# USER MANUAL



# SPLIT AIR CONDITIONER

#### Model:

FM9K115	FM9K230
FM12K115	FM12K230
FM18K230	FM24K230

Before using or installing your TURBRO Split Air Conditioner, please read this manual carefully and retain it for future reference.

# **Tips for First-Time Use**

- 1. Allow the unit to sit upright for at least 3-4 hours before powering on. Shipping carriers may set the unit on its side, which causes the refrigerant to pool in certain areas. Standing the unit upright for 3-4 hours allows the refrigerant to move freely within the coils.
- 2. Some parts with sharp edges may cause injury, so gloves are highly recommended for unpacking and installing.
- 3. If you have any difficulties during installation, please contact our Customer Support Team via support@turbro.com for help.
- 4. If you have any problems with your product, please send us an email before submitting a return request, as there might be a simple solution for your issue.

# Please read this user manual carefully before installing and operating the unit.



Caution: Risk of fire

Before using the appliance, read the owner's manual first.

Before installing the appliance, read the installation manual first.

Before repairing the appliance, read the service manual first.

The images in this manual are for reference and may differ slightly from the actual items received, please refer to the received items for reference.

- 1. This air conditioner uses R32 flammable refrigerant. If mishandled this refrigerant, like other refrigerants, may cause serious bodily harm or property damage.
- 2. Do not use means to accelerate the defrosting process or to clean the unit other than those recommended in this user manual. Should repair be necessary, contact the TURBRO Customer Service Team.
- 3. Any repairs carried out by unqualified personnel may be dangerous.
- 4. Do not pierce or burn refrigerant lines or any other components.
- 5. Read the user manual in its entirety before beginning installation or operation.

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# SAFETY INFORMATION

Please read all instructions before use and save this user manual for future reference. A digital version can be obtained from Customer Support.

Your safety and the safety of others are very important to us. We have provided many important safety messages throughout this manual and on the appliance. Always read and follow all posted safety messages.

Please follow some basic safety precautions to reduce the risk of fire, electric shock, injury, or death to persons using or near this appliance. These precautions include, but are not limited to, the following:

#### Installation and Setup

- This appliance is not intended for use by any persons (including children) with reduced or restricted physical, mental, or sensory capabilities, or lack of experience and knowledge, unless under the direct supervision of a person responsible for their safety.
- Please keep plastic bags and sheets out of the reach of children as they might be mistakenly used for play. Packaging materials can become airtight chambers and may pose a risk of suffocation if not disposed of properly.
- Before use, check whether the product is visibly damaged, malfunctioning, disassembled, or has missing or broken parts. If any of those are true, consult a professional or TURBRO customer service team to ensure the unit can operate normally. Use only authorized TURBRO factory OEM parts.
- Keep the product away from fire. Do not store or use flammable gases or materials near the appliance.
- In the event of a gas leak (propane gas, LP gas, etc.) do not operate this or any other appliance. Open a window or door to ventilate the area immediately.

#### **Electrical Safety Warning**

- Protect the indoor unit with a fuse of suitable capacity for the maximum input current or with another overload protection device.
- This product should be connected to a properly rated, protected, and sized power supply to avoid electrical overload.

- Your air conditioner must be used in a properly grounded wall receptacle. If the wall receptacle you intend to use is not adequately grounded or not protected by a time-delay fuse or circuit breaker, have a qualified electrician install the proper wall power receptacle before using this appliance.
- During the installation or moving of the appliance, be careful not to pinch, crush, or damage the wires. Always disconnect the unit from the power supply before cleaning or maintenance operations.
- The batteries in the remote controller must be recycled or disposed of properly. For disposal of scrap batteries, please discard the batteries as sorted municipal waste at the accessible collection point.
- Do not obstruct the air inlet or outlet of the indoor or outdoor unit. Obstructions may cause a reduction in the overall efficiency of the air conditioner with possible consequent failures or damages.
- Do not climb onto or place any objects on the outdoor unit.

#### FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- The distance between the user and the device should be no less than 20cm.

### PARTS DESCRIPTION



**NOTE:** If the remote control is not working, press the Manual Button to operate the air conditioner.

Current status	Operation	Respond
The unit is OFF.	Press the manual button once	It will turn on and enters Auto mode.
The unit is ON.	Press the manual button once	It will stop running.

### Outdoor Unit



Parts	Parts Name	Quantity
	Mounting plate	1
	Remote control	1
	AAA battery	2
	Wall anchors	1 set
< <b>1111111111</b> ]	Screws	1 set

Parts	Parts Name	Quantity
	Wall sleeve	1
	Refrigerant pipe (13.1ft/4m)	2
	Signal cable (14.8ft/4.5m)	1
	Power cable (8.2ft/2.5m)	1
	Drain hose (6.6ft/2m)	1
	Sealing gum	1
	Insulating tape	1
	Guide plate	1

# INSTALLATION

Additional Tools Required for Installation (Not included)			
Bubble Level	Screwdriver	Measuring tape	Pencil
		©	- Jan
Voltage Tester	Torque Wrench	Open-end	Wrench
Hex Key Set	Scissors	Needle No:	se Pliers
Manifold Gauge	Vacuum Pump	Universal M	ultimeter
Drill with Hole Saw	Electric Drill	Electronic Leaka	) age Detector

#### Indoor Unit Installation

Before installing the indoor unit, you need to check the label on the product box and make sure that the model number of the indoor unit matches the model number of the outdoor unit. If the model numbers do not match, please contact customer support.

#### Step 1: Select the Installation Location



Make sure the installation complies with the following diagram.

Check the location meets the following requirements:

- Air inlet and outlet must be clear of obstructions, ensuring proper airflow throughout the room, and shall keep away from heat sources, and flammable or explosive conditions.
- Condensation can be easily and safely drained.
- All connections can be easily made to the outdoor unit.
- The mounting wall is strong enough to withstand four times the full weight and vibration of the unit.
- The filter can be easily accessed for cleaning.
- Leave enough free space to allow access for routine maintenance.
- Do not install it in a laundry room or by a swimming pool due to the corrosive environment.

#### Step 2: Install Mounting Plate



- Remove the mounting plate from the back of the indoor unit.
- Ensure you can meet the minimum installation dimension requirements as shown in step 1. According to the size of the mounting plate, determine the position and stick the mounting plate close to the wall.
- Adjust the mounting plate to a horizontal state with a bubble level, then mark out the screw hole positions on the wall.
- Set the mounting plate down and drill holes in the marked positions.
- If the marked positions do not go into a wall stud, you will need to use wall anchors. Insert the included wall anchors into the holes, then hang the mounting plate and fix it with included screws.
- **Note:** Make sure the mounting plate is secured and flat against the wall after installation.

#### Step 3: Drill Wall Hole



- Determine the location of the wall hole based on the position of the mounting plate.
- The hole should have a 60mm~80mm diameter and slant outward by 5°-10° to facilitate drainage to the outdoors.
- Place the wall sleeve in the hole to protect the connection parts.
- **Caution:** When drilling the wall hole, make sure to avoid wires, plumbing, and other sensitive components already in your home.

#### Step 4: Connecting Refrigerant Pipe

- According to the wall hole position, select the appropriate piping mode. The piping may be routed side from the left or the right side of the indoor unit (Fig 1), or out from the back of the indoor unit (Fig 2) as shown in the figures below:
- In Fig 1 piping mode, a notch should be made by using scissors to cut the plastic sheet covering the piping outlet on the corresponding side of the indoor unit.



- **Note:** When cutting the plastic sheet for the outlet, the cut should be trimmed to smooth.
- There should be a small amount of gas in the pipe used for testing before it leaves the factory. Press the tip of the pipe and you will hear the sound of air leaking to indicate the pipe sustained no leakage during transportation. If there is no sound, the pipe may be broken. Please check for leaks or contact the customer support team.



- Remove the plastic cover of the refrigerant pipes using two wrenches or pliers.
- Remove the protective cover from the end of the piping connectors.
- Check whether there is any debris on the port of the refrigerant pipe and ensure the port is clean.
- Bend the refrigerant pipes with the port facing up as shown in the figure below.



- After aligning the refrigerant pipes, rotate the nut of the refrigerant pipe and tighten it as tightly as possible by hand. Please pay attention that over -tightening may damage connections and cause leaks.
- Use a proper torque wrench to tighten it according to the Torque Table below.
- Wrap the joint with the insulation pipe.



Torque wrench

Pipe Size	Tighten Torque to:	
Inch (mm)	Newton meter	Pound-force foot
1/4 (6.35)	15-25	11.1-18.4
3/8 (9.52)	35-40	25.8-29.5
1/2 (12.70)	45-60	33.2-44.2
5/8 (15.88)	73-78	53.9-57.5
3/4(19.05)	75-80	55.4-59.0

#### Step 5: Connect Drainage Hose

• Connect the drainage hose to the water outlet and ensure the joint is fully sealed. Wrap the joint firmly with insulation tape to avoid any leaks.



**Note:** Make sure there are no twists or dents in the pipe. The pipes should be oriented downward to avoid blockage.









Pitch downwards

Do not put drain hose end into the water

Do not rise

Do not make a trap

#### Step 6: Connect Signal Cable

• Open the front panel of the indoor unit. Use a screwdriver to open the electric control box cover and reveal the terminal block.



Electric control box

• Insert the signal cable into the cable-cross hole at the back of the indoor unit and then pull it out from the front side.



• Connect the cables to the corresponding terminals according to the wiring diagram on the inside of the front panel or the picture below. Make sure that they are connected securely.



• Screw the cable clamp to fasten the cables and reinstall the electric control box cover and front panel.

#### Step 7: Wrap Piping and Cable

- Arrange the pipes, cables, and drainage hose as shown in the figure below.
- Use insulation tape to wrap them tightly together as a bundle.



#### Note:

- Make sure the drainage hose is at the bottom and avoid crossing and bending of parts.
- Reserve a few inches of the drainage hose. When wrapping to a certain length, separate the drainage hose. Continue wrapping together and leave a few inches of the signal cable and refrigerant pipes to wrap separately for outdoor unit connection. See the figure below.



#### Step 8: Mount Indoor Unit

- Slowly pass the wrapped bundle through the wall hole.
- Hang the indoor unit on the mounting plate, and move the unit from left to right to ensure that the hooks are properly positioned in the mounting plate. Push toward the lower left side and the upper right side of the unit toward the mounting plate, until the hook is embedded in the slot and makes a "click" sound.



Note: The drain hose should slant downwards for drainage. Do not bend or twist.

#### **Outdoor Unit Installation**

#### Step 1: Select Installation Location

Select a site that allows for the following as shown in the image below:



- Allow enough space for air to circulate as shown in the figure above. Install the outdoor unit in a safe and solid place.
- Do not install the outdoor unit near sources of heat, steam, or flammable gas.
- Do not install the unit in windy or dusty places.
- Do not install the unit where people often pass. Select a place where the air discharge and operating sound will not disturb yourself or neighbors.
- Do not install the unit where it will be exposed to direct sunlight. If that is not an option, you must use protection for the outdoor unit that will not interfere with the airflow.
- If the outdoor unit is subject to vibration, place rubber feet onto the feet of the unit.
- Ensure the secure installation regardless of what type of wall on which it is installed, to prevent potential dropping that could hurt people.

#### Step 2: Fix Outdoor Unit

- Mark the installation position for expansion bolts. Drill holes and for the M8 bolts.
- Place the outdoor unit base on the pre-drilled holes.
- Use a wrench to fix the outdoor unit firmly with bolts.
- **Note:** The outdoor unit can also be fixed on a wall-mounted bracket. Install the bracket according to the included instructions and then fasten the outdoor unit on it. The wall-mounting bracket must be able to support at least 4 times the weight of the outdoor unit for safety.

#### Step 3: Connect Cables

• Loosen the screws and remove the electric wiring cover from the unit.



• Remove the protective cover on the cable. According to the wiring diagram pasted inside the wiring cover or the picture below, connect the signal and power cables to the corresponding terminals. Ensure all connections are firm and secure.

Model	Min. Circuit Ampacity (A)	Minimum Wire Cross-sectional Area (mm²)	Recommended Wire Gauge	Recommended Breaker Size
FM9K115	14	1.5	AWG 16+	115V 30-Amp
FM9K230	8	1.0	AWG 18+	230V 20-Amp Double Pole
FM12K115	14	1.5	AWG 16+	115V 30-Amp
FM12K230	8	1.0	AWG 18+	230V 20-Amp Double Pole
FM18K230	10	1.0	AWG 18+	230V 20-Amp Double Pole
FM24K230	15	1.5	AWG 14+	230V 30-Amp Double Pole



- Reinstall the cable clamp and wiring cover.
- **Note:** Make sure that the wires are well-connected. If you have any problems, consult a professional or TURBRO customer service team.

Make sure both ends of black wires connect to L1, white wires connect to L2, and red wires connect to S.

#### Step 4: Connect the Refrigerant Pipe

- Unscrew the valve cover. Remove the protective caps from the end of the valves.
- After aligning the refrigerant pipes, rotate the flare nut of the refrigerant pipe and tighten the nut as tightly as possible by hand.
- Use a spanner to hold the body of the valve and use a torque wrench to tighten the flare nut according to the torque table below. Please check the flare nut for the refrigerant pipe size.



Flare nut Refrigerant pipe

Pipe Size	Tighten Torque to:	
Inch (mm)	Newton meter	Pound-force foot
1/4 (6.35)	15-25	11.1-18.4
3/8 (9.52)	35-40	25.8-29.5
1/2 (12.70)	45-60	33.2-44.2
5/8 (15.88)	73-78	53.9-57.5
3/4(19.05)	75-80	55.4-59.0

#### Note On Pipe Length

The length of the refrigerant pipe will affect the performance and energy efficiency of the unit. The refrigerant pipe included is 13.12ft (4 meters) long.

If necessary, you can change the length of the refrigerant pipe. remember to add or reduce the amount of refrigerant depending on the change in pipe length. Consult a professional or contact customer support for assistance.

Model	Refrigerant Additional Charge(oz/ft)	Refrigerant Decreasing Charge(oz/ft)
9K115, 9K230	0.17	0.21
12K115, 12K230	0.17	0.21
18K230	0.26	0.43
24K230	0.26	0.43

#### **Refrigerant Piping Connection Instructions**

Improper pipe shortening or expansion might cause refrigerant leakage. Please take extra care to cut and flare them properly to ensure the efficient operation and minimize the need for future maintenance.

#### $\triangleright$ Cut pipes

- Measure the distance between the indoor and outdoor units.
- Using a pipe cutter, cut the pipe a little longer than the measured distance.
- Make sure that the pipe is cut at a perfect 90° angle.



#### $\triangleright$ Remove burrs

Burrs can affect the air-tight seal of the refrigerant piping connection. They must be completely removed.

- Hold the pipe at a downward angle to prevent burrs from falling into the pipe.
- Using a reamer or deburring tool, remove all burrs from the cut section of the pipe.



#### $\triangleright$ Flare pipe ends

- After removing burrs from the cut pipe, seal the ends with tape to prevent foreign materials from entering the pipe.
- Sheath the pipe with insulating material.
- Place flare nuts on both ends of the pipe. Make sure they are facing in the right direction, because you can't put them on or change their direction after flaring.
- Remove the tape from the ends of the pipe when ready to perform flaring work.
- Clamp flare form on the end of the pipe. Place the flaring tool onto the form. Turn the handle of the flaring tool clockwise until the pipe is fully flared.



**NOTE:** The end of the pipe("A") must extend beyond the edge of the flare form in accordance with the dimensions shown in the table below.

Outer diameter (mm)	Minimum A (mm)	Maximum A (mm)
Ф6 - 6.35(1/4")	0.7	1.3
Ф9 - 9.52(3/8")	1.0	1.6
Ф12-12.7(1/2")	1.0	1.8



• Remove the flaring tool and flare form, then inspect the end of the pipe for cracks and even flaring. If there is any blemish, do it again according to the steps above.



#### ▷ Connect pipes

When connecting refrigerant pipes, be careful not to use excessive torque or to deform the piping in any way. You should first connect the low-pressure pipe, then the high-pressure pipe.

#### Step 5: Electrical safety inspection

Check the voltage of wires in the electric box, as well as the indoor and outdoor unit wiring box.

Model	Indoor Unit	Outdoor Unit and Electrical Box
	Between terminal S and L2 is	Between terminal S and L2 is within 0-24V.
115V unit Bet wit	Between terminal L1 and L2 is	Between terminal L1 and G/L2 is within 100-140V.
	WILININ 100-140V.	Between terminal L2 and G is 0V.
230V unit Between terminal S and L2 is within 0-24V. Between terminal L1 and L2 is	Between terminal S and L2 (connected to the indoor unit) is within 0-24V.	
	Within 0-24V. Between terminal L1 and L2 is	Between terminal L1/L2 and G is within 100-140V.
	within 200-230V.	Between terminal L1 and L2 is 200-250V.

#### Step 6: Vacuum Pumping

Exclusive R32 refrigerant pumps must be used for R32 refrigerant vacuum.





Close the low-pressure valve then turn off the vacuum pump. Wait 5 minutes, ensuring that the pressure change does not exceed 0.005 MPa.



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Open the high-pressure valve ½ turn counterclockwise. Press the service port for 3 seconds.



Open the low-pressure valve for about 10 seconds, then close. Remove the pressure hose when the pressure indicates above 0.



Check if there is any leakage. Refer to the "refrigerant leakage detection" section on the next page for more details.



Fully open the low-pressure valve and high-pressure valves. Reinstall all protective caps and valve covers.

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#### Inspection Before Use

#### **Electrical safety inspection**

- Check whether the power supply voltage complies with that on the rating label.
- Check whether there are any wrong or missing connections between the power cables, signal cables, and earth cables.
- Check whether the earth resistance and insulation resistance comply with requirements.

#### Installation safety inspection

- Confirm the direction of the drainage pipe.
- Confirm that the joint of the refrigerant pipe is installed completely.
- Confirm the safety of the outdoor unit, mounting plate, and indoor unit installation.
- Confirm that all the valves are fully open.
- Confirm that there are no objects or tools left inside the unit.
- Complete installation of the indoor unit filter and panel.

#### **Refrigerant leakage detection**

Check the piping joint, the connector of the two valves of the outdoor unit, the service port of the gas valve, the welding port, etc., where leakage may occur.

#### Soapy water detection

Apply soapy water or foam evenly on the parts where leakage may have occurred and observe whether bubbles appear or not. If not, there is no leakage.

#### Leak detector method

Use a professional leak detector and read the instructions of operation, detect the position where leakage may occur. The duration of leak detection for each position should last for 3 minutes or more.

If the test result shows that there is leakage, the flare nut should be tightened and tested again until there is no leakage.

After the leak detection is completed, reinstall the valve cover of the outdoor unit.

## **OPERATION**

#### Operating from the AIR.ai App

This model is equipped with a Wi-Fi function. Using the APP you can control the air conditioner via an iPhone or Android smartphone from anywhere, even outside of your home.

- Supported wireless routers must work with a 2.4G Hz operating frequency. 5.0 GHz frequency is not supported at this time.
- Standard: IEEE 802.11b/g/n20/n40
- Supported smartphone systems: Android 6.0 -13.0, iOS 11.0 17.0
- a. Scan this QR code and download it.



b. Launch the app and log in to your account (or sign up for your first use).



c. Make sure the unit is powered on, long press the "COOL" and "+" buttons together on the remote control for 5 seconds to switch on the WiFi function. The unit will beep 8 times, then beep twice in 2-second intervals. Scan the code below or pasted on the side of the indoor unit to add your device. Enter the Wi-Fi password and press "Next".



Connect to the unit

- When the app instruction asks to reset the device, power on the unit, and long press the "COOL" and "+" buttons together on the controller for 5 seconds. The indoor unit will beep 8 times, then beep twice in 2-second intervals, which means the WiFi has reset.
- Select the Device named "SmartLife-XXX" in your phone's wireless settings, then go back to the app and continue. The app will start to search for your device. You can see the percent rate of the connecting process.

Select 2.4 GHz Wi-F enter pass If your Wi-Fi is 5GHz, please Common router sett	i Network and word. set it to be 2.4GHz. ing method	Connect your mobile pho device's hotspot 1. Connect the phone to the h shown below.	one to the		Q	
× Wi-Fi - 5Ghz		< Settings WLAN				
✓ Wi-Fi - 2.4Ghz	A 🕈 (j)	WLAN			01:58	
		SmartLife-XXXX	<b>?</b> (j)			
		Wifi - Guest	\$ (j)			
🔶 Wi-Fi Name	<u></u>	Wifi - Home	≜ ≑ ()	0		
Password		2. Go back to the app and co add devices.	ntinue to	Scan devices.	Register on Cloud.	Initialize the device.

• If you fail to add the device, please check if your Wi-Fi is 2.4 GHz. If yes, please try to connect again later, or try another Wi-Fi. 5.0 GHz networks are currently not supported.

d. Once you have set up the connection, you can name your device and get started.



Feel free to explore the smart control dashboard. To invite other phones to control this device, press the button on upright and go to "Share Device" - "Add Sharing".



#### **Add Sharing**

If you have difficulty connecting to the app, you can reset the Wi-Fi signal as mentioned above. If you have any questions, please email our support team at support@turbro.com.

#### Note:

- The APP is only compatible with smartphones and is not available for laptops or tablets.
- APP may not support the latest version of Android or iOS systems because of the test of stability, and may not be compatible with tampered Android or iOS systems.
- Due to different network situations, request time-out could happen, and it is necessary to do network configuration again.
- Due to different network situations, the control process may return time-out (30S-60S).
- All the illustrations in the manual are for explanation purposes only. The latest APP may be slightly different.
- The APP will continue to be updated with design and content improvements. Check for updates at the Google Play Store or the APP Store.

#### Voice Control

You can control the split AC via Alexa or Google Assistant. Follow the instructions on the App to connect.



Scan the QR code to find the voice commands.

### Operating from the Remote Control

SPEED AUTO 188.5 **| T | T |** ŀ A HOUR ON OFF 11 I AUTO COOL DRY HEAT FAN HEALTH ECO SLEEP SILENCE ELE.H DISPLAY LIGHT I-FEEL ANTI-F ICLEAN COOL SPEED ON/OFF HEAT TIMER MODE +Δ MENU ⊳<sup>U/D</sup> SWING L/R⊲ SWING OK  $\nabla$ 

BUTTONS	FUNCTION
ON/OFF	Turn the air conditioner on/off.
+	Increase the set temperature; lengthen the time in the TIMER setting.
-	Decrease the set temperature; reduce the time in the TIMER setting.
MODE	Select the operation mode.
COOL	Switch to the COOL mode.
SPEED	Adjust the fan speed.
HEAT	Switch to the HEAT mode.
TIMER	Switch the TIMER function on/off.
MENU/OK	Select the SLEEP / ECO / SILENCE / I-FEEL / Anti-F / iCLEAN / DISPLAY / LIGHT functions.
L/R SWING	Stop/start vertical deflector movement or set the desired left/right airflow direction.
U/D SWING	Stop/start horizontal deflector movement or set the desired up/down airflow direction.
COOL + HEAT	Long press to switch the unit of temperature.
HEAT + MODE	Long press to turn on/off the child lock function.



SYMBOLS	MEANING	SYMBOLS	MEANING
SPEED AUTO	Auto fan speed	SPEED	Fan speed level
SPEED TURBO	Turbo fan speed	(((·	Signal
RUN	The unit is running		Child lock
	Up/down swing	<b></b>	Left/Right swing
0079 00.5	Temperature	HOUR ON OFF	Timer on/off
Â	Indoor ambient temperature	AUTO	AUTO mode
COOL	COOLmode	DRY	DRY mode
HEAT	HEAT mode	FAN	FAN mode
ECO	ECO function	SLEEP	SLEEP function
SILENCE	SILENCE function	I-FEEL	I-FEEL function
LIGHT	According to the surrounding light, automatically turn off the indoor unit display	DISPLAY	Turn on/off the indoor unit display
Anti-F	Anti-F function	HEALTH ELE.H	Not available for this model

The functions are explained in the "Function Description" section of the user manual below.

#### **Function Description**

#### ON/OFF Button

Press this button to turn on the unit. Press this button again to turn off the unit.

#### MODE Button

Pressing the "Mode" button will cycle through the following modes, as shown below:



#### > AUTO MODE

The unit will automatically switch between Cool/Heat or Fan Mode depending on the ambient room temperature.

- Press the "MODE" button until the symbol "AUTO" appears on the remote screen.
- Pressing the "SPEED" button will adjust the fan speed.

#### COOLMODE

Ideal for hot muggy weather when you need to cool and dehumidify the room.

- Press the "MODE" button until the symbol "COOL" appears on the remote screen.
- Press the "+" or "-" button to select your desired temperature 60°F-90°F (16°C-32°C).
- Pressing the "SPEED" button will adjust the fan speed.

#### **DRY MODE**

Ideal to reduce room humidity (spring and autumn, rainy periods, damp rooms, etc).

- Press the "MODE" button until the symbol "DRY" appears on the remote screen.
- In this mode, the fan speed cannot be adjusted. Silence function is not available.

#### ⊳ HEAT MODE

Ideal for cold weather when you need to heat the room.

- Press the "MODE" button until the symbol "HEAT" appears on the remote screen.
- Press the "+" or "-" button to select your desired temperature 60°F-90°F (16°C-32°C).
- Press the "SPEED" button can adjust the fan speed.

#### Note:

- The fan of the indoor unit will not work immediately when the heating is started to avoid blowing out cool air.
- In heating mode, the appliance will automatically activate a defrost cycle when needed. This procedure usually lasts for 5-12 minutes. During defrosting, the indoor unit fan stops running. Vapor may come out from the outdoor unit during defrosting. This is not a malfunction. After defrosting, it will resume heat mode automatically.

#### **FAN MODE**

The unit only blows air, with no heating or cooling.

- Press the "MODE" button until the symbol "FAN" appears on the remote screen.
- Pressing the "SPEED" button will adjust the fan speed from LOW-MID-HIGH.

#### **COOL** Button

Press this button to enter cool mode.

#### **HEAT Button**

Press this button to enter heat mode.

#### SPEED Button

Press this button, and you can select the fan speed as follows:



**Note:** The fan speed can only be changed under AUTO / COOL / FAN / HEAT modes. Auto and Turbo air speed are not available in FAN mode. Turbo air speed is available under COOL / HEAT mode.

#### **TIMER Button**

This timer can be used to delay the unit start-up or shutdown. This avoids wasting electricity by optimizing operating periods.

#### ▷ Programming start-up

- When the unit is off, press the "Timer" button, and the "ON" on the screen will flash. Press the "+" or "-" button to set the desired delayed start-up time. The timer setting increases/decreases by half an hour between 0.5 and 24 hours. Press the "TIMER" button again to confirm.
- When the timer is active, "ON" will appear on the remote control.
- After the timer setting, you can continue to set your desired mode and temperature.
- If you press the timer button again the timer will be canceled and the display will disappear.

#### ▷ Programming shut down

- When the unit is on, press the "Timer" button, and the "OFF" on the screen will flash. Press the "+" or "-" button to set the desired delayed shut-down time. The timer setting increases/decreases by half an hour between 0.5 and 24 hours. Press the "TIMER" button again to confirm.
- When the timer is active, "OFF" will appear on the remote control.
- If you press the timer button again the timer will be canceled and the display will disappear.

#### L/R SWING Button

This function is useful for adjusting the left/right swing of air circulation.

• Press the button to activate the deflector to swing from left to right. Press the button again to stop the swing movement at the current angle.

#### U/D SWING Button

This function is useful for adjusting the up/down swing of air circulation.

• Press the button to activate the deflectors to swing from up to down. Press the button again to stop the swing movement at the current angle.

#### ▷ Rated Swinging

• When the unit is on, long press the "U/D SWING" button for 3 seconds, the button will shift to "Rated swinging", and then you can press the "U/D SWING" button to select the deflector position.



• Long press the button again for 3 seconds to cancel Rated swinging.

#### Note:

- Never put fingers, sticks, or other objects into the air inlet or outlet vents as this may cause damage or injury.
- In heating mode, pressing the "U/D SWING" button will activate the deflector to swing up/down after a few minutes to make sure blowing warm wind to you.

#### **MENU Button**

#### $\triangleright$ SLEEP Function

This function is useful at night as it maintains the room at optimum temperature silently without excessive fluctuations in either temperature or humidity.

- Press the "MENU" button to enter the function selection.
- Then choose the "SLEEP" mode by pressing the  $\triangle$ (+),  $\bigtriangledown$ (-),  $\triangleleft$ (L/R SWING), and  $\triangleright$ (U/D SWING).
- When the "SLEEP" character blinks, press the "OK" button to switch on this function. The "SLEEP" icon will be indicated on the remote screen.
- Choose "SLEEP" again and press "OK" to cancel this function.

#### Note:

- When in COOL/DRY mode, the temperature will increase by 2°F for the first two hours under the sleep function, then the temperature remains at this temp. At the 7th and 10th hour, the unit will automatically decrease by 2°F and quit sleep mode.
- Sleep function is available only on COOL / HEAT / DRY modes. In this mode, the fan speed is always low.

- The display of the indoor unit will be off when the sleep function is activated.
- If you change the mode, you need to set the sleep function again.

#### $\triangleright$ ECO Function

In this function, the unit will enter the ECO mode which consumes the least electricity, and exit it automatically 8 hours later. This function is only available in COOL mode.

- Switch to COOL mode, press the "MENU" button to enter the function selection.
- Then choose the "ECO" mode by pressing the  $\triangle$  (+),  $\bigtriangledown$ (-),  $\triangleleft$  (L/R SWING), and  $\triangleright$  (U/D SWING).
- When the "ECO" character blinks, press the "OK" button to switch on this function. The "ECO" icon will be indicated on the remote screen.
- Choose "ECO" again and press "OK" to cancel this function. Changing the mode or turning off the unit will automatically quit the ECO function.

#### $\triangleright$ SILENCE Function

- Press the "MENU" button to enter the function selection.
- Then choose the "SILENCE" mode by pressing the  $\triangle$ (+),  $\bigtriangledown$ (-),  $\triangleleft$ (L/R SWING), and  $\triangleright$  (U/D SWING).
- When the "SILENCE" character blinks, press the "OK" button to switch on this function. The "SILENCE" icon will be indicated on the remote screen.
- Choose "SILENCE" again and press "OK" to cancel this function.
- This function is not available in DRY mode.

#### ▷ I-FEEL Function

This function enables the remote control to measure the temperature at its current location and send this signal to the air conditioner to optimize the temperature around you to ensure comfort.

- Press the "MENU" button to enter the function selection.
- Then choose the "I-FEEL" mode by pressing the  $\triangle$  (+),  $\bigtriangledown$ (-),  $\triangleleft$  (L/R SWING), and  $\triangleright$  (U/D SWING).
- When the "I-FEEL" character blinks, press the "OK" button to switch on this function. The "I-FEEL" and "

- The temperature on the screen with " (i) " is the ambient temperature. You can press "+"/"-" to set the desired temperature which will flash and then the screen will show the ambient temperature again.
- Choose "I-FEEL" again and press "OK" to cancel this function.

#### ⊳ Anti-F Function

Use this funciton to remove the moisture within the evaporator to prevent it from giving off a bad smell from mold.

- Turn off the unit, press the "MENU" button to enter the function selection.
- Then choose the "Anti-F" mode by pressing the  $\triangle$  (+),  $\bigtriangledown$  (-),  $\triangleleft$  (L/R SWING), and  $\triangleright$  (U/D SWING).
- When the "Anti-F" character blinks, press the "OK" button to switch on this function. The "Anti-F" icon will be indicated on the remote screen and it will beep 5 times.
- When the unit is turned off under COOL / DRY / AUTO (cooling) mode, it will continue to operate for 3 minutes.
- Power off the unit. Choose "Anti-F" again and press "OK" to cancel this function and the buzzer will beep 5 times.
- **Note:** With Anti-F activated, it is not advised to turn on the unit again before it is fully OFF.

Once set the function is also available for the next powering off until you cancel it.

#### $\triangleright$ iCLEAN Function

This mode will clean the dust off the evaporator and dry it to increase the cooling and heating efficiency.

- Turn off the unit, press the "MENU" button to enter the function selection.
- Then choose the "iCLEAN" mode by pressing the  $\triangle$ (+),  $\bigtriangledown$ (-),  $\triangleleft$ (L/R SWING), and  $\triangleright$ (U/D SWING).
- When the "iCLEAN" character blinks, press the "OK" button to switch on this function. The "iCLEAN" icon will indicate on the remote screen and the indoor unit will display "CL".
- The iCLEAN function will immediately run within an hour. If the unit is turned on within an hour, the iCLEAN function will be deactivated.

• Power off the unit. Choose "iCLEAN" again and press "OK" to cancel this function.

#### Note:

- If the unit is turned on within an hour, the iCLEAN function will be deactivated.
- The iCLEAN function works immediately when setting. You need to set it again for the next use.

#### ▷ DISPLAY Function

Switch the LED display ON/OFF on the indoor unit panel.

- Press the "MENU" button to enter the function selection.
- Then choose the "DISPLAY" mode by pressing the  $\triangle$  (+),  $\bigtriangledown$ (-),  $\triangleleft$  (L/R SWING), and  $\triangleright$  (U/D SWING).
- When the "DISPLAY" character blinks, press the "OK" button to switch off the LED display on the panel. Choose "DISPLAY" again and press "OK" to switch on the LED display.

#### $\triangleright$ LIGHT Function

- The unit will automatically activate or deactivate the display on the indoor unit according to the indoor ambient brightness.
- Press the "MENU" button to enter the function selection.
- Then choose the "LIGHT" mode by pressing the  $\triangle$ (+),  $\bigtriangledown$ (-),  $\triangleleft$ (L/R SWING), and  $\triangleright$ (U/D SWING).
- When the "LIGHT" character blinks, press the "OK" button to switch on this function. The "LIGHT" icon will be indicated on the remote screen.
- Choose "LIGHT" again and press "OK" to cancel this function.

#### °C/°F

Long press the "COOL" and "HEAT" buttons for 3 seconds to switch the temperature between Fahrenheit and Celsius.

#### Child Lock

• Long press the "HEAT" and "MODE" buttons for 3 seconds to switch on/off the child-lock function.

• When the child-lock function is activated, the remote screen will indicate "  $\cap$  " and will not send any signal to the air conditioner.

#### Filter Clean Reminder

- When the unit is on, press the U/D SWING Button 6 times in 3 seconds to switch on this function. The unit will beep 6 times.
- The indoor unit display will flash 5 times after turning off the unit to remind you to check and clean the filter.

#### Using the Remote

- The max range of the remote is 26 ft/8 m away from the unit.
- Check that there are no objects between the remote control and the signal receptor in the indoor unit.
- Never leave the remote control exposed to the sun.
- Keep the remote control at a distance of at least 1m from the television or other electrical appliances.

#### Inserting or Replacing the Batteries



- Remove the cover on the rear of the remote control.
- Insert two "AAA" 1.5V batteries in the correct position (see instructions inside the battery compartment).

#### Note:

- If the remote control does not work normally, remove the batteries for 30 seconds before reinstalling them. If that doesn't work, replace the batteries.
- If the remote control unit is replaced or disposed of, the batteries must be removed and discarded in accordance with current legislation as they are harmful to the environment.

- Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium) batteries.
- Do not dispose of batteries in fire. Batteries may explode or leak.
- Remove the batteries if the remote control won't be used for a long time.

# CLEANING

#### Warning

- When cleaning, you must shut down the machine and cut off the power supply for more than 5 minutes.
- Under no circumstances should the air conditioner be flushed with water.
- Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner, so only use a soft dry cloth or wet cloth dipped with neutral detergent to clean the air conditioner.
- Pay attention to cleaning the filter regularly to avoid dust accumulation which will affect the filter effect. It's recommended to clean the filter every 3-6 months. When the operating environment is dusty, the cleaning frequency should be increased appropriately.
- After removing the filter, do not touch the fins of the indoor unit to avoid injury or damage.

#### **Cleaning the Outer Case**

If there's dust on the surface of the outer case, gently wipe it with a soft cloth. Do not remove the panel during cleaning.



#### **Cleaning the Filter**

- Use both hands to open the panel at an angle from both ends of the panel following the direction of the arrow.
- Release the air filter from the slot and remove it.



• Clean the filter with soapy water and air dry it. If the filter is very dirty, clean it with warm water (below 113°F/45°C) with mild detergent, and put the filter in the shade to dry in the air.



• Reinstall the dried filter in reverse order of removal, then cover and lock the panel.



#### Note:

- Please clean the filter in time to ensure clean, healthy, and efficient operation inside the air conditioner.
- Do not touch the metal fins in the air conditioner after removing the filter, as they may cause personal injury.
- Do not attempt to dry the filter with a hair dryer or other heating elements as this may deform or ignite the filter.
- Do not operate the air conditioner if the air filter is missing.

#### Maintenance Checklists

#### **Pre-Season Maintenance Checklist**

- Check whether there are obstacles at the air inlet and outlet of indoor and outdoor units.
- Clean the filter.
- Install the batteries of the remote control and check whether the power is on.
- Check whether the drain pipe is unobstructed.

#### Post-Season Maintenance Checklist

- Clean the filter.
- Take out the batteries of the remote control.

# **MALFUNCTION CODES**

The unit has a self-diagnosis system to identify malfunctions. Malfunction codes will be displayed on the indoor unit display. If this is displayed, contact TURBRO service team.

DISPLAY	MALFUNCTION NAME
EO	IDU overcurrent protection
E1	IDU room sensor error
E2	ODU condenser sensor error
E3	IDU evaporator sensor error
E4	AC or DC motor error
E5	ODU and IDU communication error
E8	Communication fault between display board and PCB board
Eb	IDU PCB EE error

DISPLAY	MALFUNCTION NAME
P2	High-pressure switch protection
P3	Lack of refrigerant protection
P4	Condenser overload protection (Cooling mode)
P5	Discharge temperature protection
P6	Evaporator overload protection (Heating mode)
P7	IDU anti-freezing protection (Cooling mode)
P8	ODU overcurrent protection
FO	ODU fan motor error
F1	ODU module protection error
F2	ODU PFC Protection error
F3	Compressor start failure or out-of-step error
F4	ODU discharge sensor error
F6	ODU room sensor error
F8	ODU communication error between main PCB board and module board
F9	ODU PCB EE error
FA	Suction senser error

# TROUBLESHOOTING

Troubleshoot your problem by using the chart below. If the air conditioner still does not work properly, please contact TURBRO customer team via support@turbro.com.

ISSUE	POSSIBLE CAUSE	POSSIBLE REMEDY
The appliance does not operate	<ul> <li>A. Incorrect connections of cable or electric wires.</li> <li>B. Have set a delayed start-up time.</li> <li>C. It sometimes stops operating to protect the appliance.</li> <li>D. Voltage is higher or lower than the rated voltage range.</li> <li>E. Control Board/Fan motor Damaged.</li> <li>F. The air conditioner can't run after the immediate start -up after it is shut down.</li> </ul>	<ul> <li>A. Check and reconnect the wires correctly.</li> <li>B. Cancel the TIMER function.</li> <li>C. Wait for 30 minutes and try again. If the problem persists, contact the TURBRO customer service team.</li> <li>D. Check and make sure the supply voltage is stable and consistent with the rated range.</li> <li>E. Contact the TURBRO customer service team.</li> <li>F. The protective delay switch will delay the operation for 3-5 minutes.</li> </ul>
The air conditioner stops running after it starts up for a while.	<ul><li>A. The unit reached the setting temperature.</li><li>B. It's defrosting.</li><li>C. Have set a shutdown timer.</li></ul>	<ul> <li>A. It is normal.</li> <li>B. It will automatically restore and run again after defrosting.</li> <li>C. Turn on the unit again to use.</li> </ul>
No air is blowing from the air conditioner	Air outlet/Inlet is blocked.	Check and remove the obstacles blocking the air outlet/inlet.
Insufficient airflow, either hot or cold	<ul> <li>A. Air filter is blocked by dust.</li> <li>B. Unsuitable temperature setting.</li> <li>C. Other sources of heat in the room.</li> <li>D. The windows, doors, and/or curtains are not closed.</li> <li>E. No refrigerant.</li> </ul>	<ul> <li>A. Clean the air filter.</li> <li>B. Adjust the temperature setting and mode.</li> <li>C. Remove the heat sources if possible.</li> <li>D. Make sure all the doors, windows, and curtains are closed.</li> <li>E. Contact qualified professionals to refill the refrigerant.</li> </ul>

ISSUE	POSSIBLE CAUSE	POSSIBLE REMEDY
The appliance does not respond to commands	<ul> <li>A. Remote control is not close enough to the indoor unit.</li> <li>B. The batteries of the remote control need to be replaced.</li> <li>C. Obstacles between the remote control and signal receiver of the indoor unit.</li> </ul>	<ul> <li>A. Stand closer in front of the indoor unit.</li> <li>B. Replace with two new AAA(1.5V) batteries.</li> <li>C. Remove the obstacles.</li> </ul>
Strange odor	Check whether there's an odor source such as new furniture	Remove the odor source and clean the filter
Strange noise	<ul><li>A. Has the unit just been turned on/off or adjusted temperature?</li><li>B. Too much dust accumulation on the air filter of the indoor.</li></ul>	<ul> <li>A. This sound is made by the expansion or contraction of the front panel due to temperature variations and does not indicate a problem.</li> <li>B. Clean the air filter.</li> </ul>
Produces a gurgling sound	Has the unit just been turned on?	Backflow of liquid in the refrigerant circulation
There are water drops over the surface of the indoor unit.	<ul><li>A. Long cooling run in open space produces water drops.</li><li>B. Too small opening angle of the louver blades.</li></ul>	A. Close the doors and windows. B. Set a larger angle for the louver blades.

If you notice or experience any of the following conditions, please turn off the air conditioner, disconnect from power, discontinue use, and contact support immediately.

- Strange noises during operation.
- Faulty electronic control board.
- Faulty fuses or switches.
- Spraying water or objects inside the appliance.
- Very strong smells coming from the appliance.

# WARRANTY & CUSTOMER SUPPORT

#### Warranty Information

TURBRO provides a 5-year limited warranty for TURBRO products from the date of purchase, subject to the following conditions and limitations outlined below.

#### What is covered?

- This warranty is limited to the replacement of part(s) proved to be defective in material or workmanship, after said defect is confirmed by the manufacturer's inspection.
- The manufacturer may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s).

#### What is not covered?

- Damage caused by the owner when attempting to fix or alter the product themselves.
- Damage caused by misuse, abuse, neglect, alterations, or unauthorized repair.
- Natural depreciation.
- Any alteration misuse of the product will nullify this warranty.
- This warranty is non-transferable, which is effective for the original buyer from the authorized seller only.

#### How to request warranty services?

• To obtain the benefit of this warranty, please leave a message online (www.turbro.com/contact), or send an email to <a href="mailto:support@turbro.com">support@turbro.com</a>.

#### What will TURBRO do?

- Replace the item if not repairable.
- Refund the item under certain circumstances.

#### Customer Support

#### We are here to help anytime!

Any problems, write to us via support@turbro.com. We will get back to you within 1 business day.

TURBRO



www.turbro.com







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