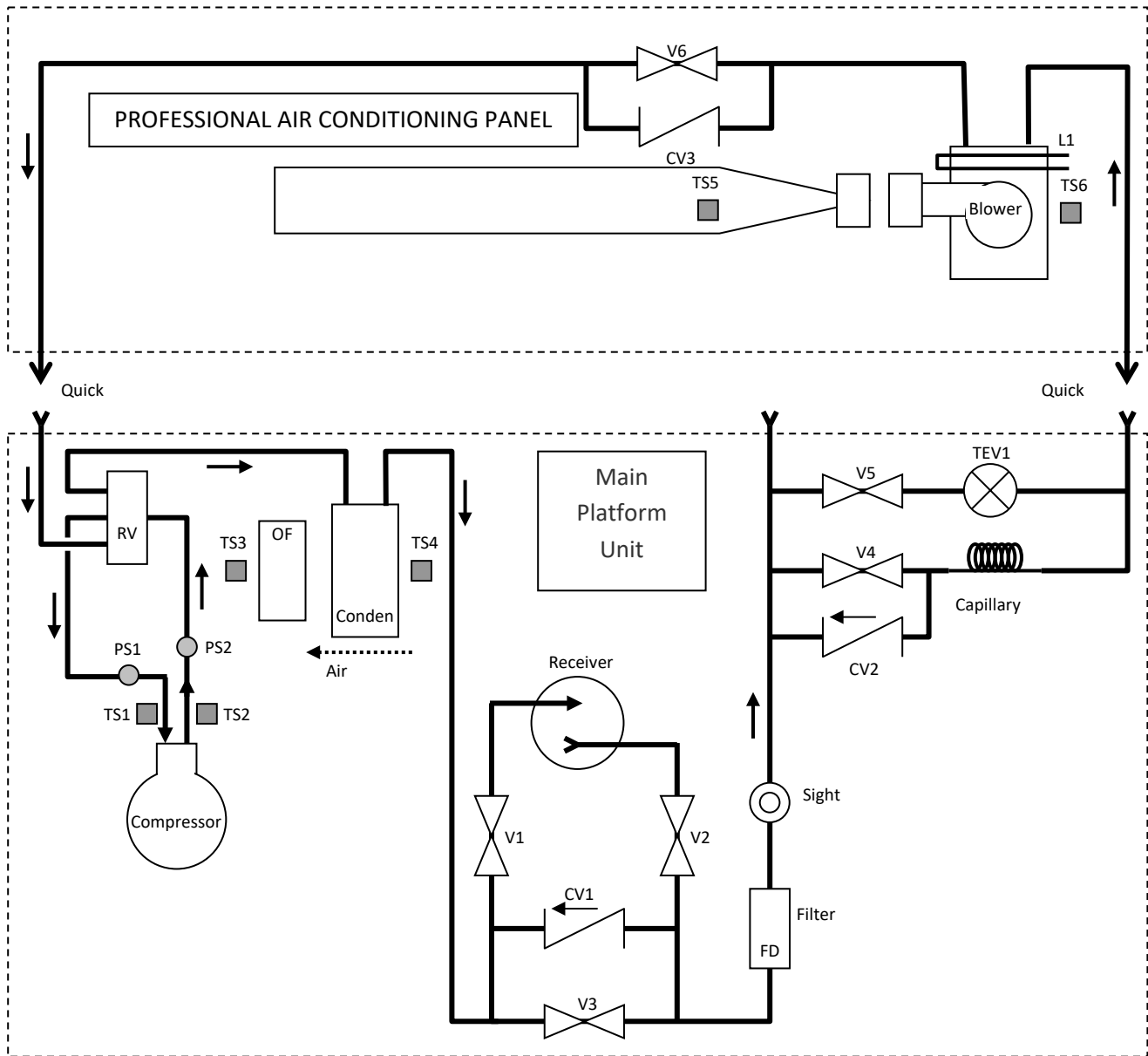


Figure I-2 Professional Air-Conditioning system

The panels are plugged into a special space in the MAIN PLATFORM UNIT and secured by screws.

The panel's air-conditioning pipes are connected to the MAIN PLATFORM UNIT pipes by quick fasteners.

On the rear panel of MAIN PLATFORM UNIT there are two sockets for connecting the MAIN PLATFORM UNIT electrically to the panel. The connecting cables are power cable and communication cable.

Before replacing panels, the air-conditioning gas should be collected into the receiver in the MAIN PLATFORM UNIT in order to reduce the gas pressure in the system to minimum for safety and for saving reasons.

Panel replacing procedure:

Step 1: Check that the MAIN PLATFORM UNIT monitor POWER and PROGRAM switches are at OFF position.

A ground leakage relay, a semi-automatic circuit breaker, and a main power switch are installed in a main power box located on the rear panel.

Step 2: Check that the high voltage ground leakage relay and the semi-automatic circuit breaker are ON and the main power switch is OFF.

Step 3: Connect the MAIN PLATFORM UNIT power supply cable to the Mains.

Step 4: Set the Auto/Manual switch (located on the bottom left of the simulator) to the Manual position.

Step 5: Turn ON the main POWER switch located on the main power box on the rear panel.

Step 6: Turn ON the monitor power switch.

Step 7: The FAULT display should show the number 00. If not, use the keys above the FAULT display to show the number 00 (no fault condition) on the FAULT 7-SEG. Press the ENTER key beneath the display.

Step 8: The STATE display should show the number 00 (no operation program).

Step 9: Use the keys above the STATE display to show number 98 (gas collection mode) on the STATE 7-segment display and press the ENTER key beneath the number 98.

Step 10: Lower the PROGRAM switch and raise it.

At this state, all the valves except valves V2 and V3 are ON. V2 and V3 are closed. The compressor and the fans are also ON.

This operation turns the refrigerant into gas and drives it into the receiver. The refrigerant cannot continue from this point and stays there.

Step 11: The system will stop automatically when the LP suction pressure (PS1) reaches the value of 2 PSI.

The compressor and fans will stop, all the valves will be closed and the message "collecting gas finished" appears.

Step 12: Turn OFF the monitor power switch.

Step 13: Turn OFF the main power switch located on the main power box on the rear panel.

- Step 14: Disconnect the power cable from the Mains.
- Step 15: Disconnect the power cable and the communication cable from the panel on the rear side.
- Step 16: Use the quick fasteners to disconnect the air-conditioning pipes of the panel from the MAIN PLATFORM UNIT pipes.
- Step 17: Open the panel fastener (on the top part at the center of the panel) and take it off from MAIN PLATFORM UNIT.
- Step 18: Insert the new panel to the panel space in the MAIN PLATFORM UNIT.
- Step 19: Use the quick fasteners to connect the air-conditioning pipes of the panel to the MAIN PLATFORM UNIT pipes.
- Step 20: Connect the power cable and the communication cable to the panel socket on the rear panel.
- Step 21: Connect the power cable to the Mains.
- Step 22: The system is ready for operation.

Status may be checked by doing experiment 1.1 or 2.1 depending which panel is installed.