Portland, Maine Yes. Life's good here.

Permitting and Inspections Department

FIRE ALARM
Permit Application & Checklist

A permit is required for fire alarms. The following application and checklist must be completed in full in order for a permit application to be reviewed. All applications shall be submitted online via the Citizen Self Service portal. Refer to the attached documents for complete instructions. The following items shall be submitted (please check and submit all items):

Application Checklist:

- ✓ **Vectored PDF plans, including the following:**
  - Accurate, scalable floor plan(s)
  - Graphic scale
  - Each plan shall have a 3 inch by 3 inch space reserved in the top right corner for city approval stamp
  - Each plan shall have "FA", sheet number and a descriptive title, with each sheet saved as a separate file
  - Wiring diagram(s)
  - Annunciator details
  - Operations matrix
  - Designer qualifications (copy of NICET IV certificate or stamped plans and documents)
  - Battery and voltage calculations
- ✓ **Scope of Work**
- ✓ **Equipment data sheets**
- ✓ **Electrical Permit**

All fire alarm permits are subject to the following:

- Design shall comply with City Code Ch. 10 and Fire Department Regulations Ch. 5
- A formal code analysis may be required depending on the complexity of the property
- Reflected ceiling or electrical plans are not acceptable. Plans shall represent only the fire alarm system.

Separate permits are required for internal and external plumbing and electrical installations. For questions on Fire Department requirements, call the Fire Prevention Officer at (207) 874-8405.

*For a list of approved fire alarm companies, see www.portlandmaine.gov/1486/Approved-Fire-Alarm-Companies

Portland, Maine — Yes. Life's good here.

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
03/27/2020

Permitting and Inspections Department

Fire Alarm Permit Application

Construction Address: 379 Commercial Street Portland, ME 04101

Total Square Footage of Proposed Structure: 89,200 sf

Tax Assessor's Chart, Block & Lot

Chart#	Block#	Lot#
042	A-001	001

Cost of Work: $ 65,000

Applicant Name: Eastern Services Electrical Contractors LLC
Address: 40 Lowell Road Unit 1 Salem, NH 03079
Phone: 603-396-1962
Email: joe@esecllc.com craig@esecllc.com

Lessee/Owner Name (if different): NPCC LLC
Address: PO Box 1383
Phone: 617-331-4281
Email: mark@trademark.boston

Contractor Name (if different): (same)
Address: --
Phone: --
Email: --

Current use (i.e. single family): commercial
If vacant, what was the previous use? commercial
Proposed specific use: New construction hotel
Is property part of a subdivision? If yes, name: no
Project description: Aloft Hotel 6 story/89,200sf/157 guestroom new construction
Life Safety Code Occupancy Classification: Mixed Use A-2, B, S-2, R-1
Is this new work or a renovation to an existing system? New work
Is the top occupiable floor of the building greater than 75 feet above the lowest level of Fire Department access (high-rise)? no
Name of company providing programming and certification of system*: Eastern Services Electrical Contractors LLC
Electrical permit #: tbd

Will a master box be installed? ⊗ **Yes** ○ **No** **If yes, complete all items for approval):**
AES approved installing contractor: Eastern Services Electrical Contractors LLC
Documentation of AES approval: unknown
Property Owner: NPCC LLC
Property Owner Billing Address: PO Box 1383 Sanibel, FL 33957
Property common name: Aloft Hotel
E-911 address for protected premises: 379 Commercial Street
Emergency contact phone: unknown Additional emergency contact phone: unknown
Number of stories protected: 6
Is the building protected by a supervised, automatic sprinkler system? ⊗ Yes ○ No

Name of person to contact when the permit is ready: Joseph Casey or Craig Dupere
Address: 40 Lowell Road Unit 1
City, State & Zip: Salem, NH 03079
Email Address: joe@esecllc.com craig@esecllc.com **Phone:** 603-235-6029 603-396-1962

*For a list of approved fire alarm companies, see www.portlandmaine.gov/1486/Approved-Fire-Alarm-Companies

Dear Applicant,

Beginning March 19, 2018, all building permits shall be submitted online via the City of Portland's Citizen Self Service (CSS) portal. Online submission of permit applications will help to streamline the application intake process and will improve transparency for the permitting process. In order to submit an application, you will need to register with CSS using a valid e-mail address. Refer to the instructions on the Citizen Self Service homepage, or via the links at the bottom of this page. Please verify that you have selected the correct permit type and checklist and that you have compiled all the required drawings and documents before beginning the application process.

Please note that our format for application submissions has changed. All application documentation shall be compiled into two PDF files-- one file containing all drawing sheets and a second PDF file containing all supporting documentation. Refer to the Requirements for Electronic Submissions for specific instructions on how to prepare your application submission and to the appropriate checklist for required submission items. The review of your application will not begin until a complete application has been submitted and the permit fee has been paid in full. Work may not commence until the permit has been issued.

If you have questions, please contact the Permitting and Inspections Department at (207) 874-8703 or permitting@portlandmaine.gov. Thank you in advance for your patience as we transition to a new and improved permitting system.

For more information:

How to Apply for a Permit
How to Register with CSS
Permit Type Guide
Requirements for Electronic Submissions
Citizen Self Service

How to Apply for a Permit

All permit applications shall be submitted online through the City of Portland's Citizen Self Service (CSS) portal. Online submissions will streamline the application intake process and will allow for greater transparency for applicants during the permit review process. You will be able to view the progress of your permit application, pay invoices, resubmit files and request inspections through CSS. Before submitting an application, please read the instructions below:

1. To begin, review the Permit Type Guide to determine the appropriate permit type and work class for your project.
2. Once you have determined the correct permit type, refer to the corresponding submission checklist and instructions for that permit type.
3. Compile all the required drawings and documentation as listed on the checklist into two PDF files (one file containing all drawing sheets and one file for all supporting documentation).
4. Go to the CSS website to apply for your permit. If you have not registered with CSS, see the instructions for registering, here.
5. Once you have logged in to CSS, go to Apply and select the correct permit type. For a full list of all permit types, select All, under Permits.
6. Select Apply, next to the correct permit type. This will take you to the online application form.
7. Complete the form. All fields with a red asterisk are required.
    a. To add a location, click on the plus sign and search for the project address. If the address cannot be found in the search, go to the City's Parcel Map Viewer, to find the correct parcel address (this may be different than your street address or mailing address. Please input a parcel address that is recognized by the system to avoid delays in the intake process). For the Search function, entering less in the Search box will return more results.
    b. To add a Contact, click the plus sign under the appropriate contact type and search.
    c. Complete all other relevant and required fields and click Next. Once you've completed all pages of the form, you will have the opportunity to review the information before submitting. Once submitted, you cannot change your application information.
8. After reviewing your application information, click Submit. You will receive an e-mail confirming receipt of your application.
9. Permitting staff will review your application for completeness. You will be notified via e-mail if any items are missing. Upload requested items via CSS Attachments.
10. When the application is complete, you will receive an e-mail directing you to CSS to pay your invoice.
11. Once payment is received, your permit will go into review.

Requirements for Electronic Submissions

In order to ensure a timely review of the application, please read and follow the requirements below for all submissions:

- **Initial submission files shall be submitted via the Citizen Self Service portal. Before submitting an application, review How to Apply for a Building Permit.**
- **Submissions should include two PDF files—one file containing all drawing sheets and one file containing all other supporting documents.** Only PDF files are acceptable for plan review. Files should be labeled either "Drawings" or "Documents" with the project address included in the file name.
- **Drawing files shall be bookmarked with names based on the drawing sheet number and name.** It is recommended to include a Category/Discipline letter (such as A for Architectural), a sheet number and a descriptive title (e.g., A1 Existing Exterior Elevation).
- **A graphic scale or a scale to reference shall be included on each drawing sheet.**
- **Plans prepared by a design professional shall include a Code Analysis sheet**, referencing the Maine Uniform Building and Energy Code and Portland City Code, Chapter 10 – Fire Prevention and Protection, which includes NFPA 1, Fire Code and NFPA 101, Life Safety Code. Chapter 10 of the City Code can be viewed at: http://www.portlandmaine.gov/citycode/chapter010.pdf.
- **Submissions should include all required documents and drawings as listed on the appropriate Submission Checklist sheet specific to the type of work being performed.**
- **Corrections made by City of Portland plan reviewers will be available for the applicant to view by logging into CSS and selecting "eReviews".**
- **Revisions submitted in response to plan review comments should be uploaded directly in eReview by logging into CSS, going to the permit record and selecting eReviews.**

For further information and to access PDF versions of this and other forms, visit the Permitting and Inspections Department online at **http://portlandmaine.gov/1728/Permitting-Inspections**.

16 NorthBrook Drive / PO Box 1375
Gray, ME 04039
(O) 207-657-7123 / (F) 207-657-7123
www.briggsac.com

SUBMITTAL DATA FOR RECORD

Project: 121 Middle St Lofts

Mechanical Engineer: HVAC Services

Mechanical Contractor: HVAC Services

Date: March 18, 2020

Product: WSHPs

Specification Section: Design Build

Revision: 0

Tag	Qty	Model / Description	Manufacturer
HP-200	1	WGSH0071 / RH Return, End Discharge	Daikin Applied
HP-201	1	WGSH0241/ RH Return, End Discharge	Daikin Applied
HP-202, 206, 207	3	WGSH0121/ RH Return, End Discharge	Daikin Applied
HP-203	1	WGSH0121 / LH Return, End Discharge	Daikin Applied
HP-204	1	WGSH0241 / LH Return, Straight Discharge	Daikin Applied
HP-205	1	WGSH0241 / LH Return, End Discharge	Daikin Applied
HP-208	1	WGSH0241 / RH Return, Straight Discharge	Daikin Applied

Prepared by:
Ann Marie Juliano
ajuliano@briggsac.com
207-657-7123 ext. 202

Table of Contents

Technical Data Sheet for HP-200

Job Information	*Technical Data Sheet*
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-200

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0071	208-230/60/1	306	2.00	8405	16.3	10429	5.6

Unit

Model Number:	WGSH007
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	26.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
306 CFM	0.30 inH_2O	2.00 gpm / 4.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection	EER @ design	Fluid Pressure Drop
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr	Btu/hr		ft H_2O
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.2	80.0	67.0	60.2	58.0	8405	6564	10168	16.3	5.09

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.4	70.0	101.4	10429	8560	5.6	5.22

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	3.94 A	4.69 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
3.0 A	15.0 A	0.94 A	15 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
45.00 in	17.30 in	21.60 in	165 lb	148 lb	0.50 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant Torque	0.10 hp

Technical Data Sheet for HP-200

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Right Hand
Discharge Air Location:	End

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 2.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 15 in x 21 in x 2 in

Insulation

Compressor Compartment:	3/4 Acoustic Open Cell Foam (Soundcoat)
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	4.70 ft H_2O
Base Unit Heat Pressure Drop:	4.83 ft H_2O
Motorized Valve Pressure Drop:	0.38 ft H_2O
Total Cool Pressure Drop:	5.09 ft H_2O
Total Heat Pressure Drop:	5.22 ft H_2O

Warranty

Unit Warranty:	4 Yr Compressor Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062801	Hose, Kit, Supply/Return, 0.50" x 2ft

Certified Drawing	WGSH 7-12 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

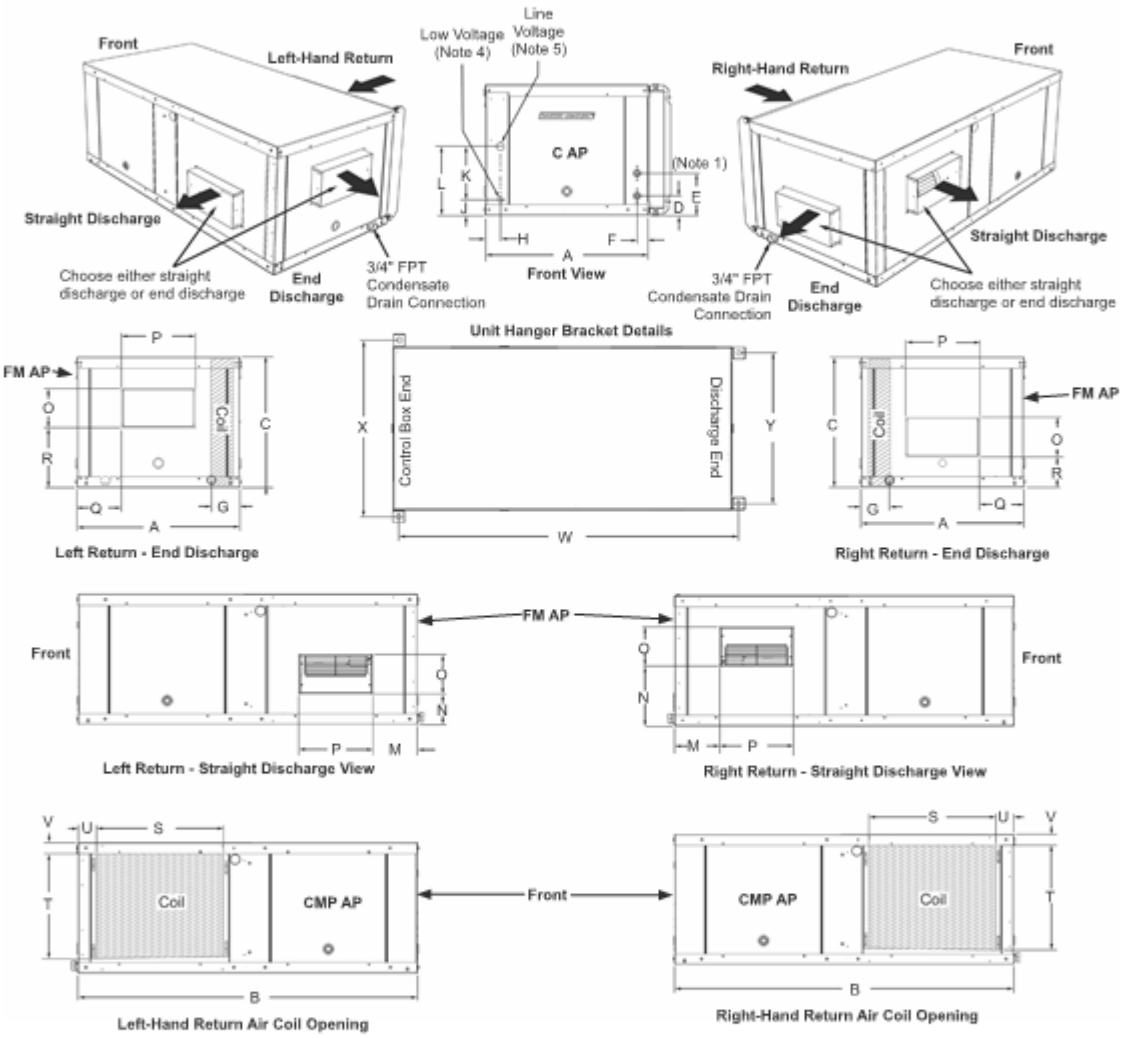


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
007, 009, 012	21.60 (549)	45.00 (1143)	17.30 (439)	44.67 (1135)	23.60 (599)	19.10 (485)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
007, 009, 012[1]	2.65 (67)	5.65 (144)	1.47 (37)	3.76 (96)	1.98 (50)	2.08" (53)	7.06 (179)	9.14 (232)

Notes: [1] *Supply and return piping connections = 1/2" (13 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
007, 009, 012	6.18 (157)	4.25 (108)	8.09 (206)	4.89 (124)	9.45 (240)	6.12 (156)	8.09 (206)	4.25 (108)	16.82 (427)	13.56 (344)	2.45 (62)	1.50 (38)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

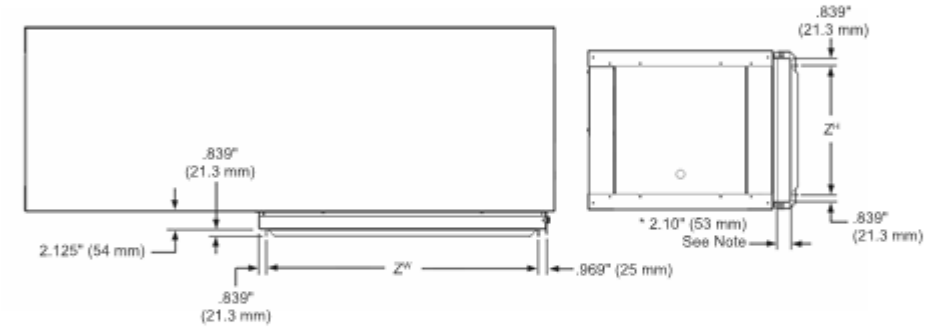
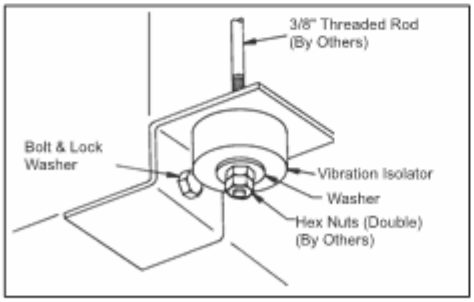


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z[M]	Z[M]
007, 009, 012	13.91 (353)	19.35 (491)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Hanger bracket details (sizes 007-012)



DAIKIN

Technical Data Sheet for HP-201

Job Information	*Technical Data Sheet*
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-201

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0241	208-230/60/1	800	6.00	26484	17.6	29519	5.5

Unit

Model Number:	WGSH024
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	56.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
800 CFM	0.30 inH_2O	6.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection Btu/hr	EER @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr			
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.5	80.0	67.0	58.5	56.0	26484	18693	31617	17.6	5.64

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.9	70.0	104.0	29519	24190	5.5	5.77

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	16.50 A	19.88 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
13.5 A	58.3 A	3.00 A	30 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
63.30 in	19.30 in	22.40 in	289 lb	254 lb	0.75 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant CFM	0.33 hp

Technical Data Sheet for HP-201

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Right Hand
Discharge Air Location:	End

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 6.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 17 in x 34 in x 2 in

Insulation

Compressor:	Premium
Compressor Compartment:	1/2 inch Fiberglass, Skin-faced
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	4.85 ft H_2O
Base Unit Heat Pressure Drop:	4.99 ft H_2O
Motorized Valve Pressure Drop:	0.78 ft H_2O
Total Cool Pressure Drop:	5.64 ft H_2O
Total Heat Pressure Drop:	5.77 ft H_2O

Warranty

Unit Warranty:	4 Yr Refrigerant Circuit Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062901	Hose, Kit, Supply/Return, 0.75" x 2ft

Certified Drawing	WGSH 24-30 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

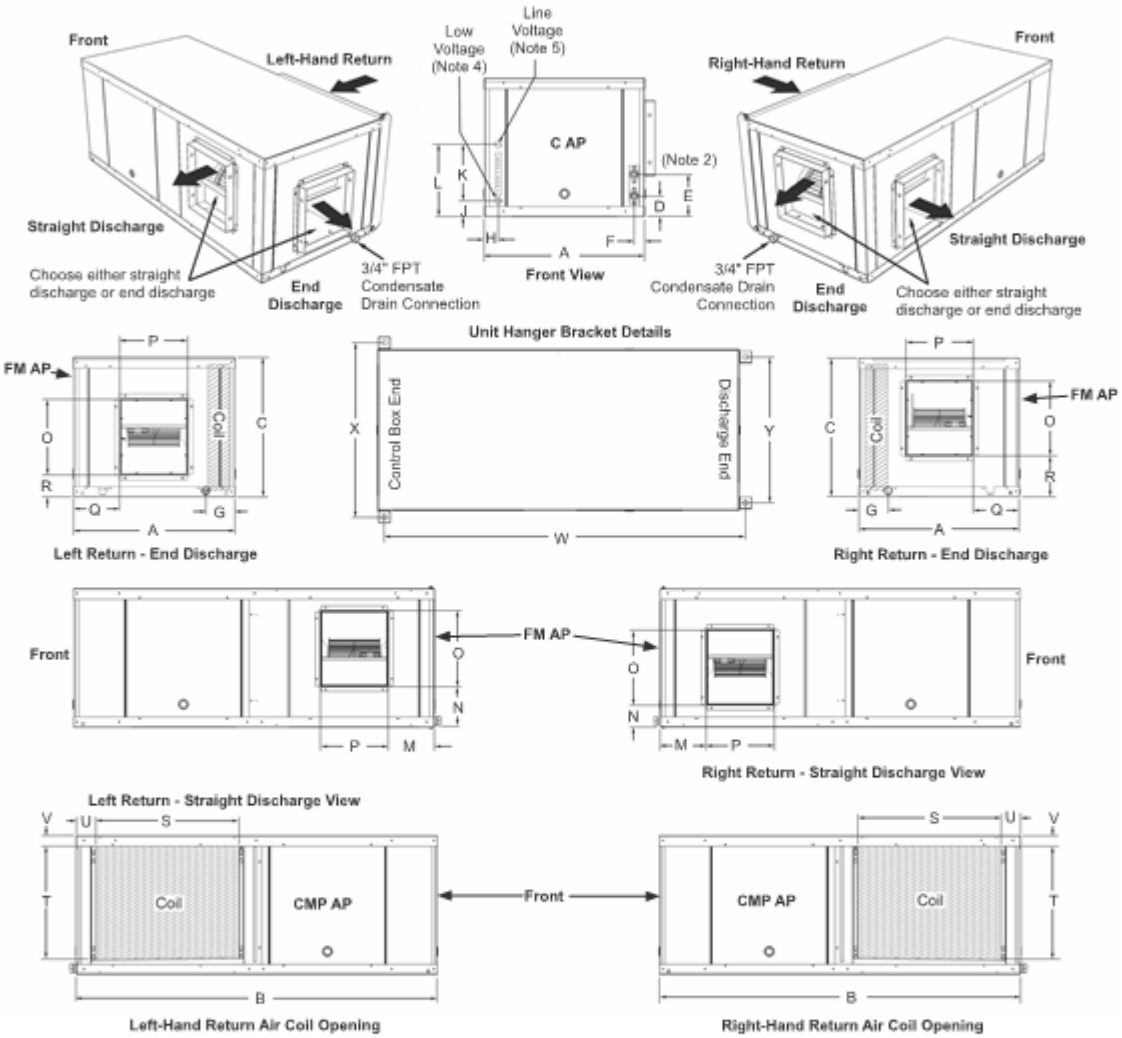


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
024, 030	22.40" (569)	63.30" (1608)	19.30" (490)	62.16 (1579)	23.90 (607)	18.64 (474)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
024, 030[3]	2.58 (66)	13.39 (340)	1.57 (40)	4.29 (109)	1.94 (49)	2.57 (65)	7.36 (187)	9.93 (252)

Notes: [3] *Supply and return piping connections = 3/4" (19 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
024, 030	4.41 (112)	6.20 (157)	2.71 (69)	10.39 (264)	9.32 (237)	4.41 (112)	2.71 (69)	6.20 (157)	32.50 (826)	15.45 (392)	1.97 (50)	1.93 (49)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

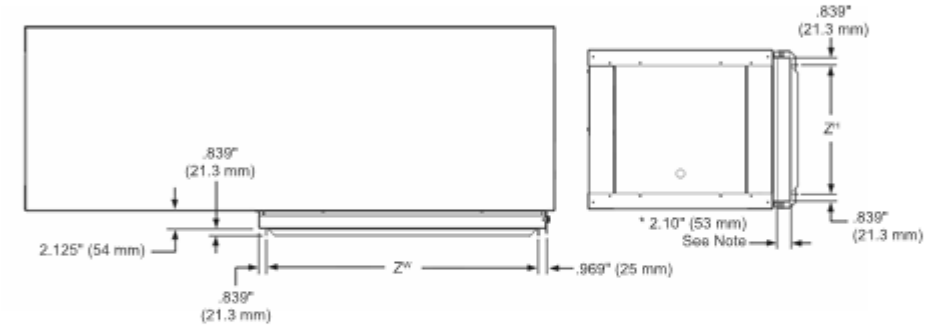
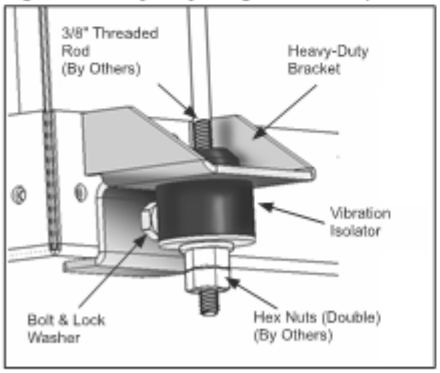


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z*	Z^N
024, 030	15.45 (392)	32.51 (826)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Heavy-duty hanger brackets (sizes 024-030)



DAIKIN

Technical Data Sheet for HP-202, 206, 207

Job Information	Technical Data Sheet
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-202, 206, 207

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0121	208-230/60/1	402	3.00	12598	14.7	16092	5.2

Unit

Model Number:	WGSH012
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	29.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
402 CFM	0.30 inH_2O	3.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection Btu/hr	EER @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr			
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.3	80.0	67.0	58.3	56.7	12598	9444	15521	14.7	9.87

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.3	70.0	106.9	16092	12993	5.2	10.12

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	5.64 A	6.82 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
4.7 A	25.0 A	0.94 A	15 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
45.00 in	17.30 in	21.60 in	171 lb	154 lb	0.50 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant Torque	0.10 hp

Technical Data Sheet for HP-202, 206, 207

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Right Hand
Discharge Air Location:	End

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 3.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 15 in x 21 in x 2 in

Insulation

Compressor Compartment:	3/4 Acoustic Open Cell Foam (Soundcoat)
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	9.01 ft H_2O
Base Unit Heat Pressure Drop:	9.26 ft H_2O
Motorized Valve Pressure Drop:	0.86 ft H_2O
Total Cool Pressure Drop:	9.87 ft H_2O
Total Heat Pressure Drop:	10.12 ft H_2O

Warranty

Unit Warranty:	4 Yr Compressor Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062801	Hose, Kit, Supply/Return, 0.50" x 2ft

Certified Drawing	WGSH 7-12 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

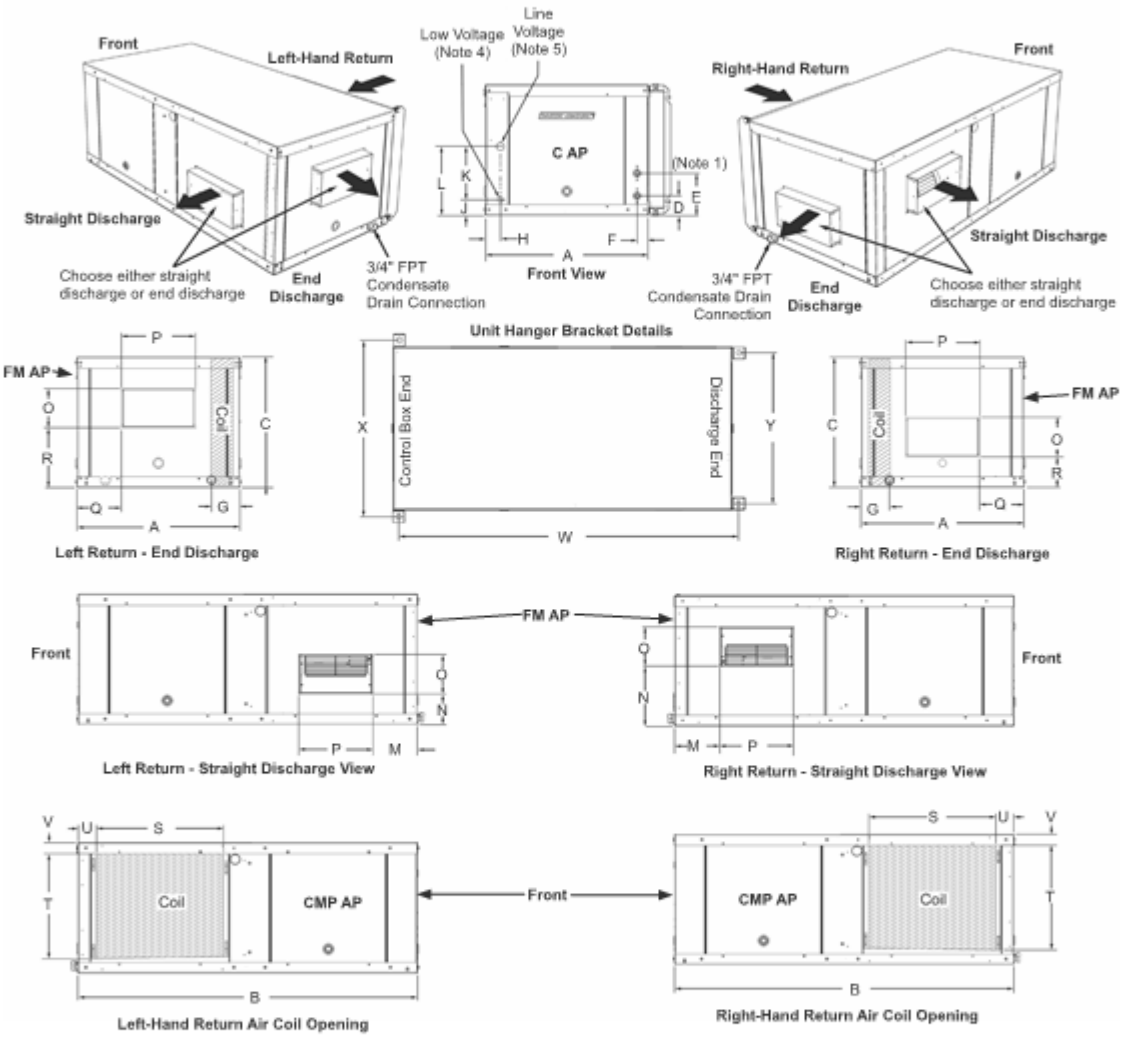


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
007, 009, 012	21.60 (549)	45.00 (1143)	17.30 (439)	44.67 (1135)	23.60 (599)	19.10 (485)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
007, 009, 012[1]	2.65 (67)	5.65 (144)	1.47 (37)	3.76 (96)	1.98 (50)	2.08" (53)	7.06 (179)	9.14 (232)

Notes: [1] *Supply and return piping connections = 1/2" (13 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
007, 009, 012	6.18 (157)	4.25 (108)	8.09 (206)	4.89 (124)	9.45 (240)	6.12 (156)	8.09 (206)	4.25 (108)	16.82 (427)	13.56 (344)	2.45 (62)	1.50 (38)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

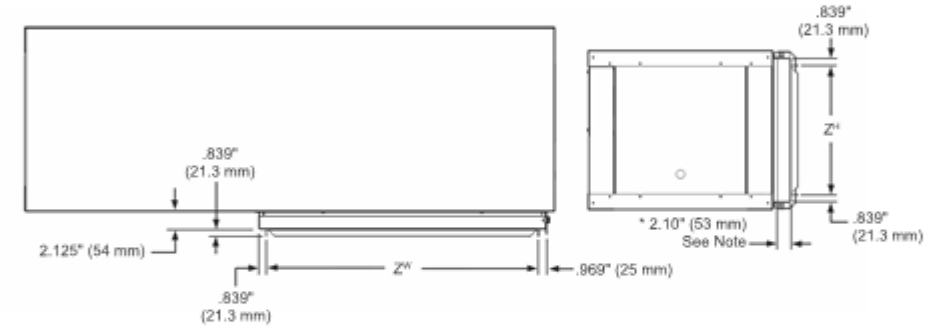
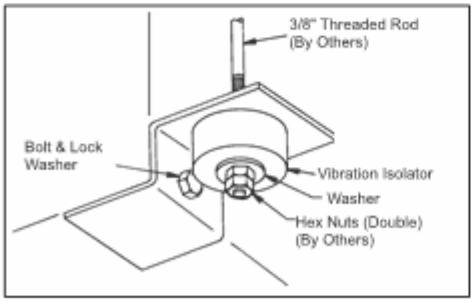


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z[M]	Z[M]
007, 009, 012	13.91 (353)	19.35 (491)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Hanger bracket details (sizes 007-012)



DAIKIN

Technical Data Sheet for HP-203

Job Information	*Technical Data Sheet*
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-203

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0121	208-230/60/1	402	3.00	12598	14.7	16092	5.2

Unit

Model Number:	WGSH012
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	29.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
402 CFM	0.30 inH_2O	3.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection Btu/hr	EER @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr			
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.3	80.0	67.0	58.3	56.7	12598	9444	15521	14.7	9.87

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.3	70.0	106.9	16092	12993	5.2	10.12

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	5.64 A	6.82 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
4.7 A	25.0 A	0.94 A	15 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
45.00 in	17.30 in	21.60 in	171 lb	154 lb	0.50 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant Torque	0.10 hp

Technical Data Sheet for HP-203

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Left Hand
Discharge Air Location:	End

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 3.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 15 in x 21 in x 2 in

Insulation

Compressor Compartment:	3/4 Acoustic Open Cell Foam (Soundcoat)
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	9.01 ft H_2O
Base Unit Heat Pressure Drop:	9.26 ft H_2O
Motorized Valve Pressure Drop:	0.86 ft H_2O
Total Cool Pressure Drop:	9.87 ft H_2O
Total Heat Pressure Drop:	10.12 ft H_2O

Warranty

Unit Warranty:	4 Yr Compressor Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062801	Hose, Kit, Supply/Return, 0.50" x 2ft

Certified Drawing	WGSH 7-12 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

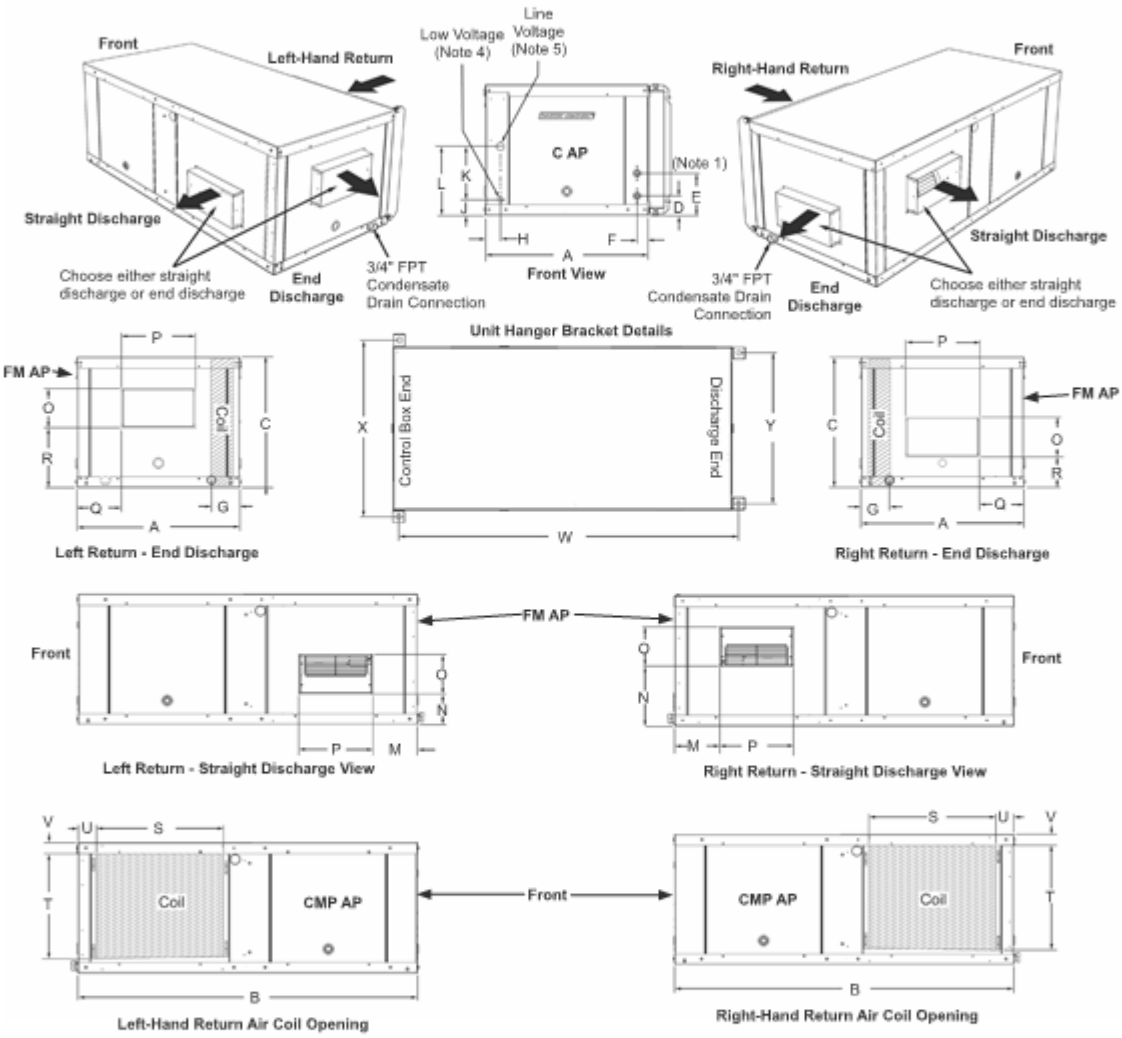


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
007, 009, 012	21.60 (549)	45.00 (1143)	17.30 (439)	44.67 (1135)	23.60 (599)	19.10 (485)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

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SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 007, 009 & 012 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
007, 009, 012[1]	2.65 (67)	5.65 (144)	1.47 (37)	3.76 (96)	1.98 (50)	2.08" (53)	7.06 (179)	9.14 (232)

Notes: [1] *Supply and return piping connections = 1/2" (13 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
007, 009, 012	6.18 (157)	4.25 (108)	8.09 (206)	4.89 (124)	9.45 (240)	6.12 (156)	8.09 (206)	4.25 (108)	16.82 (427)	13.56 (344)	2.45 (62)	1.50 (38)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

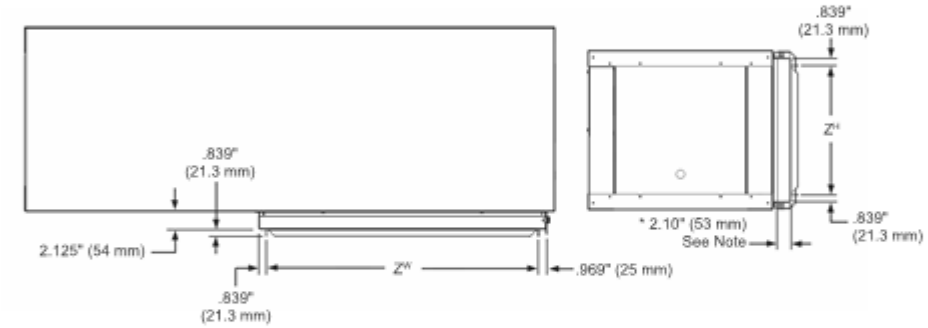
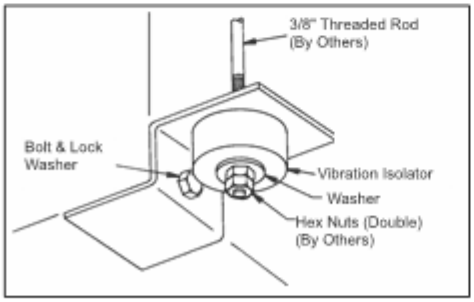


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z[4]	Z[3]
007, 009, 012	13.91 (353)	19.35 (491)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Hanger bracket details (sizes 007-012)



DAIKIN

Technical Data Sheet for HP-204

Job Information	Technical Data Sheet
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-204

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0241	208-230/60/1	800	6.00	26484	17.6	29519	5.5

Unit

Model Number:	WGSH024
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	56.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
800 CFM	0.30 inH_2O	6.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection	EER @ design	Fluid Pressure Drop
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr	Btu/hr		ft H_2O
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.5	80.0	67.0	58.5	56.0	26484	18693	31617	17.6	5.64

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.9	70.0	104.0	29519	24190	5.5	5.77

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	16.50 A	19.88 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
13.5 A	58.3 A	3.00 A	30 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
63.30 in	19.30 in	22.40 in	289 lb	254 lb	0.75 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant CFM	0.33 hp

Technical Data Sheet for HP-204

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Left Hand
Discharge Air Location:	Straight

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 6.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 17 in x 34 in x 2 in

Insulation

Compressor:	Premium
Compressor Compartment:	1/2 inch Fiberglass, Skin-faced
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	4.85 ft H_2O
Base Unit Heat Pressure Drop:	4.99 ft H_2O
Motorized Valve Pressure Drop:	0.78 ft H_2O
Total Cool Pressure Drop:	5.64 ft H_2O
Total Heat Pressure Drop:	5.77 ft H_2O

Warranty

Unit Warranty:	4 Yr Refrigerant Circuit Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062901	Hose, Kit, Supply/Return, 0.75" x 2ft

Certified Drawing	WGSH 24-30 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

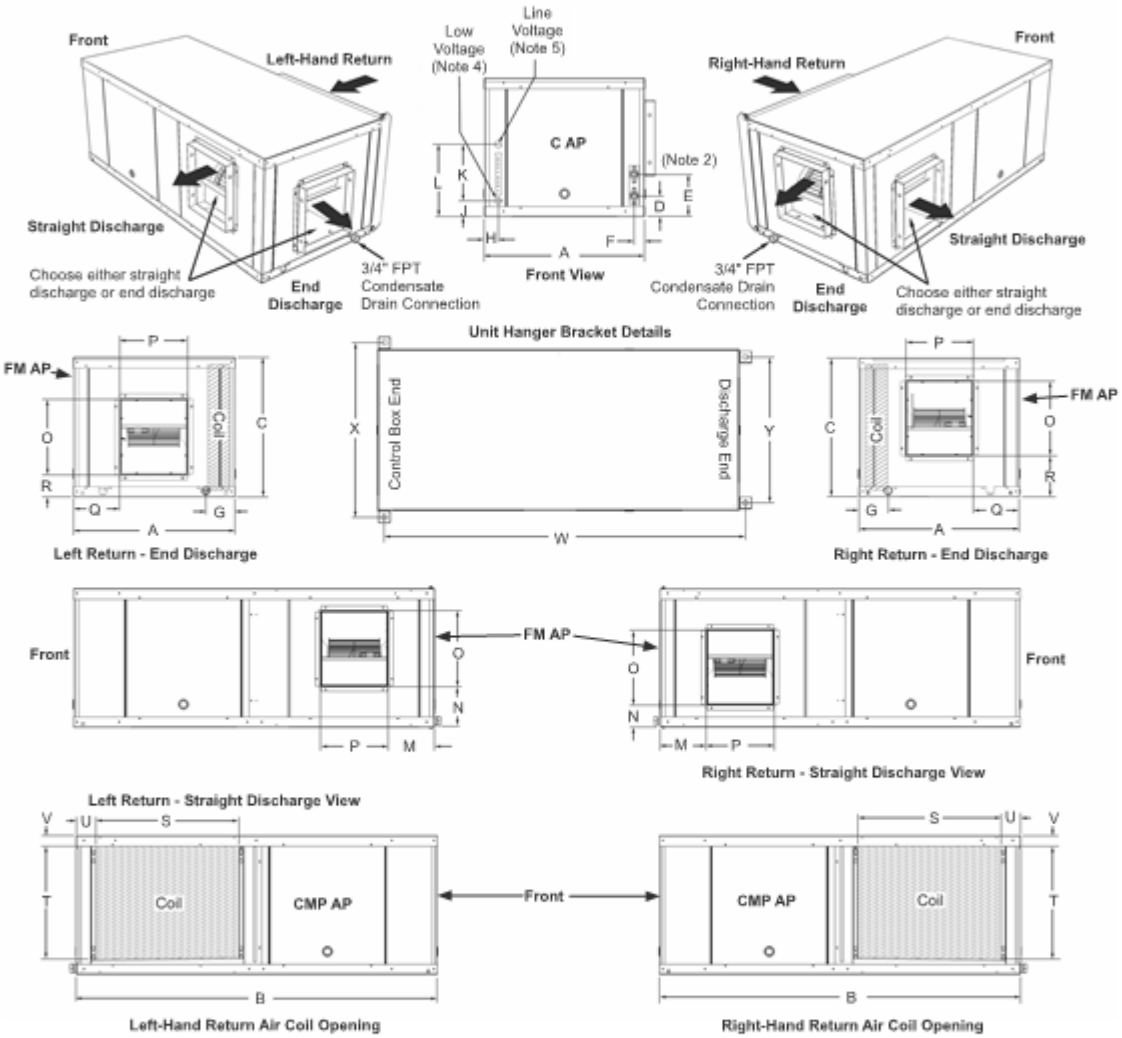


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
024, 030	22.40" (569)	63.30" (1608)	19.30" (490)	62.16 (1579)	23.90 (607)	18.64 (474)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
024, 030[2]	2.58 (66)	13.39 (340)	1.57 (40)	4.29 (109)	1.94 (49)	2.57 (65)	7.36 (187)	9.93 (252)

Notes: [2] *Supply and return piping connections = 3/4" (19 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
024, 030	4.41 (112)	6.20 (157)	2.71 (69)	10.39 (264)	9.32 (237)	4.41 (112)	2.71 (69)	6.20 (157)	32.50 (826)	15.45 (392)	1.97 (50)	1.93 (49)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

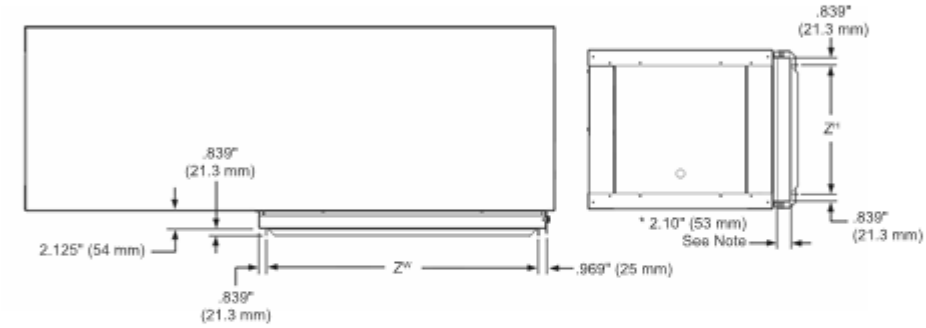
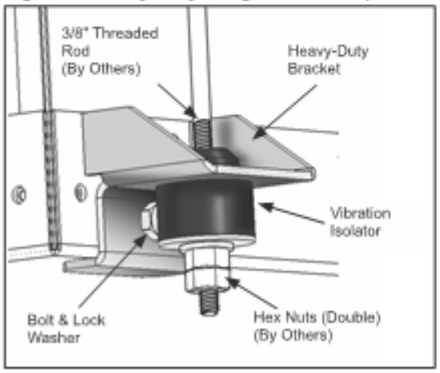


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z[4]	Z[N]
024, 030	15.45 (392)	32.51 (826)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Heavy-duty hanger brackets (sizes 024-030)



DAIKIN

Technical Data Sheet for HP-205

Job Information	Technical Data Sheet
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-205

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0241	208-230/60/1	800	6.00	26484	17.6	29519	5.5

Unit

Model Number:	WGSH024
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	56.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
800 CFM	0.30 inH_2O	6.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection	EER @ design	Fluid Pressure Drop
Entering °F	Leaving °F	Entering Dry Bulb °F	Entering Wet Bulb °F	Leaving Dry Bulb °F	Leaving Wet Bulb °F	Total Btu/hr	Sensible Btu/hr	Btu/hr		ft H_2O
85.0	95.5	80.0	67.0	58.5	56.0	26484	18693	31617	17.6	5.64

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption	COP @ design	Fluid Pressure Drop
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr	Btu/hr		ft H_2O
70.0	61.9	70.0	104.0	29519	24190	5.5	5.77

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	16.50 A	19.88 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
13.5 A	58.3 A	3.00 A	30 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
63.30 in	19.30 in	22.40 in	289 lb	254 lb	0.75 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant CFM	0.33 hp

Technical Data Sheet for HP-205

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Left Hand
Discharge Air Location:	End

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 6.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 17 in x 34 in x 2 in

Insulation

Compressor:	Premium
Compressor Compartment:	1/2 inch Fiberglass, Skin-faced
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	4.85 ft H_2O
Base Unit Heat Pressure Drop:	4.99 ft H_2O
Motorized Valve Pressure Drop:	0.78 ft H_2O
Total Cool Pressure Drop:	5.64 ft H_2O
Total Heat Pressure Drop:	5.77 ft H_2O

Warranty

Unit Warranty:	4 Yr Refrigerant Circuit Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062901	Hose, Kit, Supply/Return, 0.75" x 2ft

Certified Drawing	WGSH 24-30 LH-RH ED-SD Specs
The Water Source Heat Pump product represented on this document will conform to the drawings and specifications set out below, in accordance with the express, written Limited Warranty. Purchaser's acceptance of this drawing certifies that the conforming equipment meets the order specifications. No changes may be made to this document without the prior, express, written authorization of the manufacturer.	Group: **WSHP**
	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

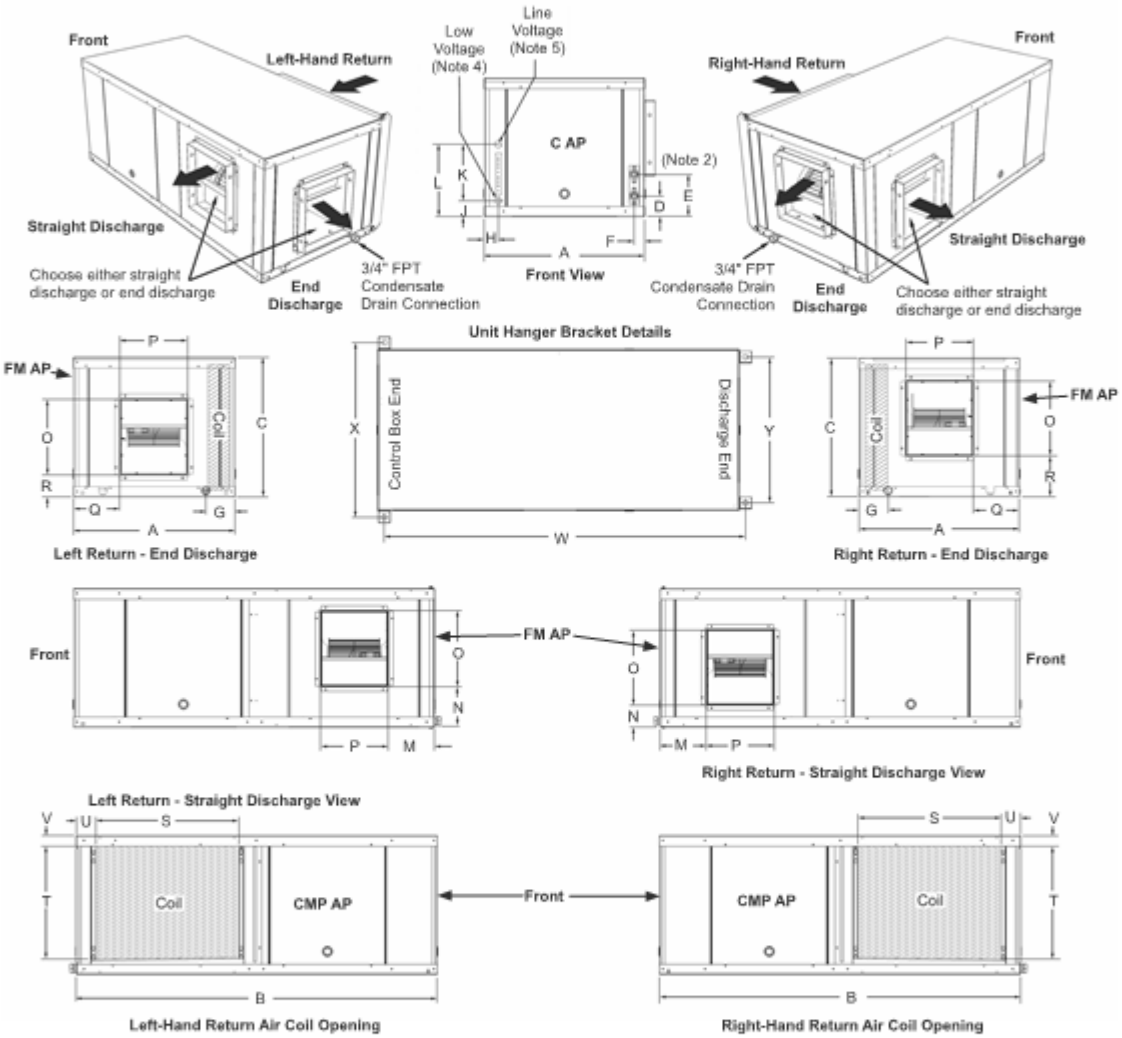


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
024, 030	22.40" (569)	63.30" (1608)	19.30" (490)	62.16 (1579)	23.90 (607)	18.64 (474)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
024, 030[2]	2.58 (66)	13.39 (340)	1.57 (40)	4.29 (109)	1.94 (49)	2.57 (65)	7.36 (187)	9.93 (252)

Notes: [2] *Supply and return piping connections = 3/4" (19 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
024, 030	4.41 (112)	6.20 (157)	2.71 (69)	10.39 (264)	9.32 (237)	4.41 (112)	2.71 (69)	6.20 (157)	32.50 (826)	15.45 (392)	1.97 (50)	1.93 (49)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

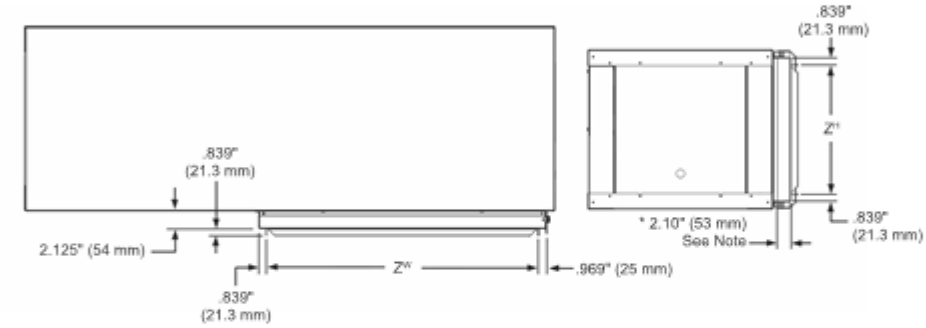
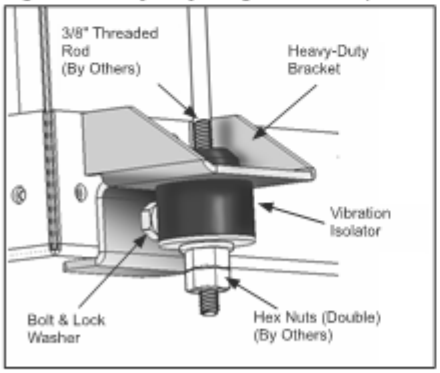


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z*	ZN
024, 030	15.45 (392)	32.51 (826)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Heavy-duty hanger brackets (sizes 024-030)



DAIKIN

Technical Data Sheet for HP-208

Job Information	Technical Data Sheet
Job Name	121 Middle St Lofts 2nd Flr
Date	3/18/2020
Submitted By	Ann Marie Juliano
Software Version	08.42
Unit Tag	HP-208

Unit Overview

Model Number	Voltage V/Hz/Phase	Airflow CFM	Fluid Flow gpm	Cooling Capacity Btu/hr	Cooling Efficiency EER @ design	Heating Capacity Btu/hr	Heating Efficiency COP @ design
WGSH0241	208-230/60/1	800	6.00	26484	17.6	29519	5.5

Unit

Model Number:	WGSH024
Unit Type:	SmartSource - Single Stage
Approval:	ETL, CETL, AHRI

Configuration	Refrigerant Type	Refrigerant Weight	Loop Temperature Range
Horizontal	R-410A	56.0 oz	Water Loop (Standard Range)

Unit Performance

Air & Water Flow

Airflow	Total External Static Pressure	Fluid Flow	Fluid Type	Altitude
800 CFM	0.30 inH_2O	6.00 gpm / 3.00 gpm/ton	Water	0 ft

Cooling Performance

Fluid Temperature		Air Temperature				Capacity		Heat of Rejection	EER @ design	Fluid Pressure Drop
Entering °F	Leaving °F	Entering		Leaving		Total Btu/hr	Sensible Btu/hr	Btu/hr		ft H_2O
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F					
85.0	95.5	80.0	67.0	58.5	56.0	26484	18693	31617	17.6	5.64

Heating Performance

Fluid Temperature		Air Temperature		Capacity	Heat of Absorption Btu/hr	COP @ design	Fluid Pressure Drop ft H_2O
Entering °F	Leaving °F	Entering Dry Bulb °F	Leaving Dry Bulb °F	Total Btu/hr			
70.0	61.9	70.0	104.0	29519	24190	5.5	5.77

*System WPD is calculated without the autoflow valve as the CV of an autoflow valve varies dependent on the system WPD. As long as the WPD is >3 psid, the autoflow valve will provide the selected GPM flowrate.

Electrical

Unit Voltage	Minimum Voltage	Total Unit Full Load Current	Total Unit MCA
208-230/60/1	197.0 V	16.50 A	19.88 A
Compressor RLA	**Compressor LRA**	**Motor FLA**	**Maximum Recommended Fuse Size / HACR Breaker Size**
13.5 A	58.3 A	3.00 A	30 A

*Short-Circuit Current = 5 kA rms symmetrical, 600 V maximum

Physical

Unit

Length	Height	Width	Weight		Connection	
			Shipping	Operating	Water	Condensate
63.30 in	19.30 in	22.40 in	289 lb	254 lb	0.75 in	0.75 in

Fan

Motor Type	Motor Horsepower
ECM Constant CFM	0.33 hp

Technical Data Sheet for HP-208

Unit Options

Controls

Unit Control:	Microtech III
Control Transformer:	75 VA Transformer
Thermostat / Sensor Control:	Thermostat Control

Unit Airflow Configuration

Return Air Location:	Right Hand
Discharge Air Location:	Straight

Factory Mounted Options

Coaxial Heat Exchanger Options

Heat Exchanger:	Copper Inner Tube / Steel Outer Tube
Auto Flow Regulator:	Auto Flow Control 6.0 GPM
Flow Control:	24V, Normally Closed (Fails Closed)

Construction Options

Cabinet

Finish:	Galvanized

Drain Pan Material

Primary:	Stainless Steel

Filters

Filter Rack Type:	Standard 2" 4-Sided
Filter Type:	Disposable
(Quantity) Filter Dimensions:	(1) 17 in x 34 in x 2 in

Insulation

Compressor:	Premium
Compressor Compartment:	1/2 inch Fiberglass, Skin-faced
Air Compartment:	3/4 inch Acoustic Open Cell Foam (Soundcoat)

Miscellaneous

Sound Package:	Premium
Primary DX Air Coil Treatment:	Standard

Water Pressure Drop Calculation

Base Unit Cool Pressure Drop:	4.85 ft H_2O
Base Unit Heat Pressure Drop:	4.99 ft H_2O
Motorized Valve Pressure Drop:	0.78 ft H_2O
Total Cool Pressure Drop:	5.64 ft H_2O
Total Heat Pressure Drop:	5.77 ft H_2O

Warranty

Unit Warranty:	4 Yr Refrigerant Circuit Only Extended Parts Warranty, 1st Yr Labor Allowance

AHRI Certification

All equipment is rated and certified in accordance with AHRI / ISO 13256-1 and tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada.

Accessories

Optional

Part Number	Description
106062901	Hose, Kit, Supply/Return, 0.75" x 2ft

Certified Drawing	WGSH 24-30 LH-RH ED-SD Specs
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	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

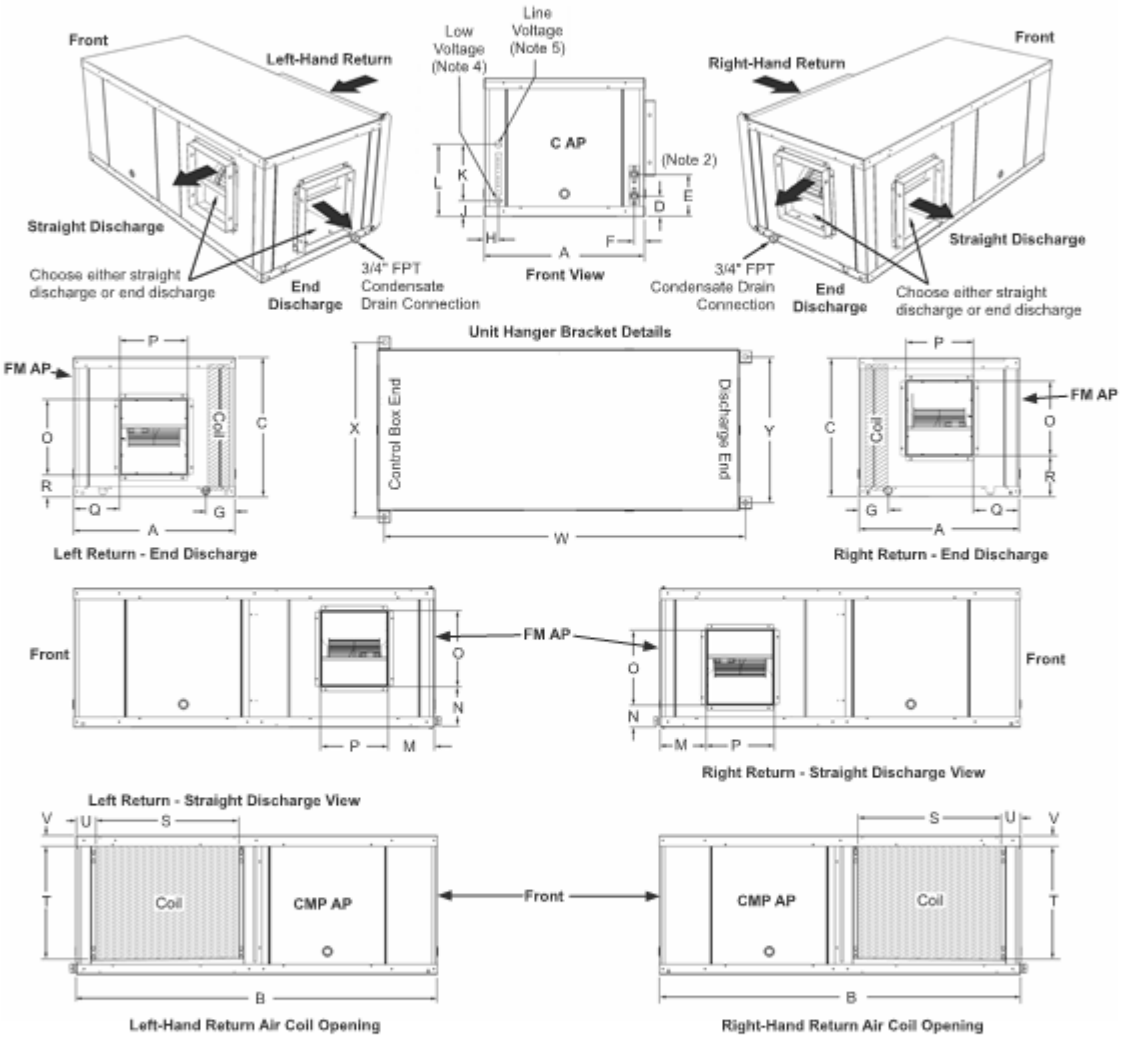


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
024, 030	22.40" (569)	63.30" (1608)	19.30" (490)	62.16 (1579)	23.90 (607)	18.64 (474)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
024, 030[3]	2.58 (66)	13.39 (340)	1.57 (40)	4.29 (109)	1.94 (49)	2.57 (65)	7.36 (187)	9.93 (252)

Notes: [3] *Supply and return piping connections = 3/4" (19 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
024, 030	4.41 (112)	6.20 (157)	2.71 (69)	10.39 (264)	9.32 (237)	4.41 (112)	2.71 (69)	6.20 (157)	32.50 (826)	15.45 (392)	1.97 (50)	1.93 (49)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

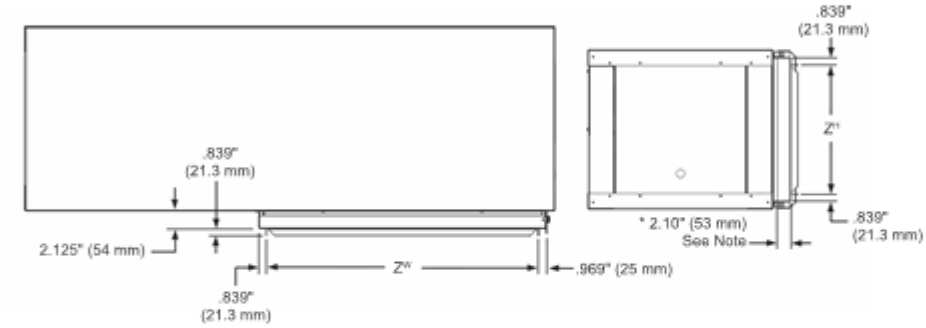
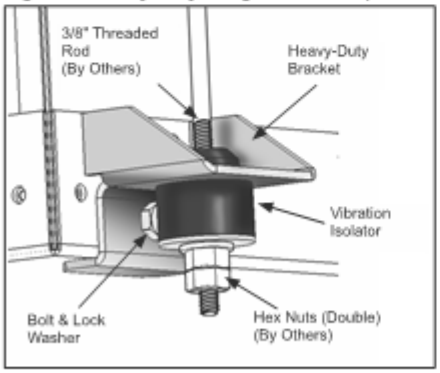


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z*	ZN
024, 030	15.45 (392)	32.51 (826)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Heavy-duty hanger brackets (sizes 024-030)



DAIKIN

Certified Drawing	WGSH 24-30 LH-RH ED-SD Specs
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	Type: **WGSH Horizontal**
	Date: **July 2017**

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

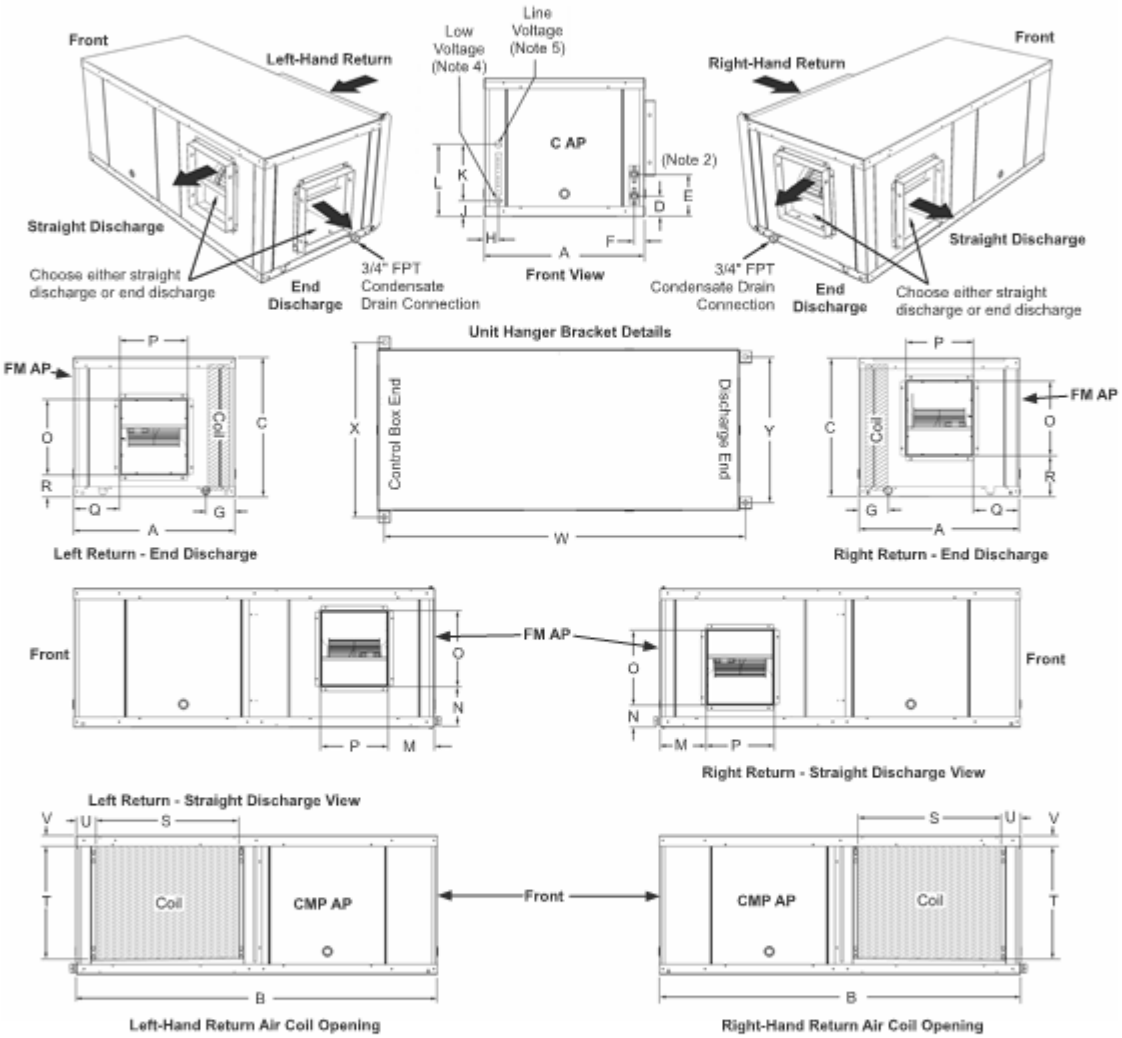


Table 1: Overall cabinet dimensions in inches (mm) (dimensions within ± 0.10 inches (2.5 mm)

GSH-Horizontal Unit	Overall Cabinet Dimensions in inches (mm)			Hanger Bracket Location Dimensions		
	A = Width	B = Length	C = Height	W	X	Y
024, 030	22.40" (569)	63.30" (1608)	19.30" (490)	62.16 (1579)	23.90 (607)	18.64 (474)

Notes: *All dimensions within ± 0.10 inches (2.5 mm).*

Legend: ***CMP AP*** *= Compressor Compartment Access Panel* ***C AP*** *= Control Access Panel* ***FM AP*** *= Fan Motor Access Panel*

DAIKIN

SmartSource® Single Stage Horizontal WSHP

Model WGSH – Size 024 & 030 (Left-hand & right-hand return, end & straight discharge)

Table 2: Piping connections dimensions

GSH Horizontal Unit	Piping Connections in inches (mm)				Electrical Connections in inches (mm)			
	D	E	F	G	H	J	K	L
	Supply	Return		Condensate Drain 3/4" FPT		Low Voltage[4]	Between	Line Voltage[5]
024, 030[3]	2.58 (66)	13.39 (340)	1.57 (40)	4.29 (109)	1.94 (49)	2.57 (65)	7.36 (187)	9.93 (252)

Notes: [3] *Supply and return piping connections = 3/4" (19 mm) FPT.*
[4] *Low voltage opening = 7/8" (22 mm) diameter.*
[5] *Line voltage opening = 1-1/8" (29 mm) diameter.*

Table 3: Discharge duct & return air coil opening dimensions

GSH Horizontal Unit	Discharge Air Duct Connection in inches (mm)								Return Air Coil Opening in inches (mm)			
	M	N		O	P	Q	R		S	T	U	V
		Left-hand	Right-hand				Left-hand	Right-hand				
024, 030	4.41 (112)	6.20 (157)	2.71 (69)	10.39 (264)	9.32 (237)	4.41 (112)	2.71 (69)	6.20 (157)	32.50 (826)	15.45 (392)	1.97 (50)	1.93 (49)

Note: *All duct dimensions are referenced from the outside edge of the flange.*

Figure 1: GSH horizontal unit - 2" filter rack assembly & duct collar dimensions

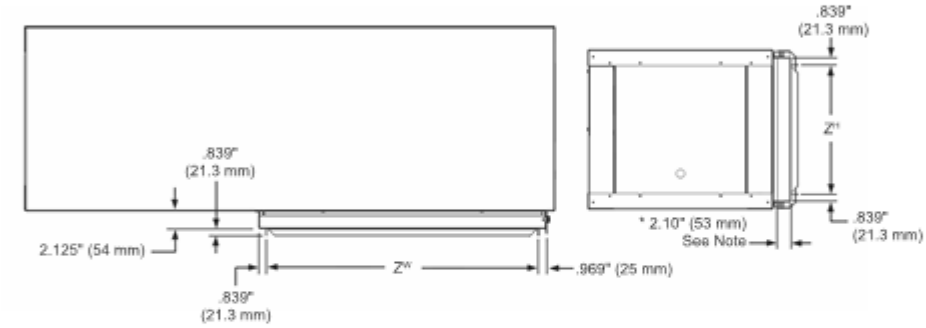
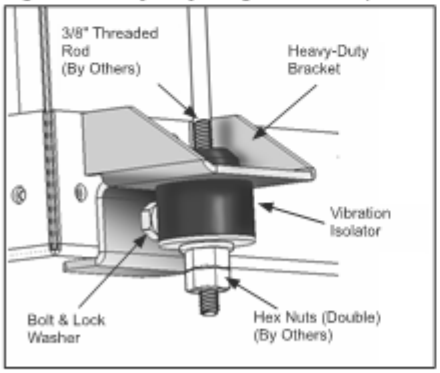


Table 4: GSH horizontal unit 2" filter rack dimensions

Unit Size	Z*	Z^N
024, 030	15.45 (392)	32.51 (826)

Note: ** Optional 4" filter rack = 4.10" (104 mm).*

Figure 2: Heavy-duty hanger brackets (sizes 024-030)



DAIKIN

Certified Drawing	Hose Kit 2 - Specs
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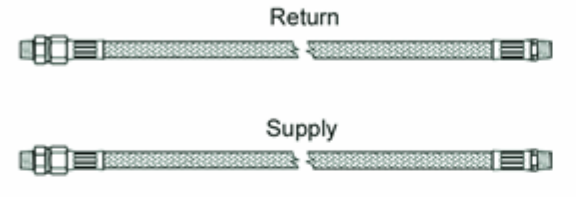
	Type: **Hose Kit**
	Date: **June 2014**

Fire Rated Supply and Return Hose Kits

Hose Kit #2 (2 hoses per kit)

Features

- Fixed Male NPT x Female JIC Swivel with Male NPT Adapter



Specifications:

Hose Connection Sizes ..... 1/2" to 1-1/2"
Inner Tube ..... EPTF - White Santoprene with UL-94 VO Fire Rating
Outer Braid ..... 302/304 Stainless Steel
Hose Fittings ..... Plated Steel
Hose/Adapter Connection ..... Male 37-degree JIC Metal to Metal Seal (no o-ring or gaskets)
Fixed End Fitting ..... MNPT[1]
Swivel End Fitting ..... MNPT[1]
Temperature Range ..... -40°F to 212°F

Table 1: Hose kit #2 part numbers and data

Part Number	Connection Size[3] (inches)	Length[2] (ft)	Hose Min Bend Radius (inches)	Hose Working Pressure (psi)	Hose Burst Pressure (psi)
106062801	1/2	2	2.5	400	1600
106063101	1/2	3	2.5	400	1600
106062901	3/4	2	4	400	1600
106063201	3/4	3	4	400	1600
106063401	1	2	5.5	500	2000
106063501	1	3	5.5	500	2000
106063001	1-1/4	2	10	400	1600
106063301	1-1/4	3	10	400	1600
106064501	1-1/2	2	10	400	1600
106064601	1-1/2	3	10	400	1600

Notes: [1] Male pipe thread fittings have sealant pre-applied.
[2] Length is for the hose only and does not include the adapter.
[3] Fitting size, not actual hose diameter.
[4] 1-1/2" hose kits have a secondary FPT to MPT adapter on the fixed end.

Legend:
NPT - National Pipe Thread
JIC - Joint Industrial Committee
EPTF - Ethylene Propylene Thermoplastic Rubber
MNPT - Male National Pipe Thread
FNPT - Female National Pipe Thread

DAIKIN

2Tier Hose Kit 2 – Specs

EASTERN SERVICES ELECTRICAL CONTRACTORS, LLC

Sub-Contractor:	Eastern Services Electrical Contractors, LLC 40 Lowell Road Unit 1 Salem, NH 03079 (603)894-4500	**Project:**	Aloft Hotel 179 Commercial Street Portland, ME 04101

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with Conditions
05/27/2020

Submittal:	Fire Alarm	**Date:**	3/30/2020
Spec Section:	Electrical 26		

	OCC: Reviewed for general compliance
	Fire Alarm Panel & Device Submittals Aloft Portland 4-2-20.pdf
	04/02/2020 4:00:43 PM

Fire Alarm Submittal

SK 6820 Fire Alarm Control Panel
SK 5895XL Intelligent Power Supply
SK 6815 Slc Expander
SK 6860 Remote Annunciator
AES 7788F Communicator
SK Photo- Smoke Detector
SK Fire CO- Combination Smoke & CO Detector
SK Monitor- Intelligent Monitor Module
SK Minimon- Intelligent Mini Monitor Module
SK Relay- Intelligent Relay Module
SK Control- Intelligent Notification Module
SK Pull DA- Pull Station
SK Duct- Intelligent Air Duct Smoke Detector
SK Heat W- Heat Detector
System Sensor P2RL Horn Strobe
System Sensor SRL Strobe
System Sensor P2RK Outdoor Horn Strobe
System Sensor B200S LF- Low Frequency Sounder Base
Edwards 125 Class Strobe Beacon

aes-corp.com

Smart Subscribers for Commercial Fire Alarm Systems

7788F/7744F Series Fire Subscribers

Features

- AES-*IntelliNet*® smart mesh radio networks are self-forming, self-healing, and highly scalable
- AES-*IntelliNet* alarm communications technology never sunsets compared to cellular alternatives
- Each Smart Subscriber enables multiple paths to a central monitoring station
- Option to transmit full data from FACP digital dialer to AES-*MultiNet* receiver
- Simple and fast activation on AES-*IntelliNet* network

Benefits

- Most stable and profitable fire alarm communication technology
- Network owner-operators retain virtually all RMR
- Meets UL 864 Commercial Fire Alarm requirements for primary standalone communication
- Ideal drop-in full-function replacement for phone lines
- Universal wireless Smart Subscriber Transceivers support all new and legacy FACPs

Advanced Wireless Fire Alarm Monitoring

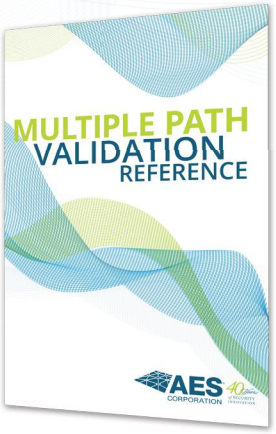
AES 7788F/7744F Series Subscribers are the ideal universal wireless communicators for any new or existing fire alarm system. AES-*IntelliNet* networks are built using AES Corporation's patented mesh radio communications technology. A Smart Subscriber at each alarm site acts as transmitter, receiver, and repeater of alarm signals across the network. This creates a smart long-range radio network with multiple pathways between each alarm site and the central receiver. Multiple pathways mean multiple redundancies assuring the most reliable delivery of signals and compliance with rigorous industry standards. AES-*IntelliNet* networks self-adjust to network changes and assure that signals automatically follow the shortest path available as the network of Subscribers grows.

Highest Long Term Stability and Profitability

AES-*IntelliNet* remains the most stable and profitable fire alarm communication technology available today in the rapidly changing world of communications. AES private wireless networks never sunset compared to cellular technology and traditional phone lines. AES-*IntelliNet* networks maximize RMR generated from network alarm communication services because signals are delivered without the need for a costly operations center or cellular service providers.

UL 864 Edition 9 Compliant – Primary Standalone Communicators

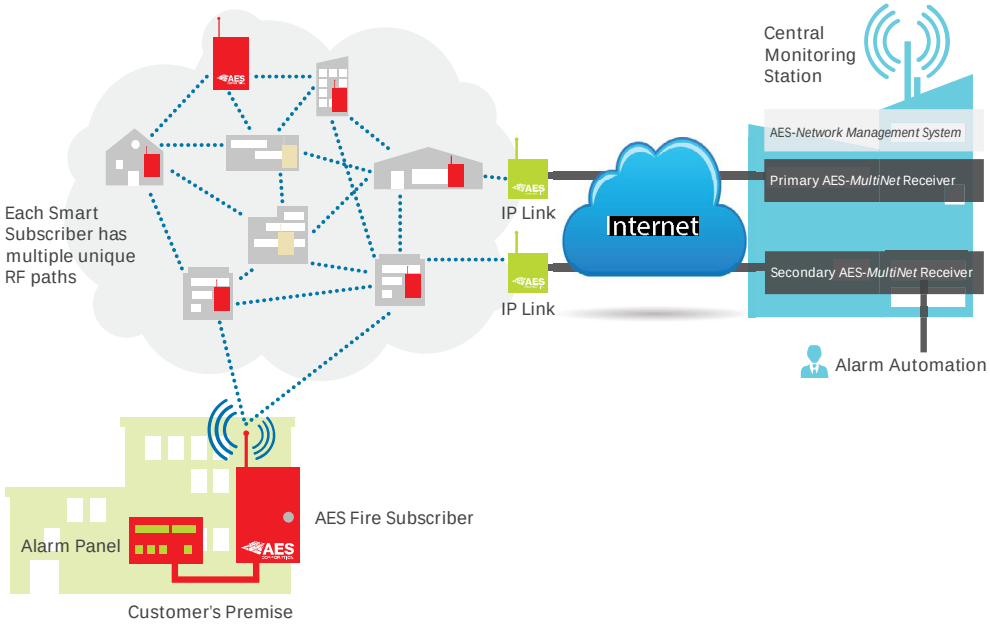
In order to meet UL approval and NFPA compliance, most fire alarm communicators require either a second communication technology or a costly service plan included with sole path cellular alternatives. With AES-*IntelliNet* alarm communications technology, each standalone AES 7788F/7744F Subscriber provides multiple RF pathways across the mesh radio network to the central monitoring station. To meet compliance standards, only 2 RF paths are required. Please refer to the official NFPA 72 National Fire Alarm and Signaling Code handbook, Chapter 26 (26.6.3.3.2 One-Way Private Radio Alarm Systems/Technology Reference Comparison Table A.26.6.1).



Multiple RF Path Reference Guide

AES provides a *Multiple Path Validation Reference* guide detailing how to easily validate multiple RF paths at each AES 7788F/7744F Series Fire Subscriber. The guide also provides a complete listing of the codes and standards to which AES-*IntelliNet* products have been tested. To assist Authorities Having Jurisdiction (AHJs) with the fire alarm inspection process, the guide and other valuable installer tools are available for download from the company website. Visit our Fire Marshal Resources page at (http://www.aes-intellinet.com/products/fire/fire-marshal-resources/).

AES-*IntelliNet*® Private Wireless Mesh Network



Each Smart Subscriber acts as transmitter, receiver, and repeater creating a smart long-range radio network with multiple pathways and multiple redundancies. The AES-*IntelliNet* network is self-forming, self-healing, highly scalable and assures that signals follow the shortest path available as the network expands.

Cost Free Supervised Operation

AES Subscribers offer fully-supervised operation that includes monitoring of primary and back-up operating power as well as the radio connection to the AES-*IntelliNet* network. Each Subscriber performs "Check-ins" with the AES central station receiver at least once every 24 hours which complies with the UL 864 standard for commercial fire alarm communications. The supervision Check-in time can be set to as often as needed for the application. Because the central station owns and operates the long-range wireless network, there is no cost for air time to transmit supervisory signals. This is very different from cellular alternatives which require an aggressive supervision Check-in schedule in order to comply with UL 864 listing. The high monthly cost for cellular service fees significantly reduce RMR profit.

> Unlike cellular, there is no cost for air time to transmit supervisory signals.

Full Data Module Option - Ideal replacement for Phone Lines

AES Subscribers transmit consolidated alarm, trouble, and supervisory signals triggered by a FACP output relay. Subscribers with an integrated AES-*IntelliPro* Fire full data module transmit full alarm zone and event codes captured from a panel's digital communicator. Both options individually meet UL and NFPA 72 requirements. AES Fire Subscribers with built-in full data module are the ideal drop-in full-function replacement for phone lines for communicating signals from both new and existing UL commercial fire alarm systems. Replacing phone lines with AES-*IntelliNet* maximizes RMR profit with significant bottom line impact, unlike with cellular technologies that charge high monthly service fees.

How to Order

AES Fire Subscribers	
7788F	8 Zone Fire Subscriber, 8 Supervised Zones, Red Enclosure.
7744F	4x4 Zone Fire Subscriber, 4 Reversing Polarity, 4 Supervised Zones, Red Enclosure.
7788F-ULP	8 Zone Fire Subscriber, 8 Supervised Zones, includes 7794 AES-*IntelliPro* Fire, Red Enclosure.
7744F-ULP	4x4 Zone Fire Subscriber, 4 Reversing Polarity, 4 Supervised, includes 7794 AES-*IntelliPro* Fire, Red Enclosure.
7788F-ULP-P	8 Zone Fire Subscriber, 8 Supervised Zones, includes 7795 AES-*IntelliPro* Fire, Red Enclosure. UL listed for primary standalone communication with fire radios.
7744F-ULP-P	4x4 Zone Fire Subscriber, 4 Reversing Polarity, 4 Supervised Zones, includes 7795 AES-*IntelliPro* Fire, Red Enclosure. UL listed for primary standalone communication with fire radios.
7788F-C	8 Zone Fire Alarm Subscriber. ULC listed for Canada.
7788F-C-ULP	7788F-C Fire Alarm Subscriber with AES-*IntelliPro* Fire full data module. ULC listed for Canada.
Add-on AES-*IntelliPro* Fire Modules	
7794	AES-*IntelliPro* Fire Full Data Module. UL listed for supplemental communication with fire radios.
7795	AES-*IntelliPro* Fire Full Data Module (7794) with 7762 Hardware Supervisory Module and 7740 AES Local Annunciator. UL listed for primary standalone communication with fire radios.
7742	7762 Hardware Supervisory Module and 7740 AES Local Annunciator. 7762 module provides power and supervision of the 7740 AES Local Annunciator.
AES Local Annunciator	
7740	7740 AES Local Annunciator. UL listed for use with 7795 module or 7742 module.

Technical Specifications

7788F/7744F

Dimensions
- 13.25"H x 8.5"W x 4.3"D (34cm H x 21.5cm W x 11cm D)

Weight
- Approx. 7 pounds (3.2 kilograms), excludes battery

Radio Frequency
- Standard Frequency Range: 450-470MHz (others available in 400-512MHz range
- Output Power – 2 Watts and 5 Watts

Antenna
- Included 2.5 db tamper resistant antenna mounts on enclosure
- Multiple remote antenna options available

Power Input
- 16.5VAC, 40VA transformer (not included) (AES 1640, ELK TRG1640, MG Electronics MGT1640 – UL Listed for use)

Backup Battery
- Will charge 12V battery up to 7.5 - 12 AH,
- Requires 12VDC 7.5 AH battery for UL 864

Alarm Signal Inputs (subscriber)
- 7788F – 8 individually programmable zones
- 7744F – 4 individually programmable zones and 4 reverse polarity inputs

UL Standards
- UL 864 Edition 9 – Standard for Control Units and Accessories for Fire Alarm Systems
- UL 365 – Standard for Police Station Connected Burglary Alarm Units and Systems
- UL 1681 – Standard for Central Station Burglary Alarm Units

Antenna Cut/Communication Trouble Output
- Form C relay; fail secure; rated for 24 VDC 1A resistive

Reset Button
- Located on main circuit board

Operating Temperature
- 0° to 50° C (32° to 122°F)

Storage Temperature
- –10° to 60° C (14° to 140°F)

Relative Humidity
- 0 to 85% RHC, Non-Condensing

7794
- Transmits full data to AES-*MultiNet* receiver using Contact ID or Pulse formats
- Formats Supported: Contact ID, Pulse 3+1, Pulse 4+1, Pulse 4+2, Modem IIe, and Modem IIIa2

Input/Output Connections
- AES Subscriber – data and power
- Handheld/PC programming port
- Plain Old Telephone Service (POTS) incoming phone line
- Phone output connection from alarm panel
- Trouble output (form C relay)

Size
- 4.875" x 5" (12.3cm x 12.7cm)

Power Requirements
- 12 VDC nominal, primary and backup power provided by the AES RF Transceiver Unit

Current Consumption
- 350 mA nominal

7795
- P/N 40-7795 is a kit that includes 7794 module and 7762 Hardware Supervisory module. For 7794, please see Technical Specifications above

7762
- Hardware Supervisory Module

Input/Output Connections
- J1 - AES 7794 (J2) or Subscriber (J1) - data and power
- Input for Subscriber J4 Output
- Input for AES 7740 Local Annunciator - data and power
- AES 7740/AES 7794 Trouble Output to Subscriber input zone

Size
- 2.5" x 4.9375" (6.3cm x 12.5cm)

Power Input
- 12VDC nominal, power supplied from AES 7794 module or AES 7788F/7744F Subscribers

Current Consumption
- 40 mA average; 100 mA peak

Specifications Subject to Change Without Notice

About AES Corporation

Established in 1974, AES Corporation empowers companies to grow profitable alarm monitoring businesses, and government agencies to enhance security anywhere in the world. By providing the industry's only patented owner operated and controlled private wireless mesh networks, AES ensures superior reliability, low Total Cost of Ownership (TCO) and optimal Recurring Monthly Revenue (RMR) while reducing dependence on service provider infrastructures. The company's flagship AES-*IntelliNet*® systems are deployed in over a half million locations worldwide.

For more information, go to www.aes-corp.com or call
(800) 237-6387 or contact us at sales@aes-corp.com

6815

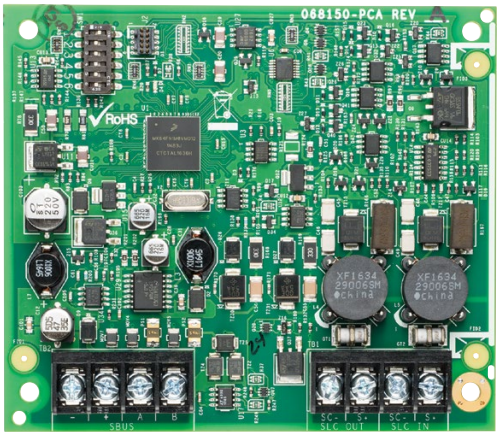
Signaling Line Circuit Expander

The 6815 is a signaling line circuit (SLC) expander for use with Honeywell Silent Knight 6820 or 6820EVS fire alarm control panels (FACPs)using System Sensor® (SK) protocol. The 6815 signaling circuit has the same functionality as the SLC that is built into the 6820 and 6820EVS panels and support the same addressable devices as the one in each panel. The number of 6815 SLCs that can be used within one system is largely dependent on maximum available points. They provide a powerful way to customize configurations in large or complex installs.

The 6820 and 6820EVS panels support up to 1,110 maximum points and come with one integrated SLC. Each added 6815 can support an additional 159 SK devices, and 159 SK modules.

The 6815 can also be used for SWIFT® wireless detection. SWIFT wireless devices communicate with the FACP through a gateway (WSK-WGI) that connects to the SLC using SK protocol. The integrated SLC, or a 6815 SLC, can be used for this purpose. SWIFT devices can also be combined with hard-wired devices on the same SLC for additional versatility. The result is more flexibility and design options when hard-wire solutions are problematic.

The 6815 communicates with the FACP via an RS 485 system bus. A green LED on the 6815 board blinks to indicate good communication. If an addressable device on a 6815 fails, the loop communicates the failure to the 6820 and 6820EVS and continues to operate normally



6815

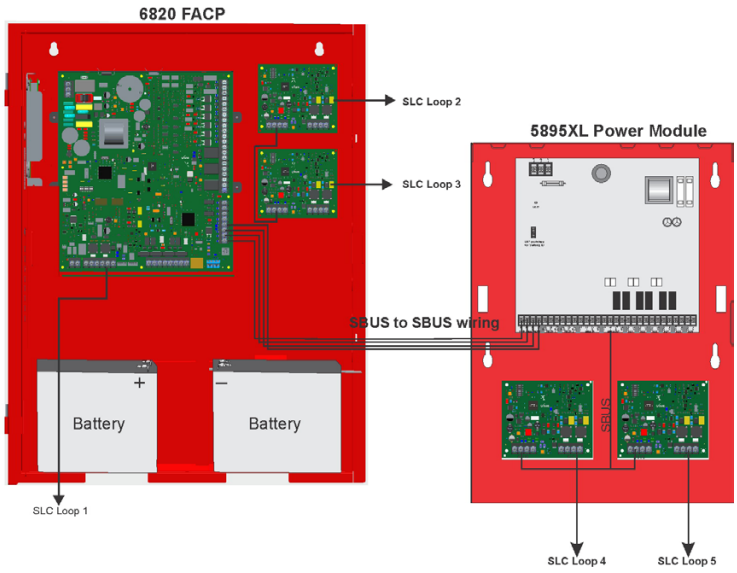
FEATURES & BENEFITS

- The number of 6815 SLCs that can be used in one system is largely determined by maximum point counts. With 1,110 available points on the 6820 and 6820EVS and 6815 SLC flexibility, new design and installation opportunities are now possible.
- Use the 5815RMK mounting kit to securely house more SLCs within one system.
- Pair with the separate 6860 remote annunciator for additional installation and operating options. The 6860 has four programmable buttons that are useful for executing routine or complex tasks.
- Up to two additional 6815 SLCs can be securely housed in one FACP, thus limiting the need for separate housing
- Useful for installations where buildings are connected for multi-site benefits using fiber optic or copper wiring. The ability to use multiple 6815 SLCs in these situations provides additional fire system design options.

6815 Technical Specifications

Here is an example of the 6820 FACP with one integrated SLC and two additional 6815 SLCs installed in the panel. Two additional 6815 SLC are also installed inside a 5895XL Intelligent power module.

In this case the design has a total of 5 SLC loops. With 6815 SLC expander flexibility, many more could be added as long as additional power supplies are added and any related installation needs are considered.



DESIGN VERSATILITY: THE 6815 SLC EXPANDER

PHYSICAL

Dimensions: 4.2"H x 4.8"W (10.7 x 12.2 cm)
Shipping Weight: 5.6oz (159g)

ELECTRICAL

Standby & Alarm Current: 78mA max

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)
Humidity: 0 to 93% non-condensing

SYSTEM CAPACITY

6815 Capacity: 159 SK sensors and 159 SK modules per loop
The maximum 1,110 point count for the 6820 and 6820EVS, and related support requirements, limit the number of 6815 SLCs that can be added to a fire system installation.

ORDERING INFORMATION

6815: Signaling Line Circuit Expander.

ACCESSORIES

5895XL: Intelligent Power Module. Cabinet holds two 6815s.
5815RMK: Remote Mounting Kit Cabinet holds two 6815s. Red.

AGENCY LISTINGS AND APPROVALS

UL listed
CSFM approved 7165-0559:0500
Meets NFPA 72 requirements
FM approved
FDNY COA (pending)

COMPATIBILITY

- 6820: Addressable fire alarm control panel with up to 1,110 addressable points
- 6820EVS: Addressable fire alarm control panel with an emergency voice system, up to 1,110 addressable points

*Hochiki® (SD) devices utilize the 5815XL signaling line circuit (SLC).

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, Please call 800-446-6444.

For more information

Learn more about Honeywell Silent Knight and other products by visiting www.silentknight.com

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472
800-328-0103

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Addressable Fire Alarm Control Panels

6820

Addressable Fire Alarm Control Panel

The 6820 is an addressable fire alarm control panel (FACP) and is a direct replacement for the 5820XL FACP. The 6820 can be configured to achieve a point capacity of 1110 points and connect up to 17 panels in a single communications link.

The 6820 has one built-in signaling line circuit (SLC), which can support 159 (SK) System Sensor® sensors and 159 SK modules or 127 (SD) Hochiki® devices per loop. To increase point capabilities, additional SLC loops can be added using the 6815 SLC expander for SK devices or the 5815XL expander for SD devices, increasing the point capacity to a maximum of 1110 points for SK devices and 635 points for SD devices. Three additional SLCs are needed to reach 1110 points (SK devices). Four additional SLCs are needed to reach 635 points (SD devices).

A common communications and annunciation link allows up to 17 panels to be connected via copper or fiber optic cable. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications. It also has a built-in, dual-line POTS and IP communicator with additional cellular options available.

The 6820 system can be enhanced by adding modules such as the 6860 remote annunciator which also has four programmable function buttons to help automate tasks and reduce time spent at the panel.

SWIFT® wireless compatibility provides options for wireless detection through a Class A mesh network. It is ideal for hard-to-wire locations, buildings where new wiring is not allowed, or to provide an easy install fire system for new construction projects. SWIFT devices can be combined with other hard-wired 6820 compatible devices.

6820

The 6820 also has a form-C trouble relay, two programmable form-C relays, along with powerful features such as drift compensation, pre-trouble maintenance alert, a built-in sensor test to comply with NFPA 72 calibration testing requirements, and calibration trouble alert.

The 6820 supports a variety of devices, including the 6860, 5860, and 6855 remote annunciators, 5824 serial parallel printer interface module (for printing system reports), the 5496 NAC expander, 5895XL power module, and SK or SD devices.

FEATURES & BENEFITS

- Capable of providing up to 1110 points for enhanced design flexibility. Additional Signal Line Circuits can be added until maximum point levels are reached
- Built-in USB interface for convenient and quick programming
- Connect up to 17 panels on one site with convenient single-point access using the SK-NIC Network Interface Card. Connected panels can have mixed compatible FACP models
- Convenient field-upgradeable firmware
- Built-in dual path POTS and IP communications with optional cellular models available for reliable backup reporting
- 6860 annunciator with a 4 x 40 large display
- JumpStart® auto programming reduces installation time
- Programmable date setting for automatic and convenient Daylight Saving Time changes
- Four user-programmable buttons minimize time spent executing complex or routine tasks
- Flexput® circuits can be individually programmed to function as notification circuits, auxiliary power outputs, or initiating circuits that support both 2- and 4-wire smoke detectors

SIGNAL LINE CIRCUIT (SLC)

The 6815 signal line circuit (SLC) supports multiple device types of SK protocol, while the 5815XL signal line circuit (SLC) supports multiple device types of SD protocol. You cannot mix SD and SK SLC devices on a FACP.

The 6820 has one built-in signaling line circuit (SLC) which supports multiple devices. Additional points can be added using the 6815 SLC expanders to increase overall capacity to 1,110 maximum points (SK devices) or by adding up to four 5815XL SLC expanders to reach 635 maximum points (SD devices). The number of SLCs which can be used within one system is limited by point count. (See the Manual for additional information.)

The 6820 SLC loops support multiple device types, maintenance alerts, and a built-in sensor test to comply with NFPA 72 calibration testing requirements.

INDICATOR LIGHTS

- **General Alarm (Red)**: Flashes if in alarm; solid when alarm is silenced
- **Supervisory (Yellow):** Flashes if a supervisory condition exists; solid when supervisory is silenced
- **System Troubles (Yellow)**: Flashes if a trouble condition exists; solid when trouble is silenced
- **System Silenced (Yellow)**: On when an alarm, trouble or supervisory condition has been silenced but not yet cleared
- **System Power (Green):** Flashes for AC failure; solid when power systems are normal

USER INTERFACE

The 6820 built-in 4 x 20 annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power.

System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1,000 events for viewing from the built-in or remote annunciator. System operations can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

PROGRAMMING

The 6820 system offers several options to simplify and speed-up programming. JumpStart® AutoProgramming minimizes programming required to start a new system. The built-in keypad, or the 6860, 5860 or 6855 remote annunciators give you on-site access to current system programming. Programming can also be accomplished using the Windows®-based Honeywell Fire Software Suite (HFSS) program.

SOFTWARE TOOLS

SKST: Silent Knight Selection Tool provides the installer or design architect with a Windows® software system configuration tool to create a detailed Bill of Material (BOM) and battery calculations.

HFSS: Honeywell Fire Software Suite provides communication and panel programming, detector status, event history and additional data. Requires a PC running Microsoft® Windows®.

ADDITIONAL INFORMATION

Twisted-unshielded pair wire is recommended. The 6820 also has 13 preset notification cadence patterns (including ANSI 3.41).

AGENCY LISTINGS AND APPROVALS

NFPA 13, NFPA 15, NFPA 16, NFPA 70, NFPA 72: Central station; remote Signaling; Local Protective Signaling Systems; Auxiliary Protected Premises Unit; Water Deluge releasing service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signaling services.

- **UL Listed**: S2766
- **CSFM:** 7165-0559:0500
- **FDNY:** COA# 6249
- **FM approved**

ORDERING INFORMATION

6820: Addressable Fire Alarm Control Panel. (Red cabinet).

COMPATIBLE ANNUNCIATORS

6860: 4x40 LCD remote fire annunciator (4 lines and up to 160 characters) per system; four programmable buttons

5860: 4x20 LCD remote fire annunciator. 5860 is gray; 5860R is red

6855: 4x20 LCD remote fire annunciator

5865-3 or 5865-4: LED annunciators can display up to 30 LEDs (15 red and 15 yellow). The 5865-4 has key switches for silence and reset, and a system trouble LED.

5880: The 5880 LED / IO module has 40 programmable LED outputs and eight supervised dry contact inputs which are useful for custom applications. You can use up to eight 5880 modules on one control panel for maximum flexibility. Its compact size allows mounting inside the annunciator, or in an accessory cabinet.

6820 COMPATIBLE DEVICES AND ACCESSORIES

See the data sheets listed below for a complete listing of the SK, SD or SWIFT devices.
53623: SK Devices Data Sheet
53624: SD Devices Data Sheet
350614, 350616 & 350618: SWIFT wireless devices
For a complete and current listing of compatible devices and accessories, visit **www.silentknight.com**

Important: You cannot mix SK and SD devices in the same fire alarm system.

SK COMPATIBLE ADDRESSABLE DEVICES

SK-ACCLIMATE: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature

SK-BEAM: Reflected beam smoke detector without test feature

SK-BEAM-T: Reflected beam smoke detector with test feature

SK-CONTROL: Supervised control module

SK-CONTROL-6: Six circuit supervised control module

SK-DUCT: Photoelectric duct smoke detector with extended air speed range

SK-FIRE-CO: Four criteria fire and carbon monoxide detector

SK-HEAT: Fixed thermal detector (135°F)

SK-HEAT-W: Fixed thermal detector (135°F), white

SK-HEAT-ROR: Fixed rate of rise detector (135°F)

SK-HEAT-ROR-W: Fixed rate of rise detector (135°F), white

SK-HEAT-HT: Fixed high temperature thermal detector (190°F)

SK-HEAT-HT-W: Fixed high temperature thermal detector (190°F), white

SK-ISO: Fault isolator module

SK-MINIMON: Mini monitor module

SK-MONITOR: Monitor module

SK-MONITOR-2: Dual input monitor module

SK-MON-10: 10 input monitor module

SK-PHOTO: Photoelectric smoke detector

SK-PHOTO-W: Photoelectric smoke detector, white

SK-PHOTO-T: Photoelectric smoke detector with thermal (135°F fixed temperature)

SK-PHOTO-T-W: Photoelectric smoke detector with thermal (135°F fixed temperature), white

SK-PHOTOR: Photoelectric detector with remote test capability

SK-PHOTO-R-W: Photoelectric detector with remote test capability, white

SK-PULL-SA: Addressable single action pull station

SK-PULL-DA: Addressable dual action pull station

SK-RELAY: Addressable relay module

SK-RELAY-6: Addressable Six relay control module

SK-RELAYMON-2: Addressable Dual relay/ monitor module

SK-ZONE: Addressable zone interface module

SK-ZONE-6: Six zone interface module

B300-6(-IV): 6" base for SK-W Series

B210LP: 6" mounting base

B501(-WHITE, -IV, -BL): 4" Flangeless base

B501: 4" Flangeless mounting base

B200S(-IV, -WH): Intelligent sounder base

B200S: Intelligent sounder base

B200S-LF(-IV, -WH): Low-frequency intelligent sounder base.

B200S-LF: Low-frequency intelligent sounder base

B224RB(-IV, -WH): Relay base

B224RB: Relay base

B224BI(-IV, -WH): Isolator base

B224BI: Isolator base

SD COMPATIBLE ADDRESSABLE DEVICES

SD505-6AB: Addressable 6" base

SD505-6IB: Addressable 6" short circuit isolator base

SD505-6RB: Addressable 6" relay base

SD505-6SB: Addressable 6" sounder base

SD500-AIM: Addressable input module (switch input)

SD500-ANM: Addressable notification module

SD500-ARM: Addressable relay module

SD505-DTS-K: Remote test switch and LED indicator for the SD505-DUCTR

SD505-DUCT: Addressable Duct Smoke Detector.

SD505-DUCTR: Addressable Duct Detector housing with relay base.

SD505-HEAT: Absolute temperature heat detector. Trip point range from 135°F–150°F (0°C–37°C).

SD500-LIM: Addressable Line isolator module

SD500-MIM: Addressable Mini input monitor module (switch input)

SD505-PHOTO: Photoelectric smoke detector

SD500-PS/-PSDA: Addressable Single or dual action pull station

SD500-SDM: Addressable smoke detector module

AUDIBLE/VISIBLE DEVICES

These AV devices are all 2-wire. Color: "R" indicates red; "W" denotes white. For a complete listing of Silent Knight AV devices go to www.silentknight.com.

CHSRL/CHSWL: Wall chime/strobe

CHSCRL/CHSCWL: Ceiling chime/strobe

CHRL/CHWL: Wall chime

HRL/HWL: Wall horn

P2RL/P2WL: Wall horn/strobe

PC2RL/PC2WL: Ceiling horn/strobe

SRL/SWL: Wall strobe

SCRL/SCWL: Ceiling strobe

SPSCRL/SPSCWL: Ceiling speaker/strobe

SPSRL/SPSWL: Wall speaker/strobe

SPRL/SPWL: Wall speaker

SPCRL/SPCWL: Ceiling speaker

SWIFT WIRELESS DEVICES

SWIFT is only compatible with System Sensor (SK) devices. It is not compatible with Hochiki (SD) devices.

WSK-WGI: Wireless Gateway

WSK-PHOTO: Wireless Photoelectric smoke detector

WSK-PHOTO-T: Wireless Multi-Criteria photoelectric smoke detector with thermal detection (135°F fixed temperature) and B510W 4" base

WSK-HEAT: Wireless Heat, (135°F fixed temperature) and B510W 4" base

WSK-HEAT-ROR: Wireless heat, ROR (135°F fixed temperature) and B510W 4" base

WSK-MONITOR: Wireless monitor module

WSK-RELAY: Wireless relay module

W-USB: SWIFT Tools USB transceiver used for communication with SWIFT devices

SBUS ACCESSORIES

6815: Each Single Line Circuit allows for an additional 159 SK modules and 159 SK sensors to be added to the system-up to 1,110 total points. Supports System Sensor SK devices only.

5815XL: Each Single Line Circuit provides an additional 127 SD devices to be added to the system -for a maximum of 635 points. Supports SD devices only.

5496: A 6 amp notification power expander with four power-limited notification appliance circuit outputs.

5883: Relay Interface. Provides 10 Form C relays.

5824: Serial/Parallel Printer Interface Module for printer connection.

5895XL: Power Supply with six Flexput™ circuits, and two Form C relays. Max. 16 per system.

5815RMK: Remote mounting kit. Dimensions 10 3/8"W x 10-3/16"H x 3"D

COMMUNICATION OPTIONS

CELL-CAB-SK: Cellular communicator, metal enclosure with lock/key*

CELL-MOD: Cellular communicator, plastic enclosure*

*Sole path, powered by panel.

IPGSM-4G: Dual path fire alarm communicator, cellular and/or IP (primary or backup, selectable)

SK-IP-2: Remote reporting via the Internet. Requires a VisorAlarm® receiver at the central station

MISC. ACCESSORIES

SK-NIC: Network Interface Card. Provides a common communications link for the 6820.

SK-NIC-KIT: Installation Accessory Kit

SK-FML: Fiber-Optic Multi Mode, transmitter and receiver

SK-FSL: Fiber-Optic Single Mode

RBB: Remote battery box accessory cabinet for batteries that are too large to fit in the FACP cabinet. Dimensions: 16" W x 10" H x 6" D (406mm W x 254mm H x 152mm D).

SK-SCK: Seismic Compliance Kit used to securely fasten batteries to the fire panel.

6820 Technical Specifications

PHYSICAL

Overall Dimensions: 16.36" W x 26.37" H x 3.91" D
Shipping Weight: 32 lbs
Color: Red

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)
Humidity: 0 to 93% relative humidity (non-condensing)

ELECTRICAL

6820 Primary AC: 120AC @ 60Hz, 3.3A Total Accessory Load: 6A @ 27.4VDC power-limited
Standby Current: 190mA
Alarm Current: 250mA
Battery Charging Capacity: 7 to 35AH
Battery Size: 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

FLEXPUT CIRCUITS

Six programmable circuits which can be programmed individually as:
Notification Appliance Circuits: 3A @ 27.4VDC per circuit, power-limited (with a panel maximum current of 6A)
Auxiliary power circuits: 3A @ 27.4VDC per circuit, power-limited
Initiating Circuits (Circuits 5 and 6 Only): 100mA @ 27.4VDC per circuit, power limited

Supports Class B (Style 4) and Class A (Style 6) configuration for SLC, SBUS, and Flexput circuits

WIRING: See the product manual for wiring details

For Technical Support, call 800-446-6444.

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472
800-328-0103
www.silentknight.com

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6860

Remote Annunciator

The 6860 remote annunciator can be used to view system status indicators for Honeywell Silent Knight fire alarm control panels (FACPs) from anywhere within the system. It provides a convenient way to view system status indicators.

The 6860 comes in a locked, key controlled cabinet - combining security with easy access. It does not require a code or firefighter's key to silence or reset a panel, and also has convenient separate scroll buttons for alarm, supervisory and trouble conditions. The remote annunciator communicates with the main fire alarm control panel through an RS-485 connection.

The 6860 has a large 160 character, 4 x 40 display and four programmable buttons. These features provide more options for set-up and operation when compared to similar remote annunciators.

The 6860 can be surface or flush mounted. The RA-100TR trim ring can be used for surface mounts.

6860

COMPATIBILITY

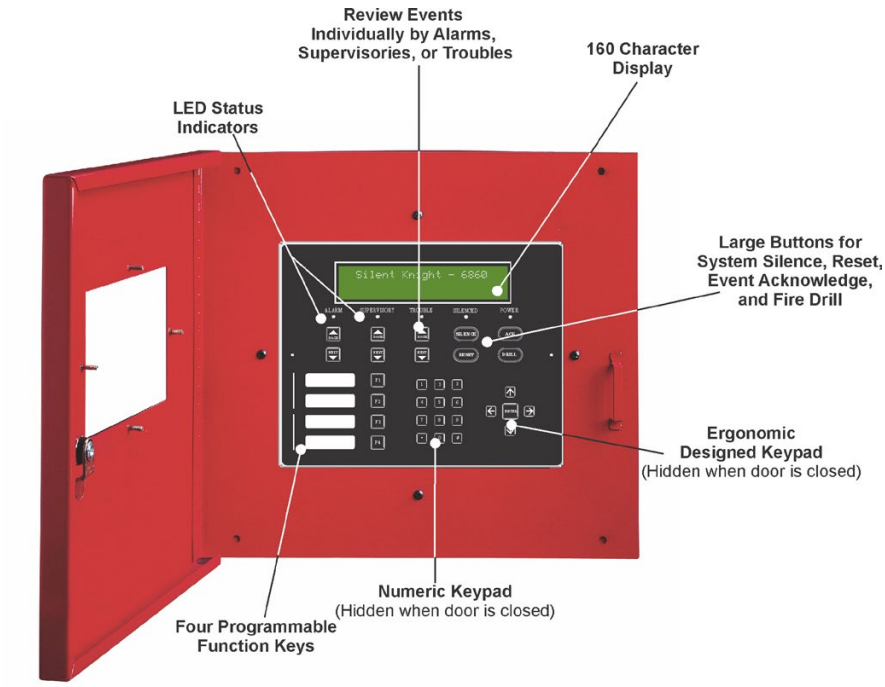
The 6860 is compatible with the following Honeywell Silent Knight FACPs:

- 6820: Addressable fire alarm control panel with up to 1,110 addressable points
- 6820EVS: Addressable fire alarm control panel with an emergency voice system, up to 1,110 addressable points
- 6808: Addressable fire alarm control panel with up to 198 addressable points
- 6700: Addressable fire alarm control panel with up to 100 addressable points

FEATURES & BENEFITS

- Four line LCD display with 40 characters per line; 160 characters provides ample space for communicating operating messages
- Larger keypad buttons makes it easier to maneuver for system reset and silencing
- Initiate and end fire drills with a single key press
- Easily view current status by alarms, supervisories, or troubles
- On-board piezo sounder audibly indicates alarms, troubles, and supervisories
- Uses the RS-485 SBUS to interface with the panel
- Five status LEDs make it easier to monitor and respond to status changes. They include: Alarm, Supervisory, Silence and AC Power indicators.
- Accommodates wiring lengths up to 6000 ft. from the control panel for added design and install flexibility
- System access through a user code or firefighter's key
- Support for simultaneous use of multiple 6860s
- Can be flush or surface mounted. Trim ring available for surface mounting.
- Four programmable function keys for for improved efficiencies and time-savings; frees-up time spent at the panel
- Comfortable tactical feel and clear audible confirmation supports accurate programming and easy operation

6860 Technical Specifications



6860 FEATURES

PHYSICAL

Flush Mount

Outside wall: 12.25"W x 11.5"H x 7/8"D (31.1W x 29.2H x 2.2D cm)

Inside wall: 9-3/8"W x 8-3/8"H x 2"D (23.8W x 21.3H x 5.1D cm)

Surface Mount: (Including Trim Ring) 12.25"W x 11.5"H x 3"D (31.1W x 29.2H x 2.2D cm)

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)

Humidity: 0 to 93% relative humidity (non-condensing)

ELECTRICAL

Operating Voltage: 24VDC

Standby Current: 25mA

Alarm Current: 50mA

ORDERING INFORMATION

6860: Remote Annunciator. Four line (4x40) LCD annunciator. Red

ACCESSORIES

RA-100TR: Red surface mount trim ring

AGENCY LISTINGS AND APPROVALS

UL listed

CSFM # 7165-0559:0500

NFPA 72

FM approved

FDNY COA approved

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, call 800-446-6444.

For more information

Learn more about Silent Knight's 6860 and other products available by visiting www.SilentKnight.com

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472-1610
800.328.0103
www.honeywell.com

351612| A| 11/17

5895XL

Intelligent Power Module

5895XL is an intelligent distributed power module that adds 6.0 amps of power, six Flexput™ I/O circuits, and two Form C relay circuits to a compatible Honeywell Silent Knight Series addressable system.

The 5895XL modules connect via the RS-485 system bus. Each 5895XL has its own optically isolated RS-485 bus to which other modules, such as 5860 remote annunciators and 5824 printer interface modules, can be connected. You can also connect 6815 or 5815XL SLC expansion modules, adding fl exibility and wiring distance. Each 5895XL supports its own backup batteries and monitors the AC power.

5895XL

Operation

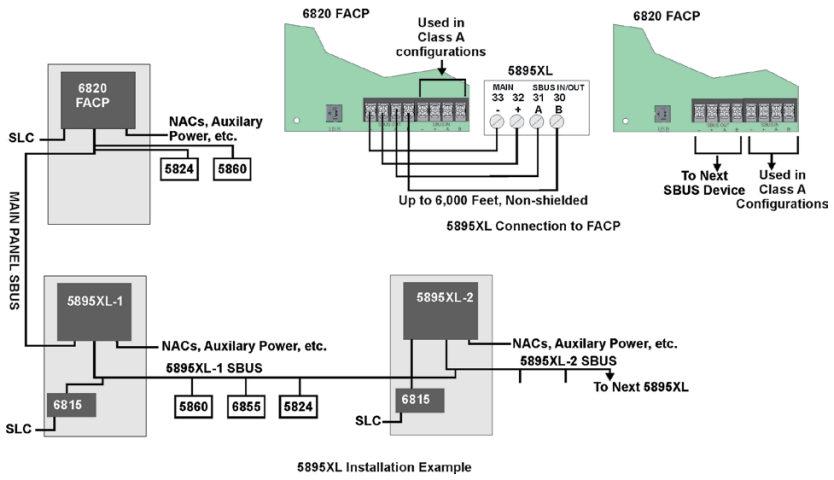
The green LED on the 5895XL board indicates communication with the Honeywell Silent Knight Series FACP.

The Flexput circuits can be notifi cation appliance circuits, continuous power, resettable power, door holder power or initiation circuits that can support both 2- and 4-wire smoke detectors. All Flexput circuits and relay outputs are individually mappable from the 5820XL/EVS or 6820/EVS FACP.

FEATURES & BENEFITS

- 6.0 amps output power
- Flexput I/O circuits, 3A each, programmable as notifi cation circuits, auxiliary power, circuits, or initiation circuits
- Supports Class A confi guration for SBUS & Flexput circuits
- Ground loop isolation
- 2 Form C programmable relays rated at 2.5A at 24VDC
- Built-in synchronization for appliances from System Sensor®, AMSECO, Gentex®, and Wheelock®
- Up to 6,000 foot wiring distance from the 5895XL (same distance as main FACP)
- Battery charging capacity is 35AH
- Room to mount two 6815 or 5815XL SLC expander modules
- Large cabinet size can house two 18AH backup batteries or RBB accessory cabinet can house battery sizes larger that 18AH
- Transient protection
- SBUS repeater conditions the RS-485 signal

5895XL Technical Specifications



5895XL Installation Example

PHYSICAL

Mounting Dimensions: 14.5"W x 24.75"H x 3.9"D (36.8 cm W x 62.9 cm H x 9.8 cm D)
Overall Dimensions: 16.1"W x 26.4"H x 4.1"D (40.6 cm W x 67 cm H x 11.8 cm D)
Color: Red

ENVIRONMENTAL

Operating Temperature: 32°F-120°F (0°C -49°C)
Humidity: 10%-93% non-condensing

ELECTRICAL

Primary AC: 120 VRMS, 50 or 60Hz, 2.5A, or 240 VRMS 50 or 60Hz, 1.4A
Total Accessory Load: 6A @ 24VDC
Current:
Standby: 40mA
Alarm: 160mA
SBUS Standby & Alarm: 10mA
Flexput Circuits
Notification: 3amps per circuit (6A system total)
Initiation: 100mA power limited @ 24VDC

ORDERING INFORMATION

5895XL: Intelligent Power Module

ACCESSORIES

RBB: Remote Battery Box Accessory Cabinet. 16" W x 10" H x 6" D (406 mm W x 254 mm H x 152 mm D)
6815: SLC Expander Module for SK devices
5815XL: SLC Expander Module for SD devices
SK-SCK: Seismic Compliance Kit

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, Please call 800-446-6444.

For more information

Learn more about Honeywell Silent Knight and other products available by visiting www.silentknight.com>

Honeywell Security & Fire
12 Clintonville Road
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800-328-0103

Doc 350212 | Rev J | 01/18

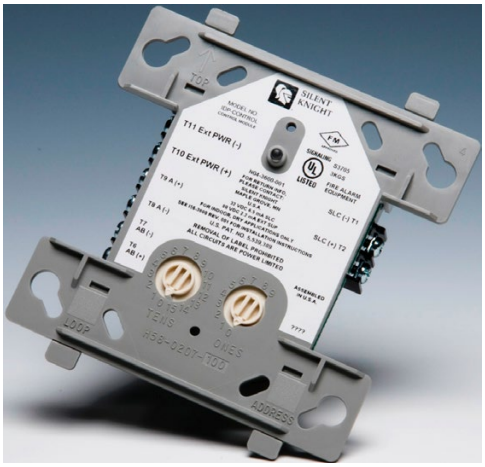
Honeywell
SILENT KNIGHT

SK-CONTROL

Intelligent Notification Module

The SK-CONTROL is an addressable notification module for use with Honeywell Silent Knight series fire alarm control panels (FACPs). The SK-CONTROL provides supervised monitoring of wiring to load devices that require an external power supply to operate, such as bells, horns, and strobes. It is capable of Class B (Styles Y) and Class A (Style Z) supervision.

Upon command from the FACP, the SK-CONTROL will disconnect the supervision and connect the external power supply across the load device. The disconnection of the supervision provides a positive indication to the panel that the control relay actually turned on. The external power supply is always relay isolated from the SLC loop, so that a trouble condition on the power supply will never interfere with the rest of the system.



SK-CONTROL

INSTALLATION

The SK-CONTROL mounts directly into a 4” square electrical box. The box must have a minimum depth of 2-1/8”. A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

FEATURES & BENEFITS

- Flexible solution for adding notification circuits where needed
- Support for Class B (style Y) or Class A (style Z) wiring
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Polling LED visible through the cover plate
- Attractive ivory cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed

SK-CONTROL Technical Specifications

PHYSICAL

Dimensions: 4.5" H x 4" W x 1.3" D (11.4 cm x 10.2 cm x 3.2 cm)

ELECTRICAL

Operating Voltage: 15 – 32 VDC

External Power Supply

Alarm Current: 7mA per module; Standby Current: 1.7mA

End-of-Line Resistance: 47KΩ

SLC Standby & Alarm Current: .375mA max. @ 24 VDC (one communication every 5 sec with 47K EOL)

SLC Loop Resistance: 40Ω max.

ENVIRONMENTAL

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

ORDERING INFORMATION

SK-Control: Notification Module

ACCESSORIES.

SMB500: 4" Square Surface Mount Electrical Box

CB500: Module Barrier

COMPATIBILITY

The SK-CONTROL is compatible with the following Honeywell Silent Knight fire alarm control panels:

6820: Addressable fire alarm control panel

6820EVS: Addressable fire alarm control panel with an emergency mass notification system.

6808: Addressable fire alarm control panel

6700: Addressable fire alarm control panel

5700: Addressable fire alarm control panel

5808: Addressable fire alarm control panel

5820XL: Addressable fire alarm control panel

5820XL-EVS: Addressable fire alarm control panel with an emergency voice system.

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, call 800-446-6444.

For more information

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Northford, CT 06472
800-328-0103

Doc 350125 | Rev E | 11/17

SILENT KNIGHT by Honeywell

SK-DUCT Intelligent Air Duct Smoke Detector

Detect smoke in air handling systems and air handling equipment with Silent Knight's addressable duct smoke detector

The SK-Duct Intelligent air duct smoke detector is used with SK-PhotoR (included) for detecting smoke and products of combustion present in air moving through an HVAC air handling system. When smoke is detected in a duct, the unit communicates the condition to the IntelliKnight control panel. The panel, in turn, depending on programming and wiring, turns off fans, blowers, and other devices. The duct housing allows for mounting of SK-Relay addressable relay module. Now there's even more power and flexibility available to the IntelliKnight family of products!

Description

The Model SK-Duct Air Duct Smoke Detector utilizes photoelectric technology for the detection of smoke. It provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial and Industrial applications.

The SK-Duct is in a heavy duty gray steel back box with a clear cover. It features a pivoting housing that fits both square and rectangular footprints capable of mounting to a round or rectangular duct. It installs quickly and easily.

The unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing).

Features

- Versatile mounting options: square or rectangular configuration
- New Cover tamper signal
- LED alarm indication and communication on sensor head
- Detects and limits the spread of smoke
- Rugged steel back box with clear plastic cover
- Easy to clean
- Large terminal connection screws
- Transparent cover for convenient visual inspection
- Patented sampling tube installs from front or back of the detector with no tools required
- Available space within housing to accommodate mounting of relay module
- UL listed

SK-DUCT

Specifications

Physical

(Rectangular): 14.38 in (37 cm) Length; 5in (12.7 cm) Width; 2.5 in (6.6 cm) Depth

(Square): 7.75 in (19.7cm) Length; 9 in (22.9cm) Width; 2.5 in (6.35cm) Depth

Weight: 1.6lb (0.73kg)

Environmental

Operating Temperature: -4ºF – 158ºF (-20ºC – 70ºC)

Humidity: 0% – 95% (non-condensing)

Air Velocity

100 to 4000 ft/min (0.5 – 20.3 m/sec.)

Electrical (using SK-Photo or SK-PhotoR)

Operating Voltage:	15–32 VDC
Standby Current:	300 µA @ 24 VDC max.
Alarm Current:	6.5 mA @ 24 VDC max (with LED on)

P/N 350122 Rev E

Model SK-DUCT
Air Duct Smoke Detector

Engineering Specifications

The air duct smoke detector shall be a SK-Duct photoelectric duct smoke detector. The detector housing shall be UL listed per UL 268A specifically for use in air handling systems. The flexible housing of the duct smoke detector fits both square and rectangular footprints. The detector shall operate at air velocities of 100 ft/min to 4000 ft/min (0.5 m/sec to 20.32 m/sec).

The unit shall be capable of providing a trouble signal in the event that the sensor cover is removed or improperly installed. It shall be capable of local testing via magnetic switch or remote testing using the RTS151KEY remote test station. Terminal connections shall be of the strip and clamp method suitable for 12–18AWG wiring.

The unit housing shall be capable of mounting a relay module.

Ordering Information

SK-Duct	Intelligent non-relay duct smoke detector
SK-Photo	Addressable Photo Detector
SK-PhotoR	Addressable Photo Detector with remote test capability (included with SK-Duct)
SK-Relay	Addressable Relay Module, must be added if relay function is required, (fits in housing)

Accessories†

DST1	Metal Sampling Tube Duct Width up to 1’
DST1.5	Metal Sampling Tube Duct Widths 1’ - 2’
DST3	Metal Sampling Tube Duct Widths 2’ – 4’
DST5	Metal Sampling Tube Duct Widths 4’ – 8’
DST10	Metal Sampling Tube Duct Widths 8’ – 12’
DH400OE-1	Weatherproof Enclosure
ETX	Metal Exhaust Tube Duct width 1’
RA100Z	Remote LED Annunciator
DCOIL	Duct accessory coil, required if using with SK-Photo and not SK-PhotoR (included) with SK-Duct
RTS151	Magnetic Remote Test station
RTS151KEY	Key-Activated Remote Test station
M02-04-00	Test Magnet
P48-21-00	Replacement End Cap for Metal Sampling Tube
APA151	Remote annunciator with piezo alarm

Important Notes:

• The use of either RTS151 or RTS151KEY requires the installation of an accessory coil, DCOIL, sold separately. Please refer to the SK-Duct installation instructions for more information

• The RTS151/RTS151KEY test coil circuit requires an external 24VDC power supply which must be UL listed.

Accessory Current Loads at 24 VDC

Device	Standby	Alarm
RA100Z	0mA	12mA Max.
RTS151	0mA	12mA Max.
RTS151KEY	12mA	12mA Max.

SILENT KNIGHT
by Honeywell

Honeywell
SILENT KNIGHT

SK-FIRE-CO

Advanced Combination Fire and CO Detector

The SK-FIRE-CO is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. For fire, the detector combines four separate sensing elements in one unit (smoke, CO, light/flame, and heat) to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulate. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

SK-FIRE-CO

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection in commercial spaces continues to increase across the U.S. and Canada. The SK-FIRE-CO is listed to the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

The SK-FIRE-CO should be used in conjunction with the B200S/B200S-LF intelligent sounder base (sold separately), which can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. With each sounder base carrying a unique address, the FACP can then command an individual sounder, or a group of sounders, to activate. The command set from the panel can be tailored to the specific event, allowing selection of tone, and group.

SK-FIRE-CO can also be used with the B210LP 6" standard

FEATURES & BENEFITS

- Unique ability to detect all four major elements of a fire, smoke, carbon monoxide (CO), light/flame, heat
- Separate CO detection signal
- Highest nuisance alarm immunity
- Automatic drift compensation of smoke sensor and CO cell
- Uses only one address on the SLC
- RealTest® CO testing capability
- UL 268 and UL 2075 listed
- Separates audible signal for fire or CO alarm when used with B200S/B200S-LF base
- CO cell end-of-life warning and fault
- CSFM listed

SK-FIRE-CO Technical Specifications

PHYSICAL

Diameter: 6.875" (17.46 cm) installed in a B200S base
Height: 3.46" (8.79 cm) installed in B200S base
Shipping Weight: 4.6 oz
Color: Ivory

OPERATING

Temperature Range: 32° F to 100° F (0° C to 38° C)
Humidity: 15 to 90% relative humidity (non-condensing)
Air Velocity: 0 to 4,000 ft/min (0 to 20 m/sec)

ELECTRICAL

Operating Voltage: 15 to 32VDC
SLC Standby and Alarm Current: 300µA

SENSITIVITY SETTINGS

Sensitivity settings are programmable through zone programming.
Low: 4% per foot (30.48 cm) of smoke. Used in equipment rooms, kitchens, paint shop.
Medium: 3% per foot (30.48 cm) of smoke. Moderately clean environments: Used in hotel rooms, dorm rooms.
High: 2% per foot (30.48 cm) of smoke. Clean environments: Used in offices.
Warning: After the CO cell has reached the end-of-life, the CO sensor no longer provides life safety protection. However, when the fire detector enters Photo, Thermal, Infrared (PTIR) mode, the following sensitivities apply:
Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments- Used in laboratories.
Level 2: 2% per foot (30.48 cm) of smoke. Clean environments - Ued in offices.
Level 5: 3% per foot (30.48 cm) of smoke. Moderately clean environments- Used in hotel rooms, dorm rooms.
Level 6: Thermal alarm at 135° F (57° C).

CO Monitoring UL Standard Reference - Alarm Thresholds are as follows:

Parts Per Million	Detector Response Time
70 ± 5 ppm	60-240 min
150 ± 5 ppm	10-50 min
400 ± 10 ppm	4-15 min

Note: Per UL Standard 2075, the SK-FIRE-CO has been tested to the sensitivity limits defined in UL Standard 2034.

ORDERING INFORMATION

SK-FIRE-CO: Combination Fire and CO Detector (base not included).

OPTIONAL ACCESSORIES

B200S: Intelligent sounder base
B200S-LF: Low Frequency Intelligent sounder base
B210LP: 6" mounting base
B200SR: Sounder base
B224RB: Relay base
M02-04-01: Detector test magnet
M02-09-01: Telescoping test magnet

COMPATIBILITY

The SK-FIRE-CO is compatible with the following Honeywell Silent Knight fire alarm control panels:
6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency voice system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency voice system.

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

This document is not intended to be used for installation purposes. We try to keep our product information up-to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For Technical Support, call 800-446-6444.

For more information

Learn more about Honeywell Silent Knight and other products by visitingwww.silentknight.com

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Northford, CT 06472
800-328-0103

Doc 351181 | Rev G | 01/18

SK-MINIMON

Intelligent Mini Monitor Module

The SK-MINIMON is an addressable monitor modules for use with the Honeywell Silent Knight fire alarm control panels (FACPs). The SK-MINIMON acts as an interface to contact devices, such as waterflow switches and pull stations. The SK-MINIMON supports Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions

The SK-MINIMON can be mounted in a single gang junction box directly behind the monitored device. Its small size and light weight allow it to be installed without rigid mounting requirements.

SK-MINIMON

INSTALLATION

The SK-MINIMON can be mounted in a single gang junction box directly behind the monitored device. Its small size and light weight allow it to be installed without rigid mounting requirements.

FEATURES & BENEFITS

- Single contact monitor
- SK-Minimon support for Class B (Style B) contact monitor wiring
- Small and lightweight size allows for flexible mounting options
- Rotary address switches for fast installation
- UL Listed
- CSFM Listed
- FM Approved

SK-MINIMON Technical Specifications

PHYSICAL

Dimensions: 2.75" W x 1.3" H x 0.5" D
Weight: 1.2 oz (37 g)

ELECTRICAL

Operating Voltage: 15 – 32VDC
SLC Standby and Alarm Current: 350 µA
End-of-Line Resistance: 47K Ω
Initiating device circuit wiring resistance: 1,500Ω max
SLC loop resistance: 40Ω max
Wire Length: 6" min.

ENVIRONMENTAL

Operating Temperature: 32°F – 120°F (0°C – 49°C)
Humidity: 10% – 93% non-condensing

ORDERING INFORMATION

SK-MINIMON: Mini monitoring module

COMPATIBILITY

The SK-MINIMON is compatible with the following Honeywell Silent Knight fire alarm control panels:

6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency voice system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency voice system

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, call 800-446-6444.

For more information

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Northford, CT 06472
800-328-0103

Doc 350133 | Rev G | 11/17

SK-MONITOR

Intelligent Monitor Module

The SK-MONITOR is an addressable monitor module for use with Honeywell Silent Knight Series fire alarm control panels (FACPs). The SK-MONITOR is intended for use in intelligent, two-wire systems, where individual address of each module is selected using the built-in rotary switches.

The SK-MONITOR supports Class A supervised or Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

SK-MONITOR

INSTALLATION

The SK-MONITOR mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

FEATURES & BENEFITS

- Single contact monitor
- Support for Class A and Class B wiring
- Fully supervised
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- SEMS screws for easy wiring
- UL Listed
- Rotary address switches for fast installation

SK-MONITOR Technical Specifications

PHYSICAL

Height: 4.5"H x 4" W x 1.25"D (11.4 X 10.2 X 3cm)
Shipping Weight: 6.3 oz (196 g)

ELECTRICAL

Operating Voltage: 15 – 32VDC
Current Draw (LED on): 5.0mA max
Operating Current (LED flashing): 375µA
Standby Current: 400 µA max @ 24 VDC (one communication every 5 sec with 47K EOL); 550 µA max @ 24 VDC (one communication every 5 sec with EOL <1K)
5.5 mA (with LED latched on)
LED Current: 5.5 mA (with LED latched on)
End-of-Line Resistance: 47K Ω
Initiating Device Circuit Wiring Resistance: 1,500 Ω max
SLC Loop Resistance: 40 Ω max.

ENVIRONMENTAL

Operating Temperature: 32°F – 120°F (0°C – 49°C)
Humidity: 10% – 93% non-condensing

ORDERING INFORMATION

SK-MONITOR: Monitor Module

ACCESSORIES.

SMB500: 4" Square surface mount electrical box

COMPATIBILITY

The SK-MONITOR is compatible with the following Honeywell Silent Knight fire alarm control panels:
6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency mass notification system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency mass notification system

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

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For more information
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Doc 350131 | Rev G | 11/17

SILENT KNIGHT by Honeywell

SK-Photo, SK-Photo-T and SK-PhotoR

Intelligent Photoelectric Smoke Sensors

The SK-Photo is a photoelectric smoke detector, the SK-Photo-T is a photoelectric smoke detector with thermal and SK-PhotoR is a photoelectric detector with remote test capability. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with Silent Knight IntelliKnight Fire Alarm Control Panels (FACPs).

For more information about the IntelliKnight system, or to locate your nearest source, please call 800-328-0103.

Description

SK-Photo and SK-Photo-T are plug-in type smoke sensors that combine a photoelectric sensing chamber with addressable analog communications. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

SK-Photo and SK-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the SK-Photo-T, dual electronic thermistors add 135ºF (57ºC) thermal technology to maximize detection.

The SK-PhotoR is a remote test capable detector for use with the DNR/DNRW duct smoke detector. (not included)

Features

- Sleek, low-profile design
- Base included
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Dual electronic thermistor design on the SK-Photo-T
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Variety of mounting options to meet any application
- Dual LED indicators for 360º visibility
- Detector transmits signal to indicate maintenance is required
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Plug-in mounting provides ease of installation
- Tamper-proof feature available on mounting bases
- Listed for use in duct applications
- Rotary address switches for fast installation
- UL Listed
- FM Approved

Specifications

Physical

Height: 2.0" (5.0 cm)

Diameter: 4.1" (10.4 cm) installed in B501 base

Electrical

Operating Voltage: 15–32 VDC

Standby Current:

300 µA @ 24 VDC Maximum

Alarm Current: 6.5 mA @ 24 VDC max (with LED on)

Environmental

Operating Temperature

SK-Photo: 32º – 120ºF (0ºC – 49ºC)

SK-Photo-T: 32º – 100ºF (0ºC – 38ºC)

Humidity: 10% – 93% non-condensing

Other Ratings

SK-Photo-T Thermal: Fixed temperature set point 135ºF (57ºC)

Velocity: 0 – 4000 fpm (0 – 20 m/sec)

Installation

The SK-Photo and SK-Photo-T plug into a compatible IntelliKnight-series detector base. The SK-PhotoR is a remote test capable detector head included within the DNR (W) duct smoke detector.

SK-Photo (Base included)

Compatibility

SK-Photo, and SK-Photo-T are compatible with the following detector bases:

B210LP	6" base (included)
B501	2 wire base
B224RB	Relay base
B224BI	Isolator base
B200SR	Sounder base

The SK-Photo, SK-Photo-T, and SK-PhotoR are compatible with the following IntelliKnight FACPs:

5820XL
5820XL-EVS
5808
5700
5600 (Rev 2.0 or higher)

P/N 350118 Rev F

Model SK-Photo, SK-Photo-T and SK-PhotoR Intelligent Photoelectric Smoke Sensors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent photoelectric smoke sensors Silent Knight SK-Photo or SK-Photo-T with thermal. The combination detector head, and twist-lock base, shall be UL listed and compatible with Silent Knight's IntelliKnight fire control panels.

The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

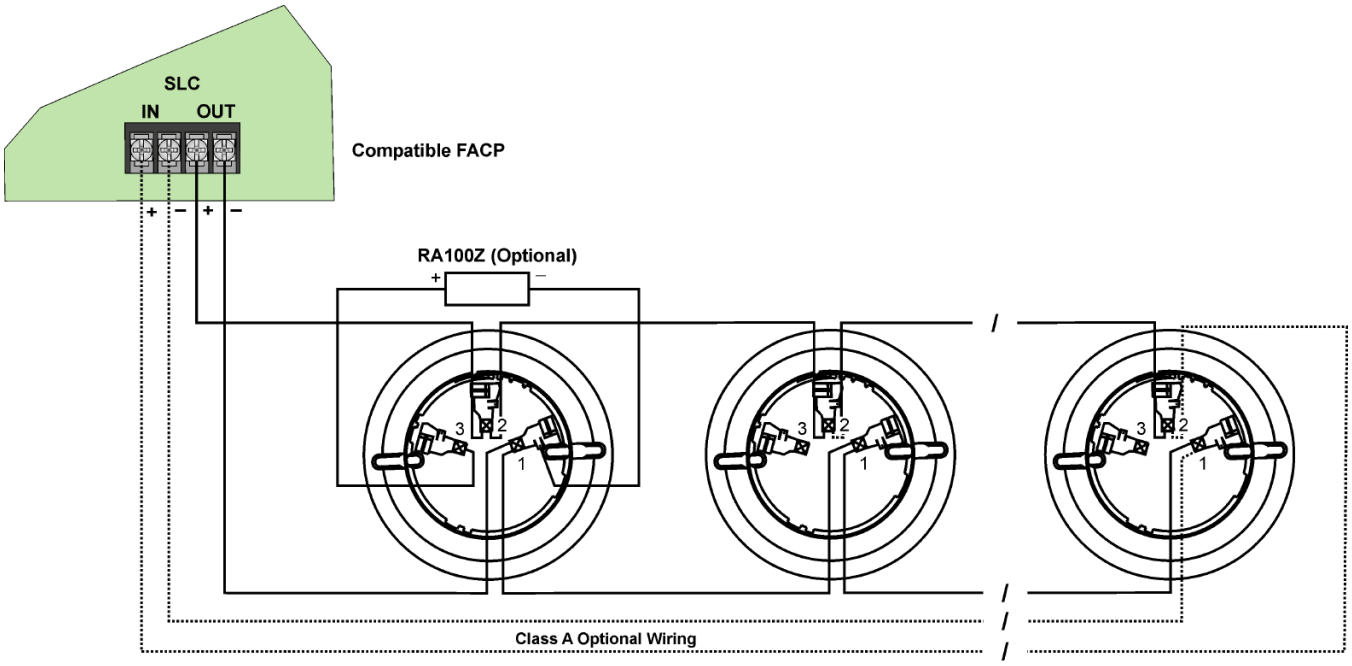
The PhotoR is a remote test capable detector for use with DNR(W) duct smoke detectors. (not included).

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady. The detector may be reset by actuating the control panel reset switch.

The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable as required.

The SK-Photo shall automatically perform a functional test of the detector. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.



Wiring SK-Series Detector Mounting Bases

SILENT KNIGHT
by Honeywell

Honeywell
SILENT KNIGHT

SK-PULL-SA / SK-PULL-DA

Intelligent Pull Stations

The SK-PULL-SA is a single action pull station requiring only one motion to activate the station. The SK-PULL-DA is a dual action pull station requiring two motions to active the station. The SK-PULL-SA and SK-PULL-DA are for use with Honeywell Silent Knight Series fire control panel (FACP).

Extremely easy to operate, the SK-PULL-DA and SK-PULL-SA provide a fast and practical means of manually initiating a fire alarm signal. The FACP recognizes each manual pull station by its specific address saving precious seconds in determining the location of an alarm.

SK-PULL-SA

SK-PULL-DA

INSTALLATION

The SK-PULL-SA and SK-PULL-DA can be surface mounted to an SB-I/O surface back box or semi-flush mounted on a standard single-gang with a minimum depth of 2.13”(5.40 cm) or double gang or 4” (10.61 cm) square electrical box. You can also use the optional (System Sensor® PN BG-TR) trim ring if the station is being semi-flush mounted.

FEATURES & BENEFITS

- Installer can open station without causing an alarm condition
- Dual-color LED is visible through handle of station blinks green to indicate normal operation and remains steady red in an alarm condition
- Key operated test and reset lock using lock plate actuator
- Key matches compatible FACP locks
- Meets ADA requirement for 5 lbs maximum pull force to active
- Meets the Americans with Disabilities Act Accessibility Guidelines (ADAAG) controls and operating mechanisms guidelines (Section 4.1.3[13])
- Shell, door, and handle molded from durable LEXAN®
- Reliable analog communications for trouble-free operation
- Braille text on station handle
- Rotary address switches for fast installation
- Handle latches in down position and the word Activated appears, clearly indicating the station has been pulled
- UL Listed, including UL 38, Standard of Manually Actuated Signaling System
- CSFM Listed
- MEA Listed

SK-PULL-SA / SK-PULL-DA Technical Specifications

PHYSICAL

Dimensions: 5.5" H x 4" W x 1.45" D (14 x 10.2 x 3.7cm)
Housing Material: LEXAN polycarbonate resin
Bi-Colored LED:
Blinking Green: Normal
Steady Red: Alarm
Switch: Single pole, single throw (SPST) normally open (N/O) switch which closes upon activation of the pull station

ELECTRICAL

Operating Voltage: 15 – 32VDC
SLC Standby and Alarm Current: 350µA
Wire Gauge: Up to 12AWG (3.1 mm^2)

ENVIRONMENTAL

Operating Temperature: 32°F – 120°F (0°C – 49°C)
Humidity: 10% – 93% non-condensing

ORDERING INFORMATION

SK-Pull-SA: Single Action Pull Station
SK-Pull-DA: Dual Action Pull Station

ACCESSORIES

BG-TR: Optional trim ring.
SB-I/O: Surface backbox, indoor/outdoor.
* Unless otherwise noted, specifications apply to SK-Pull-SA and SK-Pull-DA

COMPATIBILITY

The SK-PULL-SA AND SK-PULL-DA are compatible with the following Honeywell Silent Knight fire alarm control panels:
6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency voice system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency voice system

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

For Technical Support, call 800-446-6444.

For more information
Learn more about Honeywell Silent Knight and other products by visiting www.silentknight.com

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472
800-328-0103

Doc 350135 | Rev E | 11/17

SK-RELAY

Intelligent Relay Module

The SK-RELAY is an addressable relay module for use with Honeywell Silent Knight Series fire alarm control panels (FACPs). The SK-RELAY allows a Silent Knight FACP to switch discrete contacts by code command. The relay contains two isolated sets of Form C contacts, which operate as a DPDT switch. No supervision is provided for the notification appliance circuit.

The SK-RELAY contacts can be used for virtually any normally open or normally closed application. Each SK-RELAY is programmed with a unique signaling line circuit (SLC) loop address. When an event occurs that controls the SK-RELAY, the relay is triggered by the FACP.

SK-RELAY

INSTALLATION

The SK-RELAY mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

FEATURES & BENEFITS

- Two sets of Form C contacts
- Rotary address switches for fast installation
- Contacts are rated for a variety of amps (see Specifications)
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Relay programming is completely flexible–can be mapped to zone conditions
- Polling LED visible through the cover plate
- SEMS screws for easy wiring
- UL Listed

SK-RELAY Technical Specifications

PHYSICAL
4.675" H x 4.275" W x 1.4" D
Shipping Weight: 6.3 oz (196 g)

ELECTRICAL
Operating Voltage: 15 – 32 VDC
End-of-Line Resistance: Not used
SLC Standby & Alarm Current: .255mA max @ 24VDC (one communication every 5 sec with LED enabled)

ENVIRONMENTAL
Operating Temperature: 32°F – 120°F (0°C – 49°C)
Humidity: 10% – 93% non-condensing

RELAY CONTACT RATINGS
3.0A @ 30VDC resistive
0.9A @ 110VDC resistive
0.9A @ 125VAC resistive
0.5A @ 125VAC inductive (PF = .35)
0.7A @ 75VAC inductive (PF = .35)

ORDERING INFORMATION
SK-RELAY: Relay Module

ACCESSORIES.
SMB500: 4" Square Surface Mount Electrical Box
CB500 : Module Barrier

COMPATIBILITY
The SK-RELAY is compatible with the following Honeywell Silent Knight fire alarm control panels:
6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency mass notification system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency mass notification system.

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

This document is not intended to be used for installation purposes. We try to keep our product information up-to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For Technical Support, call 800-446-6444.

For more information
Learn more about Honeywell Silent Knight and other products by visiting www.silentknight.com

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472
800-328-0103

Doc 350127| Rev G| 11/17

SK-HEAT-W SERIES

Addressable Heat Detectors

The Silent Knight® SK-HEAT-W Series heat detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and advanced thermal technologies make the SK-HEAT-W Series ideal for both system operation and building design.

The series includes a 135°F/57°C fixed-temperature, rate-of-rise, and a 180°F/88°C fixed high-temperature detectors and are direct replacements for the SK-HEAT Series heat detectors. The point ID address, set using rotary decimal switches, provide specific detector locations. These thermal detectors provide effective, intelligent property protection in a variety of applications.

- SK-HEAT-W offers 135°F fixed thermal detection.
- SK-HEAT-ROR-W offers 135°F fixed and rate-of-rise thermal detection.
- SK-HEAT-HT-W provides fixed high-temperature detection at 190°F.

FEATURES AND BENEFITS

- Designed to meet UL 268 7th Edition
- Sleek and stylish contemporary design
- Advanced thermal technology for fast response
- Fixed temperature model (SK-HEAT-W) factory preset to 135°F (57°C)
- Rate-of-rise model (SK-HEAT-ROR-W), 15°F (8.3°C) per minute
- High temperature model (SK-HEAT-HT-W) factory preset to 190°F (88°C)
- Addressable by device
- Rotary, decimal addressing (Refer to the Silent Knight panel manuals for device capacity)
- Two-wire SLC connection
- LEDs blink every time the unit is polled
- 360°-field viewing angle of the visual alarm indicators (two bi-color LEDs); LEDs blink green in Normal condition and turn on steady red in Alarm
- Integral communications and built-in device-type identification
- Remote test feature from the panel
- Built-in functional test switch activated by external magnet
- Walk test with address display (an address of 121 will blink the detector LED 12-(pause)-1)
- Low standby current
- Built-in tamper-resistant feature
- Designed for direct-surface or electrical-box mounting
- Sealed against back pressure
- Plugs into separate base for ease of installation and maintenance
- SEMS screws for wiring of the separate base
- Optional remote, single-gang LED accessory
- Optional sounder, relay, and isolator bases
- Optional flanged surface mounting kit

Honeywell
SILENT KNIGHT

APPLICATIONS

Use thermal detectors for protection of property. For further information, refer to manual I56-6529, Applications Manual for System Smoke Detectors, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications.

INSTALLATION

The SK-HEAT-W Series plug-in intelligent thermal detectors use a separate base to simplify installation, service, and maintenance. Installation instructions are shipped with each detector.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see SK-61045.

Note: Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.

Note: When using relay or sounder bases, consult the SK-ISO installation sheet I56-3627 for device limitations between isolator modules and isolator bases.

PRODUCT LINE INFORMATION

SK-HEAT-W: White, low-profile intelligent 135°F fixed thermal sensor

SK-HEAT-ROR-W: White, low-profile intelligent rate-of-rise thermal sensor

SK-HEAT-HT-W: White, low-profile intelligent 190°F fixed thermal sensor

B300-6: White, standard flanged low-profile mounting base

B300-6-BP: Bulk pack of B300-6, package contains 10

B300-6-IV: Ivory, standard flanged low-profile mounting base

B501-WHITE: White, standard European flangeless mounting base

B501-BL: Black, standard European flangeless mounting base

B501-IV: Ivory, standard European flangeless mounting base

B501-WHITE-BP: Bulk pack of B501-WHITE, contains 10

B200S-WH: White, Intelligent, programmable sounder base

B200S-IV: Ivory, Intelligent, programmable sounder base

B200SR-WH: White, Intelligent sounder base for retrofit applications

B200SR-IV: Ivory, Intelligent sounder base for retrofit applications

B200S-LF-WH: White, Low Frequency Intelligent, programmable sounder base

B200S-LF-IV: Ivory, Low Frequency Intelligent, programmable sounder base

B200SR-LF-WH: White, Low Frequency Intelligent sounder base for retrofit applications

B200SR-LF-IV: Ivory, Low Frequency Intelligent sounder base for retrofit applications

B224RB-WH: White, plug-in System Sensor® relay base

B224RB-IV: Ivory, plug-in System Sensor relay base

B224BI-WH: White, plug-in System Sensor isolator detector base

B224BI-IV: Ivory, plug-in System Sensor isolator detector base

ACCESSORIES

TR300: White, replacement flange for B210LP or B300-6 bases

TR300-IV: Ivory, replacement flange for B210LP or B300-6 bases

RA100Z(A): Remote 3 – 32 VDC LED annunciator, mounts to a U.S. single-gang electrical box, for use with B501 and B300-6 bases only

M02-04-00: Test magnet

M02-09-00: Test magnet with telescoping handle

CK300: White, detector color kit, pack of 10

CK300-IV: Ivory, detector color kit, pack of 10

CK300-BL: Black, detector color kit, pack of 10

SK-HEAT-W SERIES TECHNICAL SPECIFICATIONS

PHYSICAL/ENVIRONMENTAL

Size: 2.0" (5.3 cm) high; base determines diameter

- **-B300-6:** 6.1" (15.6 cm) diameter
- **-B501:** 4" (10.2 cm) diameter

For a complete list of detector bases, see SK-61045.

Operating temperature range: SK-HEAT-W, SK-HEAT-ROR-W: -4°F to 100°F (-20°C to 38°C)

SK-HEAT-HT-W: -4°F to 150°F (-20°C to 66°C)

Detector spacing: UL approved for 50 ft. (15.24 m) center to center; FM approved for 25 x 25 ft. (7.62 x 7.62 m) spacing

Relative humidity: 10% – 93% non-condensing

Thermal ratings: Fixed-temperature set point 135°F (57°C), rate-of-rise detection 15°F (8.3°C) per minute, high temperature heat 190°F (88°C)

ELECTRICAL SPECIFICATIONS

Voltage range: 15 - 32 volts DC peak

Standby current (max. avg.): 200uA @ 24 VDC (one communication every 5 seconds with LED enabled)

LED current (max.): 4.5mA @ 24 VDC ("ON")

AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document.In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. *Consult factory for latest listing status.*

- **UL Listed:** S6228
- **FM Approved**
- **CSFM:** 7270-0559:0511

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

Country of origin: Mexico

Honeywell Silent Knight
12 Clintonville Road
Northford, CT 06472-1610
203.484.7161
www.silentknight.com

351637 | B | 07/19

B200S/B200S-LF Intelligent Sounder Bases

System Sensor B200S series sounder bases set a new standard for performance, installation ease, and aesthetics.

B200S-LF B200S

B200S Series Features

- Addressability for maximum configuration flexibility
- Two volume levels (75 or 85 dBA)
- Multiple event-driven tone outputs
- Supports Continuous, ANSI Temporal 3, ANSI Temporal 4, and March Time tones
- Custom tone capability with some FACP models
- Ability to synchronize with other System Sensor notification devices
- UL 268 and UL 464 compliant
- Pre-wire mounting plate fits various junction box sizes
- Mechanical locking feature prevents removal of attached sensor head
- Additional terminal connections on Canadian model (B200SA) enable silence feature
- 520 Hz +/– 10% square wave tone (B200S-LF)

Agency Listings

UL LISTED S911

FM APPROVED 3035027

B200S: 7135-1653:0213
B200S-LF: 7300-1653:0238

The B200S sounder base series is designed for new and existing dwelling unit applications. It offers maximum flexibility in installation, configuration, and operation to meet or exceed UL 268 and UL 464 requirements.

The sounder base “listens in” to the communication between the attached sensor head and the fire alarm control panel (FACP) to adopt the same address as the detector, but as a unique device type on the loop. The FACP can then use that address to command an individual sounder — or a group of sounders — to activate. The command set from the panel can be tailored to the specific event, allowing selection of volume, tone, and group. In addition, some FACPs will enable custom tone patterns.†

The B200S series sounder bases recognize the System Sensor synchronization protocol. This enables it to be used as a component of the general evacuation signal — along with other System Sensor horns, horn strobes, and chimes — when connected to a power supply or FACP output capable of generating the System Sensor synchronization pulses.

The B200S series offers several key advantages. The sounder base employs a separate mounting plate that installs on various junction box sizes to eliminate unsightly surface-mount boxes. The mounting plate enables pre-wiring of all connections to speed and simplify installation. The housing also locks with the mounting plate using two retaining screws, for added tamper resistance.

The B200S-LF low frequency sounder base is designed to meet the NFPA 72 sleeping space requirement to produce a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent. Studies show that a lower frequency, centered around 520 Hz, is the most ideal to awaken sleeping occupants, even those with mild to severe hearing loss.

†Refer to the appropriate FACP manual for more information.

Physical Specifications	
Base Diameter	6.875˝ (17.46 cm)
Base Height	2.0˝ (5.08 cm) less sensor
Shipping Weight	**B200S**: 0.50 lb. (227 gm); **B200S-LF**: 0.60 lb. (272 gm)
Operating Temperature Range	Refer to applicable sensor Operating Temperature Range using the Base/Sensor Cross Reference Chart at systemsensor.com
Operating Humidity Range	10% to 93% relative humidity (non-condensing)
Electrical Specifications: B200S	
External Supply Voltage	16 to 33 VDC (VFWR)
External Supply Standby Current	500 µA maximum
Alarm Current	35 mA maximum at high-volume setting; 15 mA maximum at low-volume setting
SLC Operating Voltage	15 to 32 VDC
SLC Standby Current	300 µA maximum (base only, refer to applicable sensor specification)
Electrical Specifications: B200S-LF	
External Supply Voltage	16 to 33 VDC (VFWR)
External Supply Standby Current	550 µA maximum
Alarm Current	High volume setting: 70 mA maximum @ 33.0 VDC 90 mA maximum @ 24.0 VDC 140 mA maximum @16.0 VDC Low volume setting: 15 mA maximum @ 33.0 VDC 20 mA maximum @ 24.0 VDC 25 mA maximum @ 16.0 VDC
SLC Operating Voltage	15 to 32 VDC
SLC Standby Current	300 µA maximum (base only, refer to applicable sensor specification)
Sound Output	
High Volume	Greater than 85 dBA minimum – measured in a UL reverberant room at 10 ft. 24 Volts (in continuous tone)
Low Volume	Greater than 75 dBA minimum – measured in a UL reverberant room at 10 ft. 24 Volts (in continuous tone)

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com

SPDS53602 • 02/15

125 Class Strobe Beacons

for NEMA 4X Applications

The Edwards 125 Class Strobe beacons are UL and cUL listed signaling devices, available in two versions, normal light output and high light output. Both versions feature a corrosion resistant Type 4X enclosure and can be panel or conduit mounted. The base is manufactured from a 33% glass filled nylon, providing high resistance to heat and high chemical resistivity. The lens is made of shatter resistant polycarbonate. Both the normal light output and high light output beacons are available with either a black or gray base, and amber, blue, clear, green or red lens.

The 125 Class Strobe beacons can be mounted on 1/2" or 3/4" NPT conduit using a 1/2" internal or 3/4" external conduit hub that comes with the unit. It can also be panel-mounted using the mounting gasket provided with the unit. When panel-mounting the 125 Class Strobe, the surface and construction details of the panel must be taken into consideration to ensure the integrity of the outdoor, NEMA 4X rating is fully maintained.

125 Class Strobe Features

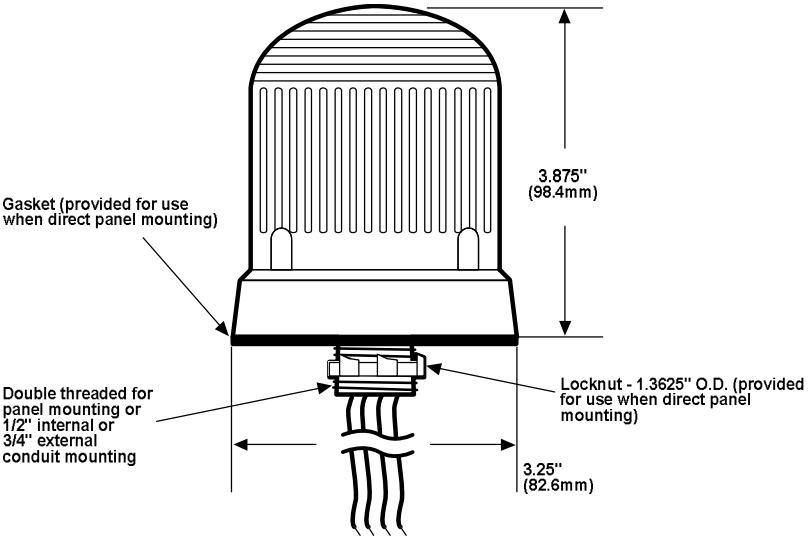
- High Light Output available in 120V AC
- Normal Light Output available in 12-48V DC, 120V AC or 240V AC
- Available with gray or black base
- Option for panel or conduit mounting
- Available in High Light Output or Normal Light Output versions
- Available with amber, blue, clear, green or red lens
- -31°F to 150°F (-35°C to 66°C) operating temperature
- Protective wire guard available, Cat. No. 125GRD

125 Class Strobe Beacons

Description	Strobe Output	Cat. No.	Base Color	Lens Colors	Operating Voltage	Current	Replacement Lens	Replacement Strobe Tube
Strobe Beacons in NEMA 4X Enclosure	High Output 300,000 peak candlepower**	**125STRH*120A**	Gray	Amber, Blue, Clear, Green, Red	120V AC 50/60 Hz	0.120 A	125L*	91B-ST
		125STRH*120AB	Black	Amber, Blue, Clear, Green, Red	120V AC 50/60 Hz	0.120 A	125L*	91B-ST
	Normal Output 175,000 peak candlepower	**125STRN*1248D**	Gray	Amber, Blue, Clear, Green, Red	12-48V DC	0.350 A	125L*	114-ST
		125STRN*120A	Gray	Amber, Blue, Clear, Green, Red	120V AC 50/60 Hz	0.100 A	125L*	91B-ST
		125STRN*240A	Gray	Amber, Blue, Clear, Green, Red	240V AC 50/60 Hz	0.050 A	125L*	91B-ST
		125STRN*1248DB	Black	Amber, Blue, Clear, Green, Red	12-48V DC	0.350 A	125L*	114-ST
		125STRN*120AB	Black	Amber, Blue, Clear, Green, Red	120V AC 50/60 Hz	0.100 A	125L*	91B-ST
		125STRN*240AB	Black	Amber, Blue, Clear, Green, Red	240V AC 50/60 Hz	0.050 A	125L*	91B-ST

*Letter in this position designates lens color: A - amber, B - blue, C - clear, G - green, or R - red
**Maximum capacitor operating temperature (Tc) is 185°F (85°C).

Dimensional Drawings



Agency Approvals

1638 Listed

Listed
NEMA 4X
Enclosure

Listed

Edwards Signaling™

41 Woodford Avenue
Plainville, CT 06062
1.800.336.4206
www.edwardssignaling.com

SYSTEM SENSOR®

Outdoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

SPECTRAlert ADVANCE from System Sensor

SpectrAlert® Advance outdoor audible visible products are rich with features that cut installation times and maximize profits.

Features

- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Rotary switch for horn tone and three volume selections
- Horn rated at 88+ dBA at 16 volts
- Rated from –40°F to 151°F
- Universal mounting plate with an onboard shorting spring that tests wiring continuity before devices are installed
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Listed for ceiling or wall mounting

Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S3593 (outdoor and alert strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

7300-1653:187 (outdoor strobes)
7125-1653:188 (horn strobes, chime strobes)
7135-1653:189 (horns, chimes)

SpectrAlert Advance offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white or red plastic housings, wall or ceiling mounting options, and plain or FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from –40°F to 151°F.

Like the entire SpectrAlert Advance line, outdoor horns, strobes, and horn strobes for wall applications include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, automatic selection of 12- or 24-volt operation, horn tones, and three volume options enable installers to easily adapt devices to meet requirements.

Next, SpectrAlert Advance devices use a universal mounting plate for both wall and ceiling applications. This mounting plate includes an onboard shorting spring that ensures wiring continuity before devices are installed, so installers can verify proper wiring without mounting the devices and exposing them to potential construction damage. Once the plates are mounted, all SpectrAlert Advance devices utilize a plug-in design with a single captured screw to speed installation and virtually eliminate costly ground faults.

Outdoor devices ship with weatherproof plastic back boxes (metal back boxes are available separately) that accommodate in-and-out wiring for daisy chaining devices. Plastic back boxes feature removable side flanges and improved resistance to saltwater corrosion. Knock-outs located on the back eliminate the need to drill holes for screw-in mounting. Plastic and metal weatherproof back boxes come with ¾-inch top and bottom conduit entries and ¾-inch knock-outs at the back. A screw-in NPT plug with an O-ring gasket for a watertight seal is included with each back box.

SpectrAlert Advance Outdoor Horn, Strobe, and Horn Strobe Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance outdoor horns, strobes, and horn strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Outdoor SpectrAlert Advance products shall operate between –40 and 151 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

Physical/Electrical Specifications

Operating Temperature	–40°F to 151°F (–40°C to 66°C)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6″L × 4.7″W × 2.5″D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6″L × 4.7″W × 1.3″D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Weatherproof Back Box Dimensions (SA-WBB)	5.7″L × 5.1″W × 2.0″D (145 mm L × 130 mm W × 51 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL Max. Horn Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-Temporal	High	57	56	69	75
Non-Temporal	Medium	42	50	60	69
Non-Temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)

	8–17.5 Volts		16–33 Volts						
DC Input	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-Temporal High	141	152	91	100	116	176	201	221	229
Non-Temporal Medium	133	145	75	85	102	163	187	207	216
Non-Temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-Temporal High	142	161	103	112	126	181	203	221	229
Non-Temporal Medium	134	155	85	95	110	166	189	208	216
Non-Temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)

	16–33 Volts					16–33 Volts			
DC Input	135	150	177	185	FWR Input	135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262

Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

Strobe Output (cd)	
Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

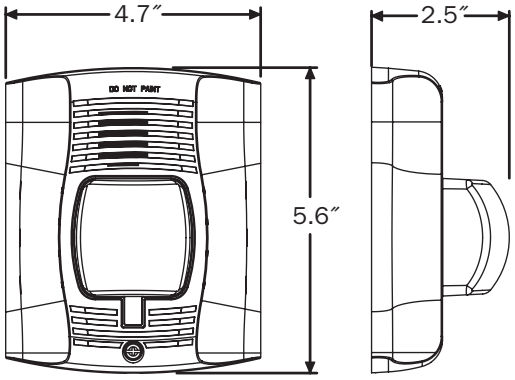
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

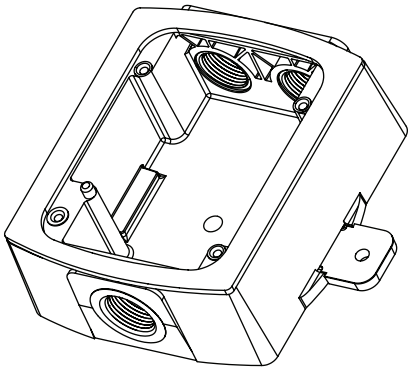
			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

†Settings 7, 8, and 9 are not available on 2-wire horn strobe.

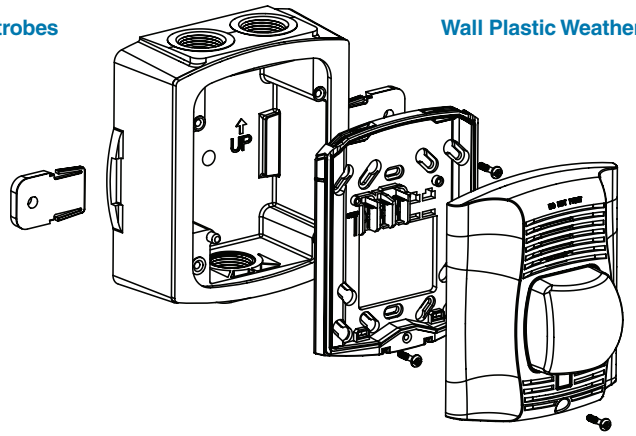
SpectrAlert Advance Diagrams



Wall-Mount Horn Strobes



Wall Plastic Weatherproof Back Box



Wall-Mount Horn Strobe with Plastic Weatherproof Back Box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2RK*†	2-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P2RHK*†	2-Wire Horn Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
P2WK*†	2-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2WHK*†	2-Wire Horn Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
P4RK†	4-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P4WK	4-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2RHK-120	2-Wire Horn Strobe, High cd, Red, Outdoor, 120 V (includes plastic weatherproof back box)
Wall Strobes	
SRK*†	Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
SRHK*†	Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
SWK*†	Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
SWHK*†	Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
Horns	
HRK†	Horn, Red, Outdoor (includes plastic weatherproof back box)
Accessories	
SA-WBB	Red, Metal Weatherproof Back Box
SA-WBBW	White, Metal Weatherproof Back Box

Notes:
* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2RK-P.
† Add "-R" to model number for weatherproof replacement device (no back box included), only for use with weatherproof outdoor flush mounting plate, WTP and WTPW.
"Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. **When replacing standard outdoor units both the device and back box must be replaced.**

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

AVDS01201 • 3/12

Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.

Features

- Updated Modern Aesthetics
- Small profile devices for Horns and Horn Strobes
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

Agency Listings

SIGNALING UL LISTED
S5512
S4011

FM APPROVED
FM approved except for ALERT models 3057383, 3057072

7125-1653:0504
7135-1653:0503

The System Sensor L-Series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

L-Series Specifications

Architect/Engineer Specifications

General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 17/8-inch back box, 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 × 4 × 17/8-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

Strobe

The strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize Strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 411/16 × 411/16 × 21/8-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Operating Voltage Range MDL3 Sync Module	8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6˝L × 4.7˝W × 1.91˝D (143 mm L × 119 mm W × 49 mm D)
Compact Wall-Mount Dimensions (including lens)	5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D)
Horn Dimensions	5.6˝L × 4.7˝W × 1.25˝D (143 mm L × 119 mm W × 32 mm D)
Compact Horn Dimensions	5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D)

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts	16–33 Volts	
	Candela	DC	DC	FWR
Candela Range	15	88	43	60
	30	143	63	83
	75	N/A	107	136
	95	N/A	121	155
	110	N/A	148	179
	135	N/A	172	209
	185	N/A	222	257

UL Max. Horn Current Draw (mA RMS)

		8–17.5 Volts	16–33 Volts	
Sound Pattern	dB	DC	DC	FWR
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

UL Max. Current Draw (mA RMS), Wall Horn Strobe, Candela Range (15–185 cd)

	8–17.5 Volts		16–33 Volts						
DC Input	15cd	30cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd
Temporal High	98	158	54	74	121	142	162	196	245
Temporal Low	93	154	44	65	111	133	157	184	235
Non-Temporal High	106	166	73	94	139	160	182	211	262
Non-Temportal Low	93	156	51	71	119	139	162	190	239
3.1K Temporal High	93	156	53	73	119	140	164	190	242
3.1K Temporal Low	91	154	45	66	112	133	160	185	235
3.1K Non-Temporal High	99	162	69	90	135	157	175	208	261
3.1K Non-Temporal Low	93	156	52	72	119	138	162	192	242
	16–33 Volts								
FWR Input	15cd	30cd	75cd	95cd	110cd	135cd	185cd		
Temporal High	83	107	156	177	198	234	287		
Temporal Low	68	91	145	165	185	223	271		
Non-Temporal High	111	135	185	207	230	264	316		
Non-Temportal Low	79	104	157	175	197	235	283		
3.1K Temporal High	81	105	155	177	196	234	284		
3.1K Temporal Low	68	90	145	166	186	222	276		
3.1K Non-Temporal High	104	131	177	204	230	264	326		
3.1K Non-Temporal Low	77	102	156	177	199	234	291		

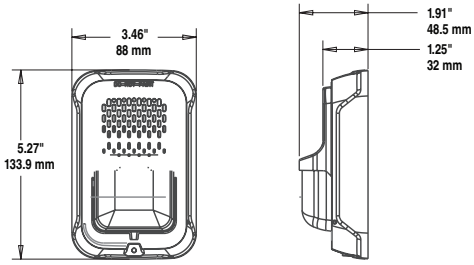
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

			8–17.5 Volts	16–33 Volts	
Switch Position	Sound Pattern	dB	DC	DC	FWR
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7	3.1 KHz Non-Temporal	High	84	89	89
8	3.1 KHz Non-Temporal	Low	77	83	83
9*	Coded	High	85	90	90
10*	3.1 KHz Coded	High	84	89	89

* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.

L-Series Dimensions



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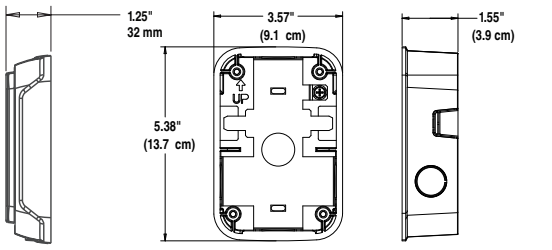
Compact Strobe, Horn Strobe

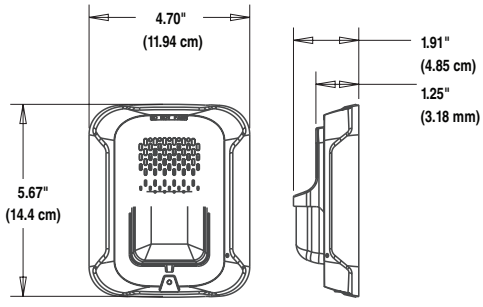


A0547-00

Compact Horn

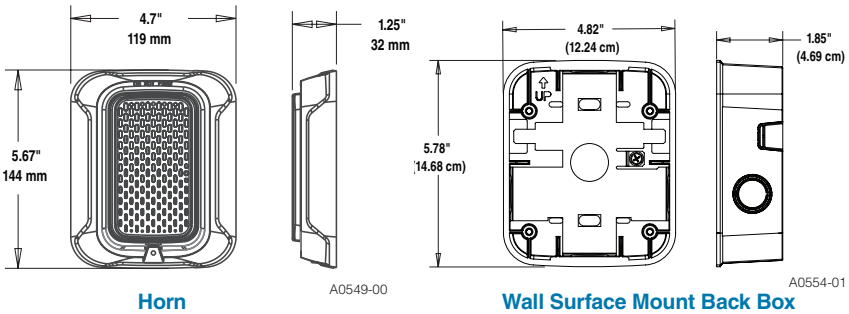
A0557-00

Compact Wall Surface Mount Back Box
SBBGRL, SBBGWL



A0550-00

Strobe, Horn Strobe



A0549-00

Horn

A0554-01

Wall Surface Mount Back Box
SBBRL/SBBWL

L-Series Ordering Information

Model	Description
Wall Horn Strobes	
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Comp 2 fils act Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO
P4RL	4-Wire, Horn Strobe, Red
P4WL	4-Wire, Horn Strobe, White
Wall Strobes	
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Model	Description
Horns*	
HRL*	Horn, Red
HWL*	Horn, White
HGRL*	Compact Horn, Red
HGWL*	Compact Horn, White
Accessories	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

Notes:
All -P models have a plain housing (no "FIRE" marking on cover).
All -SP models have "FUEGO" marking on cover.
All -ALERT models have "ALERT" marking on cover.
*Horn-only models are listed for wall or ceiling use.

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
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