Service Manual

MODEL: CH-S09FTXG

GENERATION III

(Refrigerant R-410A)

Cooper&Hunter International Corporation

Summary and features

Indoor/Outdoor Unit
CH-S09FTXG

Remote control window

YB1F2

1.Safety Precautions

Important!

Please Read Before Starting

This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

To prevent injury to the user or other people and property damage, the following instructions must be followed.

- Follow each installation or repair step exactly as shown.
- Observe all local, state, and national electrical codes.
- Pay close attention to all warning and caution notices given in this manual.

About the pictograms:

Warning Erroneous handing gives a high possibility to induce serious results such as death or heavy injury.

Caution Erroneous handing may induce serious injury depending on the situation.

Warning

All electric work must be performed by licensed technician,according to local regulations and the instructions given in this manual.

- **Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.**
- **Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause accidental injury or death.**
- **Ground the unit following local electrical codes.**
- **Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.**

There is risk of fire, electric shock, explosion, or injury.

Ask your dealer or specialized subcontractor for installation or repair work.

- **Make sure the ceiling/wall is strong enough to hold the unit's weight. The outdoor unit shoukd be installed in a location where air and noise emitted by the unit will not disturb the neighbours.**
- **Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to walls and floors.**
- **The outdoor unit must be installed on stable, level surface, in a place where there is no accumulation of snow, leaves or rubbish.**
- **The unit should be installed according to the instructions in order to minimize the risk of damage from earthquakes, typhoons or strong winds.**
- **When the refrigerant touches the fire elc., it was decomposed and a poisonous gas is generated.**
- **Use only the specified refrigerant to charge the regrigerant circuit.**
- **Do not mix it with any other refrigerant and do not allow air to remain in the circuit.**
- **Air enclosed in the circuit can cause high pressure resulting in a rupture and other hazards.**
- **After completing installation work, make sure that refrigerant gas has not leaked.**
- **The limit density is made not to be exceeded even if the refrigerant leaks by any chance.**
- **Turn the power off at the main power box (mains) before opening the unit to check or repair electrical parts and wiring.**
- **Keep your fingers and clothing away from any moving parts.**
- **Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.**
- **The unit must be properly earth connected.**

Caution

- **Never indtall on the place where a combustible gas might leak.** The gas may ignite or explode when the gas leaks and collects in surround of the unit.
- **When the unit is installed at telecommunication centers or hospitals, take a proper provision against noise.**
- **When installing at a watery place, provide an electric leak breaker.**
- **Do not wash the unit with water.**
- **Be very careful about unit transportation.**The unit shoukd not be carried by only one person if it is more than 20kg. It occasionally causes the damage of th unit and health to be impaired.
- **Do not touch the heat exchanger fins whth your bear hands. Doing so may cut your hands.**
- **Do not touch the compressor or refrigerant piping whithout wearing glove on your hands.** Touching directly such part can cause a burn or frostbite as it becomes high or low temperature according to the refrigerant state.
- **Do not operate the air conditioner without the air filter set place. Dust may accumulate, and cause a failure.**
- **At emergency (if you smell something burning), stop operation and turn the power source switch off.**

2.SPECIFICATIONS

MODEL CH-S09FTXG

Model				CH-S09FTXG	
Function				COOLING	HEATING
Rated Voltage				220-240V～	
Frequency (Inverter different Compressor speed)		High	Hz	78	98
		Standard	Hz	53	72
		Low	Hz	15	24
Total Capacity (Inverter different Compressor speed)		High	W / Btu/h	3230 / 11000	4100 / 14000
		Standard	W / Btu/h	2700 / 9200	3600 / 12200
		Low	W / Btu/h	450 / 1500	450 / 1500
Power Input (Inverter different Compressor speed)		High	W	1350	1450
		Standard	W	680	870
		Low	W	200	200
Rated Input			W	1420	1550
Rated Current			A	6.3	6.8
Air Flow Volume		H	m^3/h	520	
		M	m^3/h	370	
		L	m^3/h	280	
Dehumidifying Volume			l/h	0.8	
EER / C.O.P			W/W	3.97/4.2	
Energy Class				A++/A++	
Indoor unit				CH-S09FTXG	
Fan Motor	Speed	H	r/min	1100	
		M	r/min	900	
		L	r/min	700	
	Output		W	10	
	Capacitor		μF	1.2	
	RLA		A	0.16	
Fan	Type-Piece			Cross flow fan – 1	
	Diameter-Length		mm	φ92X594	
Evaporator				Aluminum fin-copper tube	
	Pipe Diameter		mm	7	
	Row-Fin Gap		mm	2-1.4	
	Coil length (l)×height (H)× coil width (L)		mm	610×294×24	
Swing Motor	Model			MP24BA	
	Output		W	1.5	
Fuse (A)			A	PCB 3.15A	
Sound Pressure Level		H	dB (A)	38	
		M	dB (A)	30	
		L	dB (A)	24	
Sound Power Level		H	dB (A)	48	
		M	dB (A)	40	
		L	dB (A)	34	
Dimension (W×H×D) (mm)			mm	770×283×201	
Dimension of Package (L×W×H)			mm	844×342×261	
Net Weight /Gross Weight			kg	8/11	

Remarks:

Rating conditions are:

Cooling: Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating: Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

Outdoor Unit			CH-S09FTXG
Compressor	Manufacturer/trademark		DIT/daikin or GREE
	Model		1YC23AEXD or QXA-B096zC190
	Type		Rotary type
	L.R.A. (A)	A	4
	RLA(A)	A	4
	Power Input(W)	W	600W
	Overload Protector		CS-7SA
Throttling Method			Capillary
Starting Method			Transducer starting
Working Temp Range		℃	-15~48
Heat Exchanger Coil	Coil		Aluminum fin-copper tube
	Pipe Diameter	mm	7
	Rows-Fin Gap	mm	1-1.4
Coil length (l) x height (H) x coil width (L)		mm	647X528X19.05
Fan Motor	Speed	rpm	930
	Output of Fan Motor	W	30
	RLA	A	0.236
	Capacitor	μF	2
Air Flow Volume of Outdoor Unit		m^3/h	1600
Fan	Type-Piece		Axial fan -1
	Diameter	mm	370
Defrosting Method			Auto defrost
Climate Type			T1
Isolation			I
Moisture Protection			IP24
Permissible Excessive Operating Pressure for the Discharge Side		Mpa	3.8
Permissible Excessive Operating Pressure for the Suction Side		Mpa	1.2
Sound Pressure Level		dB (A)	51
Sound Power Level		dB (A)	61
Dimension (W×H×D)		mm	658x550x275
Dimension of Package (L×W×H)		mm	771x348x592
Net Weight /Gross Weight		kg	28/32
Refrigerant	Name of refrigerant		R410A
	Weight	kg	0.74
Connection Pipe	Length (m)	m	5
	Gas additional charge	g/m	20
	Liquid Pipe Diameter	mm	Φ6(1/4")
	Gas Pipe Diameter	mm	Φ9.52(3/8")
Max. Interunit Height Difference		m	5
Max. Interunit Piping Length		m	15

The above data is subject to change without notice. Please refer to the nameplate of the unit.