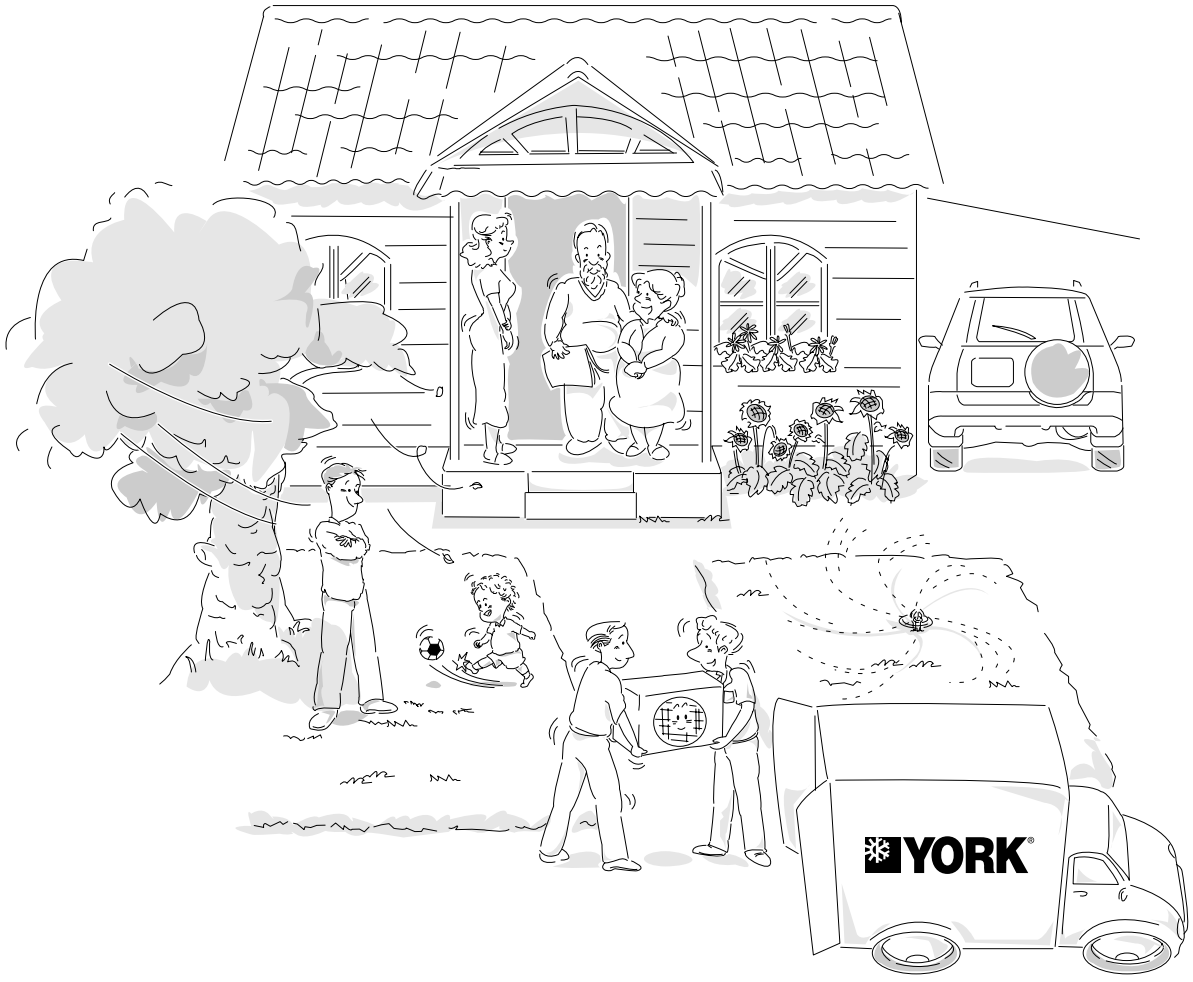
YORK®

TECHNICAL GUIDE

MINISPLIT
CONDENSING UNITS

MODELS
MOC-MOH 07-65



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035T70063-003

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1 - SAFETY

Installation and maintenance of this air conditioning system should only be carried out by trained and qualified personnel.
Regular maintenance operations such as cleaning the coils and air filters must be performed to keep the units in proper operating condition.

CAUTION

Before undertaking any work on the unit, make sure that the power supply has been disconnected.

ELECTRICAL CONNECTIONS

All electrical wiring and connections must comply with local standards. Power supply cord and interconnection cord used must not be lighter than Polychloroprene sheated cord (245 IEC 57 or H05RN-F).
Disconnecting device must have a contact separation of at least 3 mm.

GENERAL PRECAUTIONS

Check that the power supply available agrees with nameplate voltage.
Use adequate line protection.
The unit must be grounded.

2 - OUTDOOR UNITS

The units are shipped complete with a charge of R22 refrigerant sufficient for a piping length of 7.5 metres.

Four vibration absorbing mounts are delivered with each unit as well as a drainage elbow connector for condensate drain connection (on heat pump models only).

From size 25 upwards, outdoor units are fitted with transport handles to facilitate handling and placement.

Every compressor is delivered with a sound-proofing wrap to reduce noise levels to a strict minimum.

The unit support plate is shaped in such a way that water produced during defrost operations on heat pump units is collected at a single point where it can be easily drained off. No accessory drain pan is required.

3 - TECHNICAL SPECIFICATIONS

Condensing Unit (MOC-MOH) - 50 Hz

Models			Outdoor Unit	MOC-MOH 07	09	12	18	25		35		45	55	65
Nominal Capacities	Cooling		Btu/h	7,000	9,000	12,000	18,000	24,000		32,000		42,000	52,000	60,000
			kW	2.1	2.6	3.5	5.3	7.0		9.4		12.3	15.2	17.6
			kcal/h	1,800	2,270	3,030	4,550	6,060		8,080		10,600	13,130	15,120
	Heating		Btu/h	7,500	9,500	12,500	18,500	24,500		32,500		42,500	52,500	60,500
			kW	2.2	2.8	3.6	5.4	7.1		9.5		12.3	15.5	17.6
			kcal/h	1,900	2,400	3,160	4,670	6,190		8,210		10,800	13,300	15,120
Power Supply			V/Ph/Hz	220-240/1/50 or 380-415/3/50										
			Ph	1	1	1	1	1	3	1	3	3	3	3
Power Consumption			kW	0.817	0.957	1.257	1.82	2.71	2.64	3.29	3.216	4.618	5.461	5.87
Running Current			A	3.77	4.42	5.92	8.42	12.8	5.02	15.8	3.16	8.26	10.22	11.22
Refrigerant Type				R-22										
Refrigerant Charge (MOC/MOH)			gr	620 / 650	900 / 1,000	920 / 1,050	1,620	1,750		2,600		3,000	3,800	4,700
Compressor		QTY		1	1	1	1	1		1		1	1	1
		Compressor Type		Rotary			Reciprocating							Scroll
Dimension		Height	mm	492	492	492	590	696		900		1,142	1,142	1,142
		Width	mm	764	764	764	820	850		850		850	1,060	1,060
		Depth	mm	230	230	230	280	287		285		285	345	345
Weight			kg	38	39	41	63	70		92		104	129	134
Piping	Type			Flare + Nuts										
	Pipe Size	Suction	inch	3/8	3/8	1/2	5/8	5/8		5/8		3/4	3/4	3/4
		Liquid	inch	1/4	1/4	1/4	3/8	3/8		3/8		3/8	3/8	3/8

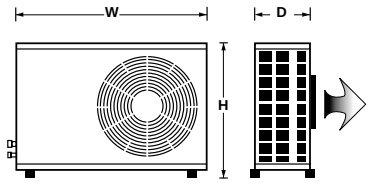
Condensing Unit (MOC-MOH) - 60 Hz

Models			Outdoor Unit	MOC-MOH 09	12	18	25	35		45	55	65
Nominal Capacities	Cooling		Btu/h	9,000	12,000	18,000	24,000	36,000		48,000	60,000	62,000
			kW	2.6	3.5	5.3	7.0	10.5		14.1	17.6	18.1
			kcal/h	2,270	3,030	4,550	6,060	9,060		12,090	15,100	15,625
	Heating		Btu/h	9,500	12,500	18,500	24,500	36,500		48,500	60,500	62,500
			kW	2.78	3.6	5.42	7.18	10.2		14.2	17.6	18.3
			kcal/h	2,400	3,160	4,670	6,190	9,200		12,200	15,200	15,750
Power Supply			V/Ph/Hz	208-230/1/60 or 460/3/60								
			Ph	1	1	1	1	1	3	3	3	3
Power Consumption			kW	0.97	1.2	2.314	3.024	3.65	3.995	5.618	6.74	7.01
Running Current			A	4.8	5.5	13.62	14.02	16.77	6.67	8.7	11.24	12.04
Refrigerant Type				R-22								
Refrigerant Charge (MOC/MOH)			gr	900/1,000	920/1,050	1,650	1,750	2,600		3,000	3,800	5,500
Compressor		Qty		1	1	1	1	1		1	1	1
		Compressor Type		Rotary		Reciprocating						Scroll
Dimension		Height	mm	492	492	590	696	900		1,142	1,142	1,142
		Width	mm	764	764	820	850	850		850	1,060	1,060
		Depth	mm	230	230	280	287	285		285	345	345
Weight			kg	39	41	63	70	92		104	129	134
Piping	Type			Flare + Nuts								
	Pipe Size	Suction	inch	3/8	1/2	5/8	5/8	5/8		3/4	3/4	3/4
		Liquid	inch	1/4	1/4	3/8	3/8	3/8		3/8	3/8	3/8

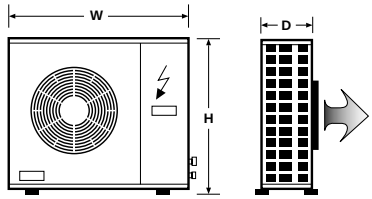
4 - DIMENSIONS

Overall dimensions

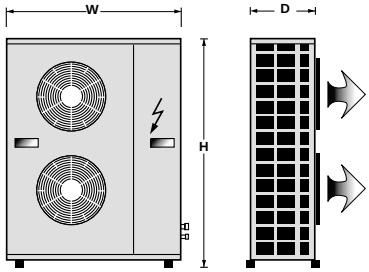
MOC/MOH 07-18



MOC/MOH 25-35



MOC/MOH 40-65

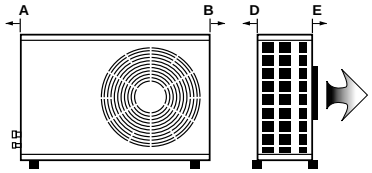


Unit dimensions are shown in the Technical Specification table on page 3.

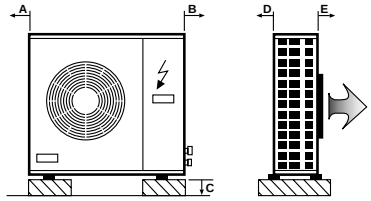
Outdoor unit clearances

A minimum of clearance is necessary around the units to ensure proper air circulation and easy access for maintenance.

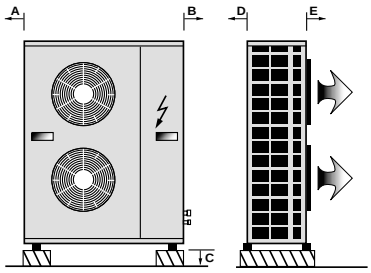
MOC/MOH 07-18



MOC/MOH 25-35



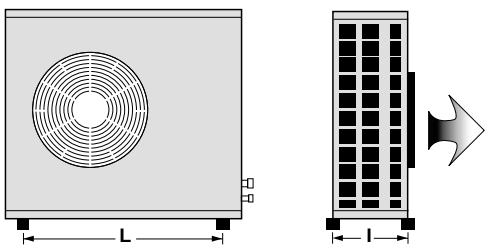
MOC/MOH 40-65



	MOC/MOH						
	07-18	**25**	**35**	**40**	**45**	**55**	**65**
A	400	200	200	200	200	200	200
B	200	400	400	400	400	400	400
C	100	100	100	100	100	100	100
D	600	210	210	300	210	300	300
E	190	600	800	800	800	800	800

Distances between mounting hole centres

MOC/MOH	L (cm)	I (cm)
07-09-12	49.7	24.8
18	51.7	29.6
25-35-45	55	31.5
40-55-65	74	37.5

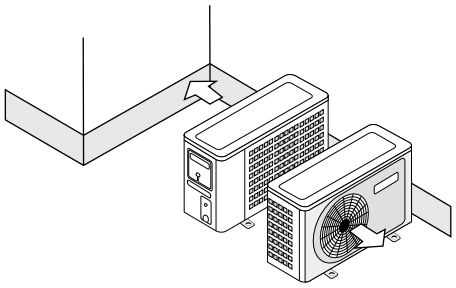


5 - INSTALLATION

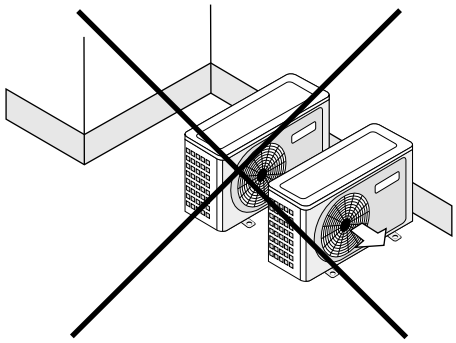
Unit installation details:

- unit mounting
- refrigerant piping connections
- condensate water drainage connections
- unit wiring connections

Whatever type of installation is chosen for the unit, the following installation rules must be observed :



OK



- The location selected for unit installation must be capable of withstanding the weight of the unit in its full operating configuration.

- Select a location where neither dust nor other foreign bodies will clog the unit coil.

- If the outdoor unit is installed on the ground, make sure that the location is not liable to flooding.

- Make sure that you know and apply any and all local rules and regulations concerning the installation of air conditioning equipment.

- Use the vibration isolators provided to prevent vibration transmission and resulting unnecessary noise.

- Do not install the equipment in explosive environments.

- Make sure that the surrounding atmosphere does not contain noxious or dangerous substances such as oil vapours or sulphur.

- If the air conditioner is installed in a polluted area, increase the frequency of maintenance operations.

- Avoid installing the unit where it will be in direct sunlight, especially if it is a cooling only model since direct sunlight will increase condensing pressure and reduce unit efficiency. Install units facing North whenever possible.

- In particularly windy places, the unit should be installed so that the prevailing wind does not interfere with air discharge from the unit (configuration with the wind blowing onto the side of the unit).

- MOH heat pump unit : install the unit at least 10 cm above ground level to facilitate drainage of defrost water and prevent accumulation of ice. In effect, defrost water can cause accumulation of ice under the unit during subfreezing outdoor temperatures.

- Wherever possible, install the unit where it will be protected from rain, snow and run-offs from overhanging structures.

- In areas with heavy snowfall it is best to install the unit on wall supports.

- If condensates are not to be drained, do not install the elbow supplied with the unit.

- Make sure that the unit is installed level so that condensate will drain off correctly.

- In some regions. It is necessary to heat the bottom of the condensate drainage pan and the condensate drainage piping to avoid ice formation, and resulting ice build-up in the fan compartment (heater strip must be at least 25 W/m).

6 - REFRIGERANT CIRCUIT CONNECTIONS

Make piping runs as short as possible and avoid all unnecessary changes in direction or elevation.
To prevent heat loss, the two lines must be insulated separately.

Use an appropriate bending tool to form curves and avoid flattening the refrigerant tubes.

Fix piping with pipe clamps and check that any eventual pipe vibrations cannot be transmitted to the building structure.

Use refrigeration quality piping only with an operating pressure rating of at least 30 bars. **Never** use ordinary <<plumbing>> quality piping : you **MUST** use special deoxidized, dehydrated, refrigerant quality copper piping.

Pipe lengths

• Maximum piping lengths

MOC-MOH	07	09	12	18	25	35	40	45	55	65
D(m)	12	12	15	15	22	22	26	26	26	26
L(m)	15	15	18	18	25	25	30	30	30	30
H(m)	10	10	12	12	20	20	24	24	24	24

Note

Where the difference in elevation between the indoor unit and the outdoor unit is greater than 5 meters, install an oil trap every 5 meters.

The suction line must have a 2 % gradient up to the compressor on horizontal sections.
Where piping lengths are unusually long and include a large number of oil traps, it may be necessary to adjust the compressor oil charge.

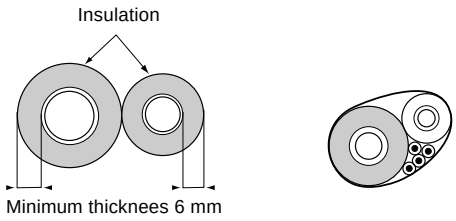
• Refrigerant charge to be added per extra meter of piping length when more than 7.5 m.

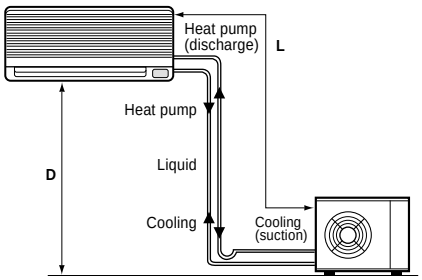
Unit size	07	09	12	18	25	35	40	45	55	65
g/m	15	15	15	40	40	40	40	40	40	40

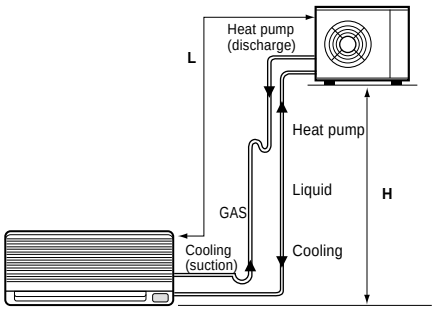
Refrigerant piping connections
(FLARE connections)
To avoid alteration of unit capacities, check that piping lengths and changes in elevation are kept to a strict minimum.

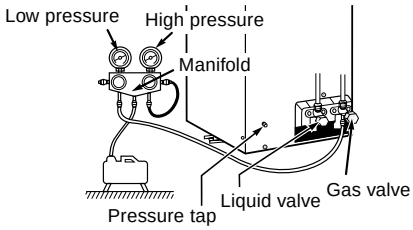
Before connecting the refrigerant lines, follow the procedures below (if pre-charged connection lines are not supplied):

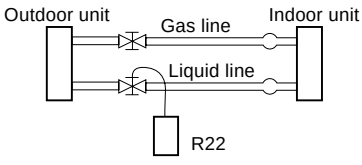
- Select copper pipe diameters according to the size of unit to be installed.
- Install the refrigeration lines, checking that no foreign bodies get inside the piping.
- Install the flare connectors and flare the ends of the pipes.
- Evacuate the piping. This operation, which should last at least 15 minutes or even longer if there are large piping lengths and changes in elevation, should be followed by a leak test.
  To this effect, when the piping has been evacuated, close the pressure gauge tap, note the value on the gauge, then wait for 15 minutes. If the needle moves, there is a leak in the system. Make the necessary adjustments or repairs and repeat this procedure until the needle no longer moves.
- Open the service valves and top up the refrigerant charge if necessary.





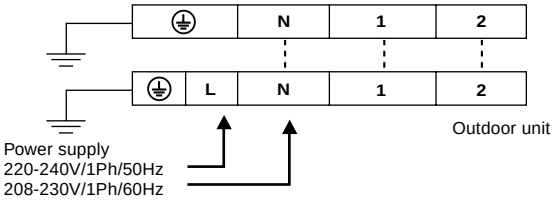




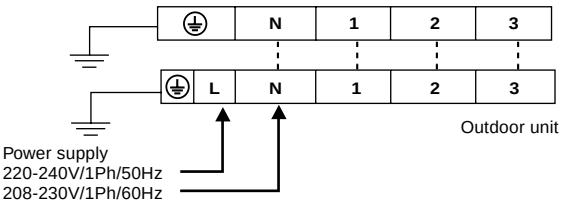


7 - ELECTRICAL CONNECTIONS

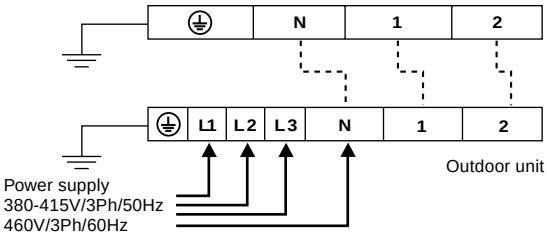
MOC 07 - 35 - Cooling only Indoor unit



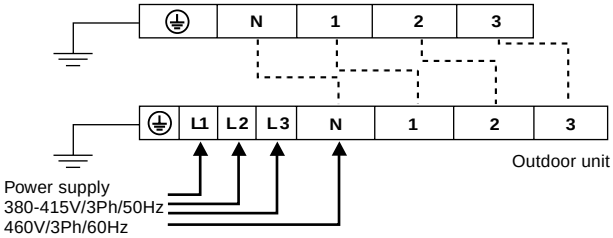
MOH 07 - 35 - Heat pump Indoor unit



MOC 25 - 55 - Cooling only Indoor unit



MOH 25 - 55 - Heat pump Indoor unit



Wire sizes

MOC-MOH		07	09	12	18	25	35	40	45	55	65
Power supply	mm²	3x2.5			3x4		5x2.5	5x4			
	Ph	1	1	1	1	3	1	3	1	1	3	3	3
Interconnection (Indoor/Outdoor)	Cooling mm²	3x2.5									
	Heating mm²	4x2.5									
Fuse (slow-blow)	A	10			16	10	25	10	32	16	35	40	16	20	25

Terminals N and 1 (see diagrams above) correspond to power supply to the indoor unit coming from the outdoor unit.
Compressor power supply is established by terminal 2.
Power supply to the 4-way valve is established by terminal 3.
For further details on wiring of these units, see the diagrams pasted inside each unit.

8 - START-UP

Before starting the air conditioner, please check the following points :

- That the unit is installed according to instructions given in this documentation.
- That the unit is correctly wired up.
- That flare connection nuts are tightened.
- That the unit has been evacuated and leak-tested.
- That isolating valves have been fully opened.
- That the refrigerant charge has been topped-up if necessary.

Start the units and check operation in both the cooling and the heating mode.

MOC 18 - MOH 18

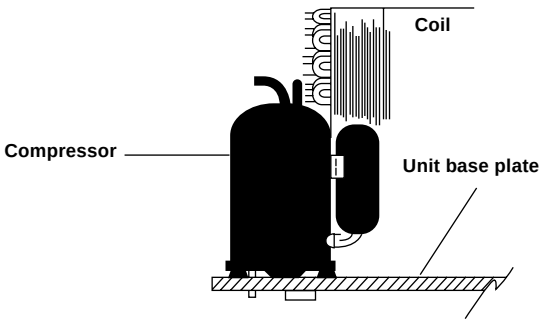


Diagram n°1

9 - DEFROST

Defrost is handled via a defrost management electronic control board (model with two potential meters and 6 dip switches, see diagram n°2). This enables defrost cycles to be initiated when the temperature reaches -5°C at the condenser coil bend. The end of defrost cycle set point is +10°C. The duration of the defrost cycle varies depending on operating conditions but it is limited to a maximum of 10 minutes. Time delay between successive defrost cycles is 30 minutes.

The defrost cycle can be forced into action by shunting terminals DEF on the defrost control board in the outdoor unit.

The time delay between successive defrost cycles and the ma-ximum duration of each cycle are adjustable. If these need to modified, please contact YORK first for technical advice.

If your unit does not defrost correctly, please check the follow points carefully :

- Is the refrigerant charge correct ?
- Is the sensor in the right location on the outdoor coil ?
- Low and high pressure switch settings on units :
  MOC-MOH 35-45-55 LP = 1.5 Bars HP = 28 Bars

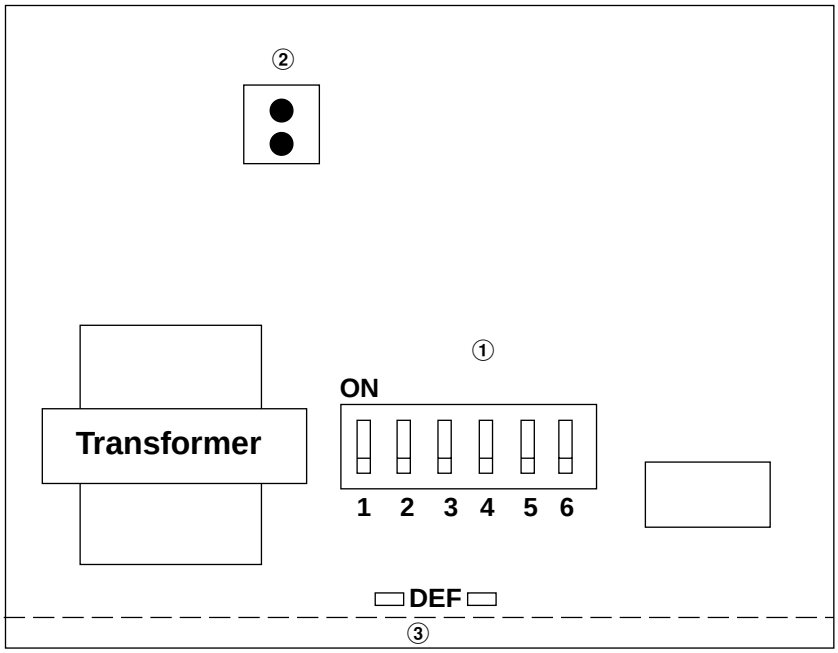


Diagram n°2 - Adjustable Defrost Control Board

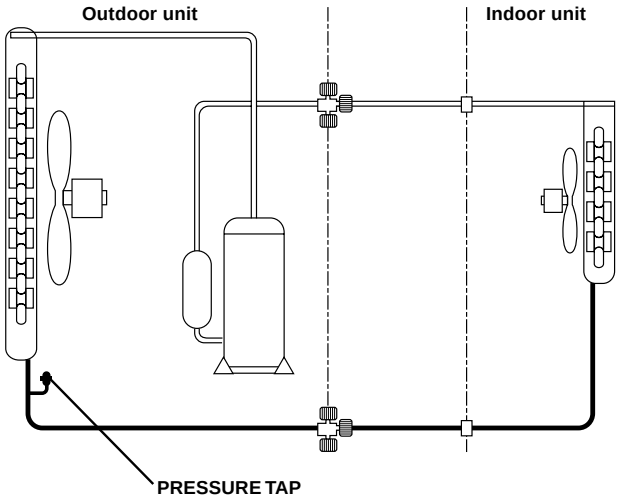
① " Dip Switches " for adjusting time delay between defrost cycles and maximum defrost cycle duration.

② Female sensor connection

③ Shunt these terminals to simulate a defrost cycle

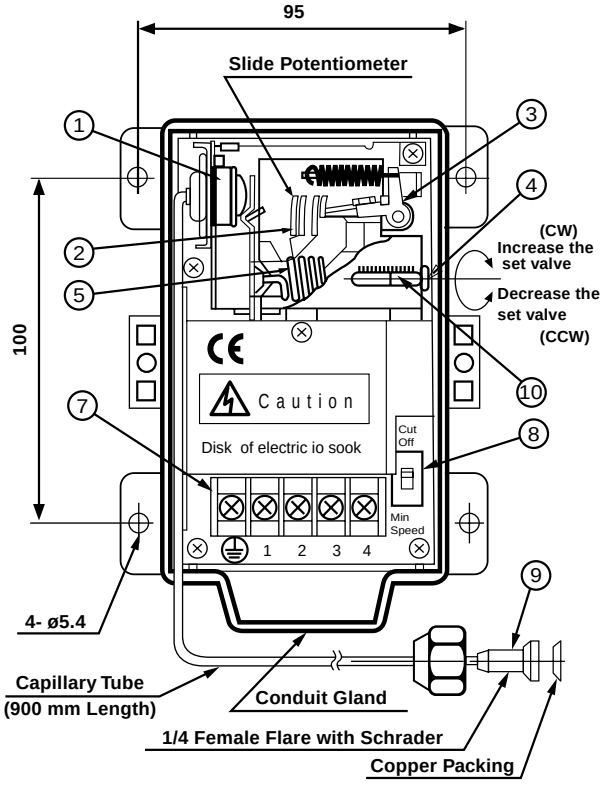
10 - FAN SPEED CONTROLLER

A fan speed controller is provided as standard on full featured condensing units and can be installed also as an accessory
in the field on all N series condensing units that are equipped with a pressure tap (see diagram below) for easy installation.
The Saginomiya pressure type controller (YORK P/N 025T20003-000) is recommended. Fan speed controllers should be added when units are installed where operation in cool mode is required during periods with low outdoor ambient temperatures. Complete installation instructions are included with every fan speed controller kit ordered from the factory.



COOLING CIRCUIT - PRESSURE TAP LOCATION

NO.	Parts Name
1.	Bellows
2.	Wiper
3.	Operating Plate
4.	Range Adjusting Screw
5.	Coil Spring
6.	Terminal Board
7.	Changeover Switch
8.	Pressure Connector
9.	Range Setting Pointer



11 - PHASE ROTATION

Scroll compressors designed to operate only in one direction. If opposite direction is required, swamp any two phases at the main terminal block. Reciprocating compressors are able to run in either direction without any loss of performance or reliability.

Special Note for units fitted with Scroll Compressors

Phase sequencing: the Scroll compressor is designed to operate with motor running in only direction. Mis-wiring of phase power (phase reversal) will cause the compressor to operate in the wrong direction. The Scroll compressor will run without damaging itself if phasing is improper, but it will not pump refrigerant and will draw minimal current. In such a case, the internal winding line break will ultimately shut off the compressor. Depending upon the conditions it could take up to 30 minutes to trip the internal winding protection. The compressor will be noisy, vibrate excessively and the oil sump will become warm to hot when running backwards.

Because of the scroll compressor design and its capability to accommodate liquid slugging, both oil and refrigerant, without causing compressor damage, there are some characteristic sounds that differentiate if from those normally associated with reciprocating type compressors.
These sounds described below, are characteristics and do not affect reliability or indicate that the compressor is defective.

AT Start-up:

Under conditions of low refrigerant flows (low suction pressures) such as start-up, a rating sound may emanate from the compressor.
This is more like to be heard under conditions such as low ambient starts where it takes time to build sufficient head pressure to allow the thermal expansion valve to flow sufficient refrigerant to increase the suction pressure. This sound should diminish and disappear as the suction pressure increases.

At Shutdown:

The gas within the scroll expands and causes momentary reverse rotation until the discharge check valve seats. This results in a "flutter" type noise.

Refrigerant Flooding:

If the compressor experience severe liquid slugging during the operation the compressor will make a loud rattling sound.
This is normal because of the separation of the scrolls that allow the liquid refrigerant to pass through the compressor without damaging it.

12 - TROUBLE-SHOOTING GUIDE

Note

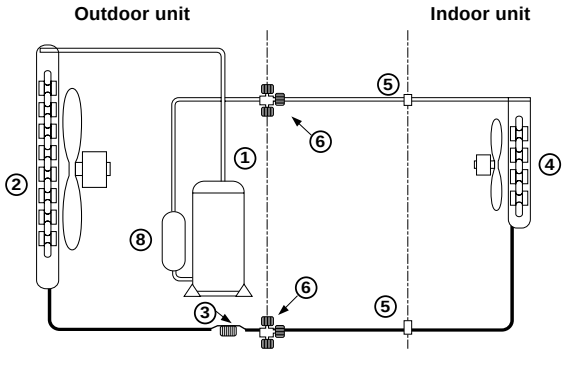
Open the main unit power switch before proceeding with any repair operations.

Symptoms	Cause	Remedy
No heating or cooling		
The compressor and outdoor fan do not operate	Power failure Fuse blown or circuit breaker open Voltage is too low Faulty contactor, thermostat or relay Electrical connections loose Faulty capacitor (single phase models) Thermostat adjustment too low (in heating mode) or too high (in cooling mode) Incorrect wiring, terminals loose Pressure switch tripped (depending on mode)	Contact the electrical utility company Replace the fuse or reset the breaker Find the cause and fix it Replace the faulty component Retighten the connections if necessary Find the cause, then replace capacitor Check thermostat setting Check and retighten Find the cause, then reset
The outdoor fans run but the compressor will not start	Motor windings cut or grounded Faulty capacitor (single phase models)	Check the wiring and the compressor winding resistance Find the cause, then replace capacitor
Insufficient heating or cooling		
Low refrigerant charge	Make sure there are no leaks	Remove charge, repair, evacuate and recharge
Insufficient airflow	Check the air filter, the damper positions. Check that air is not being recycled Check cleanliness of unit coils Capillaries obstructed or orifice plugged (humidity) Liquid and gas lines insulated together	Clean or replace, set the air damper to the right position Clean the coils Remove charge, repair, evacuate and recharge Insulate them separately
The Compressor runs too long or continuously		
The compressor runs continuously	Thermostat adjustment too high (in heating mode) or too low (in cooling mode) No fan operation or faulty fan Refrigerant charge too low, leakage Heating/cooling load underestimated Air or incondensables in refrigerant circuit	Change the setting Check condenser air circulation Find leak, repair and recharge Reduce load or use next unit size up Remove charge, evacuate and recharge
Unit short-cycles		
The compressor starts but shuts down quickly on thermal protection	Too much or too little refrigerant Air or incondensibles in refrigerant circuit Faulty compressor Power supply voltage too high or too low Faulty condenser (single phase models) Faulty thermostat Restriction in the refrigeration circuit Frostec or plugged expansion device Poor airflow on indoor or outdoor unit Faulty power supply Changeover valve damaged or blocked open (heat pump units)	Remove charge, evacuate and recharge Remove charge, evacuate and recharge Determine the cause and replace compressor Solve the problem Determine the cause and replace Replace Find restriction and repair. Remove charge, evacuate and recharge Clean the coil and the filter if necessary, check that motors are operating properly Check wire gauges, etc Replace it

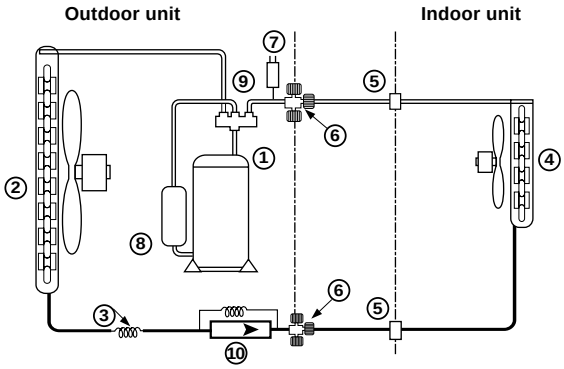
Symptoms	Cause	Remedy
Frosted Indoor coil		
Ice build-up indoor coil	Low refrigerant charge, refrigerant leak	Repair the leak and recharge
	Insufficient airflow	Check the condition of the air filters
		Check the cleanliness of the indoor coil
		Check fan motor operation
		Check that the air damper opens correctly
	Low operating temperature limit exceeded	(on unit equipped with a damper)
		Install a low temperature kit
Unit noisy		
Faulty installation	Make sure vibration isolators have been installed.	Tighten any loose components
	Check piping collars.	
Compressor noisy	Make sure that the compressor is not losing oil	Repair and add oil
	Excessive oil or refrigerant charge	Repair or replace the thermostat
Electric heat does not work (on indoor units fitted with this option)		
Thermostat	Thermostat incorrectly adjusted	Readjust the thermostat
		Remove excess charge
Safety device	Check continuity through fuse	Replace faulty elements
	Safety thermostat opens	Check indoor unit airflow
		Check cleanliness of air filter and coil
		Open air balancing dampers
		If ducts are long, inhibit low, and perhaps even medium fan speeds
	Faulty unit wiring	Check that wiring complies with applicable diagrams
Excessive or insufficient discharge pressure		
Excessive discharge pressure	Out door coil dirty	Clean the coil
	Indoor unit fan (heating mode) or outdoor unit fan (cooling mode) faulty	Replace the fan
	Excessive refrigerant charge	Remove excess charge
	Air or incondensables in refrigerant circuit	Check the circuit, evacuate, and recharge
Insufficient discharge pressure	Refrigerant charge too low	Find and repair the leak, top up refrigerant charge
	Liquid line blocked or crushed	Find obstructions and eliminate them.
	Compressor valves worn out or leaking	Replace the compressor
Excessive or insufficient suction pressure		
Excessive suction pressure	Refrigerant overcharge	Remove excess refrigerant
	Cycle changeover valve faulty or leaking (heat pump units)	Replace the valve
Insufficient suction pressure	Low refrigerant charge	Add some refrigerant
	Outdoor unit coil (heating mode) or indoor unit coil (cooling mode) frosted	Find cause and fix it
	Insufficient airflow on the outdoor unit coil (heating mode) or the indoor unit coil (cooling mode)	Make sure that the indoor or outdoor unit fan is operating properly
	Suction line obstructed	Find obstruction and eliminate
	Expansion device obstructed or iced up.	Remove charge, evacuate, recharge
	Poor contact the line and the defrost sensor in the heating mode (heat pump units)	Reinstall the sensor correctly using a contact compound. Insulate the assembly
	Condenser airflow too high (in the cooling mode) in relation to outdoor air temperature	Install a low temperature kit

13 - TECHNICAL APPENDIX

Cooling circuit diagrams



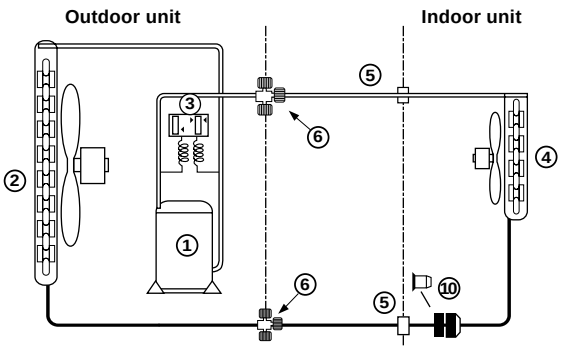
Cooling only - MOC 07-09-12-18-25



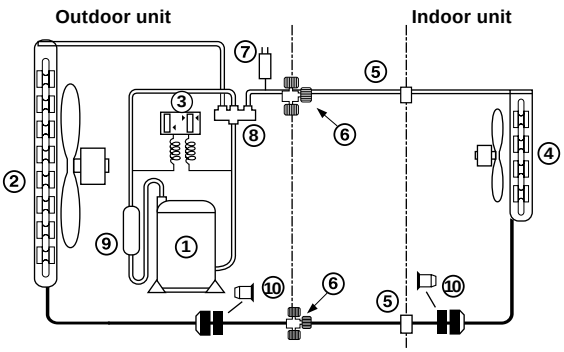
Heat pump - MOH 07-09-12-18-25

Legend :

1. Compressor
2. Outdoor unit coil
3. Capillary tube
4. Indoor unit coil
5. Refrigerant circuit piping
6. Isolating valve with pressure tap
7. High pressure switch (intermediate season safety)
8. Anti-slugging receiver
9. 4-way cycle changeover valve
10. Non-return valve



Cooling only - MOC 35-40-45-55-65



Heat pump - MOH 35-40-45-55-65

Legend

1. Compressor
2. Outdoor unit coil
3. Combined HP/LP pressure switch (manual reset for the HP switch)
4. Indoor unit coil
5. Refrigerant circuit piping
6. Isolating valve with pressure tap
7. HP pressure switch (Interseason start-up safety)
8. 4-way cycle changeover valve
9. Anti-slugging receiver
10. Restrictor

Unit Capacity

Total cooling capacity can be determined by using correction factors C1, C2 and C3.
Given cooling capacity = Cooling capacity at standard rating conditions x C1 x C2 x C3.

C1 = Capacity correction factor for temperature
C2 = Capacity correction factor for piping length
C3 = Capacity correction factor for indoor unit fan speed

Capacity correction factor for temperature (C1)

Cooling Capacity correction factor for

Indoor Temperature °C WB	Indoor Temperature °C DB					
	19	25	30	35	40	46
23	-	1.20	1.15	1.11	1.06	1
19	1.10	1.08	1.04	1	0.96	0.90
14	0.88	0.86	0.84	0.82	0.79	0.74

Heating Capacity correction factor for

Indoor Temperature °C WB	Indoor Temperature °C WB				
	14	10	6	0	-8
23	1.20	1.04	0.96	0.77	0.58
21	1.25	1.10	1	0.80	0.69
17	1.30	1.13	1.04	0.83	0.63

Capacity correction factor for piping length (C2)

	Indoor unit	
Piping length (m)	5	10
Correction factor C2	1.00	0.98

Capacity correction factor for indoor unit fan speed (C3)

	Indoor unit		
Fan speed	High	Medium	Low
Correction factor C3	1	0.90	0.75

Operating temperature limits

	Maximum	Minimum
Cooling mode	+ 46°C	+ 19°C (-5 with low ambient kit)
Heating mode	+ 28°C (heat pump mode)	- 8°C

Correction factors (C1) determine the instantaneous capacity
(which does not take account of defrosting on heat pump units).
These capacities may vary slightly, depending on the size of the unit.

Minisplit unit start-up check-list

Contractor	Equipment reference numbers	
Location :	**Indoor unit**	**Outdoor unit**
Order/invoice number :	Type	Type
Installation start-up date :	Serial Number	Serial Number

Power supply and unit	**Single phase**		3 Ph1-2 =	V	A	**Neutral**	**Earth**
interconnection cables	Ph/N =	V	Ph2-3 =	V	A	yes	yes
with corresponding currents	Ph =	A	Ph3-1 =	V	A	no	no
Power supply cable	Guage =	mm^2	Length =	m			
Interconnection cable	Guage =	mm^2	Length =	m			
Type of line protection	Type		Current =	A			
Check that all electrical connections are light and that the unit is property earthed							
Refrigeration piping	Ø liquid =	in.	I. liquid =	m			
	Ø gas =	in.	I. gas =	m			
Position of indoor unit	Height of the unit =	m	Height of the room =	m			
Dif. in elevation between units	indoor > outdoor	m	ext > int	m			
Changes in direction	Number of oil traps =		Number of bends =				
Condensate pump	Pumping height =	m	Type of drainage =				
Condensate drainage	U-Bend ❑ yes	❑ no	Ø drainage piping =	cm			
Evaporator	Return air temperature =	°C	Air discharge temp. =	°C			
Condenser	Inlet air temperature =	°C	Outlet air temp. =	°C			
Temperature measurements	Superheat =	°C	Sub-cooling =	°C			
Low temperature kit	❑ yes		❑ no				
Fan rotation correct (direction)	❑ yes		❑ no				
Suction pressure	LP at low speed =	Bar	LP at high speed =	Bar			
Discharge pressure	HP at low speed =	Bar	HP at high speed =	Bar			
Compressor Amps	I at low speed =	A	I at high speed =	A			
Control thermostat	cut out (open) =	°C	cut out (closed) =	°C			
Low pressure switch	trip =	Bar	reset =	Bar			
High pressure switch	trip =	Bar	reset =	Bar			
Refrigerant charge top-up	❑ yes / quantity =	g	❑ no				
Oil top-up	❑ yes / quantity =	g	❑ no				
Checked unit charge	❑ yes		❑ no				

Check that you have :
- ✓ Completely opened the isolating valves.
- ✓ Insulated the gas and liquid lines separately.
- ✓ Tightened all flare connections.
- ✓ Leak-tested the entire installation.
- ✓ Evacuated the refrigeration circuit.
- ✓ Tested all functions of the air conditioner in the heating and the cooling mode.
- ✓ Tested the crankcase heater for correct operation.
- ✓ Installed the units in accordance with all instructions given in the documentation.

Name, address and phone number of your contractor :

DECLARATION OF CONFORMITY

Type o Equipment	**Air Conditioners**
Brand Name York	
Type Designation	**MHH/C07-35, MAH/C18-66, MCH/C09-55, MI12-35, MKH/C25-55** **MOH/C07-65, HHH, HHW, HHY, HAW, HAY, HIW, HIY, HCH, HCW, HCY, MMH/C**
Manufacturer	**York Industrial Thailand Co., Ltd.** **Laemchabang Industrial Estate, Export Processing Zone 2,** **49/40 Moo 5, Tambon Tungsukla, Amphur Sriracha, Chonburi 20230, Thailand.** **Tel : (66-38) 493-400** **Fax : (66-38) 493-421-4**
Application of Council Directive(s)	**Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC, and CE Marking Directive 93/68/EEC**

The following harmonized standards have been applied:

Standard(s)	Test report(s)	Issued by	Date(s)
EN 60 335-2-40:97	**0038222**	**SEMKO**	**2001-02-22**
EN 60 335-1:94, A11, A1, A12, A13, A14	**0038222**	**SEMKO**	**2001-02-22**
EN55014-1 (1993) and Amendment A1(1997)	**0043237D, E**	**SEMKO**	**2001-10-28**
EN60555-3 (1987) and Amendment A1(1991)	**0043237D, E**	**SEMKO**	**2000-10-28**
EN61000-3-2 (1995)	**0043237D, E**	**SEMKO**	**2000-10-28**
EN5014-2(1997)	**0043237D**	**SEMKO**	**2000-10-28**

The product complies with the harmonized European safety standards and harmonized EMC standards listed above.

We have internal production control system that ensures compliance between the manufacturer products and the technical documentation.

The product is CE mark in **2001**

We declate under our sole responsibility that the equipment follows the provisions of the Directives stated above.

2001-3-05
York Industrial Thailand Co., Ltd.
Laemchabang Industrial Estate, Export Processing Zone 2,
49/40 Moo 5, Tambon Tungsukla, Amphur Sriracha, Chonburi 20230, Thailand.
Tel : (66-38) 493-400 Fax : (66-38) 493-421-4

Graham Joyce

Technical Director

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DE - COMMISSIONING DISMANTLING & DISPOSAL

This product contains refrigerant under pressure, rotating parts, and electrical connections which may be a danger and cause injury!
All work must only be carried out by competent persons using suitable protective clothing and safety precautions.

Read the Manual

Risk of electric shock

Unit is remotely controlled and may start without warning

1. Isolate all sources of electrical supply to the unit including any control system supplies switched by the unit. Ensure that all points of electrical and gas isolation are secured in the OFF position. The supply cables and gas pipework may then be disconnected and removed. For points of connection refer to unit installation instructions.
2. Remove all refrigerant from each system of the unit into a suitable container using a refrigerant reclaim or recovery unit. This refrigerant may then be re-used, if appropriate, or returned to the manufacturer for disposal. **Under No circumstances should refrigerant be vented to atmosphere.** Where appropriate, drain the refrigerant oil from each system into a suitable container and dispose of according to local laws and regulations governing disposal of oily wastes.
3. Packaged unit can generally be removed in one piece after disconnection as above. Any fixing down bolts should be removed and then unit lifted from position using the points provided and equipment of adequate lifting capacity. Reference MUST be made to the unit installation instructions for unit weight and correct methods of lifting. Note that any residual or spilt refrigerant oil should be mopped up and disposed of as described above.
4. After removal from position the unit parts may be disposed of according to local laws and regulations.

YORK®

YORK® International Corporation