Q Chassis Models

Kühl  115-Volt: SQ05, SQ06, SQ08, SQ10

Kühl+  115-Volt: EQ08
Thank you for your decision to purchase the Friedrich High Efficiency Air Conditioner. Your new Friedrich has been carefully engineered and manufactured to give you many years of dependable, efficient operation, maintaining a comfortable temperature and humidity level. Many extra features have been built into your unit to assure quiet operation, the greatest circulation of cool, dry air, and the most economic operation.

THANK YOU, on behalf of our entire company, for making such a wise purchase.

Register your air conditioner

Model information can be found on the name plate behind the front cover.

Please complete and mail the owner registration card furnished with this product, or register online at www.friedrich.com. For your future convenience, record the model information here.

MODEL NUMBER

SERIAL NUMBER

PURCHASE DATE
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Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is a safety Alert symbol.
This symbol alerts you to potential hazards that can kill or hurt you and others.
All safety messages will follow the safety alert symbol with the word “WARNING” or “CAUTION”. These words mean:

**WARNING**

Indicates a hazard which, if not avoided, can result in severe personal injury or death and damage to product or other property.

**CAUTION**

Indicates a hazard which, if not avoided, can result in personal injury and damage to product or other property.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what will happen if the instructions are not followed.

**NOTICE**

Indicates property damage can occur if instructions are not followed.

---

**WARNING**

**Refrigeration system under high pressure**

Do not puncture, heat, expose to flame or incinerate.
Only certified refrigeration technicians should service this equipment.
R410A systems operate at higher pressures than R22 equipment. Appropriate safe service and handling practices must be used.
Only use gauge sets designed for use with R410A. Do not use standard R22 gauge sets.
Unpacking Instructions

STEP 1. CUT ALL PACKING STRAPS.
STEP 2. CUT TAPE AND OPEN.
STEP 3. REMOVE TOP PACKAGING MATERIAL AND CARTON CONTAINING SIDE CURTAINS.
STEP 4. SLOWLY REMOVE OUTER BOX.
STEP 5. REMOVE CORNER POSTS.
STEP 6. REMOVE UNIT FROM SHIPPING TRAY.
STEP 7. REMOVE CARBON FILTER AND HARDWARE FROM BOTTOM TRAY.
WARNING: Before Operating Your Unit

Make sure the wiring is adequate for your unit.

If you have fuses, they should be of the time delay type. Before you install or relocate this unit, be sure that the amperage rating of the circuit breaker or time delay fuse does not exceed the amp rating listed in Table 1.

DO NOT use an extension cord.

The cord provided will carry the proper amount of electrical power to the unit; an extension cord may not.

Make sure that the receptacle is compatible with the air conditioner cord plug provided.

This insures proper grounding. If you have a two prong receptacle you will need to have it replaced with a grounded receptacle by a certified electrician. The grounded receptacle should meet all national and local codes and ordinances. Under no circumstances should you remove the ground prong from the plug. You must use the three prong plug furnished with the air conditioner.

Test the power cord

All Friedrich room air conditioners are shipped from the factory with a Leakage Current Detection Interrupter (LCDI) equipped power cord. The LCDI device meets the UL and NEC requirements for cord connected air conditioners effective August 2004.

To test your power supply cord:
1. Plug power supply cord into a grounded 3 prong outlet.
2. Press RESET (See Figure 1).
3. Press TEST, listen for click; the RESET button trips and pops out.
4. Press and release RESET (Listen for click; RESET button latches and remains in). The power cord is ready for use.

Once plugged in, the unit will operate normally without the need to reset the LCDI device.

If the LCDI device fails to trip when tested or if the power supply cord is damaged, it must be replaced with a new power supply cord from the manufacturer. Contact our Technical Assistance Line at (800) 541-6645. To expedite service, please have your model number available.

Table 1.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CIRCUIT RATING OR TIME DELAY FUSE</th>
<th>REQUIRED WALL RECEPTACLE</th>
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<tbody>
<tr>
<td>XQ05 • XQ06</td>
<td>15 AMP 125 VOLT</td>
<td>5-15P</td>
</tr>
<tr>
<td>XQ08 • XQ10</td>
<td>15 AMP 125 VOLT</td>
<td>5-15P</td>
</tr>
<tr>
<td>EQ08</td>
<td>15 AMP 125 VOLT</td>
<td>5-15P</td>
</tr>
</tbody>
</table>

WARNING

Electrical Shock Hazard

Make sure your electrical receptacle has the same configuration as your air conditioner’s plug. If different, consult a Licensed Electrician.

Do not use plug adapters.
Do not use an extension cord.
Do not remove ground prong.

Always plug into a grounded 3 prong outlet. Failure to follow these instructions can result in death, fire, or electrical shock.

NOTICE

Do not use the LCDI device as an ON/OFF switch.

Failure to adhere to this precaution may cause premature equipment malfunction.
Standard Filter Cleaning / Installation Instructions

STEP 1. Swing the door open and remove the filter by grasping the filter grip and pushing the filter holder upward and outward.

Figure 2

STEP 2. Clean the front frame by washing the dirt from the filter. Use a mild soap solution if necessary. Allow filter to dry.

Figure 3

STEP 3. Install the filter back into the unit. Follow the Instructions on the inside of the front door.

Premium Carbon Filter Installation Instructions

Please follow the instructions below to install the Friedrich carbon filter. The carbon filter should be replaced after 300 hours of operation, 3 months, or more often if needed for maximum effectiveness.

When you replace the carbon filter, clean the washable mesh filter if dirty. Allow mesh filter to dry before reinserting.

STEP 1. Remove the black plastic filter frame from the unit following the instructions on the inside of the filter door. (Washable mesh filter is included and is permanently attached to filter frame).

STEP 2. Lay the black plastic filter frame on a flat surface, with the 6 filter frame hooks facing upward.

Figure 4

Place the carbon filter over the filter frame so that the carbon filter's 6 installation holes align with the 6 filter frame hooks. (Figure 4)

Secure the carbon filter to the filter frame. Make sure that all 6 filter frame hooks are inserted through all 6 installation holes of the carbon filter. The installation hooks will hold the filter securely.

STEP 3. Place the black plastic filter frame with the carbon filter installed (Figure 5) back into the front of the unit, following the instructions on the inside of the filter door.

Carbon filter is now ready for use!

Figure 5
Control Panel Operation

Let’s check out how to control your air conditioner. On the control panel, just above the POWER, is a liquid crystal display (LCD). All of the control panel function buttons and mode icons can be viewed in Figure 6.

**Power On** – Press the button to turn on the air conditioner. The power button illuminates to indicate that the power is on. The backlight on the power switch will automatically dim to 20% intensity after 15 seconds of inactivity. The remote control can also be used to turn power ON / OFF (See Remote Control).

**Display** – The display is a high efficiency LCD with a built-in white backlight. The backlight has an automatic two (2) step dim function. After 15 seconds of inactivity, the display dims to 20% intensity. After an additional 120 seconds, the display switches off. Touching any button automatically changes the display to full brightness.

There are three control push buttons on each side of the display.

![Figure 6](image-url)
New Kühl Control Options

The new Kühl gives you a variety of options for control, programming, and scheduling including wireless capabilities. The new FriedrichLink™ Adapter (sold separately) allows you to conveniently control, program and monitor your air conditioning unit remotely from a smartphone or computer. (FriedrichLink™ Adapter accessory available through Friedrich authorized retailers or www.friedrich.com. See FriedrichLink™ Adapter section on www.friedrich.com for complete details)

Pre-Programmed Scheduling Options:

Your unit’s digital control comes equipped with a 24-hour timer and two pre-programmed 7-day energy management options.

24-Hour Timer

The 24-hour timer allows you to turn the unit off and on at pre-set times by setting an on and off time on the unit control panel. (See page 11 for details on timer set-up.)

Pre-programmed Energy Management

Your unit comes from the factory with two (2) Pre-programmed Energy Management settings are shown in Addendum 1 (Residential & Commercial Schedule Table).

Energy Management Schedule Options are:

1. Residential Schedule – 40 Hr. Work Week
2. Commercial Schedule – 5-Day Business Week

The “Residential” (40 Hr. Work Week) Schedule has four (4) time periods: 06:00, 08:00, 18:00, and 22:00. This option will cause your Kühl Q unit to raise the room temperature temporarily to 85°F during the hours when most people are away at work, lower them again to 78°F prior to the time when most people will return home, and then raise slightly to 82°F to maintain a comfortable temperature overnight.

The “Commercial” (5-Day Business Week) Schedule has two (2) time periods: 07:00 and 18:00. This option will cause your Kühl Q unit to raise temperatures to 84°F after typical working hours and on weekends when commercial spaces are typically unoccupied.

(See Control Panel Operation Instructions Section)

Customizable Programming Options:

Customizable schedules, with up to four temperature adjustments per day, can either be uploaded to the unit via the air conditioner’s built-in micro USB interface or conveniently transmitted wirelessly using the NEW FriedrichLink™ Adapter accessory, greatly simplifying the programming of one or multiple units.

Customizable Programming Options:

1. RECOMMENDED: Wirelessly program and control your Kühl unit via computer or smartphone device using the FriedrichLink™ system. One FriedrichLink™ Adapter is required per Kühl unit, as well as wireless internet access.

   Simply insert the FriedrichLink™ Adapter into the micro USB port of your unit as shown in Figure 7.

2. Use the FriedrichLink™ Adapter as a flashdrive to upload a customized schedule to your Kühl unit. Plug FriedrichLink™ Adapter into your PC to create customized schedule (Customized Thermostat application comes pre-loaded on FriedrichLink™ Adapter accessory). Once customized schedule is created, remove from PC and plug FriedrichLink™ Adapter into the Kühl unit to upload. Multiple units can be uploaded with the same FriedrichLink™ Adapter.

3. Download the customizable Schedule App from www.friedrich.com and upload to your Kühl unit with a laptop and USB to micro USB cable. (Cable not included).

   For complete Schedule App installation instructions, see FriedrichLink™ page under the “Support & Downloads” section on www.friedrich.com.

Figure 7
Control Panel Operation Instructions

**SYSTEM** - The **SYSTEM** button allows you to sequentially select three modes of operation:

- **COOL**
- **HEAT** - Not available on some models
- **FAN ONLY**

**COOL MODE**

When in the **COOL** or **HEAT** or **FAN ONLY** mode, you can also select **FAN MODE**, **FAN SPEED**, **TIMER SCHEDULE**, and **AUTO FAN**. The **SYSTEM MODE** does not change.

**HEAT MODE**

**FAN ONLY MODE**

**FAN SPEED** - The **FAN SPEED** button allows you to toggle between four modes of operation: **LOW**, **MEDIUM**, **HIGH** and **AUTO**.

When fan speed **AUTO** mode (SYSTEM mode **COOL** or **HEAT**) is selected, fan speed automatically varies depending on the difference between the unit's set point on the control panel and the actual room temperature. Let me explain. Say for example, you're working in your garage and you open the big door for several minutes. The system will sense a wide difference between the set point and the actual room temperature. When this occurs, the system fan speed increases to **HIGH** for a period of time. The fan speed decreases, in step, as the temperature difference decreases. When the room temperature matches the system's set point, fan speed returns to the original setting.
UP ▲ and DOWN ▼ - arrows - Pressing either ▲ or ▼ button changes the system’s set point (desired room temperature). These buttons are also used to make system parameter changes latter in this manual.

One press equals 1 degree of change. Holding the button down for more than 0.6 seconds starts the fast increment/decrement change of the set point.

TIMER SCHEDULE - The ▶ button allows you to select the TIMER or SCHEDULE function.
The ▶ button selected during a defined OFF window.

The ▶ icon illuminates.
The ▶ button selected during a defined ON window.

The ▶ icon illuminates.
The ▶ button selected during a defined ON window.

The TIMER function (option 1, system default) allows you to define a daily system ON and OFF time window. For example, you can command the system to turn ON at 8:15 am and turn OFF at 1:30 pm everyday.
The SCHEDULE function allows you to choose either Residential (option 2) or Commercial (option 3). The Residential and Commercial options are described latter in this manual.

OTHER FUNCTIONS

SET TIME - To adjust the unit’s time press and hold the HOUR and the MIN buttons for three seconds (Refer to Figure 8).

The unit’s current hour displays. Use the ▲ or ▼ buttons to adjust the hour. To change from AM to PM continue to increment (roll) the display. Press TIMER SET (Refer to Figure 8) button to display the unit’s current minutes.

Use the ▲ or ▼ buttons to adjust the minutes. The clock is now set for 11:25 AM. Press TIMER SET (Refer to Figure 8) button to display the unit’s day setting.
Use the ▲ or ▼ buttons to adjust the day (1 to 7). The day setting is up to the user. If you set the current day = 1, and today is Tuesday, then Day 1 = Tuesday.

Press TIMER SET (Refer to Figure 8) button to exit and save the SET TIME function. The TIMER SET button must be pressed within 15 seconds. Button inactivity for more than 15 seconds causes the display to time out and return to the normal operating display.

°F - ºC Select

To switch from degrees Fahrenheit (F) to Celsius (C), press ▲ or ▼ buttons for three seconds.

A "F" will flash for 5 seconds and then revert to a normal display. To change from F to C, press the ▲ or ▼ button within 5 seconds.

A "C" will flash for 5 seconds and then revert to a normal display.

The °F icon goes away and the °C icon illuminates on the normal display.

DIM Function

There are three separate display brightness levels, AUTO, 20% and full (100%). To change the DIM setting, press the Power button for three seconds.

The 1 indicates a DIM setting of Auto (factory default). Use the ▲ or ▼ buttons to change the setting.

The 2 indicates a DIM setting of 20%. Press the TIMER SET button within 15 seconds to save the setting. Button inactivity for more than 15 seconds causes the display to time out and return to the normal operating display.
The 3 indicates a DIM setting of 100% (full brightness). Press the TIMER SET (Refer to Figure 8) button within 15 seconds to save the setting. Button inactivity for more than 15 seconds causes the display to time out and return to the normal operating display.

Alerts

When the filter needs to be cleaned or replaced, the checkbox icon displays.

The alert can be dismissed by pressing the fan mode and timer set for 3 seconds. When maintenance is required, a service icon appears on screen.

This will remain on the display until the fault has been corrected. Note: the icon will flash if the fault is of a more severity nature.

The wait icon illuminates when the compressor lockout is active.

This means there is a compressor demand but the system is not ready for the compressor to operate. For example a short power outage, the compressor will not restart until the internal pressures of the compressor are at the proper level.

If the room freeze protection is active, the display indicates this by showing “F”. Once the condition is satisfied, the “F” display is removed. Press TIMER SET (Figure 8) button overrides the freeze protection alert for 5 minutes. This alert appears when the room is too cold for the air conditioner to operate properly. Another cause of alert occurs when to much ice builds up on the unit’s condenser.

Lock Control Panel

To lock the front panel controls, press and hold the fan speed and timer set buttons for 3 seconds. The lock icon illuminates to indicate the locked status.

To unlock, presses and hold the fan speed and timer set buttons for 3 seconds.

The lock icon disappears to indicate unlocked status.
External Control Status

The $MART$ icon illuminates to indicate that the system is being controlled remotely.

1. **Timer (factory default)** - Allows you to command the unit to turn ON and OFF at time you program within a 7 day window. Setting the start, stop and day window can be found latter in this manual.

2. **Residential Schedule** - When selected the unit follows a pre-programmed set of operational parameters that covers 7 days of the week with 2 time windows during each day. Each time window has it’s own set of 8 operating parameters. Refer to Addendum 1. To make a change to the 28 time windows refer to Advanced Programming section of this manual.

3. **Commercial Schedule** - When selected the unit follows a pre-programmed set of operational parameters that covers 7 days of the week with 2 time windows during each day. Each time window has it’s own set of 8 operating parameters. Refer to Addendum 1. To make a change to the 14 time windows refer to Advanced Programming section of this manual.

To change the selection, press and hold the TIMER/SCHEDULE button for 3 sec.

If the Schedule function is available, the system displays the $ icon + $ icon. The display indicates the schedule function that is active. To change to an alternate schedule (2 or 3), press the $ or $ button.

If the Schedule function is not available, the Timer icon shows without the $ icon.

To save and exit this selection, press the TIMER SET button (Figure 8).

If there is no button activity for 15 seconds, the function will time out and leave the original selection. Once the selection is saved or timed out, the display reverts to the normal display.

After pressing the $ or $ button, within 15 second of pressing the button for 3 seconds, the display indicates a change to Timer/Scheduler 2. To save and exit this selection, press the TIMER SET button (Figure 8).

The display reverts to the normal display.

ADVANCED FUNCTIONS

Let me put in plain words many of your unit’s advanced functions (Timer, Schedule, Error Mode, Test Mode, and Maintenance Menu). The functions mentioned in the following section may or may not be available depending on the air conditioner model.

**Timer/Schedule Select**

The control system has three Timer/Schedule functions:

1. **Timer (factory default)** - Allows you to command the unit to turn ON and OFF at time you program within a 7 day window. Setting the start, stop and day window can be found later in this manual.

2. **Residential Schedule** - When selected the unit follows a pre-programmed set of operational parameters that covers 7 days of the week with 4 time windows during each day. Each time window has its own set of 8 operating parameters. Refer to Addendum 1. To make a change to the 28 time windows refer to Advanced Programming section of this manual.

The display reverts to the normal display.
Now the next time the button is pressed the system operates in the mode (1, 2 or 3) you programmed.

Modify the TIMER Function

Timer Start Time

The display shows a normal system. Press and hold the HOUR button (Figure 8) for 3 seconds. Note the Timer start-stop times may be set even when the system is in the Schedule mode.

The display shows a normal system. Press and hold the HOUR button (Figure 8) for 3 seconds. Note the Timer start-stop times may be set even when the system is in the Schedule mode.

Use the or button to adjust the hour. Press the TIMER SET button (Figure 8) to adjust the minutes.

Use the or button to adjust the hour. Press the TIMER SET button (Figure 8) to adjust the minutes.

Use the or button to adjust the minutes. Press the TIMER SET button (Figure 8) within 15 seconds to exit and save the setting. The timer is now set to start at 4:21 AM.

Use the or button to adjust the minutes. Press the TIMER SET button (Figure 8) to adjust the minutes. Press the TIMER SET button (Figure 8) within 15 seconds to exit and save the setting. The timer is now set to stop at 11:55 AM.
The display returns to normal once the settings are saved.

**Timer - Scheduler Control Block**

If the unit is operating in the TIMER or SCHEDULE mode, and then you press any button except the button, the Timer icon begins to blink. All button action is blocked.

The Timer icon stops blinking after 3 seconds. You must turn the active Timer or Schedule mode OFF before making changes. Once the changes are made, press the button to re-activate Timer or Schedule mode.

If the unit is operating in the TIMER or SCHEDULE mode, and then you press any button except the button, the Timer icon begins to blink.

All button action is blocked.

If the Schedule function is turned ON during normal operation, the and Timer icons illuminates. The control system immediately runs the current period schedule parameters.

The display shows a normal system.
If the Schedule function is turned ON during a Skip period, the **SCHEDULE** and Timer icons illuminates. The control system immediately runs the previous (non-skip) period schedule parameters.

**Timer ON Scenarios**

The display shows a normal system.

If the Timer function is turned ON during the Off time, the icon illuminates. The control system immediately turns the unit OFF.

**Scheduler OFF Scenarios**

The display shows the unit in Schedule mode.

If the Schedule function is turned OFF during an active state (not off), the Timer and **SCHEDULE** icons turn off. The control stays in the current state. The display shows a normal system.

The display shows a normal system.

If the Timer function is turned ON during the ON time, the Timer icon illuminates. The control system continues to run.

The display shows the unit in Schedule mode during an in-active (OFF) period.
If the Schedule function is turned OFF during an in-active (OFF) period, the Timer and SCHEDULE icons turn off. The unit wakes up in the last known non-schedule state.

If the Schedule function is turned OFF during a Skip period, the and SCHEDULE icons turn off. The unit wakes up in the last known non-schedule state.

The display shows a normal system.

**Timer OFF Scenarios**

The display shows the unit in Timer mode during an in-active (OFF) period.
Remote Control Operation

Remote Control - Refer to Figures 10 and 11 during operation description.

Getting Started - Install two (2) AAA batteries in the battery compartment located on the back of the unit.

Operation - The remote control should be within 25 feet of the air conditioner for operation. (Refer to Figure 9 for effectiveness). Press the power button to turn the remote on. The remote will automatically power off after 15 seconds if the buttons are not being pressed. The remote must be on to control the unit.

POWER Button - Turns remote and unit on and off.

SYSTEM Button - Allows the user to sequentially select, Cool, HEAT, and FAN ONLY operation. When the button is pressed, the display indicates which mode has been selected via a display message. Note that when the heating function is not available, the system will automatically skip the HEAT mode.

FAN MODE Button - Selects between automatic AUTO FAN or CONTINUOUS operation. In the AUTO FAN mode, the fan only turns on and off when the compressor operates or the heat function is enabled.

NOTE: AUTO FAN is not available in the FAN ONLY Mode, the display indicates CONTINUOUS. In the CONTINUOUS mode, fan speed is determined by your selection on the FAN SPEED button.

FAN SPEED Button - Used to sequentially select new fan speed, plus AUTO operation. When the button is pressed, the fan speed icon (triangle) changes to indicate the new speed level. Fan speed automatically varies depending on the set temperature on the control panel and the actual room temperature. For example if there is a big difference between your set temperature and the actual room temperature, the system fan speed increases to HIGH. It remains at this speed until the room temperature matches the set temperature.

SCHEDULE Button - The button turns the schedule function on and off. Press the Schedule button once to turn on the Schedule (Residential, Commercial, Timer, or Customized) that has already been selected on your unit. Pressing the button a second time turns the schedule function off.

UP and DOWN Arrows - Pressing either the UP or DOWN button changes the desired room temperature. The factory preset lower and upper limits are 60°F (16°C) and 99°F (37°C). These buttons are also used to navigate between function options when using the User Menu or Maintenance Mode.

Remote Effectiveness

Hand Held Remote - Has an operating range of up to 25 ft. The infrared remote control signal must have a clear path to transmit the command to the air conditioning unit. The remote signal has some ability to "bounce" off of walls and furniture similar to a television remote control. The diagram below shows the typical operating range of the control in a standard room with 8 ft high ceilings.

Figure 9
Figure 10

Figure 11
Airflow Selection and Adjustment

Air flow direction adjustment

The airflow path may be adjusted to distribute air independently from the left or right side of the discharge opening. Each of the banks of louvers can be directed left, right, up or down in order to achieve the most optimum airflow positioning.

To adjust airflow direction grab the lever in the center of the louver bank and move it in the direction that you would like the air to be directed. Please note that it is normal that airflow may be stronger out of one side of the louvers than the other.

Figure 12

Installation Instructions

NOTE: This section includes installation instructions for window mount and thru-the-wall mount methods. Kaül heat/cool units are designed for permanent thru-the-wall installation. Mounting the unit in a window will require a window accessory kit, available through your Friedrich dealer.

**WARNING**

**Electrical Shock Hazard**

Make sure your electrical receptacle has the same configuration as your air conditioner’s plug. If different, consult a Licensed Electrician.

Do not use plug adapters.
Do not use an extension cord.
Do not remove ground prong.
Always plug into a grounded 3 prong outlet.
Failure to follow these instructions can result in death, fire, or electrical shock.

READ THIS FIRST! Electrical Requirements

**IMPORTANT:** Before you begin the actual installation of the air conditioner, be sure your electrical requirements are as described below. Consult an electrical professional as necessary to insure home wiring is per local electrical codes.

**CIRCUIT PROTECTION** – An overloaded circuit will invariably cause malfunction or failure of an air conditioner, therefore, it is necessary that the electrical protection is adequate. Due to momentary high current demand when your air conditioner is started, use a “TIME DELAY” fuse or a HACR type circuit breaker. Consult your dealer or power company if in doubt.

Your air conditioner must be connected to a power supply with the same A.C. voltage and hertz as marked on the unit nameplate. Only alternating current (A.C.), no direct current (D.C.), can be used.

The power cord has a plug with a grounding prong of approved type and a matching plug receptacle with ground is required. Refer to page 6 for the correct type of plug receptacle for your model.
Items required for installation (provided in straight cooling units only)

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<thead>
<tr>
<th>ITEM NO</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
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<tbody>
<tr>
<td>1</td>
<td>SCREW, SHEET METAL, #8 x ⅜&quot;</td>
<td>8</td>
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<tr>
<td>2</td>
<td>SCREW, PHILLIPS, TRUSS HEAD, #8 x ⅜&quot;</td>
<td>4</td>
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<tr>
<td>3</td>
<td>SCREW, HEX, #8 x ¾&quot;</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>SCREW, PHILLIPS, #8 x 1 ¼&quot;</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>GRAY GASKET, FOAM, 1&quot; x 1 ½&quot; x 42&quot;</td>
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</tr>
<tr>
<td>6</td>
<td>WHITE GASKET, FOAM, 1&quot; x 1 ½&quot; x 48&quot;</td>
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<table>
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<td>CABINET OR SLEEVE</td>
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<tr>
<td>10</td>
<td>AIR CONDITIONING UNIT w/ DECORATIVE FRONTPANEL</td>
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<tr>
<td>11</td>
<td>AIR CONDITIONING UNIT</td>
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</tbody>
</table>

Recommended tools required for installation: (not included)

- HEXHEAD SCREWDRIVER
- COMMON SCREWDRIVER
- PHILLIPS SCREWDRIVER
Standard Window Installation

**WARNING**

**Falling Object Hazard**

Not following Installation Instructions for mounting your air conditioner can result in property damage, injury, or death.

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**STEP 1.** After removing the unit from shipping carton, (See Figure 14).

**STEP 2.** Attach curtain assemblies to cabinet as shown in Figure 13. Use eight (8) No. 8 x 3/8" slotted hex head screws (item #1, page 22).

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**CAUTION**

**Cut/Sever**

Although great care has been taken to minimize sharp edges in the construction of your unit, use gloves or other hand protection when handling unit. Failure to do so can result in minor to moderate personal injury.

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**Figure 13**

TO PULL UNIT FROM SLEEVE, USE THE SIDE HANDLES LOCATED ON EITHER SIDE OF THE UNIT DECORATIVE FRONT. OBTAIN ASSISTANCE OR HELP AS NECESSARY TO HOLD SLEEVE WHILE PULLING UNIT FROM SLEEVE. MAKE SURE AIR CONDITIONER IS ON FIRM SUPPORT BEFORE REMOVING UNIT FROM SLEEVE.

**Figure 14**

WHEN CARRYING OR HANDLING UNIT, OBTAIN ASSISTANCE OR HELP AS NECESSARY TO SUPPORT UNIT FROM BOTTOM (BASEPAN), MAINTAINING CLEARANCE FROM ALL OBSTACLES.

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**STEP 3.** Center cabinet in window with sill channel positioned against window stool as shown in Figure 15, Section A-A.

**STEP 4.** Pull window sash down behind Shell Support Channel on top of cabinet; this helps hold cabinet in place. Install No. 8 x " hex head screw (item #3, page 22) in sill channel at bottom of window opening as shown in Figure 15.

**STEP 5.** Extend the sliding curtains on each side so the frames fit into the window channels. While holding the curtain frames in place, mark four (4) hole locations (hole locations are in the upper corners on left and right curtain assembly), two (2) in the window jamb and two (2) in the window sash. Slip the curtains back from marked locations and drill four (4) 7/64" diameter pilot holes. Again, extend the sliding curtains on each side and then install two (2) No. 8 x ½" Phillips head screws (item #2, page 22) and two (2) No. 8 x 1¼" Phillips head screws (item #4) through the curtain frames as shown in Figure 15.
STEP 6. Inspect the unit before inserting it into the sleeve. The fan should be manually rotated to insure that they turn freely. Be sure the electrical cord will be out of the way when inserting the unit into the sleeve.

**NOTE:** For your safety, DO NOT plug the electrical cord into an electrical outlet until installation is complete.

STEP 7. If the unit checks out OK, it is ready to be placed into position on bottom rails of the cabinet and pushed into place.

**NOTE:** Do all lifting of the unit by the bottom pan only and with assistance or help as necessary (See Figure 14).

STEP 8. The chassis must be pulled out slightly, so that there is a gap of 1 1/2" between the unit and shell (See Figure 16).

STEP 9. Install the white chassis seal gasket (item #6, page 22) and the gray window seal gasket (item #5). Carefully insert the white gasket (item #6) between the chassis and the cabinet starting at either bottom corner and go up the side, across the top and down the opposite side. Insert the gray gasket (item #5) between the window sashes as shown in Figure 16. If chassis seal gasket is not installed, the operation of the unit will be negatively affected. Also, the operation noise and outside noise will be amplified.

STEP 10. Hold the decorative front as shown in Figure 17. Insert the two tabs of the Decorative Front Panel into the slots in the top of the cabinet and lower the bottom of the decorative front to the bottom of the cabinet. Route the electrical cord to the right or left side of the bottom of the cabinet as required by the location of the electrical wall outlet. Use the notches provided at the bottom of the Decorative Front Panel for routing the electrical cord out of the unit. Attach the decorative front to the cabinet with two (2) No. 8 x ½" Phillips head screws (item #2, page 22).

---

**WARNING**

Electrical Shock Hazard

Make sure your electrical receptacle has the same configuration as your air conditioner's plug. If different, consult a Licensed Electrician.

Do not use plug adapters.
Do not use an extension cord.
Do not remove ground prong.
Always plug into a grounded 3 prong outlet. Failure to follow these instructions can result in death, fire, or electrical shock.

STEP 11. **CIRCUIT PROTECTION** - If the air conditioner is circuit protected by a fuse, use a "TIME DELAY" fuse or HACR type Circuit Breaker due to momentary high current demand when your air conditioner is started. Before operating your unit, verify the ampere rating of the time-delay fuse or circuit breaker which protects your unit. The ampere rating of the time-delay fuse or circuit breaker shall be 15 amps. Refer to Operation section for more detailed operating instructions.

**NOTE:** Remove tape and verify filter is intact, as per filter instructions found inside door.
**CAUTION**

**Excessive Weight Hazard**
Use two or more people when installing your air conditioner.
Failure to do so can result in back or other injury.

**CAUTION**

**Cut/Sever**
Although great care has been taken to minimize sharp edges in the construction of your unit, use gloves or other hand protection when handling unit.
Failure to do so can result in minor to moderate personal injury.

**GRAY FOAM GASKET**
(SEE ILLUSTRATION ITEM #5 ON PAGE 22)

**CHASSIS SEAL GASKET**

**TO PREVENT AIR LEAKS AROUND THE AIR CONDITIONER, INSERT THE WHITE FOAM GASKET (ITEM #6, PAGE 22) BETWEEN THE AIR CONDITIONER AND THE CABINET**
Cord Routing Change

Unplug unit.

Your Kühl Q unit will come with the power cord already installed and routed to the left side of the unit.

For convenience and optimum appearance the direction that the power cord exits the unit may be changed from left to right by following the procedure below. Select the exit location on the left or right based on proximity to the power outlet.

STEP 1. Open the Decorative Front Cover, and remove the 4 screws. Save to reinstall later.

**WARNING**

Electrical Shock Hazard

Make sure your electrical receptacle has the same configuration as your air conditioner’s plug. If different, consult a Licensed Electrician.

Do not use plug adapters. Do not use an extension cord. Do not remove ground prong.

Always plug into a grounded 3 prong outlet. Failure to follow these instructions can result in death, fire, or electrical shock.

Figure 18
STEP 2. In order to run the power cord to the right of the unit, route the cord along bottom inside of the unit (See Figures 20 and 21), under the lower left mounting screw embossments (See Figure 22) and exit the cord through right side cord opening (See Figure 22) of the decorative front cover. Decorative front cover will keep cord in place.

Figure 19

STEP 3. Reinstall the 4 screws removed earlier to secure Decorative front cover with cord exiting to the front bottom of the unit. (4 screws RETAINED FROM STEP 1)

Figure 21

CLOSE-UP OF CORD UNDER LEFT MOUNTING SCREW EMBOSSEMENT

Figure 22

LEFT-SIDE CORD ROUTING

RIGHT-SIDE CORD ROUTING
Thru-the-wall Installation

**WARNING**

**Falling Object Hazard**

Not following Installation Instructions for mounting your air conditioner can result in property damage, injury, or death.

**STEP 1.** After removing the unit from shipping carbon slide chassis out of cabinet (See Figure 16, page 25).

**STEP 2.** Remove the shell channel from the top of the cabinet (See Figure 15, page 24).

**NOTE:** Not applicable to heat pump models sold without quick mounting cabinet.

**STEP 3.** LAYOUT - Cut and frame in an opening in the desired wall area using the illustration as a guide (See Figure 23).

**STEP 4.** Place the cabinet in the framed opening.

**NOTE:** Measure and shim void spaces between the side of cabinet and wood framing before securing to wall.

**STEP 5.** Position the front edge to extend into the room 3/4” minimum at top of cabinet and 1” minimum at bottom (See Figure 24).

**STEP 6.** Secure each side of the cabinet with No. 8 x 7/8” hex head screws (item #3, page 22) or nails through the holes in the sides.

**NOTE:** Alternate fasteners which may be used for securing the unit cabinet to a wall, including masonry walls, are not furnished (available at local hardware stores).

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Figure 23

**CONCRETE BLOCK CONSTRUCTION**

**FRAME CONSTRUCTION**
STEP 7. Cut two pieces of standard 1" lumber (supplied by installer) to the length and width required. Place in front and back of bottom sill channel as shown in Figure 24. Secure with nails (supplied by installer).

STEP 8. Seal all holes in the cabinet with caulking compound (supplied by installer).

STEP 9. Complete the installation by following STEPS 6 through 11 of Standard Window Installation (Page 24). Window Seal Gasket mentioned in STEP 9 will not be required.

IMPORTANT: Before operating your unit, read STEP 11 of Standard Window Instructions.

Figure 24

SOLID MASONRY CONSTRUCTION

NOTE: ELECTRICAL RECEPTACLE LOCATION FROM POINT "X" MUST BE WITHIN A MAXIMUM RADIUS OF 69" FOR 115V UNITS.
Final Inspection & Start-up Checklist

- Inspect and ensure that all components and accessories have been installed properly and that they have not been damaged during the installation progress.
- Check the condensate water drain(s) to ensure that they are adequate for the removal of condensate water, and that they meet the approval of the end user.
- Ensure that all installation instructions concerning clearances around the unit have been adhered to. Check to ensure that the unit air filter, indoor coil, and outdoor coil are free from any obstructions.
- Ensure that the circuit breaker(s) or fuse(s) and supply circuit wire size have been sized correctly. If the unit was supplied with a power supply cord, insure that it is stored properly.
- Ensure that the entire installation is in compliance with all applicable national and local codes and ordinances having jurisdiction.
- Secure components and accessories, such as a decorative front cover.
- Start the unit and check for proper operation of all components in each mode of operation.
- Instruct the owner or operator of the units operation, and the manufacturer's Routine Maintenance.

NOTE: A log for recording the dates of maintenance and/or service is recommended.

- Present the owner or operator of the equipment with the Installation & Operation Manual, all accessory installation instructions, and the name, address and telephone number of the Authorized Friedrich Warranty Service Company in the area for future reference if necessary.

This is a warm weather appliance

Your air conditioner is designed to cool in warm weather when the outside temperature is above 60°F (15.6°C) and below 115°F (46.1°C), so it won't cool a room if it is already cool outside.

Condensation is normal

Air conditioners actually pump the heat and humidity from your room to the outside. Humidity becomes water, and your air conditioner will use most of the water to keep the outside coil cool. If there is excessive humidity, there may be excess water that will drip outside. This is normal operation.

Frosting

This usually occurs because of insufficient airflow across the coils, a dirty filter, cool damp weather, or all of these. Set the SYSTEM mode to FAN ONLY and the frost will disappear. Setting the thermostat a little warmer will probably prevent the frosting from recurring.

Noises

All air conditioners make some noise. Friedrich units are designed to operate as quietly as possible. An air conditioner mounted in a wall is quieter than one mounted in a window. It is important to ensure that the chassis seal gasket (Item 14) is properly installed (refer to installation instructions).
Routine Maintenance

To ensure proper unit operation, the air filters should be cleaned at least monthly, and more frequently if conditions warrant. The unit must be turned off before the filters are cleaned.

To Remove, Wash and Replace Filter

Lower front panel (See Figure 2). Use handle on filter to flex filter up and out of retainer. Remove filter from unit (See Figure 3). Clean filter monthly or more frequently if needed. Refer to accessories section for filter options.

Coils & Chassis

NOTE: Do not use a caustic coil cleaning agent on coils or base pan. Use a biodegradable cleaning agent and degreaser. The use of harsh cleaning materials may lead to deterioration of the aluminum fins or the coil end plates.

The indoor coil and outdoor coils and base pan should be inspected periodically (annually or semi-annually) and cleaned of all debris (lint, dirt, leaves, paper, etc.) as necessary. Under extreme conditions, more frequent cleaning may be required. Clean the coils and base pan with a soft brush and compressed air or vacuum. A pressure washer may also be used, however, you must be careful not to bend the aluminum fin pack. Use a sweeping up and down motion in the direction of the vertical aluminum fin pack when pressure cleaning coils.

NOTE: It is extremely important to insure that none of the electrical and/or electronic parts of the unit get wet. Be sure to cover all electrical components to protect them from water or spray.

Decorative Front

The decorative front and discharge air grille may be cleaned with a mild soap or detergent. Do NOT use solvents or hydrocarbon based cleaners such as acetone, naphtha, gasoline, benzene, etc., to clean the decorative front or air discharge grilles.

Use a damp (not wet) cloth when cleaning the control area to prevent water from entering the unit, and possibly damaging the electronic control.

Fan Motor & Compressor

The fan motor & compressor are permanently lubricated, and require no additional lubrication.

Wall Sleeve

Inspect the inside of the wall sleeve and drain system periodically (annually or semi-annually) and clean as required. Under extreme conditions, more frequent cleaning may be necessary. Clean both of these areas with an antibacterial and antifungal cleaner. Rinse both items thoroughly with water and ensure that the drain outlets are operating correctly. Check the sealant around the sleeve and reseal areas as needed.

Service and Assistance

Before calling for service, please check the "Troubleshooting Tips" section above. This may help you to find the answer to your problem, avoid unnecessary service calls, and save you the cost of a service call if the problem is not due to the product itself.

You can find the name of your local Authorized Service Provider by visiting our web site at www.friedrich.com.

If you require further assistance

You can call the Customer Support Call Center at 1-800-541-6645.

Before calling, please make sure that you have the complete model and serial number, and date of purchase of your equipment available. By providing us with this information, we will be better able to assist you.

Our specialists are able to assist you with:

- Specifications and Features of our equipment.
- Referrals to dealers, and distributors.
- Use and Care Information.
- Recommended maintenance procedures.
- Installation information.
- Referrals to Authorized Service Providers and Parts depots.

Available Accessories

Carbon Filter Kits

Each kit contains three (3) filters.
KWCFQ - Carbon filter kit for "Q" chassis models.

Remote Wall Thermostats

RT6 – Digital wall thermostat hard wired, with single stage cool and heat with two fan speed selection, battery backup and backlight display

Window Installation Kits

(Standard in Kühl Models without Heat)
KWIKQ

FriedrichLink™ Adapter Accessory:

KWIFI - FriedrichLink™ Adapter Accessory for wireless control and additional programming options

Decorative Color Front Panel Kits:

KWBGEQA - Q Model Decorative Front Cover in Classic Beige
KWBLKQA - Q Model Decorative Front Cover in Black Onyx
KWBLUQA - Q Model Decorative Front Cover in Cobalt Blue
KWPNKQA - Q Model Decorative Front Cover in Pink Diamond
KWREDQA - Q Model Decorative Front Cover in Deep Red
KWWHTQA - Q Model Decorative Front Cover in Designer White

See www.friedrich.com for additional accessories for your unit.
## Troubleshooting Tips

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<tr>
<th>COMPLAINT</th>
<th>CAUSE</th>
<th>SOLUTION</th>
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<tbody>
<tr>
<td><strong>Unit does not operate.</strong></td>
<td>● The unit is turned to the off position, or the thermostat is satisfied.</td>
<td>● Turn the unit to the on position and raise or lower temperature setting (as appropriate) to call for operation.</td>
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<td>● The LCDI power cord is unplugged.</td>
<td>● Plug into a properly grounded 3 prong receptacle. See “Electrical Rating Tables” on pg. 6 for the proper receptacle type for your unit.</td>
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<td>● The LCDI power cord has tripped (Reset button has popped out).</td>
<td>● Press and release RESET (listen for click; Reset button latches and remains in) to resume operation.</td>
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<td>● The circuit breaker has tripped or the supply circuit fuse has blown.</td>
<td>● Reset the circuit breaker, or replace the fuse as applicable. If the problem continues, contact a licensed electrician.</td>
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<td>● There has been a local power failure.</td>
<td>● The unit will resume normal operation once power has been restored.</td>
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<td><strong>Unit Trips Circuit Breaker or Blows Fuses.</strong></td>
<td>● Other appliances are being used on the same circuit.</td>
<td>● The unit requires a dedicated outlet circuit, not shared with other appliances.</td>
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<td>● An extension cord is being used.</td>
<td>● Do NOT use an extension cord with this or any other air conditioner.</td>
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<td>● The circuit breaker or time-delay fuse is not of the proper rating.</td>
<td>● Replace with a circuit breaker or time-delay fuse of the proper rating. See “Electrical Rating Tables” on pg. 6 for the proper circuit breaker/fuse rating for your unit. If the problem continues, contact a licensed electrician.</td>
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<tr>
<td><strong>LCDI Power Cord Trips (Reset Button Pops Out).</strong></td>
<td>● The LCDI power cord can trip (Reset button pops out) due to disturbances on your power supply line.</td>
<td>● Press and release RESET (listen for click; Reset button latches and remains in) to resume normal operation.</td>
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<td>● Electrical overload, overheating, or cord pinching can trip (Reset button pops out) the LCDI power cord.</td>
<td>● Once the problem has been determined and corrected, press and release RESET (listen for click; Reset button latches and remains in) to resume normal operation.</td>
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**NOTE:** A damaged power supply cord must be replaced with a new power supply cord obtained from the product manufacturer and must not be repaired.

| **Unit Does Not Cool/Heat Room Sufficiently, Or Cycles On And Off Too Frequently.** | ● The return/discharge air grille is blocked. | ● Ensure that the return and/or discharge air paths are not blocked by curtains, blinds, furniture, etc. |
| | ● Windows or doors to the outside are open. | ● Ensure that all windows and doors are closed. |
| | ● The temperature is not set at a cool enough/warm enough setting. | ● Adjust the Temperature control to a cooler or warmer setting as necessary. |
| | ● The filter is dirty or obstructed. | ● Clean the filter, (See Routine Maintenance), or remove obstruction. |
| | ● The indoor coil or outdoor coil is dirty or obstructed. | ● Clean the coils, (See Routine Maintenance), or remove obstruction. |
| | ● There is excessive heat or moisture (cooking, showers, etc.) in the room. | ● Be sure to use exhaust vent fans while cooking or bathing and, if possible, try not to use heat producing appliances during the hottest part of the day. |
| | ● The temperature of the room you are trying to cool is extremely hot. | ● Allow additional time for the air conditioner to cool off a very hot room. |
### COMPLAINT | CAUSE | SOLUTION
--- | --- | ---
Unit Does Not Cool/Heat Room Sufficiently, Or Cycles On And Off Too Frequently (continued).  |  |  |
- The outside temperature is below 60°F (16° C).  | Do not try to operate your air conditioner in the cooling mode when the outside temperature is below 60°F (16° C). The unit will not cool properly, and the unit may be damaged.  |  |
- The digital control is set to fan cycling mode.  | Since the fan does not circulate the room air continuously at this setting, the room air does not mix as well and hot (or cold) spots may result. Using the continuous fan setting is recommended to obtain optimum comfort levels.  |  |
- The air conditioner has insufficient cooling capacity to match the heat gain of the room.  | Check the cooling capacity of your unit to ensure it is properly sized for the room in which it is installed. Room air conditioners are not designed to cool multiple rooms.  |  |
- The air conditioner has insufficient heating capacity to match the heat loss of the room.  | Check the heating capacity of your unit. Air conditioners are sized to meet the cooling load, and heater size is then selected to meet the heating load. In extreme northern climates, room air conditioners may not be able to be used as a primary source of heat.  |  |
Unit Runs Too Much.  |  |  |
- This may be due to an excessive heat load in the room.  | If there are heat producing appliances in use in the room, or if the room is heavily occupied, the unit will need to run longer to remove the additional heat.  |  |
- It may also be due to an improperly sized unit.  | Be sure to use exhaust vent fans while cooking or bathing and, if possible, try not to use heat producing appliances during the hottest part of the day.  |  |
- This may be normal for higher efficiency (EER) air conditioners.  | The use of higher efficiency components in your new air conditioner may result in the unit running longer than you feel it should. This may be more apparent, if it replaced an older, less efficient, model. The actual energy usage, however, will be significantly less when compared to older models.  |  |
- You may notice that the discharge air temperature of your new air conditioner may not seem as cold as you may be accustomed to from older units. This does not, however, indicate a reduction in the cooling capacity of the unit.  | The energy efficiency ratio (EER) and cooling capacity rating (Btu/h) listed on the unit's rating plate are both agency certified.  |  |
### Addendum 1

#### Schedule Table with Energy Saving Values

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### Residential Schedule

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### Commercial Schedule

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ROOM AIR CONDITIONERS
LIMITED WARRANTY
FIRST YEAR
ANY PART: If any part supplied by FRIEDRICH fails because of a defect in workmanship or material within twelve months from date of original purchase, FRIEDRICH will repair the product at no charge, provided room air conditioner is reasonably accessible for service. Any additional labor cost for removing inaccessible units and/or charges for mileage related to travel by a Service Agency that exceeds 25 miles one way will be the responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within twelve months from the date of the original purchase.

SECOND THROUGH FIFTH YEAR
SEALED REFRIGERANT SYSTEM: If the Sealed Refrigeration System (defined for this purpose as the compressor, condenser coil, evaporator coil, reversing valve, check valve, capillary, filter drier, and all interconnecting tubing) supplied by FRIEDRICH in your Room Air Conditioner fails because of a defect in workmanship or material within sixty months from date of purchase, FRIEDRICH will pay a labor allowance and parts necessary to repair the Sealed Refrigeration System; PROVIDED FRIEDRICH will not pay the cost of diagnosis of the problem, removal, freight charges, and transportation of the air conditioner to and from the Service Agency, and the reinstallation charges associated with repair of the Sealed Refrigeration System. All such cost will be the sole responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within sixty months from the date of the original purchase.

APPLICABILITY AND LIMITATIONS: This warranty is applicable only to units retained within the Fifty States of the U.S.A., District of Columbia, and Canada. This warranty is not applicable to:
1. Air filters or fuses.
2. Products on which the model and serial numbers have been removed.
3. Products which have defects or damage which results from improper installation, wiring, electrical current characteristics, or maintenance; or caused by accident, misuse or abuse, fire, flood, alterations and/or misapplication of the product and/or units installed in a corrosive atmosphere, default or delay in performance caused by war, government restrictions or restraints, strikes, material shortages beyond the control of FRIEDRICH, or acts of God.

OBTAINING WARRANTY PERFORMANCE: Service will be provided by the FRIEDRICH Authorized Dealer or Service Organization in your area. They are listed in the Yellow Pages. If assistance is required in obtaining warranty performance, write to: Room Air Conditioner Service Manager, Friedrich Air Conditioning Co.

LIMITATIONS: THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES. Anything in the warranty notwithstanding, ANY IMPLIED WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE AND/OR MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. MANUFACTURER EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.

NOTE: Some states do not allow limitations on how long an implied warranty lasts, or do not allow the limitation or exclusion of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you.

OTHER: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

PROOF OF PURCHASE: Owner must provide proof of purchase in order to receive any warranty related services.

All warranty service must be provided by an Authorized FRIEDRICH Service Agency, unless authorized by FRIEDRICH prior to repairs being made.