

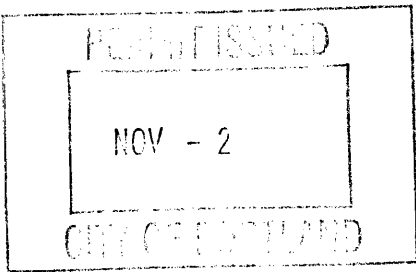
City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-1258	Issue Date:	CBL: 220 E001001
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Location of Construction: 1577 CONGRESS ST	Owner Name: 1577 CONGRESS STREET ASSO	Owner Address: PO BOX 7022	Phone:
Business Name:	Contractor Name: Johnson & Jordan	Contractor Address: 18 Mussey Road Scarborough	Phone 2078838345
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: RP

Past Use: Commercial	Proposed Use: Commercial - Trane Gas/Electric Rooftop unit <i>BP# 07-0347</i>	Permit Fee: \$2,120.00	Cost of Work: \$209,677.00	CEO District: 3
Proposed Project Description: Trane Gas/Electric Rooftop unit		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>B</i> Type: <i>SB</i> <i>IMC - 2003</i>	
		Signature: <i>Greg C...</i>	Signature: <i>DMB 11/2/07</i>	
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: Date:		

Permit Taken By: Idobson	Date Applied For: 10/09/2007	Zoning Approval		
<ol style="list-style-type: none">This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.Building permits do not include plumbing, septic or electrical work.Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..		Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <i>OK</i> Date: <i>10/15/07 JEM</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied <i>JEM</i> Date:
				

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

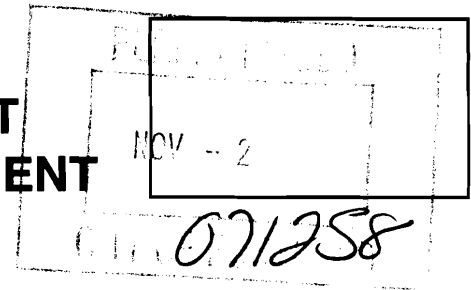
SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

\$ 209,677-



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 1577 Congress St 220-E-1 Use of Building MED OFFICE Date 10-
Name and address of owner of appliance TERENCE BEGON ARLEN DEVELOPMENT P.O. Box 7022
167-4473 SCARBOROUGH ME 04070
Installer's name and address JOHNSON AND JOHNSON MECHANICAL CONTRACTORS
18 MESSY RD SCARBOROUGH ME 04074 Telephone 207 883-8345

Location of appliance:

- ☐ Basement ☐ Floor
☐ Attic ☒ Roof

Type of Fuel:

- ☒ Gas ☐ Oil ☐ Solid

Appliance Name: TRANE HVAC-1, HVAC-2

U.L. Approved ☐ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☒ Yes ☐ No

IF NO Explain: _____

The Type of License of Installer:

- ☐ Master Plumber # _____
☐ Solid Fuel # _____
☐ Oil # _____
☒ Gas # PNT5046
☐ Other _____

Type of Chimney:

- ☐ Masonry Lined
Factory built _____
☐ Metal
Factory Built U.L. Listing # _____
☐ Direct Vent
Type _____ UL# _____

Type of Fuel Tank

- ☐ Oil
☐ Gas

Size of Tank _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 209,677.00

Permit Fee: \$ 2120

Approved

Fire: _____

Ele.: _____

Bldg.: _____

Approved with Conditions

- ☐ See attached letter or requirement

Signature of Installer

[Signature]

Inspector's Signature

GREGORY A. SMITH

Date Approved

White - Inspection

Yellow - File

Pink - Applicant's

Gold - Assessor's Copy

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-1258	Date Applied For: 10/09/2007	CBL: 220 E001001
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Business Name:	Contractor Name: Johnson & Jordan	Contractor Address: 18 Mussey Road Scarborough	Phone (207) 883-8345
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	

Proposed Use: Commercial - Trane Gas/Electric Rooftop unit, related to permit #07-0347	Proposed Project Description: Trane Gas/Electric Rooftop unit
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Dept: Zoning	Status: Approved	Reviewer: Ann Machado	Approval Date: 10/15/2007
Note:			Ok to Issue: <input checked="" type="checkbox"/>

Dept: Building	Status: Approved with Conditions	Reviewer: Jeanine Bourke	Approval Date: 11/02/2007
Note:			Ok to Issue: <input checked="" type="checkbox"/>

1) Refer to permit # 07-0347 for structural compliance

Dept: Fire	Status: Approved	Reviewer: Capt Greg Cass	Approval Date: 10/15/2007
Note:			Ok to Issue: <input checked="" type="checkbox"/>



TRANE

Submittal

Trane
A Division of American Standard Inc.

Prepared For: Greg Smith

Date: July 09, 2007

Customer P.O. Number:

Customer Project Number:

Sold To: Johnson & Jordan

Job Number:

Job Name:

J&J - Greg - Stroudwater Station

Trane is pleased to provide the enclosed submittal for your review and approval.

Product Summary

Qty	Product
2	Packaged Gas/Electric Rooftop Units

Dan Broderick
Trane
30 Thomas Drive
Westbrook, ME 04092-3824
Phone: (207) 828-1777
Fax: (207) 828-1511

The attached information describes the equipment we propose to furnish for this project, and is submitted for your approval.

Table Of Contents

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Packaged Gas/Electric Rooftop Units (Item A1)	
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Tag Data - Packaged Gas/Electric Rooftop Units (Qty: 2)

Item	Tag(s)	Qty	Description	Model Number
A1	HVAC-1, HVAC-2	2	15 Ton Packaged Unitary Gas/Elec	YFD181C3HC

Product Data - Packaged Gas/Electric Rooftop Units**Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2**

Gas/electric unit with special factory installed options (FIOPS)

Horizontal airflow

15 ton Nominal cooling capacity (High Efficiency)

208-230 Volt 60 Hertz 3 phase

High heat capacity

Oversized motor with downflow economizer

Powered exhaust (FId)

Thru the base electrical

Circuit breaker

Hinged access panels

Reference enthalpy

Trane communication interface

Economizer logic module

FIOPS 2 inch pleated filters

FIOPS options module

Frostat

Return air smoke detector

Mechanical Specifications - Packaged Gas/Electric Rooftop Units**Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2****General-Downflow Airflow**

Units will be dedicated downflow airflow. Operating range will be between 115 deg F [46.1 deg C] and 0 deg F [-17.8 deg C] cooling as standard from the factory. Cooling performance will be rated in accordance with ARI testing procedures. The unit will be factory assembled, internally wired, fully charged with R-22 and 100 percent run-tested before leaving the factory. Wiring internal to the unit will be colored and numbered for simplified identification. Units will be UL listed and label, classified in accordance to ANSI Z21.47 for gas fired central furnaces and UL 1995/CAN/CSA No. 236-M90 for central cooling air conditioners. Canadian units are CSA certified.

Casing-Downflow Unit

Unit casing is constructed of zinc coated, heavy gauge, galvanized steel. All components are mounted in a weather resistant steel cabinet with a painted exterior. Unit's surface will be tested 500 hours in a salt spray test in compliance with ASTM B117. Cabinet construction allows for all maintenance on one side of the unit. Service panels have lifting handles and are removed and reinstalled by removing one to three screws while providing a water and air tight seal. The indoor air section is complete with fire resistant, permanent, odorless glass fiber material. The base pan has no penetrations within the perimeter of the curb other than the raised 1 1/8" [28.6 mm] high supply/return openings to provide an added water integrity precaution should the condensate drain back up. The base of the unit has provisions for forklift and crane lifting.

Controls for 12 1/2-25 Ton Unit with Dual Compressors

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

12 1/2-25 Ton Unit with Dual Refrigerant Circuits

The two independent refrigerant circuits will have short orifice expansion devices, service pressure ports and refrigerant line filter driers as standard. An area will be provided for replacement suction line driers.

Evaporator and Condenser Coils for 12 1/2-25 Ton Units w/Dual Compressors

Internally finned 3/8" [9.53 mm] copper tubes mechanically bonded to configured aluminum plate fin are standard. Coils are leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil are leak tested to 200 psig [1379 kPa] and pressure tested to 450 psig [3192.8 kPa]. The evaporator coil is intermingled.

Indoor Fan and Motor for 12 1/2-25 Ton Unit

Unit will have an FC, centrifugal fan with a belt driven, adjustable sheave, thermally protected motor. The unit will have an adjustable idler arm assembly for quick adjustment of fan belts and motor sheaves.

Outdoor Fan for 12 1/2, 15-25 Ton Hi Efficiency Units

The outdoor fans will be direct-drive, statically and dynamically balanced, draw through in the vertical discharge position. The fan motors will be permanently lubricated and will have built in thermal overload protection.

Filters for 12 1/2-25 Ton Units

2" [50.80 mm], throwaway filters will be standard.

High Gas Heat Capacity for 12 1/2-25 Ton Unit

The unit will have a two stage, high heat option. The heating section will have a drum and tube heat exchanger design using corrosion resistant steel components. A forced combustion blower will supply premixed fuel to a single burner ignited by a pilotless hot surface ignition system. In order to provide reliable operation, a negative pressure gas valve will be used that requires blower operation to initiate gas flow. On an initial call for heat, the combustion blower will purge the heat exchanger 45 seconds before ignition. After three unsuccessful ignition attempts, the entire heating system will be locked out until manually reset at the thermostat. Units will be suitable for use with natural gas as standard or converted for use with propane (field installed kit) and also comply with California requirements for low NOx emissions.

Downflow Economizer-Factory Installed

This accessory will be 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 economizer arrives in the shipping position and will be moved to the operating position by the installing contractor.

Oversized Motor-Factory Installed

Factory installed oversized motor for high static application.

Powered Exhaust Kit

The field installed powered exhaust will assist the barometric relief damper in the economizer in relieving building pressurization.

Through the Base Electrical with Circuit Breaker

Factory installed thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections will be included. The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door.

Factory wiring will be provided from the switch to the unit high voltage terminal block. The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/CSA. This option is mutually exclusive with the disconnect switch.

Hinged Access Doors

Sheet metal hinges will be factory installed on the Filter/Evaporator Access Door and the Compressor/Control Access Door.

Reference Enthalpy-Factory Installed

This option will be factory installed to measure and communicate outdoor humidity. The unit will receive and use this information to provide improved comfort cooling while using the economizer.

Trane Communications Interface Kit

A factory installed Trane Communication Interface will be included to allow twisted wire pair communication with an Integrated Comfort System.

FLOPS Return/Supply Air Smoke Detector

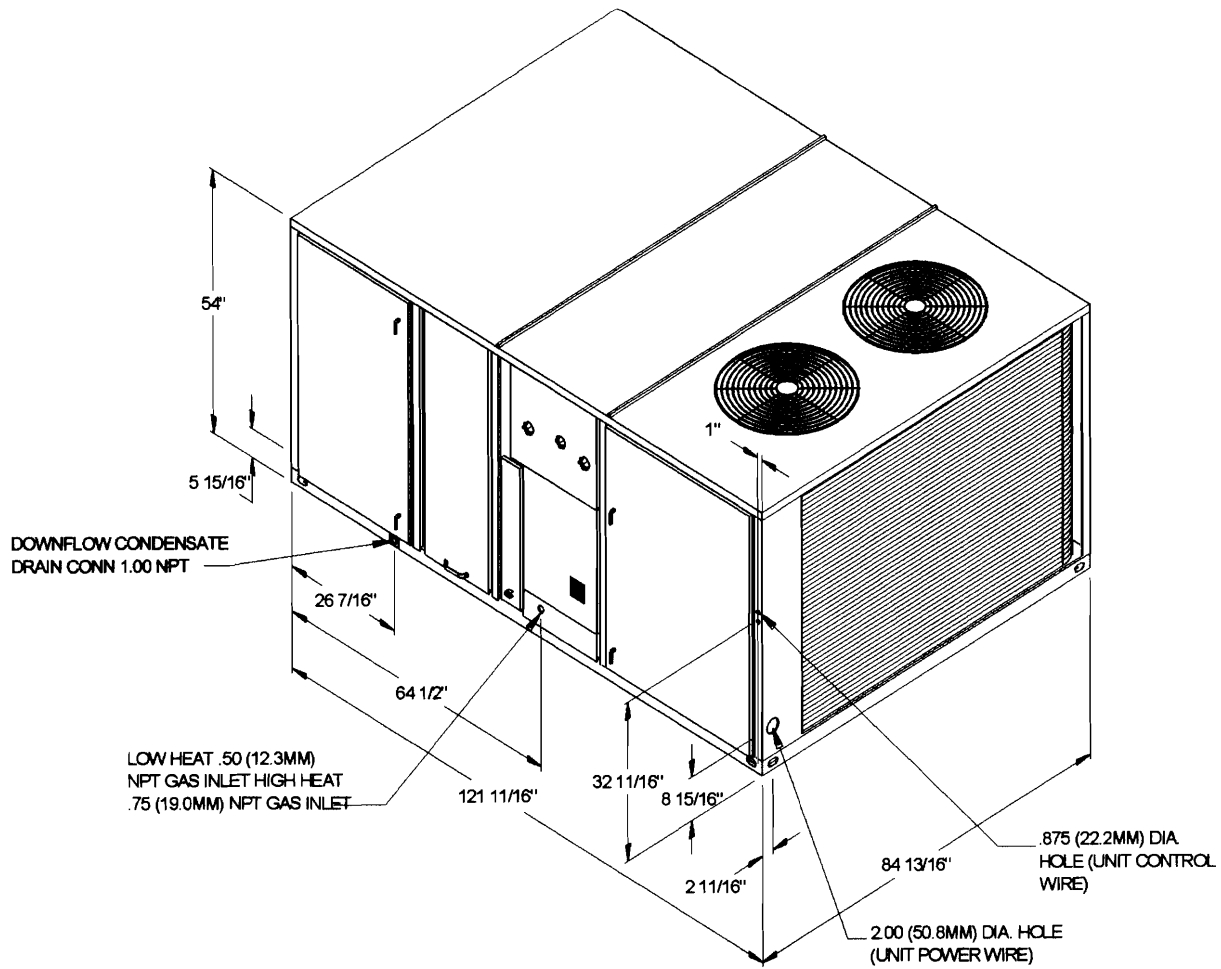
Smoke Detector shall be factory installed photoelectric smoke detector mounted in the return air section (with or without the economizer or motorized damper option), AND/OR in the supply air fan compartment. The detector will be wired for continuous power whenever the unit is energized. Upon detection of smoke, the detector will shut down all unit operations. Local codes may dictate the location of detectors. Can also be used with field-installed manual or motorized fresh air dampers. If an economizer is to be field-installed, modifications will be required to the smoke detector for installation.

NOTE: Due to the shipping position of the economizer or motorized damper, the Return Air smoke detector will not be completely factory installed. The wiring harness for the detector will be routed and tied off in the fan compartment for shipping. The smoke detector and barometric damper hood (downflow units) will also be installed in a shipping position in the fan compartment. Once the economizer is positioned and secured, the smoke detector installation can be completed per the FLOPS Installers Guide provided with the unit.

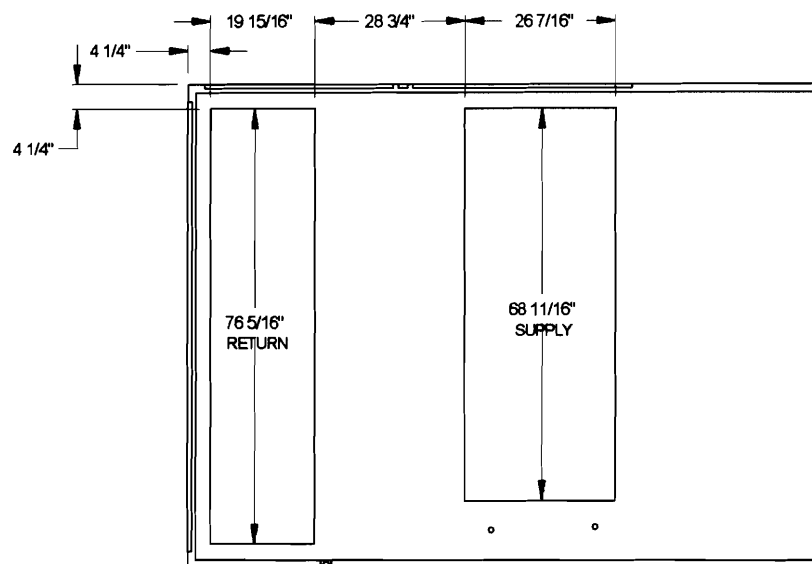
NOTICE: The return air smoke detector may not fit up or work properly on packaged unitary gas/electric rooftop units when used in conjunction with 3rd party accessories (such as bolt on heat wheels, economizers and power exhaust). Do not order the return air smoke detector when using this type of accessory.

Unit Dimensions - Packaged Gas/Electric Rooftop Units

Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2



DOWNFLOW ISOMETRIC-PACKAGED GAS / ELECTRIC



DOWNFLOW-PENETRATION

Unit Dimensions - Packaged Gas/Electric Rooftop Units
Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2

ELECTRICAL / GENERAL DATA

GENERAL PERFORMANCE			
Tons:	15	Standard Motor	
Unit Operating Voltage Range:	187-253	Minimum Circuit Ampacity:	74.0
Unit Primary Voltage:	208	Maximum Fuse Size:	90.0
Unit Secondary Voltage:	230	Maximum (HACR) Circuit Breaker:	90.0
Unit Hertz:	60	Oversized Motor	
Unit Phase:	3	MCA:	80.0
EER:	11.5	MFS:	80.0
		MCB (HACR):	100.0
		Field Installed Oversized Motor	
		MCA:	N/A
		MFS:	N/A
		MCB (HACR):	N/A

GAS HEATING			
Heating Models:	High		
Heating Input (Btu/h):	350,000	1st Stage Input:	250,000
Heating Output (Btu/h):	284,000	1st Stage Output:	203,000
Min./Max. Gas Input - Pressure Natural or LP:	2.50 / 14.00		
Gas Connection Pipe Size:	3/4"		

COMPRESSOR			
		Circuit #1	Circuit #2
Number:	1		1
Horsepower:	9.3		4.5
Phase:	3		3
Rated Load Amps:	31.5		16.9
Locked Rotor Amps:	253.0		124

INDOOR MOTOR			
		Field Installed Oversized Motor	
Number:	1	Number:	N/A
Horsepower:	5.0	Hp:	N/A
Motor Speed (RPM):	3,450	Motor Speed (RPM):	N/A
Phase:	3	Phase:	N/A
Full Load Amps:	16.7	FLA:	N/A
Locked Rotor Amps:	109.8	LRA:	N/A

OUTDOOR MOTOR			
Number:	2		
Horsepower:	.50		
Motor speed (RPM):	1,100		
Phase:	1		
Full Load Amps:	3.2		
Locked Rotor Amps:	8.8		

POWER EXHAUST (Field Installed Power Exhaust)			
Horsepower:	.75		
Motor Speed (RPM):	1,040		
Phase:	1		
Full Load Amps:	6.6		
Locked Rotor Amps:	13.5		

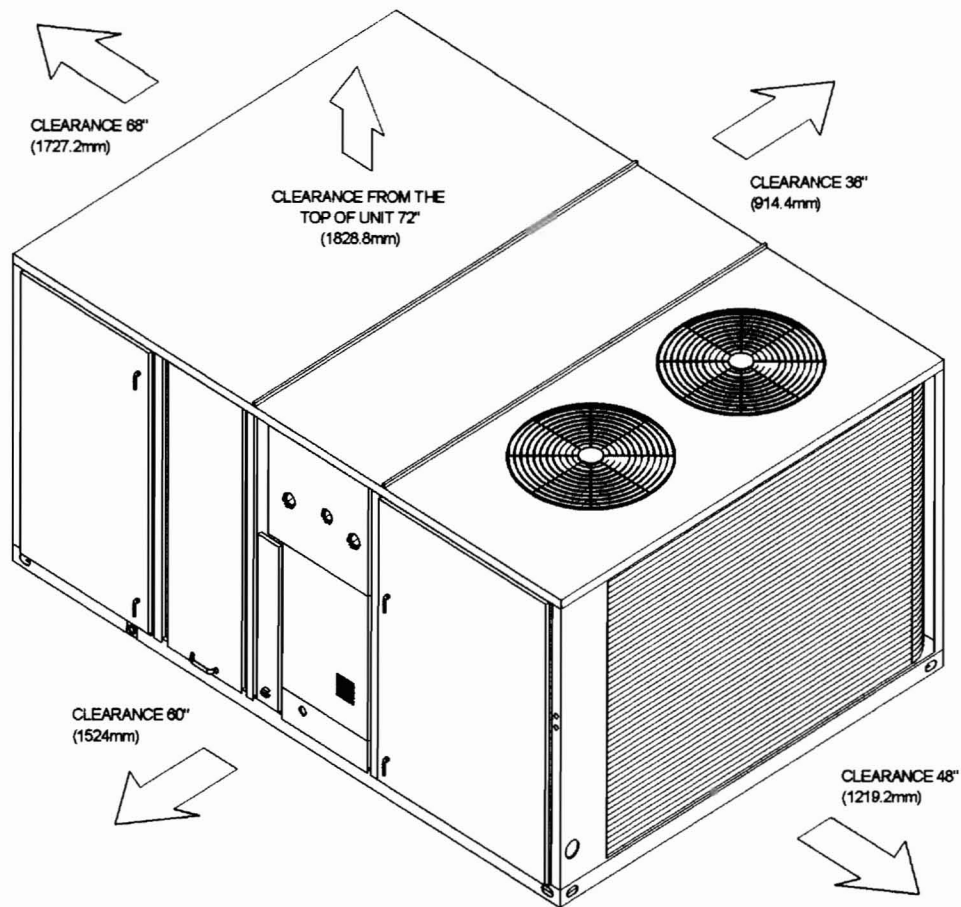
COMBUSTION BLOWER MOTOR (Gas-Fired Heating only)			
Horsepower:	.10		
Motor Speed (RPM):	2,800		
Phase:	1		
Full Load Amps:	.80		
Locked Rotor Amps:	2.0		

FILTER			
Type:	Throwaway		
Furnished:	Yes		
Number:	4 / 4		
Recommended Size:	20"x20"x2" / 20"x25"x2"		

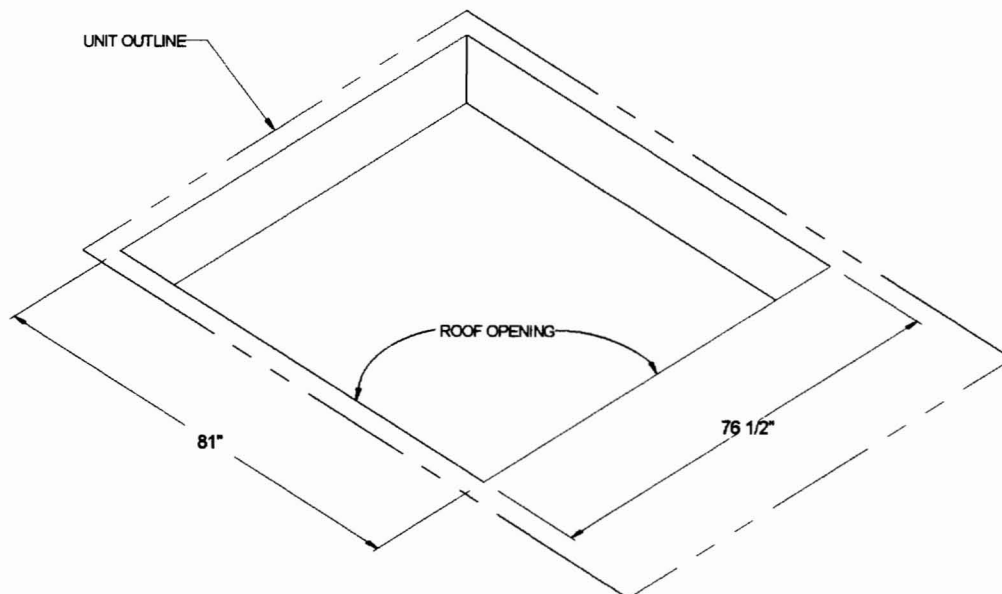
REFRIGERANT			
		Circuit #1	Circuit #2
Type:	R-22		R-22
Factory Charge:	25.0		13.0

NOTES:

- Maximum (HACR) Circuit Breaker sizing is for installations in the United States only.
- Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
- Value does not include Power Exhaust Accessory.
- Value includes oversized motor.
- Value does not include Power Exhaust Accessory.
- EER is rated at ARI conditions and in accordance with DOE test procedures.

Weight, Clearance & Rigging Diagram - Packaged Gas/Electric Rooftop Units
Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2

DOWNFLOW-PACKAGED GAS/ELECTRIC CLEARANCE



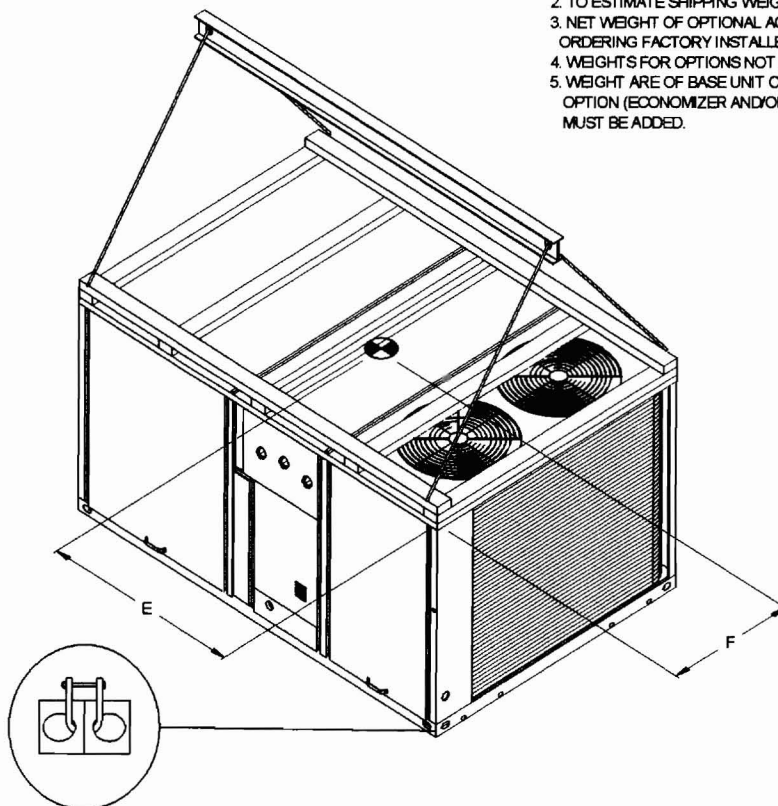
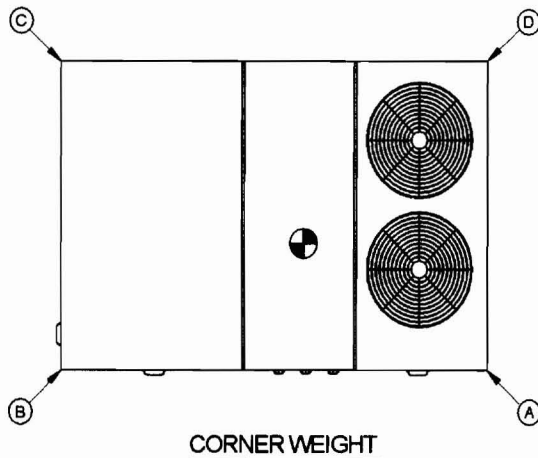
DOWNFLOW-PACKAGED GAS/ELECTRIC ROOF OPENING CLEARANCE

Weight, Clearance & Rigging Diagram - Packaged Gas/Electric Rooftop Units**Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2****INSTALLED OPTIONS NET WEIGHT DATA**

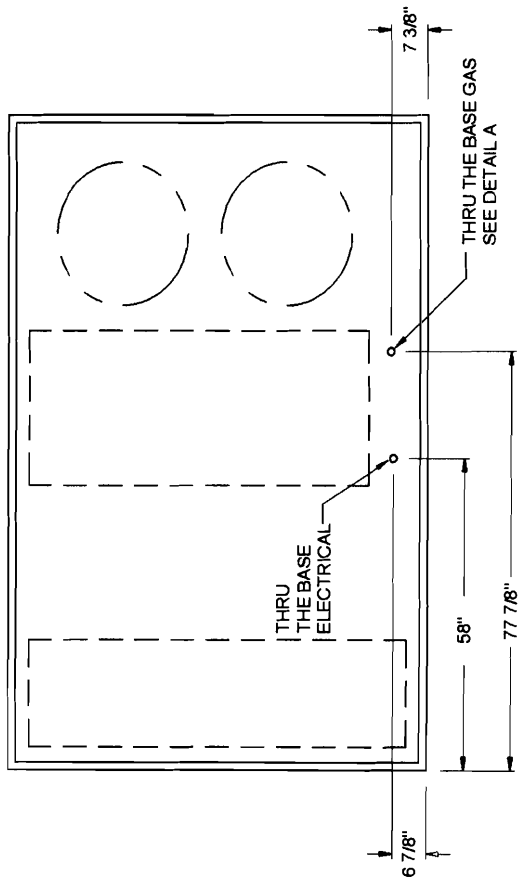
Accessory	Accessory						
Economizer	80.0 lb						
Motorized Outside Air Damper							
Manual Outside air Damper							
Oversized Motor	5.0 lb						
High Efficiency Motor							
High Static Drive							
Thru the Base Electrical	23.0 lb						
Unit Mounted Circuit Breaker	10.0 lb						
Unit Mounted Disconnect							
Power Exhaust	95.0 lb						
Hinged Doors	27.0 lb						
Zone Sensor							
LPG Conversion Kit							
Powered Convenience Outlet							
Roof Curb							
BASE UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITY	
SHIPPING	NET	(A)	(B)	(C)	(D)	E	F
2484.0 lb	2005.0 lb	688.0 lb	504.0 lb	345.0 lb	470.0 lb	52"	35"

NOTE:

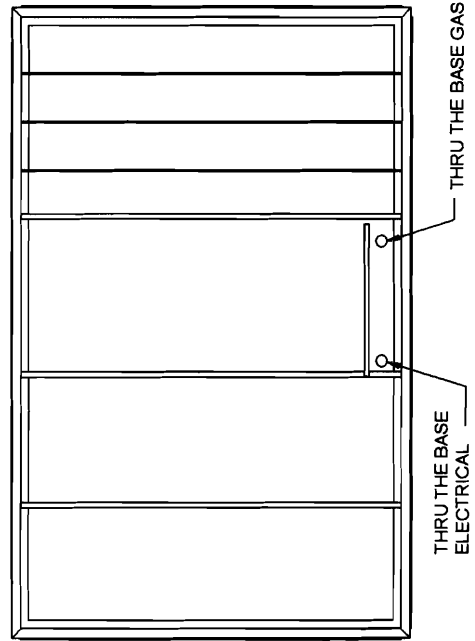
1. CORNER WEIGHTS ARE GIVEN FOR INFORMATION ONLY.
2. TO ESTIMATE SHIPPING WEIGHT OF OPTION/ACCESSORIES ADD 5 LBS TO NET WEIGHT.
3. NET WEIGHT OF OPTIONAL ACCESSORIES SHOULD BE ADD TO UNIT WEIGHT WHEN ORDERING FACTORY INSTALLED ACCESSORIES.
4. WEIGHTS FOR OPTIONS NOT LISTED ARE < 5 LBS.
5. WEIGHT ARE OF BASE UNIT ONLY. FOR TOTAL WEIGHT, 10 DIGIT FACTORY INSTALLED OPTION (ECONOMIZER AND/OR OVERSIZED MOTOR OR FLOP/ACCESSORY WEIGHT MUST BE ADDED).



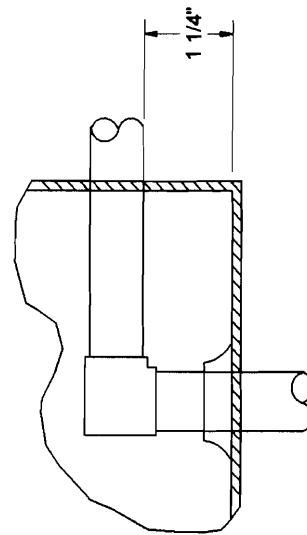
Accessory - Packaged Gas/Electric Rooftop Units
Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2



ACCESSORY-THRU THE BASE ELECTRICAL AND GAS



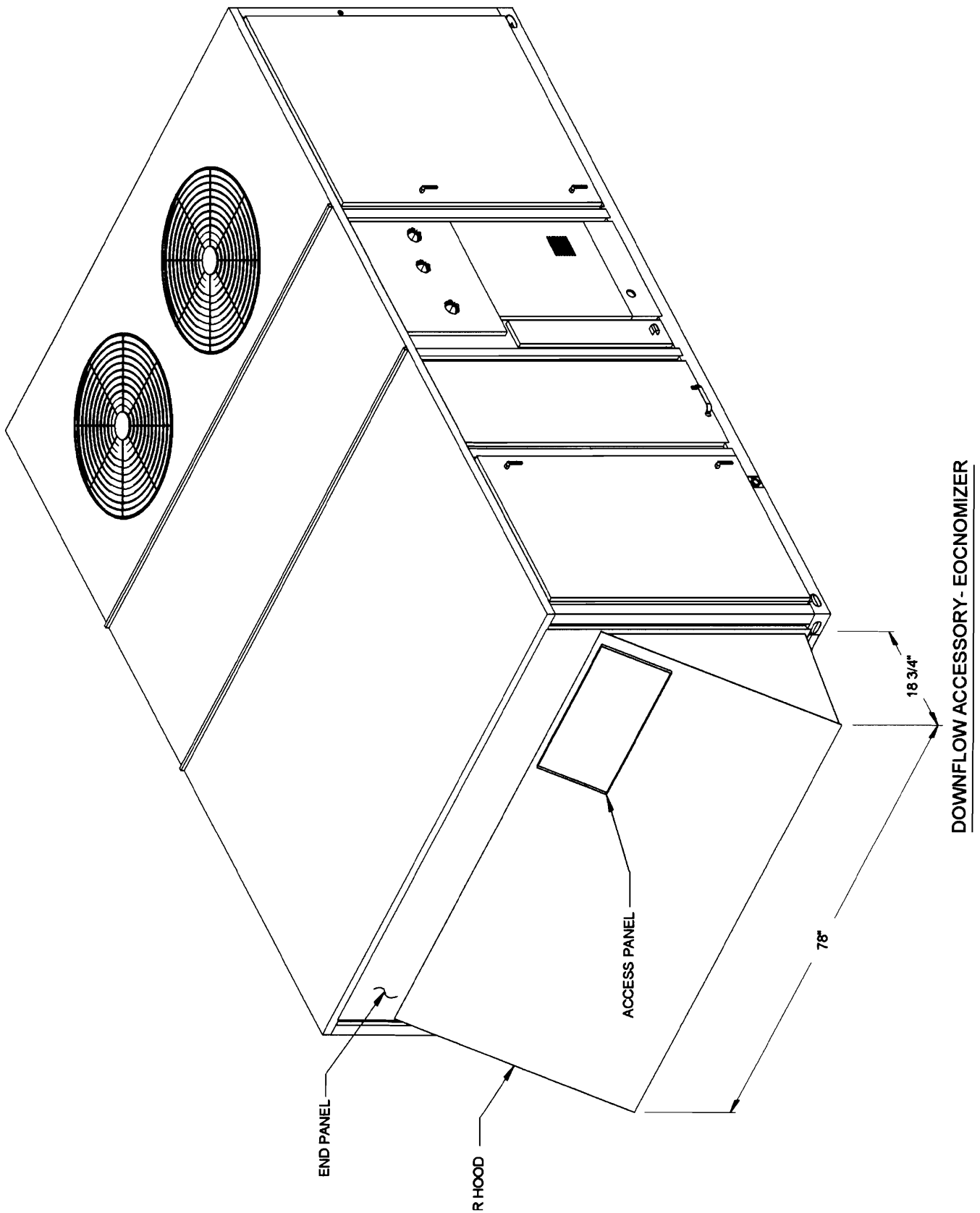
ACCESSORY-THRU THE ROOF CURB ELECTRICAL AND GAS



DETAIL A

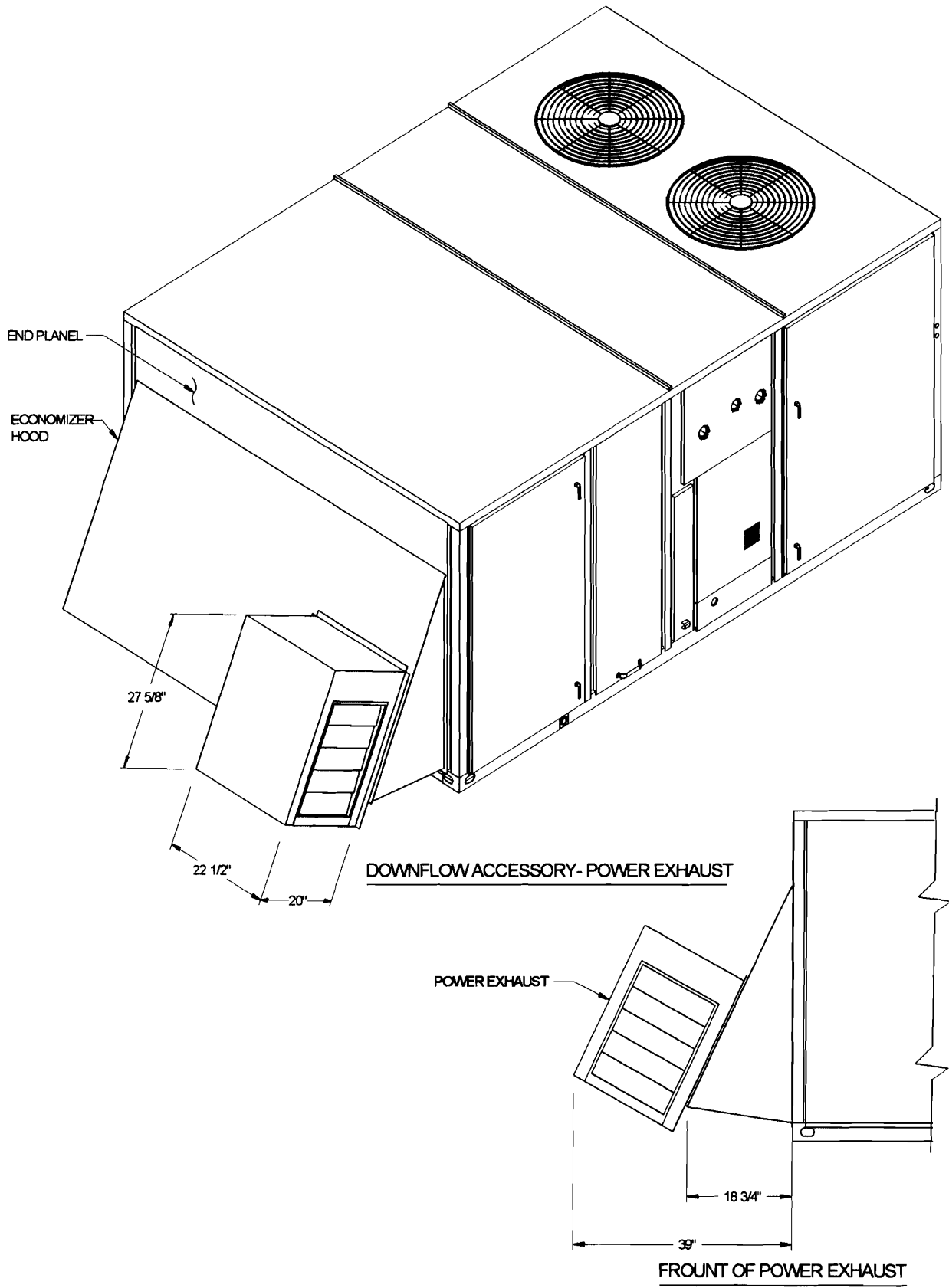
Accessory - Packaged Gas/Electric Rooftop Units

Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2

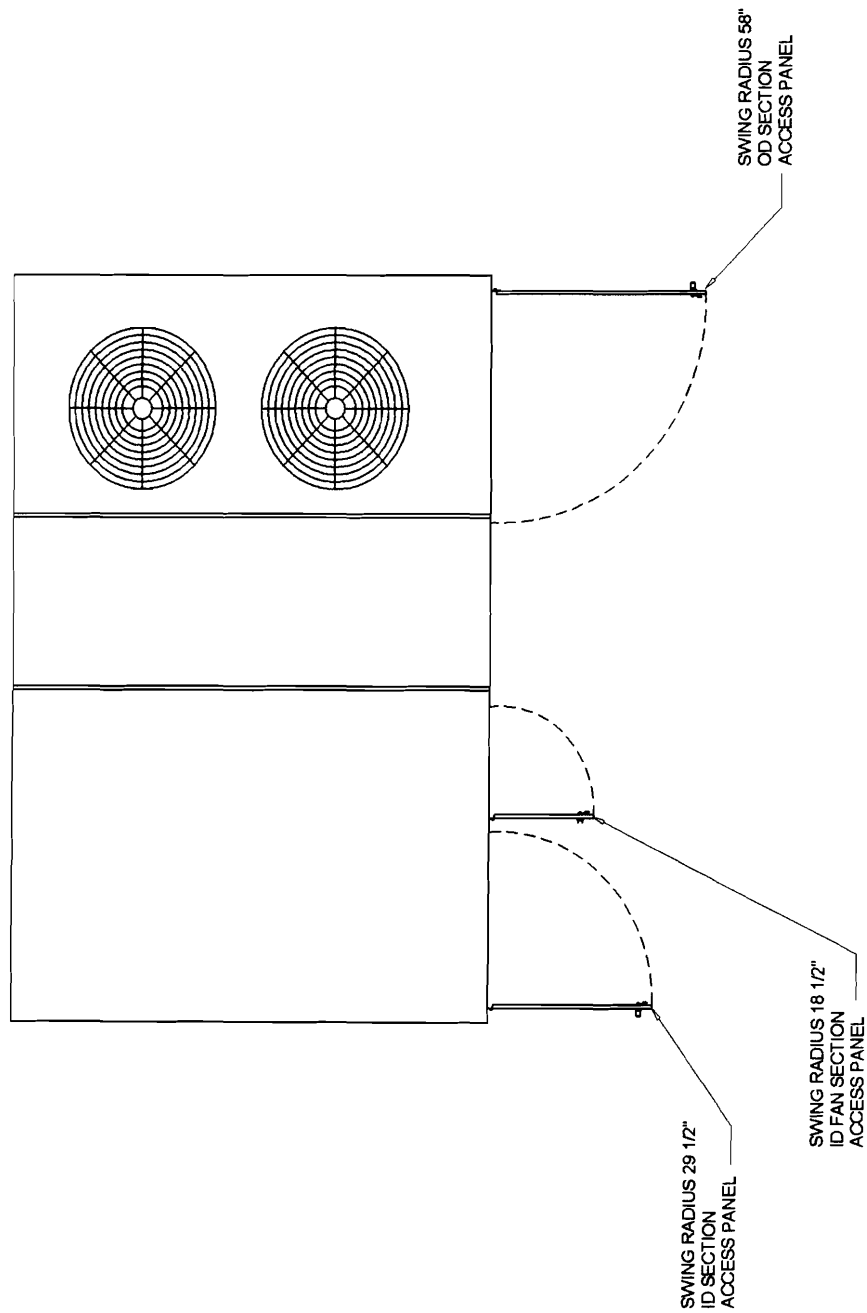


Accessory - Packaged Gas/Electric Rooftop Units

Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2



Accessory - Packaged Gas/Electric Rooftop Units
Item: A1 Qty: 2 Tag(s): HVAC-1, HVAC-2



ACCESSORY-HINGGING ACCESS DOORS

Field Installed Options - Part/Order Number Summary

This is a report to help you locate field installed options that arrive at the jobsite. This report provides part or order numbers for each field installed option, and references it to a specific product tag. It is NOT intended as a bill of material for the job.

Product Family - Packaged Gas/Electric Rooftop Units

Item	Tag(s)	Qty	Description	Model Number
A1	HVAC-1, HVAC-2	2	15 Ton Packaged Unitary Gas/Elec	YFD181C3HC

Field Installed Option Description	Part/Ordering Number
Powered exhaust	BAYPWRX029A