Panasonic ideas for life

Air Conditioners 2006/2007



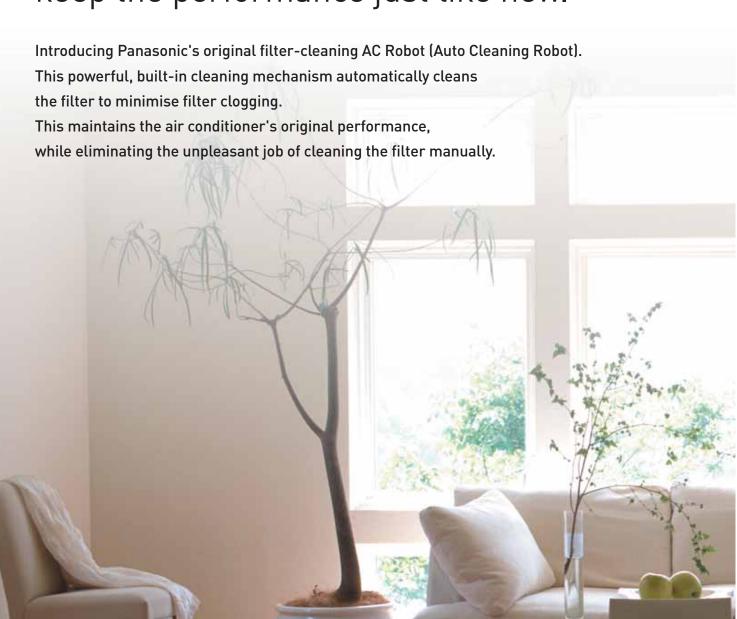




v.Manualslib.com manuals search engine

Meet the Auto Cleaning Robot.

It automatically cleans the filter to keep the performance just like new.







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cleaning and dust exhaust mechanism in a room air conditioner. (As of November, 2005)

Model Line-Up





Line-up of inverter models with R410A.



Choose the **Best** Inverter

- Panasonic -

Si	ngl	ngle Inverter Split									
Wa	all-N	Mounted									
Indoor Super-Deluxe			Deluxe wew	Deluxe-Wide							
0		p.14	p.14	p.14							
(kW)	ty 2.5	CS-XE9EKE (CU-XE9EKE) CS-XE12EKE (CU-XE12EKE)	CS-E9FKR (CU-E9FKR)								
-	4.5	CS-XETZERE (CU-XETZEKE)	CS-E12FKR (CU-E12FKR) CS-E15FKR (CU-E15FKR)								
-			CS-E ISFKR (CU-E15FKR)	OC E40EVP							
	5.0			CS-E18FKR (CU-E18FKR)							
	6.0			CS-E21FKR (CU-E21FKR)							
	6.5			CS-E24FKR (CU-E24FKR)							
	8.0			CS-E28FKR (CU-E28FKR)							
Air Q Feat	uality ures	AC Robot	₩ © DEO	₩ DEO							



Reverse cycle models

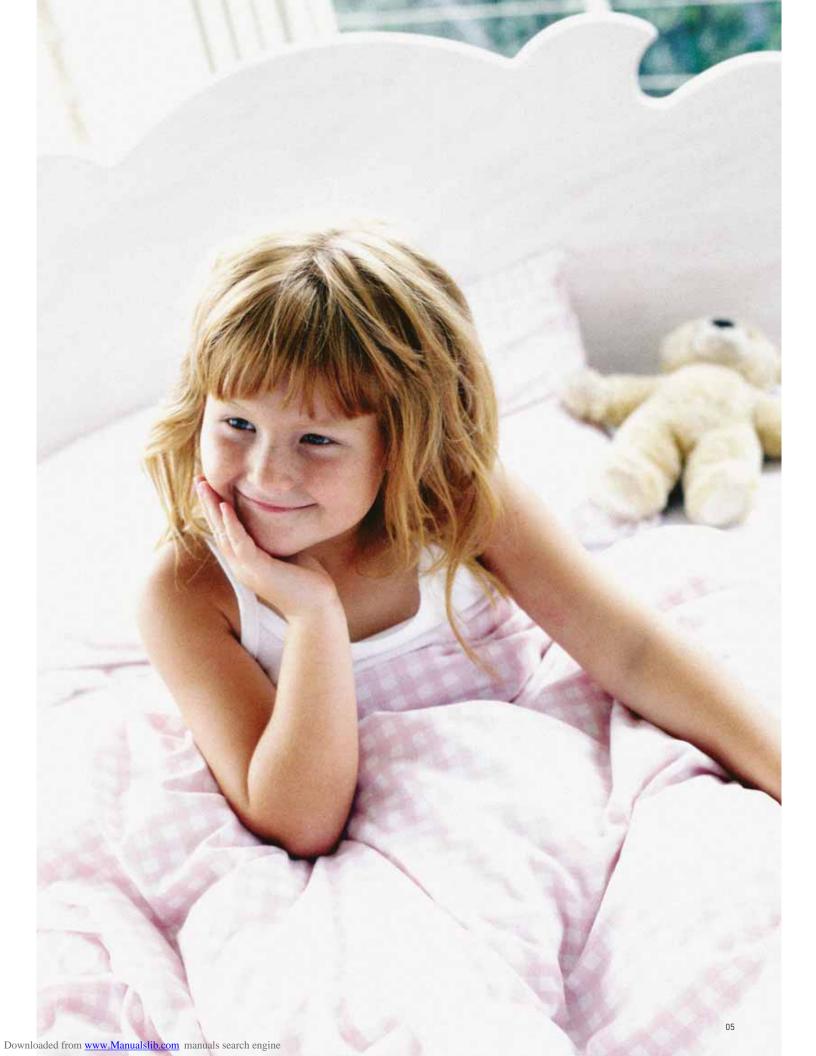
















Cleans its own filter — all by itself!

The air conditioner stays in the same clean condition, with the same high-performance, as when it was first purchased.



It prevents dust from accumulating and keeps the filter like new. It prevents the breeding of mould and bacteria that cause unpleasant odours. Fresh and comfortable!

■Dust on filter after one year





*Actual dust accumulation will vary depending on usage and environmental conditions.

Always POWERFUL

Because it maintains the same performance as when it was new, the level of power remains constant even after long periods of use. You enjoy comfortable air conditioning that reaches every corner of the room.

Without filter cleaning



The air stream doesn't reach the corners of the room.



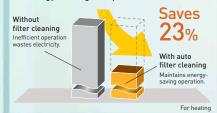
The powerful airflow reaches throughout the room.

<Test conditions> •Starting temperature and humidity: 7° C, 6° C •Set temperature: 23° C •Fan speed/airflow direction: set to auto mode •After air conditioning stabilizes •Area of simulated-house testing facility: 16.5m

Always EFFICIENT

It prevents the reduced efficiency that is caused by filter clogging, so its top-class energy-saving performance is maintained longer. It also saves on the electric bill by suppressing the wasteful use of electricity.

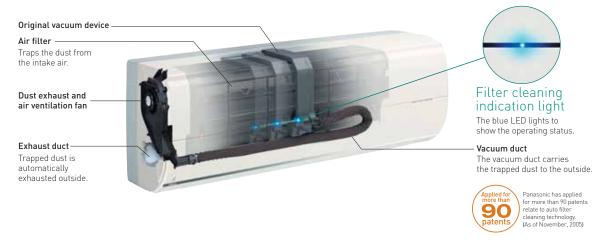
■ Energy-saving comparison (After 3 years' use)







Automatically Traps, Vacuums and Exhausts Dust — For Clean Operation without the Cleaning Hassle



Cleaning Mechanism

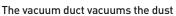


The vacuum nozzle moves to trap the dust

The nozzle automatically starts cleaning the filter after each use. The cumulative operating time is used to determine how much of the filter needs to be cleaned. The entire filter is cleaned when the operating time reaches 36 hours.

The filter surface is divided into 12 blocks to ensure thorough cleaning. *The timer can also be set to start cleaning

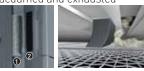


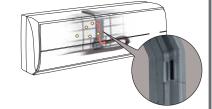


The pad on the nozzle rubs the dust from the filter mesh, and the trapped dust is then vacuumed and exhausted through the vacuum duct.

Pad: The brush rubs dust from the filter. A durable, wear-resistant silicon foam material is used.

②Suction port: The rubbed off dust is





Exhausts

Vacuums

The exhaust duct discards the dust outdoors automatically

The dust goes through the vacuum duct to be exhausted. This is done automatically, so you don't have to do a thing. And only a small amount of dust is exhausted each time.



Why does the filter have to be cleaned?

The filter works to trap airbone dust. When the filter is not cleaned regularly, dust can accumulate and clog it.

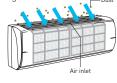
■Problems Caused by Filter Clogging



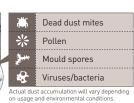












A Clean Filter Greatly Boosts Performance, Giving



Comparison of Mould Growth

A dirty filter is a natural breeding ground for mould and house mites. Their growth can be greatly reduced by keeping the filter clean.

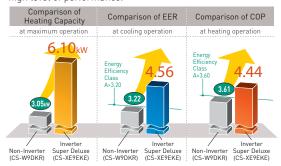




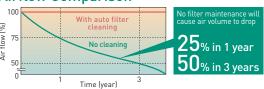
Observation of mould on filters (used for 3 months) after cultivation on agar media for 3 days.
Testing organization: Japan Food Research Laboratories Test No .: 204090946-001

Class A energy saving achieved by inverter technology

Panasonic's high-efficiency technologies clear stringent energy-saving standards, and the AC Robot maintains this high level of performance.

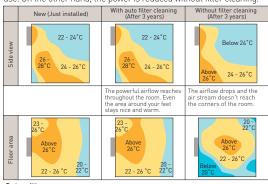


Airflow Comparison



Temperature Distribution Comparison

With the AC Robot, heating performance is maintained even after long use. On the other hand, the power is reduced without filter cleaning.



<Test conditions>

nperature and humidity: 7°C, 6°C •Set temperature: 23°C •Fan speed/airflow direction ode •After air conditioning stabilizes •Area of simulated-house testing facility: 16.5m

How It Works

A detailed cleaning programme built into the AC Robot ensures that the entire filter surface stays clean with a highly efficient cleaning process.

•The filter surface is divided into 12 blocks, and the vacuum nozzle cleans each block with a round-trip cleaning operation.

to be cleaned is determined according to the air conditioner's cumulative operating time.

surface is completed after 36 operating hours are accumulated.



Cumulative operation hours (hour) No. of cleaning operations 2 - <6 2 round-trip 6 - <9 3 round-trip 9 - <12 4 round-trip

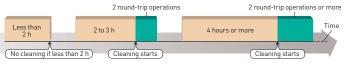
Auto Filter Cleaning Operation Patterns

Two operations are available. In addition to the normal setting, the timer setting can also be used.

Air Conditioner Operating Auto Filter Cleaning 2 round-trip operations or more

In the normal setting mode (non-timer)

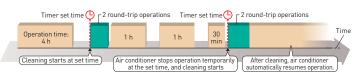
Cleaning automatically starts after each operation. The number of round-trip is determined based on the cumulative operating time.



In the timer setting mode

Cleaning starts at the set time everyday.

* If the air conditioner has not been used for more than 30 minutes since it was cleaned, the cleaning operation will not be done at the preset time.





You Greater Comfort and Saving Energy.

Air cleaning features

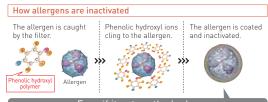
waste products, cat dander, mould

SUPER alleru-buster filter — Long-life type (10 years)

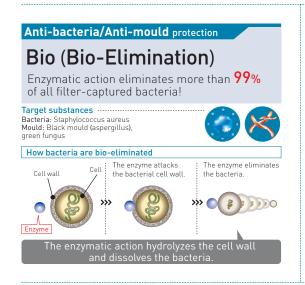
The SUPER alleru-buster filter combines three effects in one: anti-allergen, anti-virus, and anti-bacteria protection, to keep the room air clean and healthful. Plus, the effect is maintained for 10 years.

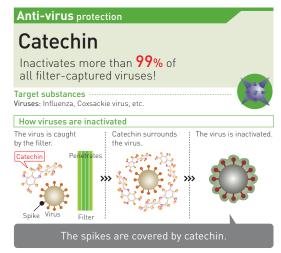






Even if it enters the body, it is no longer treated as an allergen.

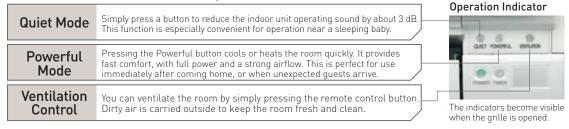




What's "Allergen"?

When allergens enter the body, they cause allergy symptoms due to an antigen-antibody reaction that occurs as the body tries to combat them.

Versatile Features for Super Deluxe Models









Cleaner air with supersonic waves and SUPER alleru-buster

air cleaning

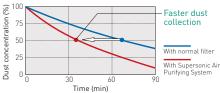
Supersonic Air Purifying System with SUPER alleru-buster

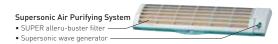


Faster dust collection
Supersonic Air Purifying System

The Supersonic Air Purifying System incorporated in the indoor unit generates supersonic waves. The system works in combination with the filter to collects dust and dirt in the air for faster, more efficient air purification.

■Changes in dust concentration

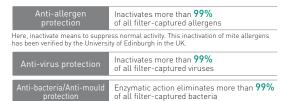






Inactivates harmful elements
SUPER alleru-buster filter

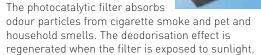
The SUPER alleru-buster filter combines three effects in one—anti-allergen, anti-virus, anti-bacteria protection—to keep room air clean and healthy.





air cleaning

Deodorising Filter



Super quiet

The indoor unit operates at a whisper-quiet 23 dB in quiet mode. We've reduced the noise of the outdoor unit, too. You can run the air conditioner at night and enjoy a deeper, more comfortable sleep, and without bothering your neighbours.

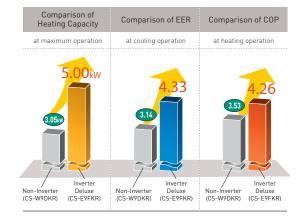




*1 CS-E9FKR: In Quiet mode during cooling operation with low fan speed *2 CU-E9FKR: In cooling mode

Powerful heating & top-class energy efficiency

Our Deluxe models offer both capacity and a class-leading energy-saving performance that exceeds requirements of the highest Energy-Efficiency Classification.



Advanced Inverter Performance – The Difference in Power and Comfort

Panasonic is harnessing its industry-leading technologies to make life more comfortable.

With the slogan "Technologies that deliver new levels of comfort,"

the company is working to develop new, high-performance inverter air conditioners.

Models with PFC (power-factor corrector) circuitry reduce electrical loss from the power source,

thus increasing maximum power input.

This naturally increases the maximum air conditioner output, so you enjoy more comfort.

WHAT'S AN INVERTER?

An inverter is a type of power conversion circuit that electronically regulates the voltage, current, and frequency of a device. In an inverter air conditioner,

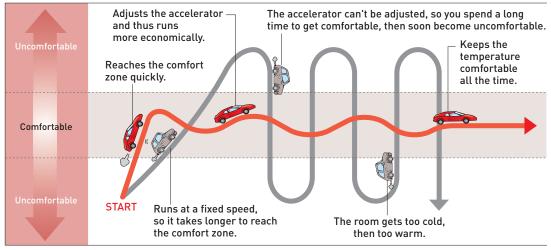
this circuit controls the revolutions of the compressor — and hence the air conditioner's output. Raising the frequency increases the output, lowering the frequency reduces it. In this way, inverter air conditioners provide much finer temperature control than non-inverter models.



The advantages of an inverter air conditioner

■ Comparing inverter and non-inverter air conditioners to cars...

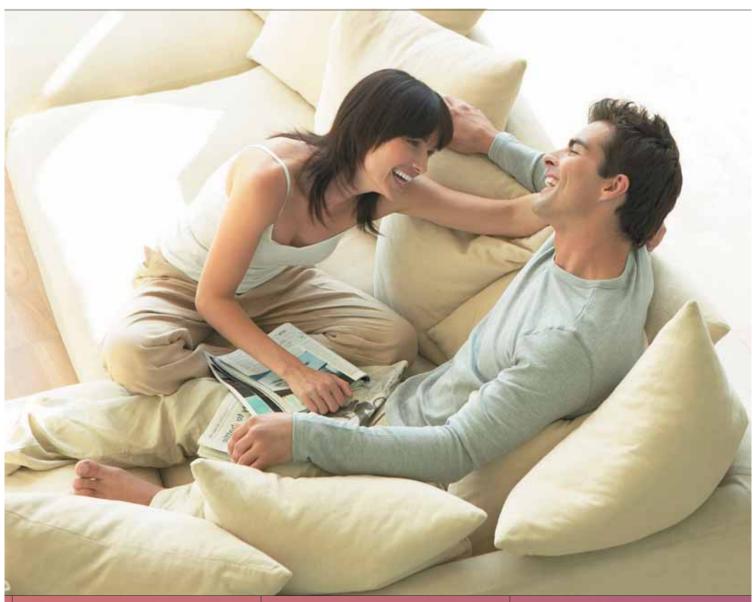




🦀 — Non-inverter air conditioner

- Inverter air conditioner





Quick comfort

As soon as the an inverter air conditioner is switched on, it provides the exact amount of power needed to rapidly cool or heat of the room. This enables it to reach the set temperature in about half the time required by non-inverter models. So you're comfortable soon after you arrive home on a hot summer day, or on a cold winter morning.

Setting Temperature Inverter Type Quick Non-inverter Type 1/2 Time

* The graph is a representation of temperature changes during heating.

Energy-saving

For optimum use of limited energy resources, an inverter air conditioner features an inverter circuit providing extremely efficient operation. Improved heat exchanger and compressor performance, precise microcomputer control and other innovations further assure dramatically boosted efficiency. So even though you get speedy, flexible operation, you use less electricity. What's more, low energy consumption means operation that's more environment-friendly than ever.

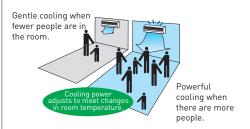
Flexible power control & Energy saving

Wide	Wide Power, Flexible Control							
Minimum power	Medium power	Maximum power						
0.60kW	4.80kW	6.70kW						

The graph shows the CS-XE12EKE's wide power output range during heating.

Flexible power control

You're always comfortable with an inverter air conditioner. After quickly reaching the set temperature, it finely adjusts output power to maintain a constant temperature. So there are no uncomfortable temperature swings, while electricity is used more efficiently. Broad output power capability also assures continued comfort even if the number of people in a room changes. And at maximum output, an inverter air conditioner can deliver warm comfort even in the coldest winters.







Wall-Mounted



Model No	CS-XE9EKE	CS-XE12EKE
Capacity(kW)	2.60(0.60~3.00)/3.60(0.60~6.10)	3.50(0.60~4.00)/4.80(0.60~6.70)
(Btu/h)	8,870(2,050~10,200)/12,300(2,050~20,800)	11,900(2,050~13,600)/16,400(2,050~22,800)
EER/COP(W/W)	4.56/4.44	3.98/3.93
	Quiet Indeer	Quiet Outdoor













CU-XE9EKE CU-XE12EKE



Model No	CS-E9FKR	CS-E12FKR	CS-E15FKR
Capacity(kW)	2.60(0.80~3.00)/3.60(0.80~5.00)	3.50(0.80~4.00)/4.90(0.80~6.70)	4.40(0.90~5.00)/5.50(0.90~7.10)
(Btu/h)	8,870(2,730~10,200)/12,300(2,730~17,100)	11,900(2,730~13,600)/16,700(2,730~22,800)	15,000(3,070~17,100)/18,800(3,070~24,200)
EER/COP(W/W)	4.33/4.26	3.63/3.89	3.21/3.50

















1 7 7		
(Btu/h)	18,100(3,070~20,500)/22,500(3,070~27,300)	21,500(3,070~24,200)/24,600(3,070~29,000)
EER/COP(W/W)	3.21/3.69	3.06/3.60
NA LINI	OC F0/FI/D	OC FOOFICE
Model No	CS-E24FKR	CS-E28FKR
Capacity(kW)	7.20(0.90~8.10)/8.60(0.90~9.90)	8.10(0.90~8.60)/9.60(0.90~11.00)

















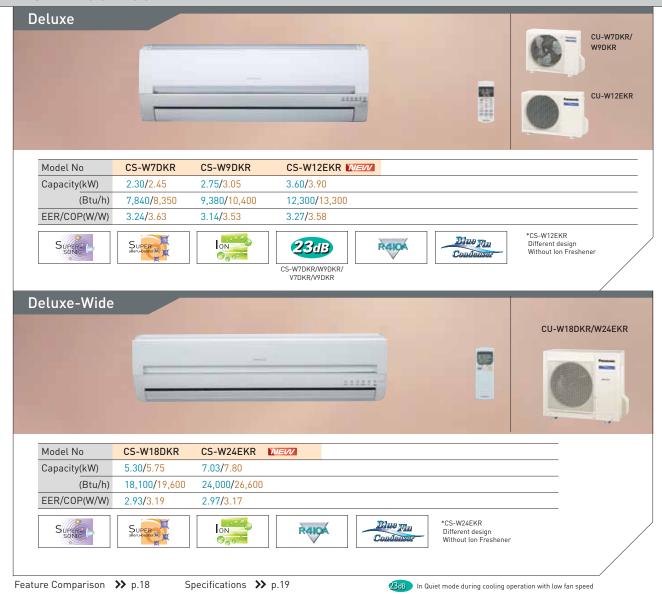
Feature Comparison >> p.18

CU-E18FKR CU-E21FKR CU-E24FKR CU-E28FKR Specifications >> p.19



Single Split

Wall-Mounted





Split Type Feature Explanations

Healthy Air Quality



AC Robot (Auto Cleaning Robot)

Automatically removes dust from the filter and exhausts it outside the unit to keep the inside clean.



The vacuum nozzle slides over the filter after each use* to vacuum the dust and exhaust it outside automatically.

*The size of the area to be cleaned is determined based on cumulative operating hours and fan speed

Supersonic Air Purifying System

The Supersonic Air Purifying System incorporated in the indoor unit generates supersonic waves. The system works in combination with the filter to collects dust and dirt in the air for faster, more efficient air purification.



SUPER alleru-buster filter

The SUPER alleru-buster filter combines three effects in one -anti-allergen, anti-virus, and anti-bacteria protection — to keep room air clean and healthful.

Anti-allergen protection

Inactivates more than 99% of all filter-captured allergens

Here, inactivate means to suppress normal activity. This inactivation of mite allergens has been verified by the University of Edinburgh in the UK.

Anti-virus protection

Inactivates more than 99% of all filter-captured viruses

Anti-bacteria/Anti-mould protection

Enzymatic action eliminates more than 99% of all filter-captured bacteria



Deodorising Filter

The photocatalytic filter absorbs odour particles from cigarette smoke and pet and household smells. The deodorization effect is regenerated when the filter is exposed to sunlight.



Ion Freshener

It is known that areas rich in negative ions, like near waterfalls and forests, generally make people feel refreshed. With Panasonic split air conditioner, the same refreshing feeling can be felt just by pushing a single button.



One-Touch Air Filter



Odour-Removing Function

With this function, there's no unpleasant odour when the unit starts up. That's because the fan remains off momentarily, while the source of the odour inside the air conditioner is suppressed.

*The unit must be in cool or dry mode and the fan speed

Removable, Washable Panel

The front panel is easy to keep clean. It removes quickly with a simple one-step operation and can be washed in water. A clean front panel promotes smoother, more efficient performance, which can save energy.

Comfortable



Inverter Control

An inverter air conditioner provides optimum power control, which is impossible for conventional units. The secret lies in the inverter circuit. By changing the frequency of power supply, this circuit alters the rotation speed of the compressor, which is the heart of the air conditioner. The result is comfortable, economical air conditioning.

mode mode

Quiet Mode

Simply press a button to reduce the indoor unit operating sound by about 3 dB. This function is especially convenient for operation near a sleeping baby.





Powerful Mode

Pressing the Powerful button cools or heats the room quickly. It provides fast comfort, with full power and a strong airflow.

This is perfect for use immediately after coming home, or when unexpected guests arrive.



Convenient



124-Hour ON & OFF Real Setting Timer

The start or stop operation time (hour and minute) can be set at one time. Or both of the times for start and stop operation can be set.



LCD Wireless Remote Controller

Soft Dry Operation Mode

Starts with cooling to dehumidify. Then provides continuous breeze at low frequency to keep room dry without

Personal Airflow Creation

Vertical and horizontal air flow patterns can be combined as desired to gain the greatest possible comfort, with operation possible even from a distance by remote control.

• Up & Down Airflow - 5 Patterns + Auto







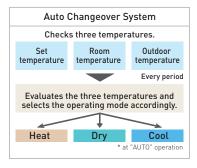
Airflow Direction Control (Up & Down)

The flap swings up and down automatically, distributing air throughout the room. You can also adjust the airflow angle by remote control.

Auto Changeover (Inverter)

Sensors measure the room and outside temperatures periodically. Based on these temperatures and the set temperature, the microcomputer determines the most suitable operating mode as time passes.

Auto Changeover



Automatic Operation Mode (Cooling)

When the Automatic Operation button is pressed, the optimum mode (cooling, soft dry) is selected based on data from the Intake Air Sensor. The desired temperature setting can also be set (Low, Normal or High).

Hot Start Control

On the start of heating cycle and after defrost cycle, the indoor fan will start up once the indoor heat exchanger is warm.

Circulation Operation Mode

This mode circulates the air in the room, to minimize differences in air temperature.

Reliable

Blue Fin Condenser

Condensers can take a beating from exposure to salty air, rain and other corrosive factors. Panasonic has tripled the life of our condensers with an original anti-rust coating.

Water Air conten



Cyclic Corrosion Test Results



This was tested by:

- Matsushita Air Conditioning R&D Centre Sdn. Bhd.

Random Auto Restart

All models are now safe to operate without a starter. With the exclusive Random Auto Restart feature, the air conditioners automatically restart after power failure. Its 32 different recovery-timing patterns ensure that air conditioners in the same building resume one after another instead of all at the same time. This feature helps prevent power surges after a blackout and walls are nearer too.



Long Piping

installation flexibility.

The basic piping can be extended, allowing the outdoor unit to be installed farther away from the indoor unit and providing greater

*The graph refers to the CS-V18EKR. *Extendable length varies by model. *If the piping is extended past the basic pipe length, there's an extra charge for additional refrigerant.

Top-Panel Maintenance Access

Maintenance of the outdoor unit used to be quite a tedious chore, especially when the unit was installed on a narrow balcony or attached to the outer wall of a high-rise building. Now, maintenance can be performed by simply removing the top panel, making these tasks much quicker and easier.

Self-Diagnostic Function

Should a malfunction occur, the unit diagnoses the problem and shows the corresponding alphanumeric code. This allows quicker servicing.

Not all features found on all models

Split Type Feature Comparison

Refrigerants Type Auto Fitter Clearing Function SUPER alteru-buster fitter (one site) Decodorsing Fitter Decodorsing Fitter One-Touch Air Fitter Air How Direction Control (Up & Down) Air How Direction Control (Up & Down) Auto Changeover (Inverter) Auto Changeover (Inverter) Auto Changeover Automatic Operation Mode Circulation Operation Mode Superior Mode Circulation Operation Mode Decomod Mode Decomod Mode Circulation Operation Mode Decomod	Т				c:	C III	c: 1	C. I'I
Countries Countr			Reverse cycle models		Single inverte			Sput
Refrigerants Type Refrige Refrigerants Type Refrigerants Type Refrigerants Type Refr				CS-XE9EKE	CS-E9FKR			CS-W18DKR
Auto Filter Cleaning Function Supersonic Air Purifying System Decodonising Filter Decodoni					CS-E12FKR	CS-E21FKR CS-E24FKR	CS-W9DKR	CS-W24EKR
Auto Filter Cleaning Function Supera alteru-buster filter Supersonic Air Purifying System Deadorising Filter One-Touch Air Filter One-Touch Air Filter One-Touch Air Filter One-Touch Air Filter Air Jovernor Control Contr								
SUPER alleru-buster filter Supersanic Air Purifying System Deodorising Filter Deodo		Refrige	erants Type	RAIDA	R4104	R4104	RAIDA	R410A
Supersonic Air Purifying System Deodorising Filter One-Touch Air			Auto Filter Cleaning Function	•				
Debugorising Filter Debugorising Control Debugorising Filter Debugorising Control		***	SUPER alleru-buster filter	(long-life)	•	•	•	•
Circulation Operation Mode	<u>.</u>		Supersonic Air Purifying System		•	•	•	•
Circulation Operation Mode	Qualit		Deodorising Filter		•	•	(Only CS-W12EKR)	(Only CS-W24EKR)
Circulation Operation Mode	yAir	⁰ion √	Ion Freshener					
Removable, Washable Panet	ealth		One-Touch Air Filter	•	•	•	•	•
Inverter Control		*>	Odour-Removing Function	•	•	•	•	•
Quiet Mode Powerful Mode Soft Dry Operation Mode Personal Airflow Creation Airflow Direction Control (Up & Down) Auto Changeover (Inverter) Auto Changeover (Inverter) Automatic Operation Mode (Cooling) Circulation Operation Mode LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Dundoor Plug Type & Ampere Capacity The plug must be installed. Outdoor Power Supply Outdoor Powe			Removable,Washable Panel	•	•	•	•	•
Powerful Mode Soft Dry Operation Mode Personal Airflow Creation Airflow Direction Control (Up & Down) Auto Changeover (Inverter) Auto Changeover (Inverter) Auto Changeover (Inverter) Automatic Operation Mode (Cooling) Hot Start Control Circulation Operation Mode Circulation Operation Mode Blue Fin Condenser Random Auto Restart Blue Fin Condenser Random Auto Restart Plug Type & Ampere Capacity The plug must be installed. Outdoor Power Supply Outdoor Power Supp		/	Inverter Control	•	•	•		
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Personal Airflow Creation Airflow Direction Control (Up & Down) Auto Changeover (Inverter) Auto Changeover Auto Changeover Auto Changeover Auto Changeover Circulation Operation Mode (Cooling) Hot Start Control Circulation Operation Mode Circulation Operation Mode Blue Fin Condenser Random Auto Restart Blue Fin Condenser Random Auto Restart Plug Type & Ampere Capacity The plug must be installed. Plug Type & Ampere Capacity The plug must be installed. Diagnosis Auto Changeover Auto Changeover (Inverter) Auto Changeover (Inverter) Auto Changeover (Inverter) Auto Changeover			Powerful Mode	•	•	•	•	•
Auto Changeover Auto Changeover Automatic Operation Mode (Cooling) Hot Start Control Circulation Operation Mode 24-Hour ON&OFF Real Setting Timer LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Blue Fin Condenser Plug Type & Ampere Capacity The plug must be installed. Auto Changeover Mandom Mode Outdoor Power Supply			Soft Dry Operation Mode	•	•	•	•	•
Auto Changeover Auto Changeover Automatic Operation Mode (Cooling) Hot Start Control Circulation Operation Mode 24-Hour ON&OFF Real Setting Timer LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Blue Fin Condenser Plug Type & Ampere Capacity The plug must be installed. Auto Changeover Mandom Mode Outdoor Power Supply	ple		Personal Airflow Creation	•	•	•		•
Auto Changeover Auto Changeover Hot Start Control Circulation Operation Mode Circulation Operation Mode LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Bugging Long Piping 15m 15m 20m [E18/E21] 30m [E24/E28] 10m(W7/W9) 15m [W12] 25m Plug Type & Ampere Capacity The plug must be installed.	nforta		Airflow Direction Control (Up & Down)				•	
Automatic Operation Mode (Cooling) Hot Start Control Circulation Operation Mode LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Dugger Long Piping 15m 15m 20m [E18[E21] 30m [E24[E38] 15m (W12] 25m Plug Type & Ampere Capacity The plug must be installed.	Con	*0¢	Auto Changeover (Inverter)	•	•	•		
Hot Start Control Circulation Operation Mode 24-Hour ON&OFF Real Setting Timer LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Dom Piping 15m 15m 15m 20m [E18/E21] 30m [E24/E28] 15m [W12] 25m Plug Type & Ampere Capacity * The plug must be installed.		****	Auto Changeover				•	•
Circulation Operation Mode Time		*\D	Automatic Operation Mode (Cooling)					
24-Hour ON&OFF Real Setting Timer LCD Wireless Remote Controller Blue Fin Condenser Random Auto Restart Long Piping 15m 15m 20m [E18/E21] 30m [E24/E28] 10m [W7/W9] 15m [W12] 25m Plug Type & Ampere Capacity *The plug must be installed.		©→	Hot Start Control	•	•	•	•	•
Blue Fin Condenser Random Auto Restart In the plug Type & Ampere Capacity The plug must be installed. Blue Fin Condenser Description To the plug Type & Ampere Capacity The plug must be installed. Blue Fin Condenser Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed.		C	Circulation Operation Mode					
Blue Fin Condenser Random Auto Restart In the plug Type & Ampere Capacity The plug must be installed. Blue Fin Condenser Description To the plug Type & Ampere Capacity The plug must be installed. Blue Fin Condenser Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed. Description To the plug Type & Ampere Capacity The plug must be installed.	ient	<u></u>	24-Hour ON&OFF Real Setting Timer	•	•	•	•	
Random Auto Restart Long Piping 15m 15m 20m [E18/E21] 30m [E24/E28] 15m [W12] 25m Plug Type & Ampere Capacity *The plug must be installed. © 10A Outdoor Power Supply Power Supply *The plug must be installed.	Conven	*	LCD Wireless Remote Controller	•	•	•	•	
Random Auto Restart Long Piping 15m 15m 20m [E18/E21] 30m [E24/E28] 15m [W12] 25m Plug Type & Ampere Capacity *The plug must be installed. © 10A Outdoor Power Supply Power Supply *The plug must be installed.								
Long Piping 15m 15m 20m [E18/E21] 30m [E24/E28] 15m [W12] 25m Plug Type & Ampere Capacity * The plug must be installed. 0utdoor Power Supply Power Supply 0utdoor Power Supply 0utdoor Power Supply 0utdoor Power Supply 0utdoor Power Supply			Blue Fin Condenser		•	•	•	•
Plug Type & Ampere Capacity * The plug must be installed. ① 10A ② 10A ② 10A ② 10A ② 10A ② 10A ② 10A W18 ② 20A W24	-	—/	Random Auto Restart	•	•	•	•	•
* The plug must be installed. Power Supply Power Supply © 20A [W24]	Reliable		Long Piping	15m	15m			25m
Top-Panel Maintenance Access			Plug Type & Ampere Capacity * The plug must be installed.	() 10A			(1) 10A	① 10A [W18] ② 20A [W24]
		· •	Top-Panel Maintenance Access	•	•	•	•	•
Self-Diagnostic Function			Self-Diagnostic Function	•	•	•		

Specifications

Single Inverter Split



Cooling (): Outdoor Unit EER: Cooling Efficiency Heating COP: Heating Efficiency

Model No.		Capacity Capacity	Air Flow	Dehumid	External Static Pressure	Running Current	Power Input	EER COP	Star Rating		Pressure dB (A)	Sound Power Level dB (A)	Net Weight	Dimensions Height x Width x Depth	Maximum Pipe Length*2	Power Supply
(240V)	kW	Btu/h	L/s	L/h	Pa(mmAq)	А	kW	W/W	1	Inside (Hi/Lo)	Outside (Hi/Lo)	Outside	kg	mm	m	Α
CS-XE9EKE (CU-XE9EKE)	2.60 (0.60~3.00) 3.60 (0.60~6.10)	8,870 (2,050~10,200) 12,300 (2,050~20,800)	177 195	1.6	_	2.7 3.7	0.57 (0.12~0.70) 0.81 (0.115~1.64)	4.56 4.44	6.0 6.0	39 / 26 40 / 27	46 / — 47 / —	59 60	13 (37)	305 x 870 x 229 (540 x 780 x 289)	15	Indoor 10
CS-XE12EKE (CU-XE12EKE)	3.50 (0.60~4.00) 4.80 (0.60~6.70)	11,900 (2,050~13,600) 16,400 (2,050~22,800)	198 212	2.0	_	4.0 5.4	0.88 (0.12~1.10) 1.22 (0.115~1.84)	3.98 3.93	6.0 6.0	42 / 29 42 / 33	48 / — 50 / —	61 63	13 (37)	305 x 870 x 229 (540 x 780 x 289)	15	Indoor 10
CS-E9FKR (CU-E9FKR)	2.60 (0.80~3.00) 3.60 (0.80~5.00)	8,870 (2,730~10,200) 12,300 (2,730~17,100)	160 175	1.6	_	2.8 3.8	0.60 (0.175~0.78) 0.845 (0.165~1.36)	4.33 4.26	6.0 6.0	39 / 26 40 / 27	46 / — 47 / —	59 60	9 (37)	280 x 799 x 183 (540 x 780 x 289)	15	Outdoor 10
CS-E12FKR (CU-E12FKR)	3.50 (0.80~4.00) 4.90 (0.80~6.70)	11,900 (2,730~13,600) 16,700 (2,730~22,800)	178 187	2.0	_	4.3 5.6	0.965 (0.185~1.20) 1.26 (0.175~1.89)	3.63 3.89	6.0 5.5	42 / 29 42 / 33	48 / — 50 / —	61 63	9 (37)	280 x 799 x 183 (540 x 780 x 289)	15	Outdoor 10
CS-E15FKR (CU-E15FKR)	4.40 (0.90~5.00) 5.50 (0.90~7.10)	15,000 (3,070~17,100) 18,800 (3,070~24,200)	183 197	2.4	_	6.2 7.0	1.37 (0.215~1.60) 1.57 (0.245~2.25)	3.21 3.50	4.5 4.5	43 / 32 43 / 35	46 / — 46 / —	59 59	9 (48)	280 x 799 x 183 (750 x 875 x 345)	15	Outdoor 10
CS-E18FKR (CU-E18FKR)	5.30 (0.90~6.00) 6.60 (0.90~8.00)	18,100 (3,070~20,500) 22,500 (3,070~27,300)	253 278	2.9	_	7.3 7.9	1.65 (0.215~2.05) 1.79 (0.245~2.65)	3.21 3.69	4.5 5.0	44 / 37 44 / 37	47 / — 47 / —	60 60	11 (49)	275 x 998 x 230 (750 x 875 x 345)	20	Outdoor 15
CS-E21FKR (CU-E21FKR)	6.30 (0.90~7.10) 7.20 (0.90~8.50)	21,500 (3,070~24,200) 24,600 (3,070~29,000)	270 288	3.5	_	9.0 8.8	2.06 (0.215~2.40) 2.00 (0.245~2.70)	3.06 3.60	4.0 4.5	45 / 37 45 / 37	48 / — 49 / —	61 62	11 (51)	275 x 998 x 230 (750 x 875 x 345)	20	Outdoor 20
CS-E24FKR (CU-E24FKR)	7.20 (0.90~8.10) 8.60 (0.90~9.90)	24,600 (3,070~27,600) 29,300 (3,070~33,800)	282 305	4.2	_	10.3 11.1	2.30 (0.35~2.70) 2.51 (0.36~3.20)	3.13 3.43	4.0 4.0	47 / 38 47 / 38	52 / — 52 / —	66 66	12 (72)	275 x 998 x 230 (795 x 900 x 320)	30	Outdoor 20
CS-E28FKR (CU-E28FKR)	8.10 (0.90~8.60) 9.60 (0.90~11.00)	27,600 (3,070~29,300) 32,700 (3,070~37,500)	295 312	4.8	_	12.0 14.4	2.72 (0.35~2.95) 3.25 (0.36~3.79)	2.98 2.95	3.5 3.0	49 / 38 48 / 38	53 / — 53 / —	67 67	12 (72)	275 x 998 x 230 (795 x 900 x 320)	30	Outdoor 20

^{*1} Sound Pressure Level is measured according to JIS C 9612. *2 Additional Gas might be required for some models.

Single Split Response



Cooling (): Outdoor Unit EER: Cooling Efficiency COP: Heating Efficiency

Model No.		Cooling (Capacity Capacity	Air Flow	Dehumid	Running Current	Power Input	EER COP	Star Rating		Pressure I dB (A)	Sound Power Level dB (A)	Net Weight	Dimensions Height x Width x Depth	Maximum Pipe Length*2	Power Supply
	(240V)	kW	Btu/h	L/s	L/h	А	kW	W/W	riaing	Inside (Hi/Lo)	Outside (Hi/Lo)	Outside	kg	mm	m	Α
CS-W7DKR (CU-W7DKR)		2.30 2.45	7,840 8,350	132 152	1.5	3.2 3.0	0.72 0.685	3.19 3.58	5.0 6.0	34/26 36/26	47/— 49/—	62 64	9 (26)	280 x 799 x 183 (510 x 650 x 230)	10	Indoor 10
CS-W9DKR (CU-W9DKR)		2.75 3.05	9,380 10,400	143 162	1.6	3.8 3.8	0.875 0.865	3.14 3.53	4.5 5.5	36/26 39/26	49/— 50/—	64 65	9 (29)	280 x 799 x 183 (510 x 650 x 230)	10	Indoor 10
CS-W12EKR (CU-W12EKR)		3.60 3.90	12,300 13,300	178 182	2.1	5.0 4.9	1.1 1.09	3.27 3.58	4.5 4.5	41/29 42/29	50/— 50/—	65 66	8 (35)	280 x 799 x 183 (540 x 780 x 289)	15	Indoor 10
CS-W18DKR (CU-W18DKR)		5.30 5.75	18,100 19,600	255 267	2.9	7.8 7.8	1.81 1.80	2.93 3.19	4.0 3.5	43/38 42/38	50/— 51/—	63 64	11.0 (56.0)	275 x 998 x 230 (750 x 875 x 345)	25	Indoor 10
CS-W24EKR (CU-W24EKR)		7.03 7.80	24,000 26,600	290 303	4.0	11.1 11.7	2.37 2.46	2.97 3.17	3.5 3.0	47/41 46/41	53/— 54/— —	66 67	11.0 (63.0)	275 x 998 x 230 (750 x 875 x 345)	25	Indoor 20

^{*1} Sound Pressure Level is measured according to JIS C 9612.
*2 Additional Gas might be required for some models.

Rating Conditions

	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB	7°C DB/6°C WB

- Power plugs are not supplied with the unit.
 Electrical work must be installed by a licensed electricians. Be sure to use the correct rating of the power plug and mains circuit for the model to be installed.
 Please read the Installation Instructions carefully before installing the unit, and read the

Optional Accessories

Filters

Replacement SUPER alleru-buster filter - Long-life type (10 years)

	Applicable Models
	CZ-SA15P
	Wall-Mounted (Super Deluxe)
CZ-SA15P	CS-XE9EKE, CS-XE12EKE

Replacement: every 10 years

Replacement SUPER alleru-buster filter & Deodorizing filter

	Applicable Models
	CZ-SAD13P
DESCRIPTION OF THE PERSON OF T	Wall-Mounted (Deluxe, Deluxe-Wide)
CZ-SAD13P	CS-E9FKR, CS-E12FKR, CS-E15FKR, CS-E18FKR, CS-E21FKR, CS-E24FKR, CS-E28FKR

Replacement: every 3 years

Replacement SUPER alleru-buster filter

	Applicable Models	
	CZ-SA13P	CZ-SA14P
	Wall-Mounted (Deluxe, Deluxe-Wide), Cassette (4-way)	Wall-Mounted (Super Deluxe Slim),Floor or Ceiling
CZ-SA13P,CZ-SA14P	CS-E9DKRW, CS-E12DKRW, CS-E15DKRW, CS-E18DKRW, CS-ME7DKRG, CS-W7DKR, CS-W9DKR, CS-W12EKR, CS-V7DKR, CS-V9EKR, CS-V12DKR, CS-W18DKR, CS-W24EKR, CS-A28DKR, CS-V18DKR, CS-V24EKR, CS-V28EKR, CS-E15DB4EW, CS-E18DB4EW, CS-E21DB4ES	CS-TE9DKE, CS-TE12DKE, CS-E15DTEW, CS-E18DTEW, CS-E21DTES, CS-ME10DTEG

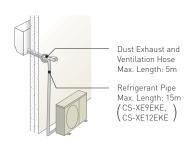
Replacement: every 3 years

Installation Parts

Dust Exhaust and Ventilation Hose (The indoor unit includes a 2-metre hose)

Dust Exhaust and Ventitation Hose (The moor unit mictudes a 2-metre mose)		
CZ-HV3P CZ-HV5P	Applicable Models	
	Extension Hose (3m)	Replacement Hose (5m) with Tip Cover
	CZ-HV3P	CZ-HV5P
	Can be added to the included 2-metre hose if necessary.	Use to replace the included 2-metre hose for concealed piping use. Use with the included 2-metre hose or the CZ-HV3P
	2 metre hose it necessary.	is not permitted. (Maximum hose length is 5 m.)
	CS-XE9EKE, CS-XE12EKE	

Hose Extension (Maximum Length)







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Panasonic Australia Pty. Limited. ACN 001 592 187 ABN 83 001 592 187

HO/NSW Austlink Corporate Park, 1 Garigal Road, Belrose NSW 2085 Ph: (02) 9986 7400 Fax: (02) 9986 7600 VIC/TAS 1 Keith Campbell Court, Scoresby VIC 3179 Ph: (03) 9213 8888 Fax: (03) 9213 8810

QLD 494 Nudgee Road, Hendra QLD 4011 Ph: (07) 3308 6455 Fax: (07) 3308 6492

SA Phone: (08) 8300 9600 Fax: (08) 8346 4076 WA

Unit 2, 54 Grange Road, Welland SA 5007 5/51-53 Kewdale Road, Welshpool WA 6105 Ph: (08) 9352 2400 Fax: (08) 9352 2458



For further information or location of your nearest Panasonic stockist please telephone Panasonic's Customer Care Centre on 132 600