

**RECEIVED**

By Jason C. Flynn Architect Inc. at 8:51 am, Feb 13, 2020

**REVIEWED**

By Pat Newton at 2:50 pm, Feb 12, 2020

**Project:** 225 Huntmar - Enterprise  
**Client:** Corcann Heating and Cool. Inc.

---

## DRAWING FOR APPROVAL

---

**Date:** February 11<sup>th</sup>, 2020

**Revision Number:** 01

**Quote #** 4101650-3

**Prepared By:** Pierre Laframboise

**Telephone:** (613) 829-2816

**Email:** plaframboise@master.ca

**Project** 4012522

---



For Approval



As-Built



Revision

Reviewed  
Reviewed as noted

Revise and resubmit ( )  
Not reviewed ( )

Date: Feb. 13, 2020

Reviewed by: MH

This review by J.C.F.A.Inc. is for the sole purpose of ascertaining conformance with the general design concept for architectural features only, and does not in any way constitute review of the design of engineering elements which form part of the contract documents prepared by others. This review shall not mean that J.C.F.A.Inc. approves the detailed design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of the responsibility for errors or omissions in the shop drawings or of the responsibility for meeting all requirements of the contract documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for coordination of the work of all trades.

Jason C. Flynn Architect Inc. (J.C.F.A.Inc.)



---

# PERFORMANCE & DRAWINGS

---

**RTU**



**Date**

02/11/2020

**Project Name**

225 Huntmar

**Project Number**

4012522

**Client / Purchaser**



### Submittal Summary Page


Qty	Tag #	Model #	Description
1		ZE048H12D5C1AAA1A2	4 Ton, York Small Sunline Single Packaged R-410A Air Conditioner, Single Stage Cooling, 12.0 EER / 14.0 SEER, Single Stage Gas Aluminum Steel, 125 MBH Input, 575-3-60 <ul style="list-style-type: none"> <li>• Dry Bulb Economizer and Hood (No Barometric Relief Damper) with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• 1.5 HP High Static Belt Drive Blower</li> <li>• 1" Throwaway Filters</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Galvanized Steel Drain Pan</li> <li>• Standard Access Doors</li> </ul>
1		1RD0410	Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted)

NO COMMENT     COMMENT AS NOTED  
 REJECTED     REVISE AND RESUBMIT  
 SUBMIT SPECIFIED PRODUCT

CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DRAWINGS AND SPECIFICATION REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES, CAPACITIES AND DIMENSIONS, SELECTING FABRICATION, CO-ORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

**ANTARES ENGINEERING GROUP INC.**  
 DATE 18-02-2020 PERS S.S.

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

 WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Project Name: 225 Huntmar

Unit Model #: ZE048H12D5C1AAA1A2

Quantity: 1

System: ZE048H12D5C1AAA1A2

Cooling Performance	
Total gross capacity	51.9 MBH
Sensible gross capacity	42.6 MBH
Total net capacity	47.2 MBH
Sensible net capacity	37.9 MBH
Seasonal Efficiency (at ARI)	14.00 SEER
Efficiency (at ARI)	12.00 EER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	60.3 °F
Leaving WB temp.	58.9 °F
Power input (w/o blower)	3.54 kW
Sound power	80 dB(A)

Refrigerant	
Refrigerant type	R-410A
Sys1	5 lbs 6 oz

Gas Heating Performance	
Entering DB temp.	60 °F
Heating output capacity (Max)	100 MBH
Supply air	2000 CFM
Heating input capacity (Max)	125 MBH
Leaving DB temp.	106.3 °F
Air temp. rise	46.3 °F
SSE	80.6 %
Stages	1

Supply Air Blower Performance	
Supply air	2000 CFM
Ext. static pressure	1.3 IWG
Addl. Unit Losses (Options/Accessories)	0.13 IWG
Blower speed	1413 RPM
Max BHP of Motor (including service factor)	1.73 HP
Duct location	Bottom
Motor rating	1.50 HP
Actual required BHP	1.49 HP
Power input	1.39 kW
Elevation	0 ft.
Drive type	BELT

Outside/Mixed Air	
Outside Air Cfm	200 CFM

Electrical Data	
Power supply	575-3-60
Unit min circuit ampacity	8.9 Amps
Unit max over-current protection	15 Amps

Dimensions & Weight					
Hgt	33 in.	Len	83 in.	Wth	45 in.
Weight with factory installed options	728 lbs.				

Clearances					
Right	24 in.	Front	32 in.	Rear	12 in.
Top	72 in.	Bottom	0 in.	Left	24 in.

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



### 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

- Single Stage Gas Aluminum Steel
- Single Stage Cooling
- 125 MBH Input
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- 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
- Scroll Compressor
- Dry Bulb Economizer and Hood (No Barometric Relief Damper) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- 1.5 HP High Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 1" Throwaway Filters
- Replacement Filters: 2 - (15" x 20" x 1" or 2") and 1 - (14" x 25" x 1" or 2"). Unit accepts 1" or 2" wide filters.
- Single Point Power Connection
- Through-the-Curb and Through-The-Base Utility Connections
- Short Circuit Current: 5kA RMS Symmetrical
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- Galvanized Steel Drain Pan
- Standard Access Doors

### Standard Unit Controller: Smart Equipment 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.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Heat Exchanger



# Small Sunline 3-6 Ton Package

York Single Package R-410A Air Conditioner

Project Name: 225 Huntmar

Unit Model #: ZE048H12D5C1AAA1A2

Quantity: 1

System: ZE048H12D5C1AAA1A2

## Factory Installed Options

### ZE048H12D5C1AAA1A2

Equipment Options	Option(s) Selected	
Product Category:	<b>ZE</b>	York Small Sunline Single Packaged R-410A Air Conditioner 12.0 EER / 14.0 SEER
Nominal Cooling Capacity:	<b>048</b>	4 Ton Single Stage Cooling
Heat Type and Nominal Heat Capacity:	<b>H12</b>	Single Stage Gas Aluminum Steel 125 MBH Input
Blower Option:	<b>D</b>	1.5 HP High Static Belt Drive Blower
Voltage:	<b>5</b>	575-3-60
Outside Air Option:	<b>C</b>	Dry Bulb Economizer and Hood (No Barometric Relief Damper) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Service Options:	<b>1</b>	
Sensor Options:	<b>A</b>	
Refrigeration:	<b>A</b>	Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Additional Options:	<b>1</b>	1" Throwaway Filters
Cabinet Options:	<b>A</b>	Galvanized Steel Drain Pan Standard Access Doors

## Field Installed Accessories

- 1RD0410 - Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted) (6.0 lbs)

Project Name: **225 Huntmar**

Unit Model #: **ZE048H12D5C1AAA1A2**

Quantity: **1**

System: **ZE048H12D5C1AAA1A2**

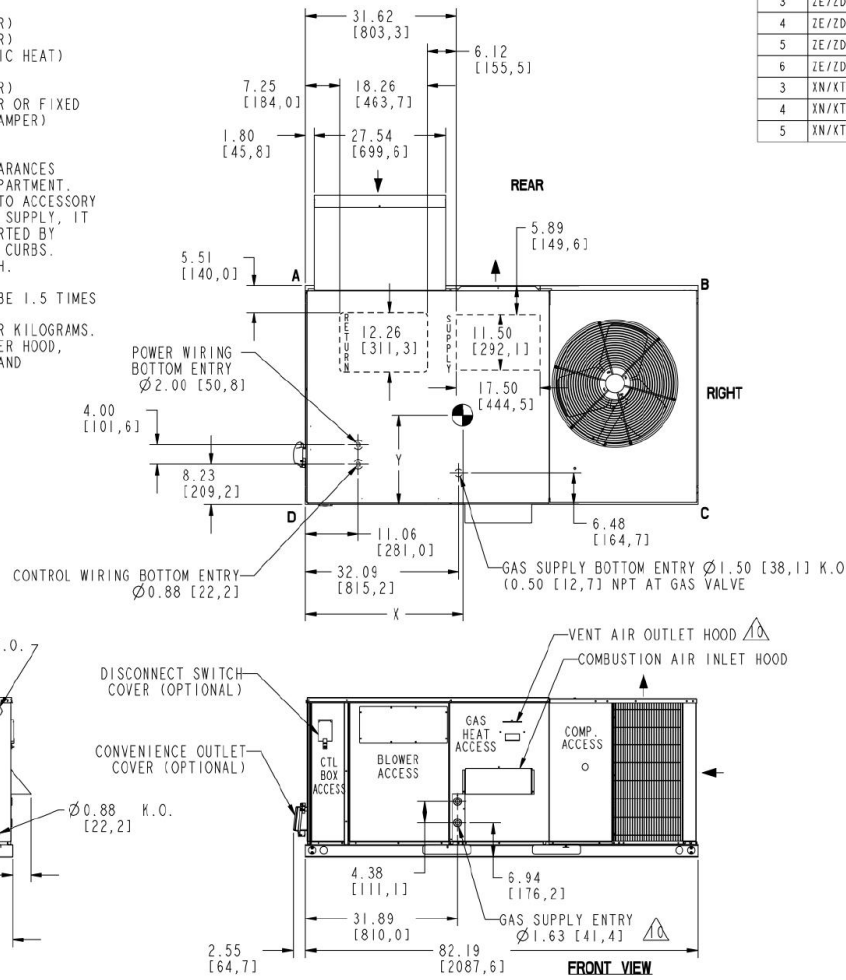
### Consolidated Drawing

- 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)
    - 36 [914,4] (WITH ECONOMIZER)
    - FRONT: 24 [609,6] (COOLING/ELECTRIC HEAT)
    - 32 [812,8] (GAS HEAT)
    - REAR: 12 [304,8] (LESS ECONOMIZER)
    - 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.

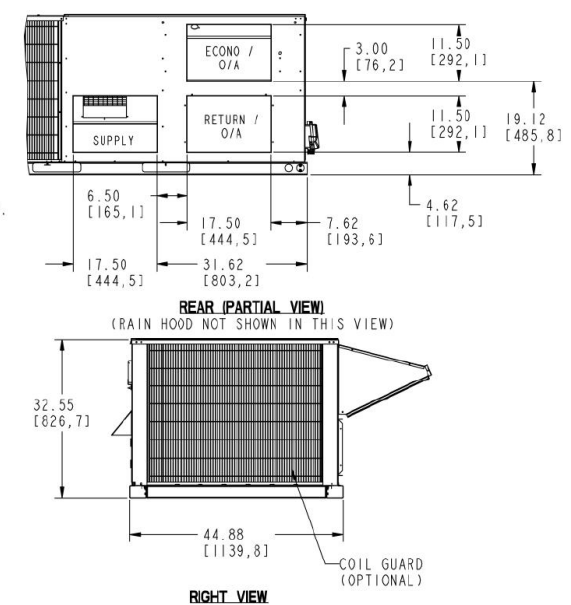
EXCEPT XN/XT (HEAT PUMP) UNITS.

→ 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	ZE/ZD	470 [213]	34.5 [876,3]	18.25 [463,8]	111 [50]	80 [36]	117 [53]	162 [73]
4	ZE/ZD	598 [271]	36 [914,4]	18.50 [469,3]	139 [63]	108 [49]	154 [70]	198 [90]
5	ZE/ZD	632 [287]	37.5 [952,5]	18.2 [462,3]	139 [63]	117 [53]	171 [78]	204 [93]
6	ZE/ZD	695 [302]	35.5 [901,7]	17.75 [450,8]	150 [68]	114 [52]	173 [78]	228 [103]
3	XN/XT	610 [277]	38.3 [972,8]	18.75 [476,3]	136 [62]	119 [54]	165 [75]	190 [86]
4	XN/XT	616 [279]	38.2 [970,3]	18.4 [467,4]	135 [61]	117 [53]	169 [77]	195 [88]
5	XN/XT	620 [281]	38.6 [980,4]	18 [457,2]	132 [60]	117 [53]	174 [79]	197 [89]



REV	DATE	REVISION RECORD	EC NO	DR	CK	ENG
A	12-21-10	NEW DRAWING	---	LO	RDH	---
B	09-08-11	CHANGED OPERATING & CORNER WEIGHTS FOR 3, 4 & 5T (GEN 2)	19126	LO	RCF	KMC
C	11-25-14	ADDED ZE/ZD & XN/XT MODELS	20683	LO	RDH	KMC
D	07-30-18	ADDED ZE/ZD 6 TON MODEL & REMOVED OBSOLETE DATA	60489	SMD	LOP	CB

THIRD ANGLE PROJECTION

ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART OR DISCLOSE ANY OF THE INFORMATION HEREON TO OTHERS WITHOUT WRITTEN RELEASE BY JOHNSON CONTROLS

DRAWING PER ASME Y14.5-2009

TOLERANCES UNLESS OTHERWISE SPECIFIED:

ONE PLACE DECIMAL = ± .1  
TWO PLACE DECIMAL = ± .02  
THREE PLACE DECIMAL = ± .010  
ANGLES = ± 2°  
DIMENSIONS ARE IN INCHES  
DO NOT SCALE PRINT

SCALE: 0.085

JOHNSON CONTROLS  
UNITARY PRODUCTS GROUP  
NORMAN, OK 73069

SUBMITTAL DWG, SM SUNLINE, 3-6 TONS

SAFETY AND KEY CHARACTERISTICS PER BE-239-STD-01

TYPE NOT APPLICABLE  
ENG SPEC NOT APPLICABLE  
MATERIAL SIZE  
DWG NO. UST-SSL-10DF32H  
PART NO. SHT NO. 1 OF 1

## York Single Package R-410A Air Conditioner

Project Name: 225 Huntmar

Unit Model #: ZE048H12D5C1AAA1A2

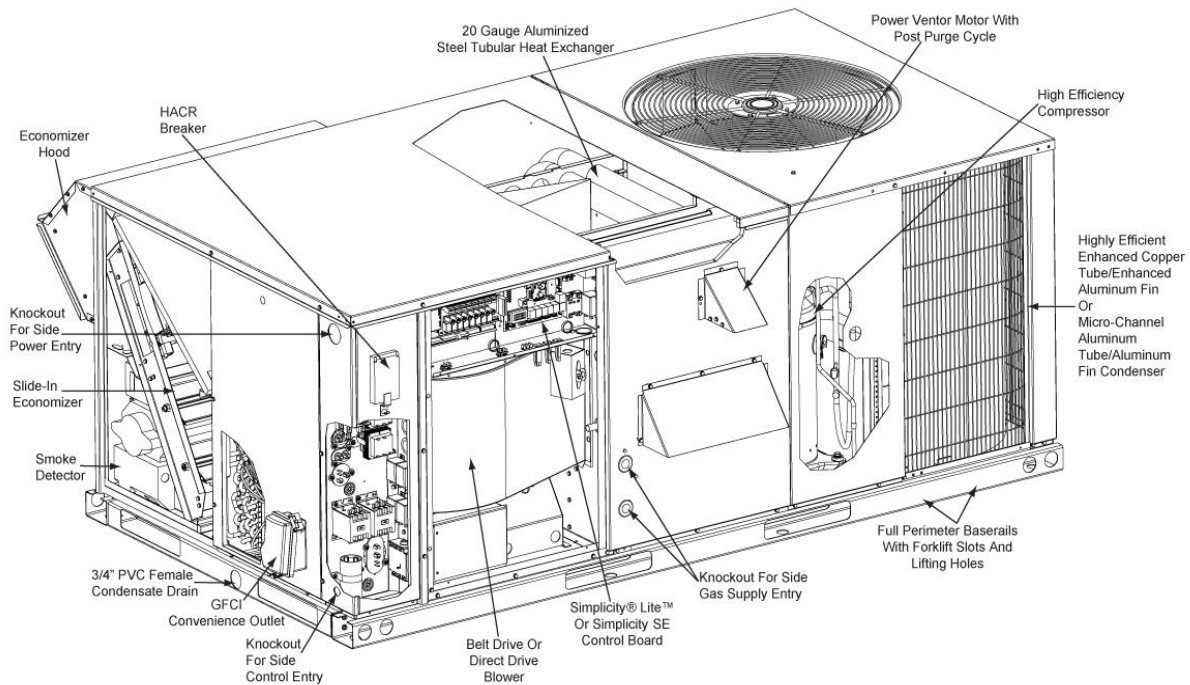
Quantity: 1

System: ZE048H12D5C1AAA1A2

### Component Location

### Component Location

#### Gas/Electric



## York Single Package R-410A Air Conditioner

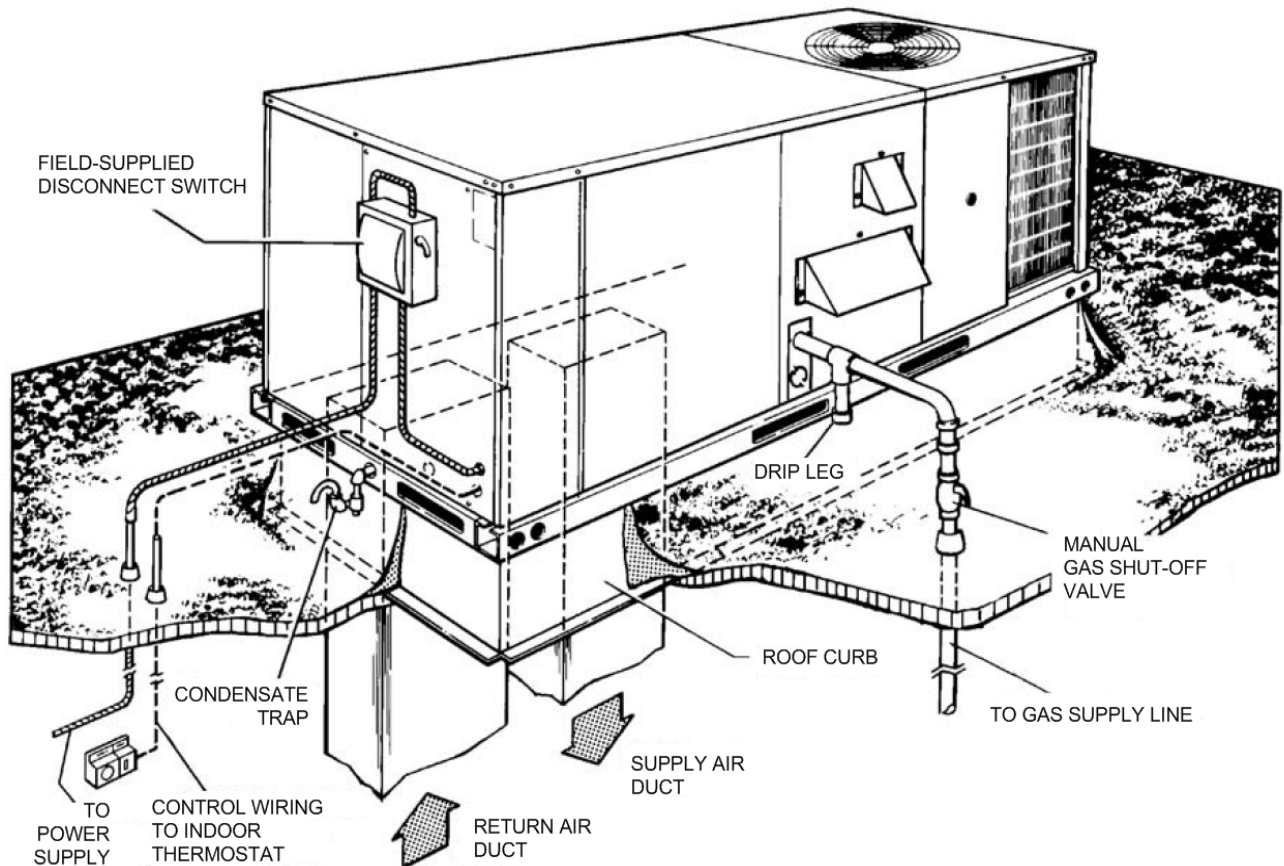
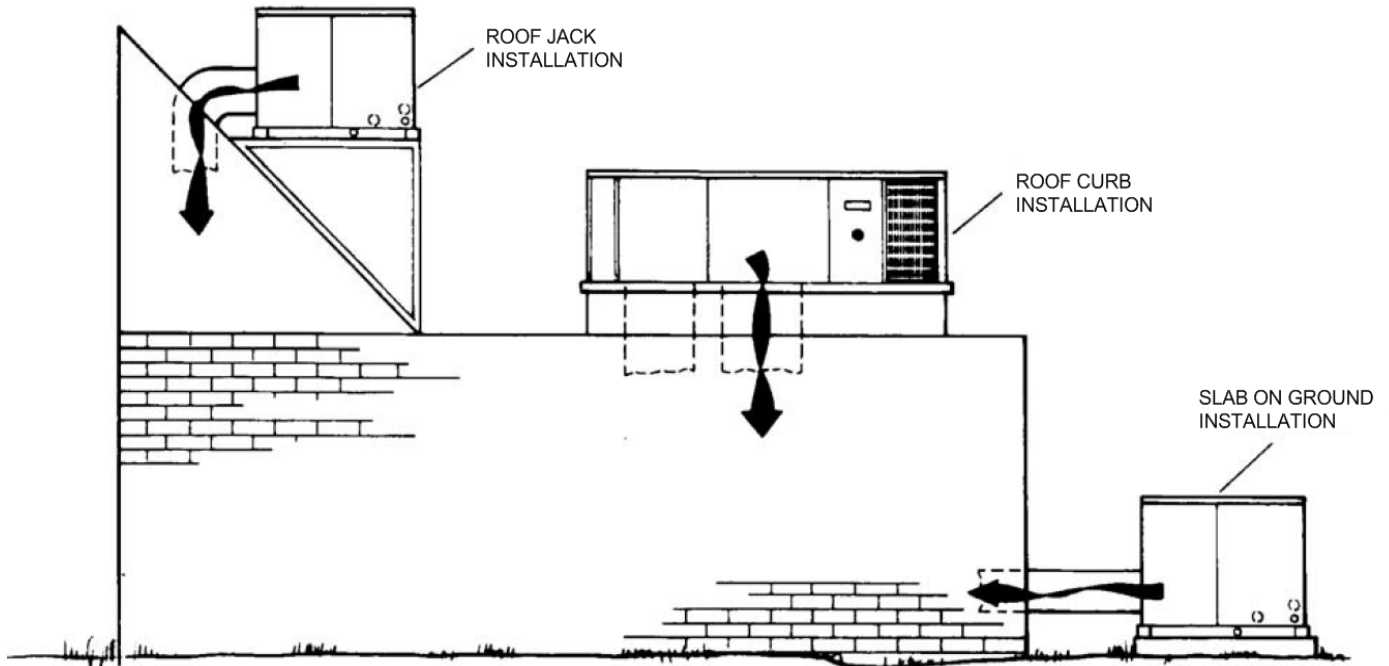
Project Name: 225 Huntmar

Unit Model #: ZE048H12D5C1AAA1A2

Quantity: 1

System: ZE048H12D5C1AAA1A2

### Typical Application



Project Name: 225 Huntmar

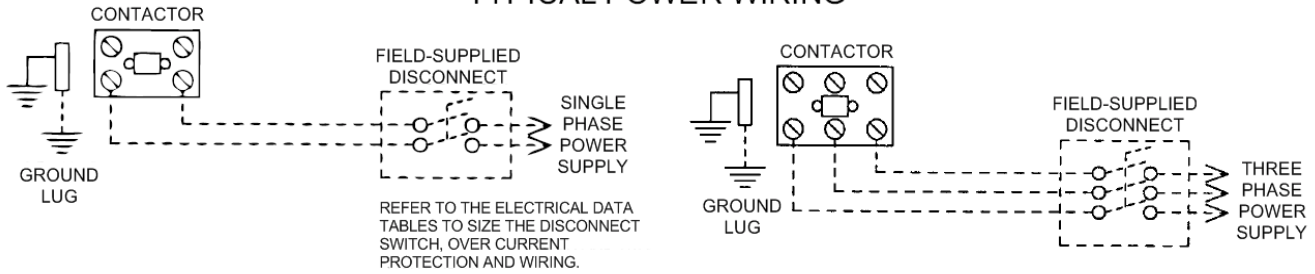
Unit Model #: ZE048H12D5C1AAA1A2

Quantity: 1

System: ZE048H12D5C1AAA1A2

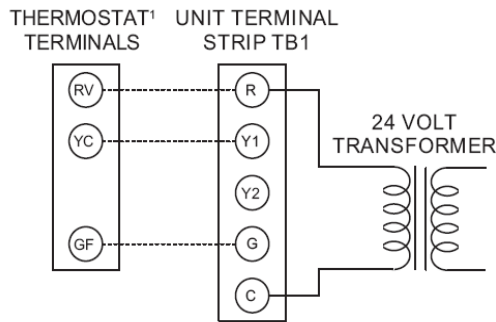
### Typical Field Power and Control Wiring

#### TYPICAL POWER WIRING



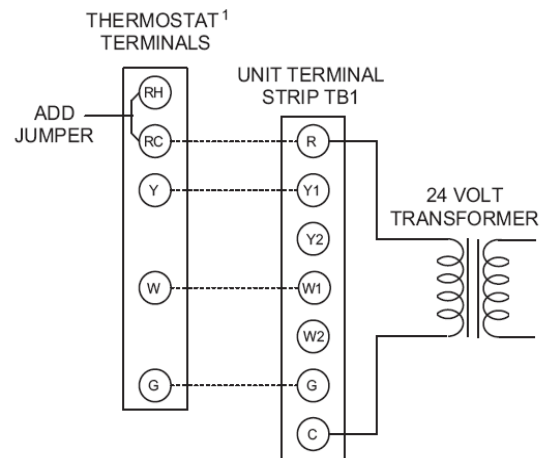
#### TYPICAL COOL/HEAT CONTROL WIRING

##### COOLING ONLY (24 VOLT THERMOSTAT)

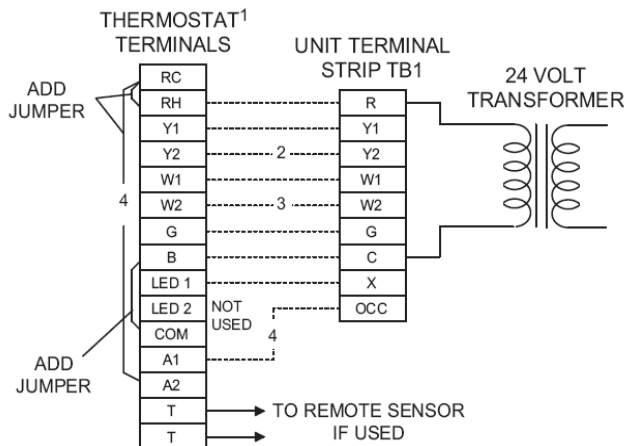


<sup>1</sup>24 VOLT THERMOSTAT. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE A 2 STAGE COOLING THERMOSTAT.

##### COOLING / HEATING (24 VOLT THERMOSTAT)

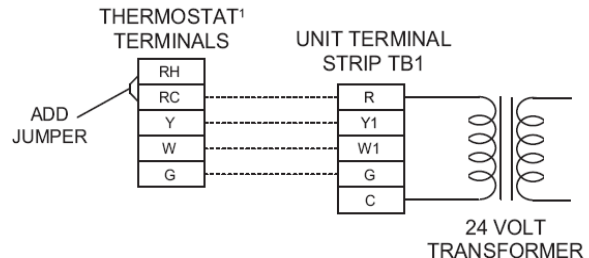


##### COOLING / HEATING (ELECTRONIC THERMOSTAT) MULTI STAGE



<sup>1</sup>24 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



<sup>1</sup> ELECTRONIC PROGRAMMABLE THERMOSTAT TYPICAL.

<sup>2</sup> SECOND STAGE COOLING IS NOT REQUIRED ON UNITS LESS ECONOMIZER.

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

<sup>4</sup> 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.

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

