

# Technical Bulletin

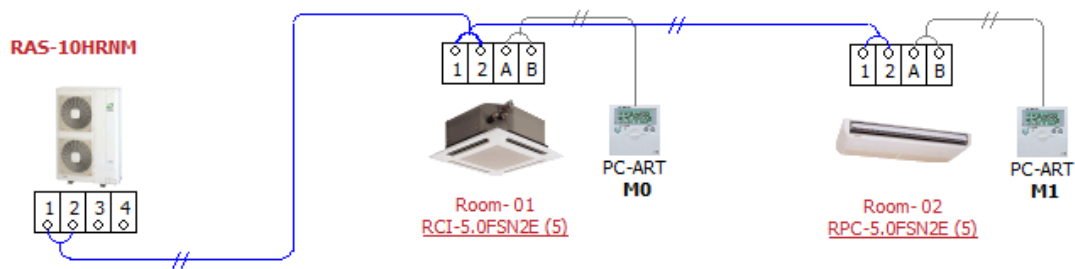
Number	043
Subject	Utopia IVX Single Split Models (to 8HP – 12HP)
Date	08 March 2010

## Wiring

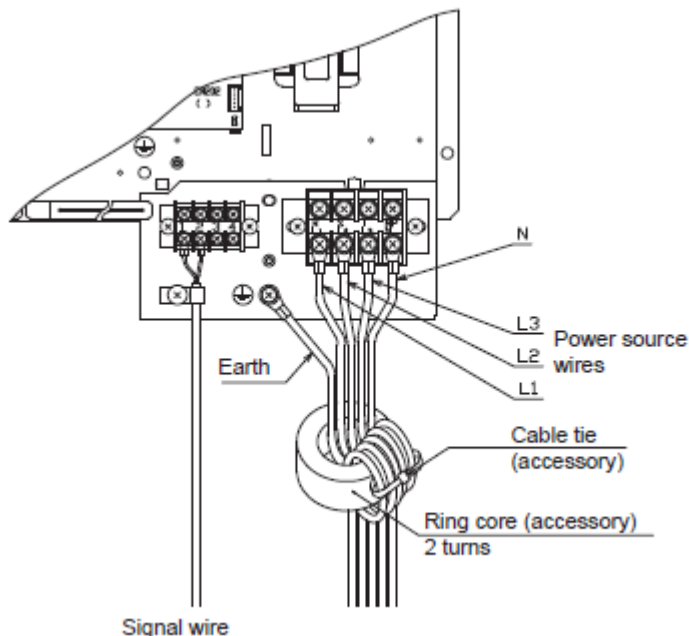
Hitachi Utopia IVX Models require a separate power supply to both the indoor and outdoor unit.

All indoor units require a 5 amp fused spur only.

Interconnecting cable is 2 core 0.75mm<sup>2</sup> screened.



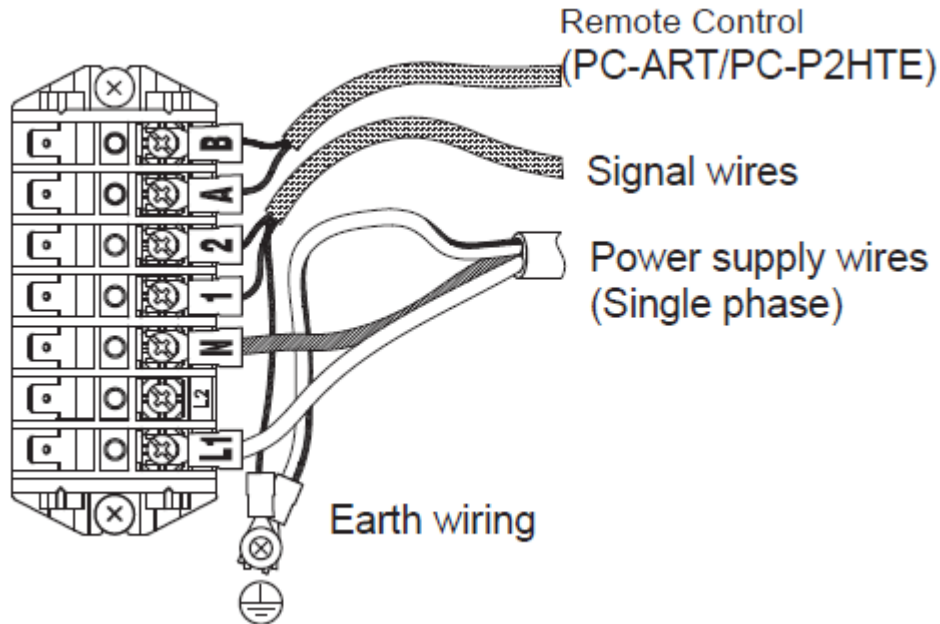
Power to the indoor unit can be taken from the outdoor unit. However, as there is only one terminal block (power in) the cable must be de-rated correctly and a local spur at the indoor unit location must be installed. This must be a separate cable to the 2-core data interconnecting.



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Interconnecting cable between indoor and outdoor is to terminal blocks 1 and 2.

Remote controller cable to the indoor unit/s is to terminal block A and B

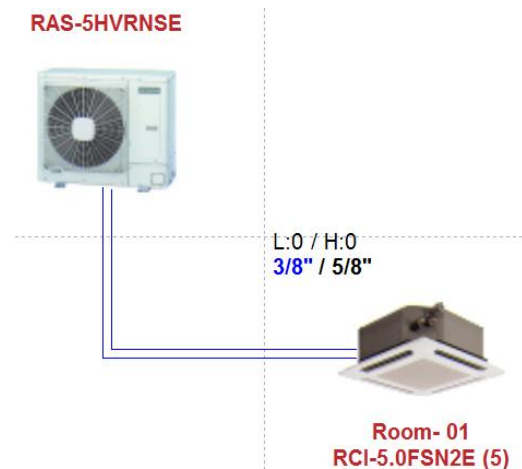


## Piping Specifics

All Hitachi Utopia pipe sizing is as per the outdoor unit. Many indoor units come with a flare reducer. This is because the indoor units are common to R407C Split Outdoors (Europe), R410a Split Outdoors, IVX Systems and Set-Free VRF.

Please check pipe sizes before proceeding.

Logicool can provide schematics for anything from a simple split system to a large VRF.



## Torque Settings

Pipe Size	Tightening Torque (Nm)
Ø 6.35 mm	20
Ø 9.53 mm	40
Ø 12.70 mm	60
Ø 15.88 mm	80

## Optional H-Link Control

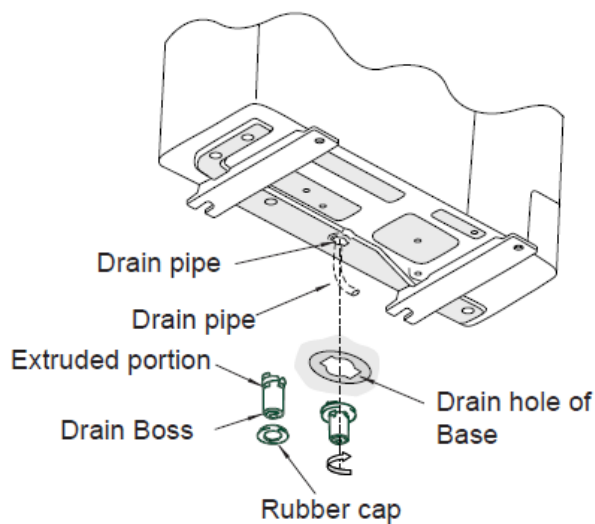
All Hitachi Utopia models communicate via H-Link and as such can interface with Hitachi Set-Free systems.

## Refrigerant Charge

All models are pre-charged to 30 metres. Please check outdoor unit data for maximum piping length on each model.

## Drain

Drain elbow is **optional** on all models.



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## Controls



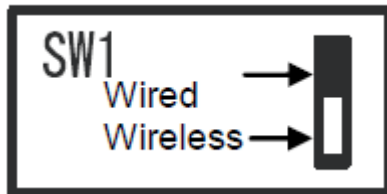
Hitachi Utopia systems do not come with a controller as standard. All controllers are optional and a variety of controls for all models can be selected including the following

- PC-ART - Standard Controller with 7-Day Timer
- PC-ARH - Simplified Controller
- PC-AL\*\* - Wireless Remote Controller

All systems can also interface with Hitachi Central and Web-Based controllers.

All Hitachi Indoor Units with the exception of RPK Wall Mounted are set up for Hard Wired Control.

In the case of RPK Wall units a dipswitch (DSW1) needs to be set to allow hard wired interface.



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## Model Specification – Models 3 – 6 Single Phase (IVX)

### Outdoor Unit Technical Data

	<b>RAS-3HVRNME</b>	<b>RAS-4HVRNME</b>	<b>RAS-5HVRNME</b>	<b>RAS-6HVRNME</b>
Model				
Height (mm)	800	1380	1380	1380
Width (mm)	950	950	950	950
Depth (mm)	370	370	370	370
Weight (kG)	67	114	115	115
Airflow (m3/min)	45	80	90	100
Sound Pressure Cooling (dBA)	42	44	46	48
Sound Pressure - Set Back (dBA)	38	40	42	45
Liquid (mm(inches))	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas (mm(inches))	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Max Pipe Run (m)	50	70	75	75
Max Pipe Lift (m)	30m (20m)	30m (20m)	30m (20m)	30m (20m)
Pre-charged to (m)	30	30	30	30
Standing Charge (kG)	2.4	3.9	4.0	4.0
Refrigerant	R410a	R410a	R410a	R410a
Phase	Single	Single	Single	Single
Power Supply to	Outdoor *	Outdoor *	Outdoor *	Outdoor *
Start/Run Current (A)	---/8.20	--/--/10.30	--/--/15.00	--/--/8.20
Fuse Rating (A)	25	32	32	32
Interconnecting	2C Screen 0.75mm <sup>2</sup>	2C Screen 0.75mm <sup>2</sup>	2C Screen 0.75mm <sup>2</sup>	2C Screen 0.75mm <sup>2</sup>
System Power Input (Cool/Heat) - watts	1.94/1.90	2.44/2.54	3.53/3.40	4.25/4.23

## Model Specification – Models 4 – 6 Three Phase (IVX)

### Outdoor Unit Technical Data

	<b>RAS-4HRNME</b>	<b>RAS-5HRNME</b>	<b>RAS-6HRNME</b>
Model			
Height (mm)	1380	1380	1380
Width (mm)	950	950	950
Depth (mm)	370	370	370
Weight (kG)	119	120	120
Airflow (m3/min)	80	90	100
Sound Pressure Cooling (dBA)	44	46	48
Sound Pressure - Set Back (dBA)	40	42	45
Liquid (mm(inches))	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas (mm(inches))	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Max Pipe Run (m)	70	75	75
Max Pipe Lift (m)	30m (20m)	30m (20m)	30m (20m)
Pre-charged to (m)	30	30	30
Standing Charge (kG)	3.9	4.0	4.0
Refrigerant	R410a	R410a	R410a
Phase	Three	Three	Three
Power Supply to	Outdoor *	Outdoor *	Outdoor *
Start/Run Current (A)	---/3.70	---/5.30	---/6.40
Fuse Rating (A)	20	20	20
Interconnecting	2C Screen 0.75mm <sup>2</sup>	2C Screen 0.75mm <sup>2</sup>	2C Screen 0.75mm <sup>2</sup>
System Power Input (Cool/Heat) - watts	2.44/2.54	3.53/3.40	4.25/4.23