

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 1 / 54

Summary

- 1 This Advanced Product News informs about the launching of the new Hitachi wired remote controllers PC-ARFP1E and PC-ARH1E.
- 2 The details are indicated in the description.

Contents

1.	Applicable products, new model codes and date of sales	2
2.	Discontinued models	2
3.	Updated products	2
4.	New features	3
4.1.	New functions, icons and display indicators - PC-ARFP1E	3
4.2.	New icons and display indicators - PC-ARH1E	4
4.3.	New functions	5
4.3.1.	New temperatures display	6
4.3.2.	Comfort functions	7
4.3.3.	Energy saving / Noise / Eco functions in PC-ARFP1E	8
4.3.4.	Setback operation	14
4.3.4.1.	Setback on PC-ARFP1E	14
	Setback Modes	14
	Setback flow chart	15
	Setback time chart	16
	Setting of setback optional functions	16
	Setback trigger units	18
4.3.4.2.	Setback on PC-ARH1E	19
	Setback flow chart	19
	Control Operation Time Chart (Cooling/Dry Mode)	19
	Control Operation Time Chart (Heating)	20
	Setting of setback optional functions	20
4.3.4.3.	Setback operation by "External Input" - Input setting	20
	Input setting from the remote control	20
	Build the input circuit	21
4.3.5.	Automatic cooling/heating with dual setting	21
4.3.5.1.	Automatic cooling/heating with dual setting on PC-ARFP1E	22
	Flow chart of automatic cooling/heating with dual setting	22
	Time chart of automatic cooling/heating with dual setting	23
	Optional function setting of automatic cooling/heating with dual setting	23
4.3.5.2.	Automatic cooling/heating with dual setting on PC-ARH1E	25
	Flow chart of automatic cooling/heating with dual setting	25
	Operation of dual setting during simultaneous cooling and heating with the setback control activated	26
	Optional function setting of automatic cooling/heating with dual setting	26
4.3.6.	Priority setting for operation mode and setting temperature (PC-ARFP1E only)	27
4.3.7.	Setting of MAIN and SUB controller (PC-ARFP1E only)	28
	MAIN/SUB setting in test run menu	29
4.3.8.	Quick function (PC-ARFP1E only)	30
4.4.	Additional language support in PC-ARFP1E	30
5.	Function availability vs. different series	31
6.	Summary of the optional functions (PC-ARFP1E - PC-ARH1E)	34

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 2 / 54

Description

The new wired remote controllers PC-ARFP1E and PC-ARH1E provide advanced functionalities to indoor units and VRF systems, while retaining all the existing functions available in current remote controllers PC-ARFPE and PC-ARH.

1. Applicable products, new model codes and date of sales

Model	Code	Picture	Date of sales	Information
PC-ARFP1E	70510003		February 2019 (*1)	(*1) After stock consumption of previous models. The date could vary depending on sales results.
PC-ARH1E	70510004			

2. Discontinued models

Model	Code	-	End of availability	Information
PC-ARFPE	70510002	-	January 19 (*2)	(*2) Until end of stocks. Date could vary depends on sales results
PC-ARH	60291486			

3. Updated products

Indoor unit software has been updated in order to support the new remote controller functions mainly for combinations with SET FREE Sigma and SET FREE mini (for combination whit other series and software versions see chapter "Function availability vs. different series").

IU type	IU series	PCB number	Previous software	New software	Market release of new software	New software application from IU serial number
Cassette	RCI-(1.0-6.0)FSN4	PI103	P-4510	P-4736	February 2019	QCK3BNCR900W
	RCIM-(0.4-2.5)FSN4E	PI143	P-4623	P-4729	February 2019	4NE70692
	RCD-(0.8-6.0)FSN3	PI143	P-4514	P-4729	February 2019	UALY9631
Wall	RPK-(0.4-4.0)FSN(H)4M	PI151	-	P-4725	January 2019 (see SG201818AE)	From beginning of mass production
Ducted	RPI-(0.4-1.5)FSN5E	PI153	P-4621	P-4725	February 2019	4NE72110
	RPI-(2.0-3.0)FSN5E	PI161	P-4621	P-4725	February 2019	4NE70781
	RPI-(4.0-6.0)FSN5E	PI114	P-4571	P-4735	February 2019	4NE70393
	RPIM-(0.6-1.5)FSN4E	PI114	P-4571	P-4735	February 2019	4NE70540
Ceiling	RPC-(1.5-6.0)FSN3	PI103	P-4510	P-4736	February 2019	UALP5929

NOTE

- Models RPI-(8.0-10.0)FSN3E(-f), RPI-(16.0-20.0)FSN3E(-f) and RPI-(1.0-2.5)FSN2E are not being updated; for this reason, some of the new remote control features are not available when these models or other indoor units without updated software are installed in the system.
- All standard control functions and the optional functions that were already available on the previous remote controller switch will work on the new PC-ARFP1E with indoor units using a non updated software, except the ones indicated especially in this technical bulletin.

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

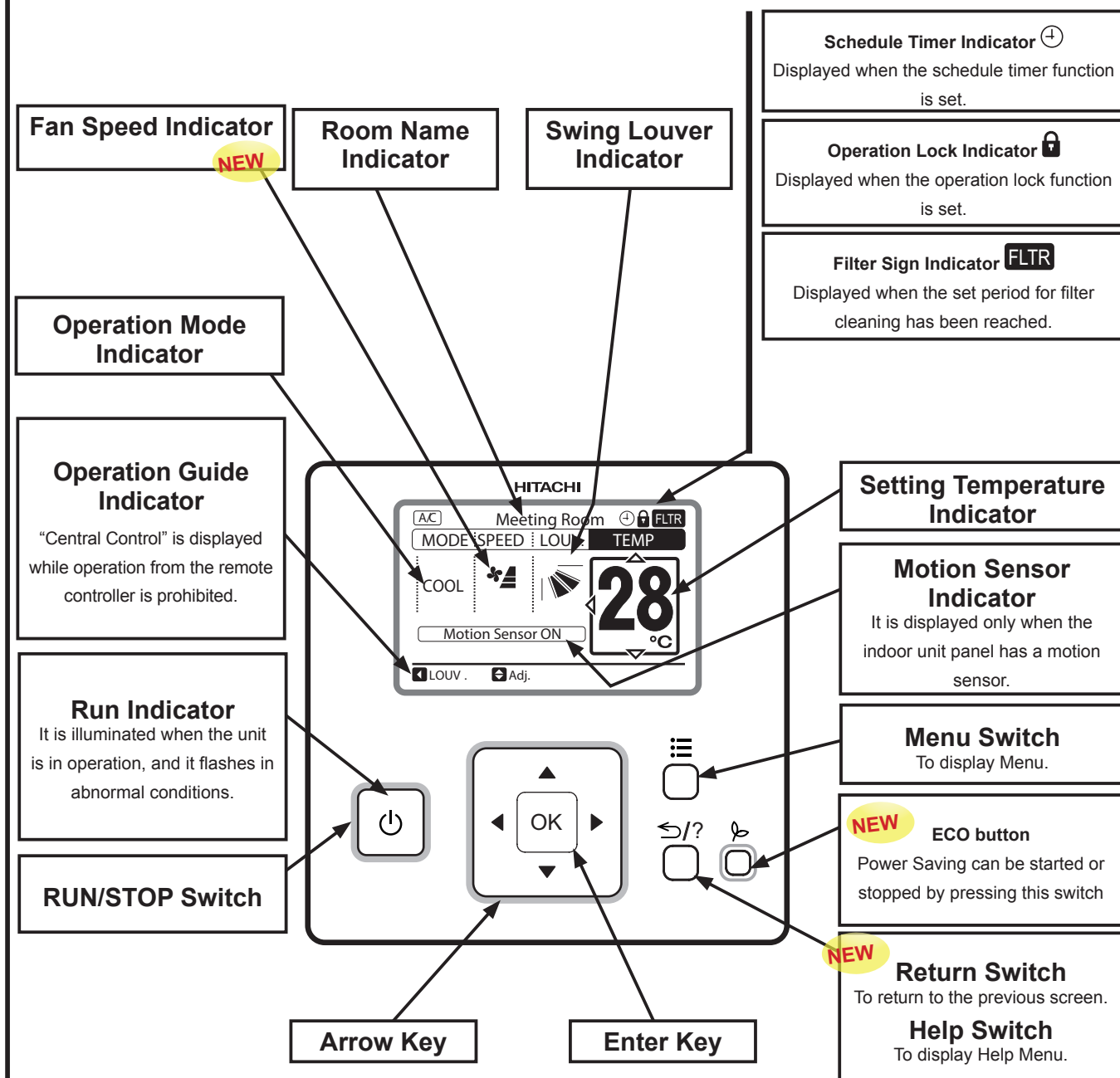
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 3 / 54

4. New features

4.1 New functions, icons and display indicators - PC-ARFP1E



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

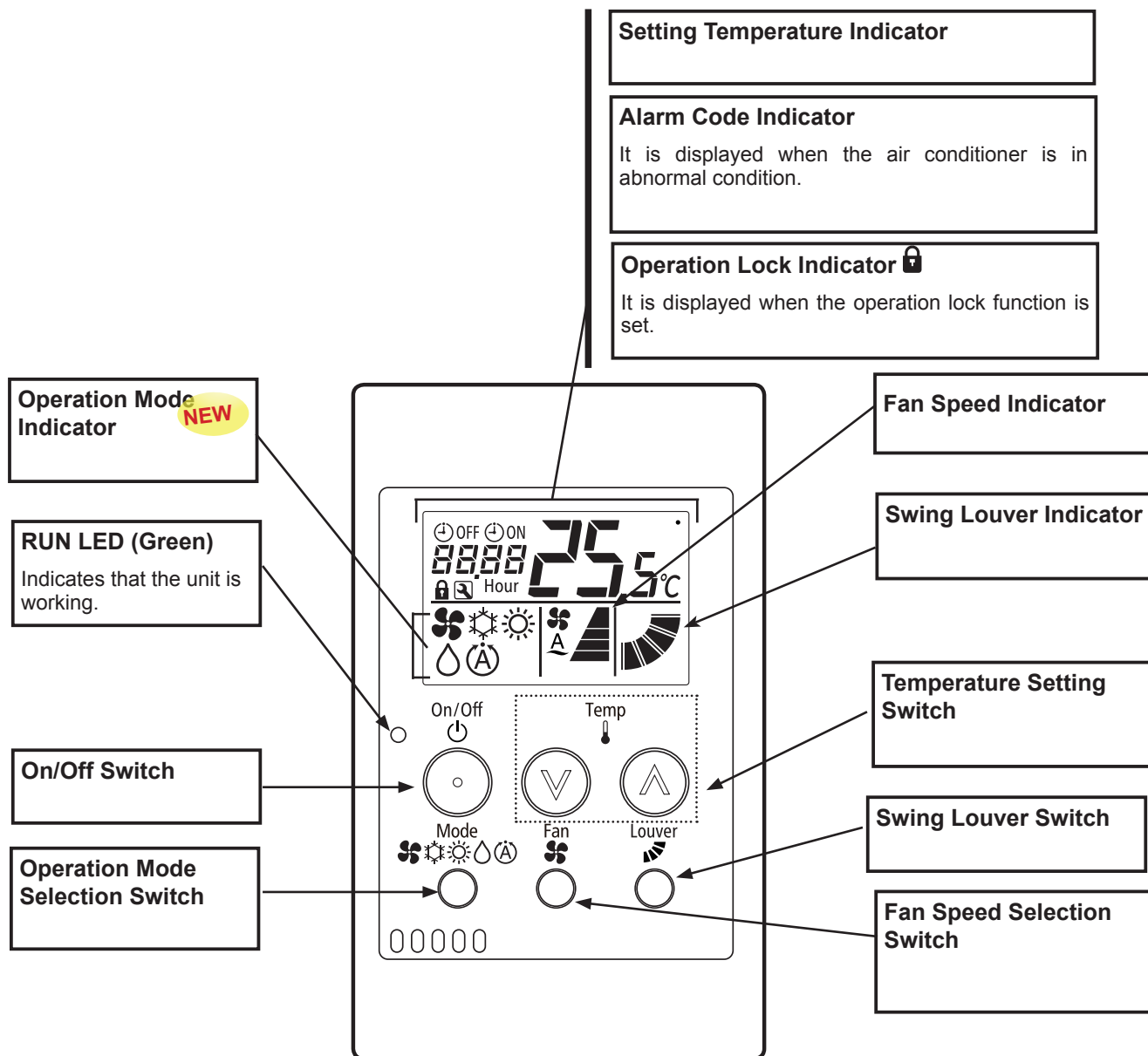
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 4 / 54

4.2 New icons and display indicators - PC-ARH1E



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 5 / 54

4.3 New functions

Function	Detail
Power Saving	Outdoor Unit Capacity Control
	Indoor Unit Rotation Control
	Intermittent Operation Control
Comfort	0.5 Degree Setting
	Night Silent / Low noise operation
	Prevention of too low air outlet temperature in cooling mode (Limited air outlet temperature from indoor unit in cooling mode)
Visualization	Power Consumption Display
	Power Saving Guidance
Schedule	Power Saving Schedule
	Operation Noise Reduction Schedule
Cooling / Heating Auto Changeover	Dual Set-Point Control
Set-back Temperature Control	External input / Timer / RCS setting / Always

Details about these new functions are given in the next chapters.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 6 / 54

4.3.1 New temperatures display

Parameters	Description	Setting option	Example
Ambient temperature display on the RCS (*)			
P3, P4	P3: This function is used to select the thermistor whose temperature is shown. P4: This function is used to display the temperature of the sensor selected with P3.	P3=00: Inlet air thermistor (Tin) P3=01: Outdoor air thermistor (Tout) P3=02: Remote controller thermistor (RCS) P3=03: Remote sensor (THM4) P4=00: Hide P4=01: Show	
Display of setting temperature when operation mode is Fan			
P5	This function is used to hide the display of setting temperature during operation in fan mode.	P5=00: Show	
		P5=01: Hide	
Setting temperature in 0.5 °C steps			
	This function is used to define whether setting temperature is adjusted in 0.5 °C steps (when set to "00") or in 1 °C steps (when set to "01"). This setting also determines whether the resolution of temperature differential of the thermistor is 0.5 °C (when set to "00") or 1 °C (when set to "01") enabling more precise setting control.	P1=00: 0.5 °C P1=01: 1 °C	PC-ARFP1E PC-ARH1E
P1	Simplified scheme of the control system (for illustrative purposes only, as the control system also manages other parameters):		

NOTE

(*) This function replaces the previous temperature indication function (J1) that was showing the temperature of the sensor set in C8 during 5 seconds. J1 optional function is no longer available on the new remote control switch PC-ARFP1E.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

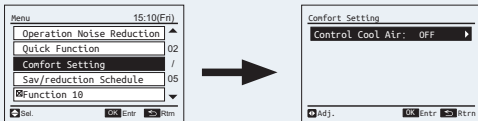
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 7 / 54

4.3.2 Comfort functions

Parameters		Description	Setting option	
Prevention of low air outlet temperature in cooling mode (also known as “Off coil control” or “Cold draft” on CSNET)				
PC-ARFP1E only				
d4		This function is avoiding getting a too low air outlet temperature from indoor units in cooling operation. Remote Control Switch is controlling the air outlet temperature and adjusting the Thermo ON/OFF status accordingly. When ambient temperature > setting temperature: If air outlet temperature ≤ 11 °C for 3 minutes, the system is switched to Thermo-OFF. In this status, if air outlet temperature ≥ 13 °C, the system is switched back to Thermo-ON. This optional function is only available for the following indoor units models: RPIM-(0.6-1.5)FSN4E, RPI-(4.0-6.0)FSN5E For the following indoor units: RCD, RPK, RCI, RCIM, RPF(I), RPI-(0.4-3.0)FNS5E, RPI-(8~20)FSN3(P)E, this function is setup through the comfort setting menu.	d4=00: Function not activated	
			d4=01: Function activated	
Comfort setting		The control system adjusts the comfort and cooling response time, room by room, for maximum comfort and energy efficiency. This function controls the air outlet temperature of indoor units operating in cooling mode, to ensure a perfect comfort of the users. The “Comfort Setting” screen is displayed by selecting “Comfort Setting” in the “Menu” screen and pressing “OK”.  The setting of Comfort Setting Mode can be changed as follows, by pressing “◀” or “▶” : OFF ↔ LOW ↔ MED ↔ HIGH	The settings of this comfort function define the minimum discharge target temperature, with the following values: OFF : no change LOW : 12 °C MED : 14 °C HIGH: 16 °C Once the discharge temperature becomes lower than the target value, the setting temperature of the indoor unit is increased by up to 4 °C, in order to make the discharge temperature become higher than the target value. In case that discharge temperature cannot reach the target, then the unit is set to thermo OFF. The function remains active until both the following conditions are given: - At least 5 minutes after return to thermo ON - Discharge temperature 2 °C higher than the target value	
Control for the prevention of condensation in the louvers				
PC-ARFP1E	PC-ARH1E	In that units that are equipped with louvers, condensation may occur around the air outlet during operation in cooling or dry modes, when horizontal air flow or downward air flow are sustained for long periods.	PC-ARFP1E	PC-ARH1E
K8	FB	This function is used to prevent condensation by setting the louver swing angle to the third step automatically for 30 minutes every 1 hour. (In RPK units, this function is activated by means of DSW2-4 instead of the K8 optional function)	k8=00: Function not activated (Factory setting)	FB=00: Function not activated (Factory setting)
		k8=01: Function activated	FB=01: Function activated	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 8 / 54

4.3.3 Energy saving / Noise / Eco functions in PC-ARFP1E

Parameters	Description	Setting option										
Room temperature control for energy saving												
d6	This function saves energy when the outdoor temperature is lower than the air conditioning load	d6=00: Function not activated										
	The indoor unit is set to cooling Thermo-OFF when Tout (outside ambient temperature - out of the building) < Tin	d6=01: Function activated										
Noise reduction												
Operation noise reduction	This function is used to control the operation noise of the outdoor unit. Menu15:10(Fri) Operation Noise Reduction Quick Function02 Comfort Setting/ Sav/Reduction Schedule05 Function 10 Sel. OK Entr Rtrn Operation Noise Reduction Noise Red : OFF Adj. OK Entr Rtrn i NOTE See Chapter 4.3.7 for detailed information regarding the Main/Sub setting.	<table><tr><th>Setting</th><th>Description</th></tr><tr><td>Not available</td><td>No Setting</td></tr><tr><td>LOW</td><td>Reduction of outdoor unit capacity to approximately 80% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)</td></tr><tr><td>MED</td><td>Reduction of outdoor unit capacity to approximately 60% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)</td></tr><tr><td>HIGH</td><td>Reduction of outdoor unit capacity to approximately 40% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)</td></tr></table>	Setting	Description	Not available	No Setting	LOW	Reduction of outdoor unit capacity to approximately 80% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)	MED	Reduction of outdoor unit capacity to approximately 60% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)	HIGH	Reduction of outdoor unit capacity to approximately 40% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)
		Setting	Description									
		Not available	No Setting									
		LOW	Reduction of outdoor unit capacity to approximately 80% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)									
MED	Reduction of outdoor unit capacity to approximately 60% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)											
HIGH	Reduction of outdoor unit capacity to approximately 40% of its nominal capacity, in order to reduce the fan speed level and noise. (Other control parameters can change this conditions)											

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

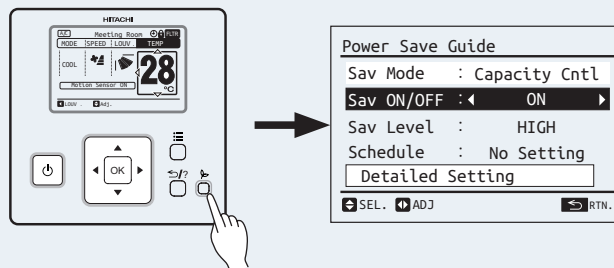
PAGE: 9 / 54

Power saving function

PC-ARFP1E

This function allows an easy setting of the power saving features.

The power save guide can be accessed directly by pressing the ECO button in the remote control switch.



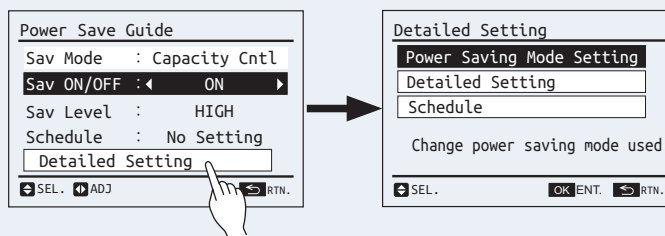
ECO button

The power saving guide is showing the default settings for the following parameters:

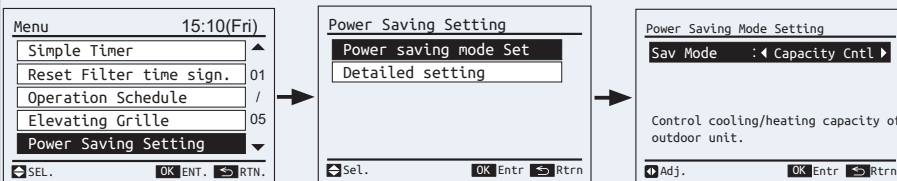
- Power Saving mode (Sav mode)
- Power Saving ON/OFF (Sav ON/OFF)
- Power Saving Level (Sav Level)
- Schedule

Only "Power Saving ON/OFF" and "Power Saving Level" can be updated from that screen.

The "Detailed Setting" menu contains further menus for changing the power saving mode and detailed settings, as well as to program a schedule.



Power saving mode



The power **saving mode** can be selected as follows:

- 1 Outdoor Unit Capacity Control:** Controls the cooling/heating capacity of the outdoor unit.
- 2 Indoor Unit Rotation Control:**

In a system where all the indoor units belonging to the same refrigerant cycle are operating in either cooling or heating mode, each indoor unit is temporarily switched to fan mode, one by one in an established sequence. The sequence as well as the criteria for rotation are explained in the description of rotation control (p.11)

- 3 Intermittent Operation Control:** Cooling/heating and fan modes are alternated in fixed intervals.

- 4 No Setting:** The power saving function does not operate.



NOTE

See Chapter 4.3.7 for detailed information regarding the Main/Sub setting.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 10 / 54

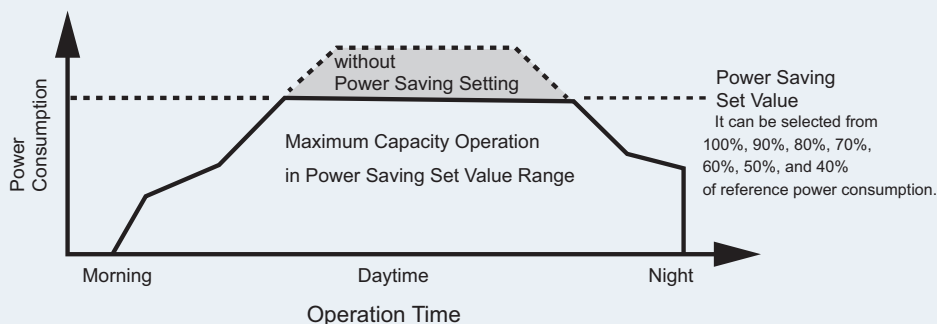
Capacity control

Detailed Setting		Capacity Control		Capacity Control	
Capacity Control		Control : ◀Peak Cut Control▶		Chg level: ◀ LOW⇄MED⇄HIGH ▶	
Rotation Control		LOW : 100%			
Intermittent Control		MED : 80%			
Detailed Setting of Capacity Cntl.		HIGH : 60%			
		Operate in power set value range.		Select setting range of power saving.	
Sel. OK Entr Rtrn		Sel. Adj. OK Entr Rtrn		Adj. OK Entr Rtrn	

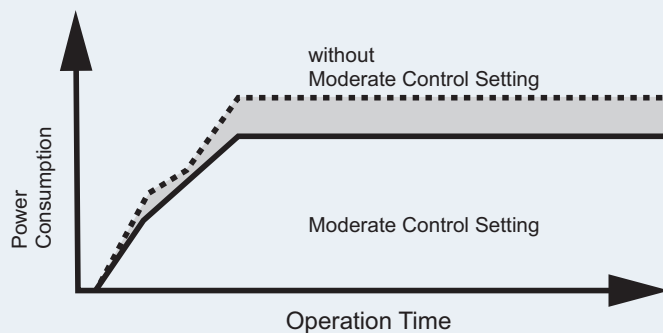
This function is used to adjust the detailed settings of outdoor unit capacity control.

Control Method:

The "Peak Cut Control" reduces the power consumption range when it exceeds the value of the power setting. Based on the current air conditioning capacity,



the "Moderate Control" is used to moderate the air conditioning capacity as well as the peak.



Power Saving LOW / MED / HIGH:

This menu allows to assign percentages of capacity for each level of capacity control, to be applied when power saving is activated.

Change Level:

It is possible to change the power saving level from the power saving guidance.



NOTE

See Chapter 4.3.7 for detailed information regarding the Main/Sub setting.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 11 / 54

Rotation control

This control is setting the indoor units in to Fan mode, depending on one parameter that can be selected by the user: IU address, temperature difference, availability of motion sensor. The details of these settings are explained below.

Detailed Setting Capacity Control <input checked="" type="button" value="Rotation Control"/> Intermittent Control Detailed Setting of Rotation Cntl. Sel. OK Entr Rtrn	Rotation Control Control : ◀ Address Order ▶ Fan Mode Time : 10 min Change units to FAN operation in order from the unit with the smaller address number. Sel. Adj. OK Entr Rtrn
--	--

This function sets the data of the indoor unit rotation control.

- Control Method

“Address order”:

Indoor units are set to FAN mode depending on their H-LINK address, in ascending order, one by one.

“Temperature order”:

Indoor units are set to Fan mode according to the temperature difference between temperature set point and air inlet temperature, in ascending order: units for which TSet is closer to the setting temperature are the first to be switched to fan mode.

“Sensor order:”

If the motion sensor is used, Fan mode will be applied to the indoor unit that has the lowest activity detected. Once the fan mode operation time is elapsed, this unit returns to heating/cooling (previous operation) mode and fan mode is applied to another indoor unit with the lowest activity.

*: This function can only be set with outdoor units and indoor units supporting it.

- FAN Operation Time

It is possible to change the timing of the FAN operation of the indoor unit. If “FAN Mode Time” is selected, it will change between:

“10 min.” ↔ “5 min.” ↔ “3 min.”



NOTE

See Chapter 4.3.7 for detailed information regarding the Main/Sub setting.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 12 / 54

Intermittent control

Detailed Setting

Capacity Control

Rotation Control

Intermittent Control

Detailed Setting of Intermnt Control.

Sel. OK Entr Rtrn

Intermittent Control

Chg level: LOW MED HIGH

Select setting range of power saving.

Adj. OK Entr Rtrn

This function is used to set details of the Intermittent Operation Control. The following indications will be displayed :

“LOW→MED→HIGH” ↔ “LOW Only” ↔ “MED Only” ↔ “HIGH Only”

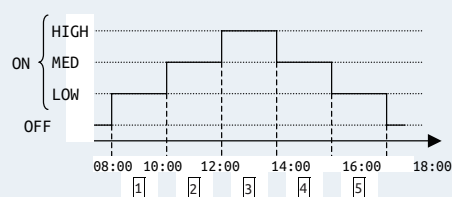
- Change Level It is possible to change the “Power Saving Level” from “Power Saving Guidance”.
- Each power saving level will repeat the operation as follows:

	Cool / Dry Mode	Heat Mode
SAV:LOW	Normal Mode 20min. ↓ Fan Mode 10min.	Normal Mode 25min. ↓ Fan Mode 5min.
SAV:MED	Normal Mode 17min. ↓ Fan Mode 13min.	Normal Mode 20min. ↓ Fan Mode 10min.
SAV:HIG	Normal Mode 15min. ↓ Fan Mode 15min.	Normal Mode 15min. ↓ Fan Mode 15min.

Power saving and noise reduction scheduled operations

This function is used to start or stop power saving (capacity control or intermittent control) or noise reduction modes at the desired time. Up to five daily schedules can be set for power saving or operation noise reduction.

The detailed settings for each of the modes available for scheduled activation are carried out at their corresponding setup menus.



Capacity Control (Mon) 15:10(Fri)

1	08:00 ~ 10:00	LOW
2	10:00 ~ 12:00	MED
3	12:00 ~ 14:00	HIGH
4	14:00 ~ 16:00	MED
5	16:00 ~ 18:00	LOW

Sel. Adj. OK Entr Rtrn

Menu 15:10(Fri)

Operation Noise Reduction

Quick Function 02

Comfort Setting /

Sav/reduction Schedule 05

Function 10

Sel. OK Entr Rtrn

Sav/Reduction Schedule 15:10(Fri)

Capacity Control

Intermittent Control

Noise Reduction

Set when schedule is used.* Power Saving mode setting activated too.

Sel. OK Entr Rtrn

Capacity Control 15:10(Fri)

Day/Time Setting

Schedule ON/OFF

Set when schedule is used.* Power Saving mode setting activated too.

Sel. OK Entr Rtrn

Capacity Control 15:10(Fri)

12

15

18

21

24

27

30

33

36

39

42

45

48

51

54

57

60

63

66

69

72

75

78

81

84

87

90

93

96

99

102

105

108

111

114

117

120

123

126

129

132

135

138

141

144

147

150

153

156

159

162

165

168

171

174

177

180

183

186

189

192

195

198

201

204

207

210

213

216

219

222

225

228

231

234

237

240

243

246

249

252

255

258

261

264

267

270

273

276

279

282

285

288

291

294

297

300

303

306

309

312

315

318

321

324

327

330

333

336

339

342

345

348

351

354

357

360

363

366

369

372

375

378

381

384

387

390

393

396

399

402

405

408

411

414

417

420

423

426

429

432

435

438

441

444

447

450

453

456

459

462

465

468

471

474

477

480

483

486

489

492

495

498

501

504

507

510

513

516

519

522

525

528

531

534

537

540

543

546

549

552

555

558

561

564

567

570

573

576

579

582

585

588

591

594

597

600

603

606

609

612

615

618

621

624

627

630

633

636

639

642

645

648

651

654

657

660

663

666

669

672

675

678

681

684

687

690

693

696

699

702

705

708

711

714

717

720

723

726

729

732

735

738

741

744

747

750

753

756

759

762

765

768

771

774

777

780

783

786

789

792

795

798

801

804

807

810

813

816

819

822

825

828

831

834

837

840

843

846

849

852

855

858

861

864

867

870

873

876

879

882

885

888

891

894

897

900

903

906

909

912

915

918

921

924

927

930

933

936

939

942

945

948

951

954

957

960

963

966

969

972

975

978

981

984

987

990

993

996

999

1002

1005

1008

1011

1014

1017

1020

1023

1026

1029

1032

1035

1038

1041

1044

1047

1050

1053

1056

1059

1062

1065

1068

1071

1074

1077

1080

1083

1086

1089

1092

1095

1098

1101

1104

1107

1110

1113

1116

1119

1122

1125

1128

1131

1134

1137

1140

1143

1146

1149

1152

1155

1158

1161

1164

1167

1170

1173

1176

1179

1182

1185

1188

1191

1194

1197

1200

1203

1206

1209

1212

1215

1218

1221

1224

1227

1230

1233

1236

1239

1242

1245

1248

1251

1254

1257

1260

1263

1266

1269

1272

1275

1278

1281

1284

1287

1290

1293

1296

1299

1302

1305

1308

1311

1314

1317

1320

1323

1326

1329

1332

1335

1338

1341

1344

1347

1350

1353

1356

1359

1362

1365

1368

1371

1374

1377

1380

1383

1386

1389

1392

1395

1398

1401

1404

1407

1410

1413

1416

1419

1422

1425

1428

1431

1434

1437

1440

1443

1446

1449

1452

1455

1458

1461

1464

1467

1470

1473

1476

1479

1482

1485

1488

1491

1494

1497

1500

1503

1506

1509

1512

1515

1518

1521

1524

1527

1530

1533

1536

1539

1542

1545

1548

1551

1554

1557

1560

1563

1566

1569

1572

1575

1578

1581

1584

1587

1590

1593

1596

1599

1602

1605

1608

1611

1614

1617

1620

1623

1626

1629

1632

1635

1638

1641

1644

1647

1650

1653

1656

1659

1662

1665

1668

1671

1674

1677

1680

1683

1686

1689

1692

1695

1698

1701

1704

1707

1710

1713

1716

1719

1722

1725

1728

1731

1734

1737

1740

1743

1746

1749

1752

1755

1758

1761

1764

1767

1770

1773

1776

1779

1782

1785

1788

1791

1794

1797

1800

1803

1806

1809

1812

1815

1818

1821

1824

1827

1830

1833

1836

1839

1842

1845

1848

1851

1854

1857

1860

1863

1866

1869

1872

1875

1878

1881

1884

1887

1890

1893

1896

1899

1902

1905

1908

1911

1914

1917

1920

1923

1926

1929

1932

1935

1938

1941

1944

1947

1950

1953

1956

1959

1962

1965

1968

1971

1974

1977

1980

1983

1986

1989

1992

1995

1998

2001

2004

2007

2010

2013

2016

2019

2022

2025

2028

2031

2034

2037

2040

2043

2046

2049

2052

2055

2058

2061

2064

2067

2070

2073

2076

2079

2082

2085

2088

2091

2094

2097

2100

2103

2106

2109

2112

2115

2118

2121

2124

2127

2130

2133

2136

2139

2142

2145

2148

2151

2154

2157

2160

2163

2166

2169

2172

2175

2178

2181

2184

2187

2190

2193

2196

2199

2202

2205

2208

2211

2214

2217

2220

2223

2226

2229

2232

2235

2238

2241

2244

2247

2250

2253

2256

2259

2262

2265

2268

2271

2274

2277

2280

2283

2286

2289

2292

2295

2298

2301

2304

2307

2310

2313

2316

2319

2322

2325

2328

2331

2334

2337

2340

2343

2346

2349

2352

2355

2358

2361

2364

2367

2370

2373

2376

2379

2382

2385

2388

2391

2394

2397

2400

2403

2406

2409

2412

2415

2418

2421

2424

2427

2430

2433

2436

2439

2442

2445

2448

2451

2454

2457

2460

2463

2466

2469

2472

2475

2478

2481

2484

2487

2490

2493

2496

2499

2502

2505

2508

2511

2514

2517

2520

2523

2526

2529

2532

2535

2538

2541

2544

2547

2550

2553

2556

2559

2562

2565

2568

2571

2574

2577

2580

2583

2586

2589

2592

2595

2598

2601

2604

2607

2610

2613

2616

2619

2622

2625

2628

2631

2634

2637

2640

2643

2646

2649

2652

2655

2658

2661

2664

2667

2670

2673

2676

2679

2682

2685

2688

2691

2694

2697

2700

2703

2706

2709

2712

2715

2718

2721

2724

2727

2730

2733

2736

2739

2742

2745

2748

2751

2754

2757

2760

2763

2766

2769

2772

2775

2778

2781

2784

2787

2790

2793

2796

2799

2802

2805

2808

2811

2814

2817

2820

2823

2826

2829

2832

2835

2838

2841

2844

2847

2850

2853

2856

2859

2862

2865

2868

2871

2874

2877

2880

2883

2886

2889

2892

2895

2898

2901

2904

2907

2910

2913

2916

2919

2922

2925

2928

2931

2934

2937

2940

2943

2946

2949

2952

2955

2958

2961

2964

2967

2970

2973

2976

2979

2982

2985

2988

2991

2994

2997

3000

3003

3006

3009

3012

3015

3018

3021

3024

3027

3030

3033

3036

3039

3042

3045

3048

3051

3054

3057

3060

3063

3066

3069

3072

3075

3078

3081

3084

3087

3090

3093

3096

3099

3102

3105

3108

3111

3114

3117

3120

3123

3126

3129

3132

3135

3138

3141

3144

3147

3150

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

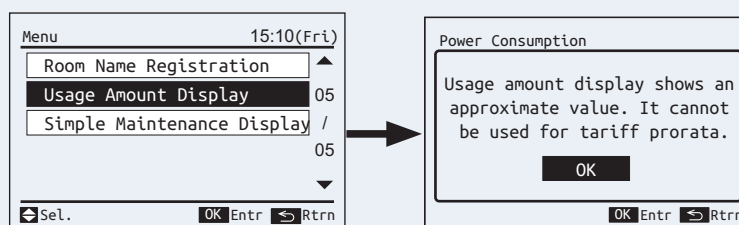
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

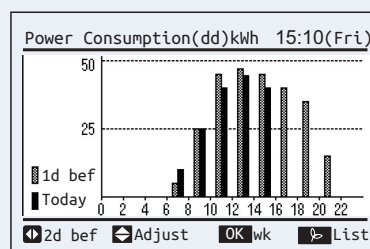
PAGE: 13 / 54

Power consumption display

This function displays the power consumption of the outdoor unit compressor and a comparison between selected periods.



It is possible to change the display period of graphs and lists to 1 day (24 hours, in 2 hour segments), 1 week (7 days) and 1 year (12 months).



The numerical value is strictly provided as a reference, and shall not be used for the calculation of power rates or the examination of power supply contracts.

All indoor units connected at the same outdoor unit shown the same power consumption (Set Free Sigma modular system are considered as one unit all together).

ECONOFRESH control (RPI 4~6HP only) - This function cannot be used with Set back function

Optional functions for Econofresh control

d7: Econofresh: OA Damper minimum opening

This function is setting the minimum opening angle of the damper for fresh-air intake.

E1: Econofresh cooling mode (100 % fresh air operation for cooling mode)

This function allows the outdoor air damper to be open in All Fresh operation mode. This mode allows the full opening of the outdoor air damper (according to the control system).

E2: Econofresh enthalpy sensor

This function selects the enthalpy sensor input.

E4: CO2 sensor

This function selects the CO2 gas sensor input.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 14 / 54

4.3.4 Setback operation

Setback function is designed to maintain a minimum level of comfort in a room when it is not occupied.

Setback operation is made available through the setting of optional functions in the Function Selection menu, which is located in the Test Run menu of the wired controller. In case of using an external input, the setting of the external input in the Test Run menu of the wired controller is also required.

During Setback operation, fan speed is automatically set to LOW

The control sensor during Setback operation is the sensor defined by C8 setting (optional function menu).

“Setback” is displayed on the LCD of the wired controller while the Setback control is in operation.

4.3.4.1 Setback on PC-ARFP1E

◆ Setback Modes

Mode	Usage Example
Setback Always	Setback Temperature Control in constant operation.
Setback Input	In hotel rooms, Setback Temperature Control becomes activated when the card key is taken out from the card holder. As soon as the card key is inserted again, the normal control is restored.
Setback Schedule	Setback Temperature Control works during a period determined by the users, such as during night time. The normal control is restored once the scheduled period is over.
Setback Manual	Setback Temperature Control is activated manually by the user when he is leaving the room. The normal control is restored when Setback Temperature Control is turned off manually.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

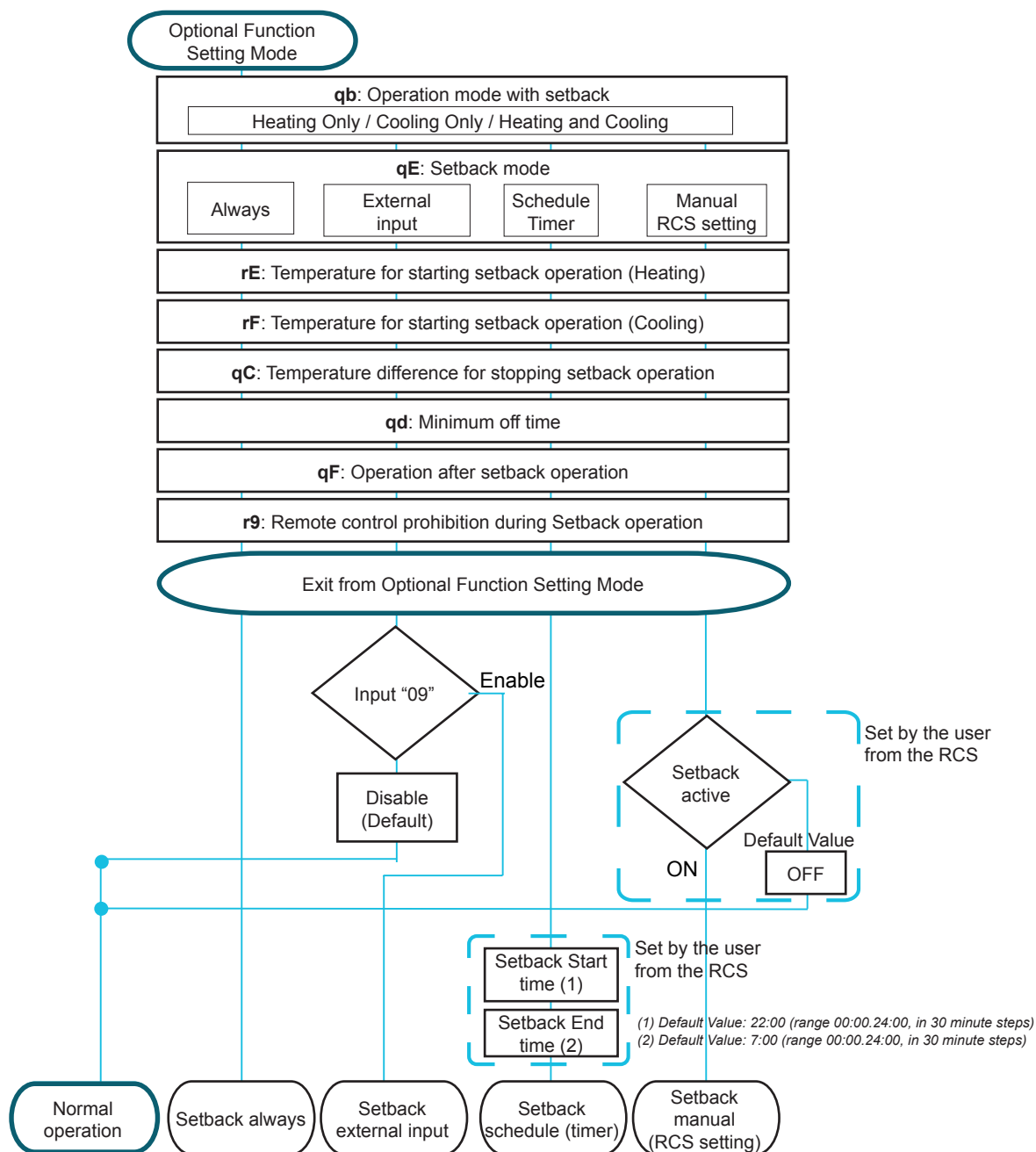
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 15 / 54

◆ Setback flow chart



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

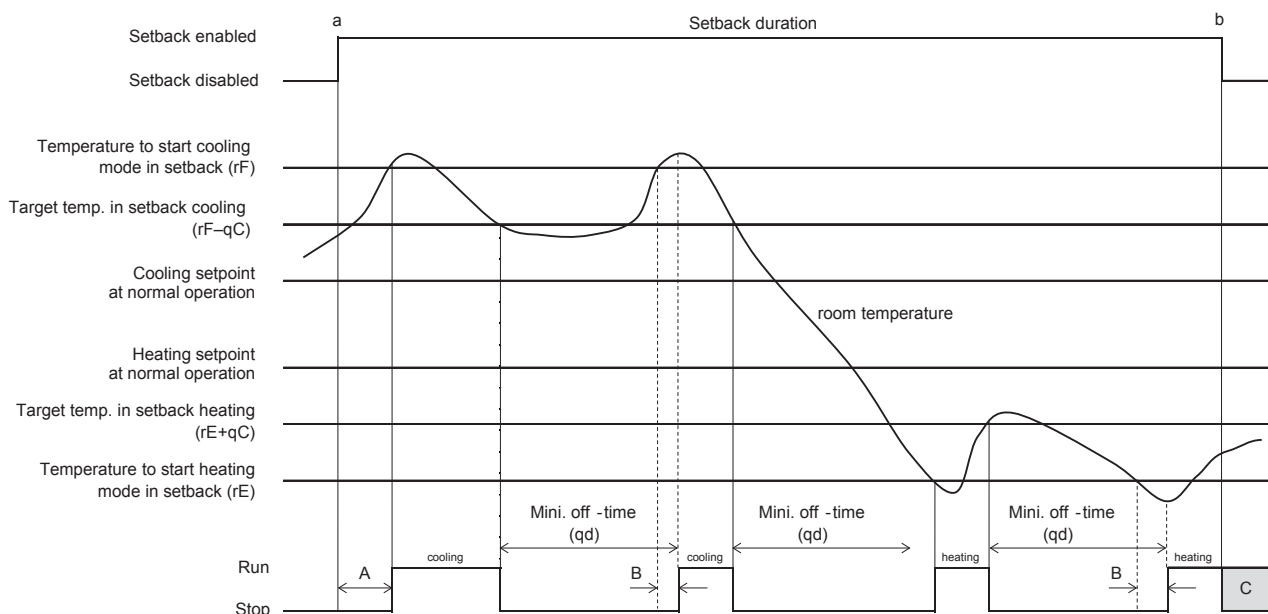
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 16 / 54

◆ Setback time chart



A: There should be setback operation, but it does not start until the specified setpoint is reached.

B: There is no setback operation due to the minimum off-time.

C: Setback operation is running or stopped depending on the setting of run/stop upon the end of setback (qF).

a: Setback operation becomes enabled (beginning of setback duration).

b: Setback operation becomes disabled (end of setback duration).

◆ Setting of setback optional functions

Parameter	Description	Setting options	
C8	This function specifies the temperature sensor to be used as control sensor by the indoor unit.	C8=00 C8=01 C8=02	See chapter "6. Summary of the optional functions (PC-ARFP1E - PC-ARH1E)"
qb	Operation modes in which setback operation is activated to keep a minimum comfort in the room while it is not occupied.	qb=00 : Disable qb=01 : Cooling qb=02 : Heating qb=03 : Cooling / Heating	
qE	Setback mode When "01: Input" is selected, it requires the setup of "Input: 09" as well. When "02: Schedule" and "03: Manual" are selected, they need to be setup from the wired controller.	qE=00 : Always qE=01 : Input qE=02 : Schedule qE=03 : Manual	

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 17 / 54

rE	Temperature for the beginning of heating in setback Room temperature is used to determine the start of heating operation during setback.	rE=00 : 15 °C rE=01 : 16 °C rE=02 : 17 °C rE=03 : 18 °C rE=04 : 19 °C rE=05 : 10 °C rE=06 : 11 °C rE=07 : 12 °C rE=08 : 13 °C rE=09 : 14 °C	
rF	Temperature for the beginning of cooling in setback Room temperature is used to determine the start of cooling operation during setback.	rF=00 : 26 °C rF=01 : 27 °C rF=02 : 28 °C rF=03 : 29 °C rF=04 : 30 °C rF=05 : 31 °C rF=06 : 32 °C rF=07 : 33 °C rF=08 : 34 °C rF=09 : 35 °C rF=10 : 25 °C	
qC	Temperature differential for the setback function Target temperatures for cooling and heating operation are determined versus a temperature to start setback operation (rE, rF) Target temperature calculation: Target temperature in cooling mode: $rF - qC$ (°C) Target temperature in heating mode: $rE + qC$ (°C)	qC=00 : 2.0 °C qC=01 : 3.0 °C qC=02 : 4.0 °C qC=03 : 5.0 °C qC=04 : 1.0 °C	Setback operation runs as room temperature reaches the specified temperature to start, and stops when the target temperature is reached. A target temperature higher than the normal operation temperature shall be selected for cooling mode. A target temperature lower than the normal operation temperature shall be selected for heating mode.
	Temp. to start setback operation in cooling mode (rF) Target temp. in setback cooling operation ($rF - qC$) Wired Controller setpoint in cooling normal operation Wired Controller setpoint in heating normal operation Target temp. in setback heating operation ($rE + qC$) Temp. to start setback operation in heating mode (rE)		

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 18 / 54

qd	Minimum stop time of setback To avoid the frequent activation of setback operation, a minimum off-time shall pass from the end of setback operation until the beginning of the following setback operation. Even if room temperature reaches the setpoint to start setback operation, setback operation does not start until the minimum off-time has expired.	qd=00 : 10 minutes qd=01 : 20 minutes qd=02 : 30 minutes qd=03 : 40 minutes qd=04 : 50 minutes qd=05 : 60 minutes qd=06 : 70 minutes qd=07 : 80 minutes qd=08 : 90 minutes qd=09 : 100 minutes qd=10 : 110 minutes qd=11 : 120 minutes	
	Temp. to start setback operation in cooling mode (rF) Target temp. in setback cooling operation (rF – qC) Run Stop Cooling Minimum off-time (qd) Cooling		
qF	Operation state after the end of setback operation. Select the operation mode that shall be set to the unit once the set back operation is disabled.	qF=00 : Stop qF=01 : Run qF=02 : Operation state before the beginning of setback	In case that "02: Operation state before the beginning of setback" is set, the state returns to the last operating condition before the beginning of setback.
r9	Remote control prohibition during setback operation	r9=00 : disabled r9=01 : Prohibition of Run / Stop operations r9=02 : Prohibition of Run operation	Manual run/stop from the remote controller can be disabled during setback operation. This function is fixed as 00 (Disabled) when the qE is set as 00 (Always).

◆ Setback trigger units

In case one remote controller PC-ARFP1E is controlling several indoor units, the system is selecting automatically one unit as the reference to judge the Setback operations. This unit is the trigger unit. It is possible to change the trigger unit and to select it manually with the following function:

Test Run Menu

Priority Setting

Power Up Setting

Setback Trigger Unit

Cancel Preheating Control

Contact Information

◀ Sel. OK Entr ▶ Rtrn

Setback Trigger Unit

01-01	02-01	03-01	04-01
01-02	02-02	03-02	04-02
● 01-03	02-03	03-03	04-03
01-04	02-04	03-04	04-04

◀ Sel. OK Entr ▶ Rtrn

When one remote controller is controlling several indoor units, the indoor unit with the input for setback activation connected to it must be selected as the trigger indoor unit.

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

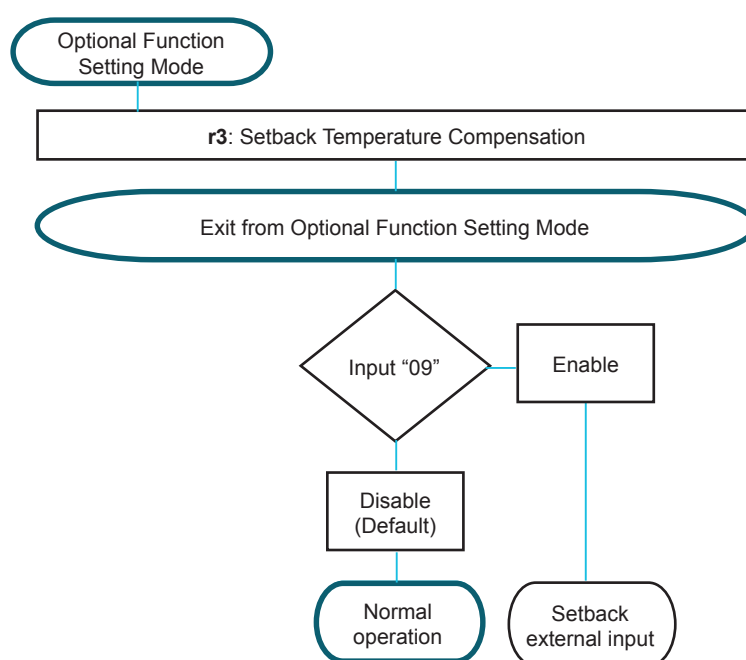
PAGE: 19 / 54

4.3.4.2 Setback on PC-ARH1E

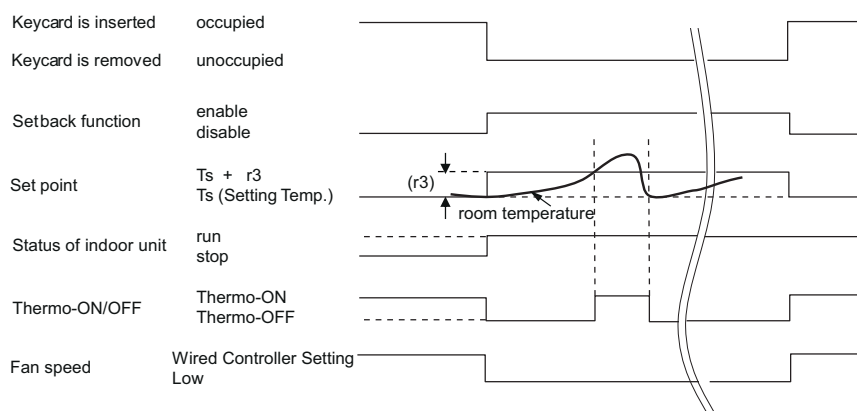
Setback function can be activated for PC-ARH1E but only with the “External input” control. When the room is not occupied (no key card inserted), the comfort in the room is checked by the indoor unit that permanently runs in low fan speed and a modified set point. When the room is occupied again (key card is inserted), the original setting temperature is restored. The current operation mode of the indoor unit is maintained when Setback operation is started.

The parameter is the temperature differential value to adjust the setting temperature during Setback operation.

◆ Setback flow chart



◆ Control Operation Time Chart (Cooling/Dry Mode)



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

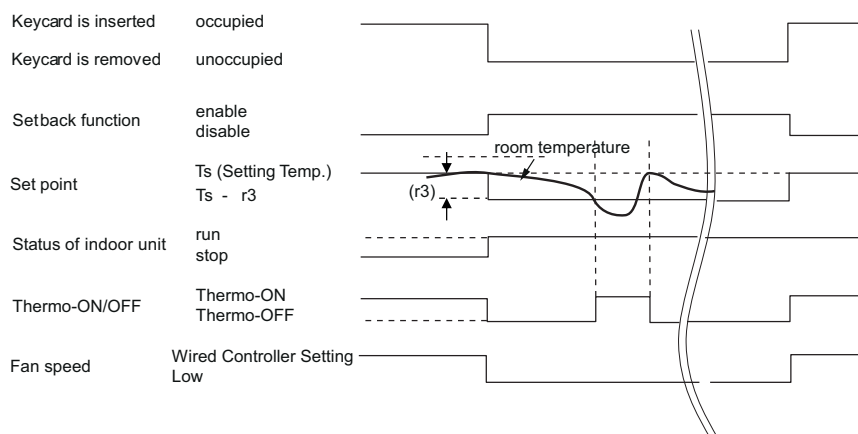
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 20 / 54

◆ Control Operation Time Chart (Heating)



◆ Setting of setback optional functions

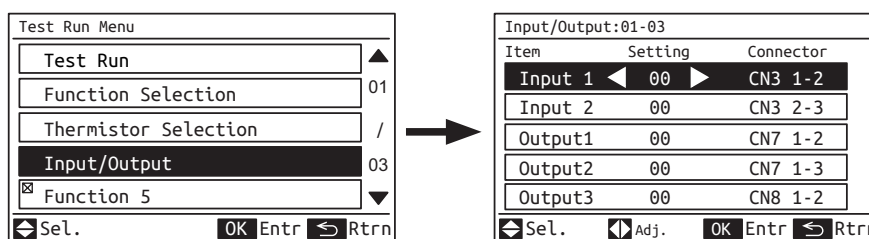
Parameter	Description	Setting options
r3	Setback Temperature Compensation	r3= 0.5 : 0.5 °C r3=1.0 : 1.0 °C r3=1.5 : 1.5 °C r3=2.0 : 2.0 °C r3=2.5 : 2.5 °C r3=3.0 : 3.0 °C r3=3.5 : 3.5 °C r3=4.0 : 4.0 °C r3=4.5 : 4.5 °C r3=5.0 : 5.0 °C r3=5.5 : 5.5 °C

4.3.4.3 Setback operation by “External Input” - Input setting

◆ Input setting from the remote control

Example PC-ARFP1E

From the test run menu, select Input/Output setting. Select either “Input 1” or “Input 2” and change the setting to “09”.



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

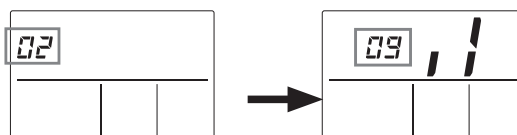
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 21 / 54

Example PC-ARH1E

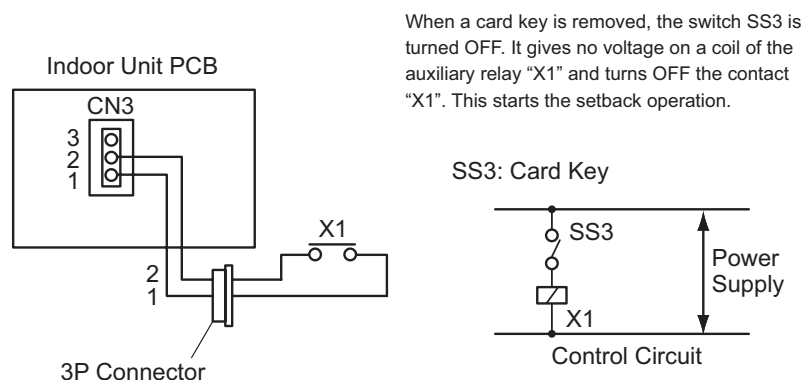
Select 02 in the menu for choosing between function selection and input/output to set the input/output. Select either "Input 1" or "Input 2" and change the setting to "09".



◆ Build the input circuit

Build a circuit as shown below.

On the indoor unit PCB, use the input terminal (CN3) to receive external signals.



Wiring Diagram Example of Setback Operation by External Input
(Example: Card Key Input is set to terminals 1 and 2 of CN3)

A wired controller is required for this function.

4.3.5 Automatic cooling/heating with dual setting

This function is available in standard air-to-air indoor units and is used to switch between heating and cooling operations automatically depending on a cooling set point and a heating set point (dual set point).

In the case of 2-pipe systems, the same operation mode will be applied to all the indoor units of the concerned refrigerant cycle.

In the case of 3-pipe systems, the same operation mode will be applied to all the units connected to the same single CH-Box, or to all the units connected to the same Multi CH box outlet.

It is recommended to use this function with heat recovery systems (3-pipe systems).

This function can be activated by the optional parameters (b8, r1...) available in the optional function menu of the controllers (PC-ARFP1E or PC-ARH1E).



NOTE:

- Systems without CH-Box (2-pipe system) are not designed to operate in the simultaneous Cool/Heat mode when more than one indoor unit is connected to the same outdoor unit, but only in the cool or heat mode. Thus all indoor units connected to the same outdoor unit should be changed from one mode to another at the same time. The same is applicable to the system with CH-Box (3-pipe system) for all indoor units connected to the same CH-Box.
- This function is not available for Hydro Free, KPI and DX-Interface.

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

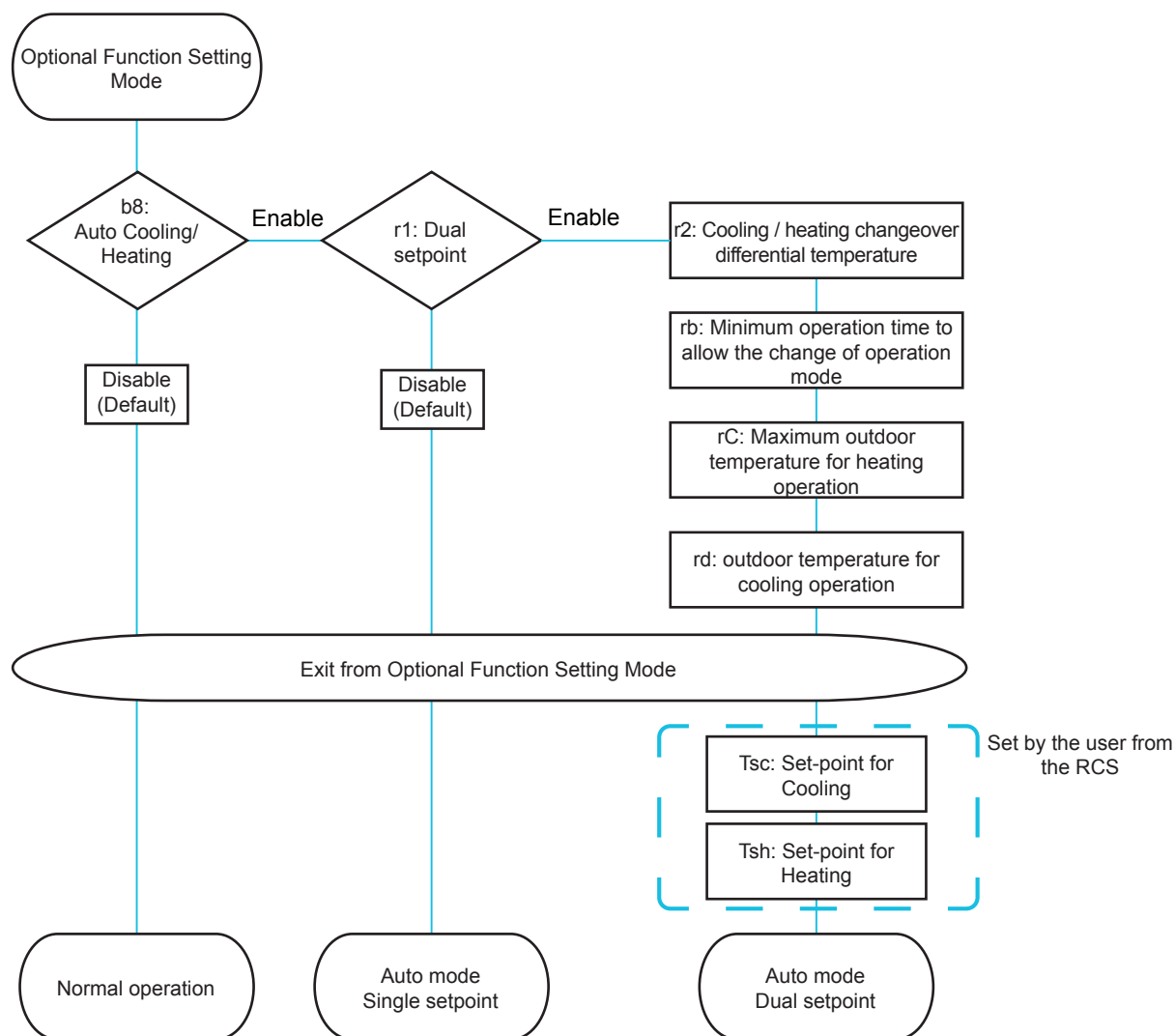
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 22 / 54

4.3.5.1 Automatic cooling/heating with dual setting on PC-ARFP1E

◆ Flow chart of automatic cooling/heating with dual setting



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

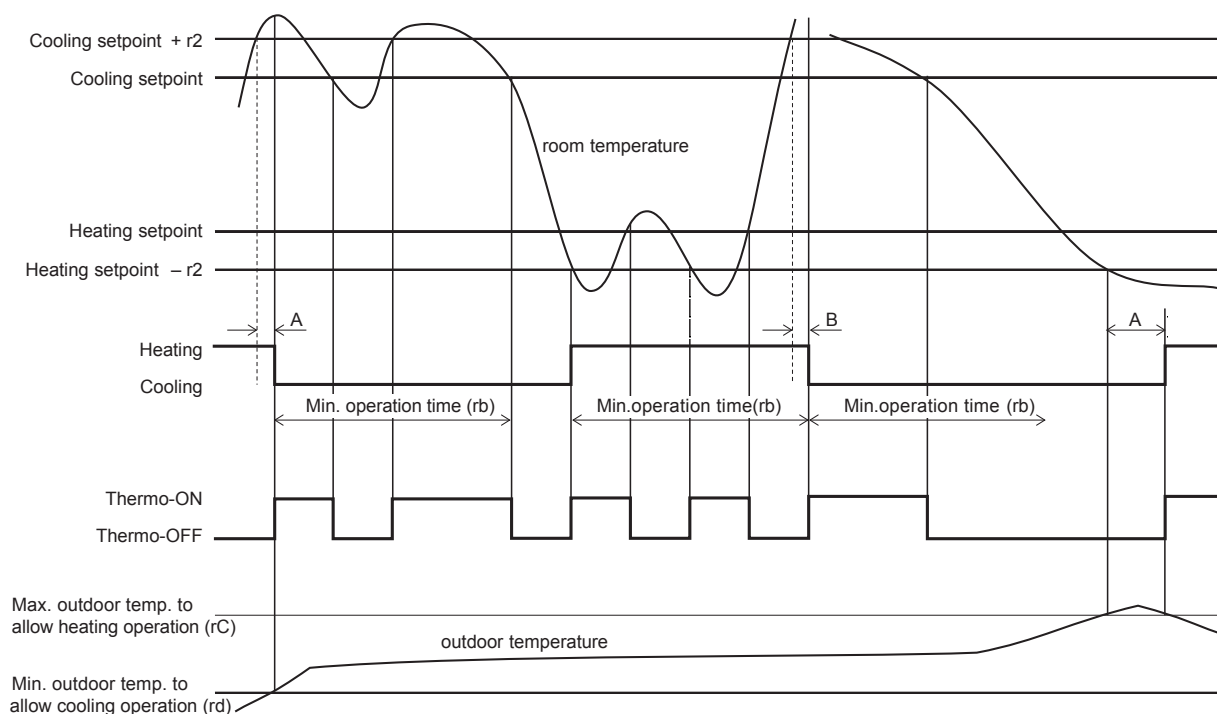
SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 23 / 54

◆ Time chart of automatic cooling/heating with dual setting



A: Period in which operation mode does not change due to the constraints of mode transition based on ambient temperature.

B: Period in which operation mode does not change due to the minimum operation time.

This function is not available if one of the wired controllers in the same refrigerant system does not support it.

This function is not available if one indoor unit in the same refrigerant system does not support it.

Cooling set point (Tsc) and heating set point (Tsh) shall be set as follows: "cooling setpoint $\geq$ heating setpoint + 2 °C".

Minimum and Maximum outdoor temperatures defined by rC and rd can not override the limits used by the control system for the normal operation of outdoor unit. The temperature limits defined by the control system will always have priority over rC and rd.

◆ Optional function setting of automatic cooling/heating with dual setting

Parameter	Description	Setting option
b8	Automatic cooling/heating operation This function allows the automatic switching of cooling and heating modes of the units in the same refrigerant cycle.	b8=00 : Function not activated b8=01 : Function activated
r1	Dual setpoint Function in the automatic cooling/heating mode allowing the preset of respective setpoint for cooling and heating.	r1=00 : Function not activated r1=01 : Function activated

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 24 / 54

r2	Setting of temperature differential for switching cooling and heating. This setting is possible when r1=01.	r2=0.5 : 0.5 °C r2=1.0 : 1.0 °C r2=1.5 : 1.5 °C r2=2.0 : 2.0 °C r2=2.5 : 2.5 °C r2=3.0 : 3.0 °C	
rb	Minimum operation time to allow the change of operation mode in automatic cooling/heating mode with dual setting.	rb=00 : Disabled rb=01 : 10 minutes rb=02 : 20 minutes rb=03 : 30 minutes rb=04 : 40 minutes rb=05 : 50 minutes rb=06 : 60 minutes rb=07 : 70 minutes rb=08 : 80 minutes rb=09 : 90 minutes rb=10 : 100 minutes rb=11 : 110 minutes rb=12 : 120 minutes	
rC	Maximum outdoor temperature to allow heating operation in automatic cooling/heating mode with dual set point.	rC=00 : Disabled rC=01 : 20.0 °C rC=02 : 21.0 °C rC=03 : 22.0 °C ↓ rC=20 : 39.0 °C rC=21 : 40.0 °C rC=22 : 0.0 °C rC=23 : 1.0 °C rC=24 : 2.0 °C ↓ rC=40 : 18.0 °C rC=41 : 19.0 °C	If outdoor ambient temperature is higher than rC, there is no mode transition to heating in automatic cooling/heating operation mode, even though room temperature has reached the setpoint to switch operation mode from cooling to heating.
rd	Minimum outdoor temperature to allow cooling operation in automatic cooling/heating mode with dual set point.	rd=00 : Disabled rd=01 : 10.0 °C rd=02 : 11.0 °C rd=03 : 12.0 °C ↓ rd=30 : 39.0 °C rd=31 : 40.0 °C rd=32 : -20.0 °C rd=33 : -19.0 °C rd=34 : -18.0 °C ↓ rd=60 : 8.0 °C rd=61 : 9.0 °C	If outdoor ambient temperature is lower than rd, there is no mode transition to cooling in automatic cooling/heating operation mode, even though room temperature has reached the setpoint to switch operation mode from heating to cooling.
Tsc	Setting temperature for cooling in dual temperature control in automatic cooling/heating, set with the remote controller	-	
Tsh	Setting temperature for heating in dual temperature control in automatic cooling/heating, set with the remote controller	-	

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

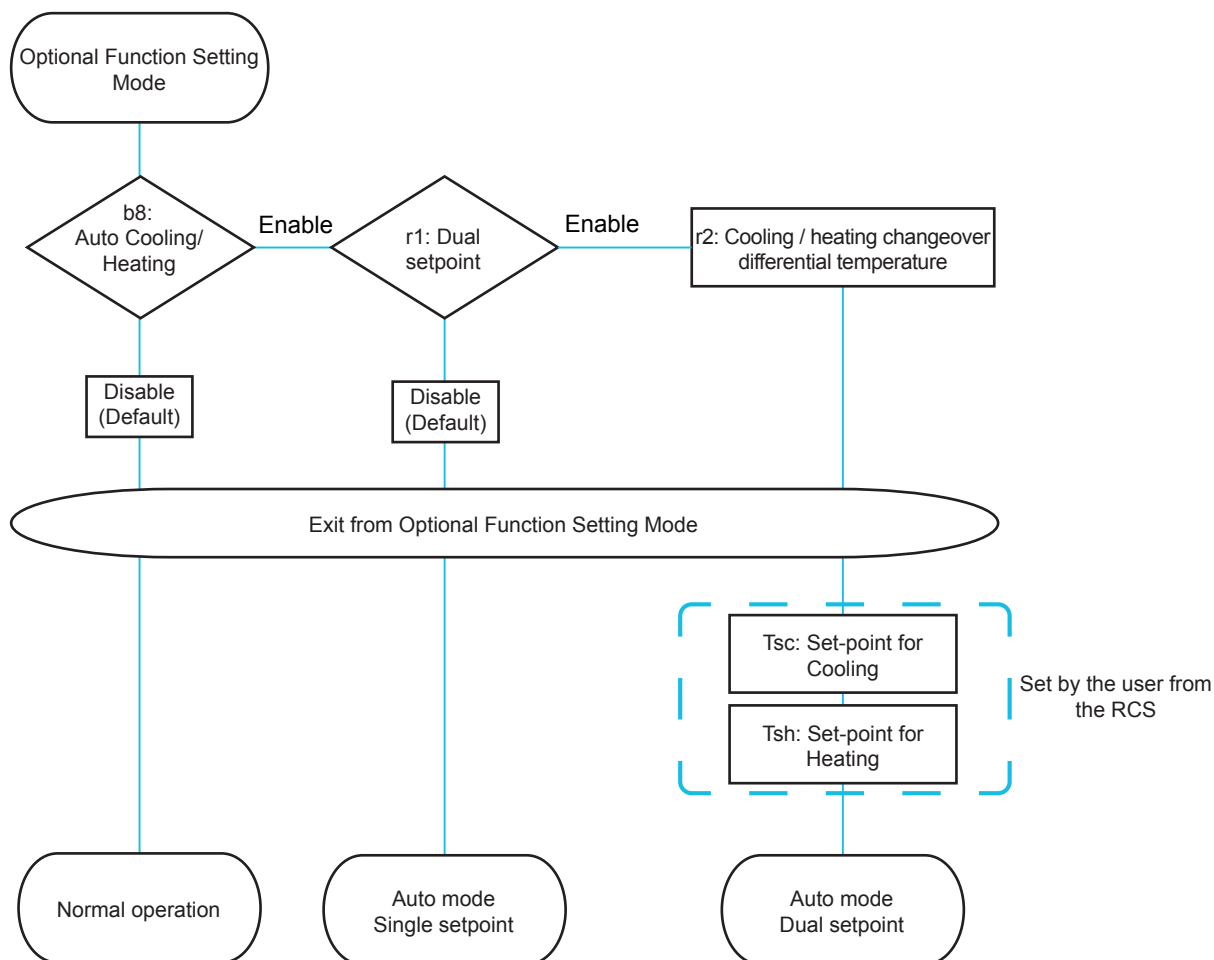
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 25 / 54

4.3.5.2 Automatic cooling/heating with dual setting on PC-ARH1E

◆ Flow chart of automatic cooling/heating with dual setting



New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

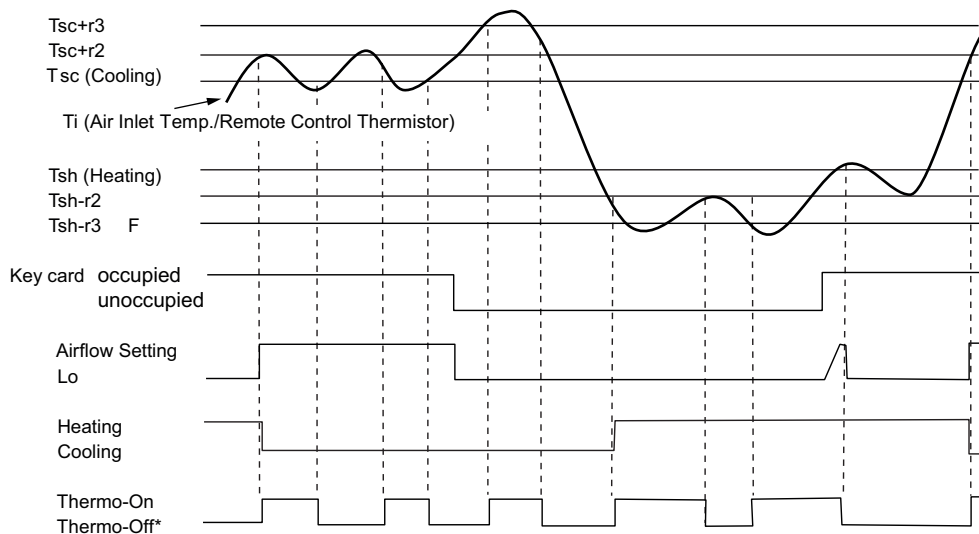
DATE: FEB'19

PAGE: 26 / 54

◆ Operation of dual setting during simultaneous cooling and heating with the setback control activated

In case both set back temperature and automatic cooling/heating with dual setting are performed, the operation is shown below.

For dual setpoint, the heating set point must be lower than the cooling set point.



* The thermo-OFF conditions are the same as the current cooling/heating automatic control.

◆ Optional function setting of automatic cooling/heating with dual setting

Parameter	Description	Setting option
b8	Automatic cooling/heating operation This function allows the automatic switching of cooling and heating modes of the units in the same refrigerant cycle.	b8=00 : Function not activated b8=01 : Function activated
r1	Dual setpoint Function in the automatic cooling/heating mode allowing the preset of respective setpoint for cooling and heating.	r1=00 : Function not activated r1=01 : Function activated
r2	Setting of temperature differential for switching cooling and heating. This setting is possible when r1=01.	r2=0.5 : 0.5 °C r2=1.0 : 1.0 °C r2=1.5 : 1.5 °C r2=2.0 : 2.0 °C r2=2.5 : 2.5 °C r2=3.0 : 3.0 °C

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

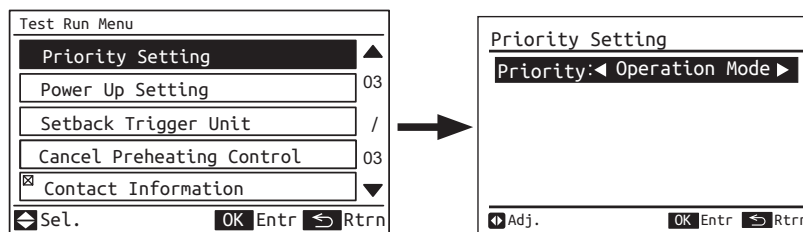
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 27 / 54

4.3.6 Priority setting for operation mode and setting temperature (PC-ARFP1E only)

It is possible to set the operation mode and the setting temperature of several indoor units in the same refrigerant cycle from one specific remote controller (main remote controller), without using a central controller. The sub remote controllers follow the settings of the main remote controller.



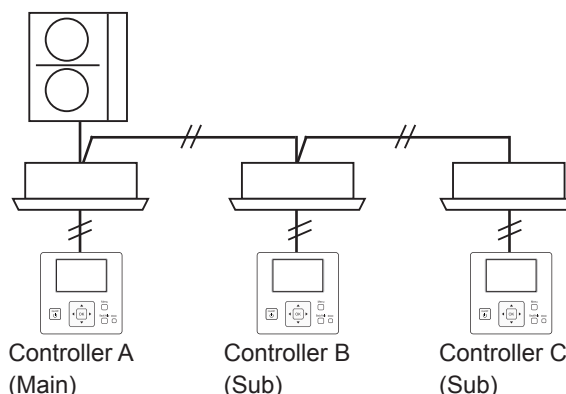
Priority setting is changed in the following order:

“Not available” ↔ “Operation Mode” ↔ “Operation Mode + Setting Temperature”

NOTE

see Chapter 4.3.7 for detailed information regarding the Main/Sub setting.

Example system:



Priority Setting		Remote controller operation		
		Controller A (Main)	Controllers B and C (Sub)	
		Operation mode + Setting temperature	Operation Mode	Setting temperature
Without Priority		○	○	○
With Priority	Operation Mode		▲	○
	Operation Mode + Setting temperature		▲	×

○: Selection possible

▲: Selection partially possible

- When the Main controller is set in COOL mode, the Sub controller can be set in COOL↔DRY↔FAN modes.
- When the Main controller is set in HEAT mode, the Sub controller can be set in HEAT↔FAN modes.

×: Selection not possible (The setting temperature of controller A (Main) is applied)

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 28 / 54

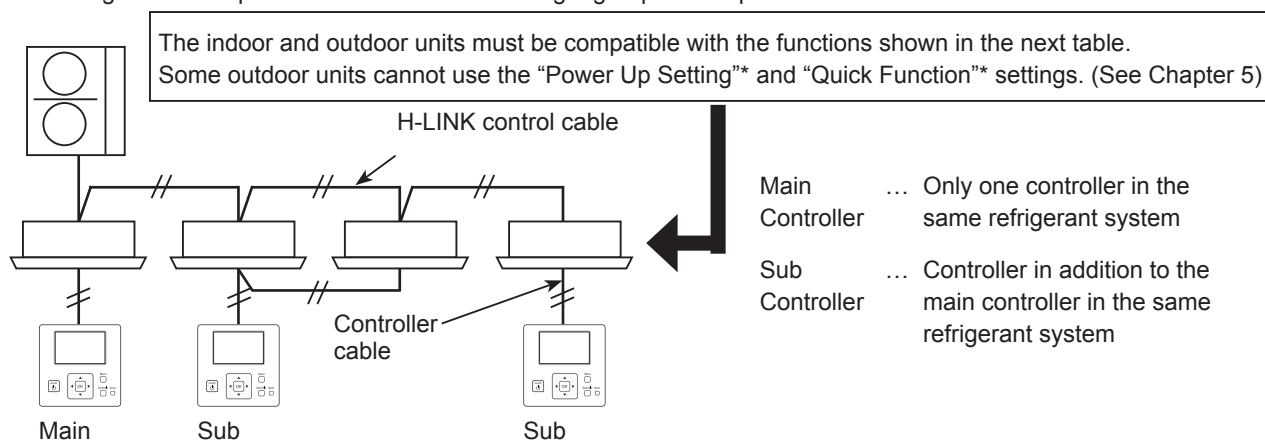
NOTE

- The factory default "Priority Setting" is "Not available". This can be set in "Priority Setting" in the Test Run menu.
- It is not possible to set a priority for setting temperature only.
- When operation mode is set as "priority", and operation mode in MAIN is set in Auto Cool/Heat then operation mode change is possible in all indoor units under auto Cool/Heat control.
- Simultaneous operation in cooling and heating modes in the same refrigerant system is not possible except in Auto Cool/Heat mode in 3 pipe systems. If multiple remote controllers exist within the same refrigerant system, only one remote controller can be given the right to set the operation mode.
- It is not possible to set a priority when using two controllers for the same indoor unit.
- This function cannot be used in case that any of the following devices is connected to the same refrigerant cycle:
 - Outdoor unit or indoor unit not supporting power saving functions
 - Receiver Kit
 - Central Station, CS-NET Manager and BMS Gate Ways
 - A remote controller with activated function for fixed operation mode (b5), fixed setting temperature (b6) or fixed cooling-only (b7).
 - Cooling/Heating CH-Box

4.3.7 Setting of MAIN and SUB controller (PC-ARFP1E only)

The assignation of the controllers in the same refrigerant cycle as Main (only one) or Sub (all the other ones) is automatically done by the system upon installation. This can be later changed with "Main Remote Setting" in the "Test Run Menu", as explained below. This is required for the "Priority setting" function explained in the previous chapter and also for some other functions as follows.

The following is an example of an installation containing a group of multiple controllers:



Concerning main and sub controllers, the range of settings may differ for the functions shown below.

Function		Main	Sub
Power Saving Mode Setting		○	×
Outdoor Unit Capacity Control	Detailed Setting	○	×
	Power Saving Level Switch	○	×
Indoor Unit Rotation Control	Detailed Setting	○	×
	ON/OFF	○	○
Intermittent Control	Detailed Setting	○	○
	Power Saving Level Switch	○	○
Operation Noise Reduction		○	×
Power Saving Schedule	Outdoor Capacity Control	○	×
	Intermittent Control	○	○
Operation Noise Reduction Schedule		○	×
Power Up Setting		○	×
Quick Function*		○	○

○: Available ×: Not Available

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

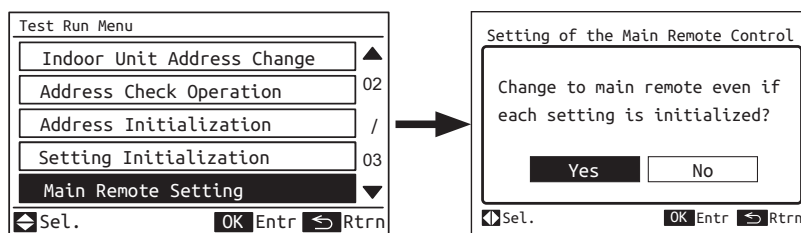
DATE: FEB'19

PAGE: 29 / 54

◆ MAIN/SUB setting in test run menu

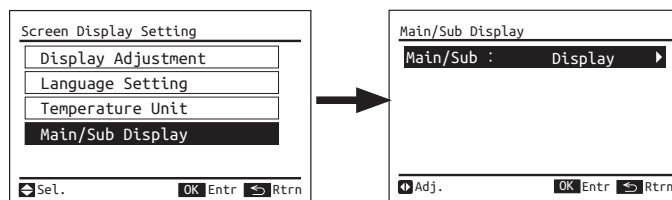
This "Main remote setting" function is only displayed when the remote controller is configured as SUB.

The purpose is to change the setting of a SUB remote controller to be a MAIN remote controller. In consequence, the other remote controller previously set as a MAIN is automatically set as SUB.



The "Main remote setting" function is found in the "Test Run Menu". By accepting the confirmation in the following screen, this remote controller becomes the MAIN remote controller in the system. After the change is applied, the Power Save Mode reads: "No Setting". Also, the "Power Saving Detailed Settings", "Power Saving", "Save/Reduction Schedule", "Operation Noise Reduction", "Priority Setting" and "Power Up Setting" functions are initialised.

"MAIN" and "SUB" indications are displayed in the normal mode screen of each remote controller, if "Display" is selected in the "Main/Sub Display" menu.



i NOTE

- Even if "Non-display" is selected, it is possible to verify whether the controller is set as MAIN or SUB in the "Main/Sub-Remote" indication in "Help Menu" "Current Setting".
- The remote controller is set as MAIN by factory default.
- This setting is not available when CH.Box are installed.

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

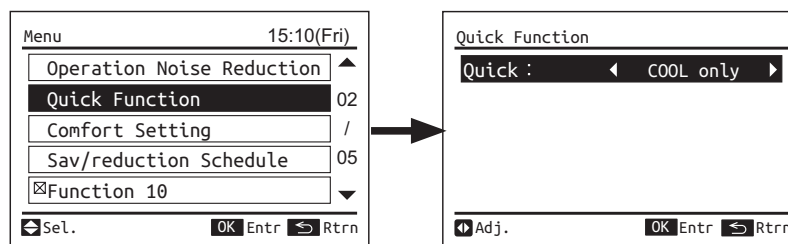
Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 30 / 54

4.3.8 Quick function (PC-ARFP1E only)

This is a function to increase cooling and heating capacity for 30 minutes since the beginning of operation, in order to reach the setting temperature as quickly as possible. It is only available when the operation mode is cooling or heating. This function makes operation begin in quick mode every time ON operation is set, until the setting is cancelled.



The "QUICK" icon appears displayed when in "Quick" mode.

4.4 Additional language support in PC-ARFP1E

Model	PC-ARFPE	PC-ARFP1E
Languages	English, German, Italian, Spanish, French (5 languages)	English, German, Italian, Spanish, French, Portuguese, Danish, Dutch, Swedish, Finnish, Greek, Croatian, Slovenian, Czech, Slovak, Hungarian, Polish, Romanian, Bulgarian, Ukrainian, Russian (21 languages)

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 31 / 54

5. Function availability vs. different series

New Functions	PC-ARFP1E	PC-ARH1E	RCIM-FSN4E	RCI-FSN4	RPK-FSN4M	RPC-FSN3	RCD-FSN3	RPIM-(0.6-1.5)FSN4E	RPI-(0.4-3.0)FSN5E	RPI-(4.0-6.0)FSN5E	RPI-(8.0-10.0)FSN3E	RPI(0)-FSN2E	IVX RAS-(2-12)H(V)NP1(E) Centrifugal RASC-(4-10)HNPE	IVX RAS-(3-12)H(V)NC1(E)	SET FREE mini (RAS-(4-6)FS(V)NME	SET FREE Sigma RAS-(8-96)FSXNSE& RAS-(6-72)FSXNPE	SET FREE mini (RAS-(8-12)FSXNME)	Compatible software
Software	From beginning of mass production	From beginning of mass production	P-4729	P-4736	From beginning of mass production	P-4736	P-4729	P-4735	P-4725	P-4735	Current	Current	--	--	--	--	--	--
Sensor selection for Temperature Control																		
Parameter C8: Optional Setting for IDU control by RCS sensor or remote sensor (THM4)	o	o	Depends on Remote Controller (RCS)														⊙	
Parameter K6: operating mode by THM4 or RCS sensor only in COOL/DRY mode	o	o	o	o	o	o	o	x	o	x	x	x	Depends on RCS and Indoor Unit				▲	
Special EU functions for Fan stop in thermo-OFF																		
Parameters Cd: Fan stop in cooling thermo-off by THM4 or RCS sensor control.	o	o	o	o	o	o	o	o	o	o	o	o	Depends on RCS and Indoor Unit				▲	
Parameters CE: Fan stop in heating thermo-off by RCS sensor	o	o	o	o	o	o	o	o	o	o	o	o	Depends on RCS and Indoor Unit				▲	
Parameter E8: Fan stop during Thermo OFF when THM4 is connected	o	o	o	o	o	o	o	o	o	o	o	o	Depends on RCS and Indoor Unit				▲	
Temperatures display in RCS																		
Parameters J1 : Temporary ambient temperature (C8) display on the RCS.	x	x	Depends on connected Remote Controller														⊙	
Parameters P3, P4 : Ambient temperature display on the RCS.	o	o	Depends on connected Remote Controller														⊙	
Parameter P5: Setting temperature display on the RCS. (hidden for Fan operation mode)	o	o	Depends on connected Remote Controller														⊙	
Parameter P1: Temperature setting width (0.5 °C)	o	o	o	o	o	o	o	o	o	o	o	o	Depends on RCS and Indoor Unit				▲	
Function preventing uncomfortable operation																		
Parameter d4: Prevention for cooling discharge air temperature decrease RPK---Default ON Cancel function by using DSW2-4=OFF	o	o	x	x	x	x	x	o	x	o	o	o	Depends on RCS and Indoor Unit				▲	
Comfort setting: 1-4	x	x	o	o	o	o	o	x	o	x	x	x	Depends on RCS and Indoor Unit				▲	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 32 / 54

New Functions	PC-ARFP1E	PC-ARH1E	RCIM-FSN4E	RCIFSN4	RPK-FSN4M	RPC-FSN3	RCD-FSN3	RPIM-(0.6-1.5)FSN4E	RPI-(0.4-3.0)FSN5E	RPI-(4.0-6.0)FSN5E	RPI-(8.0-10.0)FSN3E	RPI(0)-FSN2E	IVX RAS-(2-12)H(V)NP1(E) Centrifugal RASC-(4-10)HNPE	IVX RAS-(3-12)H(V)NC1(E)	SET FREE mini (RAS-(4-6)FS(V)NME	SET FREE Sigma RAS-(8-96)FSXNSE& RAS-(5-72)FSXNPE SET FREE mini (RAS-(8-12)FSXNME)	Compatible software
Software	From beginning of mass production	From beginning of mass production	P-4729	P-4736	From beginning of mass production	P-4736	P-4729	P-4735	P-4725	P-4735	Current	Current	--	--	--	--	--
Parameter K8: control of dew condensation prevention by IDU louvers (For RPK activation by DSW2-4 instead of K8)	o	o	o	o	x	o	o	x	x	x	x	x	Depends on RCS and Indoor Unit				▲
Energy saving/noise/Eco functions																	
"Parameter d6: Room temperature control for energy saving IDU in Cool Thermo-off when Tout<Tin"	o	o	o	o	o	o	o	o	o	o	o	o	x	o	o	o	■
Power saving function	o	o	o	o	o	o	o	o	o	o	o	x	x	o	o	o	■
ECO button	o	o	Depends on connected Remote Controller														☉
Noise reduction operation	o	o	o	o	o	o	o	o	o	o	o	x	x	o	o	o	■
Power saving and noise reduction scheduled operations	o	o	o	o	o	o	o	o	o	o	o	x	x	o	o	o	■
Power consumption display	o	o	o	o	o	o	o	o	o	o	o	x	x	o	o	o	■
ECONOFRESH control	o	o	x	x	x	x	x	x	x	o	x	x	Depends on RCS and Indoor Unit				▲
Setback function																	
Setback function for hotel application (key card)	x	o	o	o	o	o	o	o	o	o	x	x	Depends on RCS and Indoor Unit				▲
Smart set back function (key card, timer, manual)	o	x	o	o	o	o	o	o	o	o	x	x	Depends on RCS and Indoor Unit				▲
Auto Cool/Heat with dual setting																	
Simple Auto Cool / Heat with dual Set Point	x	o	o	o	o	o	o	o	o	o	x	x	Depends on RCS and Indoor Unit				▲
Smart Auto Cool / Heat with dual Set Point	o	x	o	o	o	o	o	o	o	o	x	x	Depends on RCS and Indoor Unit				▲
Auto Cool/Heat with single setting																	
Improvement for AUTO COOL HEAT operation mode (new differential Temperature Set Temp. - Room Air Temp. = 2°C instead of 3°C)	o	o	o	o	o	o	o	o	o	o	o	o	Depends on RCS and Indoor Unit				▲
Setting main / sub controller	o	o	o	o	o	o	o	o	o	o	o	x	x	x	o	o	■
Operation mode / Tset priority	o	o	o	o	o	o	o	o	o	o	o	x	x	o	o	o	■

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 33 / 54

New Functions	PC-ARFP1E		PC-ARH1E		RCIM-FSN4E		RCI-FSN4		RPK-FSN4M		RPC-FSN3		RCD-FSN3		RPIM-(0.6-1.5)FSN4E		RPI-(0.4-3.0)FSN5E		RPI-(4.0-6.0)FSN5E		RPI-(8.0-10.0)FSN3E		RPF(I)-FSN2E		IVX RAS-(2-12)H(V)NP1(E) Centrifugal RAS-(4-10)HNPE		IVX RAS-(3-12)H(V)NC1(E)		SET FREE mini (RAS-(4-6)FS(V)NME)		SET FREE Sigma RAS-(8-96)FSXNSE& RAS-(6-72)FSXNPE		SET FREE mini (RAS-(8-12)FSXNME)		Compatible software	
Software	From beginning of mass production		From beginning of mass production		P-4729		P-4736		From beginning of mass production		P-4736		P-4729		P-4735		P-4725		P-4735		Current		Current		--		--		--		--		--		--	
Quick functions	O		O		O		O		O		O		O		O		O		O		O		X		X		O		O		O		O		■	
Others																																				
CN3 inputs i1 and i2 status read through HLINK			Depends on IDU			O		O		O		O		O		O		O		O		O		O		Depends on RCS and Indoor Unit						▲				
0.4HP IDU model			Depends on IDU			O		X		O		X		X		X		O		X		X		X		Depends on RCS and Indoor Unit						▲				
Languages			21		--		Depends on connected Remote Controller																							⊙						

o	Available
x	not available
⊙	Function depending on remote controller switch
▲	Function depending on remote controller switch + indoor unit software
■	Function depending on remote controller switch + indoor unit + outdoor units software

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 34 / 54

6. Summary of the optional functions (PC-ARFP1E - PC-ARH1E)

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
b1	b1	Heating temperature compensation	00	Normal (factory setting) (Setting Temperature + 4°C)	This function is used to adjust the temperature difference between the temperature read by the inlet sensor and the real room temperature. This is useful when the inlet air thermistor is not placed inside the indoor unit or due to uneven heat load. Note: - The "02", "03", "04" settings may not be available depending on the type of indoor unit. - This setting shall be performed separately for each indoor unit, even in case that multiple indoor units are connected to one remote controller.
			01	No compensation (Setting Temperature)	
			02	Setting Temperature + 2°C	
			03	Setting Temperature + 3°C	
		Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M	04	Setting Temperature + 1°C	
			00	RPF(I)-FSN2E: Normal (factory setting) (Setting Temperature + 2°C)	
			01	No compensation (Setting Temperature)	
			02	Setting Temperature + 2°C	
		Heating temperature compensation			
		Models: RPF(I)-FSN2E			
b2	b2	Circulation function at heating thermo OFF	00	Function disabled (factory setting)	This function keeps the fan running during the thermo OFF sequence, at the fan speed set on the remote control switch, to prevent the stratification of air in the room.
			01	Function enabled	
b3	b3	PC-ARFP1E Forced compressor operation for at least three minutes	00	Function disabled (factory setting): Forced compressor operation for at least three minutes can be enabled or disabled through C7 setting	This function is used to allow the setting of C7, to protect the compressor by preventing it from being started or stopped for periods of less than 3 minutes.
			01	Function enabled: Forced compressor operation for at least three minutes always occurs independently of C7 setting	
		PC-ARH1E	00	-	Use as 00 conditions
		Not Used	01	-	
b4	b4	Change of filter cleaning period	00	Standard (1200 hours)	This function is used to modify the period of operation after which the air filter cleaning indication is shown in the remote control. For RPK-FSN(H)3M models, the factory setting is b4=00: Standard setting 200 hours.
			01	100 hours	
			02	1200 hours (factory setting)	
			03	2500 hours	
			04	No indication	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 35 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
b5	b5	Locking of operation mode	00	Function disabled (factory setting)	This function prevents the modification of the operation mode of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
b6	b6	Locking of setting temperature	00	Function disabled (factory setting)	This function prevents the modification of the setting temperature of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
b7	b7	Setting operation mode as cooling only	00	Function disabled (factory setting)	This function is used to limit the operation mode to cooling only and to prevent heating mode from being enabled.
			01	Function enabled	
b8	b8	Automatic COOL/HEAT operation	00	Function disabled (factory setting)	This function enables the selection of Auto cool/heat operation mode. If the function is not activated, Auto cool/heat mode cannot be selected on the remote control switch.
			01	Function enabled	
b9	b9	Locking of fan speed setting	00	Function disabled (factory setting)	This function prevents the modification of the fan speed of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
bA	bA	Not available	"_ _" permanent	Not available	—
bb	bb	Cooling setting temperature correction	00	No compensation (factory setting)	This function decreases the setting temperature and is used to produce longer cooling periods.
			01	Setting temperature decreased by 1° C	
			02	Setting temperature decreased by 2° C	
bC	bC	Not used	00	-	Use at 00 conditions
			01	-	
bd	bd	Not used	00	-	Use at 00 conditions
			01	-	
bE	bE	Not used	00	-	Use at 00 conditions
			01	-	
C1	C1	Not used	00	-	Use at 00 conditions
			01	-	
C2	C2	Not available	"_ _" permanent	-	—
C3	C3	Not used	00	-	Use at 00 conditions
			01	-	
C4	C4	PC-ARFP1E Drain pump operation in heating mode	00	Function disabled (factory setting)	This function is used to activate the drain pump in heating mode. Only for models with drain pump.
			01	Function enabled	
		PC-ARH1E Not used	00	-	Use at 00 conditions
			01	-	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 36 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description	
C5	E5	Static pressure selection	00	Standard static pressure (factory setting)	This function is used to change the static pressure of the RPI units from the remote control.	
		Models RPI-FSN5E RPIM-FSN4E(-DU) RPI-FSN3(P)E(-f)	01	High static pressure		
			02	Low static pressure		
		Increase of fan speed during normal operation (not during heating thermo OFF)	00	Standard (factory setting)	This function is used to change the fan speed of indoor units installed in high ceilings.	
		Models RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPK-FSN(H)3M RPF(I)-FSN2E	01	Hi Speed 1		
			02	Hi Speed 2		
		Fan speed setting on the remote controller				
		C5	High H	High	Medium	Low
		0	Hi2	Hi	Me	Lo
		1	Hi2	Hi1	Hi	Me
		2	Hi2	Hi2	Hi1	Hi
C6	E6	Increase of fan speed at heating thermo OFF	00	Function disabled (factory setting)	This function is used to increase the fan speed when the thermostat reaches the set temperature in heating according to the setting of function C5.	
			01	Function enabled		
C7	E7	Cancellation of forced compressor operation for at least 3 minutes	00	Function disabled (factory setting)	This function is available depending on the setting of function b3.	
			01	Function enabled (Compressor operation during 3 minutes is no longer forced)		

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 37 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
C8	LB	Control by the temperature sensor of the remote control switch	00	Control by the air inlet sensor of indoor units (factory setting)	This function specifies the temperature sensor to be used as control sensor by the indoor unit.
		 NOTE <i>The remote control switch shall be installed in a proper place for the correct detection of room temperature by its temperature sensor.</i>	01	Control by the temperature sensor of the remote control switch	
			02	Control by the average value of the air inlet sensor of indoor units and the temperature sensor of the remote control switch. (Air inlet + Remote control switch)/2	
		Control sensor when a remote sensor is connected to the THM4 connector in the indoor unit PCB	00, 01, 02	When a remote sensor is connected to THM4, this remote sensor is used as control sensor, whichever the setting for C8 (factory setting C8=00)	
		 NOTE <i>The remote sensor shall be installed in a proper place for the correct detection of room temperature.</i> Model RPF(I)-FSN2E			
		Control sensor when a remote sensor is connected to the THM4 connector in the indoor unit PCB	00, 02	Air temperature control using the average value of the air inlet thermistor and the remote sensor (factory setting C8=00) (Air inlet + Remote sensor)/2	
 NOTE <i>The remote sensor shall be installed in a proper place for the correct detection of room temperature.</i> Models RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M	01	Air temperature control using the remote sensor			
C9	LB	Not available	" - " permanent	—	—
CA	LB	Not available	" - " permanent	—	—

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 38 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
Cb	Cb	Selection of forced stoppage logic	00	Forced stoppage input: A contact, normally open contact (factory setting)	This function determines the logic operation for the forced stoppage contacts.
			01	Forced stoppage input: B contact, normally closed contact	
CC	CC	Not used	00	-	Use at 00 conditions
			01		
Cd	Cd	Stop of indoor unit fan during cooling thermo OFF conditions  NOTE <i>For model RPI-FSN3E(P)E and RCD-FSN3, this function is NOT available.</i>	00	Fan speed during cooling thermo OFF: Low (factory setting)	The operation of the indoor unit fan is stopped in cooling thermo OFF conditions when using the additional remote temperature sensor THM-R2AE (connected to THM4) or the PC-ARFP1E temperature sensor. C8 must be set to 01 to use the Cd=01 setting.
			01	Indoor unit fan is stopped during cooling thermo OFF	
CE	CE	Stop of indoor unit fan during heating thermo OFF conditions Stop of indoor unit fan during heating thermo OFF conditions (with remote control switch temperature sensor)	00	Fan speed setting during heating thermo OFF: Low (factory setting)	The indoor unit uses the PC-ARFP1E temperature sensor to monitor the room temperature when the fan is stopped (heating thermo OFF fan stop sequence) C8 must be set to 01 to use the CE=01 setting.
			01	Indoor unit fan is stopped during heating thermo OFF. <i>(In case that automatic louvre is set, the louvres will keep operating in both thermo ON and thermo OFF conditions)</i>	
CF	CF	Modification of louvre swing range Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3	00	Standard (7 steps) (factory setting)	This function adjusts the angle of the air outlet louvre. <i>(Changes to the setting of this function are applied after turning the power supply off and on again, or after the automatic louvre has made a full cycle in automatic mode)</i>
			01	Cold draft prevention (5 steps) <i>(Cannot be set to the lower two steps; lower 2 steps cut off)</i>	
			02	High ceilings (5 steps) <i>(Cannot be set the upper two steps; upper 2 steps cut off)</i>	
		Models: RPK-FSN(H)3M	00	Standard (7 steps) (5 steps for cooling / dry mode)	
			01	Cold draft prevention (5 steps for heating and fan only) <i>(Cannot be set to the lower two steps; lower 2 steps cut off)</i>	
			02	Not used	
d1	d1	Management of indoor unit operation after a power supply cut off - option 1	00	Function disabled (factory setting)	When power supply is restored, the indoor units controlled by the wired remote control switch are turned on regardless of their ON/OFF status at the time of the last power cut off.
			01	Function enabled	
d2	d2	Not available	“-” permanent	—	—

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 39 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
d3	d3	Management of indoor unit operation after a power supply cut off - option 2	00	Function disabled (factory setting)	When power supply is restored, the indoor units controlled by the wired remote control switch are turned on automatically ONLY if they were already ON at the time of the last power cut off.
			01	Function enabled	If indoor units were OFF when power was turned OFF, they remain in OFF status when power is restored.
d4	d4	PC-ARFP1E Prevention of low air outlet temperature in cooling mode Models: RPI-(4.0-6.0)FSN5E RPIM-(0.6-1.5)FSN4E(-DU)	00	Function disabled (factory setting)	This function is used to prevent the decrease of discharge air temperature in cooling operation, by controlling thermo ON/OFF according to the discharge air temperature.
			01	Function enabled	When ambient temperature > setting temperature: If air outlet temperature ≤ 11 °C for 3 minutes, the system is switched to Thermo-OFF. In this status, if air outlet temperature ≥ 13 °C, the system is switched back to Thermo-ON.
		PC-ARFP1E Not used Models: RCD-FSN3 RPI-(0.4-3.0)FSN5E RPI-FSN3E(P)E(-f) RCI-FSN4 RPC-FSN3 RCIM-FSN4E RPF(I)-FSN2E RPI-(8~20)FSN3(P)E	00	-	Use at 00 conditions
			01	-	
		PC-ARH1E Not used	00	-	Use at 00 conditions
			01	-	
d5	d5	Prevention of low air outlet temperature in heating mode	00	Function disabled (factory setting)	This function prevents the occurrence of an excessively cold air flow in heating mode by decreasing the fan speed during heating operation, also taking into account the setting of function C5..
			01	Function enabled	
d6	d6	PC-ARFP1E Room temperature control for energy saving	00	Function disabled (factory setting)	This function saves energy when the outdoor temperature is lower than the air conditioning load.
			01	Function activated	The indoor unit is set to cooling Thermo-OFF when Tout (outside ambient temperature - out of the building) < Tin
		PC-ARH1E	00	-	Use as 00 conditions
		Not Used	01	-	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 40 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
d7	d7	PC-ARFP1E Econofresh: Minimum opening angle of the outdoor air (OA) damper	00	6° (factory setting)	This function is used to set the minimum opening angle of the damper for fresh outdoor air.
			01	12°	
			02	18°	
			03	24°	
			04	30°	
			05	36°	
			06	42°	
			07	48°	
		PC-ARH1E	"_ _"	—	—
		Not available	permanent	—	—
E1	E1	PC-ARFP1E KPI: Ventilation mode	00	Automatic ventilation (factory setting)	This function allows the outdoor air damper to be opened in All Fresh operation mode. This mode allows the full opening of the outdoor air damper (according to the control system).
			01	Ventilation with total heat exchanger	
			02	Ventilation with bypass (no total heat exchange)	
		PC-ARFP1E Econofresh cooling mode	00	Standard process (factory setting)	This function allows the outdoor air damper to be opened in All Fresh operation mode. This mode allows to fully open the outdoor air damper (according to the control system).
			01/02	All Fresh	
		PC-ARH1E	00	—	Use as 00 conditions
E2	E2	PC-ARFP1E KPI: Increase of air supply volume	00	Disabled function (factory setting)	This function is used to increase the air supply pressure in the room.
			01	Enabled function	
		PC-ARFP1E Econofresh enthalpy sensor	00	Disabled function (factory setting)	This function selects the enthalpy sensor input for Econofresh.
			01	Enabled function	
		PC-ARH1E Not Used	00	—	Use as 00 conditions
			01	—	
E3	E3	Not used	00	—	Use at 00 conditions
			01	—	
E4	E4	PC-ARFP1E KPI: Pre-cooling / pre-heating period	00	Disabled (factory setting)	This function delays unit startup with energy recovery
			01	30 minutes	
			02	60 minutes	
		PC-ARFP1E Econofresh: CO ₂ sensor	00	Disabled (factory setting)	This function selects the CO ₂ gas sensor input for Econofresh.
			01/02	CO ₂ sensor (required setting E1=00)	
		PC-ARH1E	00	—	Use as 00 conditions
E5	E5	Not used	00	—	Use at 00 conditions
			01	—	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 41 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
E6	E6	Period of indoor fan operation after cooling operation stoppage	00	Disabled function (factory setting)	This function prevents the condensation in the unit by keeping the fan running after the unit operation has been turned OFF.
			01	60 minutes	
			02	120 minutes	
E7	E7	Not used	00	-	Use at 00 conditions
			01		
E8	E8	Control for stop of the indoor unit fan during heating thermo OFF conditions (with remote sensor THM-R2AE connected to the THM4 connector in the indoor unit PCB)	00	Fan operation in Low speed	This function stops the fan to prevent cold draughts or overheating. C8 must be set to 01 to use the E8=01 setting. The connection of a THM-R2AE remote temperature sensor to the THM4 port in the indoor unit PCB is required. The remote sensor shall be installed in a proper place for the correct detection of room temperature. <i>(In case that automatic louver is set, the louver will keep operating in both thermo ON and thermo OFF condition.)</i>
			01	Fan stop in thermo OFF conditions.	
E9	E9	PC-ARFP1E Intermittent fan operation in heating stop	00	Function disabled (factory setting)	In case that indoor unit operation is set OFF by the remote control switch, under certain conditions the fan is operated in cycles consisting of 3 minutes of operation at SLow speed and 30 minutes of stoppage.
		Not available for models: RPF(I)-FSN2E	01	Function enabled	
		PC-ARH1E	00	-	
		Not Used	01		
EA	EA	Not used	00	-	Use at 00 conditions
			01		
			02		
Eb	Eb	Indoor unit fan control during cooling thermo OFF conditions	00	Function disabled (factory setting)	This function decreases speed of the indoor unit fan during cooling thermo OFF, to reduce the spread of smells and humidity.
			01	Low	
			02	Slow	
EC	EC	Forced thermo ON when stopping in cooling operation	00	Function disabled (factory setting)	This function is used to force thermo ON during 6 minutes when stopping in cooling operation.
			01	Enabled	
Ed	Ed	Not used	00	-	Use at 00 conditions
			01		
EE	EE	Control in “Automatic” indoor fan speed mode	00	Function disabled (factory setting)	This function limits the speed of the indoor fan when room temperature is close to the setting temperature.
			01	Enabled	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 42 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
EF	EF	Control in "Automatic" indoor fan speed mode (supporting High H) Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M	00	Function disabled	This function limits the speed of the indoor fan when room temperature is close to the setting temperature, allowing to reach High H speed.
			01	Function enabled	
F0	F0	Not available	"_ _" permanent	—	—
F1	F1	Automatic OFF timer setting Models: RCI-FSN4 RPC-FSN3 RPK-FSN3M RPI-FSN5E RPIM-FSN4E(-DU) RCD-FSN3 RCIM-FSN4E RPI-FSN3(P)E	00	Function disabled (Factory setting)	This function sets an automatic OFF timer to switch OFF the indoor units controlled by the remote control switch (when the units have been started by remote control). (Do not set the values "0C"- "0F" when two remote control switches are used in the same remote control group)
			01	1 hour	
			02	2 hours	
			03	3 hours	
			04-24	(04-24) hours	
			0A	30 minutes	
			0B	90 minutes	
			0C	40 minutes	
			0D	45 minutes	
			0E	50 minutes	
			0F	55 minutes	
		Automatic OFF timer setting Models: RPF(l)-FSN2E	00	Function disabled (Factory setting)	This function is used to set the automatic timer to switch off when the unit has been started by remote control.
			01	1 hour	
			02	2 hours	
			03	3 hours	
			04-24	(04-24) hours	
			0A	30 minutes	
			0B	90 minutes	
			00	Main (Master remote control) (Factory setting)	This function is used to define which remote control switch is used as master or slave, when two remote controllers are connected to one indoor unit.
			01	Sub (Slave remote control)	

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 43 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
F3	F3	Automatic reset of setting temperature	00	Function disabled (Factory setting)	This function is used to limit unit operation and save energy. The setting temperature is automatically set to the value defined with functions "F5" or "F6", according to the current operation mode, after the time set with function "F4" has passed since the last manual change of setting temperature. In case that the values of "F5" or "F6" are out of the limits set with functions "FC" and "Fd", limitations set by "FC" and "Fd" have priority.
			01	Function enabled	
F4	F4	Automatic reset time	00	30 minutes (factory setting)	This function sets the automatic reset time delay for function F3.
			01	15 minutes	
			02	60 minutes	
			03	90 minutes	
F5	F5	Automatic reset temperature for cooling	19	19 °C	This function defines the default temperature set point for the automatic reset function F3 in FAN/COOL/DRY modes.
			20	20 °C	
			21	21 °C	
			·	·	
			·	·	
			24	24 °C	
			25	25 °C (factory setting)	
			26	26 °C	
			·	·	
			·	·	
F6	F6	Automatic reset temperature for heating	28	28 °C	This function defines the default temperature set point for the automatic reset function F3 in HEAT mode.
			29	29 °C	
			30	30 °C	
			17	17 °C	
			18	18 °C	
			·	·	
			·	·	
			20	20 °C	
			21	21 °C (factory setting)	
			25	25 °C	
F7	F7	Prevention of operation stoppage due to wrong operation of the remote controller	00	Function disabled (factory setting)	Operation is stopped by pressing the run/stop switch for 3 seconds.
			01	Function enabled	
F8	F8	Lock function for operation mode selection	00	Function disabled	This function is used to prevent changes to the operation mode.
			01	Function enabled (factory setting)	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 44 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
F9	<i>F9</i>	Lock function for temperature setting	00	Function disabled	This function is used to prevent changes to the temperature setting.
			01	Function enabled (factory setting)	
FA	<i>FA</i>	Lock function for fan speed selection	00	Function disabled	This function is used to prevent changes to the fan speed.
			01	Function enabled (factory setting)	
Fb	<i>Fb</i>	Lock function for swing louvre operation	00	Function disabled	This function is used to prevent changes to the automatic louvre operation.
			01	Function enabled (factory setting)	
FC	<i>FC</i>	Lower limit of setting temperature for cooling (Minimum value of setting temperature allowed in cooling)	00	Function disabled 19 °C is the standard minimum set point. (factory setting)	This function defines the lowest temperature setting value for FAN/COOL/DRY modes.
			01	+1 °C (Lower limit 20 °C)	
			02	+2 °C (Lower limit 21 °C)	
			03	+3 °C (Lower limit 22 °C)	
			·	·	
			·	·	
			08	+8 °C (Lower limit 27°C)	
			09	+9 °C (Lower limit 28 °C)	
Fd	<i>Fd</i>	Upper limit of setting temperature for heating (Maximum value of setting temperature allowed in heating)	00	Function disabled 30 °C is the standard maximum set point. (factory setting)	This function defines the highest temperature setting value for HEATING mode. Models: RPF(I)-FSN2E up to 20°C (FC=10)
			01	-1 °C (Upper limit 29 °C)	
			02	-2 °C (Upper limit 28 °C)	
			03	-3 °C (Upper limit 27 °C)	
			·	·	
			·	·	
			10	-10 °C (Upper limit 20 °C)	
			11	-11 °C (Upper limit 19 °C)	
FE	<i>FE</i>	Not used	00	-	Use at 00 conditions
			01		
			02		
FF	<i>FF</i>	Not Used	00	-	Use as 00 conditions
			01		

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 45 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
H1	H1	No indication of maintenance alarm	00	Displayed	This function is used to display or hide the maintenance alarm indication.
			01	Hidden	
H2	H2	Indication of hot start (No Indication of operation limitation)	00	Displayed	This function is used to display or hide the automatic control indication. Models: RPF(I)-FSN2E Not available, use at 00 conditions
			01	Hidden	
H3	H3	PC-ARFP1E Not used	00	-	Use at 00 conditions
			01 / 02	-	
		PC-ARH1E Operation mode change restriction	00	Unlimited operation	 NOTE <i>"01" is available only when one controller is used. Do not use this setting when two controllers are used.</i>
			01	Operation mode set by central control equipment + "Fan" mode	
			02	Operation mode change not available (Hide operation mode)(Factory setting)	
H4	H4	Not Used	00	-	Use at 00 conditions
			01	-	
		KPI: Operation modes for the ventilation unit with energy recovery	00	Air conditioning only (factory setting)	This function is only available for ventilation units with energy recovery.
			01	Ventilation only	
			02	Air conditioning + ventilation	
		PC-ARH1E Not Used	00	-	Use as 00 conditions
			01	-	
--	H5	Not Used	00/01	-	Use as 00 conditions
--	H6	Not Used	00/01	-	Use as 00 conditions
J1	J1	Not used	00	-	Use at 00 conditions (see note in chapter 4.3.1)
			01	-	
J2	J2	Not used	00	-	Use at 00 conditions
			01	-	
J3	J3	Colour of the Run indicator	00	Green (factory setting)	-
			01	Red	
J4	J4	PC-ARFP1E Override of Start/Stop prohibition at the remote controller	00	Start/Stop allowed (Factory setting)	When there is a remote control prohibition from a central control device, this function overrides this prohibition allowing the operation of the Run/Stop button of the remote control switch. Models: RPF(I)-FSN2E Not used. Use at 00 conditions
			01	 WARNING: Blocking of Start/Stop shall never be set due to safety concerns.	
			02	Only Stop allowed	
		PC-ARH1E Not used	00/01	Not used (Use as 00 conditions)	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

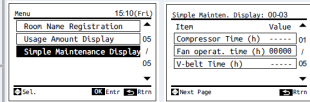
ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 46 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
J5	J5	Not used	00 01	-	Use at 00 conditions
J6	J6	Not used	00 01	-	Use at 00 conditions
J7	J7	PC-ARFP1E	00	Function disabled (factory setting)	When a RPK unit is stopped in louvre positions 6 or 7, the louvre is set to position 5.
		Enabling steps 6 and 7 for the air louvre in COOLING or DRY mode	01	Function enabled	
		PC-ARH1E	00/01	-	Use as 00 conditions
J8	J8	Eco-operation	00	Function disabled (factory setting)	When the unit is restarted by the remote control switch, the temperature automatically changes to the setting temperature of "F5" or "F6".
			01	Function enabled	Models: RPF(I)-FSN2E Not available, use at 00 conditions
J9	J9	Not used	00 01	-	Use at 00 conditions
JA	JA	PC-ARFP1E	00	Function disabled (factory setting)	Enables the "Simple maintenance display" menu.
		Display of "Simple maintenance display" menu	01	Function enabled	 Models: RPF(I)-FSN2E Not available, use at 00 conditions
		PC-ARH1E	00/01	-	Use as 00 conditions
Jb	Jb	PC-ARFP1E	00	Function disabled (factory setting)	Models: RPF(I)-FSN2E Not available, use at 00 conditions
		Enable automatic fan speed setting	01	Function enabled	
		PC-ARH1E	00/01	-	Use as 00 conditions
K1	F1	Not used	00 01	-	Use at 00 conditions
K2	F2	Not used	00 01	-	Use at 00 conditions
K3	F3	Not used	00 01	-	Use at 00 conditions
K4	F4	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 47 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
K5	F5	Detection level of the motion sensor kit	00	Standard (factory setting)	Models: RPF(I)-FSN2E Not available, use at 00 conditions.
			01	High	This parameter defines the sensitiveness of the motion sensor. The amount of activity in the room is assessed according to a different scale based on this setting.
			02	Low	Detailed information about the operation of the motion sensor can be found in the technical documentation of the indoor units.
K6	F6	Selection of allowed operation modes when the control sensor of the indoor unit is set by C8 function	00	All modes allowed	This function is used to select the operation modes in which the setting of C8 (use of remote control switch sensor or remote sensor on THM4 to control the indoor unit) is enabled.
			01	Only cooling/dry allowed	
			02	Only heating allowed	
			03	All modes allowed	
K7	F7	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		
K8	F8	Control for the prevention of condensation on the louvres.	00	Function disabled (factory setting)	Condensation may occur around air outlet during COOL/DRY operation with horizontal air flow or downward air flow for long periods. This function is used to prevent condensation by moving the louvre swing angle to the third step automatically for 30 minutes every 1 hour.
			01	Function enabled	(In RPK units, this function is activated by means of DSW2-4 instead of the K8 optional function)
K9	F9	Not used	00	-	Use at 00 conditions
			01		
KA	FA	Not used	00	-	Use at 00 conditions
			01		
L1	L1	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		
L2	L2	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 48 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
L3	L3	Operation of the louvers in energy-saving thermo OFF (Cooling / Dry mode)	00	Direct air blow Low (factory setting)	Power save must be ON in order to use this function (L5 must be set to 01).
			01	Direct air blow Medium	This function is used to establish louver swinging operation ranging from continuous swing to static operation.
			02	Direct air blow High	Low: Continuous louver swing Medium: Louvre swing with intermittent stops for 20/40 seconds
			03	Disabled	High: Louvre stopped at full opening position, according to the setting of CF.
L4	L4	Fan acceleration in energy-saving thermo OFF (Cooling mode)	00	Function disabled (factory setting)	This function increases fan speed by one step to prevent the loss of comfort due to the forced thermo OFF for energy saving during cooling operation.
			01	Function enabled	
L5	L5	Louvre swing operation during energy-saving forced thermo OFF	00	Function disabled (factory setting)	This function is used to enable the setting of function L3.
			01	Function enabled	
L6	L6	Not used	00	-	Use at 00 conditions
			01		
L7	L7	Not available	"-"	-	-
L8	L8	Not used	00	-	Use at 00 conditions
			01		
L9	L9	Not used	00	-	Use at 00 conditions
			01		
LA	LA	Not used	00	-	Use at 00 conditions
			01		
Lb	Lb	Not used	00	-	Use at 00 conditions
			01		
P1	P1	Setting temperature in 0.5 °C steps	00	Enabled (0.5 °C steps) (factory setting)	This function is used to define whether setting temperature is adjusted in 0.5 °C steps (when set to "00") or in 1 °C steps (when set to "01").
			01	Disabled (1 °C steps)	This setting also determines whether the resolution of temperature differential of the thermistor is 0.5 °C (when set to "00") or 1 °C (when set to "01"). See page 6 for further details.
P2	P2	Not used	00	-	Use at 00 conditions
			01		
P3	P3	Temperature sensor displayed	00	Inlet air thermistor (Tin)	This function is used to select the thermistor whose temperature is shown when function P4 is set to 01.
			01	Outdoor air thermistor (Tout)	
			02	Remote controller thermistor (RCS)	
			03	Remote sensor (THM4)	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 49 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
P4	P4	Display of sensor temperature	00	Hidden	This function is used to display the temperature of the sensor selected with function P3.
			01	Shown	
P5	P5	Display of setting temperature when operation mode is Fan	00	Shown	This function is used to hide the display of setting temperature during operation in fan mode.
			01	Hidden	
P6	P6	Operation of the ECO button	00	ECO button enabled (factory setting)	The operation of ECO button is disabled when P6 is set to 01
			01	ECO button disabled	
P7	P7	Prohibition of menu screen transition	00	Function disabled (factory setting)	This function is used to prohibit the access to the menu screens.
			01	Function enabled	The text "Display disabled" appears on screen instead.
P8	P8	Not used	00	-	Use at 00 conditions
			01	-	
P9	P9	Not used	00	-	Use at 00 conditions
			01	-	
PA	PA	Daylight saving time	00	1 hour	This function is used to set the amount of adjustment when daylight saving time is applied.
			01	2 hours	
Pb	Pb	Not used	00	-	Use at 00 conditions
			01	-	
PC	PC	Not used	00	-	Use at 00 conditions
			01	-	
q1	q1	Not used	00	-	Use at 00 conditions
			01	-	
q2	q2	Not used	-	-	Not used
q3	q3	Not used	-	-	Not used
q4	q4	Not used	-	-	Not used
q5	q5	Not used	-	-	Not used
q6	q6	Not used	00	-	Use at 00 conditions
			01	-	
q7	q7	Not used	00	-	Use at 00 conditions
			01	-	
q8	q8	Not used	00	-	Use at 00 conditions
			01	-	
q9	q9	Not used	00	-	Use at 00 conditions
			01	-	
qA	qA	Not used	00	-	Use at 00 conditions
			01	-	
qb	qb	PC-ARFP1E Operation mode with setback	00	Disabled	Operation modes in which setback operation is activated to keep a minimum comfort in the room while it is not occupied.
			01	Cooling	
			02	Heating	
			03	Cooling/Heating	
		PC-ARH1E Not used	00/01	-	Use as 00 conditions

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 50 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
qC	qC	PC-ARFP1E Temperature differential for the setback function	00	2.0 °C	Target temperatures for both cooling and heating operation are determined versus a temperature to start setback operation (rE, rF)
			01	3.0 °C	
			02	4.0 °C	
			03	5.0 °C	Target temperature calculation:
			04	1.0 °C	Target temperature in cooling mode: rF - qC (°C) Target temperature in heating mode: rE + qC (°C)
		PC-ARH1E Not used	00/01/02/03/04	-	Use as 00 conditions
qd	qd	PC-ARFP1E Minimum stop time of setback	00	10 minutes	To avoid the frequent activation of setback operation, a minimum off-time shall pass from the end of setback operation until the beginning of the following setback operation. Even if room temperature reaches the setpoint to start setback operation, setback operation does not start until the minimum off-time has expired.
			01	20 minutes	
			02	30 minutes	
			03	40 minutes	
			04	50 minutes	
			05	60 minutes	
			06	70 minutes	
			07	80 minutes	
			08	90 minutes	
			09	100 minutes	
			10	110 minutes	
			11	120 minutes	
		PC-ARH1E Not used	00/.../11	-	Use as 00 conditions
qE	--	Setback mode	00	Always	When selecting "01: Input", it is necessary to set up one input contact (i1 or i2) with the setback function "09". This operation has to be done in the input/output setting menu of the remote controller.
			01	Input	
			02	Schedule	
			03	Manual	When selecting "02: Schedule" or "03: Manual", additional settings are required.
qF	--	Operation state after the end of setback operation	00	Stop	Operation state to switch to upon the end of setback duration.
			01	Run	
			02	Operation state before the beginning of setback	
r1	r1	Dual setpoint	00	Function disabled (factory setting)	This function allows the setting of independent setpoints for cooling and heating in the automatic cooling/heating mode.
			01	Function enabled	
r2	r2	Setting of temperature differential for switching cooling and heating	0.5	0.5 °C	This function can only be set when function r1 is set to 01.
			1.0	1.0 °C	
			1.5	1.5 °C	
			2.0	2.0 °C	
			2.5	2.5 °C	
			3.0	3.0 °C	

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 51 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
r3	r3	PC-ARFP1E Not used	0.5	-	Not used
			1.0		
			1.5		
			2.0		
			2.5		
			3.0		
			3.5		
			4.0		
			4.5		
			5.0		
			5.5		
		PC-ARH1E Setback temperature compensation	0.5	0.5 °C	This setting is the temperature differential value to adjust the setting temperature during Setback operation.
			1.0	1.0 °C	
			1.5	1.5 °C	
			2.0	2.0 °C	
			2.5	2.5 °C	
			3.0	3.0 °C	
			3.5	3.5 °C	
			4.0	4.0 °C	
			4.5	4.5 °C	
			5.0	5.0 °C	
			5.5	5.5 °C	
r4	r4	Not used	00	-	Use at 00 conditions
			01		
r5	r5	Not used	00	-	Use at 00 conditions
			01		
r6	r6	Not used	00	-	Use at 00 conditions
			01		
r7	r7	Not used	00	-	Use at 00 conditions
			01		
r8	r8	Not used	00	-	Use at 00 conditions
			01		
r9	r9	PC-ARFP1E Remote control prohibition during setback operation	00	Start/Stop allowed (Factory setting)	Manual run/stop from the remote controller can be disabled during setback operation. This function is fixed to 00 (Disabled) when function qE is set to 00 (Always).
			01	Start/Stop not allowed  WARNING: Blocking of Start/Stop shall never be set due to safety concerns.	
			02	Only Stop allowed	
		PC-ARH1E Not used	01	-	Use at 00 conditions
			02		

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 52 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
rA	rR	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		
			04		
			05		
			06		
			07		
rb	rb	PC-ARFP1E Minimum operation time to allow the change of operation mode in auto cooling/heating mode with dual set point	00	Disabled	This function is used to define a minimum time of operation in a given mode, in order to avoid too frequent changes of operation mode. Operation mode does not change until the minimum transition time passes, even if the room temperature reaches the setpoint to shift to the other operation mode.
			01	10 minutes	
			02	20 minutes	
			03	30 minutes	
			04	40 minutes	
			05	50 minutes	
			06	60 minutes	
			07	70 minutes	
			08	80 minutes	
			09	90 minutes	
			10	100 minutes	
			11	110 minutes	
			12	120 minutes	
		PC-ARH1E Not used	00~12	-	Use at 00 conditions
rC	--	Maximum outdoor temperature to allow operation mode switch to heating in auto cooling/heating with dual set point	00	Disabled	If outdoor ambient temperature is higher than rC, there is no mode transition to heating in automatic cooling/heating operation mode, even if room temperature reaches the setpoint to switch operation mode from cooling to heating.
			01	20.0 °C	
			02	21.0 °C	
			03	22.0 °C	
			·	·	
			·	·	
			21	40.0 °C	
			22	0.0 °C	
			23	1.0 °C	
			24	2.0 °C	
			·	·	
			·	·	
			41	19.0 °C	

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 53 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
rd	--	Minimum outdoor temperature to allow operation mode switch to cooling in auto cooling/heating with dual set point	00	Disabled	If outdoor ambient temperature is lower than rd, there is no mode transition to cooling in automatic cooling/heating operation mode, even if room temperature reaches the setpoint to switch operation mode from heating to cooling.
			01	10.0 °C	
			02	11.0 °C	
			03	12.0 °C	
			.	.	
			.	.	
			31	40.0 °C	
			32	-20.0 °C	
			33	-19.0 °C	
			34	-18.0 °C	
			.	.	
			.	.	
rE	--	Temperature for the beginning of heating in setback	61	9.0 °C	If room temperature becomes lower than this setting, indoor unit operation is resumed in heating mode by the setback function.
			00	15.0 °C	
			01	16.0 °C	
			02	17.0 °C	
			03	18.0 °C	
			04	19.0 °C	
			05	10.0 °C	
			06	11.0 °C	
			07	12.0 °C	
			08	13.0 °C	
rF	--	Temperature for the beginning of cooling in setback	09	14.0 °C	If room temperature becomes higher than this setting, indoor unit operation is resumed in cooling mode by the setback function.
			00	26.0 °C	
			01	27.0 °C	
			02	28.0 °C	
			03	29.0 °C	
			04	30.0 °C	
			05	31.0 °C	
			06	32.0 °C	
			07	33.0 °C	
			08	34.0 °C	
S1	ㄣ 1	Not used	09	35.0 °C	Use at 00 conditions
			10	25.0 °C	
S2	ㄣ 2	Not used	00	-	Use at 00 conditions
			01	-	
S3	ㄣ 3	Not used	00	-	Use at 00 conditions
			01	-	
S4	ㄣ 4	Not used	00	-	Use at 00 conditions
			01	-	
S5	ㄣ 5	Not used	00	-	Use at 00 conditions
			01	-	
S6	ㄣ 6	Not used	00	-	Use at 00 conditions
			01	-	
			02	-	

Johnson Controls-Hitachi Air Conditioning Spain, S.A.U.

APN-2018022

New Products Information

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

HITACHI

ADVANCED PRODUCT NEWS

SUBJECT

Launching of new wired remote controllers:
PC-ARFP1E & PC-ARH1E

DATE: FEB'19

PAGE: 54 / 54

PC-ARFP1E	PC-ARH1E	Optional function	Settings	Setting conditions	Description
S7	ㄣ7	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		
			04		
			05		
			06		
			07		
S8	ㄣ8	Not used	00	-	Use at 00 conditions
			01		
			02		
			03		
			04		
			05		
			06		
			07		
			08		
			09		
			10		
			11		
			12		
			13		
			14		
			15		

NOTE

- The changes to the optional function settings must be done after 3 minutes have passed after start-up.
- It is recommended to keep track of the changes made to optional function settings, for further reference.
- The optional settings are different according to the indoor and outdoor unit models. Check the indoor units and outdoor units technical documentation to ensure that the unit has the optional setting or not.
- The following optional functions are disable when RPI Unit with Econofresh are installed: b7, bA, bd, bE, C1, C2, C3, C9, CA, Cd, CF, d6, E3, E5, E7, E9, EA, FE, FF, H1, H3, H4, J2, J4, J7, J8, J9, JA, JB, K1, K2, K3, K4, K5.