

Duct EZY 5–14 kW Kits

for PPIM Ducted (Mid Static) Split Systems

Installation Instructions

GENERAL

Duct EZY is a ready designed, premium ducted air conditioning package.

Kit No.	Description
SKH-DEZ-M06	Duct EZY 5/6 kW
SKH-DEZ-M07	Duct EZY 7 kW
SKH-DEZ-M10	Duct EZY 10 kW
SKH-DEZ-M12	Duct EZY 12/14 kW

This installation instruction is to be read in conjunction with the separate installation instructions supplied with the Hitachi indoor and outdoor units.

This kit must be installed in accordance with all national and local safety codes.

Before commencing installation check that all the components are supplied – refer Table 1.

Required but not included:

1. Timber for box framing and mounting Return Air grille/s.
2. Screws to secure plenums to indoor unit.
3. Timber framing between joists to enable **optional** suspension of indoor unit.
4. Hanger rods/nuts/washers for **optional** suspending of indoor unit.
5. A platform and anti-vibration mounts or pads if planning to site the indoor unit on top of/across ceiling joists.

Optional

Duct EZY Expansion Kit – enables additional supply air diffusers and greater reach. Includes:

1. Supply diffuser (x2) (RPD-200)
2. Flexible duct for supply air Ø200/3m (x2)
3. Branch-Take-Off (Splitter) Ø250/200/200

Other expansion components are available separately from Temperzone, eg longer duct lengths, duct joiners.

INSTALLATION

Plan

Before starting, decide approximate position for supply and return air grilles. Refer pages 2 and 3 for typical home and office layouts.

Note: The maximum span between the return grille and any supply grille is around 9 m. Positioning should take account of any obstacles in the ceiling space. The return air grille/s should be placed where the filter can be easily accessed (eg in a hall-way), away from supply air outlets and a least a metre from where the indoor unit will be installed.

For existing buildings with fixed ceilings, there must be a way of getting the indoor unit into the ceiling space.

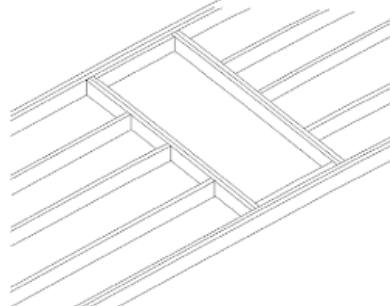
Note: The Duct EZY 10–14kW indoor units will fit through the supplied return air grille.

This kit is designed to suit a typical home/ office layout. Any alterations/extensions to the supplied equipment may result in reduced system performance. If in doubt, refer to Temperzone.

Return Air Grille

1. **Duct EZY 5/6:**
Cut a 405 x 405 mm hole in ceiling to fit Duct EZY 7:
Cut a 517 x 517 mm hole in ceiling to fit 512 x 512 return air grille.
Duct EZY 10, 12/14:
Cut a 910 x 460 mm hole in ceiling to fit 900 x 450 return air grille.

2. Frame out the hole as necessary for the return grille/s to 'no smaller' than ceiling hole size to provide a fixing surface for the grille. Conversely, if the hole is 'too large' you'll have trouble securing the grille to the frame. (Note: Your ceiling joist spacing may vary from example diagram below)



3. *Prior to mounting the Grille, use whatever means necessary to insert the Indoor unit into the ceiling space. (Note: PPIM-4/5/6 models can be inserted end up through the Grille mounting hole).* The indoor unit will need to be positioned within the ceiling cavity approximately in the middle between the supply and return grilles.
4. Insert the frame of the return grille into its ceiling hole. Affix the frame by drilling through the side of the grille frame, close to the top, into the supporting wooden framework. Screw in at least four places to ensure it is fully secure.
5. Discard the blanking insulation panel for dual duct applications.

Indoor Unit Mounting

Firstly, read the instructions that are supplied with the indoor unit.

The indoor unit can be mounted either hung from the ceiling structure or sat on a level platform over ceiling joists.

If mounting the indoor unit by hanging:

Add the hanger brackets (supplied) to the indoor unit as per instruction sheet. Securely hang via hanger rods (Note: hanger rods/nuts/washers need to be provided by the installer. Also note, some extra framing within the roof trusses may be required to hold the top of the hanger rods).

If sitting the indoor unit on ceiling joists:

Securely position across multiple joists, ensuring that satisfactory rubber mounts are placed between the unit and the joists to remove any possibility of noise passing to the occupied space below.

Plenums

6. Attach the supply and return plenums to the indoor unit with screws (provided by installer). Seal the outside of the joint between the plenum and unit with duct tape (supplied).

Supply Air

7. Attach the supply flexible ducting to the supply plenum outlets. Push the duct fully on to the plenums supply spigots and tape on with duct tape.
8. Mark the position of the supply diffuser and cut out the appropriate holes using the templates provided with the supply air diffusers.
9. Stretch out flexible supply duct. Ensure duct is fully stretched out and bends are as gentle as possible. Tape duct to supply diffuser inlets.
Note: Tight bends or compressed duct will restrict air flow and reduce performance.

Return Air

10. Attach the return flexible ducting to the return plenum inlet/s. Push the duct fully on to the plenums return air spigot/s and tape on with duct tape.
11. Stretch out return flexible duct. Ensure duct is stretched out and bends are as gentle as possible. Tape duct to return grille outlet/s.
Note: Tight bends or compressed duct will restrict air flow and reduce performance.
12. Attach face of grille, partially close, insert filters, then fully close and latch by turning fasteners provided.

Indoor Unit

Follow the installation instructions supplied with the indoor unit.

Outdoor Unit

Follow the installation instructions supplied with the outdoor unit.

Commissioning

Balance airflows as required by opening/closing supply air grilles. For additional control, fit in-duct dampers (not supplied).

NOTE

The manufacturer reserves the right to change specifications at any time without notice or obligation.

MAINTENANCE

Six Monthly

Replace or vacuum clean return air filter.

Refer to Hitachi units' instructions for additional maintenance requirements.

Supply air diffusers: Wipe with a damp cloth or vacuum any dust accumulation.

Table 1 - System Components

1	Hitachi Ducted indoor unit	PPIM-2.0	PPIM-2.5	PPIM-3.0	PPIM-4.0	PPIM-5.0	PPIM-6.0
2	Hitachi Inverter outdoor unit	PAS-2.0	PAS-2.5	PAS-3.0	PAS-4.0	PAS-5.0	PAS-6.0
3	Hitachi Wall controller	PC-ARFG2-Z	PC-ARFG2-Z	PC-ARFG2-Z	PC-ARFG2-Z	PC-ARFG2-Z	PC-ARFG2-Z
	Accessories Kit	Duct EZY 5/6		Duct EZY 7	Duct EZY 10	Duct EZY 12/14	
	Part no.	SKH-DEZ-M06		SKH-DEZ-M07	SKH-DEZ-M10	SKH-DEZ-M12	
4	Supply Air Diffuser (RPD)	RPD-250 (x2)		RPD-250 (x3)	RPD-250 (x3)	RPD-250 (x4)	
5	Flexible duct for supply air	Ø250/6m (x2)		Ø250/6m (x3)	Ø250/6m (x3)	Ø250/6m (x4)	
6	Supply air plenum	Ø250 (x2)		Ø250 (x3)	Ø250 (x3)	Ø250 (x4)	
7	Return air plenum	Ø350 (x1)		Ø400 (x1)	Ø350 (x2)	Ø350 (x2)	
8	Flexible duct for return air	Ø350/3m (x1)		Ø400/3m (x1)	Ø350/3m (x2)	Ø350/3m (x2)	
9	Return air grille with hinged filter & single/dual boots	400 x 400mm single		512 x 512mm single	900 x 450mm dual	900 x 450mm dual	
10	Duct tape roll	30m (x1)		30m (x2)	30m (x3)	30m (x4)	

All above Hitachi sys. require 1 phase 230V power supply; 3 phase 400V option available for PAS-4/5/6.

Typical Home Layout

6.



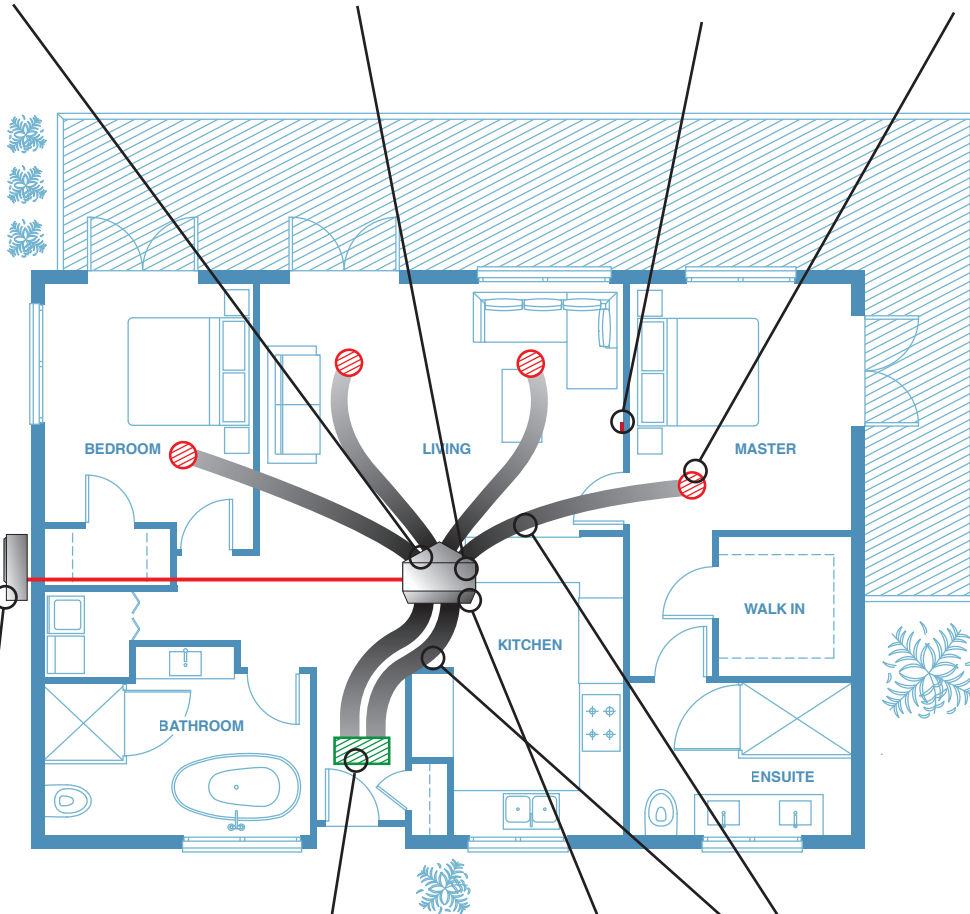
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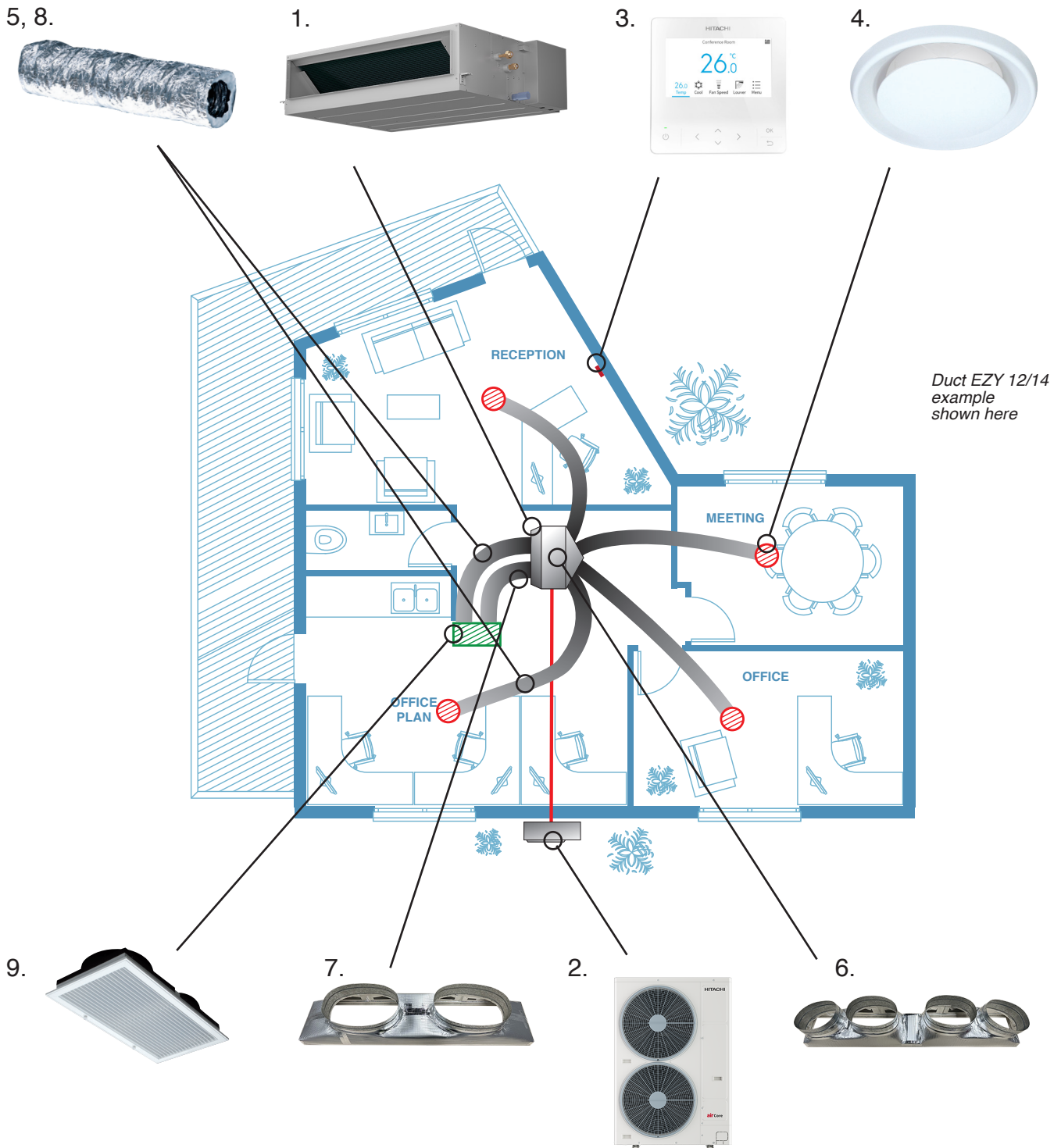
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KEY

1. Hitachi Ducted indoor unit.
2. Hitachi Inverter outdoor unit.
3. Hitachi Wall controller.
4. Supply Air Diffuser.
5. Flexible duct for supply air (6m).
6. Supply air plenum.
7. Return air plenum.
8. Flexible duct for return air (3m)
9. Return air grille (dual) with hinged filter & boots.

Typical Office Layout



KEY

- 1. Hitachi Ducted indoor unit.
- 2. Hitachi Inverter outdoor unit.
- 3. Hitachi Wall controller.
- 4. Supply Air Diffuser.
- 5. Flexible duct for supply air (3m).
- 6. Supply air plenum.
- 7. Return air plenum.
- 8. Flexible duct for return air (3m)
- 9. Return air grille (single or dual) with hinged filter & boots.