

PTAC Packaged Terminal Air Conditioners & Heat Pumps

ZoneAire®

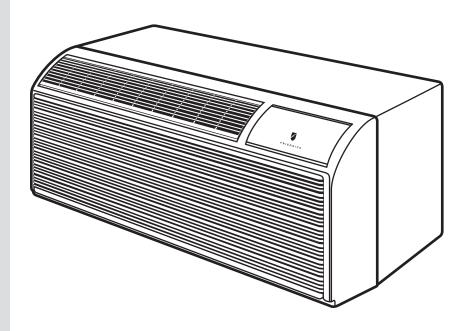


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All. PTAC. 7000, 9000, 12000. units. come. with. a. standard. 3. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... All. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... all. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... all. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... all. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... all. PTAC. 15000. units. come. with. a. standard. 5. kW. power. cord... all. PTAC. 15000. units. come. cord... all. PTAC. 15000. units. cord. all.

NOTE:.

Congratulations

Thank you for your decision to purchase Friedrich. 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.

General Instructions

This Installation and Operation Manual has been designed to insure maximum satisfaction in the performance of your unit. For years of trouble-free service, please follow the installation instructions closely. We cannot overemphasize the importance of proper installation.

∆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

Here are some suggestions to help you use your new Friedrich most efficiently:

- 1. Carefully read and follow the installation instructions.
- 2. Make sure the unit is the right capacity for the area being cooled. An undersized unit makes the unit work too hard, using more electricity than needed and increases wear. An oversized unit will cycle on and off too rapidly, and therefore cannot control humidity as well.
- 3. Clean the filter frequently (See Routine Maintenance, Page 27).
- 4. Do not block the air flow to and from the unit.
- A dirty filter or improperly set controls can affect the cooling ability of the unit.
- 6. If cooling is weak and you have verified that the filter is clean

- and the controls are properly set, the unit may need service and you should call your Friedrich service provider to check the unit.
- Keep blinds, shades and drapes closed on the sunny side of the room being cooled to reduce radiant heat.
- Proper insulation helps your unit maintain the desired inside temperature.
- 9. Whenever possible, shade south and west facing windows.
- **10.** Keep window coverings away from the unit to provide free air flow.

MARNING





Please read this manual thoroughly prior to equipment installation or operation.

It is the installer's responsibility to properly apply and install the equipment. Installation must be in conformance with the NFPA 70 -2008 National Electric Code or current edition, International Mechanic Code 2009 or current edition and any other applicable local or national codes.

Failure to do so can result in property damage, personal injury or death.

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:



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



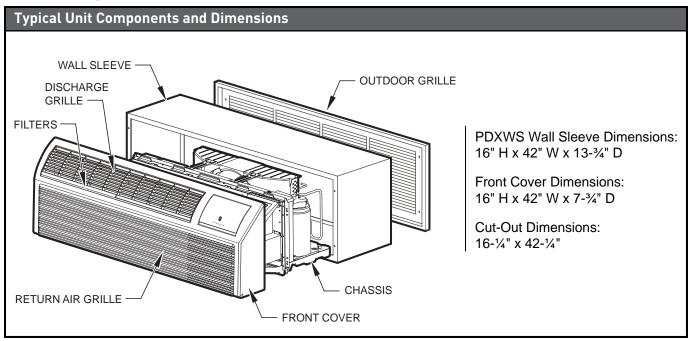
Indicates a hazard which, if not avoided, can result in personal injury and damage to product or other property.

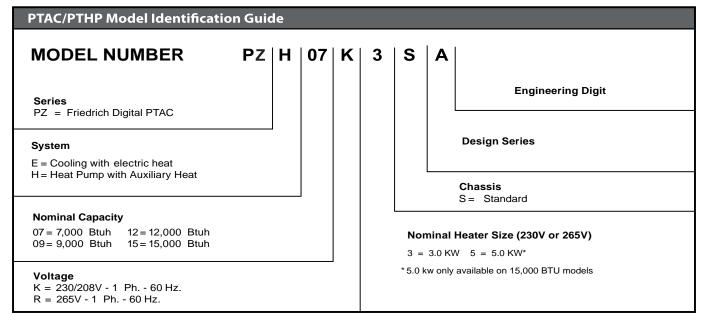
All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what will happen if the instructions are not followed.

NOTICE

Indicates property damage can occur if instructions are not followed.

General Specifications



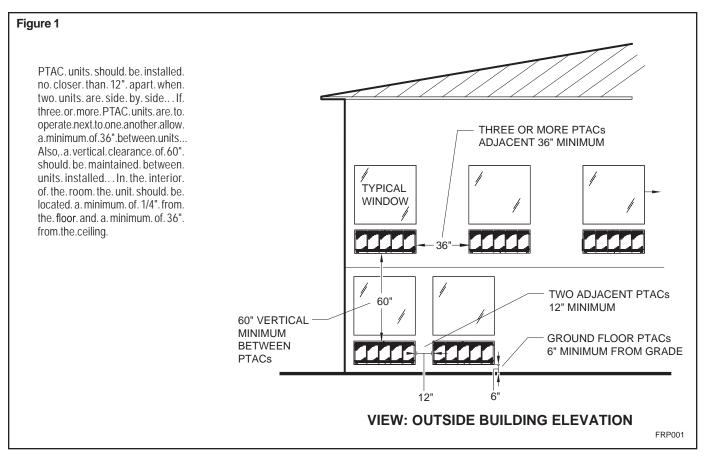


Installation Checklist

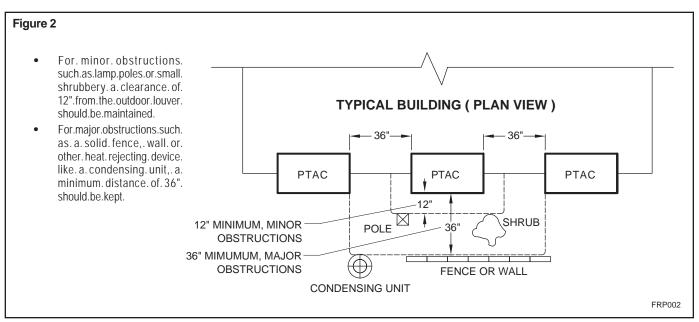
- Inspect.all.components.and.accessories.for.damage.before.and.after. installation.
- ☐. Remove.the.cardboard.wall.sleeve.support.and.grill.weatherboard.
- Check.for.proper.wall.sleeve.installation.in.accordance.with.the.wall. sleeve.installation.instructions.
- ☐. Check.for.a.subbase.kit.or.other.means.of.structural.support.which.is.required.for.ALL.installations.projecting.more.than.8".into.room.
- Install. the. recommended. Condensate. Drain. Kits. for. complete. condensate.removal.
- □. Ensure.that.the.chassis.is.installed.in.a.16".high.x.42".wide.wall.sleeve. that.is.no.deeper.than.13.¾"...A.baffle.kit.is.required.if.the.sleeve. exceeds.that.depth.
- Ensure.that.chassis.and.chassis.front.cover.are.installed.and.secured. properly.
- □. Ensure.that.drapes,.bed,.bedspread,.furniture,.etc...DO.NOT.block. either.return.or.discharge.air.grilles.
- □. Inspect. the. condenser. air. inlet. and. outlet. for. any. obstructions. (shrubbery, etc.)
- Ensure.that.'reset'.button.is.pressed.on.LCD.device.(only.on.cord.connected.models).

PTAC Installation Recommendations

For proper PTAC unit performance and maximum operating life refer to the minimum installation clearances below:



For PTACs on the ground floor or anytime obstructions are present, use the following guidelines:



The above suggestions are for reference only and do not represent all possible installations...Please contact. Friedrich for information regarding affects of other installation arrangements ... By following these simple recommendations you can be confident that your Friedrich PTAC will provide years of worry free operation.

Wall Sleeve Installation Instructions (PDXWSA)

NOTF:

Insure.that.the.unit.is.only.installed.in.a.wall.structurally.adequate.to.support.the.unit.including.the.sleeve,.chassis.and.accessories...lf.the.sleeve.projects.more.than.8".into.the.room,.a.subbase.or.other.means.of.support.MUST.be.used...Please.read.these.instructions.completely.before.attempting.installation.

MARNING



Falling Object Hazard

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

For Deep Wall Installation (Greater than 13 1/4") See Page 9

The.following.instructions.apply.ONLY.to.walls.less.than.13.¼".in.depth..

- The.PXDR10.Drain.Kit,(optional.for.new.construction).see.page.10. if.applicable,.must.be.installed.before.the.wall.sleeve.is.installed.into.the.wall.
- The.External.Drain.(for.new.construction.or.unit.replacement).see. page. 11 if.applicable,.must.be.installed.before.the.wall.sleeve.is. installed.into.the.wall.

NOTICE

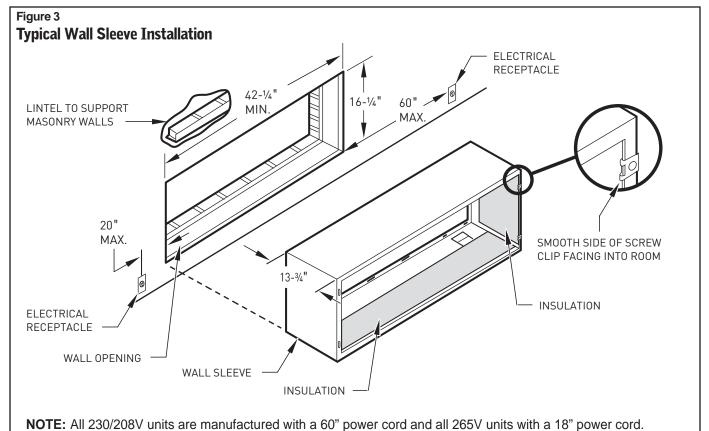
DO NOT allow any pitch toward the inside.

Flashing on all 4 sides of the opening is recommended.

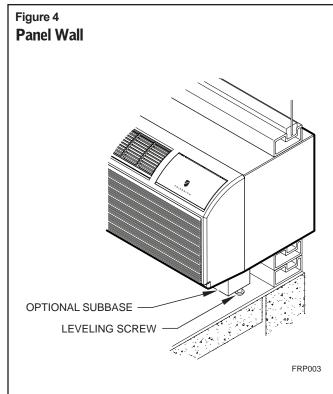
Potential property damage can occur if instructions are not followed.

- **3.** From.inside.the.building,.position.the.wall.sleeve.in.the.opening.and. push.it.into.the.wall.until..it.protrudes.at.least.¼".on.the.outside... (See.Figure. 9, .Page.8).
- 4. Position. the. wall. sleeve. with. a. slight. tilt. towards. the. outside. to. facilitate.condensate.drainage...lt.should.be.level.side-to-side.and. the.front.should.be.¼.bubble.higher.than.the.back.

FRP008



Alternate Wall Installations



CASE FLANGE
(BY OTHERS)

OPTIONAL SUBBASE

LEVELING SCREW

WALL OR WINDOW PROJECTION

OPTIONAL SUBBASE

FRP004

Figure 5
Frame and Brick Veneer

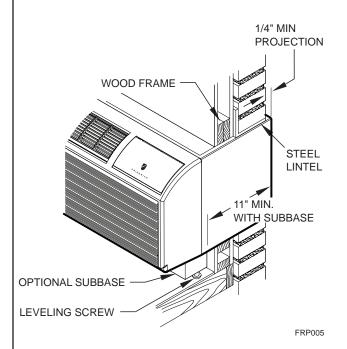
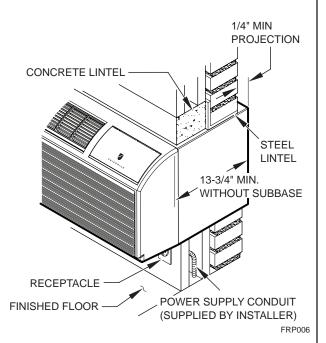
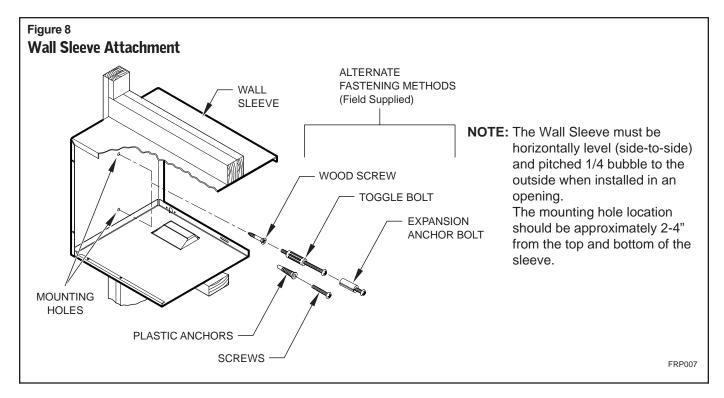
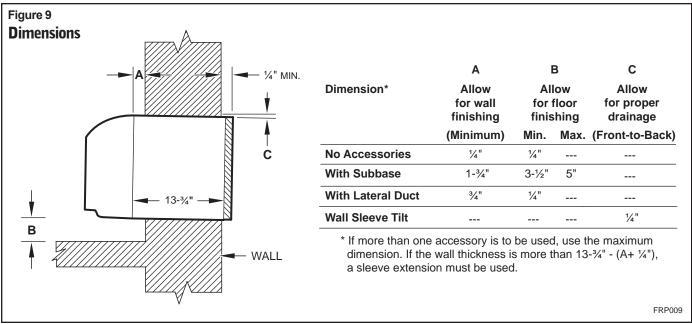


Figure 7 **Block and Brick Veneer**

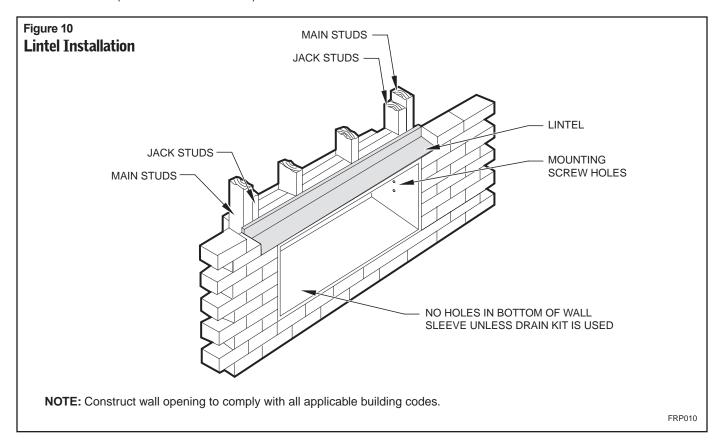


NOTE: Follow all wall system manufacturer installation instructions. For sunrooms and modular buildings, adhere to their installation instructions for supporting and sealing sleeve to their frames. All wall and window/wall installations must provide for proper drainage. In applications where the drain holes on the PTAC wall sleeve are not exposed beyond the wall an internal drain system is recommended. It is the installer's responsibility to ensure there is adequate drainage for the PTAC unit.





- 5. Drill two 3/16" holes through each side of the sleeve approximately 4" from top and 4" from bottom of sleeve. Screw four #10 x 1" screws (included) or appropriate fasteners for your installation, through the holes in the sides of the wall sleeve.
- Apply sealant around the wall sleeve where it projects through the inside and outside wall surfaces. Apply the sealant to the screw heads or the tops of the fasteners used in Step #5.
- If the chassis and exterior grille are to be installed later, leave the weatherboard and center support in place, otherwise remove and dispose of them. (See Figure 13, Page 12).
- Provide a support lintel if the wall sleeve is installed in a concrete or masonry wall (See Figure 10, Page 9).



One-Piece Deep Wall Sleeve Installation (PDXWSEXT)

If the wall is thicker than 13 1/4" a deep wall sleeve or wall sleeve extension MUST be used. The deep wall sleeve may be special ordered through your Sales Representative.

PXDR10 Drain Kit Installation Instructions (optional for new construction)

NOTE:.

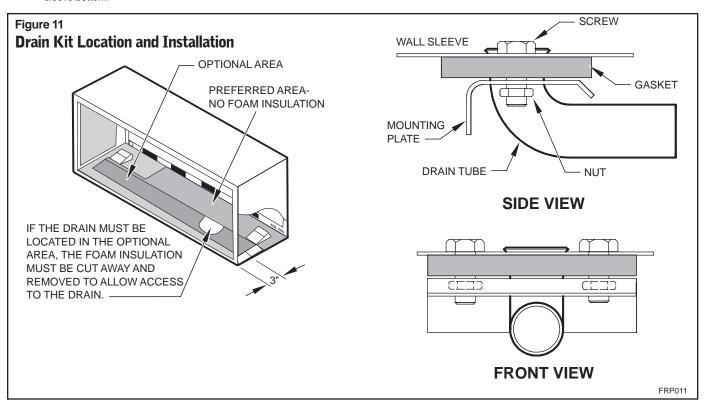
Determine.whether.drain.will.be.located.within.the.wall,.on.the.indoor.side,.or.will.drain.to.the.exterior.of.the.building...Follow.appropriate.instructions.below.depending.on.your.particular.type.of.installation.

Internal Drain

NOTE: If.installing.an.internal.drain,.you.MUST.install.a.drain.kit.on. the.wall.sleeve.before.the.wall.sleeve.is.installed.

- 1. Refer. to. Figure. 11. and. locate. the. drain. within. the. "Preferred". area.of.best.drainage...Maintain.at.least.a.½".clearance.from.the. embossed.area.
- 2. Using. the. mounting. plate. with. the. ½". hole. as. a. template,. mark. and. drill. two,. 3/16". mounting. holes. and. a. ½". drain. hole. in. the. sleeve.bottom.

- **3.** Remove:the.backing.from.the.gasket.and.mount.it.on.the.flat.side. of.the.mounting.plate...(See.Figure.12,.Page.11)...Insert.the.drain. tube.through.the.hole.in.the.gasket.and.mounting.plate.so.the.tube. flange.will.be.against.the.wall.sleeve.
- 4. Position.the.assembly.beneath.the.drilled.holes.and.secure.it.with. #10-24.x.½".machine.screws.and.lock.nuts.provided...Seal.the.tops. of.the.screws.with.silicone.caulking..
- **5.** Use.½".I.D..copper.tube,.PVC.pipe,.or.vinyl.hose.(obtained.locally). to.connect.the.internal.drain.tube.to.the.drain.system.in.the.building.
- **6.** Referring.to.Figure.12, Detail.A., Page.11, locate.and.assemble.the. two.cover.plates.and.gaskets.over.the.drain.holes.at.the.rear. of.the.wall.sleeve...Attach.them.with.the.#10.sheet.metal.screws. provided...Make.certain.that.the.four.overflow.slots.at.the.rear.of. the.wall.sleeve.are.not.blocked. (See. drawing. of. the. back. of. the. sleeve.Figure.12, Page.11).
- If.a.deep.wall.extension.(PDXWSEXT).is.used,.after.installing.the. field.supplied.flashing,.caulk.as.required...Be.sure.to.caulk.around. the.flashing.and.the.wall.sleeve.where.the.hole.was.drilled.for.the. drain.tube..



	PXDR10
QUANTITY	DESCRIPTION
2	COVER PLATES
1	MOUNTING PLATE
1	DRAIN TUBE
3	MOUNTING PLATE GASKET
4	#10 X 1/2" SHEET METAL SCREWS
2	#10-24 X ½ " MACH. SCREWS
2	#10-24 X ½" LOCKNUTS

External Drain (for new construction or unit replacement)

When using an external drain system, the condensate is removed through either of two drain holes on the back of the wall sleeve. Select the drain hole which best meets your drainage situation and install the drain kit. Seal off the other with a cover plate.

Drain Tube Installation (See Figure 12)

- Peel the backing tape off the gaskets and apply the sticky side to one cover plate and one mounting plate as shown in Details A and B.
- 2. Place the drain tube through the gasket and the mounting plate with the flange toward the wall sleeve.
- 3. Attach the drain tube assembly to one of the two drain holes at the rear of the wall sleeve. The large flange on the mounting plate is positioned at the bottom of the sleeve facing toward the sleeve, Detail B. When the drain tube is positioned at the desired angle, tighten the screws.

Cover Plate Installation

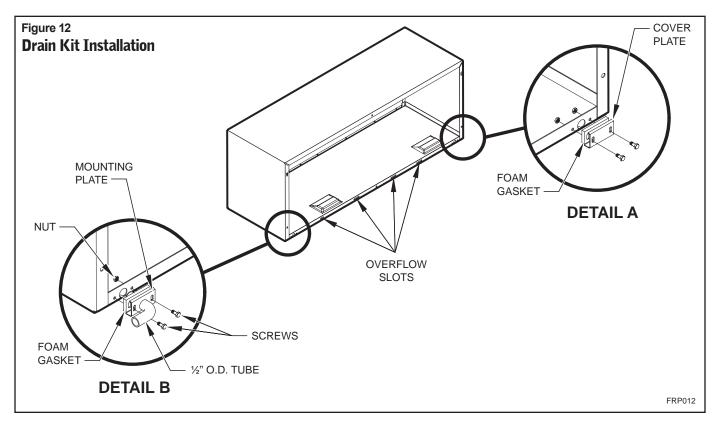
- 4. Mount the foam gasket to the cover plate. Using two #10 x ½" sheet metal screws (provided), attach the cover plate to the remaining drain hole. Make certain the large flange on the plate is positioned at the bottom of the sleeve.
- Discard the additional cover plate, gasket, machine screws, and locknuts.

NOTICE

If the wall sleeve has not been installed, the drain tube must be rotated to a horizontal position until after the sleeve is installed. Tighten the mounting plate screws when the tube is in the proper position. Make certain that the four overflow slots at the rear of the wall sleeve are not blocked (See Figure 12).

When sealing the sleeve on the outside of the building, be careful NOT to let the sealant block the two condensate drain holes or the four overflow slots at the bottom flange of the sleeve.

Potential property damage can occur if instructions are not followed.



NOTE: The large flange on the mounting plate is positioned at the bottom of the sleeve facing toward the sleeve. The drain tube must be rotated to a horizontal position to allow for the wall sleeve to be installed into the wall. Once the wall sleeve is installed, return the drain tube to a downward angle.

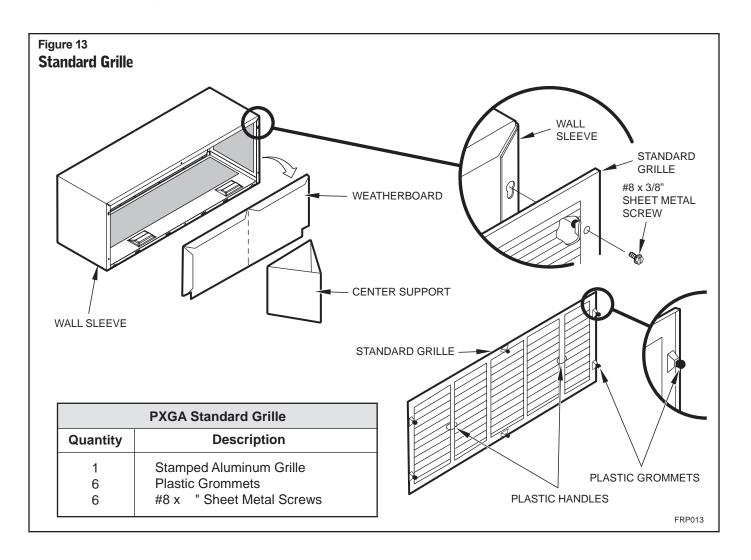
PXGA Standard Grille Installation Instructions

- Remove the center support and weatherboard if still installed in the sleeve.
- Insert six plastic grommets into the grille openings from the outside of the grille as shown in Figure 13.
- Insert two #8 x 3/8" sheet metal screws (provided) in the top two outside edge plastic grommets, and tighten them half way into the grommets.
- Grasp the grille by the attached plastic handles. Position it with the condensate drain knockouts facing down.

From inside the building, maneuver the grille through the wall sleeve and pull toward you until the screw heads are inserted into the keyhole slots at the top of the wall sleeve. Tighten the two screws completely.

5. Insert the remaining screws into the remaining holes and tighten securely.

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



A. Electrical Rating Tables

All units are equipped with standard power cords.

NOTE:. Use.Copper.Conductors.ONLY...Wire.sizes.are.per.NEC,.check.local.codes.for.overseas.applications.

Table 1 Receptacles and Fuse Types				
Voltage	230V		265V	
Amps	20	30	30	
Heater Size	3.0 kw	5.0 kw	3.5 kw	
Receptacles			\odot	
NEMA# Receptacle	6-20 R	6-30 R	7-20 R	
NEMA# Plug	6-20 P	6-30 P	7-20 P	

Table 1	Receptacles and Fuse Types		
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NEMA# Receptacle	6-20 R	6-30 R	7-20 R
NEMA# Plug	6-20 P	6-30 P	7-20 P

⚠WARNING

Electrical Shock Hazard



Turn off electrical power before service or installation.

ALL electrical connections and wiring **MUST** be installed by a qualified electrician and conform to the National Code and all local codes which have jurisdiction.

Failure to do so can result in property damage, personal injury and/or death.

FUSE/CIRCUIT BREAKER	Use ONLY type and size fuse or HACR circuit breaker indicated on unit's rating plate. Proper current protection to the unit is the responsibility of the owner. NOTE: A time delay fuse is provided with 265V units.
GROUNDING	Unit MUST be grounded from branch circuit through service cord to unit, or through separate ground wire provided on permanently connected units. Be sure that branch circuit or general purpose outlet is grounded. The field supplied outlet must match plug on service cord and be within reach of service cord. Refer to Table 1 for proper receptacle and fuse type. Do NOT alter the service cord.
RECEPTACLE The field supplied outlet must match p service cord and be within reach of se cord. Refer to Table 1 for proper rece and fuse type. Do NOT alter the serv cord or plug. Do NOT use an extensic cord.	

B. Power Cord Information (230/208V models only)

All. Friedrich. 230/208V. PTAC. units. 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:

- Plug.power.supply.cord.into.a.grounded.3.prong.outlet.
- Press.RESET.
- Press.TEST.(.listen.for.click;.Reset.button.trips.and.pops.out).
- Press. and. release. RESET. (listen. for. click; . Reset. button. latches. and.remains.in)...The.power.supply.cord.is.ready.for.operation.

The.LCDI.device.is.not.intended.to.be.used.as.a.switch. NOTE:.

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.supply.cord.obtained.from.the. product.manufacturer,.and.must.not.be.repaired.

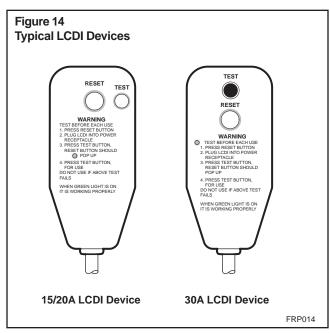


		TABLE 2			
MODEL	HEATER kW	Power Cord Kit	Voltage	Amperage	Receptacle
PZE / PZH07K	3.0	STD	230/208	15	NEMA 6-20r
PZE / PZH09K	3.0	STD	230/208	20	NEMA 6-20r
PZE / PZH12K	3.0	STD	230/208	20	NEMA 6-20r
PZE / PZH15K	5.0	STD	230/208	30	NEMA 6-30r
PZE / PZH09R	3.0	STD	265	20	NEMA 7-20r
PZE / PZH12R	3.0	STD	265	20	NEMA 7-20r

Electrical Wiring for 265 Volt Models

Power Cord Installation

All.265V.PTAC/PTHP.units.come.with.a.factory.installed.non-LCDI. power.cord.for.use.in.a.subbase..lf.the.unit.is.to.be.hard-wired.refer.to.the.instructions.below.

NOTE:.

It. is. recommended. that. the. PXSB. subbase. assembly,. the. PXCJA.conduit.kit.(or.equivalent).be.installed.on.all.hardwire. units... If. installing. a. flush-floor. mounted. unit,. make. sure. the. chassis. can. be. removed. from. the. sleeve. for. service. and. maintenance.

MARNING

Electrical Shock Hazard



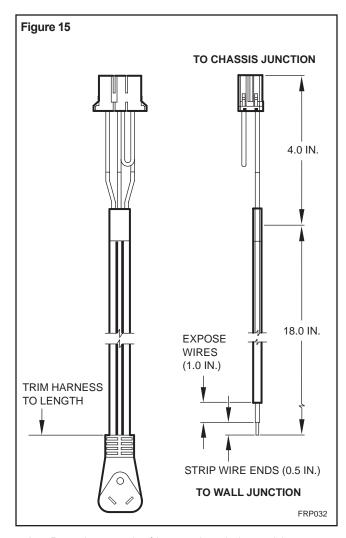
Turn off electrical power before service or installation.

ALL electrical connections and wiring **MUST** be installed by a qualified electrician and conform to the National Code and all local codes which have jurisdiction.

Failure to do so can result in property damage, personal injury and/or death.

To install the line voltage power leads and conduit to chassis, follow the instructions below and refer to Figures 25-27 on page 19. PXCJA Conduit Kit is required with this setup.

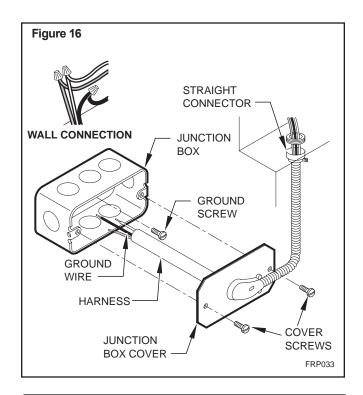
- **1.** Follow. the. removal. process. of. the. chassis's. junction. box. (Figure.25,.step.2,.page.19).
- 2. Prepare.the.265V.(or.230V).power.cord.for.connection.to.the.chassis'.power.cord.connector.by.cutting.the.cord.to.the.appropriate.length.(refer.to.Figure.26.and.follow.Figure.15)...Power.cord.harness.selection.shown.on.Table.2.on.page.14.

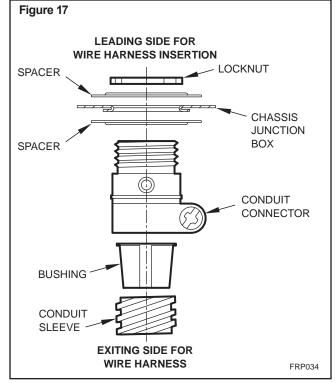


Route the cut ends of harness through the conduit connector assembly and flex conduit sleeve. Be sure to use the supplied conduit bushing to prevent damage to the cord by the conduit.

The cord should pass through the Locknut, Spacer, Chassis Junction Box, Conduit Connector, Bushing, then the Conduit Sleeve. See Figure 17.

- 4. Route the cut ends of the power cord through the elbow connector at the other end of the conduit. Tighten screws on elbow connector to secure conduit sleeve.
- 5. Fasten and secure the elbow connector to the wall junction box cover with locknut. Place and mount the wall junction box with the four wall mounting screws making sure to pass the wall lines through the junction box. Connect and join all wall lines with the stripped ends using wire nuts. Tighten both screws of the wall junction box cover to junction box.
- 6. Follow steps 4-6 on page 19 and refer to Figure 27.

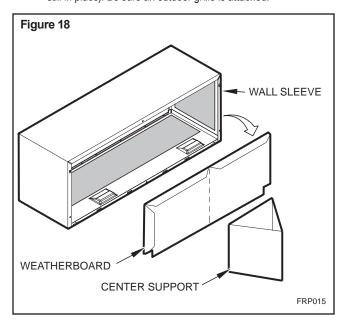




Chassis Install Preparation

Check to be sure the wall sleeve, extension (if used), grille, and drain kit are installed properly before chassis installation.

 Remove the weatherboard and center support from the sleeve (if still in place). Be sure an outdoor grille is attached.



NOTE: Use a wall sleeve adapter kit (PXSE) if installing a P-Series chassis in a T-Series sleeve.

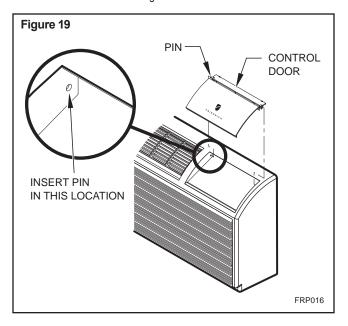
Suffocation Hazards
Keep bag away from babies and children.
Do NOT use in cribs, beds or playpens.
Destroy immediately after opening. This bag is NOT a toy.
Failure to do so can result in personal injury and/or death.

Remove the front cover contained in a protective plastic bag from chassis. Remove the bag and dispose of it properly.

If the control door is not installed, follow these steps:

- a. From the front cover, slide the right control door pin into the hole on the right side of the front cover.
- Slide the left door pin into the hole on the left side of the front cover opening.
- Snap cover into place.

NOTE: To avoid breaking the door or hinge pins, do not apply excessive force when installing.



IMPORTANT: When installing a Friedrich PTAC into an existing sleeve, it is important to ensure that the unit is installed completely. Inspection of the air seal between the condenser air baffles and around the indoor mounting flange is recommended.

In some cases additional gaskets or baffling may be required.

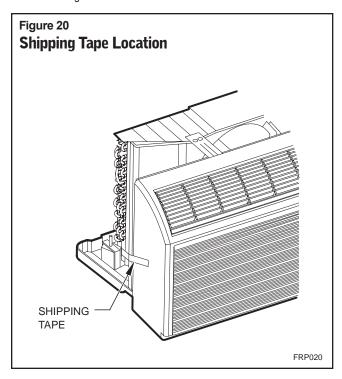
CAUTION

Unit Damage Hazard

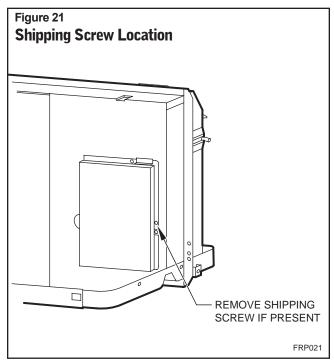
Failure to follow this caution may result in equipment damage or improper operation.

Failure to remove shipping tape and screw will prevent fresh air vent door from opening and may result in damage to vent door cable.

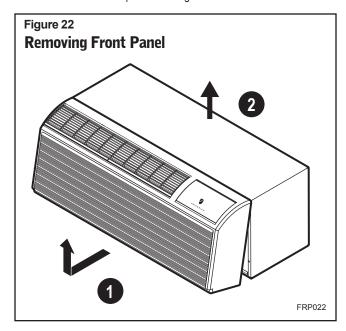
Carefully remove shipping tape from the front panel and vent door. See Figure 20



4. Remove shipping screw from the vent door, if present. See Fig 21.



5. Remove front panel. See Figure 22.

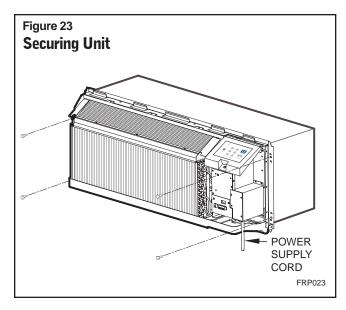


Pull out at the bottom to release it from the tabs (1). Then lift up (2).

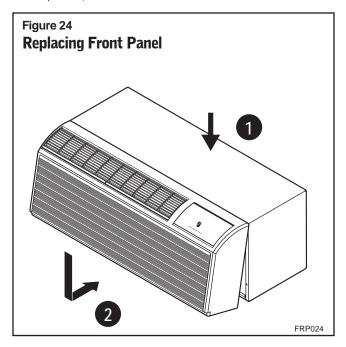
NOTE: If the unit is mounted flush to the floor, the service cord MUST be rerouted at the bottom of the front cover on the side closest to the receptacle. A notch MUST be made in the front cover side where the cord exits the unit. It is the responsibility of the installer to create an exit notch.

Chassis Installation

1. Lift. unit. level. and. slide. unit. into. wall. sleeve. until. seal. rests. firmly.against.front.of. wall. sleeve.



2. Locate. the. four. supplied. chassis. mounting. screws.. Insert. the. screws.through.the.chassis.mounting.flange.holes.that.are.aligned. with.the.speed.nuts.in.the.wall.sleeve..Tighten.all.four.screws.(two. per.side)..



- Place. tabs. over. top. rail. (1)... Push. inward. at. bottom. until. panel. snaps.into.place.(2).
- 4. Reinstall.front.panel..See.Figure.24...

ACAUTION



Excessive Weight Hazard

Use two or more people when installing your air conditioner.

Failure to do so can result in back or other injury.

NOTICE

Copper refrigerant tubes are NOT handles. Do NOT use tubing to lift or move chassis.

To remove . the . front. cover, pull. the. bottom. end. forward. and. lift. it. up. to. clear. the. L. bracket. across. the. top. of. the. chassis.

5. Plug. the. cord. (if. applicable). into. the. appropriate. receptacle... Restore.power.to.the.unit.

Friedrich PTAC Digital Control and Unit Features

The.new.Friedrich.digital.PTAC.has.state.of.the.art.features.to.improve.guest.comfort,.indoor.air.quality.and.conserve.energy...Through.the.use.of.specifically.designed.control.software.for.the.PTAC.industry.Friedrich.has.accomplished.what.other.Manufacturer's.have.only.attempted.—a.quiet,.dependable,.affordable.and.easy.to.use.PTAC.

Below. is. a. list. of. standard. features. on. every. Friedrich. PTAC. and. their. benefit. to. the. owner.

Digital Temperature Readout	By.digitally.monitoring.desired.room.temperature.the.room.is.controlled.more.precisely.than.conventional.system The.large,.easy.to.read.LED.display.can.show.either.set-point.or.actual.room.temperature.as.selected.by.owner.
One-Touch.Operation	When.the.unit.is.powered.off.the.unit.can.be.returned.directly.to.heating.or.cooling.mode.by.pressing.the.'Heat'.o'(Cool'.buttons.without.the.confusing.power.up.sequence.of.some.controlsOne-touch.control.takes.guesswork.oof.unit.control.delivering.a.more.enjoyable.experience.and.eliminating.front-desk.calls.
Three.Fan.Speeds	The.Friedrich.PTAC/PTHP.units.feature.three.fan.speeds.for.the.user.to.select.fromThis.allows.the.user.to.properly.match.the.amount.of.airflow.for.their.comfort.level.and.also.deliver's.quiet.performance.
Individual.Mode.and Fan.Control.Buttons	By.having.separate.control.buttons.and.indicators.for.both.fan.and.mode.settings.the.Friedrich.digital.control.eliminates.the.confusion.of.previous.digital.PTACsThe.accurate.temperature.setting.provides.greater.guest.comfort.than.other.systems.
Quiet.Start/Stop Fan.Delay	The.fan.start.and.stop.delays.prevent.abrupt.changes.in.room.acoustics.due.to.the.compressor.energizing.or. stopping.immediatelyUpon.call.for.cooling.or.heating.the.unit.fan.will.run.for.five.seconds.prior.to.energizing.the compressorAlso,.the.fan.off.delay.allows.for."free.cooling".by.utilizing.the.already.cool.indoor.coil.to.its.maximur capacity.by.running.for.30.seconds.after.the.compressor.
Two-Speed.Wall. Thermostat.Mode	When.connected.to.a.wall.thermostat.the.user.can.select.from.high.or.low.fan.speed.at.the.thermostat,.unlike.competitive.models.that.have.only.one.speed.selectionThis.allows.for.more.comfortable.and.quieter.operationRequires.the.use.of.Friedrich.remote.thermostat.RT6.or.equivalent.thermostat.with.two.speed.fan.output.
Remote.Thermostat Operation	Some.applications.require.the.use.of.a.wall.mounted.thermostatAll.new.Friedrich.PTACs.may.be.switched.from unit.control.to.remote.thermostat.control.easily.without.the.need.to.order.a.special.model.or.accessory.kit.
Internal.Diagnostic Program	The.Friedrich.digital.PTAC.features.a.self.diagnostic.program.that.can.alert.maintenance.to.component.failures.or.operating.problemsThe.internal.diagnostic.program.saves.properties.valuable.time.when.diagnosing.runningproblems.
Service.Error.Code Storage	The.self.diagnosis.program.will.also.store.error.codes.in.memory.if.certain.conditions.occur.and.correct. themselves.such.as.extreme.high.or.low.operating.conditions.or.activation.of.the.room.freeze.protection.feature Storing.error.codes.can.help.properties.determine.if.the.unit.faced.obscure.conditions.or.if.an.error.occurred.and corrected.itself.
Electronic Temperature.Limiting	By.limiting.the.operating.range.the.property.can.save.energy.by.eliminating."max.cool".or."max.heat".situations.common.with.older.uncontrolled.systemsThe.new.electronic.control.allows.owners.to.set.operating.ranges.for.both.heating.and.cooling.independently.of.one.another.
Room.Freeze Protection	When.the.PTAC.senses.that.the.indoor.room.temperature.has.fallen.to.40°.F.the.unit.will.cycle.on.high.fan.and. the.electric.strip.heat.to.raise.the.room.temperature.to.46°.F.then.cycle.off.againThis.feature.works.regardless. of.the.mode.selected.and.can.be.turned.offThe.control.will.also.store.the.Room.Freeze.cycle.in.the.service.cod memory.for.retrieval.at.a.later.dateThis.feature.ensures.that.unoccupied.rooms.do.not.reach.freezing.levels. where.damage.can.occur.to.plumbing.and.fixtures.
Random.Compressor Restart	Multiple.compressors.starting.at.once.can.often.cause.electrical.overloads.and.premature.unit.failureThe.randorestart.delay.eliminates.multiple.units.from.starting.at.once.following.a.power.outage.or.initial.power.upThe.compressor.delay.will.range.from.180.to.240.seconds.
Digital.Defrost Thermostat	The.Friedrich.PTAC.uses.a.digital.thermostat.to.accurately.monitor.the.outdoor.coil.conditions.to.allow.the.heat. pump.to.run.whenever.conditions.are.correctRunning.the.PTAC.in.heat.pump.mode.saves.energy.and.reduces operating.costsThe.digital.thermostat.allows.maximization.of.heat.pump.run.time.

Instant.Heat. In.Pump.Mode	Heat.pump.models.will.automatically.run.the.electric.heater.to.quickly.bring.the.room.up.to.temperature.when.initially.energized,.then.return.to.heat.pump.modeThis.ensures.that.the.room.is.brought.up.to.temperature.quickly.without.the.usual.delay.associated.with.heat.pump.units.
Even.Heat Monitoring	The.digital.control.monitors.indoor.conditions.to.ensure.that.the.room.temperature.is.within.five.degrees.of.the.setpoint If.necessary.the.unit.will.cycle.the.electric.heat.to.maintain.the.temperatureThis.feature.ensures.guest.comfort.by. delivering.the.heating.benefits.of.an.electric.heater.while.maintaining.the.efficiency.benefits.of.a.heat.pump.
Separate.Heat/Cool Fan.Cycle.Control	The.owner.may.choose.between.fan.cycling.or.fan.continuous.mode.based.on.property.preference(Note:.Even.heat. monitoring.and.quiet.start/stop.fan.delay.only.operate.in.fan.cycle.mode).Fan.continuous.mode.is.used.to.keep.constant. airflow.circulation.in.the.room.during.all.times.the.unit.is.'ON'Fan.cycle.will.conserve.energy.by.only.operating.the. fan.while.the.compressor.or.electric.heater.is.operatingThe.ability.to.set.the.fan.cycling.condition.independently. between.heating.and.cooling.mode.will.increase.user.comfort.by.allowing.the.choice.of.only.constantly.circulating. air.in.the.summer.or.winter.timeUnlike.other.PTAC.brands.that.only.allow.one.selection.
Emergency.Heat Override	In.the.event.of.a.compressor.failure.in.heat.pump.mode.the.compressor.may.be.locked.out.to.provide.heat.through.the. resistance.heaterThis.feature.ensures.that.even.in.the.unlikely.event.of.a.compressor.failure.the.room.temperature.can. be.maintained.until.the.compressor.can.be.serviced.
Desk.Control Ready	All.Friedrich.digital.PTACs.have.low.voltage.terminals.ready.to.connect.a.desk.control.energy.management.system Controlling.the.unit.from.a.remote.location.like.the.front.desk.can.reduce.energy.usage.and.requires.no.additional. accessories.on.the.PTAC.unit.
Indoor.Coil.Frost Sensor	The.frost.sensor.protects.the.compressor.from.damage.in.the.event.that.airflow.is.reduced.or.low.outdoor.temperatures.cause.the.indoor.coil.to.freezeWhen.the.indoor.coil.reaches.30°.F.the.compressor.is.disabled.and.the.fan.continues.to.operate.based.on.demandOnce.the.coil.temperature.returns.to.45°.F.the.compressor.returns.to.operation.
Ultra-Quiet.Air System	The.new.Friedrich.PZ.series.units.feature.an.indoor.fan.system.design.that.reduces.sound.levels.without.lowering.airflow.and.preventing.proper.air.circulation.
High.Efficiency	The.Friedrich.PTAC.benefits.from.quality.components.and.extensive.development.to.ensure.a.quiet,.efficient.and. dependable.unit.
Dual.Motor	Friedrich's.new.dual.motor.design.allows.for.the.quietest.and.most.efficient.units.yet.
Rotary.Compressor	High.efficiency.rotary.compressors.are.used.on.all.Friedrich.PTACs.to.maximize.durability.and.efficiency.
Stainless.Steel.Endplates	Outdoor.coil.endplates.made.from.stainless.steel.reduce.corrosion.on.the.outdoor.coil.common.with.other.coil.designs.
Top.Mounted. Antimicrobial Air.Filters	All.Friedrich.PTAC.return.air.filters.feature.an.anti-microbial.element.that.has.proven.to.prevent.mold.and.bacterial. growth.in.laboratory.testingPDXRTA.replacement.filter.kits.feature.the.same.anti-microbial.agentAll.filter.are. washable.and.reusable.and.are.easily.accessed.from.the.top.of.the.unit.without.the.removal.of.the.front.cover.
Filtered.Fresh.Air Intake	Friedrich.PTAC.units.are.capable.of.introducing.up.to.75.CFM.of.outside.air.into.the.conditioned.spaceThe. outdoor.air.passes.through.a.mesh.screen.to.prevent.debris.from.entering.the.air.stream.

System Configuration

Fresh Air Vent Control

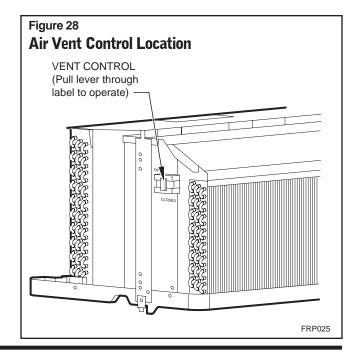
 $The.\,vent.\,control.\,lever.\,is.\,located.\,on.\,the.\,left.\,side.\,of.\,the.\,unit,.\,behind.\,the.\,front.\,panel.$

NOTE:.

The. vent. door. shipping. hardware. must. be. removed. before. using.the.vent.control.lever...See.page.17,.Figure.21,.(Remove. Shipping.Screw.from.Vent.Door.if.present).

When. vent. door. is. set. to. CLOSE, . only. the. air. inside. the. room. is. circulated. and. filtered,. See. Figure. 28.

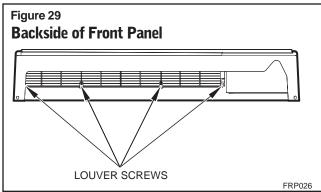
When.vent.door.is.set.to.**OPEN**,.some.outdoor.air.will.be.drawn.into.room. This.may.reduce.heating.or.cooling.efficiency.

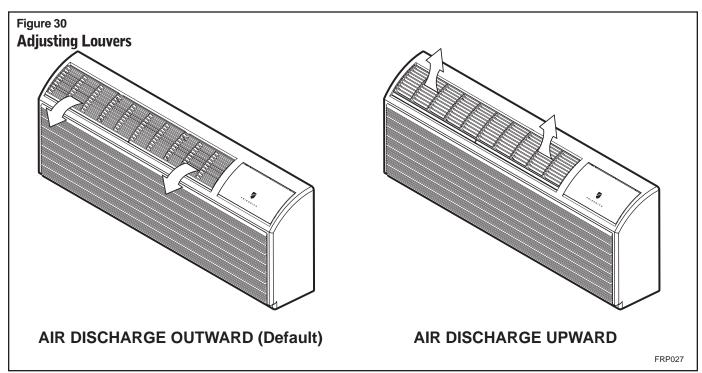


Adjusting Air

To.adjust.air.direction:

- 1. Remove.front.panel..See.Figure.22.
- Remove.louver.screws.that.hold.louver.insert.in.place.(from.back. side.of.front.panel)..See.Figure.29.
- **3.** Turn.louver.insert.and.rotate.180°..See.Figure.30.
- **4.** Replace.louver.insert.
- **5.** Replace.screws.and.front.panel.





Digital Control User Input Configuration

The. adjustable. control. dip. switches. are. located. at. the. lower. left. hand. portion. of. the. digital. Smart. Center.. The. inputs. are. only. visible. and. accessible. with. the. front. cover. removed. from. the. PTAC.

Dip Switch Setting

1. Emergency Heat Override – Switch 1

In.the.unlikely.event.of.a.compressor.failure.a.heat.pump.unit.may. be.switched.to.operate.in.only.the.electric.heat.mode.until.repairs.can.be.made..Moving.Dip.Switch.1.to.'ON'.

2. Wall Thermostat Switch 2

In.order.to.enable.the.wall.thermostat.move.Dip.Switch.to.'ON'.

3. Fan Cycle Control - Switch 3-4

All.PTACs.are.shipped.from.the.factory.with.Dip.Switch.3-4.in. the.'OFF'.position...In.this.position.the.cooling.fan.cycle.will.run. continuously.providing.air.circulation.during.the.warm.months... The.heating.fan.cycle.is.set.to.'cycle'.on.and.off...The.fan.may. be.set.to.'continuous'.mode.by.switching.Dip.Switch.3.to.'ON'. position.

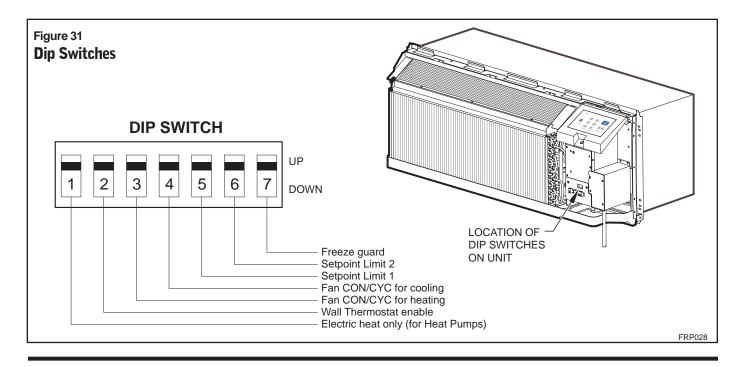
4. Electronic Temperature Limiting – Switches 5-6

The.digital.control.is.set.from.the.factory.to.allow.a.temperature. range.between.61°.F.and.86°.F.in.both.heating.and.cooling. mode..Dip.Switches.5-6.can.be.used.to.set.high.and.low.limits.for. either.heating.both,.cooling.both.or.both.

From.the.factory.switches.are.in.the.down.'OFF'.position..The.chart.below.shows.the.available.electronic.limiting.ranges.

5. Room Freeze Protection – Switch 7

Units.are.shipped.from.the.factory.with.the.room.freeze.protection.enabled...Room.Freeze.Protection.can.be.switched.off.at.the.owner's.preference.by.moving.Dip.Switch.7.to.'OFF'..This.feature.will.monitor.the.indoor.room.conditions.and.in.the.event.that.the.room.falls.below.40°F.the.unit.will.cycle.on.high.fan.with.the.electric.heater..This.occurs.regardless.of.mode.



Switch	Description	Function	Factory Setting		Option					
1	Emergency.Heat.Override. for.PZH.Heat.Pump. Models	Enables.electric.heat.only.operation.in.the.event.of.a.com- pressor.failure.on.HP.models.	DownNormal.Operation		UpOverrides.compressor.operation (PDH.models.only)					
2	Wall.Thermostat.Switch	Enables.the.use.of.a.wall.thermostat.or.unit.controls	DownUnit.Controls		UpEnables.Wall.Thermostat.Usage					
3	Fan.Cycle.for.Heating	Allows.selection.of.continuous.fan.or.cycling.in.heating.mode.	Not. Applicable		Not. Applicable					
4	Fan.Cycle.for.Cooling	Allows.selection.of.continuous.fan.or.cycling.in.cooling.mode.	Not. Applicable		Not. Applicable					
5	Setpoint.Switch.1	Allows.the.temperature.setpoint.range.to.be.adjusted.	Down	61°F-86°F	Up	63°F-80°F	Down	65°F-78°F	Up	68°F-75°F
6	Setpoint.Switch.2		Down	(16°C-30°C)	Down	(18°C-28°C)	Up	(19°C-26°C)	Up	(20°C-24°C)
7	Room.Freeze.Protection	Allows.the.unit.to.ensure.the.indoor.room.temperature.does. not.fall.below.40°F.even.when.turned.off.	DownFreeze.Protection.Enabled UpFreeze.Protection.Disab		led					

Digital Control Operation

Figure 32 **Digital Control Panel**



FRP030

°F vs. °C Display

The. unit. is. factory. configured. to. display. all. temperatures. in. degrees. Fahrenheit.(°.F)..To.switch.to.degrees. Celsius.press.the. 'Fan.Only'.and. 'Low.Fan'.buttons.simultaneously.for.three.seconds..The.display.will.show. a.'C'.as.acknowledgement.of.the.change...To.revert.back.to. °.F.press.the. 'Fan.Only'.and. 'Low.Fan'.buttons.simultaneously.for.three.seconds..The. display.will.show.an.'F'.as.acknowledgement.of.the.change.

Cooling Mode

Pressing. the. 'Cool'. button. while. the. unit. is. in. any. mode,. including. off,. will.put.the.unit.into.cooling.mode..Adjust.the.temperature.readout.to.the. desired.room.temperature.and.the.unit.will.cycle.the.compressor.on.and. off.to.maintain.a.comfortable.room..The.compressor.will.cycle.on.anytime. that.the.room.temperature.is.1.8°.F.above.the.desired.temperature..The. fan.operation.is.dependent.on.the.fan.mode.selected,.either.continuous. or.cycling...See.Fan.Mode.for.fan.cycle.control.

Heating Mode

Pressing.the.'Heat'.button.while.the.unit.is.in.any.mode,.including.off,.will.put.the.unit.into.heating.mode.

Heat Pump Models (PZH)

When.the.'Heat'.button.is.pressed.initially.the.unit.will.energize.the.electric. resistance.heat.to.quickly.bring.the.room.to.the.set.temperature...When.the. desired.room.temperature.falls.1.8°.F.below.the.desired.set.temperature.the. unit.will.cycle.the.compressor.on.and.operate.as.a.heat.pump.to.maintain. the.room.temperature.while.running.more.efficiently.than.resistance.heat. only.models...lf.the.room.temperature.should.fall.more.than.5°.F.from.the. set.temperature.the.unit.will.run.the.resistance.heater...The.fan.operation. is.dependent.on.the.fan.mode.selected,.either.continuous.or.cycling..Dip. switch.3.controls.the.fan.mode,.see.page.23.for.setting...

When.the.outdoor.coil.temperature.falls.below.30°.F.for.more.than.2.minutes.the.unit.will.operate.the.resistance.heaters.and.not.the.compressor... When.the.outdoor.coil.temperature.reaches.45°.F.the.compressor.will.be. allowed.to.operate.again.

Heat/Cool Models (PZE)

After. pressing. the. 'Heat'. button,. adjust. the. temperature. readout. to. the. desired.room. temperature. and. the. unit. will. cycle. the. resistance. heat. on. and. off. to. maintain. a.comfortable.room.. The. heater. will. come. on. anytime. that. the. room. temperature. is. 1.8°. F. below. the. desired. temperature.. The. fan. operation. is. dependent. on. the. fan. mode. selected,. either. continuous. or. cycling.. Dip. switch. 3. controls. the. fan. mode, see. page. 23. for. setting.

Emergency Heat Operation

In the event of a compressor failure in heat pump mode the compressor may be locked out to provide heat through the resistance heater. This feature ensures that even in the unlikely event of a compressor failure the room temperature can be maintained until the compressor can be serviced. Dip. switch 1 controls the emergency heat setting, see page 23.

Fan Mode

Pressing.the.fan.mode.button.will.provide.constant.or.cycle.fan.operation.in.cooling.or.heating.modes.The.fan.speed.selection.is.made.by.pressing.either.High.or.Low.fan.speed.button.

Cycle/Continuous

The.owner.may.choose.between.fan.cycling.or.fan.continuous.mode.based. on.property.preference.(Note:.Even.heat.monitoring.and.quiet.start/stop.fan.delay.only.operate.in.fan.cycle.mode)..Fan.continuous.mode.is.used. to.keep.constant.airflow.circulation.in.the.room.during.all.times.the.unit.is. 'ON'..Fan.cycle.will.conserve.energy.by.only.operating.the.fan.while.the. compressor.or.electric.heater.is.operating..Dip.switch.3-4.controls.the.fan. mode,.see.page.23.for.setting.

Remote Control Thermostat Installation

Install Thermostat

- **1.** Approximately.5.ft..from.the.floor.
- 2. Close.to.or.in.a.frequently.used.room,.preferably.on.an.inside.wall.
- **3.** On.a.section.of.wall.without.pipes.or.ductwork.

The Thermostat should NOT be mounted:

- Close. to. a. window,. on. an. outside. wall,. or. next. to. a. door. leading. outside.
- Where.it.can.be.exposed.to.direct.sunlight.or.heat,.such.as.the.sun,. a.lamp,.fireplace,.or.any.other.temperature.radiating.object.which. may.cause.a.false.reading.
- Close. to. or. in. the. direct. airflow. of. supply. registers. and/or. return. air.grilles.
- Any. areas. with. poor. air. circulation,. such. as. a. corner,. behind. a. door,.or.an.alcove.

Remote Thermostat and Low Voltage Control Connections

Remote Thermostat

All. Friedrich.PZ.model. PTAC.units.are.factory.configured.to.be.controlled. by.either.the.chassis.mounted.Smart.Center.or.a.24V.remote.wall.mounted. thermostat..The.thermostat.may.be.auto.or.manual.changeover.as.long.as. the.control.configuration.matches.that.of.the.PTAC.unit.

NOTE:.

All.PZE.models.require.a.single.stage.cool,.single.stage.heat.thermostat...All.PZH.models.require.a.single.stage.cool,.dual.stage.heat.thermostat.with.an.O.reversing.valve.control...The.Friedrich.RT6.thermostat.can.be.configured.for.either.model.

To control the unit with a wall mounted thermostat follow the steps below:

- **1.** Unplug.the.unit.before.doing.any.work.
- With.the.front.cover.removed.locate.the.dip.switches.located.below. the.Smart.Center.control.panel..See.page.23...Switch.Dip.Switch. 2.to.the.up.'ON'.position.
- **3.** Remove.the.low.voltage.terminal.block.from.the.unit.
- Connect.the.corresponding.terminals.from.the.wall.thermostat.to. the.terminal.block.
- 5. Replace.the.terminal.block.on.the.unit.
- **6.** Restore.power.to.the.unit.
- **7.** The.unit.is.now.controlled.by.the.wall.thermostat.only..
- **8.** If.the.accessory.escutcheon.kit.(PDXRTA).is.to.be.used,.install.it. over.the.existing.control.panel.

NOTE: The.unit.mounted.controls.no.longer.control.the.unit...To.restore. the.unit.mounted.controls.move.Dip.Switch.2.to.the.down.or. 'OFF'.position.

Thermostat Connections

- R.. = .24V.Power.from.Unit
- Y.. =. Call.for. Cooling
- W.. =. Call.for. Heating
- O.. =.Reversing.Valve.Energized.in.cooling.mode.(PZH.Models.Only)
- GL.=.Call.for.Low.Fan
- GH.=.Call.for.High.Fan
- C.. =. Common. Ground

*If. only. one. G. terminal. is. present. on. thermostat. connect. to. GL. for. low. speed.fan.or.to. GH.for.high.speed.fan.operation.

Control board with optional PDXRT escutcheon kit installed

Controlled by Wall Thermostat
Use wall thermostal to operate unit

Desk Control Terminals

The.Friedrich.PZ.model.PTAC.has.built-in.provisions.for.connection.to.an. external.switch.to.control.power.to.the.unit..The.switch.can.be.a.central.desk.control.system.or.even.a.normally.open.door.switch.

For.desk.control.operation.connect.one.side.of.the.switch.to.the.D1.terminal. and.the.other.to.the.D2.terminal.(See.Figure.31,.Page.23)..Whenever.the. switch.closes.the.unit.operation.will.stop.

NOTE: The.desk.control.system.and.switches.must.be.field.supplied.

Energy Management

Sometimes.known.as.Front.Desk.Control,.an.input.is.provided.so.that.the.unit.can.be.manually.disabled.from.a.remote.location...lf.the.unit.detects. 24Vac. on. this. input,. it. will. automatically. turn. itself. off...lf. no. voltage. is. detected.on.the.input.,.the.unit.will.run.normally.

NOTE:..

It.is.the.installer's.responsibility.to.ensure.that.all.control.wiring. connections, are. made. in. accordance. with. the. installation. instructions.. Improper. connection. of. the. thermostat. control. wiring. and/or. tampering. with. the. unit's. internal. wiring. can. void. the. equipment. warranty.. Other. manufacturer's. PTACs. and. even. older. Friedrich. models. may. have. different. control. wire.connections...Questions.concerning.proper.connections. to.the.unit.should.be.directed.to.Friedrich.

MARNING

Electrical Shock Hazard



Turn off electrical power before service or installation.

ALL electrical connections and wiring **MUST** be installed by a qualified electrician and conform to the National Code and all local codes which have jurisdiction.

Improper connection of the thermostat control wiring and/or tampering with the units internal wiring may result in property damage, personal injury or death.

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.process.
- Check.the.condensate.water.drain(s).to.ensure.they.are.adequate.for. the.removal.of.condensate.water,.and.that.they.meet.the.approval.of. the.end.user.
- Ensure.that.all.installations.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.entire.installation.is.in.compliance.with.all.applicable. national.and.local.codes.and.ordinances.that.have.jurisdiction.

- Secure.components.and.accessories,.such.as.the.chassis,.decorative. front.cover.and.control.door.
- Start. the. unit. and. check. for. proper. operation. of. all. components. in. each. mode. of. operation... Instruct. the. owner. or. operator. of. this. units. operation, and the manufacturer's recommended routine maintenance. schedule.

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.

Routine Maintenance

To.ensure.proper.unit.operation.and.life.expectancy.the.following.maintenance.procedures.should.be.performed.on.a.regular.basis.

△WARNING



Electrical Shock Hazard

Unplug Unit or turn off electrical power to unit prior to performing maintenance procedures.

Failure to do so can result in electrical shock or death.

Air Filter

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. the. air. filters, .grasp. the. top. of. the. filter. and. lift. out. of. the. front. cabinet.. Reverse. the. procedure. to. reinstall. the. filters.

 $Clean. the {\it filters.} with. a.mild. detergent. in. warm. water, . and. allow. them. to. dry. thoroughly. before. reinstalling.$

Coils & Chassis

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

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.by.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.aluminium.fin.pack...Use.a. sweeping.up.and.down.motion.in.the.direction.of.the.vertical.aluminium.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. and 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.

Basic Troubleshooting

	COMPLAINT	CAUSE	SOLUTION
		Unit turned off.	Turn unit on
		Thermostat is satisfied.	Raise/Lower temperature setting.
Unit.does.not.operate.		LCDI power cord is unplugged.	Plug into a properly grounded 3 prong receptacle. See "Electrical Rating Tables" on page 13 for the proper receptacle type for your unit.
		LCDI power cord has tripped.	Press and release RESET (listen for click; Reset button latches and remains in) to resume operation.
		Circuit breaker has tripped.	Reset the circuit breaker.
		Supply circuit fuse has blown.	Replace the fuse.
		Local power failure.	Unit will resume normal operation once power has been restored.
		Other appliances being used on same circuit.	The unit requires a single outlet circuit, not shared with other appliances.
	Unit.trips.circuit.breaker.or	An extension cord is being used.	Do NOT use an extension cord with this or any other air conditioner.
	blows.fuses.	Circuit breaker or time-delay fuse isn't of the proper rating.	Replace circuit breaker or time-delay fuse for the proper rating. See "Electrical Rating Tables" on page 13. If problem continues contact a licensed electrician.
	LCDI.Power.Cord.Trips (Reset.Button.Pops.Out)	The LCDI Power cord can trip (Reset button POPS out) due to disturbances on your power supply line.	Press and release RESET (listen for click; Reset button latches and remains in) to resume normal operation.
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.	 Electrical overload, overheating or cord pinching can trip (Reset button POPS out) the LCDI power cord. 	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.
		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 door 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 Recommended Maintenance) or remove obstruction.
		The indoor coil or outdoor coil is dirty or obstructed.	Clean the coils, (See Recommended Maintenance) or remove obstruction.
Unit.does.	not.cool/heat.room.sufficiently,.or.cycles.	The temperature of the room you are trying to cool is extremely hot.	Allow additional time too cool a very hot room
on.and.off.too.frequently		 The outside temperature is below 60° F. 	Do not try to operate your air conditioner in the cooling in the cooling mode when the outside temperature is below 60° F. 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.

COMPLAINT	CAUSE	SOLUTION
Unit.does.not.cool/heat.room.sufficiently,.or.cycles. on.and.off.too.frequently	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.
	This may be due to an excessive heat load in the room.	If there are heat product appliances in use in the room, or if the room is heavily occupied, the unit will need to run loner to remove the additional heat.
		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. It may also be due to an improperly sized unit.
		Depending upon the size of the room being cooled, a higher capacity air conditioner may be necessary
Unit.runs.too.much	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.
		Likewise, 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 rating (Btu/h) listed on the unit's rating plate are both agency certified.

Service & Assistance

Before.calling.for.service,.please.check.the."Basic.Troubleshooting".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..lf.you.have.checked.the."Basic. Troubleshooting".section.and.still.need.help,.here.is.a.list.of.available.services:.

You. can. find. the. name. of. you. 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:

- *. Inspect.and.ensure.that.all.components.and.accessories.have.been. installed.properly.and.that.they.have.not.been.damaged.during.the. installation.
- *. 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.

Accessories

DDVIACA	WALL SLEEVE Columnized zing control steel is prepared in an 11 steep presses	
PDXWSA	WALL SLEEVE Galvanized zinc coated steel is prepared in an 11-step process, then powder coated with a polyester finish and cured in an oven for exceptional durability. The wall sleeve is insulated for sound absorption and thermal efficiency, 16" High x 42" Wide x 13 3/4" Deep.	
PDXWSEXT	DEEP WALL SLEEVE EXTENSION For use when the wall is thicker than 13 1/4"deep. The wall sleeve may be special ordered through your Sales Representative and will be cut to your specific depth requirements	
PXGA	GRILLE Standard, stamped aluminium, anodized to resist chalking and oxidation.	
PXAA PXBG PXSC	ARCHITECTURAL GRILLES Consist of heavy-gauge 6063-T5 aluminum alloy: PXAA – Clear, extruded aluminum PXBG – Beige acrylic enamel PXSC – Also available in custom colors.	
PXDR10	CONDENSATE DRAIN KIT Attaches to the bottom of the wall sleeve for internal draining of condensate or to the rear wall sleeve flange for external draining. Recommended on all units to remove excess condensate. Packaged in quantities of ten.	
PXSBA	DECORATIVE SUBBASE Provides unit support for walls less than six inches thick. Includes leveling legs, side filler panels and mounting brackets for electrical accessories. Accepts circuit breaker, power disconnect switch, or conduit kit.	
	ELECTRICAL SUBBASE Provides unit support for walls less than six inches thick. Includes leveling legs, side filler panels, mounting brackets, a plug-in receptacle and field-wiring access. The subbase also includes electrical knockouts for a power disconnect switch or circuit breaker.	
	PXSB23020 - Electrical Subbase - 230V 15 & 20A PXSB23030 - Electrical Subbase - 230V 30A PXSB26515 - Electrical Subbase - 265V 15A PXSB26520 - Electrical Subbase - 265V 20A PXSB26530 - Electrical Subbase - 265V 30A	
PDXRTA	REMOTE THERMOSTAT ESCUTCHEON KIT This kit contains ten escutcheons that can be placed over the factory control buttons when a remote wall mounted thermostat is used. The escutcheon directs the guest to the wall thermostat for operation and retains the LED window to display error codes and diagnostic information.	Controlled by Wall Thermostat the wall thermostat to operate unit
PXSE	SLEEVE EXTENSION RETROFIT KIT Galvanized zinc coated steel, 2.4" sleeve extension attached to the room side of the sleeve to allow for the installation of a PD-Series Friedrich PTAC in a T-Series sleeve.	
PXCJA	CONDUIT KIT WITH JUNCTION BOX Hard wire conduit kit with junction box for 208/230V and 265V units (subbase not required). Kit includes a means of quick disconnect for easy removal of the chassis. *Required for 265V installations.	

v Construction	Accessories	
PDXDAA	LATERAL DUCT ADAPTER Attaches to the Friedrich PTAC/PTHP unit to direct up to 35% of the total airflow to a second room. The unit mounted duct plenum features a front mounted aluminum grille that has two positions to provide the most optimal air direction. The air may be directed to either the left or the right of the unit through the supplied 3.5 H" x 7 W" x 47" L plenum. Plenum may be cut to length by the installer. Kit includes duct plenum, front grille, 47" duct extension, duct discharge grille, duct end cap and all necessary mounting hardware.	
PDXDEA	LATERAL DUCT EXTENSION Additional 3.5 H" x 7" W x 47" L plenum for use with the LATERAL DUCT ADAPTER. A maximum of 3 duct extensions total may be used. Note: Ducted airflow is reduced as duct length is increased.	
PXFTA	REPLACEMENT FILTER PACK These are original equipment return air filters. They are reusable and can be cleaned by vacuuming, washing, or blowing out, and are sold in convenient ten-packs. (Two filters per chassis).	
RT6	DIGITAL REMOTE WALL THERMOSTAT Single stage cool, single stage heat for PDE models or single stage cool, dual stage heat for PDH model thermostat features high/low fan speed switch. Thermostat is hard wired and can be battery powered or unit powered. Features backlit display and multiple configuration modes. For use on PD-series Friedrich PTACs and Vert-I-Paks.	TE COMME
WRT1	DIGITAL THERMOSTAT Wireless, single stage, wall-mounted digital thermostat with two fan speeds. Features backlit display and multiple configuration modes.	Se See
	FRIEDRICHLINK® ENERGY MANAGEMENT THERMOSTAT Integrated occupancy sensor uses a combination of motion and thermal sensing technologies for accurate occupancy detection. Reliable occupancy detection allows saving energy when rooms are unoccupied. Energy saving presets eliminate the guesswork and make it easy to adjust the energy saving settings.	
EMWRT1	Wireless thermostat with occupancy sensor.	PRISORICH
EMRT1	Wired thermostat with occupancy sensor.	



Friedrich Air Conditioning Co. 10001 Reunion Place, San Antonio, TX 78216 800.541.6645

www.friedrich.com

PZ-SERIES PACKAGED TERMINAL AIR CONDITIONERS LIMITED WARRANTY

SAVE THIS CERTIFICATE. It gives you specific rights. You may also have other rights which may vary from state to state and province to province.

In the event that your unit needs servicing, contact your nearest authorized service center. If you do not know the nearest service center, ask the company that installed your unit or contact us - see address and telephone number above. To obtain service and/or warranty parts replacement, you must notify an authorized FRIEDRICH Air Conditioning Co. service center, distributor, dealer, or contractor of any defect within the applicable warranty period.

When requesting service: please have the model and serial number from your unit readily available.

Unless specified otherwise herein, the following applies:

FRIEDRICH PACKAGED TERMINAL AIR CONDITIONERS AND HEAT PUMPS

LIMITED WARRANTY - FIRST YEAR (Twelve (12) months from the date of installation). Any part found to be defective in the material or workmanship will be repaired or replaced free of charge by our authorized service center during the normal working hours; and

LIMITED WARRANTY - SECOND THROUGH FIFTH YEAR (Sixty (60) months from the date of installation). ON THE SEALED REFRIGERATION SYSTEM. Any part of the sealed refrigeration system that is defective in material or workmanship will be repaired or replaced free of charge (excluding freight charges) by our authorized service center during normal working hours. The sealed refrigeration system consists of the compressor, metering device, evaporator, condenser, reversing valve, check valve, and the interconnecting tubing.

These warranties apply only while the unit remains at the original site and only to units installed inside the continental United States, Alaska, Hawaii, Puerto Rico, Mexico and Canada. The warranty applies only if the unit is installed and operated in accordance with the printed instructions and in compliance with applicable local installation and building codes and good trade practices. For international warranty information, contact the Friedrich Air Conditioning Company - International Division.

Any defective part to be replaced must be made available to **FRIEDRICH** in exchange for the replacement part. Reasonable proof must be presented to establish the date of install, otherwise the beginning date of this certificate will be considered to be our shipment date plus sixty days. Replacement parts can be new or remanufactured. Replacement parts and labor are only warranted for any unused portion of the unit's warranty.

We will not be responsible for and the user will pay for:

- 1. Service calls to:
 - A) Instruct on unit operation. B) Replace house fuses or correct house wiring. C) Clean or replace air filters. D) Remove the unit from its installed location when not accessible for service required. E) Correct improper installations.
- 2. Parts or labor provided by anyone other than an authorized service center.
- 3. Damage caused by:

A) Accident, abuse, negligence, misuse, riot, fire, flood, or acts of God. B) Operating the unit where there is a corrosive atmosphere containing chlorine, fluorine, or any damaging chemicals (other than in a normal residential environment). C) Unauthorized alteration or repair of the unit, which in turn affects its stability or performance. D) Failing to provide proper maintenance and service. E) Using an incorrect power source. F) Faulty installation or application of the unit.

We shall not be liable for any incidental, consequential, or special damages or expenses in connection with any use or failure of this unit. We have not made and do not make any representation or warranty of fitness for a particular use or purpose and there is no implied condition of fitness for a particular use or purpose. We make no expressed warranties except as stated in this certificate. No one is authorized to change this certificate or to create for us any other obligation or liability in connection with this unit. Any implied warranties shall last for one year after the original purchase date. Some states and provinces do not allow limitations on how long an implied warranty or condition lasts, so the above limitations or exclusions may not apply to you. The provisions of this warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by law.

Performance of Friedrich's Warranty obligation is limited to one of the following methods:

- 1. Repair of the unit
- 2. A refund to the customer for the prorated value of the unit based upon the remaining warranty period of the unit.
- 3. Providing a replacement unit of equal value

The method of fulfillment of the warranty obligation is at the sole discretion of Friedrich Air Conditioning.

In case of any questions regarding the provisions of this warranty, the English version will govern.