■ Individual Control Systems for VRV Systems

Navigation Remote Controller (Wired remote controller) (Option)
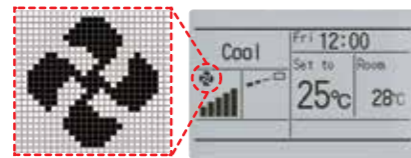
This simple, modern designed remote controller with fresh white colour matches your interior design. Operation is much easier and smoother, just follow the indications on the navigation remote controller.

New BRC1E63

Clear display

Dot matrix display
· A combination of fine dots enables various icons. Large text display is easy to see.

Backlight display
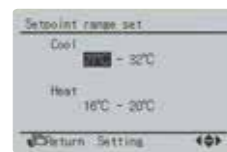· Backlight display helps operating in dark rooms.

Simple operation

Large buttons and arrow keys
· Large buttons and arrow keys enable easy operation. Basic setting such as fan speed and temperature can be intuitively operated. For other settings, select the function from the menu list.

Guide on display
· The display gives an explanation of each setting for easy operation.
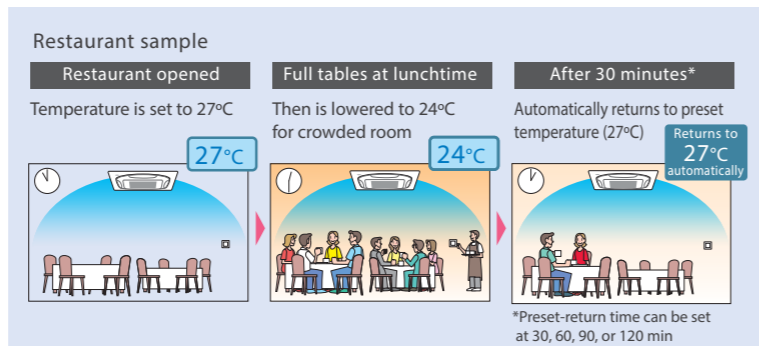
Energy saving

Setpoint range set
· Saves energy by limiting the min. and max. set temperature.
· Avoids excessive cooling.
· This function is convenient when the remote controller is installed at a place where any number of people may operate it.

Setpoint auto reset
· Even if the set temperature is changed, the new set temperature returns to the previous preset value after a preset duration of time.
· Period selectable from 30, 60, 90, or 120 min.

Off timer
· Turns off the air conditioner after a preset period of time.
· Period can be preset from 30 to 180 minutes in 10-minute increments.

Restaurant sample

Restaurant opened	Full tables at lunchtime	After 30 minutes*
Temperature is set to 27°C	Then is lowered to 24°C for crowded room	Automatically returns to preset temperature (27°C)
27°C	24°C	Returns to 27°C automatically

*Preset-return time can be set at 30, 60, 90, or 120 min
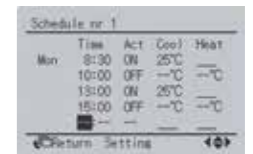
Convenience

Setback (default: OFF)
Maintains the room temperature in a specific range during unoccupied period by temporarily starting air conditioner that was turned OFF.
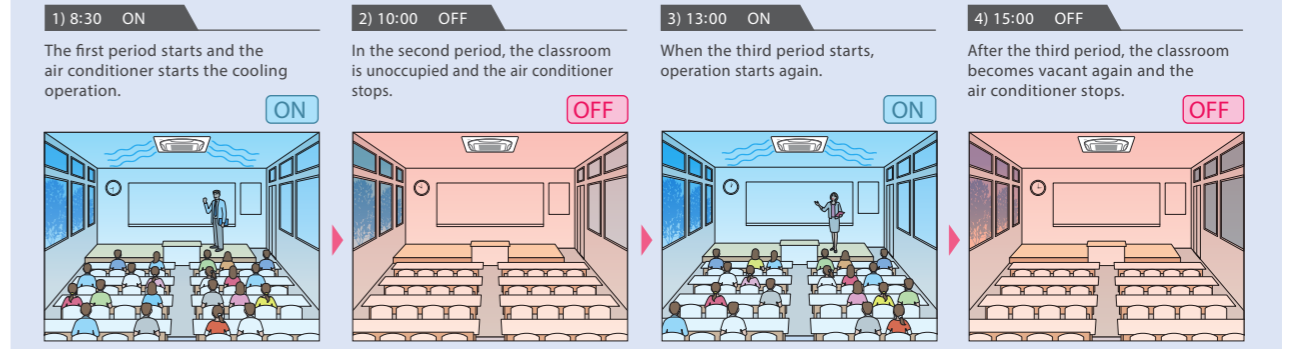
Ex) Setback temperature Cooling : 35ºC   Recovery differential Cooling : -2ºC
When the room temperature goes above 35ºC, the air conditioner starts operating in Cooling automatically.
When room temprature reaches 33ºC, the air conditioner returns OFF.

	Setback temperature	Recovery differential
Cooling	33 — 37°C	-2 — -8°C

Weekly schedule
· 5 actions per day can be scheduled for each day of the week.
· The holiday function will disable schedule timer for the days that have been set as holiday.
· 3 independent schedules can be set. (e.g. summer, winter, mid-season)

College classroom sample (a summer Monday case)

1) 8:30 ON	2) 10:00 OFF	3) 13:00 ON	4) 15:00 OFF
The first period starts and the air conditioner starts the cooling operation. **ON**	In the second period, the classroom is unoccupied and the air conditioner stops. **OFF**	When the third period starts, operation starts again. **ON**	After the third period, the classroom becomes vacant again and the air conditioner stops. **OFF**

New **Auto display off**
· While operation is stopping, LCD display can be turned OFF. It will be displayed again if any button is pressed.
· Period can be preset from 10, 30, 60 minutes, and OFF. Initial setting is 30 minutes.

Comfort

Individual airflow direction (*1)
Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution that conforms to conditions for airflow direction (small and large loads).
*1. Only available for FXF(S)Q-A and FXUQ-A series.

New **5-step airflow control (*2)**
Control of airflow rate can be selected from 5-step control, which provides comfortable airflow.
*2 . The number of airflow steps differs according to the type of indoor unit. 5-step airflow is only available for FXF(S)Q-A series.

Auto airflow rate (*3)
Airflow rate is automatically controlled in accordance to the difference between room temperature and set temperature.
*3 .Only available for FXF(S)Q-A, FXDQ-PD/ND, FXSQ-PA, FXMQ-PA and FXUQ-A series.

Level 1 (Low)	Level 2	Level 3 (Medium)	Level 4	Level 5 (High)	Auto
level Lv. 1 (L)	level Lv. 2	level Lv. 3 (M)	level Lv. 4	level Lv. 5 (H)	level Auto

Control Systems

Control Systems

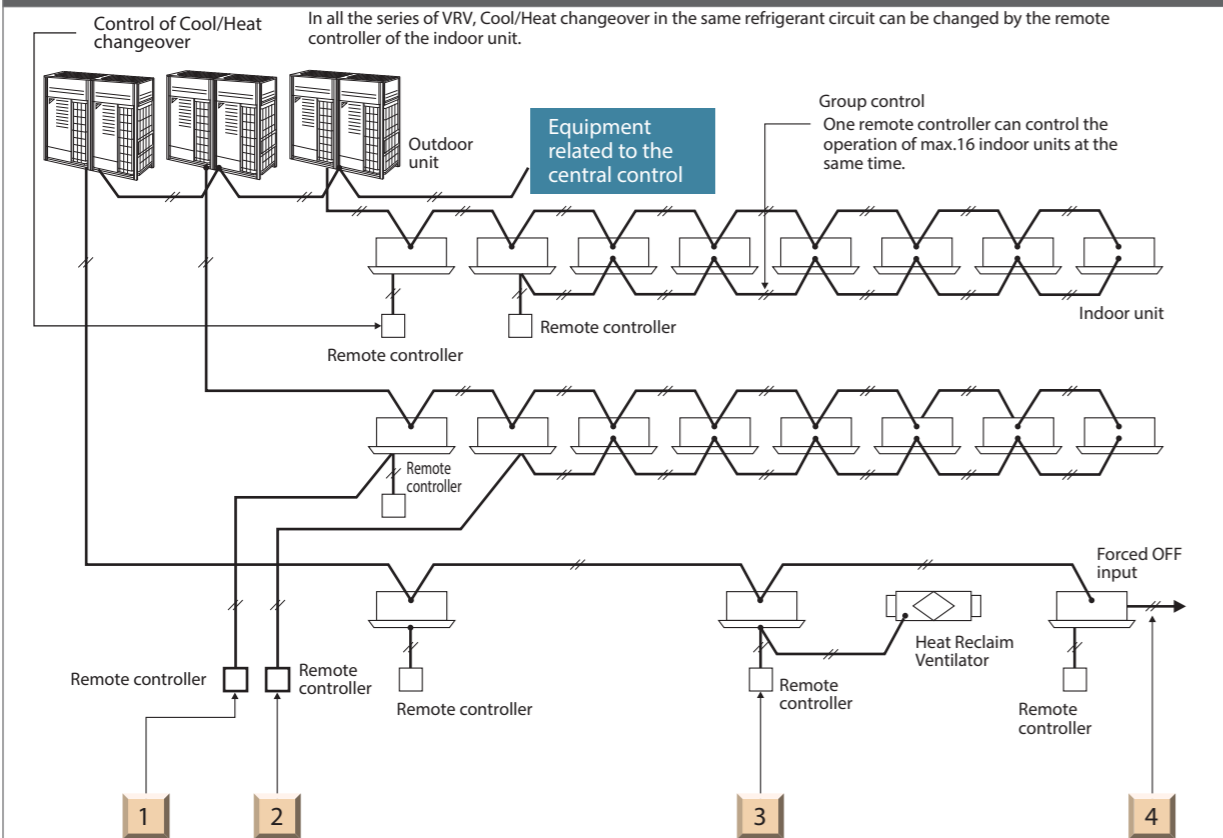## ■ Individual Control Systems for VRV Systems

Displays current airflow, swing, temperature, operating mode and timer settings.

* Individual airflow direction, auto airflow rate and sensing sensor control can be set only via wired remote controller BRC1E63. Cannot be set via other remote controllers.

BRC1C62

The wired remote controller supports a wide range of control functions

Control of Cool/Heat changeover

In all the series of VRV, Cool/Heat changeover in the same refrigerant circuit can be changed by the remote controller of the indoor unit.

Outdoor unit

Equipment related to the central control

Group control
One remote controller can control the operation of max.16 indoor units at the same time.

Indoor unit

Remote controller

Remote controller

Remote controller

Remote controller

Remote controller

Remote controller

Remote controller

Remote controller

Remote controller

Heat Reclaim Ventilator

Forced OFF input

1   2   3   4

1	Control by two remote controllers

The indoor unit can be connected by the two remote controllers, for example one in the room and the other one in the control room, which can control the operation of indoor unit freely.(The last command has a priority.)
Of course, the group control by two remote controllers is also possible.

2	Remote control

The wiring of remote controller can be extended to max. 500 m and it is possible to install the remote controllers for different indoor units in one place.

3	Control for the combined operation

The operation of Heat Reclaim Ventilator can be controlled by the remote controller of the indoor unit. Of course, the remote controller can display the time to clean the filter.

4	Expansion of system control

The system can be expanded to add several controllers, such as BMS, Forced OFF input and etc.

Wireless remote controller (Option)

The wireless remote controller is supplied in a set with a signal receiver.
Signal receiver unit of installed type is contained inside decoration panel or indoor unit.
Shape of signal receiver unit differs according to the indoor unit.

Note: The signal receiver unit shown in the photograph is for mounting inside the decoration panel of FXF(S)Q series.

New Backlight LCD of new wireless remote controller

Signal receiver unit (Installed type)

New BRC7M635F (For FXF(S)Q series)

Pressing the backlight button helps operating in dark rooms.

A compact signal receiver unit (separate type) to be mounted into a wall or ceiling is included.

* Wireless remote controller and signal receiver unit are sold as a set.
* Refer to page 189 for the name of each model.

Signal receiver unit (Separate type)

Wireless remote controller

Simplified remote controller (Option)

The remote controller has centralised its frequently used operation selectors and switches (on/off, operation mode, temperature setting and airflow volume), making itself suitable for use in hotel rooms or conference rooms.

The exposed type remote controller is fitted with a thermostat sensor.
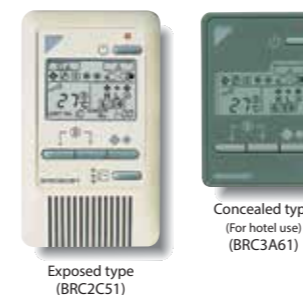
Exposed type (BRC2C51)

Concealed type (For hotel use) (BRC3A61)

The concealed type remote controller smartly fits into a night table or console panel in a hotel room.

Wide variation of remote controllers for VRV indoor units

	FXF(S)Q	FXZQ	FXCQ	FXKQ	FXDQ	FXSQ	FXMQ	FXHQ	FXAQ	FXL(N)Q	FXVQ	FXB(P)Q
Navigation remote controller (Wired remote controller) (BRC1E63)	●	●	●	●	●	●	●	●	●	●	●	●
Wired remote controller (BRC1C62)		●	●	●	●	●	●	●	●	●	●	●
Wireless remote controller* (Installed type signal receiver unit)	●	●	●					●	●			
Wireless remote controller* (Separate type signal receiver unit)				●	●	●	●				●	●
Simplified remote controller (Exposed type) (BRC2C51)				●	●	●					●	●
Simplified remote controller (Concealed type: for Hotel use) (BRC3A61)				●	●	●					●	●

*Refer to page 189 for the name of each model.

Control Systems

Centralised Control Systems for VRV Indoor Units

- Up to 64 groups of indoor units (128 units) can be centrally controlled.
- Optional controllers for centralised control can be combined freely, and system can be designed in accordance with building scale and purpose.
- System integration with various air-conditioning peripheral equipment such as Heat Reclaim Ventilator is easy.
- Wiring can be run up to a total length of 2 km, and adapts easily to large-scale system expansion.

Unified on/off controller (DCS301BA61)
Connection of up to 8 units possible

Address setting of central control can be performed from the remote controller.

Independent and centralised control of Heat Reclaim Ventilator is possible.

Connectable number of centralised control equipment

Central remote controller	2 units
Unified on/off controller	8 units
Schedule timer	1 unit

Group control of up to 16 units is possible (group control via automatic address setting)

System without remote control is also available.

Forced shut-down input

Central remote controller (DCS302CA61)
Up to 2 units connectable

Schedule timer (DST301BA61)
1 unit connection possible; 8 weekly schedule control patterns possible

Interface adaptor for SkyAir series (DTA112BA51)

Central control adaptor kit (DTA107A55).

Wiring adaptor for other air-conditioners (DTA103A51)

Outdoor-air processing unit can be connected.

6 cores   7 cores max.

Interlink Building Management System (host computer monitor panel) also possible

Unification adaptor for computerised control (DCS302A52)

- Certain indoor units limit the functions of some control systems. For more details, please refer to the Engineering Data.

Residential central remote controller* (Option)

DCS303A51

Max. 16 groups of indoor units can be easily controlled with the large LCD panel.

- Max. 16 groups (128 indoor units) controllable
- Backlight and large LCD panel for easy readability
- ON/OFF, temperature settings and scheduling can be controlled individually for indoor units.
- All indoor units can be turned on or off at once with "ALL" button.
- Each group has a dedicated button for convenience.
- Outside temperature display

* For residential use only. Cannot be used with other centralised control equipment.

Central remote controller (Option)
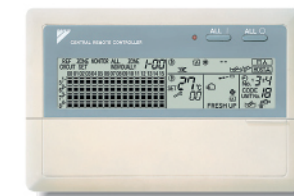
DCS302CA61

Max. 64 groups (zones) of indoor units can be controlled individually same as LCD Remote controller.

- Max. 64 groups (128 indoor units) controllable
- Max. 128 groups (128 indoor units) are controllable by using 2 central remote controllers, which can control from 2 different places.
- Zone control
- Malfunction code display
- Max. wiring length 1,000 m (Total: 2,000 m)
- Connectable with Unified ON/OFF controller, schedule timer and BMS system
- Airflow volume and direction can be controlled individually for indoor units in each group operation.
- Ventilation volume and mode can be controlled for Heat Reclaim Ventilator.
- Up to 4 ON/OFF pairs can be set per day by connecting a schedule timer.

Unified ON/OFF controller (Option)

DCS301BA61

Max. 16 groups of indoor units can be operated simultaneously/individually.

- Max. 16 groups (128 indoor units) controllable
- 2 remote controllers can be used to control from 2 different places.
- Operating status indication (Normal operation, Alarm)
- Centralised control indication
- Max. wiring length 1,000 m (Total: 2,000 m)
- Compact size casing (Thickness: 16 mm)
- Connectable with Central Remote controller, Schedule timer and BMS system

Schedule timer (Option)

DST301BA61

Max. 128 indoor units can be operated as programmed schedule.

- Max. 128 indoor units controllable
- When used in combination with a central remote controller, a maximum of 8 weekly schedule patterns can be set, while the central controller can be used to select desired zones. Up to 2 ON/OFF pairs can be set per day.
- Max. 48 hours back up power supply
- Max. wiring length 1,000 m (Total: 2,000 m)
- Compact size casing (Thickness: 16 mm)
- Connectable with Central Remote controller, Unified ON/OFF controller and BMS system

Control Systems