Wired Remote Controller
7 Day Programmable Thermostat
Ductless Systems
KSACN0901AAA (High Wall)

Owner's Manual

Fig. 1 — Wired Controller

NOTE: Images are for illustration purposes only. Actual models may differ slightly.

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NOTE: In order to properly service the wired controller, read this manual carefully prior to operating the unit. Keep this manual after reading for future reference.

SAFETY CONSIDERATIONS

Installing, starting up, and servicing air-conditioning equipment can be hazardous due to system pressures, electrical components, and equipment location (roofs, elevated structures, etc.). Only trained, qualified installers and service mechanics should install, start-up, and service this equipment. Untrained personnel can perform basic maintenance functions such as cleaning coils.

When working on the equipment, observe precautions in the literature and on tags, stickers, and labels attached to the equipment.

Follow all safety codes. Wear safety glasses and work gloves. Keep a quenching cloth and fire extinguisher nearby when brazing. Use care in handling, rigging, and setting bulky equipment.

Read these instructions thoroughly and follow all warnings or cautions included in the literature and attached to the unit. Consult the local building codes and National Electrical Code (NEC) for special requirements. Recognize safety information.

This is the safety-alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words: **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol.

DANGER identifies the most serious hazards which will result in severe personal injury or death.

WARNING signifies hazards which could result in personal injury or death. **CAUTION** is used to identify unsafe practices which may result in minor personal injury or product and property damage.

NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

CAUTION

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death. Before beginning any modification or installation of this kit, ensure the main electrical disconnect is in the **OFF** position. Ensure power is disconnected to the fan coil unit. On some systems both the fan coil and the outdoor unit may be on the same disconnect. Tag the disconnect switch with a suitable warning label. There may be more than one to disconnect.

CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation. Do not install the wired controller in an area subjected to excessive steam, oil or sulfide gas. Doing so may damage the controller and/or cause it to fail.

WIRED CONTROLLER FEATURES AND FUNCTIONS

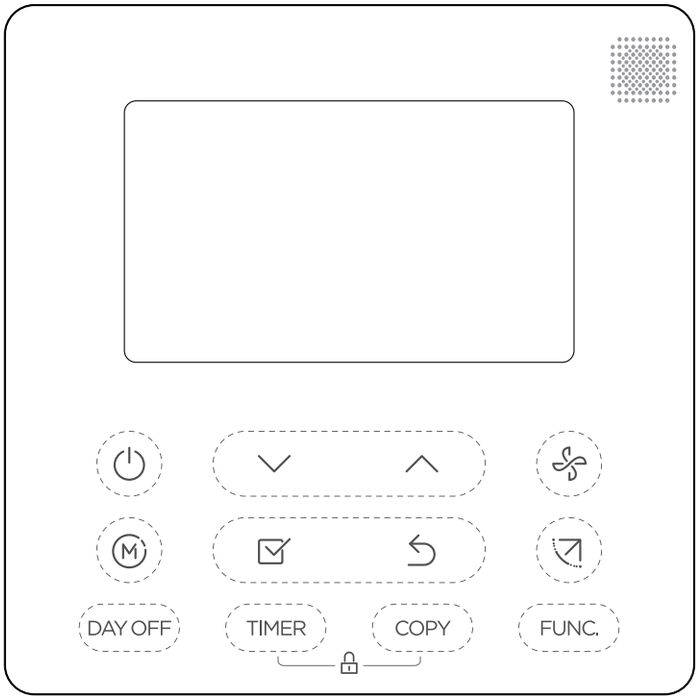


Fig. 2 — Wired Controller

Features:

- LCD display
- Malfunction code display for error code display
- 4-way wire layout design, smooth rear surface makes it easier to position the wires and install the controller
- Room temperature display
- Weekly timer

Functions:

- Mode: select AUTO-LOW-DRY-HEAT-FAN
- Fan Speed: AUTO/LOW/MEDIUM/HIGH
- Swing (on some models)
- Timer ON/OFF
- Temperature Setting
- Weekly Timer
- FOLLOW ME
- Turbo
- 24-Hour System
- 12-Hour System
- 8 degree heating function (on some models)
- Sleep
- Auto-restart
- Individual louver control (on some models)
- Automatic airflow test
- Child Lock
- LCD display
- Clock

WIRED CONTROLLER DISPLAY

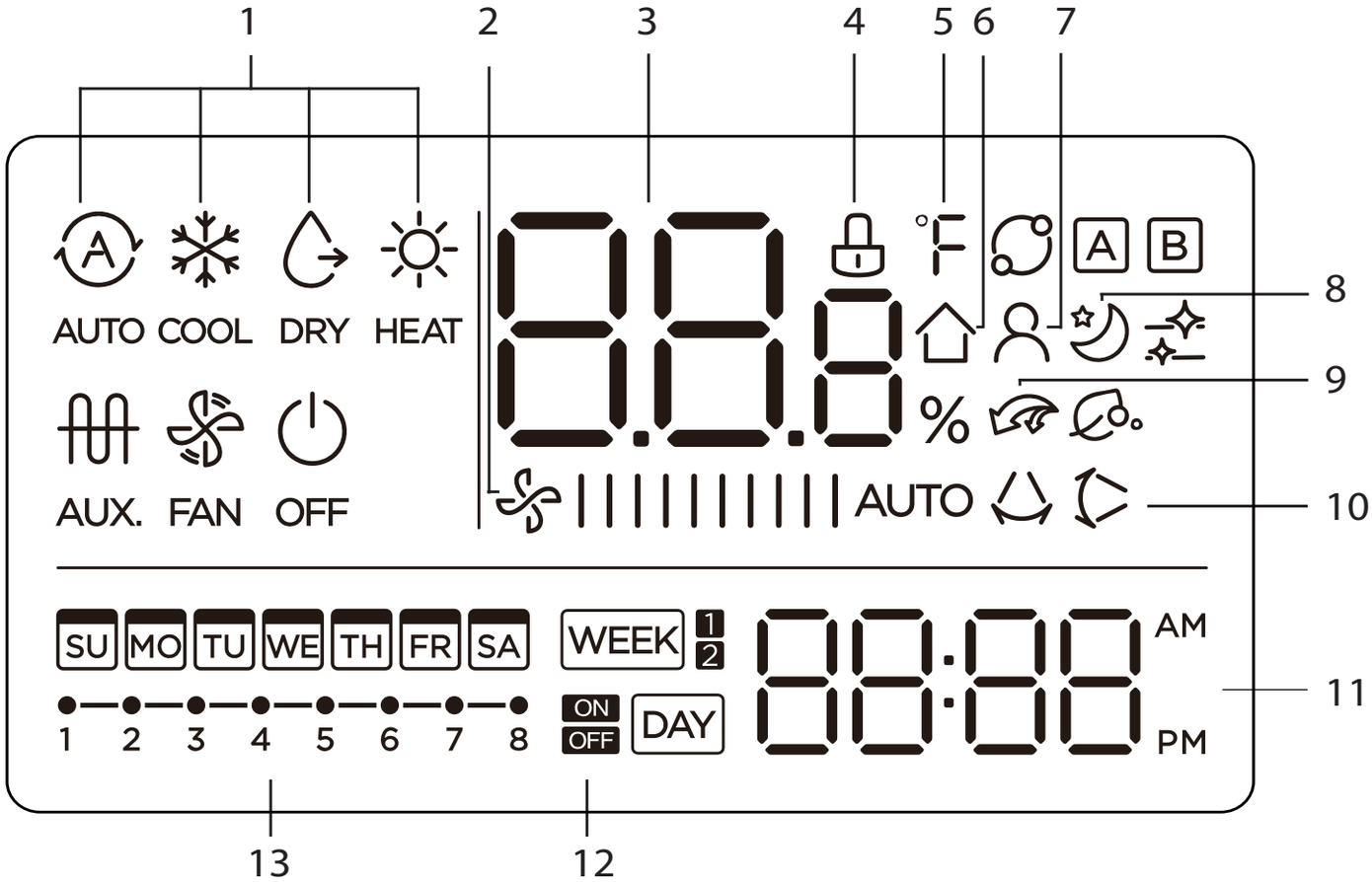


Fig. 3 — Wired Controller Display

1. Operation mode indication
2. Fan speed indication
3. Temperature display
4. Lock indication
5. °F / °C indication
6. Room temperature indication
7. Follow Me function indication
8. Sleep mode indication
9. Electric Auxiliary Heat/Turbo Function

NOTE: AHU models only have Turbo function.

10. Left-Right Swing
11. Clock display
12. ON/OFF Timer
13. Timer Display

WIRED CONTROLLER FUNCTIONS

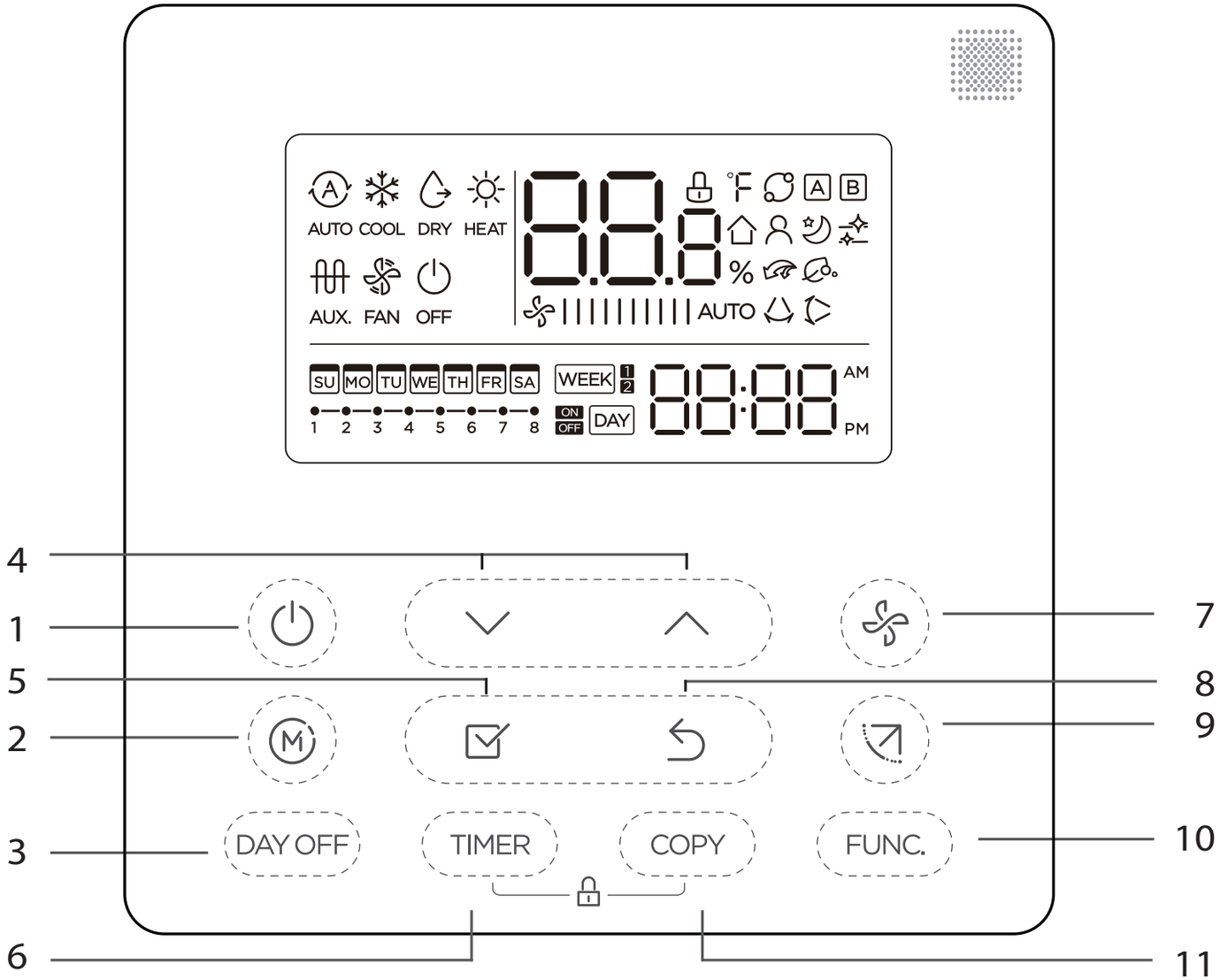


Fig. 4 — Wired Controller Functions

1. Power
2. Mode
3. Day Off/Del
4. Adjust
5. Confirm
6. Timer
7. Fan Speed
8. Back
9. Swing
10. Function
11. Copy
12. IR (Infrared) Signal Receiver

INITIAL SETUP

Set the current day and time

NOTE: The Wired Controller can be powered ON or OFF during this step.

1. Press **TIMER** for 2 seconds or more to set the current date and time. The **TIMER** display flashes (see Fig 5).

Fig. 5 —Timer

2. Press the **UP** or **DOWN** arrow (Fig. 6) to set the week day; the selected week day will flash (Fig. 7).

Fig. 6 —Up or Down Arrows

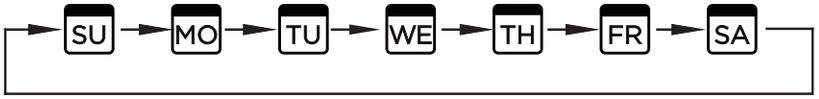


Fig. 7 — Days of the Week

3. Press **TIMER** to confirm. If there is no button pressed within 10 seconds, the displayed week day will be saved.

4. Press the **UP** or **DOWN** arrows (Fig. 6) to set the current time. Press repeatedly to adjust the current time in 1-minute increments. Press and hold to adjust the current time continuously. Press **TIMER** to confirm. If there is no button pressed within 10 seconds the displayed time is saved.

ex. Monday 11:20

Fig. 8 — Week Day and Time

5. **Time scale selection:** Press **TIMER** (see Fig. 5) and **DAY OFF** (Fig. 9) for 2 seconds to alternate the clock time display between the 12 hour and 24 hour formats.

Fig. 9 — Timer

Start and Stop Operation

- Press **POWER** (Fig. 10) to power on the controller.

Fig. 10 — Power

To Set the Operation Mode

- Press **MODE** (see Fig. 11) to set the **OPERATION MODE** (see Fig. 12) (**HEAT** function is invalid for a **COOL** only type unit).

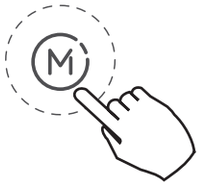


Fig. 11 — Mode

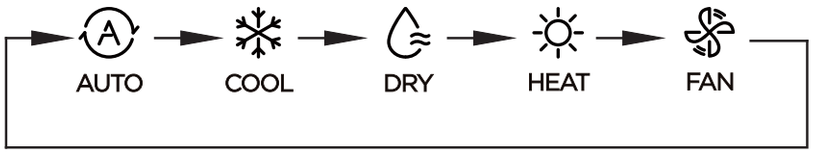


Fig. 12 — Operation Modes

Room Temperature Setting

1. Press the **UP** or **DOWN** arrow (Lower or Raise (see Fig.13)) to set the room temperature.

NOTE: This function in unavailable in FAN mode.

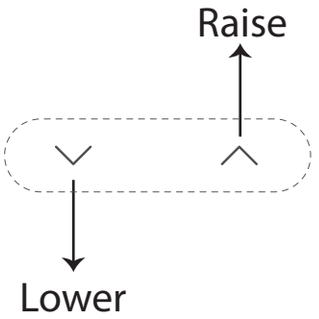


Fig. 13 — Up or Down Arrows (Lower and Raise)

Indoor Setting Temperature Range:
62°F~86°F (17°C~30°C)

2. **°F and °C Scale Selection** - Press and hold the **UP** or **DOWN** arrow for 3 seconds to alternate the temperature display between the °F and °C scale.

Fan Speed

- Press **FAN SPEED** to set the fan speed.

NOTE: This function is unavailable when the unit is in AUTO or DRY mode.

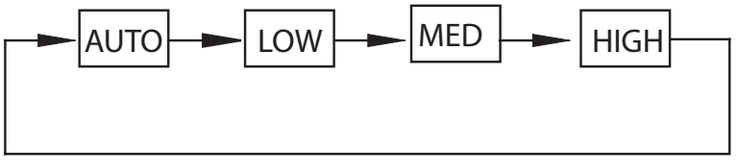


Fig. 14 — Fan Speed

Keypad Tone

Enable Keypad Tone

- Press **SWING** and **FUNC.** together **(**Fig. 15) for 3 seconds to enable the keypad tone.

Disable Keypad Tone

- Press **SWING** and **FUNC.** together **(**Fig. 15) for 3 seconds to disable the keypad tone.

Fig. 15 — Keypad Tone Set

Use the Child Lock Function

Activate the Child Lock

- Press **TIMER** and **COPY** (Fig. 16) together for 3 seconds to activate the **CHILD LOCK** function and lock all the buttons on the wired controller. When the **CHILD LOCK** function is activated, the **LOCK** icon appears (Fig. 17).

De-activate the Child Lock

- Press **TIMER** and **COPY** (Fig. 16) together for 3 seconds to deactivate the **CHILD LOCK** function.

Fig. 16 — Timer and Copy

Fig. 17 — Child Lock

Use the Swing (UP-DOWN) Function (for some models only)

1. Press **SWING** (Fig. 18) for 2 seconds to start the **UP-DOWN LOUVER SWING** function. When the function is activated, the **UP - DOWN SWING** icon appears (Fig. 19).

NOTE: For the KSACN0601AAA model, press SWING to start the UP-DOWN LOUVER SWING function. For the KSACN0701AAA model, press SWING for 2 seconds to start the UP-DOWN LOUVER SWING function.

2. Press **SWING** again to stop.

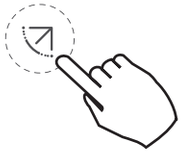


Fig. 18 — Swing

Fig. 19 — Up-Down Swing

Use the Swing (LEFT-RIGHT) Function (for some models only)

1. Press **SWING** (Fig. 18) for 2 seconds to start the **LEFT-RIGHT SWING** louver function.
2. Press **SWING** again for 2 seconds to stop.

When the **LEFT-RIGHT SWING** function is activated, the **LEFT-RIGHT SWING** icon appears (Fig. 20).

Fig. 20 — Left-Right Swing

Sleep

In the **AUTOMATIC**, **COOLING** or **HEATING** mode, press **FUNC.** to select the **SLEEP** icon, and then press **CONFIRM** to turn the **SLEEP** function on or off, and set the wind speed to automatic wind.

After the sleep function is turned on, turning on turbo, 8-degree heating, switching modes, or adjusting the wind speed will cancel the **SLEEP** function.

Turbo (on some models)

Under the **COOL** or **HEAT** mode, **TURBO** and **FOLLOW ME** can be activated.

1. Press **FUNC.** to set the **TURBO** or **FOLLOW ME** function. The select function icon flashes.

Fig. 21 — FUNC.

2. Press **CONFIRM** to confirm the setting (see Fig. 22).

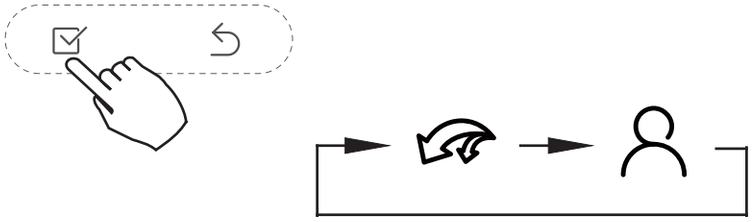


Fig. 22 — Confirm the Setting

When **TURBO** is activated, the **TURBO** icon appears (see Fig. 23).

Fig. 23 — Turbo

NOTE: The electric auxiliary heating function of the AHU model is controlled by the MODE button, and the FUNC. button is for the turbo function.

FOLLOW ME

Activate FOLLOW ME

1. Press **FUNC.** to select the **FOLLOW ME** icon.
2. Press **CONFIRM** to activate **FOLLOW ME**.

Deactivate FOLLOW ME

1. Press **FUNC.** to select the **FOLLOW ME** icon.
2. Press **CONFIRM** to deactivate.

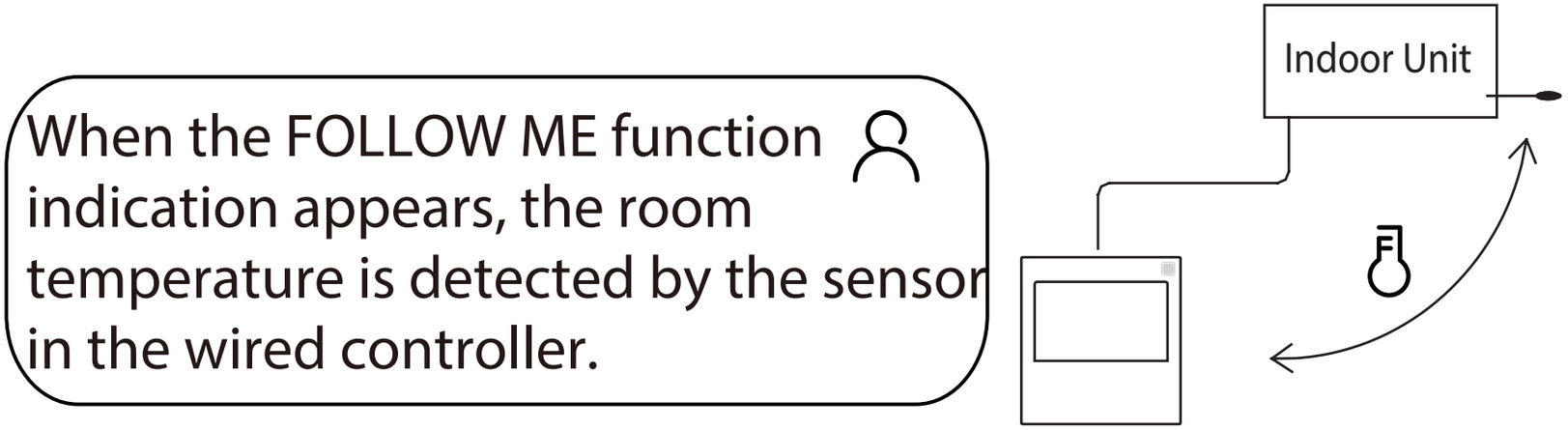


Fig. 24 — FOLLOW Me

Timer Functions

For more information, see “To Set the ON or OFF TIMER” on page 15.

- **Weekly:** Use the **WEEKLY** function to set operating times for each day of the week.

Fig. 25 — WEEK

- **On: Day:** Use the **ON:DAY** function to start air conditioner operation.

Fig. 26 — ON:DAY

- **Off: Day:** Use the **OFF:DAY** function to stop air conditioner operation.

Fig. 27 — OFF:DAY

- **On and Off: Day:** Use the **On and Off: Day** function to start and stop air conditioner operation.

Fig. 28 — ON and OFF:DAY

To Set the ON or OFF TIMER

1. Press **TIMER** to select the **ON:DAY** or **OFF:DAY.**

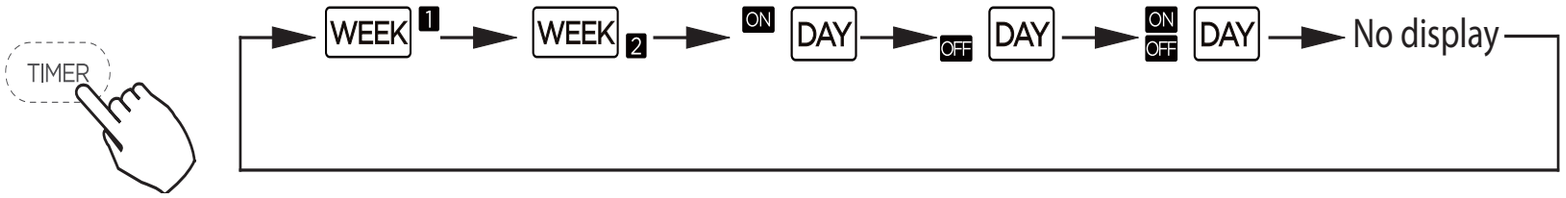


Fig. 29 — Select the ON:DAY or OFF:DAY

2. Press **CONFIRM** and the **TIMER** display flashes.

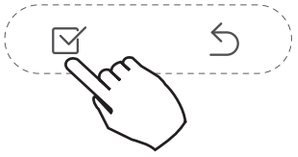


Fig. 30 — Confirm

3. Press the **UP** or **DOWN** arrow to set the time. After the time is set, the timer starts or stops.

Fig. 31 — Up or Down arrow to set time

4. Press **CONFIRM**.

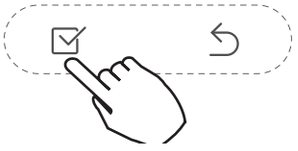


Fig. 32 — Confirm

WEEK AND DAY SETTINGS FOR WEEK 1

WEEK 1 Timer Setting

1. Press **TIMER** (several times if needed) to select **WEEK 1**.
2. Press **CONFIRM**.

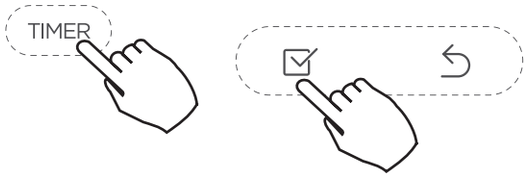


Fig. 33 — Press Timer then Confirm

Day of the WEEK Setting

1. Press the **UP or DOWN** arrow to select the day of the week.
2. Press **CONFIRM**.

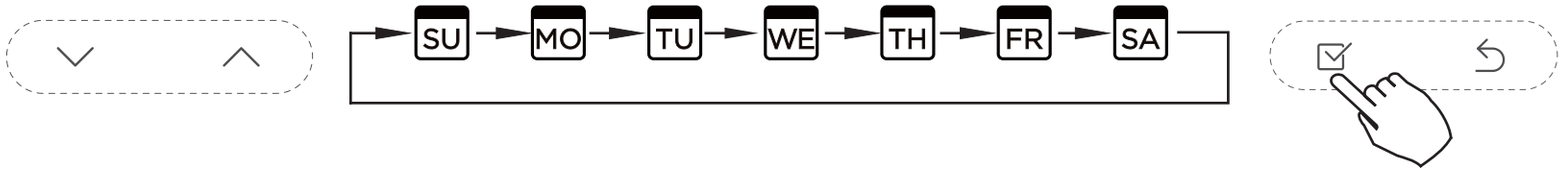


Fig. 34 — Press Up and Down Arrows - Select Day - Confirm

SET the ON Timer for Timer Setting 1

1. Press the **UP or DOWN** arrow to set the time of the **ON** timer.
2. Press **CONFIRM**.

Fig. 35 — Up or Down Arrow - Confirm

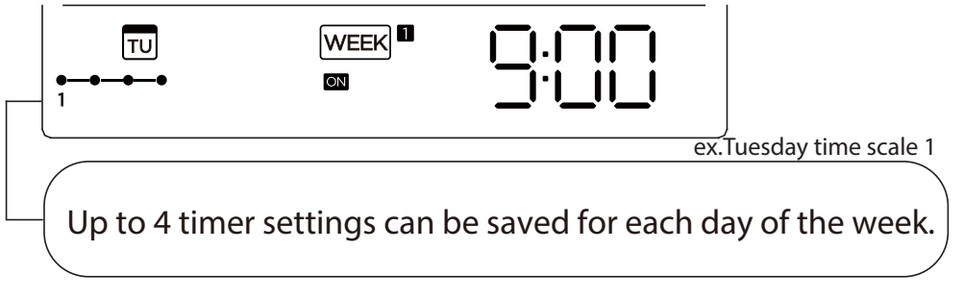


Fig. 36 — Select Timer Setting(s)

Set the OFF Timer Setting for Timer Setting 1

1. Press the **UP or DOWN** arrow to set the **OFF** timer.
2. Press **CONFIRM**.

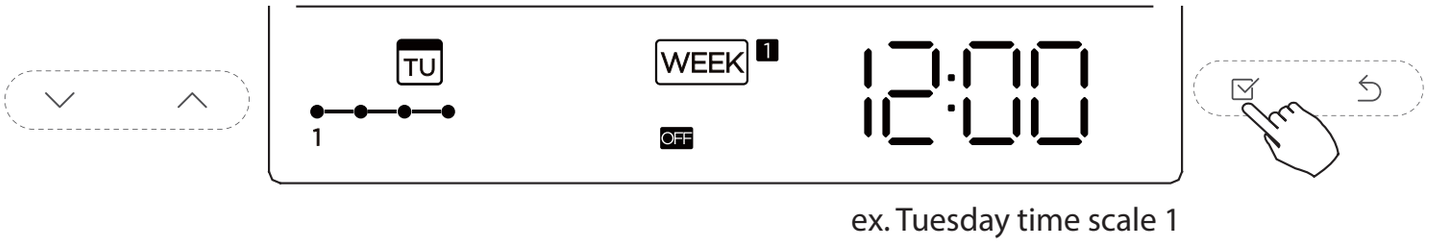


Fig. 37 — UP or DOWN Arrow - Confirm

NOTE: Users can revert to the previous step by pressing BACK. The time of the timer setting can be deleted by pressing DAY OFF. The current setting is restored and the weekly timer setting is withdrawn when there is no operation selected in 30 seconds.

WEEKLY TIMER OPERATION

To activate the WEEKLY TIMER operation

1. Press and release **TIMER** until **WEEK 1** appears on the display.

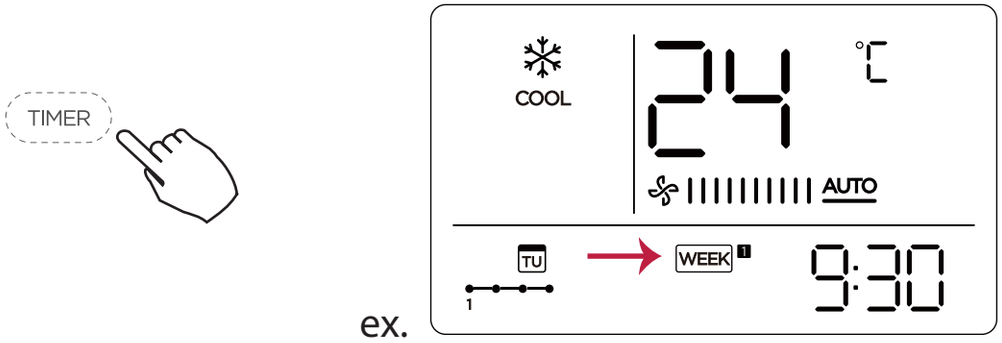


Fig. 38 — Press Timer

To deactivate the WEEKLY TIMER operation

1. Press and release **TIMER** until **WEEK 1** no longer appears on the display.

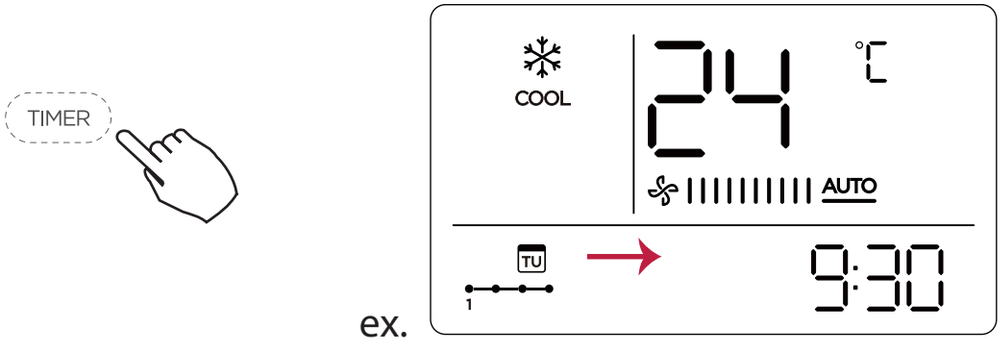


Fig. 39 — Press Timer

To Turn Off the Air Conditioner with the Week Timer

1. Press **POWER** and the air conditioner turns **OFF** temporarily. The air conditioner turns back on automatically when the **ON** timer's set time is reached. For example, press **POWER** once at 10:00 AM, the air conditioner turns back on at the timer setting 2:00 PM (Fig. 40).

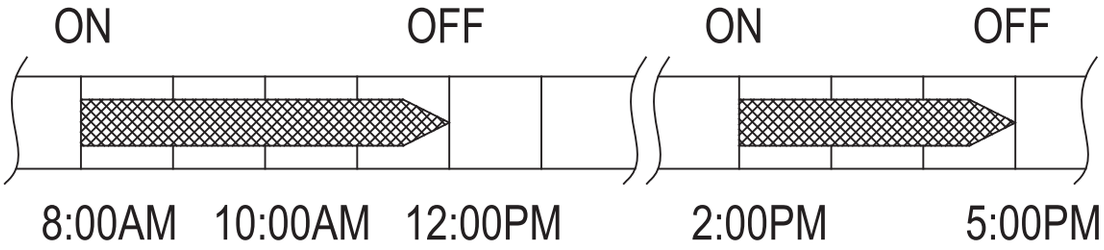


Fig. 40 —Weekly Timer Display

2. Press **POWER** for 2 seconds, the air conditioner turns off completely and cancels the timing function.

Set the DAY OFF For WEEK 1

1. Select **WEEK 1** then press **CONFIRM**. **For more information, see "WEEKLY TIMER OPERATION" on page 18.**

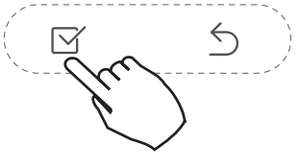


Fig. 41 — Confirm

2. Press the **UP or DOWN** arrow to select the day of the week.

Fig. 42 — Up or Down Arrows

3. Press **DAY OFF** to select day(s) off.

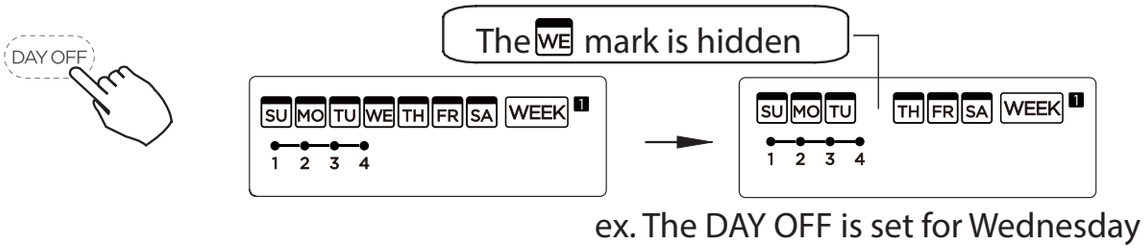


Fig. 43 — Select Day(s) off

A **DAY OFF** can be set for other days by repeating steps 2 through 3.

4. Press **BACK** to revert to the weekly timer.

Fig. 44 — Back

The **DAY OFF** setting is canceled at the end of the set day.

Copy the Setting from One Day to Another

A scheduled event, made once, can be copied to another day of the week. The scheduled events of the selected day will also be copied to the new day.

1. During the weekly timer, press **CONFIRM**.

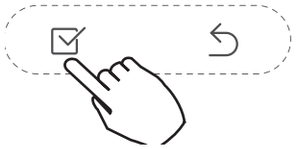


Fig. 45 — Confirm

2. Press the **UP or DOWN** arrow to select the day to copy from.

Fig. 46 — Up or Down Arrows

3. Press **COPY**, **"CY"** appears on the display.

Fig. 47 — Copy

4. Press the **UP or DOWN** arrow to select the day to copy to.

Fig. 48 — Up or Down Arrow

5. Press **COPY** to confirm.

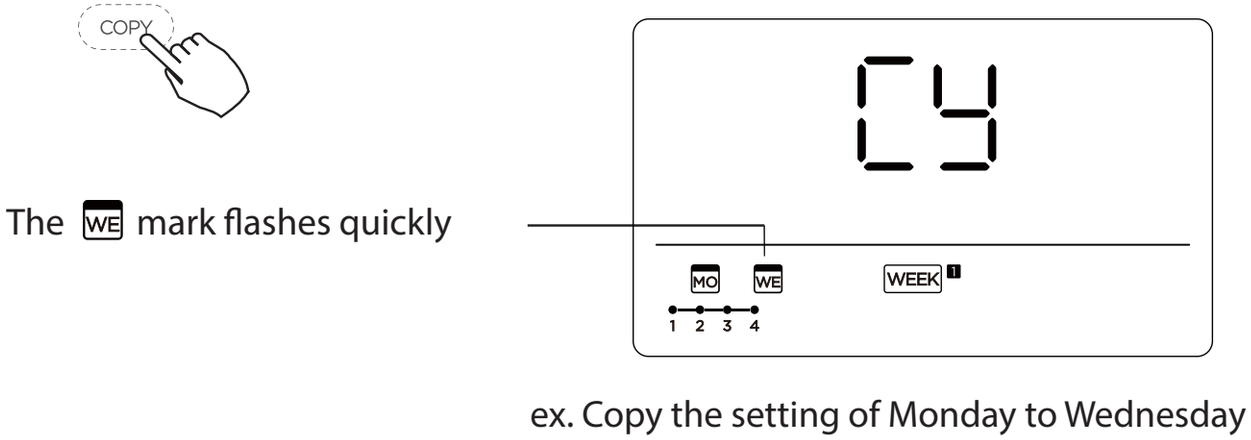


Fig. 49 — Copy

Other days can be copied by repeating steps 4 through 5.

6. Press **CONFIRM**.

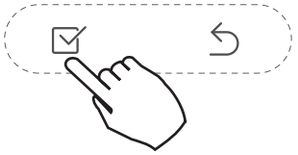


Fig. 50 — Confirm

7. Press **BACK** to revert to the weekly timer.

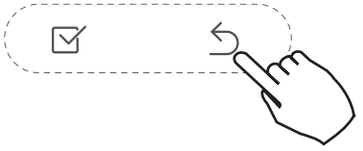


Fig. 51 — Back

WEEK AND DAY SETTINGS FOR WEEK 2

WEEK 2 Timer Setting

1. Press **TIMER** (repeatedly if need be) to select **WEEK 2**
2. Press **CONFIRM**.

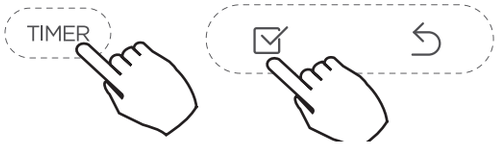


Fig. 52 — Timer and Confirm

Day of the WEEK 2 Setting

1. Press the **UP or DOWN** arrow to select the day of the week.
2. Press **CONFIRM**.

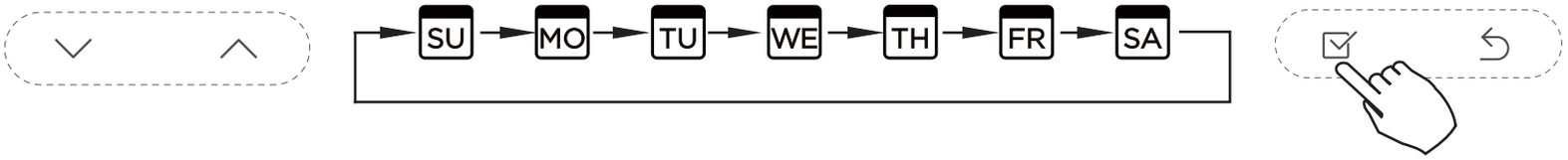


Fig. 53 — Up or Down Arrows - Select Day - Confirm

SET the ON Timer for Timer Setting 1

1. Press the **UP or DOWN** arrow to select the timer setting number of the day **(**1-8**).**
2. Press **CONFIRM**.

Fig. 54 — Up or Down Arrows - Confirm

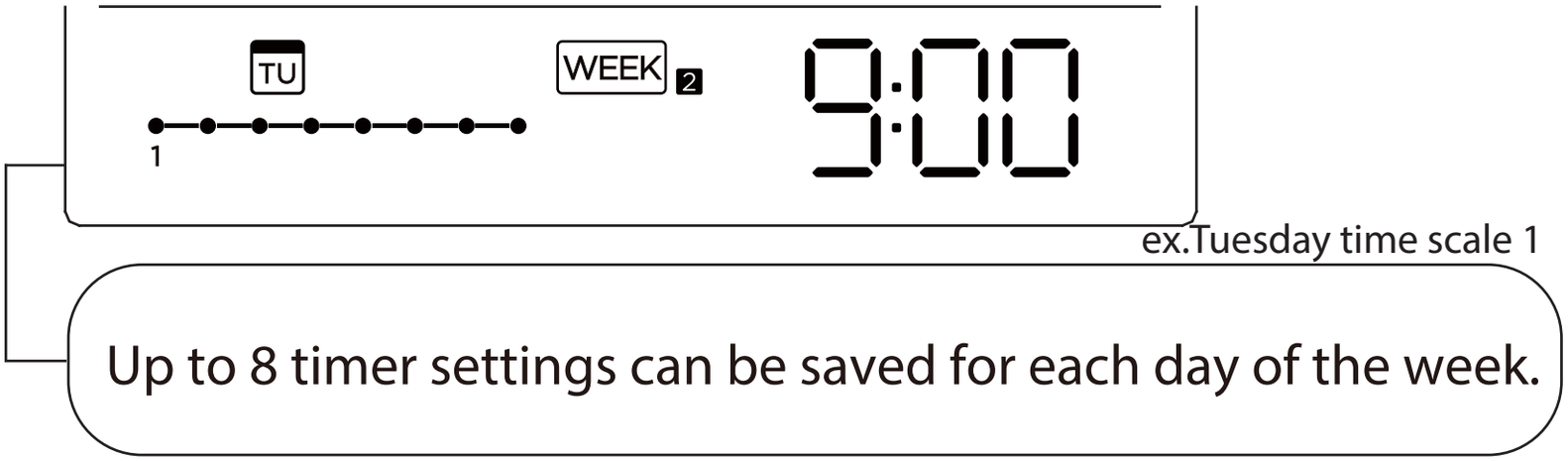


Fig. 55 — Timer Settings

SET the ON Timer for Timer Setting 1

1. Press the **UP or DOWN** arrow to select the setting time. The setting time, mode, temperature and fan speed appear on the display.
2. Press **CONFIRM** to enter the setting time process.

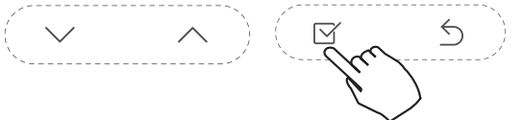


Fig. 56 — Up or Down Arrows - Confirm

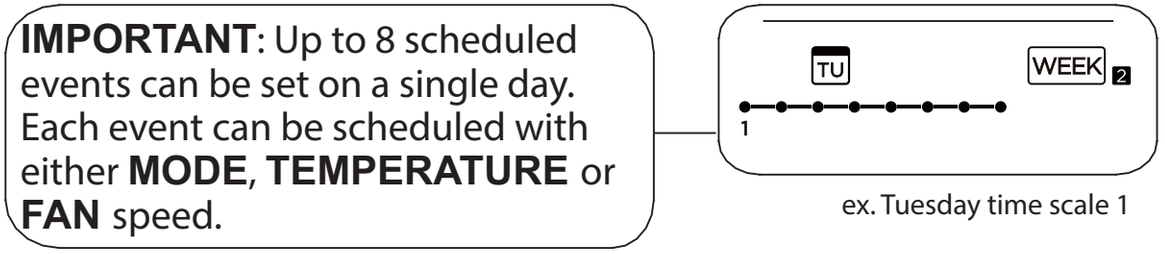


Fig. 57 — Select Events

Operation Mode Setting

1. Press the **UP or DOWN** arrow to set the **OPERATION** mode.
2. Press **CONFIRM.**

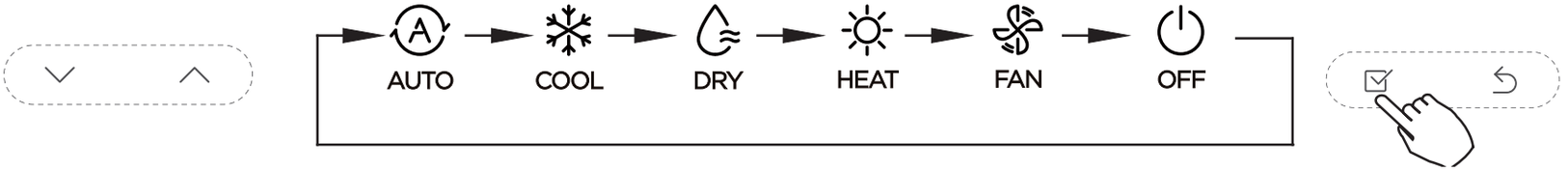


Fig. 58 — Press UP or DOWN Arrows - Select Mode - Confirm

Room Temperature Setting

1. Press the **UP or DOWN** arrow to set the room temperature.
2. Press **CONFIRM.**

Fig. 59 — Press UP or DOWN Arrow - Confirm

NOTE: This setting is unavailable in the FAN or OFF modes.

Fan Speed Setting

1. Press the **UP or DOWN** arrow to set the fan speed.
2. Press **CONFIRM.**

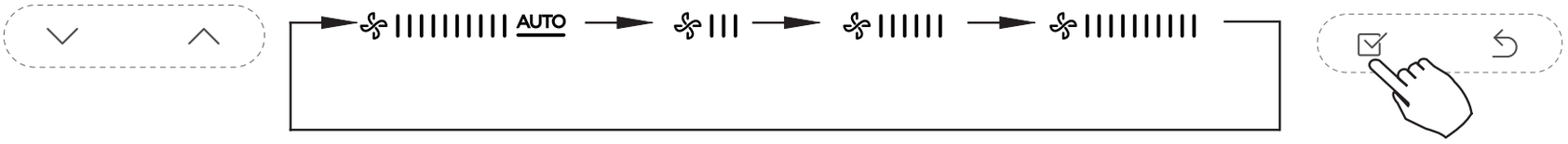


Fig. 60 — UP or DOWN Arrows - Fan Speed - Confirm

NOTE: This setting is unavailable in the AUTO, DRY or OFF modes.

NOTE: Different scheduled events can be set by repeating all the steps from the "SET the ON Timer for Timer Setting 1" on page 25 through the Fan Speed Setting steps found on this page.

The weekly timer setting can be returned to the previous step by pressing **BACK**. The current setting is restored. The controller **will no**t save the weekly timer settings if there is no operation within 30 seconds.

Weekly Timer Operation

To start the Weekly Timer Operation

1. Press **TIMER** to select **WEEK 2**, and the timer starts automatically.

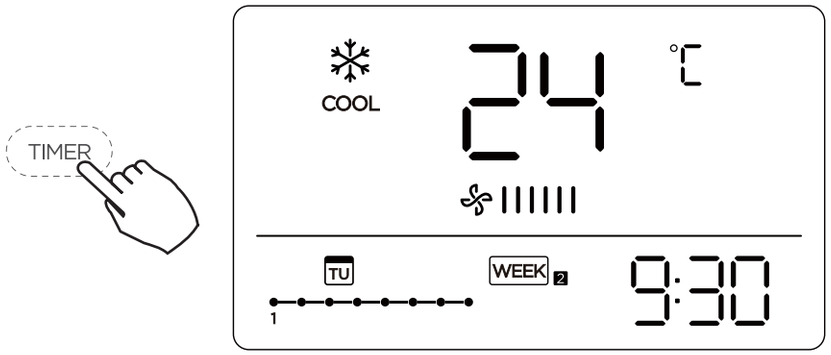


Fig. 61 — Select Timer

To cancel the Weekly Timer Operation

1. Press **POWER** for 2 seconds. The wired controller must be **ON** to perform the function.

Fig. 62 — Power

The **TIMER** mode can also be canceled by changing the timer mode using **TIMER**.

Fig. 63 — Press Timer

Set the DAY OFF (for WEEK 2)

1. Select **WEEK 2** then press **CONFIRM**. See **“Weekly Timer Operation” on page 27**.

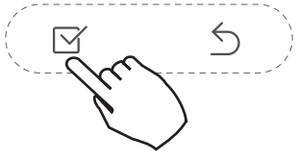


Fig. 64 — Confirm

2. Press the **UP or DOWN** arrow to select the day of the week.

Fig. 65 — Up or Down Arrows

3. Press **DAY OFF** to select day(s) off.

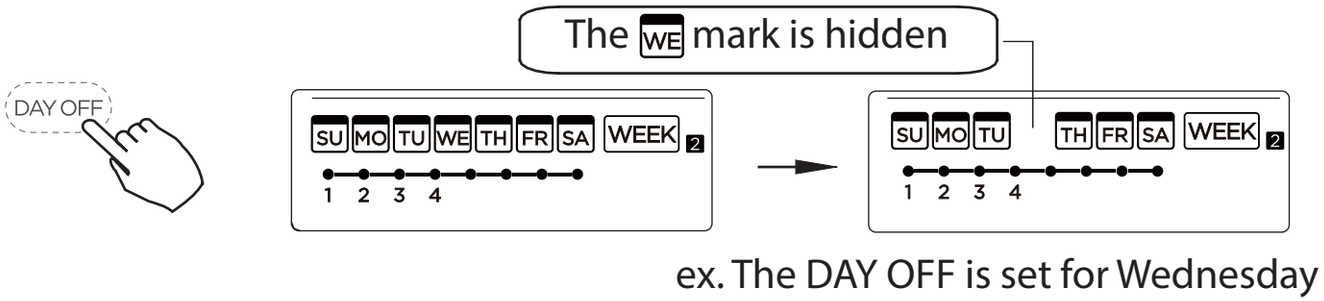


Fig. 66 — Select DAY OFF

A **DAY OFF** can be set for other days by repeating steps 2 through 3.

4. Press **BACK** to revert to the weekly timer.

NOTE: To cancel, follow the same procedures used for setup. The DAY OFF setting is canceled at the end of the set day.

Copy the Setting From One Day to Another

A scheduled event, made once, can be copied to another day of the week. The scheduled events of the selected day of the week will be copied. Using the **COPY** mode simplifies scheduling.

1. In the weekly timer, press **CONFIRM**.

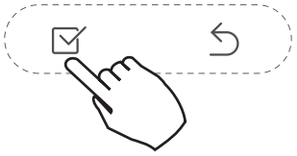


Fig. 67 — Confirm

2. Press the **UP or DOWN** arrow to select the day to copy from.

Fig. 68 — Up or Down Arrows

3. Press **COPY**; the letters **CY** appear on the display.

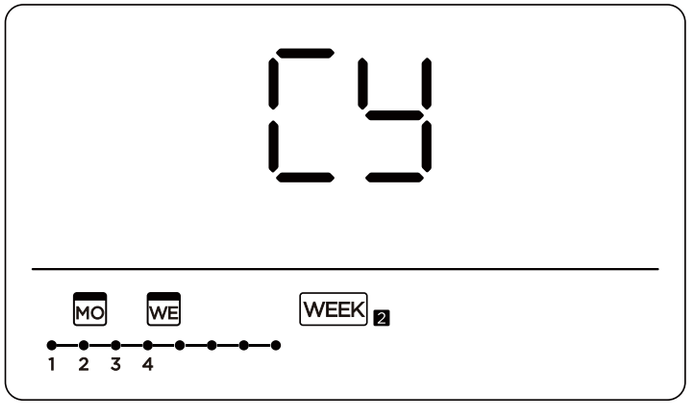


Fig. 69 — Press Copy

4. Press the **UP or DOWN** arrow to select the day to copy to.

5. Press **COPY** to confirm.

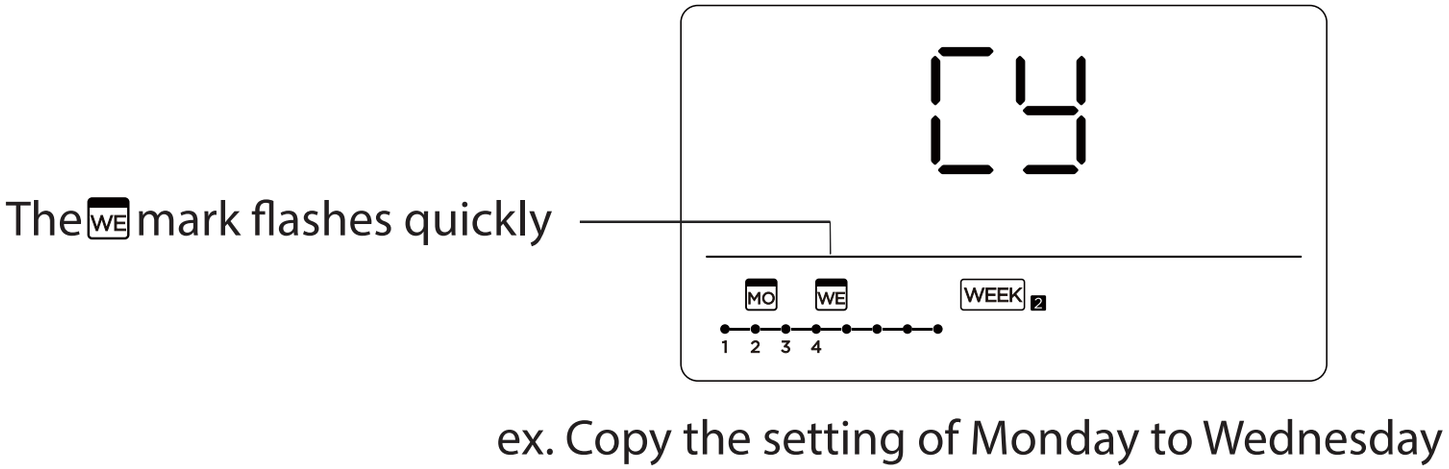


Fig. 70 — Press Copy

Other days can be copied by repeating steps 4 through 5.

6. Press **CONFIRM** to confirm the settings.

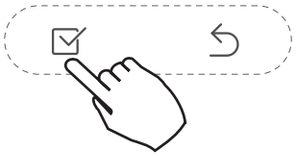


Fig. 71 — Confirm

7. Press **BACK** to revert to the weekly timer.

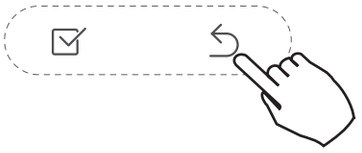


Fig. 72 — Back

Delete the Time Scale in One Day

1. During the weekly timer setting, press **CONFIRM**.

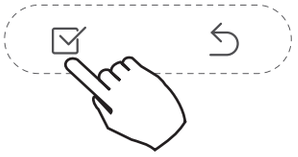
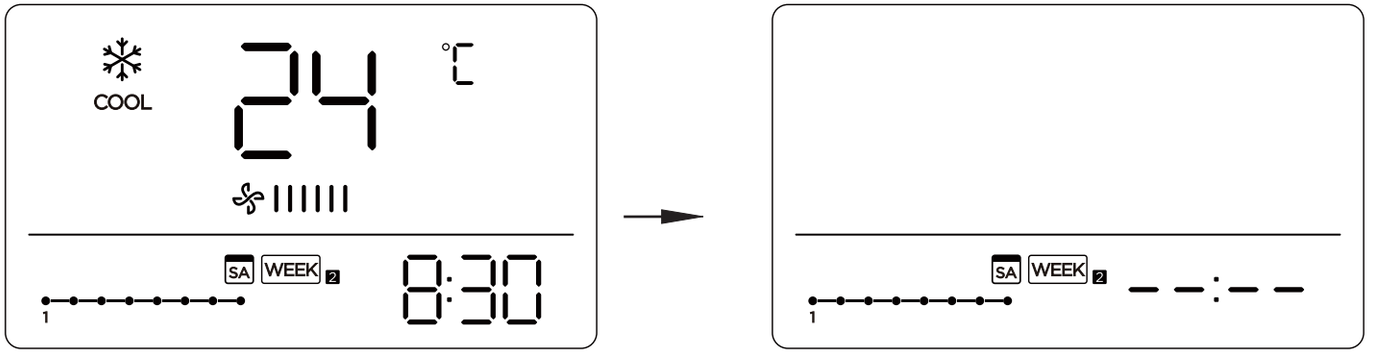


Fig. 73 — Confirm

2. Press the **UP or DOWN** arrow to select the setting time you want to delete. The setting time, mode, temperature and fan speed appear on the display. The setting time, mode, temperature and fan speed can be deleted by pressing the **DAY OFF**.



ex. Delete the time scale 1 in Saturday

Fig. 74 — Select Day

WIRED CONTROLLER ERROR CODES

Table 1 — Error Codes

DISPLAY ON IDU AND WIRED CONTROLLER	ERROR INFORMATION
EH 00/EH 0A	Indoor unit EEPROM parameter error
EL 01	Indoor/outdoor unit communication error
EH 02	Zero-crossing signal detection error
EH 03	Indoor fan operating outside of the normal range
EC 51	Outdoor unit EEPROM parameter error
EC 52	T3 is in open circuit or has short circuited
EC 53	T4 is in open circuit or has short circuited
EC 54	TP is in open circuit or has short circuited
EC 56	T2B is in open circuit or has short circuited
EH 60	T1 is in open circuit or has short circuited
EH 61	T2 is in open circuit or has short circuited
EC 07	Outdoor fan operating outside of the normal range
EH 0b	Indoor PCB/Display board communication error
EL 0C	Refrigerant leakage detection
PC 00	IPM malfunction or IGBT OSCP
PC 01	Over voltage or over low voltage protection
PC 02	Compressor or IPM high temp/pressure protection
PC 04	Inverter compressor drive error
PC 08	Current overload protection
PC 40	Comm. error between outdoor chip and compressor chip
PC 03	Low pressure protection
EH b1	Indoor board and Multi-function communication error
FH 0d	Ionizer malfunction

*Check the indoor unit's error display and review the owner's manual if other error codes appear.

NOTE: The error displayed on the wire controller will differ from the error displayed on the unit. If the error code appears, check the Owner's and Installation Manual and Service Manual for the model number of the unit or wired controller the error is displayed on.

QUERIES AND SETTINGS

CAUTION: All changes should be performed ONLY by authorized professionals.

Indoor Unit Tx Temperature Query Function

1. When the air conditioning unit is **OFF**, press **COPY** for 3 seconds to enter query mode on the wired controller.

Fig. 75 — Copy

2. Press the **UP or DOWN** arrows to select.

Fig. 76 — Up or Down Arrows

3. When the air conditioning unit is **OFF** and in query mode, press the **UP or DOWN** arrows to select **SP (For Ducted Models Only)**.

Fig. 77 — Up or Down Arrows

4. Press **CONFIRM** to adjust the static pressure value.
5. Press the **UP or DOWN** arrow to select the static pressure value (0~4).
6. Press **CONFIRM** to select the value.

Auto Airflow Adjustment

1. When the air conditioning unit is **OFF** and in **QUERY** mode, press the **UP or DOWN** arrow to select **AF (For Ducted Models Only)**.

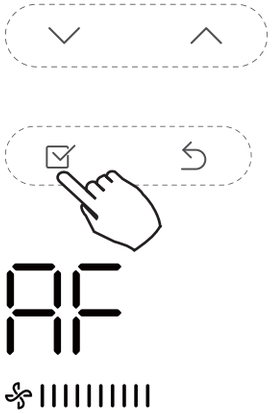


Fig. 78 — Up or Down Arrows - Select AF

2. Press **CONFIRM** to activate **AF** mode

3. The **AF** mode requires 3~6 minutes to complete an airflow adjustment. The unit automatically exits the mode when the adjustment completes.

4. To interrupt or exit the **AF** mode at anytime, press **BACK** or press **ON/OFF** or press **CONFIRM**. If there is no response for 30 seconds, the wired controller exits the query mode.

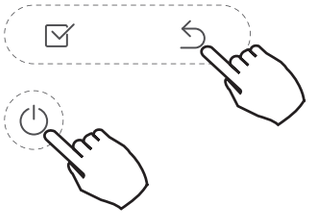


Fig. 79 — Back - Confirm

FOLLOW ME Mode Temperature Compensation

1. When the air conditioning unit is **OFF** and in **QUERY** mode, press the **UP or DOWN** arrow to select **tF**. The compensation temperature Range: 23°F ~ 41°F (-5°C~5°C).

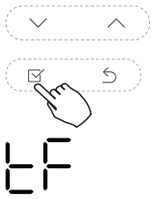


Fig. 80 — Up or Down Arrows - Select Confirm

2. Press **CONFIRM** to enter the temperature compensation value.
3. Press the **UP or DOWN** arrow to select the temperature compensation value.
4. Press **CONFIRM** to set tF compensation temperature.

Mode Customization

This setting allows the configuration of the wired controller customizing the modes available for the user as **CH Heat Pump**, **CC Cooling Only**, **HH Heating Only** or **NA No AUTO** Mode.

1. When the air conditioning unit is OFF and in query mode, press **UP or DOWN** arrow to select **TYPE**.

Fig. 81 — Up or Down Arrows - Select Type

2. Press **CONFIRM** to enter **TYPE**, press **UP or DOWN** arrow to select the type (see Fig. 82).

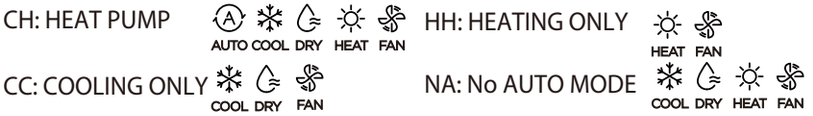


Fig. 82 — Press CONFIRM

3. Press **CONFIRM**.

Set the Minimum and Maximum Temperature Values

1. When the air conditioning unit is **OFF** and in **QUERY** mode, press the **UP or DOWN** arrow to select **tHI** or **tLo**.

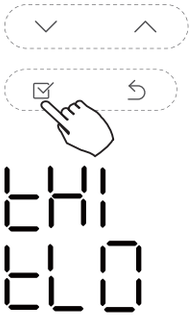


Fig. 83 — UP or DOWN Arrows - Select tHI or tLO

2. Press **CONFIRM** to enter the setting.
3. Press the **UP or DOWN** arrow to select the temperature value.
4. Press **CONFIRM** to complete. The maximum setting temperature range is 77°F~86°F (25°C~30°C). The minimum setting temperature range is 62.6°F~75.2°F (17°C ~24°C).

NOTE: **Factory default setting on tHI and tLO is "- -".**

- tHI Maximum value setting function
- tLO Minimum value setting function

Remote Control Mode Setting for the Wired Controller

1. When the air conditioning unit is **OFF** and in **QUERY** mode, press the **UP or DOWN** arrow to select **rEC**.

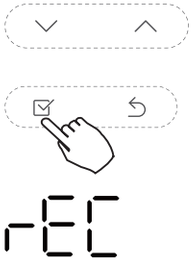


Fig. 84 — UP or DOWN Arrow - Select rEC

2. Press **CONFIRM** to enter the mode setting.
3. Press **UP or DOWN** arrow to select the remote control mode **ON or OFF (OF)**.
4. Press **CONFIRM**.

NOTE: ON or OFF (OF) appears in the temperature area to indicate the remote control mode. When the selection is OFF (OF), the wire controller does not process any remote control signals.

Restore Factory Settings

1. When the air conditioning unit is **OFF** and in **QUERY** mode, press the **UP or DOWN** arrow to select INIT, the temperature zone appears --.

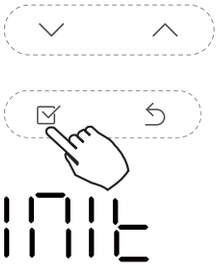


Fig. 85 — UP or DOWN Arrows - Select INIT

2. Press **CONFIRM** to enter the setting.
3. Press the **UP or DOWN** arrow to select **ON**.
4. Press **CONFIRM**.

NOTE: All the Wired Controller's settings are restored to the factory default settings.

TECHNICAL INDICATION AND REQUIREMENT

EMC and EMI comply with the CE certification requirements.

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