



Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/12/14



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Jeff Levine, AICP, Director
Director of Planning and Urban Development

Tammy Munson
Director, Inspections Division

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no permit application can be reviewed until payment of appropriate permit fees are **paid in full** to the Inspections Office, City of Portland Maine by method noted below:

Within 24-48 hours, upon receipt of an e-mailed invoice from Building Inspections, which signifies that my electronic permit application and corresponding paperwork have been received, determined complete, entered by an administrative representative, and assigned a permit number, I then have the following four (4) payment options:

- to provide an on-line electronic check or credit/debit card (we now accept American Express, Discover, VISA, and MasterCard) payment (along with applicable fees beginning July 1, 2014),
- call the Inspections Office at (207) 874-8703 and speak to an administrative representative to provide a credit/debit card payment over the phone,
- hand-deliver a payment method to the Inspections Office, Room 315, Portland City Hall,
- or deliver a payment method through the U.S. Postal Service, at the following address:

City of Portland
Inspections Division
389 Congress Street, Room 315
Portland, Maine 04101

Once my payment has been received, this then starts the review process of my permit. **After all approvals have been met and completed, I will then be issued my permit via e-mail.** No work shall be started until I have received my permit.

Applicant Signature: Paul B. [Signature] Date: 11/10/2014

I have provided digital copies and sent them on: _____ Date: _____

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means ie; a thumb drive or CD to the office.

Room 315 - 389 Congress Street- Portland, Maine 04101 (207) 874-8703 - Fax: 874-8716 - TTY: 874-8936



FILL IN AND SIGN WITH INK



Reviewed for Code Compliance

Inspections Division

Approved with Conditions

Date: 12/12/14

Application for Heating, Ventilation, Air Condition (HVAC) Cooking or Power Equipment

To the Inspector of Buildings, Portland Maine:

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

Address/CBL: 1041 Brighton Ave Use of Building: Castle Nail's Unit Date: 11/10/2014

Name and Address of Owner: 1041 Brighton Ave, LLC One Canal Plaza Portland, Maine 04101

Phone Number Owner: 207-871-1290 E-Mail: Owner: gmckellar@boulos.com

Name and Address of Installer: Patriot Mechanical 59 Sanford Drive Suite #5

Phone Number Installer: 207-839-9500 E-Mail: Installer: paul@patriotmechanicalmaine.com

Location of Appliance:

- Basement Floor
- Attic Roof

Type of Fuel:

- Gas Oil Solid

Appliance Name: 4 Ton York Package Unit

UL Approved: Yes No

Will appliance be installed in accordance with the manufacturer's installation instructions? Yes No

Type of License of Installer:

Master Plumber #: _____

Solid Fuel #: _____

Oil #: _____

Gas #: Lic# PNT2353

Other: _____

Type of Venting: (Plan required for submittal)

- Masonry Lined
- Factory Built: _____
- Metal
- Factory Built UL Listing: _____
- Direct Vent
- Type: Side Vent on unit UL #: _____

of Tanks: _____

Type of Fuel Tank:

- Gas Oil

Size of Tank: Piped in Natural Gas

Distance from tank to center of flame: _____

Cost of Work: \$ 4,790.00

Permit Fee: \$ 69.00

Signature of Installer:

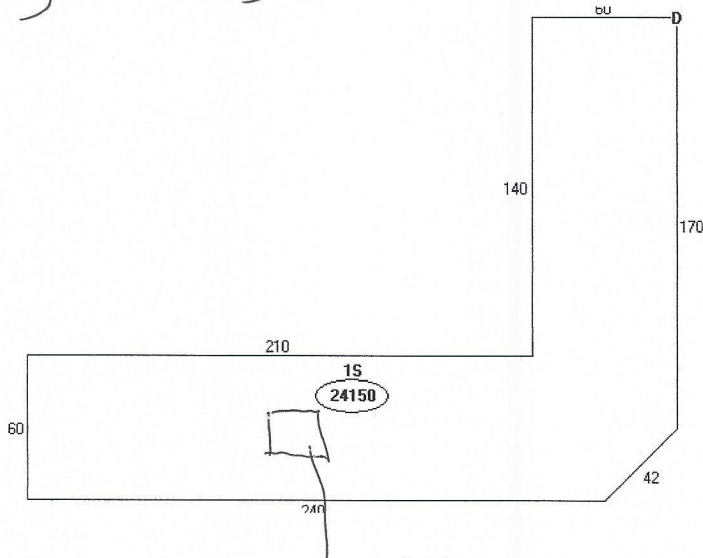
E-Mail: paul@patriotmechanicalmaine.com

Replacing Existing unit



Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 12/12/14



Descriptor/Area
A: 034
24150 sqft
B: STORE FRONT/AV MET F
sqft
C: 15
24150 sqft
D: PA1
55000 sqft

york 4 ton
package unit
Castle Nails



Reviewed for Code Compliance
Inspection Division
Approved with Conditions
Date: 12/12/14

Date: _____

SUBMITTAL DATA

For: Approval

Order #: _____ **Date:** 11/10/2014
Project: PATRIOT CASTLE NAILS
Project #: _____
Location: _____

Date

11/10/2014

Project Name

PATRIOT CASTLE NAILS

Project Number**Client / Purchaser**

Reviewed for Code Compliance
 Inspections Division
 Approved with Conditions
 Date: 12/12/14

Submittal Summary Page

Qty	Tag #	Model #	Description
1		ZF048N10N2AAA2	4 Ton, York Sunline Single Packaged R-410A Air Conditioner, 13.0 SEER / 11.0 EER, Single Stage Cooling, 100 MBH Output Aluminized Steel, Single Stage Gas Heat, 1.5 HP Standard Static Belt Drive Blower, 1" Throwaway Filters, 208/230-3-60, Microchannel Condenser Coil, Galvanized Steel Drain Pan
1		2EE04703724	Single Enthalpy Economizer (Downflow or Horizontal Unit) with Hood Kit
1		1RD0410	Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted)

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

Project Name: **PATRIOT CASTLE NAILS**

Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

No Performance Data Available

Run Performance to view metrics



4 Ton

- York 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
- Reciprocating Compressor
- Single Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 100 MBH Output Aluminized Steel, Single Stage Gas Nominal Heat
- 1.5 HP Standard Static Belt Drive Blower
- Unit Ships with 1" Throwaway Filters with a Standard Filter Rack That Will Accept up to 2" Filters
- Single Point Power Connection
- 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.
- 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 the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers



Small Sunline
Single Package R-410A Air Conditioner



Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/12/14

Project Name: **PATRIOT CASTLE NAILS**

Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

Factory Installed Options

ZF048N10N2AAA2

Product Category:	Z	York Sunline Single Packaged R-410A Air Conditioner
Product Identifier:	F	13.0 SEER / 11.0 EER
Nominal Cooling Capacity:	048	4 Ton Single Stage Cooling
Heat Type and Nominal Heat Capacity:	N10	100 MBH Output Aluminized Steel, Single Stage Gas Heat
Airflow:	N	1.5 HP Standard Static Belt Drive Blower 1" Throwaway Filters
Voltage:	2	208/230-3-60
Installation Options:	A	
Additional Options:	AA	Microchannel Condenser Coil Galvanized Steel Drain Pan
Product Generation:	2	

Field Installed Accessories

- 2EE04703724 - Single Enthalpy Economizer (Downflow or Horizontal Unit) with Hood Kit (50.0 lbs)
- 1RD0410 - Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted) (6.0 lbs)



Small Sunline

Single Package R-410A Air Conditioner



Reviewed for Code Compliance
Inspectors Division
Approved with Conditions

Project Name: **PATRIOT CASTLE NAILS**

Unit Model #:

Quantity: **1**

Date: **12/12/14**

System:

Consolidated Drawing

NOTES:

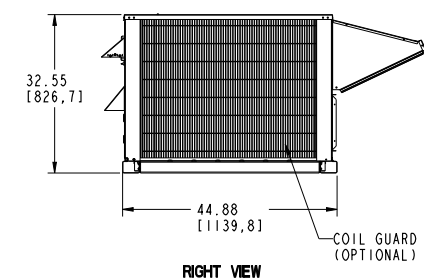
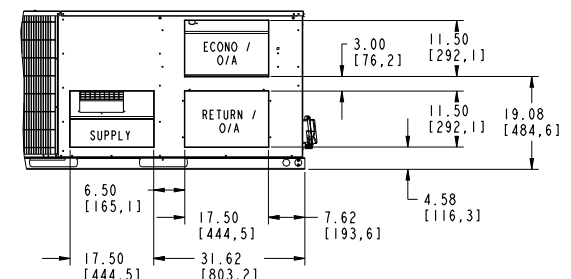
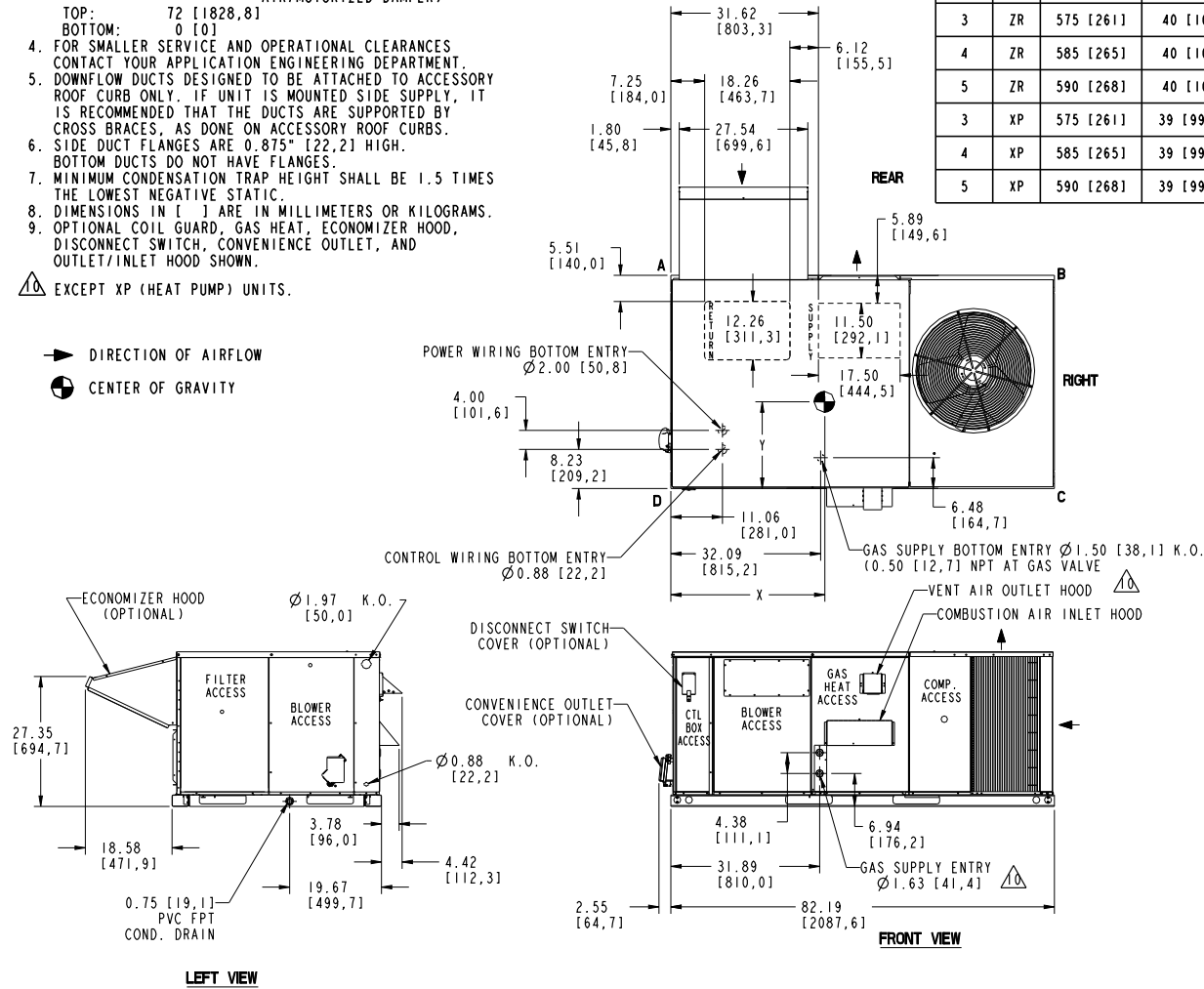
- FOR OUTDOOR USE ONLY.
- WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
- MIN. CLEARANCES TO BE:
RIGHT SIDE: 24 [609,6]
LEFT SIDE: 24 [609,6] (LESS ECONOMIZER)
FRONT: 36 [914,4] (WITH ECONOMIZER)
FRONT: 24 [609,6] (COOLING/ELECTRIC HEAT)
FRONT: 32 [812,8] (GAS HEAT)
REAR: 12 [304,8] (LESS ECONOMIZER)
REAR: 36 [914,4] (WITH ECONOMIZER OR FIXED AIR/MOTORIZED DAMPER)
TOP: 72 [1828,8]
BOTTOM: 0 [0]
- 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.
- SIDE DUCT FLANGES ARE 0.875" [22,2] HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
- MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
- DIMENSIONS IN () ARE IN MILLIMETERS OR KILOGRAMS.
- OPTIONAL COIL GUARD, GAS HEAT, ECONOMIZER HOOD, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND OUTLET/INLET HOOD SHOWN.

⚠ EXCEPT XP (HEAT PUMP) UNITS.

➔ DIRECTION OF AIRFLOW

● CENTER OF GRAVITY

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
3	ZF	468 [212]	33 [838,2]	18.25 [463,6]	114 [52]	76 [35]	111 [50]	167 [76]
4	ZF	541 [245]	31.50 [800,1]	18.50 [469,9]	138 [63]	85 [39]	122 [55]	196 [89]
5	ZF	569 [258]	37 [939,8]	15 [381]	105 [48]	86 [39]	170 [77]	208 [94]
6	ZF	640 [290]	37 [939,8]	15 [381]	118 [54]	96 [44]	192 [87]	234 [106]
3	ZR	575 [261]	40 [1016]	20 [508]	132 [60]	125 [57]	155 [70]	164 [74]
4	ZR	585 [265]	40 [1016]	20 [508]	134 [61]	127 [58]	158 [72]	167 [76]
5	ZR	590 [268]	40 [1016]	20 [508]	135 [61]	128 [58]	159 [72]	168 [76]
3	XP	575 [261]	39 [990,6]	20 [508]	135 [61]	121 [55]	151 [69]	168 [76]
4	XP	585 [265]	39 [990,6]	20 [508]	137 [62]	124 [56]	154 [70]	171 [78]
5	XP	590 [268]	39 [990,6]	20 [508]	138 [63]	125 [57]	155 [70]	172 [78]



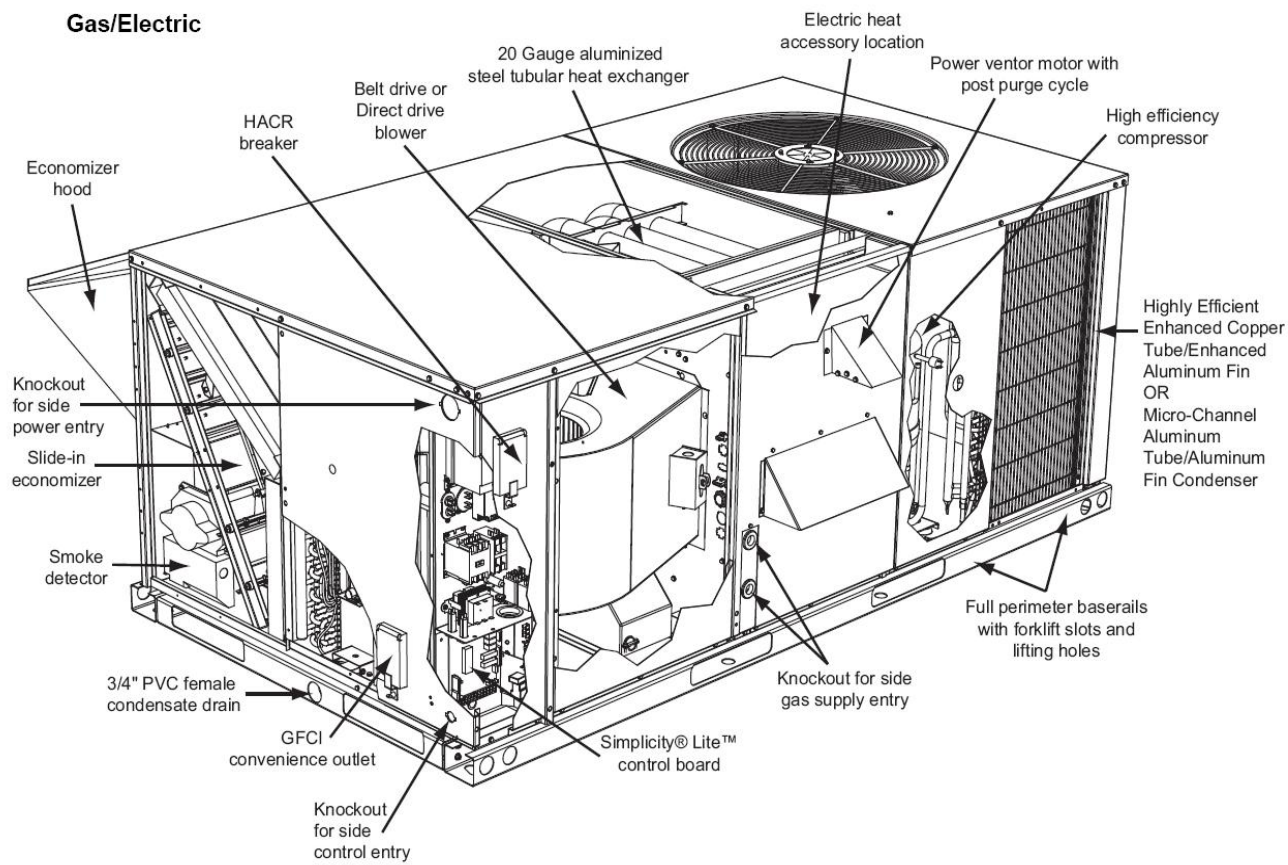
Project Name: **PATRIOT CASTLE NAILS**

Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

Component Locations



Project Name: **PATRIOT CASTLE NAILS**

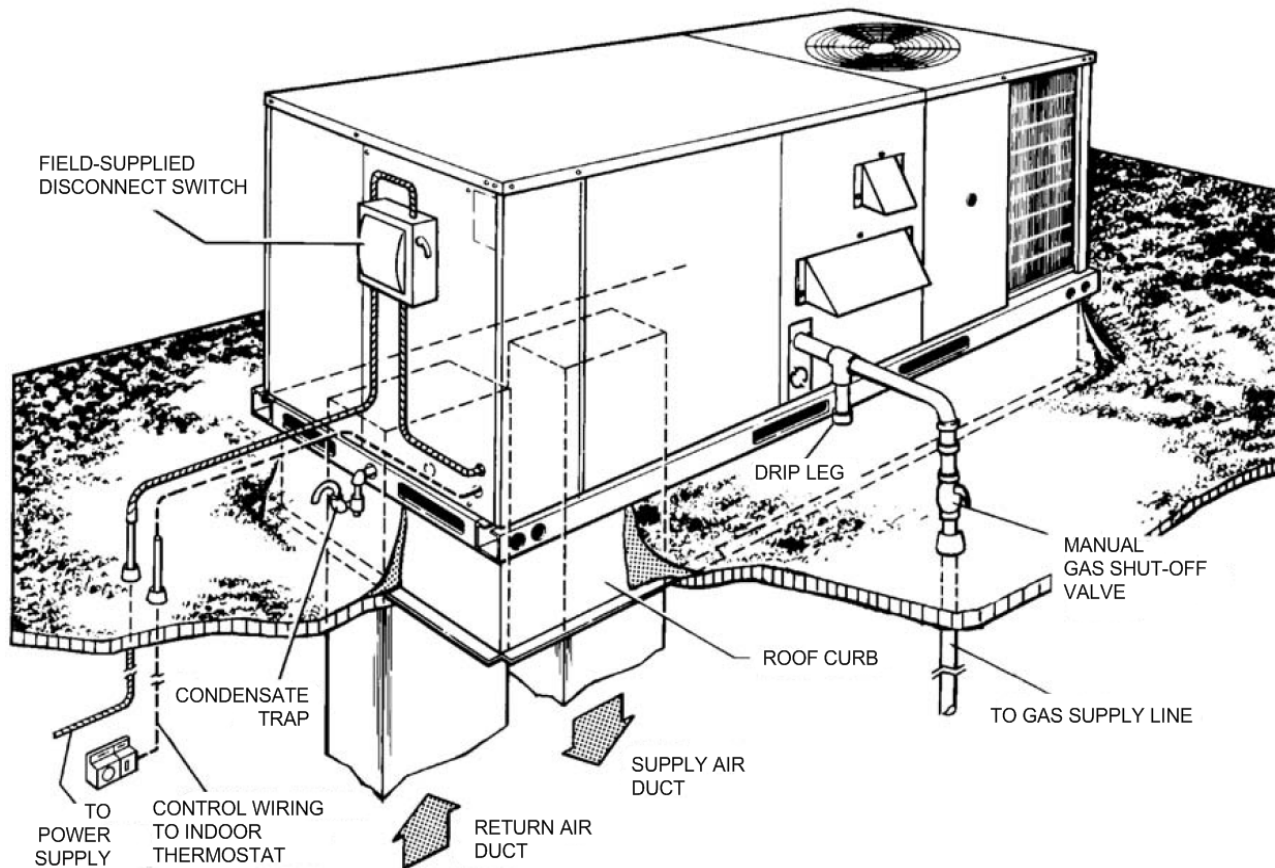
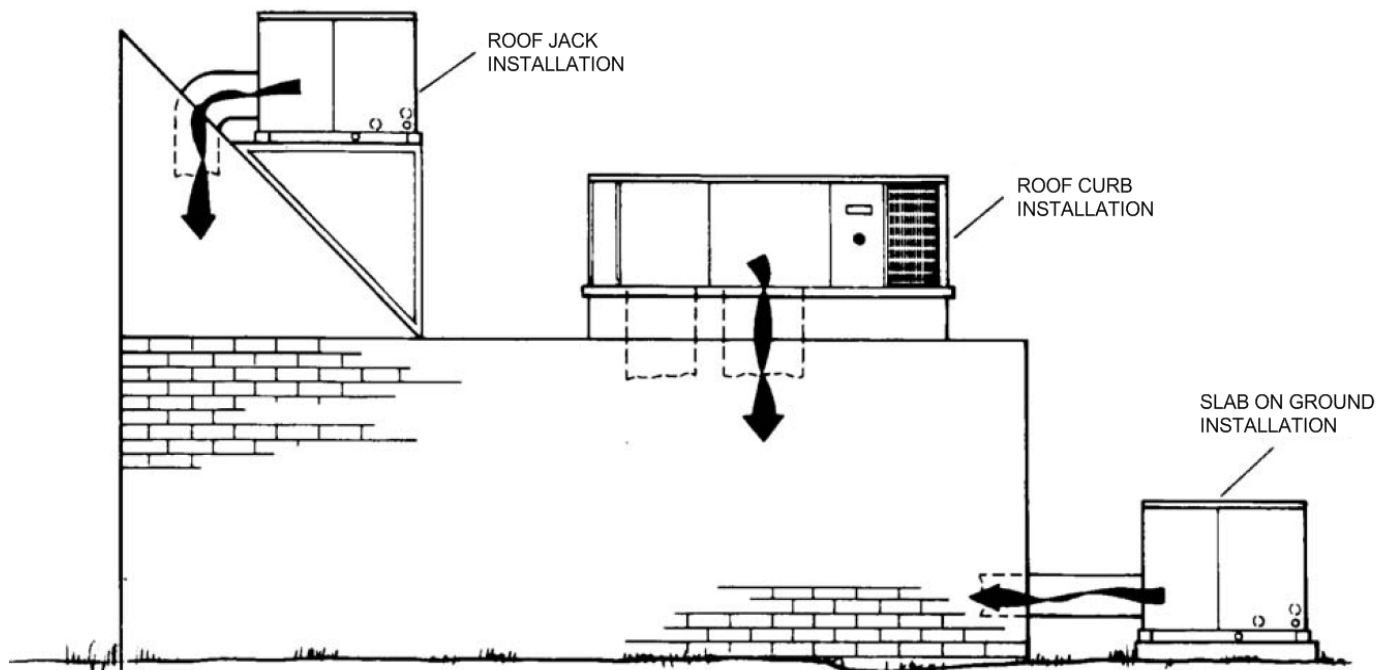
Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

Date:

Typical Application



Project Name: **PATRIOT CASTLE NAILS**

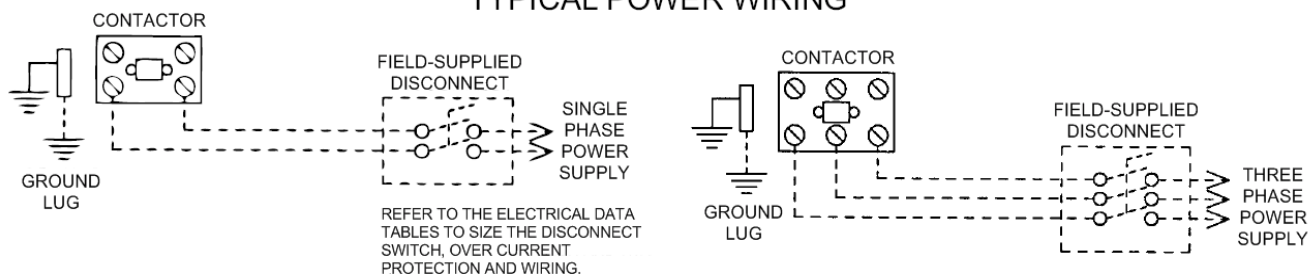
Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

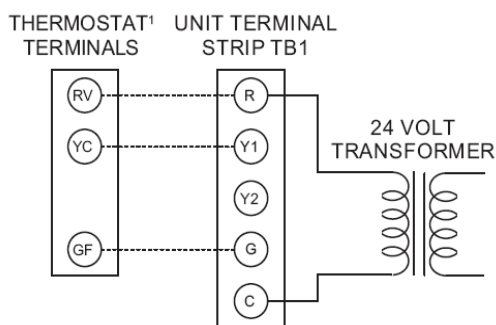
Typical Field Power and Control Wiring

TYPICAL POWER WIRING



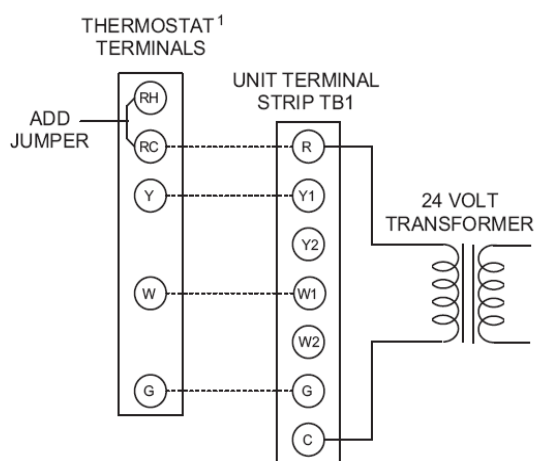
TYPICAL COOL/HEAT CONTROL WIRING

COOLING ONLY (24 VOLT THERMOSTAT)

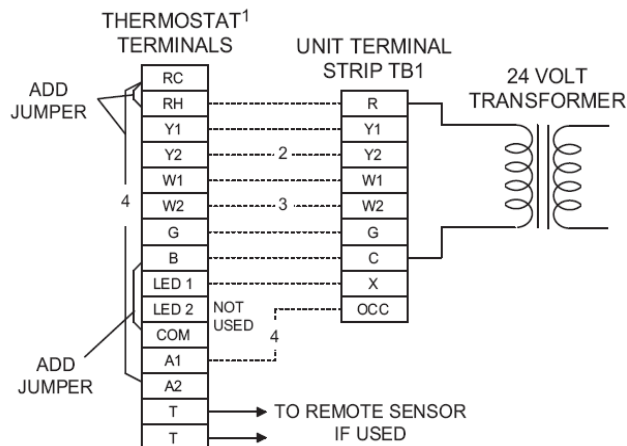


¹24 VOLT THERMOSTAT. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE A 2 STAGE COOLING THERMOSTAT.

COOLING / HEATING (24 VOLT THERMOSTAT)

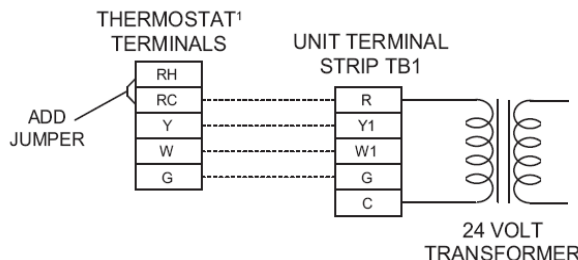


COOLING / HEATING (ELECTRONIC THERMOSTAT) MULTI STAGE



¹24 VOLT THERMOSTAT. TO CONTROL THE ECONOMIZER ON THE SECOND STAGE COOLING OR TO HAVE AN ELECTRIC HEAT ACCESSORY WITH TWO STAGES OF HEAT, USE A 2 STAGE COOL AND HEAT THERMOSTAT.

COOLING / HEATING (ELECTRONIC THERMOSTAT) SINGLE STAGE



¹ ELECTRONIC PROGRAMMABLE THERMOSTAT TYPICAL.

² SECOND STAGE COOLING IS NOT REQUIRED ON UNITS LESS ECONOMIZER.

³ SECOND STAGE HEATING IS ONLY REQUIRED ON UNITS WITH A TWO STAGE ELECTRIC HEATER OR 2 STAGE GAS HEAT.

⁴ REMOVE JUMPER J2 FROM TERMINALS 4 AND 9 ON JUMPER PLUG CONNECTOR P6 ON UNITS WITH ECONOMIZER. TERMINALS A1 AND A2 PROVIDE A RELAY OUT-PUT TO CLOSE THE OUTDOOR ECONOMIZER DAMPERS WHEN THE THERMOSTAT SWITCHES TO THE SET-BACK POSITION.

¹ELECTRONIC PROGRAMMABLE THERMOSTAT TYPICAL. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE A 2 STAGE COOL AND HEAT THERMOSTAT.



Small Sunline
Single Package R-410A Air Conditioner



Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/12/14

Project Name: **PATRIOT CASTLE NAILS**

Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

Seismic Certification



SPECIAL SEISMIC CERTIFICATION
OF NON-STRUCTURAL
COMPONENTS AND SYSTEMS



CERTIFICATE OF COMPLIANCE

Dynamic Certification Laboratories has qualified the listed packaged rooftop units as CERTIFIED for seismic applications in accordance with the following codes and standards:

CBC 2010, IBC 2009, ICC-ES AC-156 2010, ASCE 7-05

The following model designations are included in this certification. A complete list of certified models, options, and installation methods are detailed in report number 90300-1108a by Dynamic Certification Laboratories, provided by the equipment manufacturer upon request.

Unitary Product Group Packaged Rooftop Units (UPG)

Seismic Qualification Testing was conducted in accordance with and in strict adherence to the standards set forth within the American Society of Civil Engineers (ASCE 7) by the independent approval agency, Dynamic Certification Laboratories. The above referenced equipment is APPROVED for seismic applications when properly installed and used as intended.

The basis of this certification is through testing of the active and energized components per AC156. This certification covers multiple UPG brands, including York, Johnson Controls, Coleman, Luxaire, Evcon and Fraser-Johnston.

The seismic values are obtained from the Maximum Considered Earthquake Short Period Spectral Response Acceleration, Sds, as determined by the ASCE 7 seismic maps. Various installation locations/isolation configurations are covered under this certification, limited by the Sds value stated in the following table. A seismic importance factor, Ip, of 1.5 applies to this certification to include essential facility requirements and life safety applications for post event functionality. The units are approved for both a rigid and flexible mount configuration.

Maximum Design Sds Values of UPG Packaged Rooftop Units				
Series	Model	Tons	Sds (g)	Fp/Wp
XP/XA/JO*XP/TO*	036, 048, 060	3, 4, 5	2.5	1.88
ZF/ZS/JO*ZF/JA*ZF/TO*	036, 048, 060, 072	3, 4, 5, 6	2.5	1.88
ZR/ZK/JO*ZR/TO*	036, 048, 060	3, 4, 5	2.5	1.88

Project Name: **PATRIOT CASTLE NAILS**

Unit Model #: **ZF048**

Quantity: **1**

System: **ZF048**

Seismic Certification



**SPECIAL SEISMIC CERTIFICATION
OF NON-STRUCTURAL
COMPONENTS AND SYSTEMS**



CERTIFICATE OF COMPLIANCE

Table of Seismic Design Parameters					
Site Class	F _a	I _p	a _p	R _p	z/h
D	1.0	1.5	2.5	6.0	1.0

Site and Project Requirements

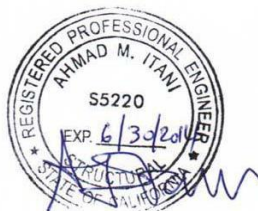
It is the responsibility of the Design Professional of Record to:

- Provide engineering for the anchorage and restraint of the unit
- Validate Certification Design Parameters with actual site conditions
- Provide engineering of all equipment support structures
- Confirm component configuration

Certification Issued by: Dynamic Certification Laboratories

Document Control Number: 90300-1108a-1

Issue Date: 12/19/11



Dr. Ahmad Itani, SE
Dynamic Certification Laboratories



Randy Forristall
YORK Unitary Engineering
Johnson Controls, Incorporated