

FUJITSU Multi Room System

July 2011



NEW ZEALAND'S FAVOURITE AIR™

FUJITSU



Multi Room Systems

The new Fujitsu Inverter Multi System is the ideal way to have indoor heat pumps in more than one room, for example a living room and 3 bedrooms.

The choice of systems allows a wide variety of 2, 3 or 4 indoor units to be connected to just 1 outdoor unit and you can tailor your own combination of hi wall, floor console, cassette or bulkhead to best suit each room. Our product range include 5 indoor unit types spanning 12 models ranging in capacity from 2.0kW to 7.0kW. With such a diverse choice of options there is a combination to suit most homes or small businesses in New Zealand.

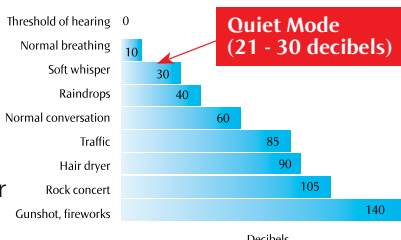
ALL THE HEAT YOU NEED

Fujitsu engineering delivers all the heat you need just when you need it. You'll be as warm as toast even when it's freezing cold outside, wherever you live in New Zealand. The reverse cycle uses the same engineering to cool and dehumidify your home environment in summer.



QUIETLY DOES IT

Brilliant fan technology, plus 'quiet mode' on most Fujitsu models means that noise is not an issue with Fujitsu. Compare our decibel levels (see back of this brochure) and you will see that even our larger heat pumps operating on full capacity are usually quieter than any other brand in New Zealand. Whisper quiet is a Fujitsu fact - not just an advertising claim.



A FRESHER, HEALTHIER HOME

Fujitsu's advanced air purifying and deodorising filters on most models absorb minute dust particles, invisible mould spores, pollen and other harmful micro organisms. This will give you a healthier home environment, which is why Fujitsu is recommended by Asthma New Zealand.



Fujitsu is approved by Asthma New Zealand

THE IMPORTANCE OF INSTALLATION

Fujitsu have the only accredited installer scheme in New Zealand. That means when you choose an installer who has achieved Fujitsu Accreditation, you can be assured of a professional installation (plus you will also get a full 6-year parts and labour warranty - New Zealand's longest).

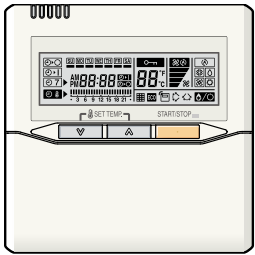






Check our website for FAQ's, detailed information on how heat pumps work and our full range of models.

www.fujitsugeneral.co.nz

Fujitsu Multi System Features

Controller Options

| WIRED REMOTE CONTROLLER | SIMPLE REMOTE CONTROLLER | WIRELESS REMOTE CONTROLLER | | IR RECEIVER UNIT |
|---|---|---|---|---|
|  |  |  |  |  |
| UTY-RNNYN | UTY-RSNYN | AR-RAH1E | AR-RAH2E | UTY-LRHYM |

| TYPE | MODEL | INDOOR UNITS | | | | |
|----------------------------|-----------|-------------------------|------------------|----------------------------------|--------------------------|------------------------|
| | | Compact Cassette (AUTG) | Slim Duct (ARTG) | Compact Wall Mounted (ASTG_LVCA) | Wall Mounted (ASTG_LFCA) | Floor / Ceiling (ABTG) |
| Wired Remote Controller | UTY-RNNYN | ○ | ● | ○ ^{*1} | ○ | ○ |
| Wireless Remote Controller | AR-RAH2E | - | - | - | ● | ● |
| | AR-RAH1E | ● | - | ● | - | - |
| IR Receiver Unit | UTY-LRHYM | - | ○ | - | - | - |
| Simple Remote Controller | UTY-RSNYN | ○ | ○ | ○ ^{*1} | ○ | ○ |

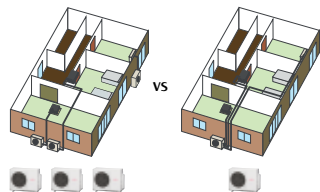
● Included Function ○ Optional Function *1 Optional Communication Kit (UTY-XCBXZ1) is necessary for the installation

Independent Control

Each indoor unit can be operated independently. This means that on / off, temperature, air movement, time clock operation can all be controlled from their own controller. (The multi system cannot be operated in heat and cool mode simultaneously).

SPACE-SAVING INSTALLATION

Multiple indoor units can be connected to 1 outdoor unit rather than having to have multiple outdoor units. This means greater flexibility and space savings, while long pipe run offer versatile installation options.



3 Outdoor Units

1 Outdoor Unit

Max. Piping Length (Each Unit):
25m (AOTG24LAT3/30LAT4)

Max. Height:
15m (AOTG24LAT3/30LAT4)

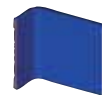
Total Piping Length:
50m (AOTG24LAT3)
70m (AOTG30LAT4)

INNOVATIVE TECHNOLOGY



High Efficiency Large Fan

Newly designed fans have been used to increase airflow efficiency.



Heat Exchanger

A new 3 row heat exchanger has been used which allows for a more compact outdoor unit with higher energy efficiency.



DC Fan Motor

High performance and high efficiency has been achieved by using a new smaller DC Fan Motor.

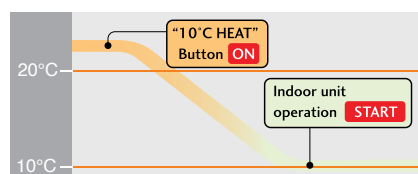


High Efficiency DC Twin Rotary Compressor

A high performance, low noise, large capacity DC Twin Rotary Compressor is used.

10°C HEAT OPERATION

Operation starts and maintains the room temperature at 10°C when the temperature drops below 10°C.

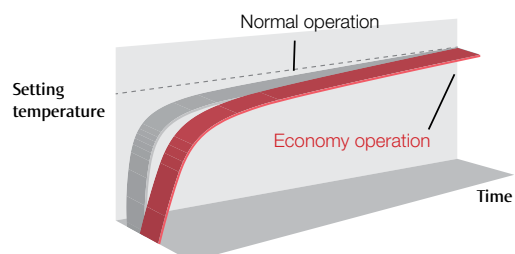


NB

When the room temperature is higher than 10°C, "10°C HEAT" operation does not start.

ECONOMY OPERATION

By maintaining a slightly higher temperature in cool mode, lower temperature in heat mode and limiting the maximum current draw real energy savings are achieved.



Products depicted in this brochure contain high operating pressure R410a refrigerant. It is illegal to vent that refrigerant to the atmosphere. Only persons qualified and experienced in the installation, service and repair of these products are authorised to undertake such work.

Fujitsu General Accredited Installers have shown they have the necessary equipment and have accepted responsibility for their installations and the requirements of any statutes or laws.

Due to ongoing Research and Development specifications and designs are subject to improvement without notice therefore relevant manuals must be consulted before any action is taken to install or service these products.

Heating / Cooling capacities and run current tests are based on the requirements of AS/NZS3823, that standard tests at the temperature below.

COOLING: Indoor Temp: 27°C DB / 19°C WB
Outdoor Temp: 35°C DB

HEATING: Indoor Temp: 20°C DB
Outdoor Temp: 7°C DB / 6°C WB

As actual temperature ranges in New Zealand vary considerably only competent people should provide advice as to size and placement of units.

Recommended cable sizes are based in AS/NZS3000 and AS/NZS3008.

Fujitsu General New Zealand Ltd warrants the equipment against any defects in materials and factory workmanship for a period of five years from the date of installation, or for 6 years if installed by an Accredited Installer.

This warranty does not cover defects or failures which are attributable to; incorrect or improper installation; environmental damage; airflow restriction; inadequate electrical supply; getting access to the product.

OUTDOOR UNITS

| Type | | | Inverter | Inverter | |
|----------------------------------|--------------|--------------|-----------------|-----------------|-----|
| MODEL No. | Outdoor Unit | Outdoor Unit | AOTG24LAT4 | AOTG30LAT4 | |
| Reverse Cycle | | | Yes | Yes | |
| Cooling Capacities | | kW | 6.8 (8.5 Max) | 8.0 (10.1 Max) | |
| Heating Capacities | | kW | 8.0 (9.2 Max) | 9.6 (12.0 Max) | |
| E.E.R Cool | | W/W | 3.5 | 3.6 | |
| C.O.P Heat | | W/W | 4.0 | 4.0 | |
| Running Current | Cool | Amps | 8.1 (10.9 Max) | 9.3 (15.0 Max) | |
| | Heat | Amps | 8.4 (12.1 Max) | 10.1 (15.0 Max) | |
| Input Power | Cool | kW | 1.94 (2.6 Max) | 2.22 (3.56 Max) | |
| | Heat | kW | 2.0 (2.87 Max) | 2.4 (3.58 Max) | |
| Outdoor Sound Pressure Level | | Db a 1m | 49 | 51 | |
| Dimensions and Weights | O.U | Height | mm | 700 | 830 |
| | | Width | mm | 900 | 900 |
| | | Depth | mm | 330 | 330 |
| | | Net Weight | kg | 55 | 68 |
| Compressor Type | | | Twin Rotary | Twin Rotary | |
| Interconnect Cables - Size | | Qty - mm2 | 4 - 2.5 | 4 - 2.5 | |
| Recommended Min. Power Cable | | mm2 | 4 | 4 | |
| Phase - Frequency | | Ph - Hz | 1 - 50 | 1 - 50 | |
| Power Supply Attachment | | | Outdoor | Outdoor | |
| Connection Pipe Sizes | Gas | mm | 2X 9.52 1X 12.7 | 2X 9.52 2x 12.7 | |
| | Liquid | mm | 3X 6.35 | 4X 6.35 | |
| Minimum Pipe Length | | Metre | 5 | 5 | |
| Maximum Pipe Length (Per Indoor) | | Metre | 25 | 25 | |
| Maximum Pipe Length (Total) | | Metre | 50 | 70 | |
| Maximum Pipe Height | | Metre | 10 | 10 | |
| Pre Charge Length | | Meter | 30 | 50 | |
| Outdoor Operating Temperature | Cool | Degree C | 0 to 46 | 0 to 46 | |
| | Heat | Degree C | -15 to 24 | -10 to 24 | |

HI-WALL INDOOR UNITS

FLOOR / CEILING INDOOR UNITS

| Type | | | HI WALL | HI WALL | HI WALL | HI WALL | HI WALL | UNIVERSAL |
|-----------------------------|-------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| MODEL No. | Indoor Unit | | ASTG071VCA [M] | ASTG091VCA [M] | ASTG121VCA [M] | ASTG181VCA [M] | ASTG241VCA [M] | ABTG181VLA [M] |
| Capacity Class | | kW | 2.0 | 2.5 | 3.5 | 5.0 | 7.0 | 5.0 |
| Fan Speeds | | | 4 | 4 | 4 | 4 | 4 | 4 |
| Air Circulation | High | l/s | 178 | 178 | 194 | 250 | 311 | 217 |
| | Quiet | Db a 1m | 22 | 23 | 24 | 25 | 33 | 32 UC/35 FC |
| Indoor Sound Pressure Level | Low | Db a 1m | 32 | 32 | 33 | 33 | 37 | 34 UC/37 FC |
| | Medium | Db a 1m | 33 | 33 | 35 | 37 | 42 | 38 UC/41 FC |
| Dimensions and Weights | High | Db a 1m | 36 | 36 | 38 | 42 | 48 | 41 UC/44 FC |
| | Height | mm | 293 | 293 | 293 | 320 | 320 | 199 |
| | Width | mm | 790 | 790 | 790 | 998 | 998 | 990 |
| | Depth | mm | 225 | 225 | 225 | 238 | 238 | 655 |
| | Net Weight | kg | 9.5 | 9.5 | 9.5 | 14 | 14 | 27 |
| Interconnect Cables - Size | | Qty - mm2 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 |
| Power Supply Attachment | | | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit |
| Connection Pipe Sizes | Gas | mm | 9.52 | 9.52 | 9.52 | 12.7 | 15.8 | 12.7 |
| | Liquid | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 |

BULKHEAD INDOOR UNITS

COMPACT CASSETTE INDOOR UNITS

| Type | | | BULKHEAD | BULKHEAD | BULKHEAD | CASSETTE | CASSETTE | CASSETTE |
|-----------------------------|-------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| MODEL No. | Indoor Unit | | ARTG091LTA [M] | ARTG121LTA [M] | ARTG181LTA [M] | AUTG091VLA [M] | AUTG121VLA [M] | AUTG181VLA [M] |
| Capacity Class | | kW | 2.5 | 3.5 | 5.0 | 2.5 | 3.5 | 5.0 |
| Fan Speeds | | | 4 | 4 | 4 | 4 | 4 | 4 |
| Air Circulation | High | l/s | 167 | 181 | 261 | 150 | 169 | 208 |
| | Quiet | Db a 1m | 24 | 24 | 29 | 27 | 28 | 30 |
| Indoor Sound Pressure Level | Low | Db a 1m | 25 | 27 | 31 | 29 | 31 | 37 |
| | Medium | Db a 1m | 26 | 28 | 32 | 32 | 33 | 40 |
| Dimensions and Weights | High | Db a 1m | 28 | 29 | 33 | 34 | 37 | 44 |
| | Height | mm | 198 | 198 | 198 | 245 | 245 | 245 |
| | Width | mm | 700 | 700 | 900 | 570 | 570 | 570 |
| | Depth | mm | 620 | 620 | 620 | 570 | 570 | 570 |
| | Net Weight | kg | 19 | 19 | 23 | 15 | 15 | 15 |
| Interconnect Cables - Size | | Qty - mm2 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 | 4 - 2.5 |
| Power Supply Attachment | | | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit | To Outdoor Unit |
| Connection Pipe Sizes | Gas | mm | 9.52 | 9.52 | 12.7 | 9.52 | 9.52 | 12.7 |
| | Liquid | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 |

INDOOR UNITS COMBINATION POSSIBILITIES

The multi system is a technically advanced heat pump system. To keep design possibilities simple we have compiled tables of the only permissible configurations, please refer to the table that will suit your situation. The total capacity of the system is limited to the outdoor unit's capacity and its ability to deliver to the combined indoor units.

AOTG24LAT3 Combinations

| No. of Combos | BTU Total | Room 1 | Room 2 | Room 3 |
|---------------|-----------|--------|--------|--------|
| 1 | 14 | 7 | 7 | - |
| 2 | 16 | 7 | 9 | - |
| 3 | 19 | 7 | 12 | - |
| 4 | 25 | 7 | 18 | - |
| 5 | 18 | 9 | 9 | - |
| 6 | 21 | 9 | 12 | - |
| 7 | 27 | 9 | 18 | - |
| 8 | 24 | 12 | 12 | - |
| 9 | 30 | 12 | 18 | - |
| 10 | 21 | 7 | 7 | 7 |
| 11 | 23 | 7 | 7 | 9 |
| 12 | 26 | 7 | 7 | 12 |
| 13 | 25 | 7 | 9 | 9 |
| 14 | 28 | 7 | 9 | 12 |
| 15 | 31 | 7 | 12 | 12 |
| 16 | 27 | 9 | 9 | 9 |
| 17 | 30 | 9 | 9 | 12 |
| 18 | 33 | 9 | 12 | 12 |
| 19 | 36 | 12 | 12 | 12 |

AOTG30LAT4 Combinations

| No. of Combos | BTU total | Room 1 | Room 2 | Room 3 | Room 4 |
|---------------|-----------|--------|--------|--------|--------|
| 1 | 32 | 7 | 7 | 18 | - |
| 2 | 38 | 7 | 7 | 24 | - |
| 3 | 28 | 7 | 9 | 12 | - |
| 4 | 34 | 7 | 9 | 18 | - |
| 5 | 40 | 7 | 9 | 24 | - |
| 6 | 31 | 7 | 12 | 12 | - |
| 7 | 37 | 7 | 12 | 18 | - |
| 8 | 43 | 7 | 12 | 24 | - |
| 9 | 43 | 7 | 18 | 18 | - |
| 10 | 49 | 7 | 18 | 24 | - |
| 11 | 27 | 9 | 9 | 9 | - |
| 12 | 30 | 9 | 9 | 12 | - |
| 13 | 36 | 9 | 9 | 18 | - |
| 14 | 42 | 9 | 9 | 24 | - |
| 15 | 33 | 9 | 12 | 12 | - |
| 16 | 39 | 9 | 12 | 18 | - |
| 17 | 45 | 9 | 12 | 24 | - |
| 18 | 45 | 9 | 18 | 18 | - |
| 19 | 36 | 12 | 12 | 12 | - |
| 20 | 42 | 12 | 12 | 18 | - |
| 21 | 48 | 12 | 12 | 24 | - |
| 22 | 48 | 12 | 18 | 18 | - |
| 23 | 28 | 7 | 7 | 7 | 7 |
| 24 | 30 | 7 | 7 | 7 | 9 |
| 25 | 33 | 7 | 7 | 7 | 12 |
| 26 | 39 | 7 | 7 | 7 | 18 |
| 27 | 32 | 7 | 7 | 9 | 9 |
| 28 | 35 | 7 | 7 | 9 | 12 |
| 29 | 41 | 7 | 7 | 9 | 18 |
| 30 | 38 | 7 | 7 | 12 | 12 |
| 31 | 44 | 7 | 7 | 12 | 18 |
| 32 | 34 | 7 | 9 | 9 | 9 |
| 33 | 37 | 7 | 9 | 9 | 12 |
| 34 | 43 | 7 | 9 | 9 | 18 |
| 35 | 40 | 7 | 9 | 12 | 12 |
| 36 | 46 | 7 | 9 | 12 | 18 |
| 37 | 43 | 7 | 12 | 12 | 12 |
| 38 | 49 | 7 | 12 | 12 | 18 |
| 39 | 36 | 9 | 9 | 9 | 9 |
| 40 | 39 | 9 | 9 | 9 | 12 |
| 41 *1 | 45 | 9 | 9 | 9 | 18 |
| 42 | 42 | 9 | 9 | 12 | 12 |
| 43 *2 | 48 | 9 | 9 | 12 | 18 |
| 44 | 45 | 9 | 12 | 12 | 12 |
| 45 | 48 | 12 | 12 | 12 | 12 |

These tables represent the only allowable indoor unit combinations for the Multi outdoor models AOTG24LAT3 and AOTG30LAT4.

No other combinations are permissible. Correct operation cannot be guaranteed if connected as a configuration not shown on these tables.

Like the J Series product, the multi is a technically advanced heat pump system and because of this we strongly recommend that your specialist consults the technical manual for actual output capacities of varying combinations and ambient conditions.

Combinations that are not permissible

*1 ARTG09L + ARTG09L + ARTG09L + ASTG18L

*2 ARTG09L + ARTG09L + ARTG12L + ASTG18L

EXPLANATION OF TERMS

Capacity - the higher the capacity, the more area and faster the heat pump will heat (and cool) the room.

COP - stands for coefficient of performance or (more simply!), the relationship between energy used and heat delivered. For example with a heating COP of 4.11 - you will get 4.11kW of heat for every 1kW of energy used.

Energy Star Rating - your quick guide to energy efficiency - more stars means more efficient.

Indoor Sound - measured in decibels, this is the sound level of your indoor unit at selected fan speeds. For example 20-30 decibels is less than the sound of a human whisper.

Heating Range - with our Kiwi winter, your heat pump needs to be able to supply heat indoors, even when its -15°C outside!

KEY

| | | | |
|----|---|--------|----------------|
| 7 | = | 7,000 | BTU / hr model |
| 9 | = | 9,000 | BTU / hr model |
| 12 | = | 12,000 | BTU / hr model |
| 18 | = | 18,000 | BTU / hr model |
| 24 | = | 24,000 | BTU / hr model |

INSTALLATION PRECAUTIONS

AOTG24LAT3

Connectable capacity range: 14,000 - 36,000 BTU
At least two indoor units must be connected

ASTG24LFCA

Cannot be connected to this outdoor model

AOTG30LAT4

Connectable capacity range: 27,000 - 49,000 BTU
At least three indoor units totalling 32,000 BTUs must be connected

EXPLANATION OF FEATURES



Moisture Removal
The computer effectively dehumidifies the air.



Up / Down Swing Louvers
The up / down flaps automatically swing to up and down.



Right / Left Swing Louvers
The right / left flaps automatically swing in either direction.



Double Swing Automatic
Complex swing action of flaps enables automatically to swing both horizontal and vertical directions.



Automatic Louvers
The position of the w is set automatically to match the operating mode. It is also possible to adjust the louvers using the remote control.



Auto Shut Louvers
The auto shut louvers close or open automatically when the unit stops or starts.



Automatic Air Flow Adjustment
The micro-computer automatically adjusts the air flow effectively to follow the changes of room temperature.



Auto Restart
In the event of a temporary power failure, the air conditioner will automatically restart in the same operating mode as before, once the power supply is restored.



Auto-Changeover
The unit automatically switches between heating and cooling modes based on your temperature setting and the room temperature.



Sleep Timer
The micro-computer gradually changes the room temperature automatically to afford a comfortable night's sleep.



Program Timer
This digital timer allows selection of one of four options.
ON, OFF, ON → OFF, or OFF → ON.



ON-OFF Timer
ON-OFF timer can be set to operate once.



Weekly Timer
Different on-off times can be set for each day.



Weekly + Setback Timer
Weekly + Setback timer can set temperature for two time spans and for each day of the week.



Connectable Distributing Duct
Conditioned air can be distributed by means of a distribution duct.



Connectable Fresh Air Duct
Connect fresh air via optional UTZ-VXAA.



Washable Panel



Long-Life Ion Deodorisation Filter



Apple-Catechin Filter



Fresh Air Intake
Fresh air can be taken in by a fan which can be connected using UTD-ECSSA (optional parts).



Cooling



Heating

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