TECHNOLOGY

AIR FILTER
WASABI NANO TITANIUM

- **WASABI**

  It is said that WASABI (a strong flavor Japanese radish) has antibacterial components and therefore, this spice is always used in the preparation of raw fish (SUSHI and SASHIMI) typical of Japanese cuisine. The new filter is coated with WASABI particles to ensure a greater effect of air purification reducing fungi and bacteria.

- **NANO TITANIUM action**

  The filter is constituted by incredibly small particles of TITANIUM (diameter about 5 nanometers) in order to capture and destroy the bacterial agents. The high-density of these particles blocks the passage of microbes in the air and neutralizes them with maximum effectiveness.

- **Concrete results of using the new filter WASABI NANO TITANIUM:**
  - 99.99% reduction of bacteria after 24h of the observation (tested according to the standard JIS Z2801-2000)
  - 95% reduction of dust mites after 6h
  - 98% reduction of formaldehyde (allergens) after only 1 hour
  - 82% reduction of odors after just 1 hour

TECHNOLOGY

TWIN ROTARY COMPRESSOR TECHNOLOGY BY HITACHI

Today many Mono and Multi air conditioners are equipped with the new Hitachi twin rotary compressor, which offers less vibration and better efficiency compared to conventional rotary compressors

- Two rotating cylinders ensure a rotation well balanced unlike the traditional rotary compressor, thus greatly reducing any vibration noise.
- Operation of the compressor is greatly improved by the independent operation cylinder, ensuring greater efficiency and less vibration.

DC INVERTER TECHNOLOGY BY HITACHI

Being at the forefront in terms of techniques, development and technological progress is inherent in the DNA of a leading company like Hitachi. As pioneers of DC Inverter technology applied to air conditioning, we have developed solutions that enable our products to have compressors and fans entirely operated by DC Inverter technology.

- **Quick Start:** the inverter compressor at variable speed allows the system to achieve quickly the desired temperature in the room. Once reached, the rotation speed of the compressor is decreased with an energy savings compared to traditional systems up to 30%, without compromising the comfort level.
- **Improved performances:** the presence of a DC inverter motor ensures more performance than the conventional AC motor systems, with a 10% gain.

PAM (POWER ACTIVE MODULE)

Improved curve of the inverter performance

The Hitachi PAM (Power Active Module) replicates the pulse waveform to avoid distortions, obtaining almost 100% of the power factor improving the energy efficiency.

This cutting-edge device is used in all Hitachi air conditioners Mono and Multi for your comfort, environment and energy saving. It ensures the proper use of the supply voltage and minimizes losses inherent in inverter technology, to less than 1%.

SCROLL COMPRESSOR TECHNOLOGY OF HITACHI

The Scroll compressor has been built by Hitachi for first time in the world in the early 80s and since then it represents the best technological solution within hermetic compressors for air conditioning. The typical profile of the spiral scroll compressor allows to maximize the refrigerant abilities and to minimize the efficiency loss and vibration compared to all the other types of compressor, thus realizing many advantages for the user:

- High cooling / heating capacity
- Energy saving
- Noise reduction

These advantages are further improved thanks also to the DC Inverter PAM control, which allows the compressor to adapt its operating mode basing on the actual thermal load.

TECHNOLOGY

ACCESSORIES AND CONNECTIVITY

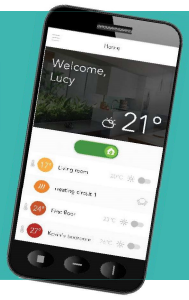
H-LINK ADAPTER: PSC-6RAD FOR CENTRALISED SUPERVISION OF ROOM AIR CONDITIONERS

All indoor units can be connected with the H-Link adapter (PSC-6RAD) in a single bus according to a communication protocol developed by Hitachi. This accessory makes residential units compatible with systems in the commercial, service industry and industrial range. The basic functions (On/Off, operation mode, set temperature, etc.) are programmable via the H-Link central controller.

NEW!

HI-KUMO, RAC WI-FI INTERFACE (SPX-WFG01)

With Hi-Kumo is possible to control the Hitachi air conditioners in a simple and intuitive way by using your smartphone, tablet or PC, at home or outside. You can set the operating arrangements, the desired temperature, the fan's velocity, etc. It's also possible to program a weekly timer, or choose the holiday arrangement when away from home during the week. To activate it just assign a RAC Wi-Fi interface for each indoor unit a Wi-Fi rooter and download the free app for **iOS or Android systems.**



COMPATIBILITY WITH SOMFY THROUGH RAC INTERFACE SOMFY TAHOMA® (SPX-TAG01)

Through interface SPX TAG01 Hitachi RAC units are compatible with Somfy TaHoma solution. In this way it is possible to control HITACHI Air Conditioners and air to water heat pumps remotely via smartphone, tablet and PC, both when you are at home or remotely. The management is possible by downloading a free app and connecting the wireless interface SPX-TAG01 to the control system TaHoma® Box connected to the modem / router at home.

There are no additional installation costs, because the communication between the interface and control system is wireless and uses a communication protocol optimized for home automation, safe and widely used. With the same TaHoma® Box control system you can manage other devices as electric roller shutters, interior and exterior blinds, gates, alarm systems, lights, etc.

Somfy TaHoma® Box SPX-TAG01

TECHNOLOGY

ACCESSORIES AND CONNECTIVITY

ID SWITCH

When two indoor units are installed close to each other in the same room, the infra-red frequency on the remote controller can be differentiated, to prevent mixing the signals controlling them.

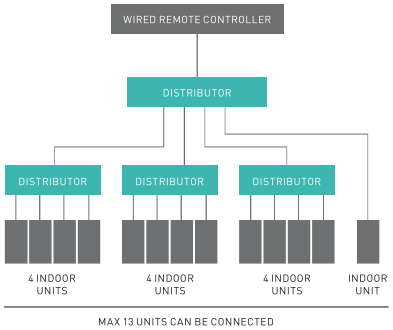
CLEAN CONTACT KIT (SPX-WDC1/2/3/4)

A clean contact kit is available for all indoor units to enable/disable remote operation. Typical applications are the window contact (the unit is turned off when a window is opened in the room so as not to waste energy) or the electronic key (the unit is turned off when the badge electronic key is removed from its slot).

DISTRIBUTOR OF SIGNAL (SPX-DST1 + SPX-WDST8M)

The optional distributor SPX-DST1 can be used together with the remote controller when there is a need to centralise the control of multiple indoor units using only a single wired remote controller.

A single distributor could be connected further to 3 separate distributors so that up to 13 units of indoor could be controlled by a single wired remote controller. For each connected unit one cable SPXWDST8M (length of 8m) shall be connected.



TECHNOLOGY

THE NEW INFRARED REMOTE CONTROLLER HAS A VARIETY OF AVAILABLE FEATURES

The new infra-red remote controller, available for a large number of models in the residential range, includes a host of functions to suit your lifestyle and assure the utmost comfort in your home. Its neat and essential design inspired by mini- mal and elegant aesthetics perfectly matches our air conditioners.

The new infrared remote controller is equipped with a 7-day timer to suit your utilisation needs. Up to 6 on/off settings may be programmed for each day of the week, from Monday to Sunday. Up to 2 programs may be stored on the remote controller, for instance one valid in summer and the other in winter. The table below provides a programming example.

- All the information on your air conditioner's operation and condition are cle arly laid out on the large LCD display and the pictograms on the function keys make programming easy.
- A built-in sensor instantly measures your room temperature in any position

The new infrared remote controller is equipped with a 7-day timer to suit your utilisation needs. Up to 6 on/off settings may be programmed for each day of the week, from Monday to Sunday. Up to 2 programs may be stored on the remote controller, for instance one valid in summer and the other in winter.

The table below provides a programming example.

	MON		TUE	WED	THU	FRI	SAT		SUN	
06:00	1	ON /23°C	ON /23°C	ON /23°C	ON /23°C	ON /23°C	1	ON /23°C		
08:00	2	OFF	OFF	OFF	OFF	OFF				
10:00										
12:00	3	ON /20°C	ON /20°C	ON /20°C	ON /20°C	ON /20°C	2	ON /20°C		
14:00	4	OFF	OFF	OFF	OFF	OFF				
16:00							3	ON /21°C	1	OFF
18:00	5	ON /20°C	ON /20°C	ON /20°C	ON /20°C	ON /20°C	4	ON /22°C		
20:00										
22:00	6	OFF	OFF	OFF	OFF	OFF	5	OFF	2	OFF

NEW!

SPX-WKT2

WIRED CONTROLLER WITH WEEKLY TIMER (SPX-WKT2)

All functions on the remote control infrared are now also available for the new wired controller SPX-WKT2. It is equipped with a high-resolution display with FULL DOT MATRIX technology, with customizable menus in many languages, and it has an integrated weekly timer easy to use as well. Other special features are included as, for example, the operating block arrangements (only cooling or only heating), temperature limitation min- imum and maximum set by the user, displaying the alarm history, the possibility to adjust the operation of the indoor unit by the temperature probe on the machine or integrated in the SPX-WKT2 control, or as an average between of the thermistors.

REMOTE CONTROLLER FUNCTIONS

ECO MODE
It allows you to keep electricity consumption in check while always assuring fully effi cient operation.

POWERFUL MODE
The system works at maximum power in heating or cooling mode for 20 min- utes in order to meet the demand for comfort in the shortest possible time. When the 20 minutes have elapsed the system automatically returns to the initial condition.

LEAVE HOME
When leaving home for a long period of time in winter, this function prevents the rooms from getting too cold (below 10°C). The duration of the LEAVE HOME function may be set for the desired length of time. When the set period has expired, the unit goes back to operating in the previously set mode.

INFO
Three different parameters may be displayed with the INFO button.
1. Room temperature: the thermistor fi tted in the remote controller lets you view the room temperature on the display.
2. Electrical consumption display: the monthly electrical consumption (current & previous month) may be displayed.
3. Malfunctioning self-diagnosis: in the event of failure, the LCD remote con- troller displays the error code for easier maintenance.

SILENT MODE
With the silent mode the sound level of the indoor unit may be lowered with just one touch by changing the fan speed.

CLEANING
Thanks to this feature the indoor unit will always keep clean and mould growth may be prevented after cooling operation by means of the evaporator's drying action.

SLEEP TIMER
The countdown timer may be set up to 7 hours' duration. The ability to adjust tem- perature (±2°C) and lower fan speed assures comfortable sleep and considerable energy savings.

SPX-RCDB

SPX-RCDA

WIRED CONTROLLER (SPX-RCDA ÉS SPX-RCDB)

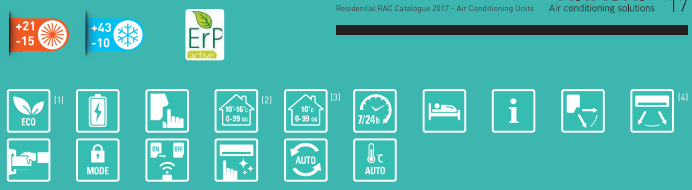
For all RAC indoor units it is available the optional simple wired controller:

- SPX-RCDB (for all except ducted)
- SPX-RCDA (per ducted unit only)

Some functions of the IR remote controller are not available on this controllers, but it is al- ways possible to activate these functions by the IR remote control even when the simple wired command it is connected.

STANDARD WALL RAK-RPC / RAK-PPA

PAM DC INVERTER SPLIT HEAT PUMP



- **Wide range**
  available in 6 power levels from 1,8kW to 7kW in cooling mode to adapt to a wide range of different needs.
- **Exceptional seasonal efficiency**
  the air conditioner features exceptional seasonal efficiency levels both in cooling and heating mode.
- **Heating at low temperatures**
  guaranteed performance in heating up to -15°C.
- **WASABI NANO TITANIUM:**
  the WASABI NANO TITANIUM air filter supplied guarantees the high quality of the air you breathe in your room.
- **Vertical / Horizontal Swing**
  the air flow is vertically and horizontally orientable from the remote controller thanks to the motorised flaps.
- **Super quiet**
  only 20dBA noise level at the SUPER LOW speed for guaranteeing peaceful sleeps.
- **7-day timer**
  6 on/off settings for every day of the week 2 storable programs (summer/winter).
- **Leave Home**
  the feature lets you set a minimum hold temperature (10°C-16°C) in heating mode for the periods you are away either on holiday or businness;
  up to 99 days may be set.
  Ideal for holiday homes!
- **Info key**
  room temperature reading, power consumption display, alarm signal.
- **Clean function**
  the evaporator is dried to prevent mould formation.

Outdoor unit	Unit of meas.	RAC-18WPC	RAC-25WPC	RAC-35WPC	RAC-50WPC	RAC-60WPA	RAC-70WPA
Nominal cooling capacity (min - max)	kW	2.00 (0.90 - 2.50)	2.50 (0.90 - 3.10)	3.50 (0.90- 4.00)	5.00 (1.90- 5.20)	6.10 (0.9-6.5)	7.00 (1.5-8.00)
Nominal heating capacity (min - max)	kW	2.50 (0.90 - 3.20)	3.40 (0.90- 4.40)	4.20 (0.90- 5.00)	6.00 (2.2- 7.30)	6.80 (0.9-8.5)	8.00 (1.5-9.2)
Nominal cooling power input (min - max)	kW	0.55 (0.25 - 1.01)	0.70 (0.25 - 1.29)	1.090 (0.25 - 1.46)	1.560 (0.50 - 2.10)	1.85 (0.155-2.300)	2.17 (0.200-2.820)
Nominal heating power input (min - max)	kW	0.58 (0.25 - 0.97)	0.88 (0.25 - 1.25)	1.100 (0.25 - 1.70)	1.660 (0.50 - 2.75)	1.88 (0.120-2.550)	2.2 (0.200-2.970)
EER / COP		3.64/4.31	3.57/3.86	3.21/3.82	3.21/3.61	3.30 /3.62	3.23/3.64
SEER / SCOP average climate		7.0/4.30	7.60/4.40	7.20/4.60	7.20/4.41	6.0/4.0	6.8/4.4
Energy class (SEER / SCOP)		A++/A+	A++/A+	A++/A++	A++/A+	A+/A+	A++/A+
Cooling sound pressure level	dB(A)	46	48	49	50	50	52
Heating sound pressure level	dB(A)	47	49	50	50	53	54
Sound power - Indoor/Outdoor	dB(A)	60	62	63	64	66	67
Dimensions (H x L x D)	mm	530x660 x278	530x660 x278	548x750x288	600x792x299	650x850x298	800x850x298
Weight	kg	27,5	27,5	33	41	45	55
Power supply	V/Ph/Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz	230V / 1Ph / 50Hz
Piping diameter (Liq / Gas)	inch	1/4" / 3/8"	1/4" / 3/8"	1/4" / 3/8"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 5/8"
Minimum piping length	m	3	3	3	3	3	3
Max piping length / max lift	m	20 / 10	20 / 10	20 / 10	20 / 10	30 / 20	30 / 20
Max pre-charge length / Amount of additional refrigerant	m / g/m	20/-	20/-	20/-	20/-	30 / -	30 / -
Working range (cooling, heating)	°C	-10-43	-10-43	-10-43	-10-43	-10-43	-10-43
	°C	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A
Indoor unit	**Unit of meas.**	**RAK-18RPC**	**RAK-25RPC**	**RAK-35RPC**	**RAK-50RPC**	**RAK-60PPA**	**RAK-70PPA**
Cooling sound pressure level	dB(A)	21/24 / 33 / 37	22/24 / 33 /40	25/26/36/43	29/28/39/46	30/33/42/48	30/33/42/47
Heating sound pressure level	dB(A)	19/22 / 33 / 38	20/23 / 34 / 41	24/27/36/44	27/31/39/46	33/34/42/49	30/33/42/47
Sound power	dB(A)	51	54	57	60	63	61
Cooling air flow rate (SL / L / M / H)	m3/h	312/360/400/440	333/370/430/510	353/420/485/680	353/410/540/750	480/540/690/930	510/630/870/1020
Heating air flow rate (SL / L / M / H)	m3/h	312 / 360 / 420 / 480	333 / 400 / 500/ 570	363 / 480 / 570/ 780	380/500/610/820	480/510/720/1050	510/630/870/1080
Dimensions (H x L x D)	mm	280 x 780 x 218	280 x 780 x 218	295 x 900 x 230	295 x 900 x 230	295x1030x207	333x1150x245
Weight	kg	7,5	7,5	10	10	12	15
Piping diameter (Liq / Gas)	inch	1/4" / 3/8"	1/4" / 3/8"	1/4" / 3/8"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 5/8"
Condensate drain diameter (ext)	mm	16	16	16	16	16	16
Remote controller	Standard	RAR-6N2	RAR-6N2	RAR-6N1	RAR-6N1	RAR-5E2	RAR-5E1
	Optional	SPX-RCDB	SPX-RCDB	SPX-RCDB	SPX-RCDB	SPX-RCDB	SPX-RCDB
Filter	Standard	Wasabi / SPX-CFH22	Wasabi / SPX-CFH22	Wasabi / SPX-CFH22	Wasabi / SPX-CFH22	Wasabi / SPX-NTW1	Wasabi / SPX-NTW2
Standard filter dimensions (H x L x D)	mm	48x243x5	48x243x5	48x243x5	48x243x5	35x270x5	35x280x5
Pre-filter	Standard	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE
	Optional	Stainless S/SPX-SPF6	Stainless S/SPX-SPF6	Stainless S/SPX-SPF7	Stainless S/SPX-SPF7	Stainless S/SPX-SPF3	Stainless S/SPX-SPF4

(1) without sensor
(2) for RAK-18RPC, RAK-25RPC, RAK-35RPC, RAK-50RPC

(3) for RAK-60PPA, RAK-70PPA
(4) only for RAK-35RPC, RAK-50RPC, RAK-70PPA