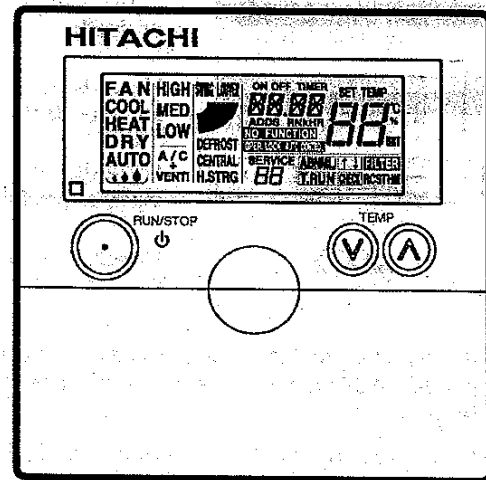


HITACHI
Inspire the Next

Operation Manual

- PC-AR -



IMPORTANT:

READ AND UNDERSTAND
THIS MANUAL BEFORE
USING THIS WIRED REMOTE
CONTROL SWITCH.
KEEP THIS MANUAL FOR
FUTURE REFERENCE.

P5414129

IMPORTANT NOTICE

- HITACHI pursues a policy of continuing improvement in design and performance of products. The right is therefore reserved to vary specifications without notice.
- HITACHI cannot anticipate every possible circumstance that might involve a potential hazard.
- This heat pump air conditioner is designed for standard air conditioning only. Do not use this heat pump air conditioner for other purposes such as drying clothes, refrigerating foods or for any other cooling or heating process.
- No part of this manual may be reproduced without written permission.
- The following words (DANGER, WARNING and CAUTION) are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

▲ DANGER

: Immediate hazards which WILL result in severe personal injury or death.

▲ WARNING

: Hazards or unsafe practices which COULD result in severe personal injury or death.

▲ CAUTION

: Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

NOTE

: Useful information for operation and/or maintenance.

- It is assumed that this heat pump air conditioner will be operated and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language.
- If you have any questions, contact your distributor or dealer of HITACHI.

TABLE OF CONTENTS

1. Safety Summary	1
2. Name of Part	2
3. Operation Method (Cooling, Heating, Dry and Fan Operations)	3
4. Setting Method (Temperature, Fan Speed and Swing Louver Direction)	4
5. Timer Operation	5
6. Ventilation	6
7. Automatic Cooling/Heating Operation (Applicable for Simultaneous Cooling/Heating Models Only)	6
8. Adjustment of Swing Louver Direction	7
9. Operation Lock	7
10. Operation Procedure for Elevating Grille	8
11. Other Indications	9
11.1 Indications When in Normal Condition	9
11.2 Indications When in Abnormal Condition	10

1. Safety Summary

DANGER

- Do not pour water into the remote control switch (hereafter called "controller"). This product is equipped with electrical parts. If poured, it will cause a serious electrical shock.
- Do not operate switches by wet hand. It may cause an electrical shock.
- In case that the protective devices often function or the operation switches do not function well, turn OFF the main power supply and contact your distributor or dealer of HITACHI.
- In case that other abnormalities are found, stop the system, turn OFF the main power supply and contact your distributor or dealer of HITACHI.

WARNING

- Do not perform installation work and electrical wiring connection by yourself. Contact your distributor or dealer of HITACHI and ask them for installation work and electrical wiring by service person.
- Do not modify the electrical wiring. It may cause serious accident.

CAUTION

- Do not install the indoor unit, outdoor unit, controller and cable at such places as;
 - (1) where there is oil vapor and the oil is dispersed
 - (2) where the hot springs are near (in a sulfuric environment)
 - (3) where generation, flowing, staying or leaking of flammable gas is detected
 - (4) where the sea is near (in the salty environment)
 - (5) an acid or alkaline environment
- Do not install the indoor unit, outdoor unit, controller and cable within approximately 3 meters from strong electromagnetic wave radiators such as medical equipment. In case that the controller is installed in a place where there is electromagnetic wave radiation, shield the controller and cables by covering with the steel box and running the cable through the metal conduit tube.
- In case that there is electric noise at the power source for the indoor unit, provide a noise filter.

4. Setting Method (Temperature, Fan Speed and Swing Louver Direction)

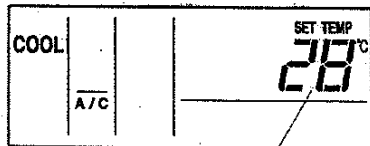
ATTENTION

Do not touch the "CHECK" switch.

- The "CHECK" switch is used only when servicing.
- In case that the "CHECK" switch is pressed by mistake and the operation mode is changed to the check mode. Press the "CHECK" switch again for approximately 3 seconds, and press the "CHECK" switch once again after 10 seconds, and the operation mode is changed to the normal condition.

Setting of Temperature

Adjust the temperature by pressing "TEMP" \wedge or \vee switch.



Indication when Setting 28°C

The temperature is increased by 1°C by pressing \wedge switch (Max. 30°C).

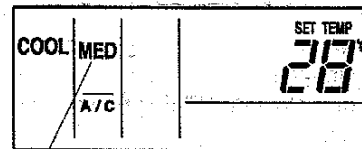
The temperature is decreased by 1°C by pressing \vee switch (Min. 19°C in case of COOL, DRY and FAN mode, Min. 17°C in case of HEAT mode).

NOTE

- When "Automatic Restarting from Setting Temperature" function is selected, the temperature is automatically returned to the preset setting temperature in a certain period of time after the setting temperature change.
- Max. or Min. temperature setting value is available to change by selecting "Cooling Lower Limit Value and Heating Upper Limit Value for Setting Temperature" function.

Setting of Fan Speed

Press the "FAN SPEED" switch.



Indication when Setting MED Speed

By repeatedly pressing the "FAN SPEED" switch, the indication is changed in order of HIGH, MED and LOW.

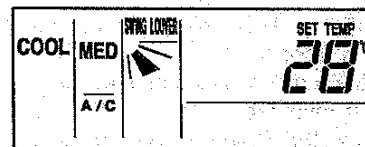
For standard operation, set the fan speed at HIGH.

NOTE

In case of DRY mode, the fan speed is automatically changed to LOW, and can not be changed (However, the indication shows the present setting condition).

Setting of Swing Louver Direction

When press the "SWING LOUVER" switch, the swing louver starts to swing. When press the "SWING LOUVER" switch again, the swing louver is fixed.



By repeatedly pressing the "SWING LOUVER" switch, the swing louver repeats to stop and swing.

<When Fixed>

The indication shows the air flow direction:

<When Swinging Automatically>

The indications move continuously corresponding to the louver swing.

NOTE

In case of heating operation, the louver angle is automatically changed.

5. Timer Operation

This function is used to start or stop operation after a set time.

Three timer setting modes are available:
ON Timer, OFF Timer and ON/OFF Timer.

*** ON Timer:**

Press the "ON/OFF TIMER" switch when the system is stopped. The operation starts after a set time.

*** OFF Timer:**

Press the "ON/OFF TIMER" switch when the system is operated. The operation stops after a set time.

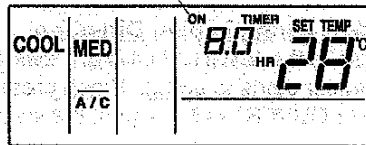
*** ON/OFF Timer:**

Press the "ON/OFF TIMER" switch during ON Timer (OFF Timer) setting. The operation starts (stops) after ON (OFF) Timer set time. In the same way, the operation stops (starts) after OFF (ON) Timer set time.

Step 1

Press the "ON/OFF TIMER" switch.

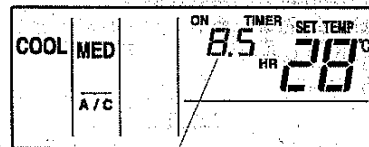
Indication when Setting ON TIMER Mode



ON TIMER mode is indicated in case that the system is stopped.
OFF TIMER mode is indicated in case that the system is operated.
When ON/OFF TIMER is set, ON TIMER mode and OFF TIMER mode are alternatively indicated every time pressing the switch.

Step 2

Set the required time by pressing the "TIME" Δ or ∇ switch.



Indication when Setting 8.5 hours for Timer Operation

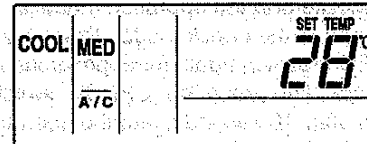
- The set time is increased by 0.5 hours with pressing the Δ switch (Max: 72.0 hours) and decreased by 0.5 hours with pressing the ∇ switch (Min: 0.5 hours).
- In case that the required time is not set, the set time is automatically indicated at 8.0 hours.

NOTE

When ON/OFF Timer is set, the prior set time is indicated on a priority base.

Cancel

Press the "ON/OFF TIMER" switch for 3 seconds.



6. Ventilation

<Function>

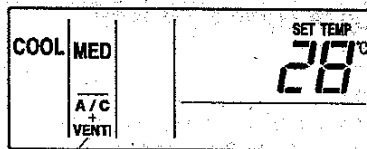
- * A/C (Air Conditioning):
To operate the air conditioner individually.
- * VENTI (Ventilation):
To operate the total heat exchanger individually.
- * A/C+VENTI:
To operate the air conditioner and the total heat exchanger together.

ATTENTION

This function is available only when the total heat exchanger is connected.
When the procedures below are performed without the total heat exchanger connected, "NO FUNCTION" flashes for 5 seconds.

Ventilation

Press the "VENTI" switch.



Indication when Setting "A/C+VENTI"

By repeatedly pressing the "VENTI" switch, the indication is changed in order of A/C, VENTI and A/C+VENTI.

Contact your distributor or dealer of HITACHI for detailed information.

- In case that the mode is changed to VENTI during the individual operation of the air conditioner, the air conditioner is stopped.
- In case that the mode is changed to A/C during the individual operation of the total heat exchanger, the total heat exchanger is stopped.

7. Automatic Cooling/Heating Operation (Applicable for Simultaneous Cooling/Heating Models Only)

The automatic cooling/heating operation is required to be set by the optional function. Contact your distributor or dealer of HITACHI for detailed information.

This function is to change the operation modes, of cooling or heating automatically according to the temperature difference between the set temperature and the suction air temperature.

In case that the suction air temperature is higher than the set temperature by 3°C, the operation is changed to COOL mode; and lower than the set temperature by 3°C, the operation is changed to HEAT mode.

NOTE

- In case of heating operation at the LOW fan speed, the operation often stops by the operation of the protective devices. In such cases, set the fan speed at HIGH or MED.
 - In case that the outdoor temperature is higher than approximately 21°C, the heating operation is not available.
 - The temperature difference between cooling and heating operation is quite big in case of using this function. Therefore, this function can not be used for the air conditioning of the room where requires accurate control of temperature and humidity.
-

8. Adjustment of Swing Louver Direction

This function is to adjust the air flow angle as required by changing the louver angle.

The swing louver can be set in the following two ways:

*** Fixed:**

The louver can be fixed at the required angle.

*** Auto-swing:**

The louver swings and changes the angle continuously.

Press the "SWING LOUVER" switch.

By pressing the "SWING LOUVER" switch when the louver is fixed, the louver starts to swing automatically.

By pressing the "SWING LOUVER" switch when the louver is swinging automatically, the louver stops swinging and fixed.

Fixed: The indication is stopped.



Auto-swing: The indication is changed continuously.



Fixing Method

Make the louver swing, press the "SWING LOUVER" switch and fix the louver when the louver indication is at the required position.

NOTE

- The louver angle indicated on the liquid crystal display and the actual louver angle is not corresponding precisely during the auto-swing mode operation. When fixing the louver, set the angle according to the louver position indicated on the liquid crystal display.
- The louver may not start or stop swinging immediately when the switch is pressed.

CAUTION

Do not move the swing louver by hand. If moved, the louver mechanism will be damaged.

See the each unit manual for details of the "Adjustment of Swing Louver Direction".

9. Operation Lock

This function is to void the following controller operations.

- (1) Operation Mode Change
- (2) Setting Temperature
- (3) Fan Speed
- (4) Swing Louver
- (5) ON/OFF Timer

Setting

Press the "TIME" ∇ and Δ switches simultaneously for 3 seconds.

"OPER. LOCK" indication is turned ON and above switch operations are not available.

When operate the switch restricted by operation lock function, "OPER. LOCK" flashes.

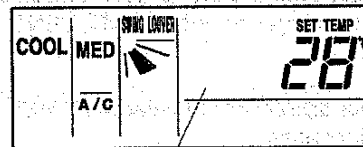


When the operation lock function is selected, "OPER. LOCK" is turned ON.

Cancel

Press the "TIME" ∇ and Δ switches simultaneously for 3 seconds.

"OPER. LOCK" indication is turned OFF and above operations are available.

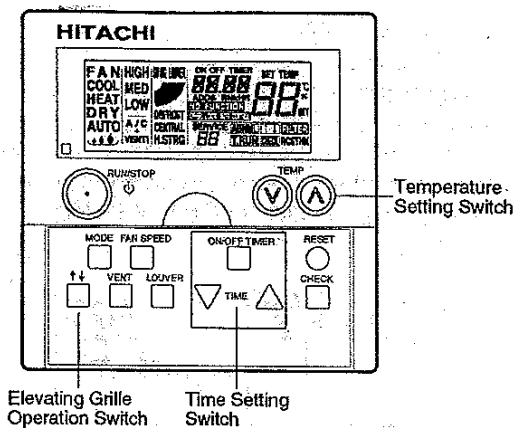


When the operation lock function is canceled, "OPER. LOCK" is turned OFF.

NOTE

- Every time pressing the "TIME" ∇ and Δ switches simultaneously for 3 seconds, the availability of the operation lock function is switched alternately.
- The operation to be locked can be selected by the function setting. Contact your distributor or dealer of HITACHI for detailed information.

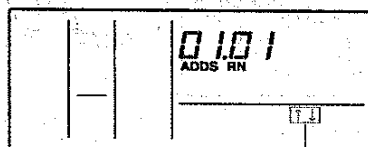
10. Operation Procedure for Elevating Grille



- 1) Press the "↑↓" switch (Elevating Grille Operation Switch).

NOTE:

When the unit is operating, Elevating Grille operation is not available.



Turned ON

- 2) Move the air intake grille downward by pressing "TIME" ▽ switch.

NOTE:

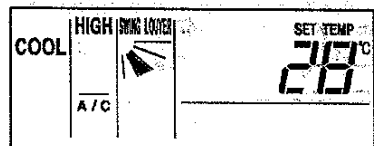
When "TIME" ▽ switch is pressed, the air intake grille moves downward and stops at the setting distance. In case of stopping the air intake grille moved downward, press "TIME" △ switch.

- 3) Move the air intake grille upward by pressing "TIME" △ switch.

NOTE:

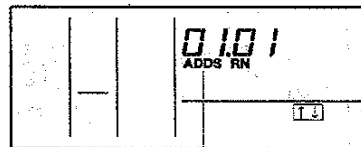
In case of stopping the air intake grille moved upward, press "TIME" ▽ switch.

- 4) Press the "↑↓" switch (Elevating Grille Switch) after air intake grille is set in the air panel completely. The unit operation is available.



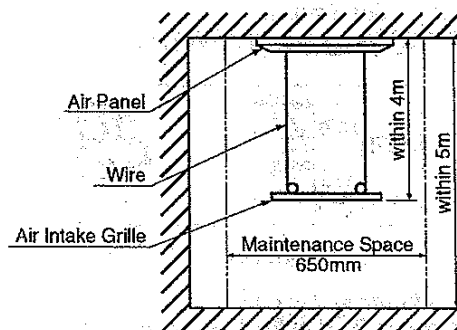
NOTE

- In case that remote control switch is connected with plural indoor units, select the indoor unit address by pressing "TEMP" (V) (A) switch.



The address number is changed.

- Maximum setting distance of Elevating Grille is 4m.



- If the Elevating Grille is operated continuously with the main power source of over 240V, the temperature of the Elevating Grille motor coil will rise and motor will be damaged. Do not operate the Elevating Grille for more than 4 minutes continuously.

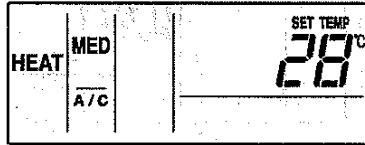
11. Other Indications

11.1 Indications When in Normal Condition

Thermo-controller

Fan Speed

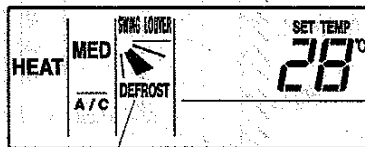
The fan speed is changed to LOW at the thermo-controller actuation. However, the indication is not changed. (Only in the heating operation mode)



Defrost

Operation Conditions

"DEFROST" is turned ON during the defrosting.

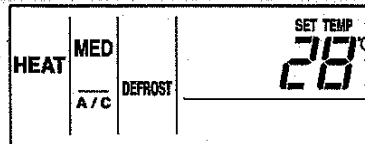


Turned ON

The indoor fan is stopped.
The louver is fixed at the horizontal position.
However, the louver indication of LCD continues to activate.

Operation Stop

The RUN indicator (RUN) is turned OFF when the operation is stopped during the defrosting.

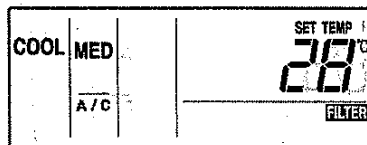


However, the operation continues with "DEFROST" indication, and the unit is stopped after the defrost operation is finished.

Filter

Filter Clogging

"FILTER" is turned ON when the filter is clogged with dust, etc. Clean up the filter.



Press the "RESET" switch after cleaning up the filter. The "FILTER" is turned OFF.

Operation Control

Supplying Electrical Power

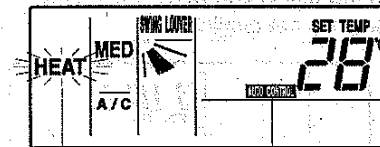
"AUTO CONTROL" is flashing.
The compressor is under preheating. The operation may not be available for Max. 4 hours.
Do not turn off the outdoor unit electrical power during the high season for Cooling/Heating operation.



Flashing

Hot Start

"AUTO CONTROL" is turned ON.



Flashing

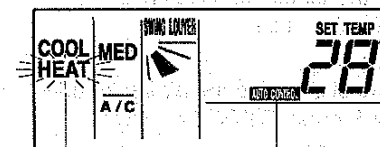
Turned ON

Different Operation Mode

The operation mode set by the controller is different with the outdoor unit operation mode. (Except for the simultaneous cooling/heating models.)

"AUTO CONTROL" is turned ON.

The indication of the actual operation mode is flashing.



Flashing

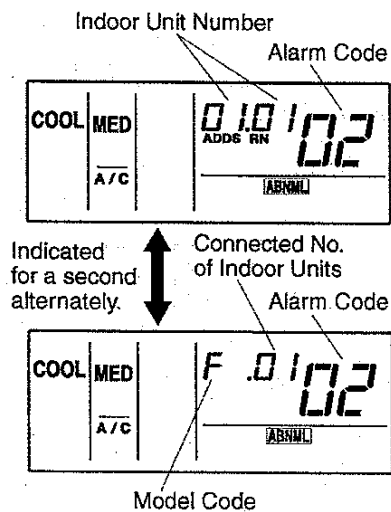
Turned ON

Indication when "Cooling" operation is set by the controller at the outdoor unit "Heating" operation.

11.2 Indications When in Abnormal Condition

Abnormality

- The RUN indicator (Red) is flashing.
- "ABNML" is indicated on the liquid crystal display.
- The indoor unit number, the alarm code, the model code and the connected number of indoor units are indicated on the liquid crystal display.
- In case that the plural indoor units are connected, the above items for each indoor unit are indicated one by one.



Check the contents of the indications and contact your distributor or dealer of HITACHI.

Power Failure

- All the indications are OFF.
- Once the unit is stopped by the power failure, the unit will not be started again although the power recovers. Perform the starting procedures again.
- In case of instantaneous power failure within 2 seconds, the unit will be started again automatically.

Electric Noise

There could be a case that all the indications are OFF and the unit is stopped. This is occurred by the activation of the micro computer for the unit protection from the electric noise.

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