



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII C15-000058

I. IDENTIFICATION

1. Proposed Work Site at: 2282 Laves mill rd.

2. Name of Owner in Fee: BRICK TWP B.O.E.
Tel. (732) 285-3000 e-mail _____

Address 101 Hendrickson HUTCHINSON
street municipality 821 CHAPEL AVENUE CHERRY HILL, NJ 08034
PH: 856-428-8807 FAX: 856-429-1955

3. Ownership in Fee: Public _____ Private _____
NJ PLUMBING LIC. # 8311 GEO. HUTCHINSON III
NJ ELECTRICAL CONTRACTOR SPOTLIGHT ELECTRIC, LLC
CHRIS DAVIS #8-84 EXP 2015
FEDERAL EMPLOYEE NUMBER 228766253
NJ HOME IMPROVEMENT JC.# 13VH01747500

4. Principal Contractor: _____
Address _____

License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. _____ FAX: (____) _____

5. Architect or Engineer _____ Contact _____
Address _____ e-mail _____
Tel. (____) _____ FAX: (____) _____

6. Responsible Person in Charge once Work has Begun Steve Hastings
Tel. (609) 868-1081 FAX: (____) _____

V. FEE SUMMARY (for office use only)

	Update	Update
1. Building	\$ <u>125</u>	
2. Electrical	\$ <u>140</u>	
3. Plumbing	\$ <u>250</u>	
4. Fire Protection	\$ <u>380</u>	
5. Elevator Devices		
6. Subtotal		
7. Less 20% for State Plan Review	\$ _____	
8. Subtotal	\$ _____	
9. State Permit Surcharge Fee	\$ <u>27</u>	
10. Subtotal	\$ _____	
11. Cert. of Occupancy		
12. Other		
13. TOTAL	\$ <u>942</u>	

VI. BUILDING/SITE CHARACTERISTICS (office use only)

1. Number of Stories _____	_____
2. Height of Structure _____ ft.	_____
3. Area — Largest Floor _____ sq. ft.	_____
4. New Building Area _____ sq. ft.	_____
5. Volume of New Structure _____ cu. ft.	_____
6. Max. Live Load _____	_____
7. Max. Occupancy Load _____	_____
8. If Industrialized Building: State Approved _____ HUD _____	_____
9. Total Land Area Disturbed _____ sq. ft.	_____
10. Flood Hazard Zone _____	_____
11. Base Flood Elevation _____ ft.	_____
12. Wetlands yes _____ no _____	_____

IIa. PROPOSED WORK

☐ Minor Work	☐ New Building	☐ Addition	☐ Demolition
☐ Repair	☐ Alteration	☐ Renovation	☐ Reconstruction
☐ Asbestos Abat. -Subch. 8	☐ Lead Hazard Abatement	☐ Radon Remediation	☐ Annual Permit

IIb. SUBCODES (Check all that apply)

☐ Building	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates	Re-viewer
☒ Electrical	<u>900</u>	<u>AB</u>	<u>11/10/15</u>		<u>01/28/15</u>	<u>KEA</u>		
☒ Plumbing	<u>300</u>				<u>1-20-15</u>	<u>AK</u>		
☒ Fire Protection	<u>12000</u>				<u>1/23/15</u>	<u>LU</u>		
☐ Elevator								
TOTAL COST								

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale	_____
Gained, Rental	_____
Lost, Sale	_____
Lost, Rental	_____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

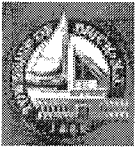
D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases	1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks	4. ☐ Refrigeration Systems	6. ☐ Smoke Control Systems in Open Wells	12. ☐ Fire Alarm
2. ☐ Prototype Processing	2. ☐ High Pressure Boilers	5. ☐ Cross-Connections/Backflow Preventers	9. ☐ Underground Storage Tanks	
	3. ☐ Pressure Vessels	6. ☐ Hazardous Uses/Places of Assembly	10. ☐ Swimming Pools, Spas and Hot Tubs	
		7. ☐ Sprinklers/Standpipes	11. ☐ LPGas Tanks	

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 10/6/2015
Control Number C-15-000158
Permit Number 15-0237
Permit Issue Date 1/30/2015
Certificate Number 15-0237

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 2282 LANES MILL RD. Brick Township, NJ Block: 1421 Lot: 14 Qual: _____
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
Owner Address: 101 HENDRICKSON AVE. BRICK NJ 08724
Telephone: (732) 785-3000
Contractor Hutchinson
Address 621 Chapel Avenue Cherry Hill NJ 08034
Telephone: (856) 429-5807 Fax: (856) 429-4995
License Number or Builders Registration Number: 13VH01747500 6311 9484 Federal Emp. Number: _____

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: E Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: RENOVATION - COMMERCIAL ...REMOVE & REPLACE (2) 15-TON & (1) 3-TON RTU's - A/C ONLY

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Construction Official

Fee: \$0.00

Check Number: _____

Collected By: _____

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name _____

Address _____

Telephone (609) 868-1081

Signature Steve Nash

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

HUTCHINSON
681 CHAPEL AVENUE CHERRY HILL, NJ 08034
PH: 856-428-6807 FAX: 856-428-4995
NJ PLUMBING LIC.# 6311 GEO. HUTCHINSON III
NJ ELECTRICAL CONTRACTOR SPOTLIGHT ELECTRIC, LLC
CHRIS DAVIS #9464 EXP 2015
FEDERAL EMPLOYEE NUMBER 22376525
NJ HOME IMPROVEMENT LIC.# 13VH017475



FIRE PROTECTION SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1421 Lot 1421 Qualification Code 12
Work Site Location 2282 laves mill rd

Owner in Fee: BUICK & WUP B.O.E.

Tel. 232-785-3000 Email HUTCHINSON

Address 101 New Brunswick Ave CHAPMAN & SHERIFF HILL, NJ 08034
NJ PLUMBING, L.C. #18311 GEO. HUTCHINSON III
NJ ELECTRICAL CONTRACTOR SPOTLIGHT ELECTRIC, LLC
CHRIS DAVIS #9484 EXP 2015
FEDERAL EMPLOYEE NUMBER 228762253

Contractor: 101 New Brunswick Ave
NJ PLUMBING, L.C. #18311 GEO. HUTCHINSON III
NJ ELECTRICAL CONTRACTOR SPOTLIGHT ELECTRIC, LLC
CHRIS DAVIS #9484 EXP 2015
FEDERAL EMPLOYEE NUMBER 228762253

Fire Protection Equipment, NJ Div of Fire Safety Permit No. NJ HOME IMPROVEMENT JC# 13VH07147500

Fire Protection Equipment, NJ Div of Fire Safety Permit No. NJ HOME IMPROVEMENT JC# 13VH07147500

Home Improvement Contractor Registration No. or Exemption Reason Exp. Date

Federal Emp. ID No. FAX:

B. FIRE PROTECTION CHARACTERISTICS

Use Group: Present Proposed Fuel Storage Tank: Fuel Type: [] Flammable or [] Combustible
Constr. Class: Present Proposed Capacity Location of Panel: [] New or [] Existing

Heating System: [] New or [] Modification to Existing Fire Alarm System: [] New or [] Existing
OR [] Conversion or [] Replacement

Fuel Type: [] Gas [] Oil [X] Electric [] Solar Location of Main Control Valve: [] New or [] Existing
[] Other

Location: Total Cost of Fire Protection Work \$ 12000.

JOB SUMMARY (Office Use Only)

PLAN REVIEW: INSPECTIONS Dates (Month/Day)

[] No Plans Required Type: Alarm System Failure Failure Approval Initial

[] Partial - Underslab Utilities Approved Suppression Sys Standpipe

Date: Approved by: [Signature] Fire Pump

[X] Fire Protection Plans Approved Pre-Eng. System

Date: 12/13/13 Approved by: [Signature] Mechanical

Joint Plan Review Required: Approved by: [Signature] Smoke Control

SUBCODE APPROVAL for PERMITS 1-23-15 TCO

Approved by: [Signature] Flam/Combust Tanks

SUBCODE APPROVAL for CERTIFICATE [Signature] Fireplace Venting

[] CO Final

Date: 12/13/13 Other

Approved by: [Signature]

U.C.C. F-140 (rev. 02/11)

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one

Internet version

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Applicant/Contractor sign here: [Signature]

Print name here: Steve Hastings

D. TECHNICAL SITE DATA [] Certified Contractor [] Exempt Applicant

DESCRIPTION OF WORK: Re-roof & replace

Water Supply Source 2-15 ton AC

Method of Alarm/Suppression System Supervision 12+015

Flammable/Combustible Tanks NUMBER

Alarm Systems FEE (Office Use Only)

[] System

[] 110v Interconnected

[] CO Detectors/110v

Alarm Devices (i.e., smoke heat, pulls, water/flow) 2

Supervisory Devices (i.e., tamper, low/high air) 2

Signaling Devices (i.e., horns/strobes, bells) 2

Other Devices 2

TOTAL 2

Suppression Systems 2

Fire Pump GPM Type

Dry Pipe/Alarm Valves 2

Pre-action Valves 2

Sprinkler Heads (Dry and Wet) 2

Standpipes 2

Pre-engineered Systems 2

Wet Chemical 2

Dry Chemical 2

CO₂ Suppression 2

Foam Suppression 2

FM200 Suppression 2

Other 2

Other Systems 2

Kitchen Hood Exhaust System 2

Smoke Control System 2

Fuel-Fired Appliances 2

Fireplace Venting/Metal Chimney 2

Other 2

Administrative Surcharge \$ 2

Minimum Fee \$ 2

State Permit Surcharge Fee \$ 2

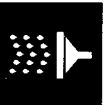
TOTAL FEE \$ 2

1/30/15

15-0237



PLUMBING SUBCODE
TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1401 Lot 2282 Qualification Code 174
Work Site Location Wes Mill Road

Owner in Fee: BICK qup B.O.E.

Tel. 232-785-3000 e-mail

Address 101 Glenbrook road 402 .

Contractor: Hutchinson Plumbing Heating Cooling Tel. (856) 429-5807 Zip code

Address 621 Chapel Avenue, Cherry Hill, NJ 08034 e-mail

Contractor License No. Exp. Date

Home Improvement Contractor Registration No. or Exemption Reason 13VH01747500

Federal Emp. ID No. 223766253 FAX: (856) 429-4995

B. PLUMBING CHARACTERISTICS
Use Group Present Proposed

Building Sewer Size Public Sewer Private Septic

Water Service Size Public Water Private Well

Est. Cost of Plumbing Work \$ 300

JOB SUMMARY (Office Use Only)
PLAN REVIEW

☒ No Plans Required
☐ Partial - Underslab Utilities Approved

Date Approved by Type: Failure Failure Approval Initial

☐ Plumbing Plans Approved
Date Approved by Type: Failure Failure Approval Initial

Joint Plan Review Required: Fixtures Gas Equipment Gas Piping LP Gas Tank Fuel Oil Piping Solar TCO Final

☐ Bldg. ☐ Elec. ☐ Fire. ☐ Elev.
SUBCODE APPROVAL FOR PERMIT
Date: 6-20-03

Approved by:

SUBCODE APPROVAL FOR CERTIFICATE
☐ CO ☐ CCO ☒ CA
Date: 6-18-03

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.
Applicant sign/Contractor sign and seal here:
Print name here:

D. TECHNICAL SITE DATA
DESCRIPTION OF WORK
1-3 tows ac RTU
2-15 tows ac RTU

QTY. FEE (Office Use Only)

Fixture/Equipment

Water Closet

Urinal/Bidet

Bath Tub

Lavatory

Shower

Floor Drain

Sink

Dishwasher

Drinking Fountain

Washing Machine

Hose Bibb

Water Heater

Fuel Oil Piping

Gas Piping

LP Gas Tank

Date Received 1/30/15
Control # 15-0237
Date Issued
Permit #

Administrative Surcharge \$
Minimum Fee \$
State Permit Surcharge Fee \$
TOTAL FEE \$



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1481 Lot 14 Qualification Code Neat
Work Site Location 2282 Lakes Mill

Owner in Fee: Bnick & W B.D.E.

Tel. 732-785-3000 e-mail _____

Address 101 Brednickson Ave. zip code _____

Contractor: SPONIGHT ELECTRIC, LLC Tel. 856 429 3339

Address HADDONFIELD, NJ 08033 e-mail _____

Contractor License No. 9484 Exp. Date 7/5

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. _____ FAX: 856 429 9977

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. 800

Est. Cost of Elec. Work \$ _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW		INSPECTIONS				
		Type:	Failure	Failure	Approval	Initial
[] No Plans Required						
[] Partial Underslab Utilities Approved		Rough				
Date <u>1/24/15</u> Approved by: <u>[Signature]</u>		Barrier-Free				
		Trench				
[] Electric Plans Approved		Temp. Serv.				
Date: _____ Approved by: _____		Constr. Serv.				
		TCO				
Joint Plan Review Required:		Other				
[] Bldg. [] Plumb. [] Fire. [] Elev.		Service				
SUBCODE APPROVAL for PERMIT		Final				
Date: <u>1-21-15</u>		Barrier-Free				
Approved by: <u>[Signature]</u>						
SUBCODE APPROVAL for CERTIFICATE		Temp. Cut-in-Card Date Issued				
[] CO [] CCO [] CA		Final Cut-in-Card Date Issued				
Date: <u>9-16-15</u>		Annual Pool Inspection				
Approved by: <u>[Signature]</u>		Date of Grounding and Bonding				
		Certification				

Date Received 11/30/15
Control # 150087
Date Issued _____
Permit # _____

C. CERTIFICATION IN LIEU OF OATH
I hereby certify that I am the (agent of, owner of, record owner) authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: [Signature]

Print name here: _____

☒ Licensed Elec. Contractor [] Certifd Landscape Irrigation Contr. [] Exempt Applicant

D. TECHNICAL SITE DATA Remove & Replace

DESCRIPTION OF WORK: 2-15 ton R+U - AC ONLY
1-3 ton R+U - AC ONLY

QTY. SIZE ITEMS

Lighting Fixtures

Receptacles

Switches

Detectors

Light Poles

Motors—Fract. HP

Emergency & Exit Lights

Communications Points

Alarm Devices/F.A.C. Panel

TOTAL NUMBERS

Pool Permit/with UW Lights

Storable Pool/Spa/Hot Tub

KW Elec. Range/Receptacle

KW Oven/Surface Unit

KW Elec. Water Heater

KW Elec. Dryer/Receptacle

KW Dishwasher

HP Garbage Disposal

KW Central A/C Unit

HP/KW Space Heater/Air Handler

KW Baseboard Heat

HP Motors 1/+ HP

KW Transformer/Generator

AMP Service 3 ton AC R+U

AMP Subpanels

AMP Motor Control Center

KW Elec. Sign/Outline Light

3581 15 ton AC R+U

Administrative Surcharge \$ _____

Minimum Fee \$ _____

State Permit Surcharge Fee \$ _____

TOTAL FEE \$ _____



CONSTRUCTION PERMIT

Date Issued 1/30/15
Control # C-15-000158
Permit # 15-0237

IDENTIFICATION Block: 1421 Lot: 14 Qualifier _____
Work Site Location: 2282 LANES MILL RD. Brick Township, NJ Contractor Hutchinson
Address 621 Chapel Avenue Cherry Hill NJ 08034
Owner in Fee BRICK TOWNSHIP BOARD OF EDUCATION
101 HENDRICKSON AVE. BRICK NJ 08724 Telephone: (856) 429-5807
Telephone: (732) 785-3000 Lic. No. or Bldrs. Reg. No. 9484
Federal Employee. No. _____

Is hereby granted permission to perform the following work:

- ☒ BUILDING ☒ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☒ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☐ OTHER

DESCRIPTION OF WORK:

RENOVATION - COMMERCIAL ...REMOVE & REPLACE (2) 15-TON & (1) 3-TON RTU's - A/C ONLY

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$12,850

Daniel Newman Jr
Construction Official

1/30/15
Date

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$0
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$0.00
DCA Training Fee	\$0
CO Fee	
Other	\$0
Total	\$0
Check No.	
Cash	\$0
Credit	\$0
Collected By	

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

- ☒ Required inspections for all subcodes for one- and two-family dwellings are as follows:
1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
 2. Foundations and all walls up to grade level prior to back filling.
 3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
 4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.



BUILDING SUBCODE
TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1421 Lot 14 Qualification Code 182
Work Site Location 22822 caves mill rd

Owner in Fee: BRICK FWP 1500 CHAPEL AVENUE CHERRY HILL, NJ 08034
Tel. (202) 785-3600 e-mail NJ PLUMBING INC. # 8311 GEO. HUTCHINGS III
Address 101 New Bricks Rd CHERRY HILL, NJ 08034
Contractor: CHERRY HILL PLUMBING INC. # 13444 EXP. 2015
Address: e-mail:
Contractor License No. or Builder Registration No. Exp. Date
Home Improvement Contractor Registration No. or Exemption Reason (if applicable):
Federal Emp. ID No. FAX: ()

JOBS SUMMARY (Office Use Only)
PLAN REVIEW Date Initial
[] No Plans Required [] 12815 Week Type:
[] All Footings/Footings Failure Failure Approval Initial
[] Footings/Footings Failure Failure Approval Initial
[] Structural/Framework Slab Foundation
[] Exterior Frame Truss Sys./Bracing
[] Interior Barrier-Free
Joint Plan Review Required:
[] Elec. [] Plumb. [] Fire [] Elevator
SUBCODE APPROVAL FOR PERMIT
Date: 01/28/15
Approved by: [Signature]
SUBCODE APPROVAL FOR CERTIFICATE
Date: 05/17/15
Approved by: [Signature]

B. BUILDING CHARACTERISTICS
Use Group Present Proposed
No. of Stories
Height of Structure ft.
Area — Largest Floor sq. ft.
New Bldg. Area/All Floors sq. ft.
Volume of New Structure cu. ft.
Max. Live Load
Max. Occupancy Load

C. CERTIFICATION IN LIEU OF OATH
I hereby certify that I am the (agent of) owner of record and am authorized to make this application.
Sign here: Steve Hastings

D. TECHNICAL SITE DATA
Print name here: Steve Hastings

DESCRIPTION OF WORK
2-15 ton AC
1-3 ton AC
Remove & replace

TYPE OF WORK:
[] New Building
[] Addition
[] Rehabilitation
[] Roofing
[] Siding
[] Fence
[] Sign
[] Pool
[] Retaining Wall
[] Asbestos Abatement Subchapter 8
[] Lead Haz. Abatement NJAC 5:17
[] Radon Remediation
[] Other
[] Demolition

Administrative Surcharge \$
Minimum Fee \$
State Permit Surcharge Fee \$
TOTAL FEE \$

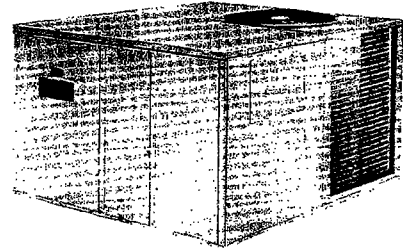
Date Received 1/30/15
Control #
Date Issued
Permit # 15-0237

Packaged Cooling/Heat Pump

TCH/WCH; TCD/WCD
Horizontal/Downflow
Cooling/Heat Pump
36,000-60,000 Btuh (60 Hz)

Features:

- Microprocessor Controls
- ICS compatibility with either factory or field-installed Trane Communications Interface (TCI)
- "Quick-Sess" service panels slide in and out
- Trane built compressors
- Dedicated horizontal and downflow designs
- Complete line of optional electric heaters
- Colored and numbered wiring



Model No.	Power Supply	Cooling Capacity (Btuh) ¹	Uncrated Dimensions			Shipping Weight (Lbs)
	Volts/Phase/Hz		H	W	L	
60 Hz						
Horizontal — Cooling						
TCH048C	208-230/1/60 ²	49,000	34	47	84	731
TCH060C	208-230/1/60 ²	64,000				751
Horizontal — Heat Pump						
WCH048A	208-230/1/60 ²	49,900	34	47	84	759
WCH060A	208-230/1/60 ²	62,500				774
Downflow — Cooling						
TCD036C		37,400	34	47	84	702
TCD048C	208-230/1/60 ²	49,900				731
TCD060C		64,000				751
Downflow — Heat Pump						
WCD036C		39,400	34	47	84	486
WCD048C	208/230/1/60 ²	49,900				518
WCD060C		62,500				523

¹Capacity rating at 95 F at ARI Standard 210 conditions of 80/67 (DB/WB) indoor temperature

²Available 208-230/3/60 or 460/3/60

OLD UNIT

3 ton AC

702 LBS

**Affinity**

Page: 6

DEX - 15 SEER Single Pkg. R-410A ACProject Name: **Herbertsville Elementary**Unit Model #: **D6EX036A06**Quantity: **1**System: **D6EX036A06****Cooling Performance**

Total capacity	31.5 MBH
Sensible capacity	23.5 MBH
Refrigerant type	R-410A
Seasonal Efficiency (at ARI)	15.00 SEER
Efficiency (at ARI)	12.30 EER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.2 °F
Leaving WB temp.	57.1 °F
Power input	2.47 kW
Sound power	78 dB(A)

Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	25.6 MBH
Nominal electric heat	10 kW
Applied electric heat	7.5 kW
Installed	Field
Supply air	1000 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	.06 IWG
Duct location	Bottom
Leaving DB temp.	83.7 °F
Air temp. rise	23.7 °F
Stages	2

Supply Air Blower Performance

Supply air	1000 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	0.06 IWG
Duct location	Bottom
Motor rating	0.50 HP
Power input	0.26 kW
Elevation	0 ft.
Drive type	DIRECT
Speed tap	COOL-B

Electrical Data

Power supply	230-1-60
Unit min circuit ampacity	57.5 Amps
Unit max over-current protection	60 Amps

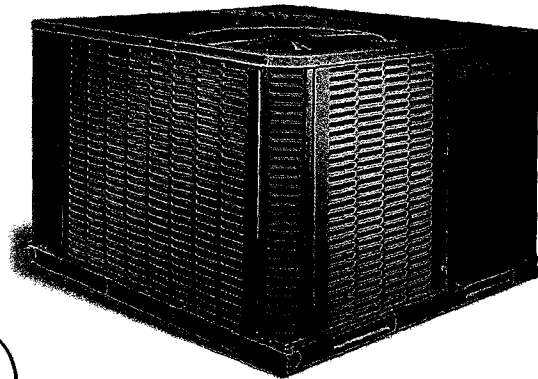
Dimensions & Weight

Hgt	34 in.	Len	49 in.	Wth	47 in.
Weight with factory installed options	400 lbs.				

Clearances

Right	24 in.	Front	12 in.	Back	0 in.
Top	36 in.	Bottom	0 in.	Left	24 in.

Note: Please refer to the tech guide for listed maximum static pressures

**3 Ton**

- YORK Affinity Series Packaged Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet shall be Constructed of G-90, Pre-Paint Textured Steel, Certified at 500 Hours Salt Spray Test per ASTM-B117 Standards
- Bottom and Side Electrical and Gas Utility Connections
- Easy Access to all Components
- Single Piece Water-Shed Top Cover and Drip Edge
- Field Convertible Duct Connections From Horizontal to Downflow Allows Greater Flexibility
- Full Perimeter, Removable Base Rails with Built in Rigging and Access Provisions
- Non-Corrosive Condensate Pan Internally Sloped to Meet Strict Requirements of ASHRAE 62-89 Indoor Air Quality Standard
- Two Speed Scroll Compressor
- Copper Tube/Aluminum Fin Condenser Coil
- Compressor is Internally Protected Against High Pressure and Temperature
- Standard Cooling Operation Down to 45°F
- Variable Speed Direct Drive High Static Motor and Slide out Blower Assembly

Warranty

- Extended Ten (10) Year Limited Parts Warranty when Product is Registered Online Within 90 Days of Purchase for Replacement or Closing for New Home Construction. This Warranty Does Not Apply for R-22 or 3-Phase Systems.
- Twenty (20) Year Heat Exchanger Warranty on Residential Applications / Ten (10) Year Heat Exchanger Warranty on All Other Applications
- Ten (10) Year Compressor Warranty

NEW UNIT
400 LBS

**Affinity**

Page: 7

DEX - 15 SEER Single Pkg. R-410A AC

Project Name: Herbertsville Elementary

Unit Model #: D6EX036A06

Quantity: 1

System: D6EX036A06

Factory Installed Options**D6EX036A06**

Product Category:	D	York Affinity Single Packaged R-410A Air Conditioner
Product Generation:	6	
Product Identifier:	EX	15:2 SEER / 12:3 EER
Nominal Cooling Capacity:	036	3 Ton Two Stage
Factory Installed Electric Heat Option:	A	No Factory Installed Electric Heat
Voltage:	06	208/230-1-60

Field Installed Accessories

- 1FF0114 - Filter Frame Kit w/ 1" Permanent Filter (5.3 lbs)
- 2NH04501006 - 10 kW 208/230-1 Electric Heat (8.0 lbs)

Project Name: **Herbertsville Elementary**

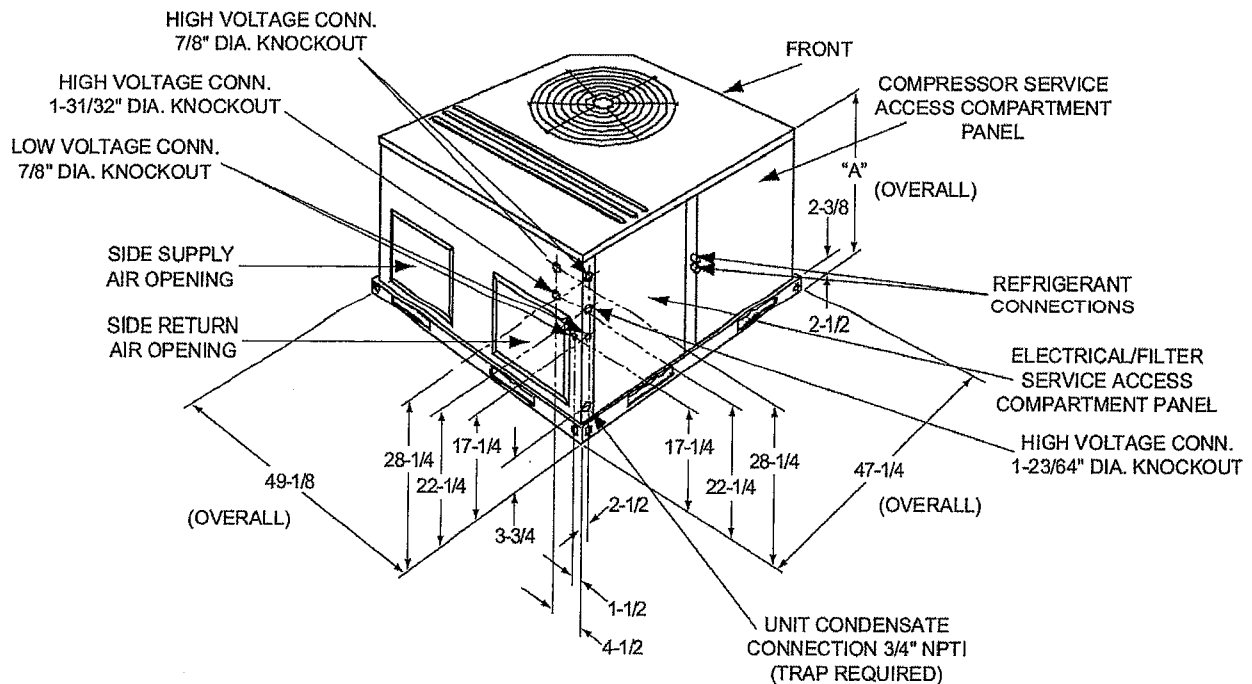
Unit Model #: **D6EX036A06**

Quantity: **1**

System: **D6EX036A06**

Dimensions & Clearances

Cooling Only Unit Dimensions



Cooling Only Unit Dimensions

Unit Size	Dimensions
	"A"
024, 030, 036, 042 ¹	33-1/2
042 ² , 048, 060	41-1/2

1. DEZ Models.
2. DEX Models.

Cooling Only Unit Clearances

Direction	Distance (in.)	Direction	Distance (in.)
Top ¹	36	Right	24
Front	12	Left	24
Rear	0	Bottom ^{2 3}	0

1. Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
2. Units may be installed on combustable floors made from wood or class A, B or C roof covering materials.
3. Minimum Clearance of 1inch all sides of supply air duct for the first 3 foot of duct for 20 & 25 kW., zero inches there after. For all other heaters, zero inch clearance all sides for entire length of duct.

Note: For units applied with a roof curb, the minimum clearance may be reduced from 1 inch to 1/2 inch between combustable roof curb material and this supply air duct.



Affinity

Page: 9

DEX - 15 SEER Single Pkg. R-410A AC

Project Name: **Herbertsville Elementary**

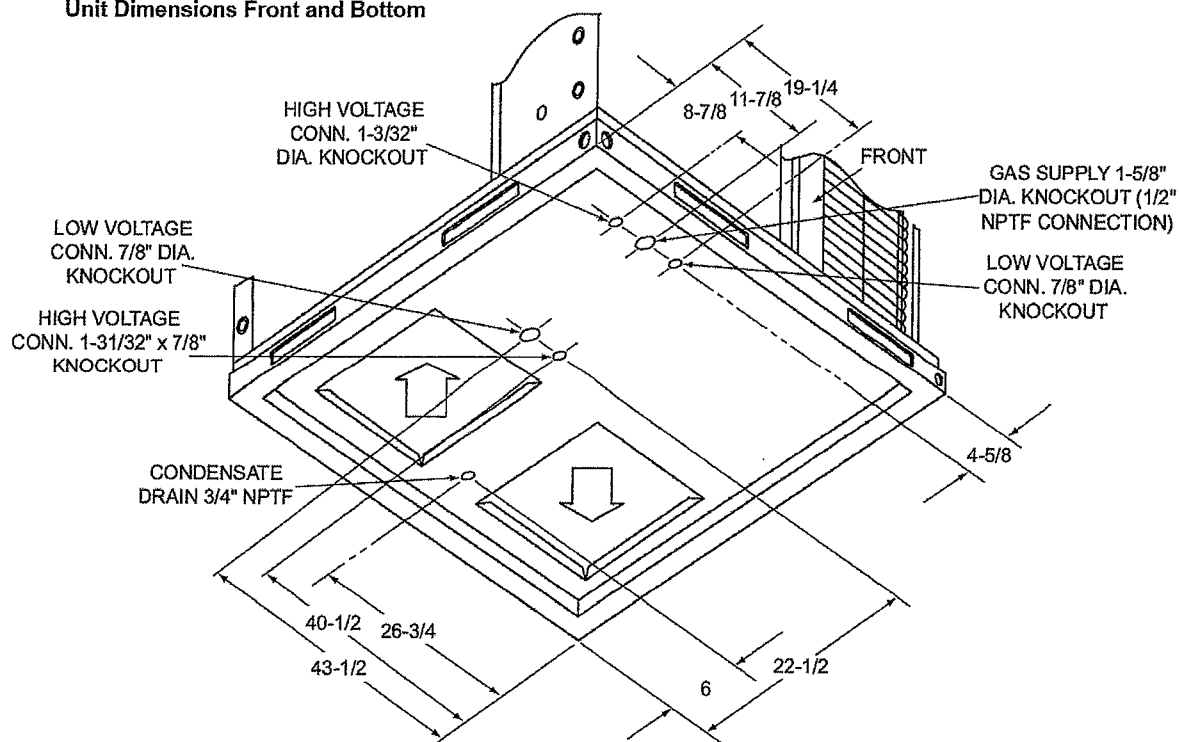
Unit Model #: **D6EX036A06**

Quantity: **1**

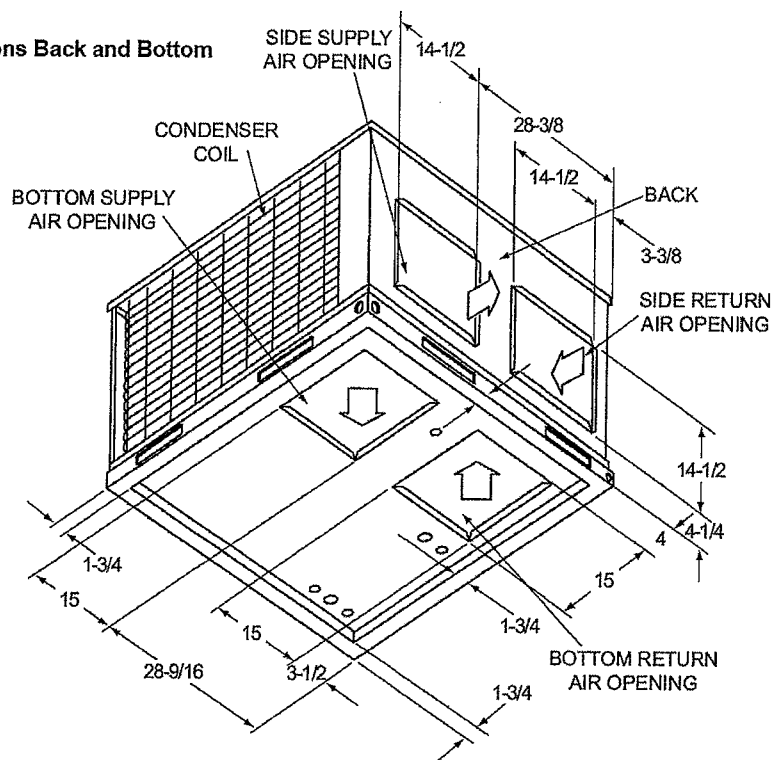
System: **D6EX036A06**

Unit Dimensions

Unit Dimensions Front and Bottom



Unit Dimensions Back and Bottom



Date

12/10/2014

Project Name

Herbertsville Elementary

Project Number**Client / Purchaser**

Michelle Weiss



Submittal Summary Page

Qty	Tag #	Model #	Description
2		ZJ180E54T2FAA3	15 Ton, York Large Sunline Single Packaged R-410A Air Conditioner, 12.2 EER / 12.3 IEER, Four Stage Cooling, 54 kW Two Stage Factory Installed Electric Heat, 5 HP High Static Belt Drive Blower, 2" Throwaway Filters, 208/230-3-60, Galvanized Steel Drain Pan • Dry Bulb Low Leak Economizer w/Barometric Relief and Hoods (Bottom Return Only) • Return Air Smoke Detector • Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor
2		2EC0402	Kit, Dual Enthalpy Field Installed (Includes both an Outdoor Air Enthalpy Sensor and a Return Air Enthalpy/Humidity Sensor)
2		CAM 2006794	adapter curb Trane TCD180B3
1		D6EX036A06	3 Ton Two Stage, York Affinity Single Packaged R-410A Air Conditioner, 15.2 SEER / 12.3 EER, No Factory Installed Electric Heat, 208/230-1-60
1		1FF0114	Filter Frame Kit w/ 1" Permanent Filter
1		2NH04501006	10 kW 208/230-1 Electric Heat
1		2EC0402	Kit, Dual Enthalpy Field Installed (Includes both an Outdoor Air Enthalpy Sensor and a Return Air Enthalpy/Humidity Sensor)
1		CAM 2001279	ADAPTER CURB Trane tcd036c1

Equipment start-up and commissioning by a factory trained technician is recommended.
 Contact your supplying distributor or sales representative for additional information & guidance.



Large Sunline

Single Package R-410A Air Conditioner

Page: 3

Project Name: **Herbertsville Elementary**Unit Model #: **ZJ180E54T2FAA3**Quantity: **2**System: **ZJ180E54T2FAA3 (2)**

Cooling Performance

Total capacity	191.1 MBH
Sensible capacity	138.1 MBH
Refrigerant type	R-410A
Efficiency (at ARI)	12.20 EER
Integrated eff. (at ARI)	12.30 IEER
Ambient DB temp.	93.2 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.7 °F
Leaving WB temp.	56.9 °F
Power input (w/o blower)	12.67 kW
Sound power	92 dB(A)

Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	184.1 MBH
Nominal electric heat	54 kW
Applied electric heat	54.0 kW
Installed	Factory
Supply air	6000 CFM
Leaving DB temp.	88.4 °F
Air temp. rise	28.4 °F
Stages	2

Supply Air Blower Performance

Supply air	6000 CFM
Ext. static pressure	1.0 IWG
Unit static resistance	0.3 IWG
Blower speed	1112 RPM
Max BHP of Motor (including service factor)	5.75 HP
Duct location	Bottom
Motor rating	5.00 HP
Actual required BHP	4.82 HP
Power input	4.33 kW
Elevation	30 ft.
Drive type	BELT

Electrical Data

Power supply	230-3-60
Unit min circuit ampacity	147.9 Amps
Unit max over-current protection	175 Amps

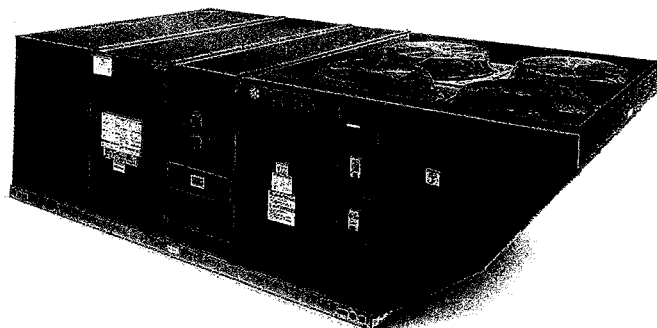
Dimensions & Weight

Hgt	53 in.	Len	181 in.	Wth	92 in.
Weight with factory installed options	2819 lbs.				

Clearances

Right	36 in.	Front	36 in.	Back	49 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

Note: Please refer to the tech guide for listed maximum static pressures



15 Ton

- York Sunline Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards).
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Four Independent Refrigerant Circuits for Efficient Part Load Operation with Scroll Compressors
- Four Stage Cooling
- Solid Core Liquid Line Filter Driers
- 54 kW Two Stage Factory Installed Electric Heat
- 5 HP High Static Belt Drive Blower
- Unit Ships with 2" Throwaway Filters with a Standard Filter Rack That Will Accept up to 4" Filters
- Replacement Filters: For 2" filters 12 - (12" x 24" x 2") OR For 4" filters 2 - (20" X 24" x 4") AND 4 - (24" X 24" x 4")
- Single Point Power Connection
- Return Air Smoke Detector
- Dry Bulb Low Leak Economizer w/Barometric Relief and Hoods (Bottom Return Only)
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

BAS Controller

- Simplicity SE Controller with Discharge Air, Return Air, and Outside Air Sensor

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements



Large Sunline

Single Package R-410A Air Conditioner

Page: 4

Project Name: **Herbertsville Elementary**

Unit Model #: **ZJ180E54T2FAA3**

Quantity: **2**

System: **ZJ180E54T2FAA3 (2)**

Factory Installed Options

ZJ180E54T2FAA3

Product Category:	Z	York Large Sunline Single Packaged R-410A Air Conditioner
Product Identifier:	J	12.2 EER / 12.3 IEER
Nominal Cooling Capacity:	180	15-Ton Four Stage Cooling
Heat Type and Nominal Heat Capacity:	E54	54 kW Two Stage Factory Installed Electric Heat
Airflow:	T	Dry Bulb Low Leak Economizer w/Barometric Relief and Hoods (Bottom Return Only) 5 HP High Static Belt Drive Blower 2" Throwaway Filters
Voltage:	2	208/230-3-60
Installation Options:	F	Return Air Smoke Detector
Additional Options:	AA	Galvanized Steel Drain Pan Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor
Product Generation:	3	

Field Installed Accessories

- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes both an Outdoor Air Enthalpy Sensor and a Return Air Enthalpy/Humidity Sensor) (1.0 lbs)



Large Sunline

Single Package R-410A Air Conditioner

Project Name: Herbertsville Elementary

Unit Model #: ZJ180E54T2FAA3

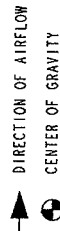
Quantity: 2 System: ZJ180E54T2FAA3 (2)

Consolidated Drawing

NOTES:

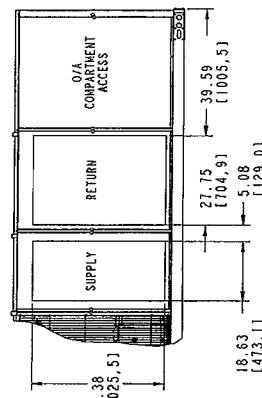
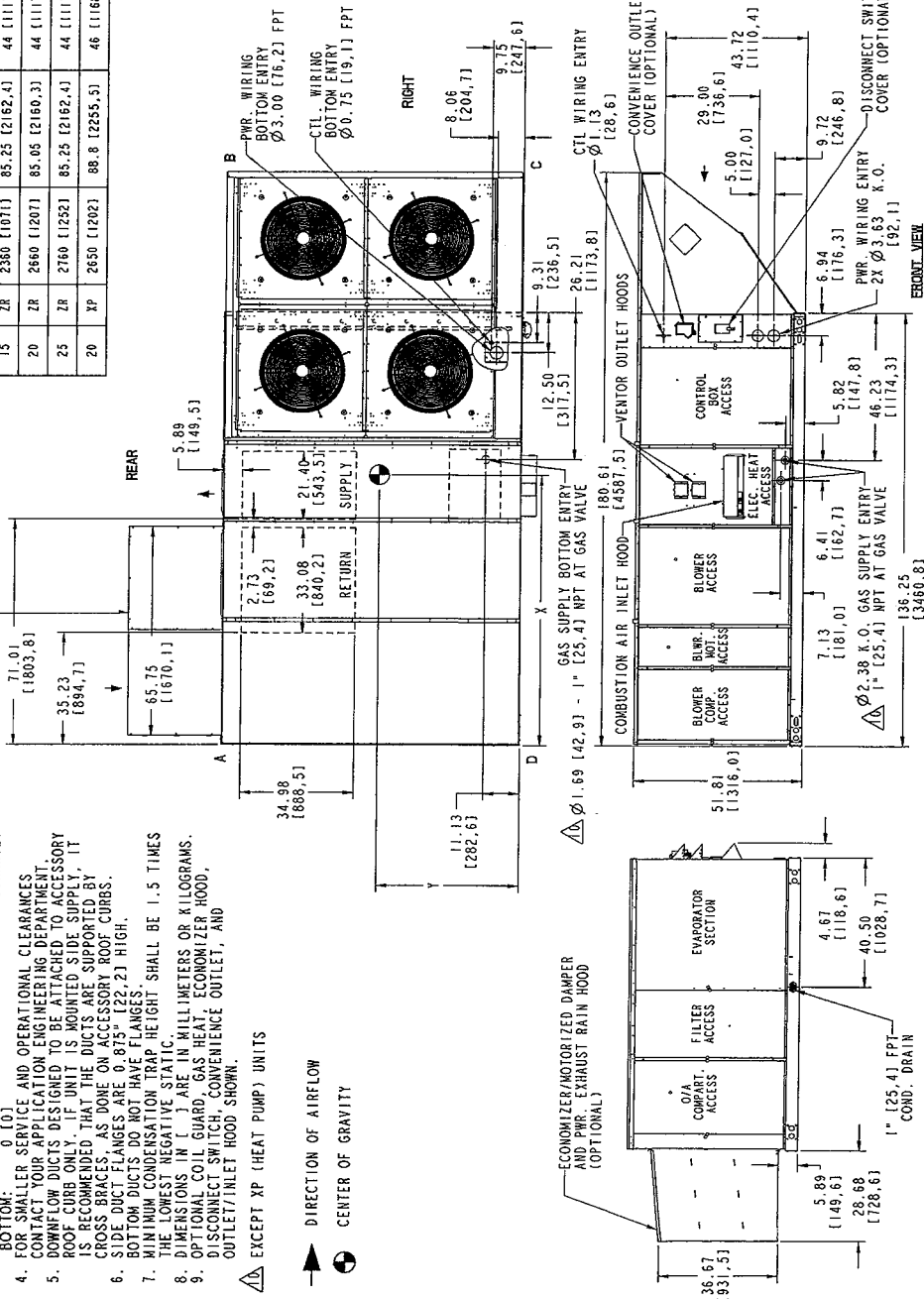
1. FOR OUTDOOR USE ONLY.
2. WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
3. MIN. CLEARANCES TO BE:
 - RIGHT SIDE: 24 [609.6] (LESS ECONOMIZER)
 - LEFT SIDE: 36 [914.4] (WITH ECONOMIZER)
 - FRONT: 36 [914.4] (LESS ECONOMIZER)
 - REAR: 24 [609.6] (LESS ECONOMIZER)
 - TOP: 49 [1244.6] (WITH ECONOMIZER)
 - 72 [1828.8] WITH 36 [914.4] MAX. HORIZ. OVERHANG (FOR CONDENSER AIR DISCHARGE)
4. BOTTOM:
 - FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT
 - DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
 - 6. SIDE DUCT FLANGES ARE 0.875" HIGH.
 - BOTTOM DUCTS DO NOT HAVE FLANGES.
 - 7. MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
 - 8. DIMENSIONS IN " ARE IN INCHES OR KILOGRAMS.
 - 9. OPTIONAL COIL GUARD GAS HEAT, ECONOMIZER HOOD, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND OUTLET/INLET HOOD SHOWN.

△ EXCEPT XP (HEAT PUMP) UNITS

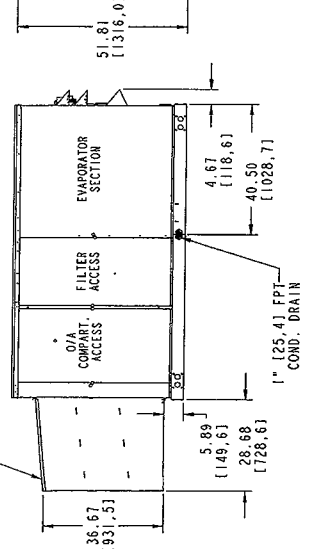
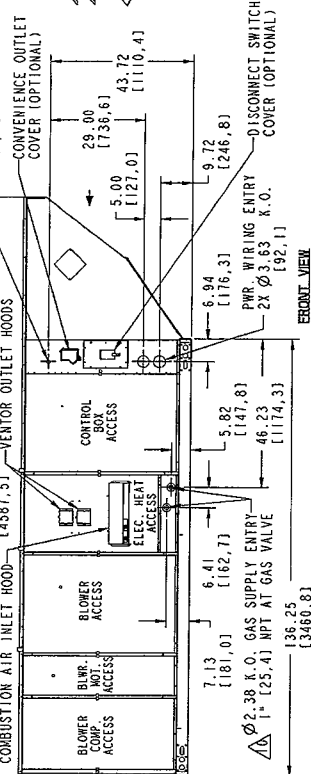
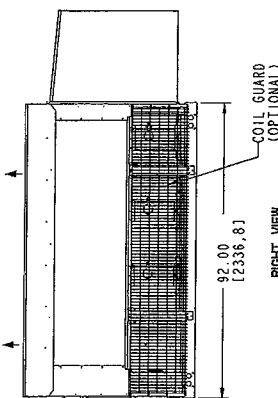


TONNAGE	U T	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)			4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y		A	B	C	D
15	ZJ	2609 [1183]	85.25 [2162.4]	44 [1117.6]		467 [212]	781 [354]	652 [387]	510 [231]
17.5	ZJ	2665 [1209]	85.25 [2162.4]	44 [1117.6]		477 [216]	797 [362]	870 [395]	520 [236]
20	ZJ	2697 [1233]	85.05 [2160.3]	44 [1117.6]		485 [220]	805 [365]	878 [398]	529 [240]
25	ZJ	2783 [1282]	85.25 [2162.4]	44 [1117.6]		498 [226]	833 [378]	908 [412]	544 [247]
15	ZR	2380 [1071]	85.25 [2162.4]	44 [1117.6]		422 [191]	706 [320]	770 [349]	461 [209]
20	ZR	2660 [1207]	85.05 [2160.3]	44 [1117.6]		478 [217]	784 [360]	865 [393]	522 [237]
25	ZR	2760 [1252]	85.25 [2162.4]	44 [1117.6]		494 [224]	826 [375]	901 [409]	539 [245]
20	XP	2650 [1202]	88.8 [2255.5]	46 [1168.4]		462 [210]	863 [392]	863 [392]	462 [210]

ECONOMIZER/MOTORIZED DAMPER
AND PWR. EXHAUST RAIN HOOD
(OPTIONAL)



REAR (PARTIAL) VIEW
(WITH SIDE DUCT PANELS INSTALLED)





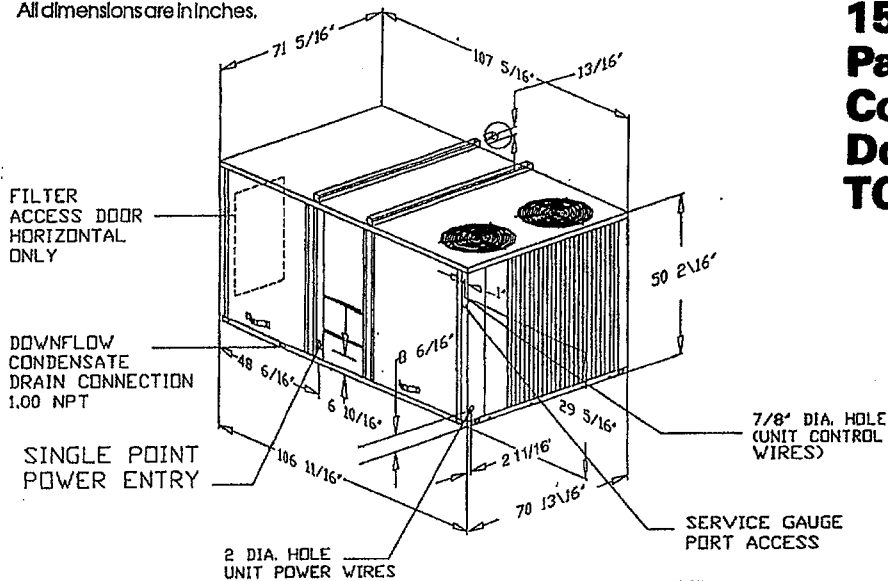
Herbentville
2-15 to N+V-
1370 LBS PAW

TCD180-SQ-207.09

Tag:

SUBMITTAL

All dimensions are in inches.



NOTE:
Duct flanges mount
7-7/16" down inside the
curb on the 1½" curb
flanges. See recommended
duct dimensions on the
next page.

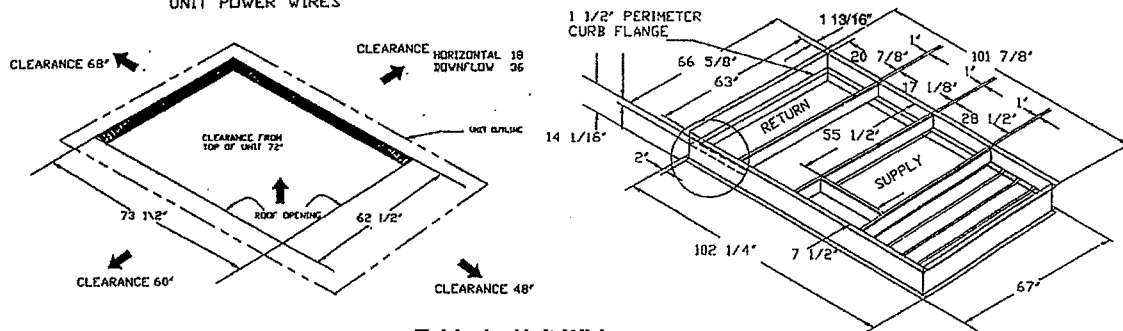


Table 1 Unit Wiring

Unit Model No.	Unit Operating Voltage Range	Minimum Circuit Ampacity ² Standard/Overize	Maximum Fuse Size Or Maximum Circuit Breaker ¹ Standard/Overize
TCD180B3	187-253	82/88	90/100
TCD180B4	414-506	37/40	45/50
TCD180BW	517-633	30/32	35/40

NOTES:

1. HACR breaker per NEC. 2. Values do not include power exhaust accessory.

Table 2 Electrical Characteristics — Power Exhaust Accessory

Accessory Model No.	Accessory Operating Voltage	Phase	HP	RPM	Amps	
					FLA	LRA
BAYPWRX019A	208-230	1	3/4	1040	6.6	13.5
BAYPWRX020A	460	1	3/4	1040	3.2	8.4
BAYPWRX021A	575	1	3/4	1040	2.1	5.2

Table 3 Accessory Net Weights (Lbs)

Economizer ¹		Outside Air Damper		Power Exhaust	Roof Curb	Oversized Motor	High Static Drive	All Zone Sensors	Electric Heaters		
Net	Ship	Manual	Motorized						18 KW 240/480V ²³	36 KW 240/480V ²³	54 KW 240/480V ²³
65	205	32	60	95	205	75	NA	1	28/21	31/27	38/32

NOTES:

NOTES:

1. Net weight should be added to unit weight when ordering economizer or oversize motor.
2. For 600V and 400V Hz heaters net weights are same.
3. To estimate shipping weight add 5 lbs to net weight.

2. For 600V and 400V hz heaters net weights are same as 480V heaters.

Table 4 General Data

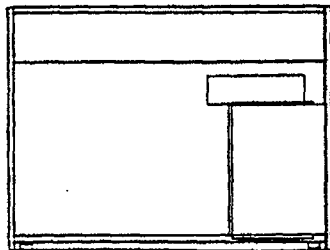
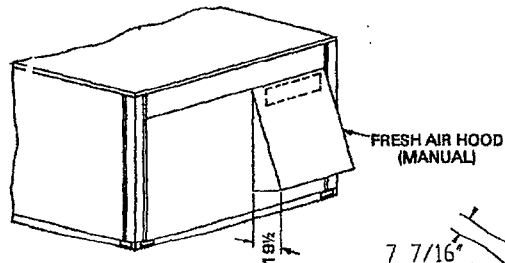
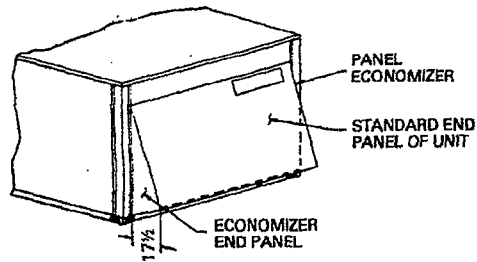
TCD180B3, B4, BW	
Cooling Performance¹	
Gross Cooling Capacity	183,000
EER ²	8.6
Nominal CFM/ARI Rated CFM	6,000/5,300
ARI Net Cooling Capacity	172,000
Integrated Part Load Value ³	8.90
System Power (KW)	20.00
Compressor	
No./Type	2/Trane H
Sound Rating (BELS)⁴	
	9.2
Outdoor Coil – Type	
	Hi-Performance
Tube Size (in.) OD	.375
Face Area (sq ft)	24.18
Rows/FPI	2/16
Indoor Coil – Type	
	Hi-Performance
Tube Size (in.)	.375
Face Area (sq ft)	17.50
Rows/FPI	2/15
Refrigerant Control	Short Orifice
Drain Connection No./Size (in.)	1/1.00 NPT
Outdoor Fan – Type	
	Propeller
No. Used/Diameter (in.)	2/26
Drive Type/No. Speeds	Direct/1
CFM	10,800
No. Motors/HP	2/50
Motor RPM	1,100
Indoor Fan – Type	
	FC Centrifugal
No. Used	1
Diameter x Width (in.)	15 x 15
Drive Type/No. Speeds	Belt/1
No. Motors	1
Motor HP (Standard/Oversized)	3.0/5.0
Motor RPM (Standard/Oversized)	1,740/3,450
Motor Frame Size (Standard/Oversized)	145T/145T
Filters – Type/Furnished?	
	Throwaway/Yes
(No.) Size Recommended (in.)	
Downflow	(2) 20 x 20 x 2, (4) 20 x 25 x 2
Refrigerant Charge (Lbs. of R-22)⁵	
	9.5/Circuit

NOTES:

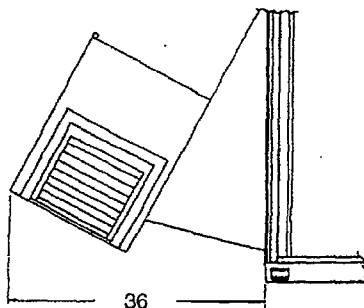
1. Cooling Performance is rated at 95 F ambient, 80 F entering dry bulb, 67 F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Rated in accordance with ARI Standard 360.
2. EER is rated at ARI conditions and in accordance with DOE test procedures.
3. Integrated Part Load Value is based on ARI Standard 360. Units are rated at 80 F ambient, 80 F entering dry bulb, and 67 F entering wet bulb at ARI rated cfm.
4. ARI Sound Rating is rated in accordance with ARI Standard 370.
5. Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.



All dimensions are in inches.



Power Exhaust
End Panel View



NOTE:
Duct flanges mount
7-7/16" down inside the
curb on the 1 1/2" curb
flanges.

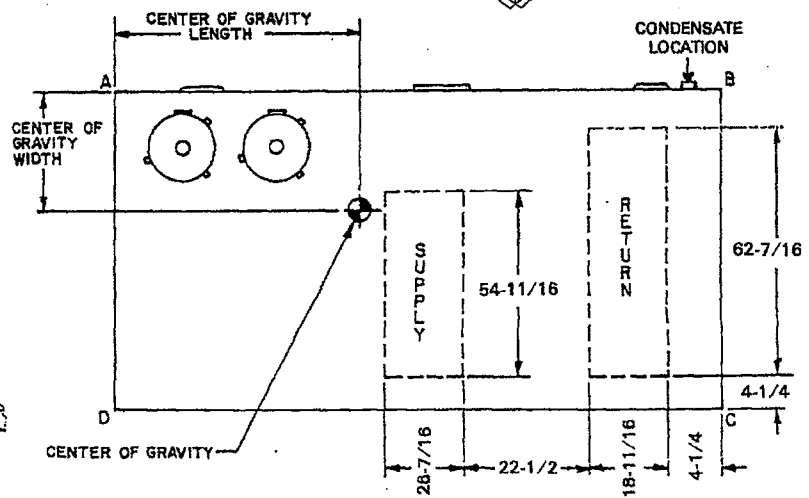
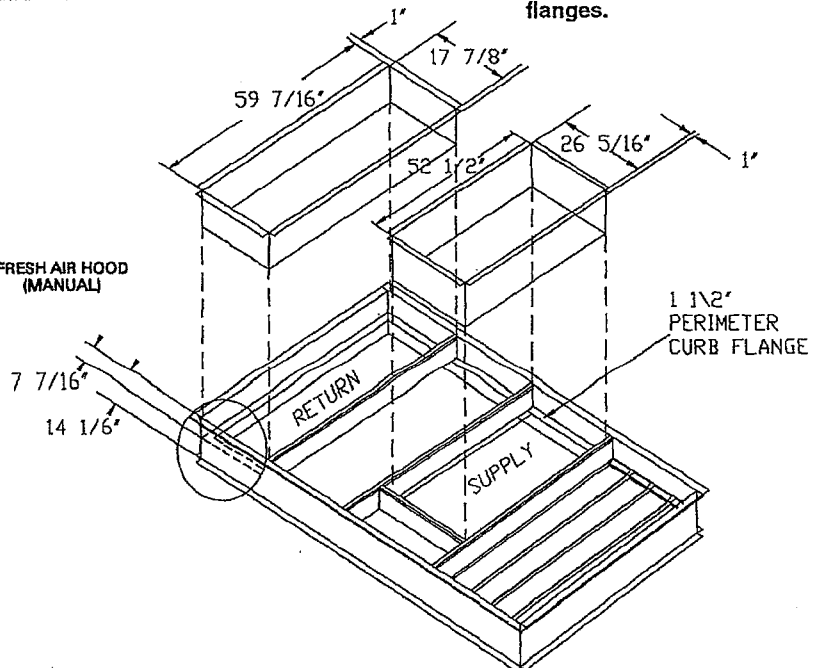


Table 5 Maximum Unit Weights, Corner Weights And Center Of Gravity Dimensions

Maximum Weights (Lbs)		Corner Weights (Lbs) ¹				Center of Gravity (In.)	
Shipping	Net	A	B	C	D	Length	Width
1750	1370	474	341	232	323	45"	29"

NOTE:

1. Corner weights are given for information only. Unit is to be supported continuously by a curb or equivalent frame support.

Table 6 Gross Cooling Capacities (MBH)

		Ambient Temperature (F)																							
		85						95						105						115					
Enter. Dry Bulb		Entering Wet Bulb (F)																							
CFM		61		67		73		61		67		73		61		67		73		61		67		73	
Airflow	(F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	171.3	138.8	188.6	103.5	199.5	69.0	160.8	133.8	180.3	99.1	193.9	65.9	146.6	125.3	168.5	82.8	188.8	62.4	128.5	117.2	153.3	88.0	178.3	60.9
	80	171.3	165.8	188.6	131.2	199.5	98.1	160.8	168.1	180.3	127.3	193.9	95.3	146.6	146.0	168.5	122.2	188.8	92.0	130.6	130.6	153.3	118.5	178.3	91.3
	85	172.4	172.4	188.6	159.2	199.5	131.1	166.4	166.4	180.3	155.9	193.9	128.5	156.2	156.2	168.5	151.3	188.8	124.7	140.2	140.2	153.3	148.4	178.3	124.8
	90	178.9	178.9	188.6	184.0	199.5	151.0	174.9	174.9	180.3	177.8	193.9	148.8	159.0	159.0	168.5	168.0	188.8	145.2	160.2	160.2	153.3	165.4	178.3	148.1
6000	75	173.9	144.9	191.5	108.2	202.6	72.1	163.3	139.8	183.0	103.6	196.9	68.9	148.8	130.9	171.1	97.0	189.7	65.2	130.4	122.5	155.7	82.0	181.0	63.6
	80	173.9	173.2	191.5	137.1	202.6	102.5	165.3	165.3	183.0	133.1	196.9	99.6	152.5	152.5	171.1	127.6	189.7	96.2	136.4	136.4	155.7	123.9	181.0	95.4
	85	180.2	180.2	191.5	166.4	202.6	136.9	173.9	173.9	183.0	162.9	196.9	134.3	163.2	163.2	171.1	158.1	189.7	130.3	146.5	146.5	155.7	155.1	181.0	130.4
	90	186.9	186.9	192.2	192.2	202.6	157.8	182.7	182.7	185.8	185.8	196.9	155.5	166.2	166.2	175.5	175.5	189.7	151.7	156.9	156.9	161.4	161.4	181.0	152.6
6600	75	176.3	149.9	194.1	112.0	205.4	74.6	165.6	144.7	185.6	107.2	199.6	71.3	150.9	135.5	173.5	100.4	182.3	67.5	132.2	128.8	157.8	95.2	183.5	65.8
	80	179.3	179.3	194.1	141.9	205.4	106.1	171.0	171.0	185.6	137.7	199.6	103.1	157.9	157.9	173.5	132.1	182.3	99.6	141.2	141.2	157.8	128.2	183.5	98.8
	85	186.5	186.5	194.1	172.2	205.4	141.7	180.0	180.0	185.6	168.6	199.6	139.0	168.9	168.9	173.5	163.8	182.3	134.9	151.5	151.5	160.5	160.5	183.5	135.0
	90	193.5	193.5	198.9	198.9	205.4	163.3	189.1	189.1	192.3	192.3	199.6	161.0	172.0	172.0	181.7	181.7	192.3	157.0	162.4	162.4	167.1	167.1	183.5	158.0
7200	75	178.9	157.3	197.0	117.5	208.5	78.3	168.0	151.8	188.3	112.5	202.6	74.8	153.1	142.2	176.1	105.4	195.2	70.9	134.2	133.0	160.2	99.9	186.2	68.1
	80	188.1	188.1	197.0	148.9	208.5	111.3	179.5	179.5	188.3	144.5	202.6	108.2	165.6	165.6	176.1	136.6	195.2	104.4	148.2	148.2	160.2	134.5	186.2	103.6
	85	195.7	195.7	197.0	180.7	208.5	148.7	188.9	188.9	188.3	176.9	202.6	145.8	177.3	177.3	176.1	171.7	195.2	141.5	159.1	159.1	168.4	168.4	186.2	141.7
	90	203.0	203.0	208.8	208.8	208.5	171.4	198.4	198.4	201.8	201.8	202.6	168.9	180.5	180.5	190.8	190.8	195.2	164.8	170.4	170.4	175.3	175.3	186.2	165.8

NOTES:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling subtract indoor fan heat.
2. MBH = Total Gross Capacity.
3. SHC = Sensible Heat Capacity

Table 7 Electrical Characteristics — Evaporator Fan Motor — 60 Cycle

Standard Evaporator Fan Motor							Oversized Evaporator Fan Motor					
Unit Model No.	No.	Volts	Phase	HP	Amps		No.	Volts	Phase	HP	Amps	
					FLA	LRA					FLA	LRA
TCD180B3	1	208-230	3	3.00	10.6	81.0	1	208-230	3	5.00	16.7	109.8
TCD180B4	1	460	3	3.00	4.8	40.5	1	460	3	5.00	7.6	54.9
TCD180BW	1	575	3	3.00	3.9	31.0	1	575	3	5.00	6.1	41.6

Table 8 Electrical Characteristics Compressor Motor And Condenser Motor — 60 Cycle

Compressor Motors								Condenser Fan Motors				
Unit Model No.	No.	Volts	Phase	HP ²	RPM	Amps ¹		No.	Phase	HP	Amps ¹	
						FLA	LRA				FLA	LRA
TCD180B3	2	208-230	3	7.50	3450	28.7	156	2	1	.50	3.2	8.8
TCD180B4	2	460	3	7.50	3450	12.7	79	2	1	.50	1.6	3.8
TCD180BW	2	575	3	7.50	3450	10.2	63	2	1	.50	1.3	3.2

NOTES:

1. Amp draw for each motor; multiply value by number of motors to determine total amps.
2. HP for each compressor.

Table 9 Evaporator Fan Performance

		External Static Pressure (Inches of Water)																										
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		1.10		1.20		1.30		
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
		3 HP Standard Motor & Field Supplied Low Static Drive ¹												3 HP Standard Motor & Sheaves														
4800	—	—	562	1.18	594	1.25	625	1.39	657	1.52	685	1.63	713	1.75	740	1.89	767	2.03	793	2.17	819	2.30	846	2.43	872	2.56	890	2.94
5200	568	1.31	598	1.45	630	1.54	656	1.65	687	1.82	715	1.95	741	2.06	767	2.20	792	2.34	817	2.49	841	2.64	865	2.79	889	3.18	911	3.34
5600	606	1.63	636	1.76	664	1.89	691	1.97	716	2.12	745	2.31	771	2.44	795	2.56	819	2.70	843	2.85	866	3.01	889	3.18	911	3.34	936	3.77
6000	644	1.99	674	2.10	699	2.28	727	2.37	749	2.48	774	2.66	801	2.85	825	3.00	848	3.13	871	3.27	893	3.43	915	3.59	936	3.77	962	4.24
6400	683	2.41	712	2.50	735	2.70	761	2.83	785	2.92	806	3.05	831	3.26	856	3.47	878	3.62	899	3.76	921	3.91	942	4.07	962	4.24	990	4.78
6800	722	2.87	751	2.95	773	3.15	796	3.34	820	3.44	841	3.54	861	3.71	885	3.94	908	4.15	930	4.32	950	4.47	970	4.62	990	4.78	1018	5.40
7200	761	3.39	789	3.48	811	3.65	831	3.88	855	4.02	877	4.12	895	4.24	915	4.43	938	4.68	960	4.91	980	5.09	999	5.25	1018	5.40	1041	6.00
		5 HP Oversize Motor & Sheaves																										

For Standard Evaporator Fan Speed (RPM), reference Table 10.
For Oversize Evaporator Fan Speed (RPM), reference Table 11.
Data includes pressure drop due to filters and wet coils.
Fan motor heat (MBh) = 3.15 X Fan Bhp.

Trane's factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions.
Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

NOTE:

1. Requires a field supplied Browning BK105 fan sheave. A field supplied belt change may be necessary.

Table 9 (Continued)

		External Static Pressure (Inches of Water)													
		1.40		1.50		1.60		1.70		1.80		1.90		2.00	
CFM		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5 HP Oversize Motor & Sheaves															
4800		897	2.69	922	2.82	947	2.96	971	3.09	995	3.24	1018	3.38	1041	3.54
5200		914	3.08	938	3.22	962	3.36	985	3.50	1008	3.64	1031	3.79	1053	3.94
5600		934	3.50	957	3.65	979	3.81	1002	3.96	1024	4.11	1046	4.26	1067	4.41
6000		957	3.94	978	4.12	999	4.29	1020	4.46	1041	4.62	1062	4.78	1083	4.94
6400		983	4.42	1003	4.61	1022	4.80	1042	4.99	1062	5.17	1081	5.35	1101	5.52
6800		1009	4.96	1029	5.15	1048	5.34	1066	5.54	1085	5.74	—	—	—	—
7200		1037	5.57	1056	5.75	—	—	—	—	—	—	—	—	—	—

Table 10 Standard Motor And Sheave/Fan Speed (RPM)

6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
690	725	760	795	830	865	900

Factory set at 3 turns open.

Table 11 Oversize Motor And Sheave/Fan Speed (RPM)

6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
850	892	935	977	1020	1062	1105

Table 12 Static Pressure Drops Through Accessories (Inches Water Column)

CFM	Standard 2" Filters	Economizer With OA/RA Dampers ¹		Electric Heater Accessory (KW) ²		
		100% OA	100% RA	14-23	36	54
4800	0.07	0.24	0.03	0.04	0.04	0.05
6000	0.11	0.35	0.04	0.06	0.07	0.08
7200	0.15	0.42	0.05	0.09	0.10	0.12

NOTES:

1. OA = Outside Air and RA = Return Air.
2. Nominal KW ratings at 240, 480, 600 volts.

Table 13 Unit Wiring With Electric Heat (Single Point Connection)

To Use With	Heater Model No.	Heater KW Rating ¹	Control Stages	Standard Indoor Motor		Oversize Indoor Motor	
				MCA	Max Fuse Size Or Max Circuit Breaker ²	MCA	Max Fuse Size Or Max Circuit Breaker ²
208/230 Volts Three Phase							
TCD180B3	AYDHTRF318A	13.5/18.0	1	82/82	110/110	88/88	110/110
	AYDHTRF336A	27.0/36.0	2	108/122	110/125	115/130	125/150
	AYDHTRF354A	40.5/54.0	2	154/176	175/200	162/184	175/200
460 Volts Three Phase							
TCD180B4	AYDHTRE418A	18.0	1	37	45	40	50
	AYDHTRE436A	36.0	2	61	70	64	70
	AYDHTRE454A	54.0	2	88	90	91	100
575 Volts Three Phase							
TCD180BW	AYDHTRDW18A	18.0	1	30	35	32	40
	AYDHTRGW36A	36.0	2	49	50	51	60
	AYDHTREW54A	54.0	2	70	70	73	80

NOTES:

1. Heater kw ratings are at 208/240 for 208/230V unit
480V for 460V unit
600V for 575V unit

2. HACR type circuit breaker per NEC.

Table 14 Auxiliary Electric Heat Capacity

Total ²			Stage 1		Stage 2		
KW Input ¹	MBh Output ¹	No. of Stages	KW Input ¹	MBh Output ¹	KW Input ¹	MBh Output ¹	
18.00	61.47	1	18.00	61.47	—	—	
36.00	122.94	2	18.00	61.47	18.00	61.47	
54.00	184.41	2	36.00	122.94	18.00	61.47	

NOTES:

1. Does not include indoor fan power or heat

2. Heaters are rated at 240v, 480v and 600v. For other than rated voltage, CAP = $\left(\frac{\text{Voltage}}{\text{Rated Voltage}}\right)^2 \times \text{rated cap.}$

Table 15 Air Temperature Rise Across Electric Heaters At 6000 CFM

KW	Stages	Degree F
18.00	1	9.5
36.00	2	19.0
54.00	2	28.5

For minimum design airflow see airflow performance table.

To calculate temp rise at different airflow, use following formula:

$$\text{Temp. Rise across Elect. Htr} = \frac{\text{KW} \times 3413}{1.08 \times \text{CFM}}$$

Table 16 Electric Heater Voltage Correction Factors (Applicable To Auxilliary Heat Capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.75
	230	0.92
	240	1.00
480	440	0.84
	460	0.94
	480	1.00
600	540	0.81
	575	0.92
	600	1.00

Mechanical Specifications

General

The units shall be dedicated downflow airflow. The operating range shall be between 115 F and 0 F in cooling as standard from the factory for all units. Cooling performance shall be rated in accordance with ARI testing procedures. All units shall be factory assembled, internally wired, fully charged with R-22 and 100% run tested to check cooling operation, fan and blower rotation and control sequence before leaving the factory. Wiring internal to the unit shall be colored and numbered for simplified identification. Units shall be UL listed and labeled, classified in accordance to UL 1995/CAN/CSA No. 236-M90 for Central Cooling Air Conditioners. Canadian units shall be CSA Certified.

Casing

Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. All components shall be mounted in a weather resistant steel cabinet with a painted exterior. Cabinet construction shall allow for all maintenance on one side of the unit. Service panels shall have lifting handles and shall be removed and reinstalled by removing not more than three screws while providing a water and air tight seal. The indoor air section shall be completely insulated with fire resistant, permanent, odorless glass fiber material. The unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8" high supply/return openings to provide an added water integrity precaution should the condensate drain back up. The base of the unit shall have provisions for forklift and crane lifting.

Filters

Two inch filters shall be factory supplied on all units.

Compressors

Units shall be direct-drive hermetic, reciprocating type compressors with centrifugal oil pump providing positive lubrication to moving parts. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of unit nameplate voltage.

Crankcase heater, internal temperature and current-sensitive motor overloads shall be included for maximum protection. Shall have internal spring isolation and sound muffling to minimize vibration transmission and noise. External high and low pressure cutout shall be provided.

Refrigerant Circuits

Each refrigerant circuit shall have independent fixed orifice expansion devices, service pressure ports and refrigerant line filter driers factory-installed as standard. An area shall be provided for replacement suction line driers.

Evaporator and Condenser Coils

Internally finned 3/8" copper tubes mechanically bonded to configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 200 psig and pressure tested to 450 psig. On all dual compressor models, the evaporator coil shall be intermingled configuration.

Outdoor Fans

The outdoor fan shall be direct-drive, statically and dynamically balanced, draw through in the vertical discharge position. The fan motor(s) shall be permanently lubricated and have built-in thermal overload protection.

Indoor Fan

Units shall have belt driven, FC, centrifugal fans with adjustable motor sheaves. Units shall have an adjustable idler-arm assembly for quick adjustment of fan belts and motor sheaves. All motors shall be thermally protected. Oversized motors will be available for high static operations. Units shall be capable of providing 1" esp at nominal unit cfm (400 cfm/ton).

Controls

Unit shall be completely factory wired with necessary controls and contactor pressure lugs or terminal block for power wiring. Units shall provide an external location for mounting fused disconnect device. Micro-processor controls shall be provided for all 24 volt control functions. The resident control algorithms shall make all heating, cooling and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperatures. The control algorithm maintains accurate temperature control, minimizes drift from set point and provides better building comfort. A centralized Micro-processor shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

Accessories

Electric Heaters — Electric heat modules shall be available for installation within basic unit. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 and 600 volt. Staging shall be achieved through the unitary control processor (UCP). Each heater package shall have automatically reset high limit control operating through heating element contactors. All heaters shall be individually fused from factory, where required, and meet all NEC and CEC requirements when properly installed. Power assemblies shall provide single-point connection. Electric heat modules shall be UL listed or CSA certified.

Roof Curb — The roof curb shall be designed to mate with the unit and provide support and a water tight installation when installed properly. The roof curb design shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb. Curb design shall comply with NRCA requirements. Curb shall ship knocked down for field assembly and include wood nailer strips.

Mechanical Specifications

Economizer — This accessory shall be either field or factory installed. The assembly includes: fully modulating 0-100 percent motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug, and fixed dry bulb control. The barometric relief damper shall be standard with the economizer and shall provide a pressure operated damper that shall be gravity closing, and prohibit entrance of outside air during the equipment "off" cycle. Solid state enthalpy and differential enthalpy control shall be factory supplied, field installed option.

Remote Potentiometer — The minimum position setting of the economizer shall be adjusted with this accessory.

Powered Exhaust — The accessory shall assist the barometric relief damper in the economizer in relieving building pressurization.

Manual Outside Air Damper — Field installed rain hood and screen shall provide up to 25 percent outside air.

Motorized Outside Air Dampers — Manually set outdoor air dampers shall provide up to 50 percent outside air. Once set, outdoor air dampers shall open to set position when indoor fan starts. The damper shall close to the full closed position when indoor fan shuts down.

Oversized Motors — Factory-installed oversized motors shall be available for high static applications. Field installed oversized motor kits shall be available.

Control Options

Trane Communication Interface (TCI) — Shall be provided to interface with the Trane Integrated Comfort™ System.

Zone Sensors — Shall be provided to interface with the Micro equipped Voyagers and shall be available in either manual, automatic programmable with night setback, with system malfunction lights or remote sensor options.

Conventional Thermostat Interface (CTI) — This field installed circuit board shall provide interface with electro-mechanical thermostats or automation systems.

Differential Pressure Switches — This field installed option allows individual fan failure and dirty filter indication. The fan failure switch will disable all unit functions and "flash" the Service LED on the zone sensor. The dirty filter switch will light the Service LED on the zone sensor and will allow continued unit operation.

Input / Output Expansion Accessory — This kit allows Integrated Comfort™ Systems to read Supply Air Temperature, Return Air Temperature, Return Air Humidity, and direct indication of fan failure without the use of an economizer or motorized outside air accessory.

Electronic Time Clock — This field installed accessory kit will allow the unit to operate in the unoccupied mode or perform night set up/set back functions utilizing a standard individual scheduling.

Since The Trane Company has a policy of continuous product improvement, it reserves the right to change design and specification without notice.

Technical Literature Printed in USA

The Trane Company
Guthrie Highway
Clarksville, TN 37040

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Library	Product Literature
Product Section	Unitary
Product	Packaged Cooling Rooftop
Model	TCD180B — 15 Ton
Literature Type	Submittal
Sequence	207.09
Date	March 1995
File No.	PL-UN-RT-TCD180-SQ-207.09 3/95
Supersedes	TCD180-SQ-207.08

State of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Examiners of Electrical Contractors
has been duly organized and is now in session.

Spotlight Electric, LLC
CHRISTOPHER R. DAVIS
310 Robb Road
Haddonfield, NJ 08033

FOR PROCTOR IN NEW JERSEY AS A(N) Electrical Business Permit.

AS/2012 TO 09/21/2012

3AEB00948400
LICENSE/REGISTRATION/REGISTRATION #

Signature of Licensee/Registration Holder
Director

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Exam. of Electrical Contractors

HAS LICENSED

CHRISTOPHER R. DAVIS
310 Roberts Avenue
Haddonfield NJ 08033

FOR PRACTICE IN NEW JERSEY AS A(N): Electrical Contractor

03/29/2012 TO 03/31/2016
VALID

34E100948400
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

DIRECTOR

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Exam. of Master Plumbers

HAS LICENSED

GEORGE H. HUTCHINSON III
T/A HUTCHINSON P and H and COOL LLC
116 RD HADDON AVE - SUITE C
HADDONFIELD NJ 08033

FOR PRACTICE IN NEW JERSEY AS A(N): Master Plumber

05/01/2013 TO 05/30/2015
VALID

36B100631100
LICENSE/REGISTRATION/CERTIFICATION #

ACTING DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Exam. of Master Plumbers
HAS LICENSED
GEORGE H. HUTCHINSON III
License Number:

05/01/2013 TO 05/30/2015
VALID

36B100631100

Licensee/Registrant/Certificate Holder

SIGNATURE

ACTING DIRECTOR

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:
Board of Exam. of Master Plumbers
P.O. Box 45003
Harrisburg, PA 17101

PLEASE DETACH HERE

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

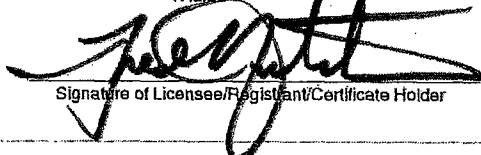
HAS REGISTERED

Hutchinson Plumbing Heating Cooling LLC
Fred Hutchinson
621 Chapel Avenue
Cherry Hill NJ 08034

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

12/16/2013 TO 12/31/2014

VALID



Signature of Licensee/Registrant/Certificate Holder

13VH01747500

LICENSE/REGISTRATION/CERTIFICATION #



DIRECTOR



CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

New Jersey Office of the Attorney General

Division of Consumer Affairs
State Board of Examiners of Heating, Ventilating,
Air Conditioning, and Refrigeration (HVACR) Contractors
124 Halsey Street, 6th Floor, Newark, NJ 07102

May 12, 2014



JOHN J. HOFFMAN
Acting Attorney General

STEVE C. LEE
Acting Director

PETER HATTON
35 Aberdeen Drive
Sicklerville NJ 08081

Mailing Address:
P.O. Box 47031
Newark, NJ 07101
973-504-6250

Dear PETER HATTON,

The State Board of Examiners of Heating, Ventilating, Air Conditioning and Refrigeration (HVACR) Contractors has approved your application for a Master HVACR license. You are qualified for licensure by grandfathering, pursuant to N.J.A.C. 13:32A- 2.6, Issuance of license to individuals engaged in the practice for two (2) years preceding the application.

Please review and submit the following items required for your HVACR license, pursuant to N.J.A.C. 13:32A- 2.4 Licensure and pressure seal:

- A **surety bond** in the sum of \$3,000;
- A **certificate of general liability insurance** from an insurance company authorized and licensed to do business in New Jersey in the amount of \$500,000 for combined property damage and bodily injury to or death of one or more persons in any one accident or occurrence or proof of self-insurance approved by the Department of Banking and Insurance, obtained by the applicant or the HVACR company or corporation, if the applicant will offer HVACR contracting services to the public, which includes instances when the applicant will act as a bona fide representative for a company or corporation;
- A **Federal Tax Identification number** for the HVACR business if the applicant will be engaging in the business of HVACR contracting, which includes instances when the applicant will act as a bona fide representative for a company or corporation;
- The **\$160.00 initial licensing fee** as set forth in N.J.A.C. 13:32A-6.1; and
- The **\$25.00 initial pressure seal fee** also set forth in N.J.A.C. 13:32A-6.1.
The pressure seal shall remain the property of the State and shall be returned to the Board as guided within the regulations.

Please forward all documents and fees to the State Board of Examiners of Master HVACR Contractors at P.O. Box 47031, Newark, NJ 07101. Should you require any additional assistance in meeting these requirements, you may contact the Board Office at 973-504-6250.

Very truly yours,
The State Board of Examiners of
HVACR Contractors

Rosemarie S. Baccile
Acting Executive Director

rb



CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

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Very truly yours,
The State Board of Examiners of
HVACR Contractors

Rosemarie S. Baccile
Acting Executive Director

rb

HUTCHINSON

Mechanical Services



DATE: _____

THIS PERMIT IS FOR THE FOLLOWING:

NAME Herbertville Elementary

ADDRESS 2282 Waverhill Rd

PLEASE USE THE SELF-ADDRESSED STAMPED ENVELOPE WHEN
MAILING THE APPROVED PERMIT TO ME.

THANK YOU FOR YOUR COOPERATION.

SINCERELY,

STEVE HASTINGS

(609)-868-1081



Predator

A/C Single Pkg. R410A

Date: 12/14/2009 Page: 3

Order No:

Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: ZJ037N07N2AAA5

Quantity: 1 Tag #:

System: ZJ037N07N2AAA5

Cooling Performance

Total capacity	37.0 MBH
Sensible capacity	26.8 MBH
Refrigerant type	R410A
Seasonal Efficiency (at ARI)	15.00 SEER
Efficiency (at ARI)	12.20 EER
Ambient DB temp.	95 °F
Entering DB temp.	80 °F
Entering WB temp.	67 °F
Leaving DB temp.	59.4 °F
Leaving WB temp.	57.3 °F
Power input (w/o blower)	2.46 kW
Sound power	77 dB(A)

Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	65 MBH
Heating input capacity (Max)	80 MBH
Leaving DB temp.	110.2 °F
Air temp. rise	50.2 °F
SSE	81.0 %
Stages	2

Supply Air Blower Performance

Supply air	1200 CFM
Ext. static pressure	0.6 IWG
Blower speed	784 RPM
Duct location	Bottom
Motor rating	1.50 HP
Actual required BHP	0.49 HP
Power input	0.45 kW
Elevation	0 ft.
Drive type	BELT

Electrical Data

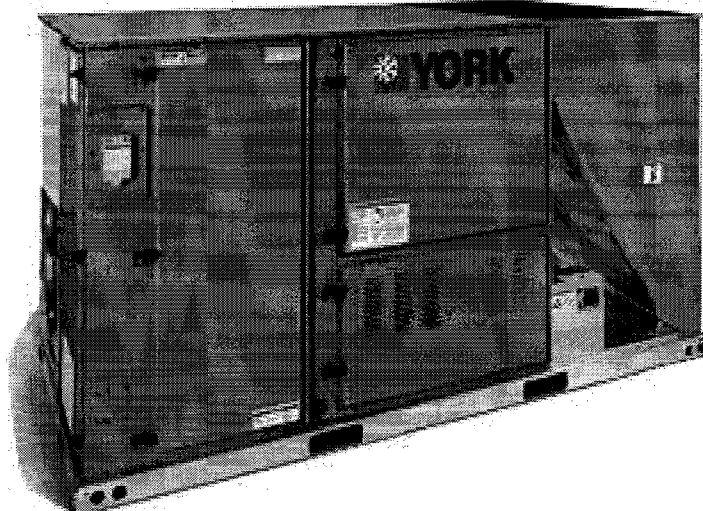
Power supply	230-3-60
Min circuit ampacity	18.40 Amps
Max over-current protection	25 Amps

Dimensions & Weight

Hgt	42 in.	Len	89 in.	Wth	59 in.
Weight with factory installed options	835 lbs.				

Clearances

Right	12 in.	Front	36 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.



3 Ton

- YORK Predator units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

STANDARD FEATURES

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Reciprocating Compressor
- Through-the-Curb and Through-The-Base electrical and gas connections
- Standard 2" throwaway filter
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels
- Full perimeter base rails with built in rigging capabilities
- Liquid line filter-driers
- Single point power connection
- Slide-out Condensate Drain Pan
- Slide-out Blower/ Motor Assembly
- Hinged Access Panels
- Microchannel aluminum tube/aluminum fin condenser

Standard Unit Controller: (Simplicity® Control Board)

- An integrated low-ambient control, anti-short cycle protection, lead-lag, fan on and fan off delays, low voltage protection, on-board diagnostic and fault code display
- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips

WARRANTY

- One (1) Year Limited Warranty on other parts
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized and Stainless Steel Tubular Heat Exchangers

**Predator**

A/C Single Pkg. R410A

Date: 12/14/2009 Page: 4

Order No.:

Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: ZJ037N07N2AAA5

Quantity: 1 Tag #:

System: ZJ037N07N2AAA5

Factory Installed Options**ZJ037N07N2AAA5**

Product Category:	Z	Single Packaged R-410A Air Conditioner
Product Identifier:	J	Ultra Efficiency
Nominal Cooling Capacity:	037	3 Ton
Heat Type and Nominal Heat Capacity:	N07	65 MBH Output Aluminized Steel, Gas Heat, Two Stage
Airflow:	N	High Static Motor
Voltage:	2	208/230-3-60
Installation Options:	A	
Additional Options:	AA	
Product Generation:	5	5th Generation



Predator A/C Single Pkg. R410A

Date: 12/14/2009 Page: 5

Order No:

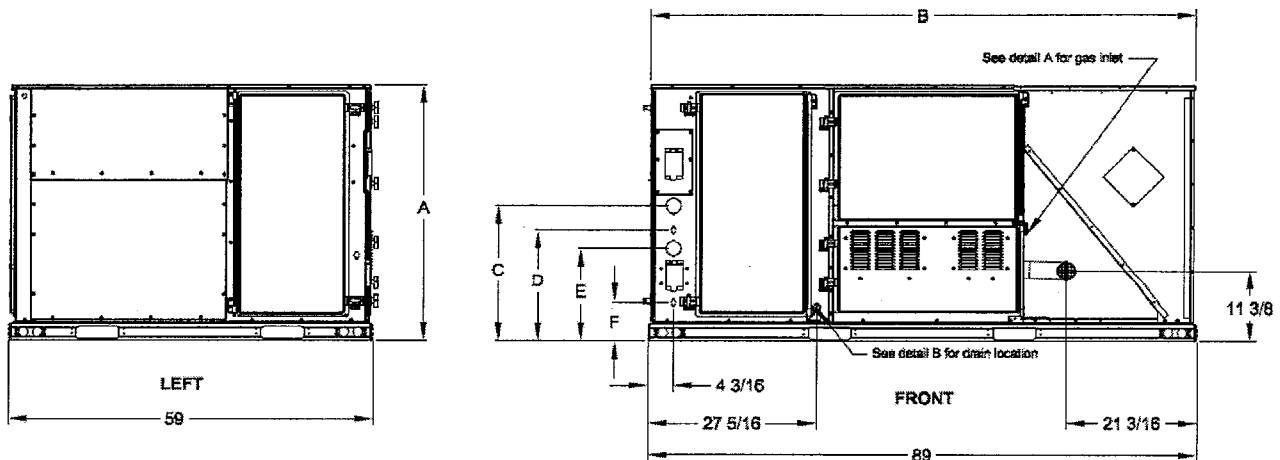
Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: ZJ037N07N2AAA5

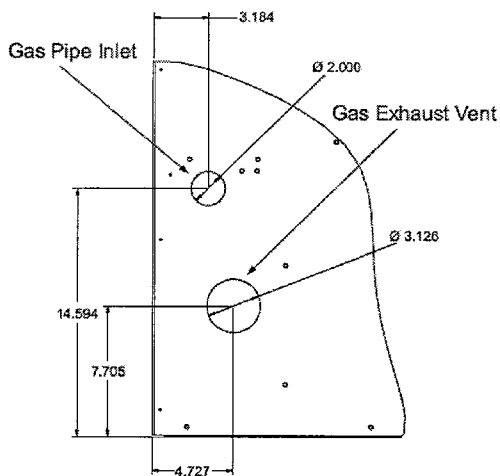
Quantity: 1 Tag #:

System: ZJ037N07N2AAA5

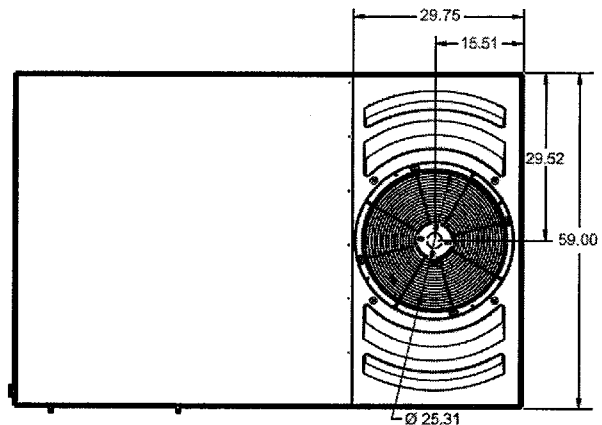
ZJ037 Unit Physical Dimensions



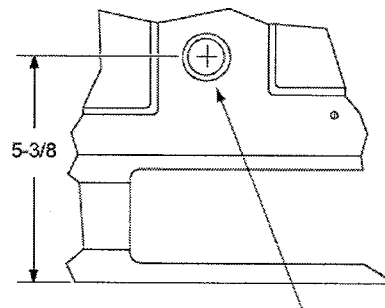
Detail A



42" CABINET



Detail B



ZH/ZJ037-150 Unit Physical Dimensions

Unit Model Number	Dimension (in.)					
	A	B	C	D	E	F
ZH037, 049, 061, 078, 090	42	89	22 1/8	18 3/16	15 3/16	6 3/16
ZH102, 120	50 3/4	89	30 3/16	24 3/16	17 3/16	6 3/16
ZH150	50 3/4	119 1/2	30 3/16	24 3/16	17 3/16	6 3/16
ZJ037, 049, 061	42	89	22 1/8	18 3/16	15 3/16	6 3/16
ZJ078, 090, 102, 120	50 3/4	89	30 3/16	24 3/16	17 3/16	6 3/16
ZJ150	50 3/4	119 1/2	30 3/16	24 3/16	17 3/16	6 3/16



Predator
A/C Single Pkg. R410A

Date: 12/14/2009 Page: 6

Order No:

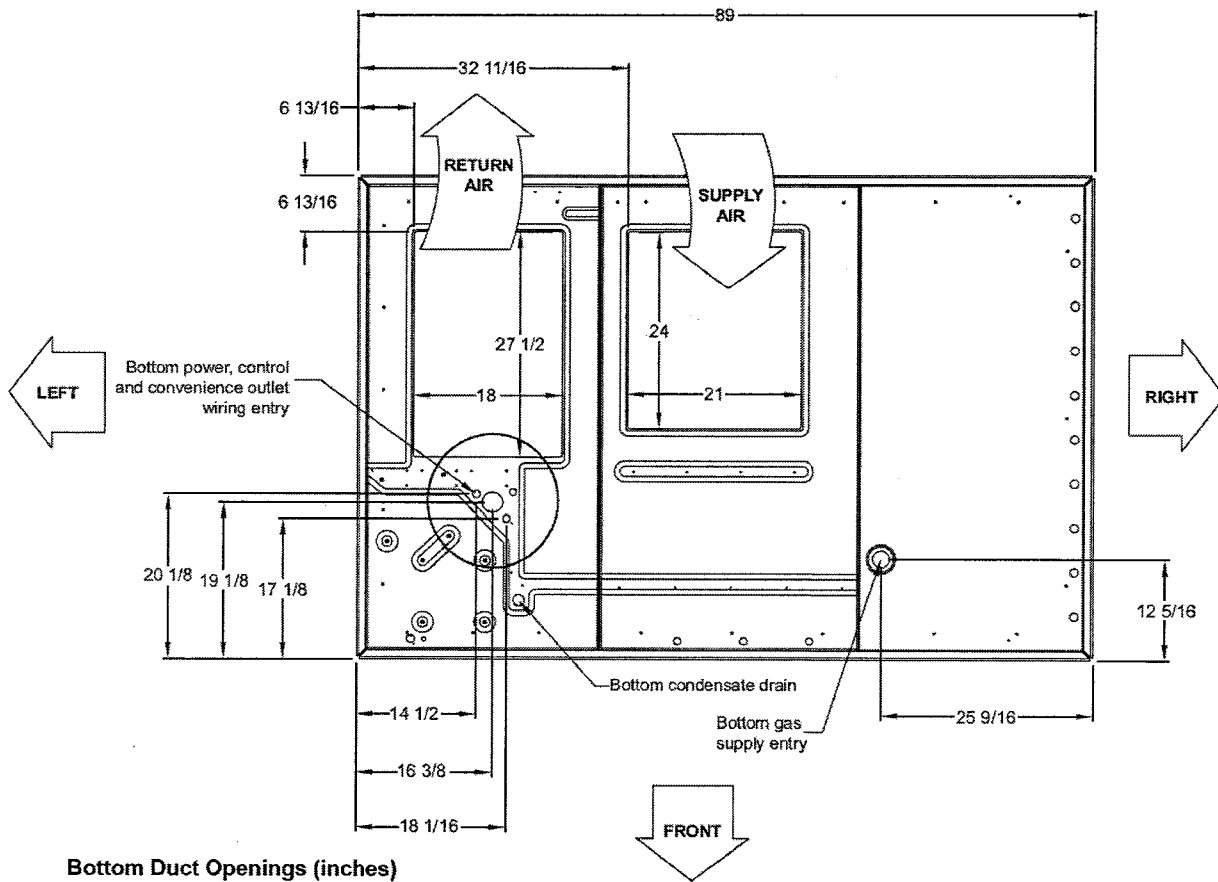
Project Name: **Direct Install**
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: **ZJ037N07N2AAA5**

Quantity: **1** Tag #:

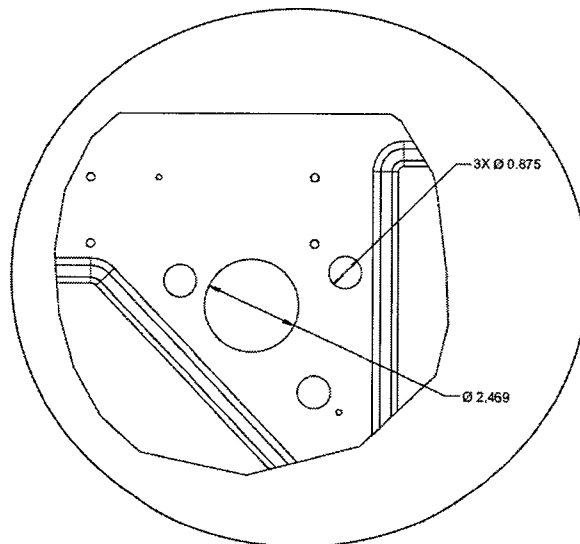
System: **ZJ037N07N2AAA5**

ZH/ZJ037-061 Bottom Duct Openings



Bottom Duct Openings (inches)

TOP VIEW





Large Sunline

ZJ - 10.4 to 12.0 EER Single Pkg. R-410A AC

Date: 12/14/2009 Page: 35

Order No:

Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: ZJ180N24A2AAA1

Quantity: 1 Tag #:

System: ZJ180N24A2AAA1

Cooling Performance

Total capacity	196.9 MBH
Sensible capacity	143.9 MBH
Refrigerant type	R410A
Efficiency (at ARI)	12.40 EER
Ambient DB temp.	95 °F
Entering DB temp.	80 °F
Entering WB temp.	67 °F
Leaving DB temp.	57.9 °F
Leaving WB temp.	56.6 °F
Part load efficiency	13.9 IPLV
Power input (w/o blower)	13.00 kW
Sound power	89 dB(A)

Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	240 MBH
Heating input capacity (Max)	300 MBH
Leaving DB temp.	97.0 °F
Air temp. rise	37.0 °F
SSE	80.0 %
Stages	2

Supply Air Blower Performance

Supply air	6000 CFM
Ext. static pressure	0.6 IWG
Blower speed	968 RPM
Duct location	Bottom
Motor rating	5.00 HP
Actual required BHP	3.95 HP
Power input	3.55 kW
Elevation	0 ft.
Drive type	BELT

Electrical Data

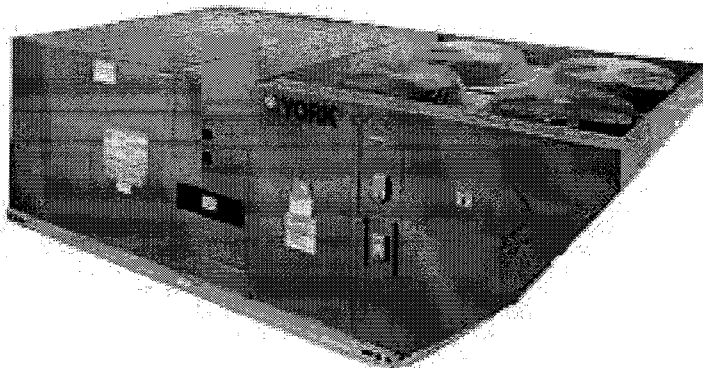
Power supply	230-3-60
Min circuit ampacity	85.30 Amps
Max over-current protection	90 Amps

Dimensions & Weight

Hgt	53 in.	Len	181 in.	Wth	92 in.
Weight with factory installed options			2809 lbs.		

Clearances

Right	36 in.	Front	36 in.	Back	24 in.
Top	72 in.	Bottom	0 in.	Left	24 in.



15 Ton

- York Sunline units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

STANDARD FEATURES

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards).
- Four independent refrigerant circuits for efficient part load operation
- Scroll Compressors
- Through-the-Curb and Through-The-Base electrical and gas connections
- Standard 2" throwaway filter
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities.
- Field installed 0 - 25% manual outside air damper shipped inside unit
- Liquid line filter-driers

Standard Unit Controller: (Simplicity® Control Board)

- An integrated low-ambient control, anti-short cycle protection, lead-lag, fan on and fan off delays, low voltage protection, on-board diagnostic and fault code display.
- Safety Monitoring - Monitors the high and low-pressure switches, the freestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.

WARRANTY

- One (1) Year Limited Warranty on the Complete Unit.
- Five (5) Year Warranty on Compressors and Electric Heater Elements
- Ten (10) Year Warranty on Aluminized and Stainless Steel Tubular Heat Exchangers



**YORK**

Large Sunline

ZJ - 10.4 to 12.0 EER Single Pkg. R-410A AC

Date: 12/14/2009 Page: 36

Order No:

Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

Model #: ZJ180N24A2AAA1

Quantity: 1 Tag #:

System: ZJ180N24A2AAA1

Factory Installed Options

ZJ180N24A2AAA1

Product Category:	Z	Single Packaged R-410A Air Conditioner
Product Identifier:	J	
Nominal Cooling Capacity:	180	15 Ton
Heat Type and Nominal Heat Capacity:	N24	240 MBH Output Aluminized Steel Gas Heat
Airflow:	A	Standard Motor
Voltage:	2	208/230-3-60
Installation Options:	A	
Additional Options:	AA	
Product Generation:	1	1st Generation



Large Sunline

ZJ - 10.4 to 12.0 EER Single Pkg. R-410A AC

Date: 12/14/2009 Page: 37

Order No: _____

Project Name: Direct Install
Purchaser: Hutchinson Mech
Submitter: Frank Fiore

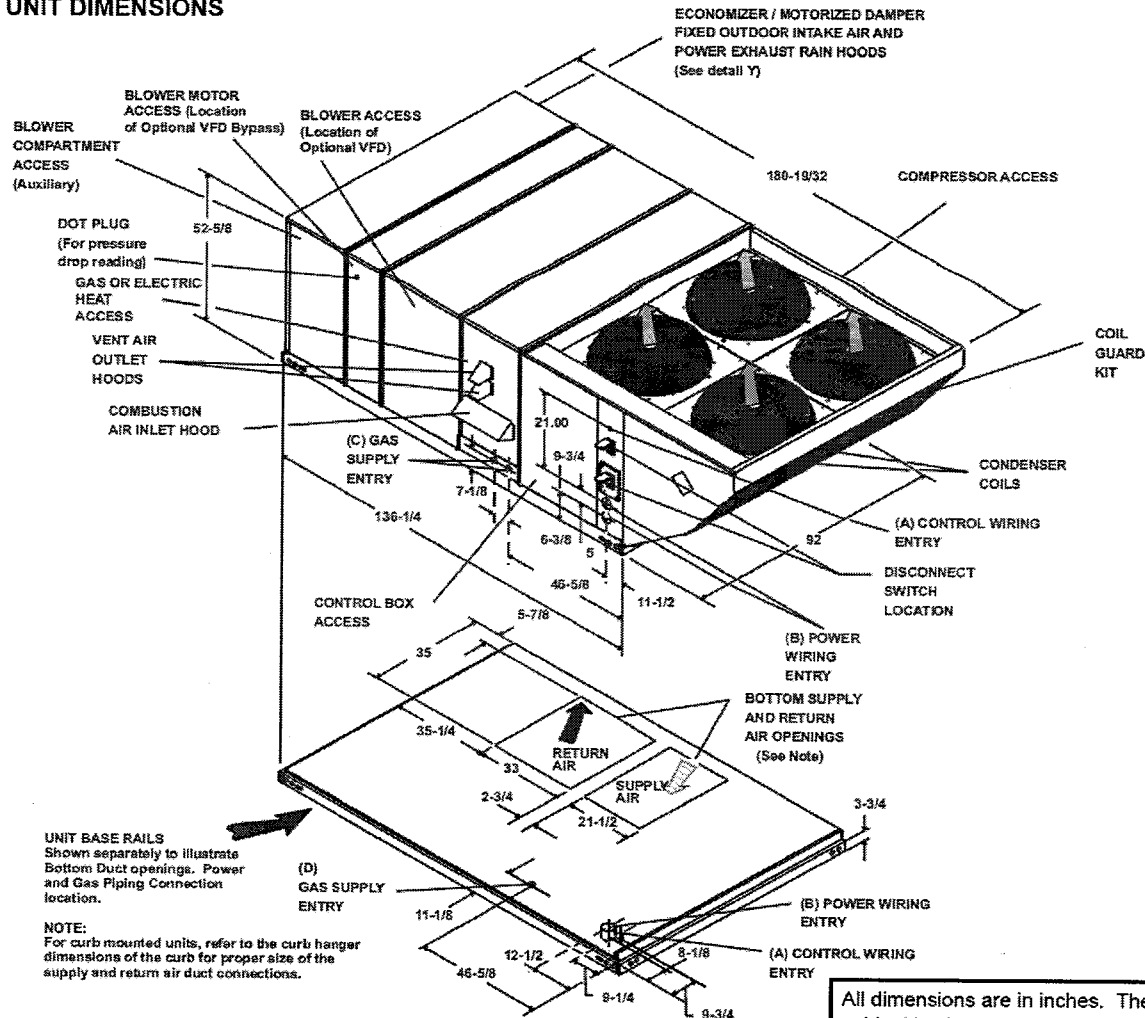
Model #: ZJ180N24A2AAA1

Quantity: 1 Tag #:

System: ZJ180N24A2AAA1

Unit Dimensions Front View and Utilities Entry

UNIT DIMENSIONS



UTILITIES ENTRY DATA

HOLE	OPENING SIZE (DIA.)	USED FOR
A	1-1/8" KO	Control Wiring
	3/4" NPS (Fem.)	Side
B	3-5/8" KO	Power Wiring
	3" NPS (Fem.)	Bottom
C	2-3/8" KO	Gas Piping (Front) ¹
D	1-11/16" Hole	Gas Piping (Bottom) ^{1, 2}

1. One-inch gas piping NPT required.

2. Opening in the bottom of the unit can be located by the slice in the insulation.

NOTE: All entry holes should be field sealed to prevent rain water entry into the building.

All dimensions are in inches. They are subject to change without notice. Certified dimensions will be provided upon request.