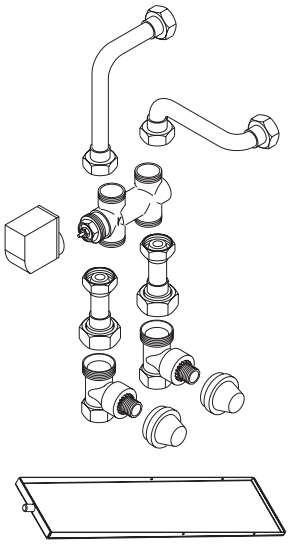
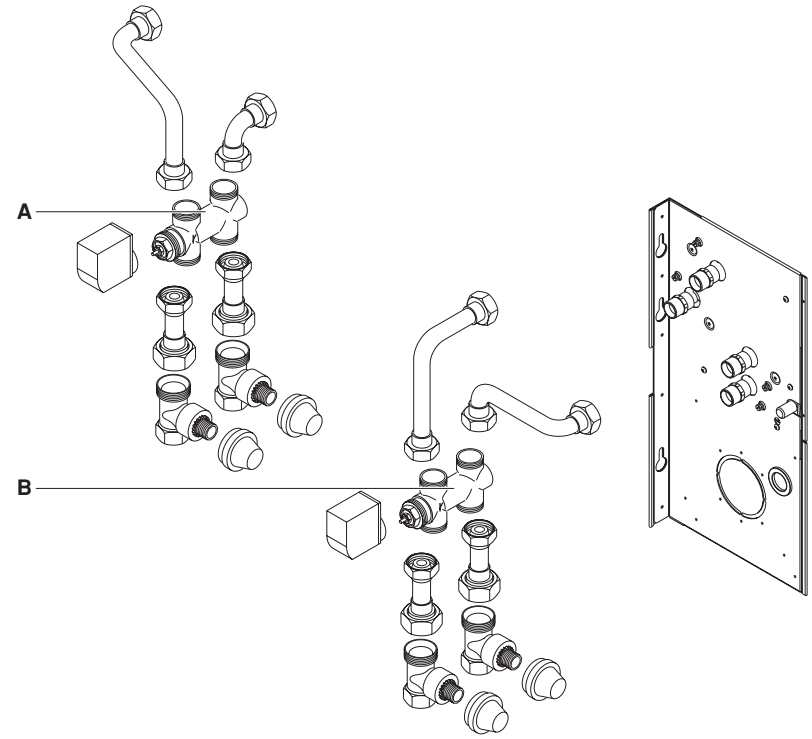
INSTALLATION MANUAL

Motorised ON/OFF valve kit

ED2MV04A6
ED2MV10A6
ED2MV12A6
ED2MV18A6
ED4MV04A6
ED4MV10A6

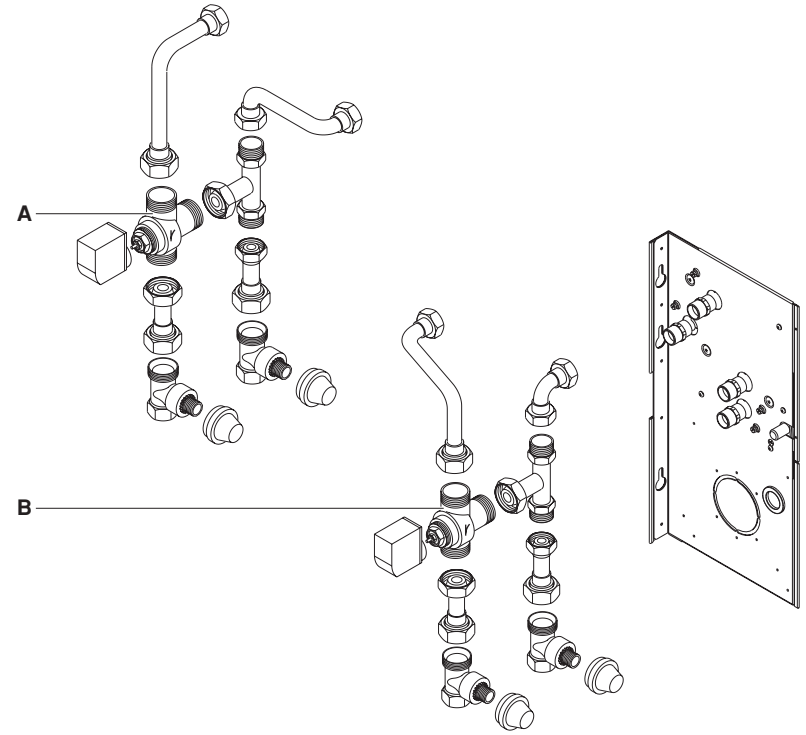


FWD04

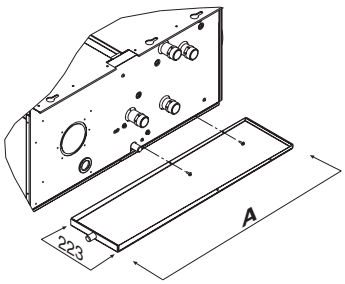


1

FWD06~10



2



	A
FWD 04~10	506
FWD 12~18	665

3

Read this manual attentively before starting up the unit. Do not throw it away. Keep it in your files for future reference.

Improper installation or attachment of equipment or accessories could result in electric chock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories made by Daikin which are specifically designed for the use with the equipment and have them installed by a professional.

If unsure of installation procedures or use, always contact your Daikin dealer for advice and information.

BEFORE INSTALLATION

Installation and maintenance should be carried out by technical personnel qualified for this type of unit, in compliance with current safety regulations.

When receiving the kit please check its state, verifying if any damage occurred during the transport.

Identify model and version of the motorized ON/OFF valve kit series from the indications stated on the carton package.

CHARACTERISTICS

The 3-way motorised ON/OFF valve kit, connected to the Daikin controllers, permits to set the room temperature by cutting off the water flow to the heat exchanger.

The kit is available in various fittings for all FWD units, both for 2-pipe and for 4-pipe systems, as outlined in the table below:

	2-pipe system	4-pipe system
FWD04	ED2MV04A6	ED4MV04A6
FWD06~10	ED2MV10A6	ED4MV10A6
FWD12	ED2MV12A6(*)	2x ED2MV12A6(*)
FWD16+18	ED2MV18A6(*)	2x ED2MV18A6(*)

(*) ■ For sizes 12 + 18, only the valves and the corresponding servomotor are supplied. For these series it is preferable to install units and valves together with the associated servomotors, not at the back of the units, but in a position adjacent to the main hydraulic circuit.
■ For sizes 12 + 18, the drain pan is not included in the kit. Always insulate the valve to avoid condensate formed on the valves.

- Only for left side connection!
- Always use this kit in combination with the ECFWDER6 controller. This controller is suitable for following systems:
  - 2-pipe systems
  - 4-pipe systems
  - 2-pipe systems with electric heater
- The operation of the valve may be disabled by selecting the “manual” mode turning the lever on the servocontrol by 90°. As such, the valve will be in the direct-passage position.

The kit consist of:

- **3-way valve body with 4 connections** with built-in by-pass.
- **Servocontrol**: normally closed, electrothermal type, 230 V 1~, with ON/OFF operating mode, acting directly at the valve cut-off.
- **Hydraulic kit** for the installation of the valve on the heat exchanger, complete with 2 regulating valves for adjusting the water flow and for closing the water circuit when performing maintenance to the unit (FWD04~10 only).
- **Drain pan** for horizontal installation (+ screws) (FWD04~10 only).

NOTE

The diameter of the valve body is usually oversized for limiting flow resistance. The threaded couplings at the ends of the kit however, always have the same diameter as the heat exchangers of the basic unit.

Flow resistance

The flow resistance of the valve/hydraulic kit assembly is obtained from the following formula:
$\Delta P_w = (Q_w/K_v)^2$
where:

ΔP_w is the flow resistance expressed in kg/cm^2
Q_w is the water flow rate expressed in m^3/h
K_v is the flow rate identified in the table

	Valve	K_v
FWD04	3/4”	2.8
FWD06~10	1”	5.0
FWD12	1”	8.0
FWD16+18	1” 1/4	11.5(*)

(*) For FWD16 + 18, the K_v value is related to the valve alone

INSTALLATION

Proceed as follows to install the valve kit

- All field wiring and components must be installed by a licensed electrician and must comply with relevant local and national regulations.
- Before obtaining access to terminals, all power supply circuits must be interrupted.

1 Install the valve kits on the unit as indicated in figure 1 and figure 2.

A For standard heat exchanger

B For additional heat exchanger

- Fit the kit to the heat exchanger.

The valve kit has been pre-assembled for easy installation.

- Where needed the connections are pre-coated with sealing material.
- The connections are not tightened for easy adjustment.
- After determining the final position of the valve kit, tighten all connections to obtain water tightness.

- For units with a 4-pipe system, mount each of the 2 hydraulic kits separately.

2 Install the drain pan.

When a valve kit is operated in cooling mode, always install the supplied drain pan (see figure 3 in case of horizontal installation) or the optional EDDPV drain pan for vertical installation. Connect the drain pan to the drain for evacuation of drain water. This to avoid condensate leakage.

Fix the drain pan to the basic unit by means of 2 self-tapping screws (supplied with the kit) as shown in figure 3. It is recommended to always install the drain pan before having fixed the valve kit.

After having fixed the drain pan to the side panel by means of the specific screws, apply some sealing silicone in the contact area between the drain pan and the side panel of the unit. As such, the drain pan will even collect any condensate formed on valves, hydraulic unions and on fixations which would drip down the side panel of the basic unit.

3 Wiring to the controller

- Refer to the wiring diagram in the installation and operation manual of the ECFWDER6 controller.
- For connection with the ECFWDER6 controller, position the water temperature probe into the appropriate position. Refer to the dedicated controller installation and operation manual.

NOTES

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