

Distributed to ✓ Areas:				
All Areas		Oceania	✓	Europe
China		India	✓	NA
ASEAN and Others	✓	ME	✓	LA
Taiwan		Africa	✓	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

DATE: Jun.'17

PAGE: 1/12

Summary

1. This Technical Bulletin provides information listed below.
 - 1) Improvement of control function for SET FREE series indoor unit and receiver kit.
 - 2) Launching of new controller.
 - Wired Controller (PC-ARF1)
 - Half Size Controller (PC-ARH1)
 - Receiver Kit (PC-ALHZ1)
2. The details are indicated in the description.

Description

1. Product Features

- 0.5 °C increments
- Power Saving Function

Distributed to √ Areas:				
All Areas		Oceania	√	Europe
China		India	√	NA
ASEAN and Others	√	ME	√	LA
Taiwan		Africa	√	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for SET FREE Series Indoor Units and Receiver Kit, and Launching of New Controller

DATE: Jun.'17

PAGE: 2/12

2. Applicable Models

Description	Type	Current	New	Changing Point	New Function Application		Production Date
		Model (Model Code)	Model (Model Code)		0.5 °C Increment	Power Saving	
Controller	Wired Controller	PC-ARF (60291959)	PC-ARF1 (60292244) NEW	Model Change	Available		from June,2017
	Half Size Controller	PC-ARH (60291486)	PC-ARH1 (60292045) NEW	Model Change	Available	-	from June,2017
	Remote Controller	PC-AWR (60291970)	←	(No Change)	Available	-	from first production
Indoor Unit	4-Way Cassette	RCI-1.0 to 6.0FSN3	←	PCB	Available		from June, 2017 *1
	Mini Cassette	RCIM-0.6 to 2.5FSN4	←	(No Change)	Available		from first production
	2-Way Cassette	RCD-0.8 to 6.0FSN3	←	(No Change)	Available		from first production
	1-Way Cassette	RCS-0.8-3.0FSN	←	(No Change)	Available		from first production
	Ducted (0.8-6.0HP)	RPIM-0.8 to 6.0FSN3 NEW	←	(No Change)	Available		from first production
		RPI-2.0-6.0FSN3 NEW	←	(No Change)	Available		from first production
	Ducted (8-10HP)	RPI-8 to 10FSN1	←	(No Change)	Available		from first production
	Ceiling Suspended	RPC-1.5 to 6.0FSN3	←	(No Change)	Available		from Jan.2016 production (P-4380)
Wall Mounted	RPK-0.6 to 4.0FSN3M	←	(No Change)	Available	Available *2	from Jun.2016 production (P-4447)	
	RPK-0.6 to 1.5FSNH3M	←	(No Change)	Available	Available *2	from Jun.2016 production (P-4447)	
Receiver Kit	for 4-Way Cassette	PC-ALH3 (60291768)	←	PCB	Available	-	from June,2017
	for Mini Cassette	PC-ALHC1 (60292004)	←	(No Change)	Available	-	from first production
	for 2-Way Cassette	PC-ALHD1 (60292054)	←	(No Change)	Available	-	from first production
	for 1-Way Cassette	PC-ALHS1 (60292127)	←	(No Change)	Available	-	from first production
	for Ceiling Suspended	PC-ALHP1 (60291822)	←	PCB	Available	-	from June,2017
	for General Purpose (Ducted, Wall Mounted)	PC-ALHZ (60291474) PC-ALHZF (60291790)	PC-ALHZ1 (60292150) NEW	Model Change	Available	-	from June,2017

*1. Please refer to "Detail of Change" for applicable serial number.

*2. The Power Saving Function is not available with Remote Controller. Switch the setting to Wired Controller to utilize the function.

NOTE:

As for the lead time for delivery, please contact your distributor.

Distributed to √ Areas:				
All Areas		Oceania	√	Europe
China		India	√	NA
ASEAN and Others	√	ME	√	LA
Taiwan		Africa	√	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

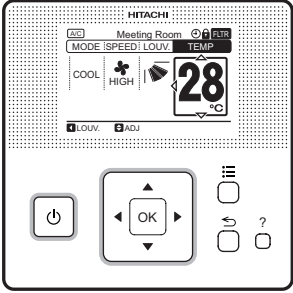
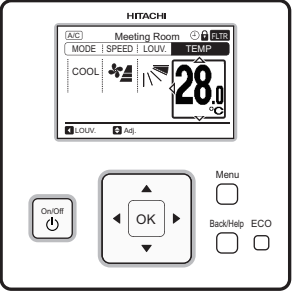
DATE: Jun.'17

PAGE: 3/12

3. Details of Change

3.1 Controller

3.1.1 Wired Controller

Item		Current Model	New Model
Model Name		PC-ARF*EX	PC-ARF1*EX
Appearance			
Dimension (Height × Width × Depth)		120mm × 120mm × 17.9mm	
Color		White	Pearl White
LCD Language		5 (English, French, German, Italian, Spanish)	2 (English, French)
Function	Power Saving	-	Outdoor Unit Capacity Control
		-	Indoor Unit Rotation Control
		-	Intermittent Operation Control
	Comfortability	-	0.5 °C increment setting ※
		-	Night Quiet Operation
	Visualization	-	Power Consumption Display
-		Power Saving Guidance	
Schedule	-	Power Saving Schedule	
	-	Operation Noise Reduction Schedule	

※ Available only if the 0.5 °C increment function is adopted to the indoor unit.

Distributed to √ Areas:					
All Areas		Oceania	√	Europe	
China		India	√	NA	
ASEAN and Others	√	ME	√	LA	√
Taiwan		Africa	√	Brazil	√
NOTE (Except for Turkey and ME (T3))					

TECHNICAL BULLETIN

Improvement of Control Function for SET FREE Series Indoor Units and Receiver Kit, and Launching of New Controller

DATE: Jun.'17

PAGE: 4/12

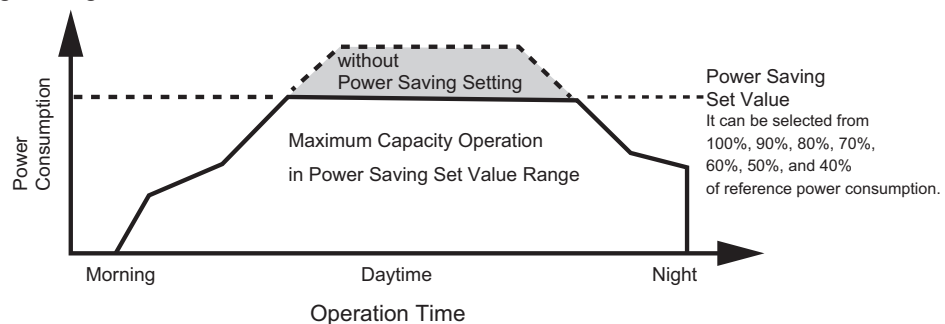
Detailed Explanation of New Function

A. Power Saving Function

A-1. Outdoor Unit capacity Control

< Peak Cut Control >

The peak cut control reduces the power consumption range when it exceeds the value of the power saving setting.

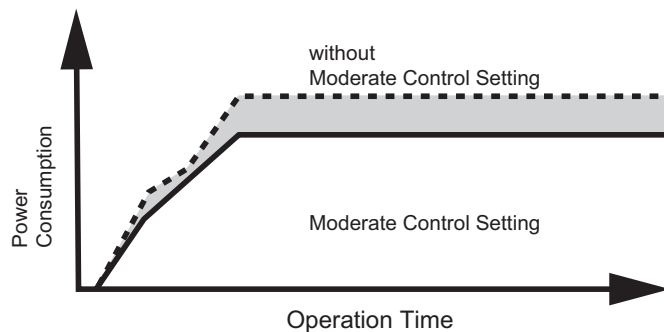


NOTES:

1. The power set value (%) is just a criterion. The power set value for this function is different from the actual power value in precision. Use the demand controller (option) when it is necessary to manage the maximum power correctly.
2. The cooling capacity will be decreased according to the power saving setting value for the reducing of compressor motor revolution.
3. The actual electrical power consumption may be higher than the value displayed on the screen under certain operating condition such as protective control.
4. This function is used to inhibit power consumption of the operating. Do not use it for minimize the capacity of current and the voltage for the power circuit, power source wiring, GFCI, transformer, etc. It may cause actuation of interrupter and equipment fault.

< Moderate Control >

The moderate control moderate the air conditioning capacity not to exceeds the value of the power saving setting.



NOTES:

1. The moderate control setting value can be set from 40% to 100% of regular capacity by every 10%.
2. The setting value is just a criterion. It might be different according to the actual service condition and operating condition.

Distributed to ✓ Areas:			
All Areas	Oceania	✓	Europe
China	India	✓	NA
ASEAN and Others	ME	✓	LA
Taiwan	Africa	✓	Brazil
NOTE (Except for Turkey and ME (T3))			

TECHNICAL BULLETIN

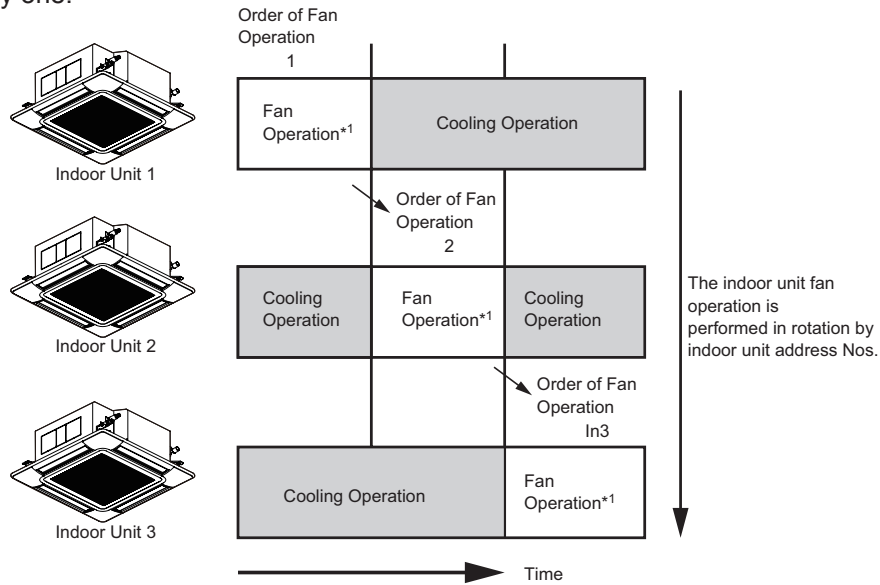
Improvement of Control Function for SET FREE Series Indoor Units and Receiver Kit, and Launching of New Controller

DATE: Jun.'17

PAGE: 5/12

A-2. Outdoor Unit capacity Control

The rotation control switches multiple indoor unit operating mode to FAN mode (Thermo-OFF) in order one by one.

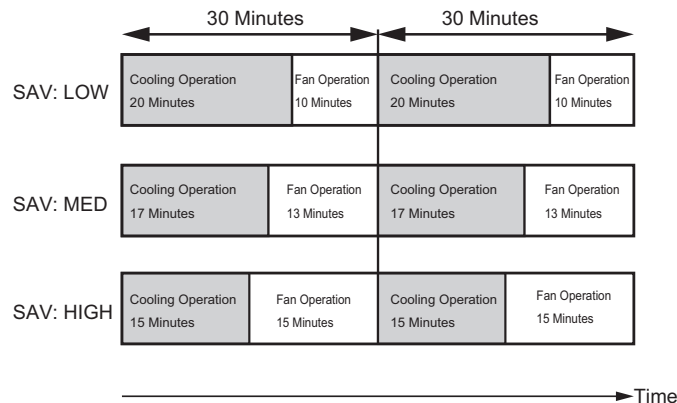


NOTES:

1. The fan mode time can be selected in the interval of three minutes, five minutes and ten minutes.
2. It is possible to change the rotation assigned number according to the minimum differential between the setting temperature and indoor temperature.
3. This function is not available in case the PAC system is under simultaneous operation. The function is only available in PAC system under individual operation.

A-3. Intermittent Operation Control

The intermittent control repeats Cooling/Heating and Fan (Thermo-OFF) mode in fixed intervals.



NOTE:

The fan mode will be repeated in the interval of five minutes (SAV: LOW), ten minutes (SAV: MED) and fifteen minutes (SAV: HIGH) during heating operation.

Distributed to ✓ Areas:				
All Areas		Oceania	✓	Europe
China		India	✓	NA
ASEAN and Others	✓	ME	✓	LA
Taiwan		Africa	✓	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

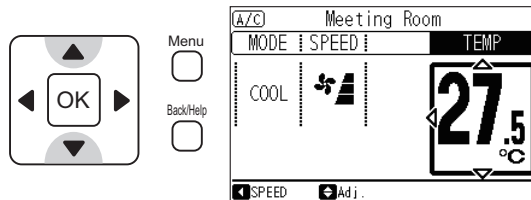
DATE: Jun.'17

PAGE: 6/12

B. Comfortability

B-1. 0.5 degree Setting

Detailed room setting is possible according to the condition of the living room.



B-2. Night Quiet Operation

This function is utilized to reduce the operation noise especially at night and available to set the schedule up to five settings a day each day of the week from wired controller with 3 setting conditions.

NOTES:

1. This function is only available under low load condition such as operation at night.
2. The outdoor unit capacity will decrease because the compressor frequency and outdoor fan motor frequency forcibly decrease. The operating range will also be restricted.
3. Reduction rates are approximate, these may change slightly depending on the operation condition.

Distributed to √ Areas:				
All Areas		Oceania	√	Europe
China		India	√	NA
ASEAN and Others	√	ME	√	LA
Taiwan		Africa	√	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for SET FREE Series Indoor Units and Receiver Kit, and Launching of New Controller

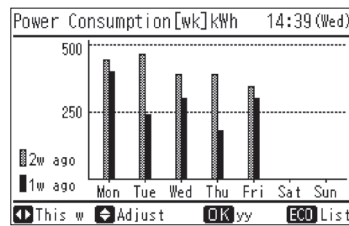
DATE: Jun.'17

PAGE: 7/12

C. Visualization

C-1. Power Consumption Display

This function displays the power consumption of the outdoor unit compressor. The value of each displayed in Graph/List format is one day, one week and one year. The display period of consumption comparison can be selected from one day before/Today to 1 year ago/This year.

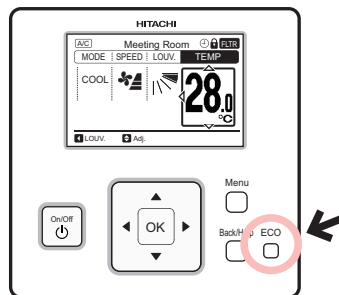


NOTE:

The power consumption for outdoor unit compressor will be displayed.

C-2. Power Saving Guidance

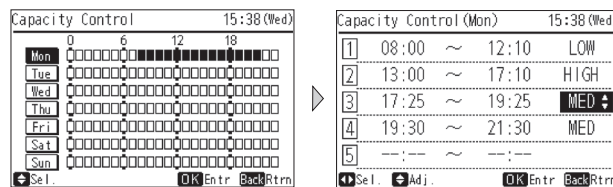
Press “ECO” button then the power saving guide will be displayed to support the setting. Easy access to the confirmation and setting screen from the current setting status screen.



D. Schedule

D-1. Power Saving Schedule

The power saving schedule function is utilized to set the power saving schedule on indoor unit capacity control and intermittent control up to five settings a day each day of the week.



The display of Noise Reduction Schedule is the same.

D-2. Operation Noise Reduction Schedule

The operation noise reduction schedule function is utilized to set the operation noise reduction schedule up to five settings a day each day of the week.

NOTE:

The operation noise reduction setting may decrease the Cooling/Heating capacity.

Distributed to ✓ Areas:				
All Areas		Oceania	✓	Europe
China		India	✓	NA
ASEAN and Others	✓	ME	✓	LA
Taiwan		Africa	✓	Brazil
NOTE (Except for Turkey and ME (T3))				

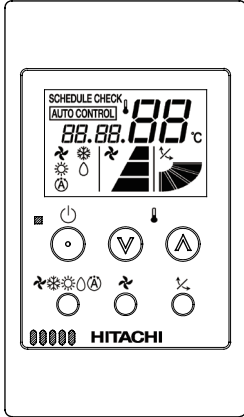
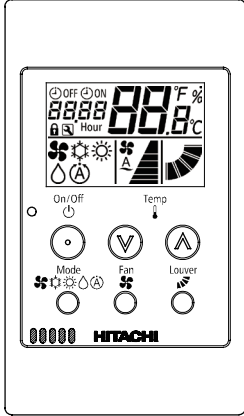
TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

DATE: Jun.'17

PAGE: 8/12

3.1.2 Half Size Controller

Item	Current Model	New Model
Model Name	PC-ARH*EX	PC-ARH1*EX
Appearance		
Dimension (Height × Width × Depth)	120mm × 70mm × 17mm	
Back Light	Not Available	Available: When the switch is operated, the back light lights up, making it easier to operate even in dark places. If there is no switch operation for 15 seconds, the back light goes out.
Fan Speed	<ul style="list-style-type: none"> • 3 taps (HIGH, MEDIUM, LOW) • Auto : not available 	<ul style="list-style-type: none"> • 4 taps (HIGH2, HIGH, MEDIUM, LOW) • Auto : available
Setting Temperature	1 °C increments	0.5 °C increments ※
Optional Function	Not Available	Automatic OFF Timer Setting (F1): Automatically stops operation after a certain period of time has elapsed from the start of operation in order to prevent forgetting to off.
	Not Available	Automatic Reset of Setting Temperature(F3 to F6): Even if the set temperature is changed, it will return to the original setting temperature after a certain time elapses and wasteful operation will be suppressed.

※ Available only if the 0.5 °C increment function is adopted to the indoor unit.

Distributed to ✓ Areas:					
All Areas		Oceania	✓	Europe	
China		India	✓	NA	
ASEAN and Others	✓	ME	✓	LA	✓
Taiwan		Africa	✓	Brazil	✓
NOTE (Except for Turkey and ME (T3))					

TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

DATE: Jun.'17

PAGE: 9/12

3.2 Indoor Unit (4-way Cassette Type)

Item		Current Model	New Model
Model Name		RCI-1.0 to 6.0FSN3	RCI-1.0 to 6.0FSN3
PCB	Drawing No.	17B47314A	17B47314B
	Rom No.	P-4565	P-4510
	Service Parts No.	P30723	P31505
	Interchangeability		
Dip Switch Setting (DSW4) (Model Setting)			
Identification Packing Label			<p>Marking "*" after Model Name</p>
Applicable Serial No.		Until UAFT4179	From UAFT4180

Distributed to ✓ Areas:					
All Areas		Oceania	✓	Europe	
China		India	✓	NA	
ASEAN and Others	✓	ME	✓	LA	✓
Taiwan		Africa	✓	Brazil	✓
NOTE (Except for Turkey and ME (T3))					

TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

DATE: Jun.'17

PAGE: 10/12

3.3 Receiver Kit

1) for 4-way Cassette and Ducted

Item		Current Model	New Model
Model Name	for 4-Way Cassette	PC-ALH3	PC-ALH3
	for Ducted	PC-ALHP1	PC-ALHP1
PCB name		PR111A	PR111B
Interchangeability			
Identification of Indoor Unit Number		2 Units	4 Units
Setting Temperature		1 °C increments	0.5 °C increments ※
Identification	Packing Label	<p>WIRELESS RECEIVER KIT MODEL PC-ALH3 CODE 60291768 HITACHI <small>17F06339 × 06</small></p>	<p>WIRELESS RECEIVER KIT MODEL PC-ALH● CODE 60291768 HITACHI <small>17F06339 × 06</small></p> <p>Marking "●" after Model Name</p>
	Seal		<p>Paste the Red Seal on the back cover surface.</p>

※ Available only if the 0.5 °C increment function is adopted to the indoor unit in combination with PC-AWR remote controller.

Distributed to √ Areas:				
All Areas		Oceania	√	Europe
China		India	√	NA
ASEAN and Others	√	ME	√	LA
Taiwan		Africa	√	Brazil
NOTE (Except for Turkey and ME (T3))				



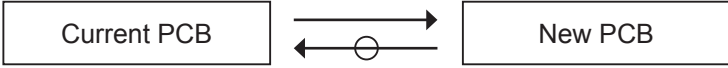
TECHNICAL BULLETIN

Improvement of Control Function for
SET FREE Series Indoor Units and Receiver Kit,
and Launching of New Controller

DATE: Jun.'17

PAGE: 11/12

2) for General Purpose

Item	Current Model	New Model
Model Name	PC-ALHZ PC-ALHZF	PC-ALHZ1
Appearance		
Dimension (Hight × Width × Depth)	120mm × 90mm × 28mm	120mm × 90mm × 28mm
Color	Silky White	Neutral White
Fan Speed	3 taps (PC-ALHZ) 4 taps (PC-ALHZF)	3 taps and 4taps shared
Interchangeability		
Identifying IDU Installed Side by Side Operation	2 Units (A/B)	4 Units (A/B/C/D)
Setting Temperature	1 °C increments	0.5 °C increments ※

※ Available only if the 0.5 °C increment function is adopted to the indoor unit in combination with PC-AWR remote controller.

Distributed to √ Areas:				
All Areas		Oceania	√	Europe
China		India	√	NA
ASEAN and Others	√	ME	√	LA
Taiwan		Africa	√	Brazil
NOTE (Except for Turkey and ME (T3))				

TECHNICAL BULLETIN

Improvement of Control Function for SET FREE Series Indoor Units and Receiver Kit, and Launching of New Controller

DATE: Jun.'17

PAGE: 12/12

4. Function List (Outdoor Unit, Indoor Unit, Wired Controller combination)

⊙ : applied for Power Saving Function
 ⊗ : not applied for Power Saving Function
 ○ : Function Enabled △ : Restricted - : Function Disable

Combination			All ODU, IDU are ⊙	Include IDU ⊗	ODU is ⊗	IDU is ⊗	Wired controller is ⊗	
Unit								
Outdoor Unit (ODU)								
Indoor Unit (IDU)								
Wired controller								
Category	Function		Main	Sub	Main			
Power Saving	Outdoor Unit Capacity Control *1	Detailed Setting	○	-	○	-	-	-
		On-Off	○	-	○	-	-	-
	Indoor Unit Rotation Control *1	Detailed Setting	○	-	○	-	-	-
		On-Off	○	○	○	-	-	-
	Intermittent Operation Control *1	Detailed Setting	○	○	○	○	○	-
		On-Off	○	○	○	○	○	-
Comfortability	0.5 Degree Setting *4		○	○	○	-	○	-
	Night Quiet Operation		○	-	○	-	○	○
Visualization	Power Consumption Display		○	○	○	-	-	-
	Power Saving Guidance		○	○	○	○	○	-
Schedule	Power Saving Schedule *2		○	△*3	○	△*3	△*3	△*3
	Operation Noise Reduction Schedule		○	-	○	-	-	-

*1. "Sub" setting is synchronizes with "Main".

*2. Schedule that can be set is "Outdoor Unit Capacity Control" and "Intermittent".

*3. Schedule is only "Intermittent Operation Control".

*4. When the unit without the function is included in the same remote control group, the unit without function are controlled in 1 °C increments as before.

5. Applicable Outdoor Unit

- VRF Multi System
 RAS-FSXN1, RAS-FSXNH, RAS-FSNS, RAS-FSNP, RAS-FSXNS and RAS-FSNP
- Power Saving Function
 RAS-HVNC1