

TECHNICAL MATERIAL SUBMITTAL

4007 SIMPLEX FIRE ALARM





COMPANY PROFILE





Harmonic
FOR INTEGRATED TRADING



CORPORATE
Harmonic

www.harmoniceg.com

Mission & Vission

Mission

Our Mission is to meet our valuable clients' business goals by being easy to do business with, friendly and flexible in the way we work, pricing fairly, and always treating our customers with commitment and respect.

We - Harmonic - Guarantee our client to receive a truly reliable product with the fairest prices within the market

Vission

Excellent In What We Do,

Build a safe and secure environment for our community. To provide the highest standard and best value service to the community. Be the best fire protection company, working hard to ensure our communities are at the center of what we do. We are committed to keeping people safe, improving quality of life and making our area a better place to live, work and visit.

Division Specialization



We're proud to mention that Harmonic team includes highly qualified technical office and representatives Experienced in fire fighting systems, who provide accurate quotations, submittals and acceptance testing as required. These fire protection professionals stand ready to address and meet your Fire Fighting and Fire Alarm needs, and are backed by knowledge and experience.

Thank you :)

We are a company specialized
in Fire fighting & Fire Alarm

Our Scope

Fire Detection System

Harmonic supply and install Simplex Fire Alarm products that will enhance the safety of your facility. Our safety solutions include fire detection detectors and notification systems, battery operated fire, smoke, Heat and gas detectors, Fire rated cables, Automatic fire alarms and much more.



Simplex



Gas Suppression System

Harmonic supply and install Tyco/LPG Gas Suppression Systems as a part of Fire Fighting Solutions. Our systems have been certified by UL/FM. We provide FM-200 & FK 5-1-12 as a Clean Agent Fire Suppression Systems and CO2 System. They are known for their efficiency at fire fighting.

Valves And Sprinklers

Harmonic provides All kind of valves Brand Reliable that must be used at automatic water systems. We supply and install the largest of landing valves, Hydrants and angle hose valves. All of our products are suitable for dry and wet systems and will play an important role in your fire defense.



Our Scope

Fire Extinguishers

Harmonic provides All kind of Bavaria fire extinguishers to meet every type of emergency. Our fire extinguishers are fully certified and have been rigorously tested. We have the following types of Fire Extinguishers CO₂, Dry Powder, Water, Foam, Clean Agent and Wet Chemical



Foam Suppression System

Harmonic supply and install Viking Foam-Water Suppression Systems to meet the requirements of our customers in the fire fighting systems. Our systems have been certified by UL/FM. We provide mobile foam concentrates, proportioning devices, discharge devices, and mobile foam equipment.

Fire Pumps

Harmonic supplies UL/FM certified Brand Fire King fire pumps that comply with the highest international standards. Fire pumps are a crucial part of a fire sprinkler system and will form an important part of your building's fire protection system.



Project Case Study



Aya Mall – New cairo



Amazon Warehouses



Epic Mall



Mind House Mall



The Office Mall



Madinaty D Mall

Project Case Study



MSA University – 6 October



Al – Azhar Library



Port Said University



Cairo University



Suez University



Helwan university

Project Case Study



Girga Permits Unit



Banha Hospital



Egyptian Medicine



Shebin Medical Center



Hasaniya Medical Center



Serum And Vaccinum

Project Case Study



HP Food Factory



CFC Site Elsewedy



Facsera Factory



Acdimia Factory



Kapci For Painting



Stones Egypt

Project Case Study



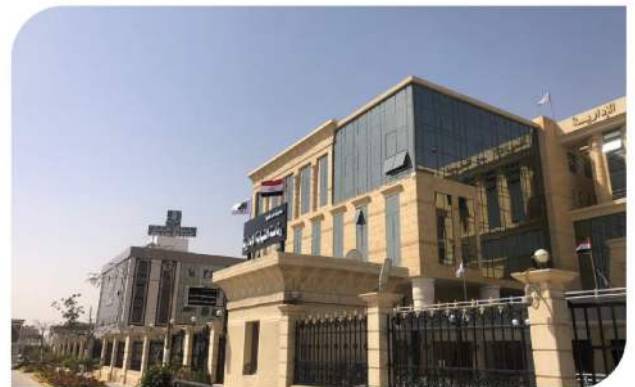
Cairo Bank



Agriculture Bank



QNB Bank



Administrative Prosecution



Jirga Passport Center



Military entity

Project Case Study



Petromaint Alexandria



Ibn Sina stores



Ismailia Engineers Syndicate



Alasher prison



Aksa Maadi Building



New Capital

OUR PARTNERS



CRANE

SHIELD®





Harmonic For Integrated Trading is an innovation company dedicated and specialized in providing company solutions to all fire safety related issues & all the Fire Protection Products .

We are agents of Simplex in Fire alarm and reliable in valves and sprinklers and Fire King for fire pumps

CONTACT US

Address:

63 El-redaa Tower, Abd-
elmohsen el wesemey
Alf-Maskan, Gesr Al-Suies Cairo City

Phone:

010-1510-6012
010-9232-4486

Mail:

info@harmoniceg.com

Distributor letter



A Tyco International Company

*Jason Crouch
Simplex Business Manager
Middle East, Africa & Russia
50 Technology Drive
Westminster, MA
01441 USA*

Monday, 06 January 2014

RESCO (Red Sea Industrial Supply & Contracting Co)
P.O. Box 2761
Jeddah
21461 Saudi
Arabia

To Whom It May Concern:

Subject: Simplex Products in Saudi Arabia

This is to confirm that RESCO (Red Sea Industrial Supply & Contracting Co) is an approved distributor for our range of Simplex Fire Detection, Master Clock, Extinguishing, Nurse Call and Access Control Systems in Saudi Arabia.

RESCO (Red Sea Industrial Supply & Contracting Co) has been established in the region and a valued business partner for over 35 years and can provide complete integration and support of our products and systems including high level integration to third party systems.

RESCO (Red Sea Industrial Supply & Contracting Co) is authorized to design, supply, install, test, commission and service/maintain our range of products in the above territory which is supported with a team of certified trained engineers and technicians.

Please do not hesitate to contact me should you require any further information or clarification. Yours sincerely,

A handwritten signature in black ink, appearing to be 'J. Crouch', written over a horizontal line.

Jason Crouch
Simplex Business Manager – MEAR

Resco

Hassan M. Mazhar & Co.

Red Sea Industrial Supply & Cont. Co.

رسكو

شركة حسن مجذوب و شركاه

البحر الأحمر للتموين الصناعي والتعهدات

Date: Feb 10, 2023

M/S Harmonic for Integrated Trading.
100063 – Abdulmohsen Al Wasaimy – Ein Shams
Cairo - Egypt

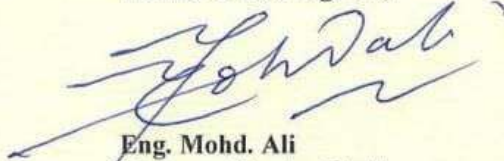
TO WHOM IT MAY CONCERN

Subj. Simplex Fire Alarm System Reseller

We, Resco, the distributors and agent of Simplex-USA in Saudi Arabia, have been working with M/s Harmonic for Integrated Trading since many years. They are our authorized Resellers, Installers as well as Integrators. They have supplied, installed and successfully commissioned several Simplex Fire Alarm projects in Egypt. They are very professional in their job and we have trained their team for installation, programming and testing of Simplex's systems.

Please do not hesitate to contact us for any information or clarification.

Thanks & best regards,



Eng. Mohd. Ali
Manager, Simplex Division
RESCO, Red Sea Industrial Supply & Cont. Co.
Tel. No. 966-2-665-2966/3215/3015 ext. 500
Fax No. 966-2-665-3165
Mobile: 0502667177
email: main@resco-saudi.com



وزارة التموين والتجارة الداخلية

جهاز تنمية التجارة الداخلية

الإدارة المركزية للسجل التجارى

مكتب سجل تجارى جنوب القاهرة المميز

مستخرج من السجل التجارى رقم: ٩١١٨٥ (أفراد محل رئيسى-الفروع القائمة . من اجمالي)
الرقم القومى للمنشأة: ٧١٩٤٨٤٨٨ الرقم الموحد للسجل التجارى (٩١١٨٥ ٠٠٠٠٠ ١٠٠٢٠)
أى كشط أو شطب أو تعديل أو تحشير أو اختتام بخلاف شعار الجمهورية يُلغى هذه الوثيقة

صفحة رقم ١ من ٢

٠٠٥٤٠٦-٠٣-٢٠٢٤ ١٠:٣٩:٢٣



(١) (أ) رقم الإيداع (ب) تاريخ الإيداع (ج) رقم قيد فى السجل التجارى (٢) (أ) رقم إيداع طلب التجديد (ب) تاريخ إيداع طلب التجديد (ج) تاريخ التجديد	١- الاسم التجارى (أ) -الاسم التجارية ٢-الاسم الذى يظهر به النشاط تجارى ٣-نوع الشركة (ب) -عنوان الشركة أو اسمها أو اسم ٤-عنوان الشركة ٥-الاسم التجارية ٦-الاسم التجارية (ج) -الاسم التجارية تفرع	(أ) اسم الشاخر ونائبه وتاريخ ومحل ميلاده وجنسيته (ب) أسماء وألقاب الشركاء المسئولين بالشخص فى شركات تضامن أو توصية بسيطة وتاريخ ومحل الميلاد لكل منهم وجنسيته (ج) أسماء وألقاب الشركاء أو غيرهم المتوطين بهم إدارة شركة ومن لهم حق التصويت باسمها وصلة كل منهم وتاريخ ومحل ميلاده وجنسيته ومدى سلطتهم فى الإدارة والتوقيع (د) أسماء وألقاب أعضاء مجلس الإدارة فى شركات المساهمة أو الجمعية التعاونية وروايتها المتميزين وصلة كل منهم وتاريخ ومحل ميلاده وجنسيته ومدى سلطتهم فى الإدارة والتوقيع (هـ) اسم وألقاب مدير الفرع الرئيسى أو فوكلة الفرع فى جمهورية مصر العربية وتاريخ ومحل ميلاده وجنسيته إذا كان المركز العام للشركة فى الخارج (٣)	(أ) نوع التجارة أو (ب) الفروع من تاليس شركة أو الجمعية التعاونية	١- التاريخ الذى بدأ فيه الشاخر أعماله التجارية بجمهورية مصر العربية ٢- تاريخ الترخيص بمنزلة التجارة (ب) تاريخ إنشاء الشركة وتاريخ انتهائها وتاريخ الترخيص بمنزلة التجارة أو موافقة هيئة الاستثمار (ج) تاريخ افتتاح الفرع أو الوكالة لحام (أ) حالة قيد الفرع	(أ) عناوين الفروع والوكالات التابعة لتحتل الرئيسى أو المركز العام (ب) عنوان الفرع أو الوكالة (أ) حالة قيد الفرع
(١) أ - ٢٠٧٤ ب - ٢٠٢٣/٠٢/١٦ ج - ٩١١٨٥ سأرى حتى ٢٠٢٨/٠٢/١٥ ** (نهاية البيات) **	١- احمد محمد الشربيني الشربيني ٢- هارمونك للتوريدات العمومية والمقاولات ٣- احمد محمد الشربيني الشربيني [١] ١١٣٢١ ٢٠٢٣/١٠/١٢ ٢- تعديل السمة التجارية لتصبح - هارمونك للتجارة المتكاملة - قانون ٣٤ لسنة ١٩٧٦ (أ) أفراد خاص	(أ) احمد محمد الشربيني الشربيني مواليد ١٩٩٥/٠٢/٠٥ مصر-الدفقالية رقم قومى ٢٩٥٠٢٠٥١٢٠٣٨٢١ تاجر-كامل الاهلية . [١] ١١٣٢١ ٢٠٢٣/١٠/١٢ تجارة الأجهزة الكهربائية وتوريد وتركيب وصياله أجهزة التكييف والتهريدي وأنظمة اذار الحريق وانظمة الأطفاء (فيما عدا توريد العماله والأمن والحراسة والكاميرات اللاسلكية والأنترنت وذلك بعد الحصول على التراخيص اللازمة) (موافقه أمنية رقم ١٣٨ لسنة ٢٠٢٣) . [١]	(أ) توريدات عموميه ومقاولات (فيما عدا توريد العماله وتوريد مستلزمات الكمبيوتر ومستلزمات الطباعة والدعاية والاعلان) . [١] ١١٣٢١ ٢٠٢٣/١٠/١٢ تجارة الأجهزة الكهربائية وتوريد وتركيب وصياله أجهزة التكييف والتهريدي وأنظمة اذار الحريق وانظمة الأطفاء (فيما عدا توريد العماله والأمن والحراسة والكاميرات اللاسلكية والأنترنت وذلك بعد الحصول على التراخيص اللازمة) (موافقه أمنية رقم ١٣٨ لسنة ٢٠٢٣) . [١]	(أ) ١- تاريخ الافتتاح ٢٠٢٣/٠١/٢٣ ٢- تاريخ الترخيص ٢٠٢٣/٠٢/١٥ **** (نهاية البيات) ****	(أ) القاهرة عين شمس ١٣ ش عبدالمحسن الوسيلى **** (نهاية البيات) ****

إسم طالب المستخرج احمد محمد الشربيني الشربيني
وقد سددت الرسوم (خلاف مقابل التميز) وقدرها : ١٠٥ جنيه (عدد ١ نسخة) بموجب قسيمة . مجموعة ٠ فى ٢٠٢٤/٠٣/٠٦
إصدار مكتب جنوب القاهرة المميز تحريرا فى ٢٠٢٤/٠٣/٠٦ مسئول الطباعة هدى علي محمد محي الدين علي
** الان... يمكنك تحديث بيانات سجلك التجارى من خلال خدمة الواتس أب ٠١٠٦٣٣٣٣٥٠٤ **

وزارة التموين والتجارة الداخلية

جهاز تنمية التجارة الداخلية

الإدارة المركزية للم سجل التجاري
مكتب سجل تجارى جنوب القاهرة المميز

مستخرج من السجل التجارى رقم: ٩١١٨٥ (أفراد محل رئيسي-الفروع القائمة . من اجمالي ٠)
الرقم القومى للمنشأة: ٧١١٩٤٨٤٨٨ الرقم الموحد للسجل التجارى (٩١١٨٥ ٠٠٠٠٠ ١٠٠٢٠)
أى كشط أو شطب أو تعديل أو تحشير أو أختام بخلاف شعار الجمهورية يلغى هذه الوثيقة

صفحة رقم ٢ من ٢

١٠:٣٩:٢٣ ٢٠٢٤-٠٣-٠٦ ٠٠٥٤



رقم السجل	رقم السجل	رقم السجل	رقم السجل	رقم السجل	رقم السجل	رقم السجل
(١) المحل الذى كانت لتاجر سابقا (أ) المحل الذى تكون له ١- فى دائرة نفس المكتب ٢- فى دائرة مكتب آخر	(٢) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) برادى الإفراج (ج) الرسوم والشمارج الصناعية	(٣) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) الامتياز التجارية (ج) كل عقد يفتى بهل الشركة أو بوصفها تحت التصفيا	(٤) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) الامتياز التجارية (ج) كل عقد يفتى بهل الشركة أو بوصفها تحت التصفيا	(٥) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) الامتياز التجارية (ج) كل عقد يفتى بهل الشركة أو بوصفها تحت التصفيا	(٦) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) الامتياز التجارية (ج) كل عقد يفتى بهل الشركة أو بوصفها تحت التصفيا	(٧) المحل الذى كان حصل الترخيص (أ) المحل الذى تكون له (ب) الامتياز التجارية (ج) كل عقد يفتى بهل الشركة أو بوصفها تحت التصفيا
(١٠)	(١١)	(١٢)	(١٣)	(١٤)	(١٥)	(١٦)
**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****
٢٠٢٣/١٠/١٢ ١١٣٢١ [١]	٢٠٢٤/٠٣/٠٦ ٢٨٣٧ [٢]	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****	**** (نهاية البيانات) ****



إسم طالب المستخرج احمد محمد الشربيني الشربيني
وقد سددت الرسوم (خلاف مقابل التميز) وقدرها : ١٠٥ جنيه (عدد ١ نسخة) بموجب قسيمة . مجموعة . فى ٢٠٢٤/٠٣/٠٦
إصدار مكتب جنوب القاهرة المميز تحريرا فى ٢٠٢٤/٠٣/٠٦ مسنول الطباعة هدى علي محمد محي الدين علي
** الآن... يمكنك تحديث بيانات سجلك التجارى من خلال خدمة الواتس أب ٠١٠٦٣٣٣٣٥٠٤ **



جمهورية مصر العربية
وزارة المالية
مصلحة الضرائب المصرية



فردى

عين شمس/٠٠٠

هارمونك للتجارة المتكاملة

احمد محمد الشربيني الشربيني

١٠٠٠٦٣ ش عبدالمحسن الوسىمى عين شمس

تجارة الجملة غير المتخصصة



كود النشاط 4690

بدء النشاط : ٢٠٢٣/٠١/٢٣

٢٠٢٨/٠٢/١٥

٢٠٢٣/٠٢/١٦

٧١١-٩٤٨-٤٨٨

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جمهورية مصر العربية وزارة المالية مصلحة الضرائب المصرية

البطاقة الضريبية

يحظر إستخدام هذه البطاقة إلا بمعرفة الممول أو وكيله القانوني.
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بمصلحة الضرائب المصرية على أرقام
(02)27929911/16395



نموذج (٣) ض.ق.م

شهادة تسجيل

الضريبة على القيمة المضافة



منطقة : شرق القاهرة ثان

مأمورية : الزيتون

العنوان : ٢٠٤ شارع النزهة - الدور السادس و السابع

هذه شهادة منا بأن : هارمونك للتجارة المتكاملة - احمد محمد الشربيني الشربيني

العنوان : ٦٣ أش عبدالمحسن الوسيمي عين شمس

قد تم تسجيله وفقاً لنصوص قانون الضريبة على القيمة المضافة

تحت رقم : 488 - 948 - 711

وذلك اعتباراً من : 2023/03/19

تحريراً في : 2023/03/19

2028/03/18



مدير الإدارة

رئيس المأمورية

(رافقت خليل علام)

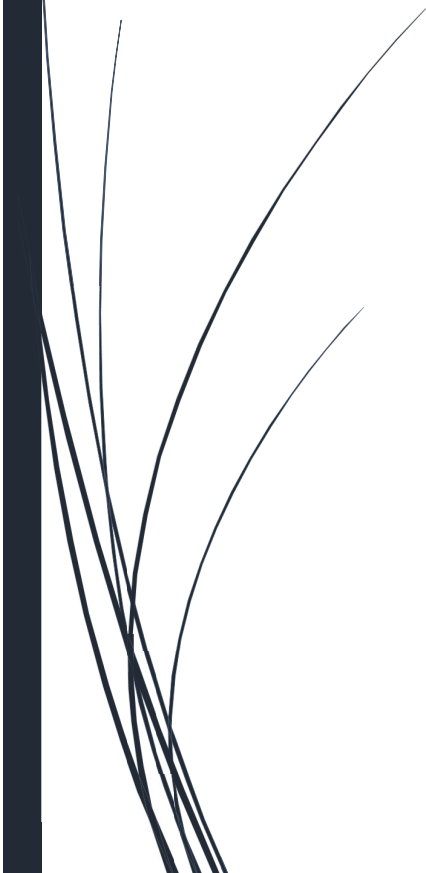
DATASHEETS

Adressable System



DATASHEETS

Fire Alarm Control Panel



PID : 4007 - 9101

Features

Compatible with Simplex ES Net and 4120 fire alarm networks

Satisfies a variety of new and retrofit applications

4.3 in. (109 mm) diagonal color touchscreen display:

- Provides detailed system status and point information
- Supports dual language selection, including unicode character languages
- A custom background display appears when operation is normal

Eight point zone/relay module:

- Each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is standard and you can field install up to three additional modules for a total of four 8 point zone/relay modules for each system
- You can configure each point on the IDC/Relay module as a control relay rated 2 A at 30 VDC (resistive) as either normally open or normally closed
- Power comes directly from the power supply or through the optional 25 VDC Regulator Module
- You can select the IDC end-of-line (EOL) resistor value from a wide range of resistance values for retrofit convenience

Electrically isolated IDNet 2 addressable initiating device SLC:

- Provides built-in short circuit isolation for monitoring and control of TrueAlarm analog sensors and IDNet communications monitoring and control devices; for use with either shielded or unshielded, twisted or untwisted single pair wiring; outputs are Class A or Class B
- Standard panel signaling line circuit (SLC) provides up to 100 addressable points; optional additional loop expansion modules provide an additional isolated loop with short circuit isolation for the IDNet 2 channel; each loop expansion module also provides an additional 75 addressable points

Power supply:

- Four notification appliance circuits (NACs) selectable as Class A or Class B with 6 A total available current
- You can select the NAC EOL resistor value from a wide range of resistance values for retrofit convenience
- Additional notification power capacity is available using the 4009 IDNet NAC Extender
- Battery backup charging of up to 33 Ah; up to 18 Ah for cabinet-mounted batteries and up to 33 Ah for batteries mounted close-nipped remote battery cabinet

General mechanical:

- Red or platinum cabinet; rated NEMA 1 and IP30

4007ES Listings reference:

- UL 864 - Control Units, System (UOJZ); Control Unit Accessories, System, Fire Alarm (UOXX); Control Units, Releasing Device Service (SYZV)
- UL 2017 - Emergency Alarm System Control Units (CO detection), (FSZI)
- ULC-S559 - Central Station Fire Alarm System Units (DAYRC)
- ULC-S527 - Control Units, System, Fire Alarm (UOJZC); Control Unit Accessories, System, Fire Alarm (UOXXC); Control Units, Releasing Device Service (SYZVC)



Figure 1: 4007ES Hybrid Unit front view

Software feature summary:

- Current and previous panel configuration maintained in on-board memory
- An internal Ethernet service port is available for service computer connections to perform configuration updates, downloads and uploads; report downloads, and update system software
- Internal USB interface allows a memory stick to store job revisions, update revised jobs and panel software, and save detailed system reports from the panel

Optional modules and connections include:

- Fire alarm network interface card (NIC) for ES Net or 4120 network
- Peer-to-Peer network communications, supports either Class B or Class X operation
- Point or Event DACT assembly for Connected Services Gateway
- Up to two additional IDNet 2 addressable device output loop connections with short circuit fault protection and with 75 additional point capacity each
- Front mounted 48 LED annunciator with custom label inserts; LEDs are programmable for up to 24 IDC zones of alarm and trouble annunciation or other custom annunciation requirements
- Remote LED annunciator support through remote user interface (RUI) communications port for use with UTP wiring
- Dual RS-232 ports for printer, PC annunciator or third party interface
- Alarm relays and auxiliary relays
- City connections, with or without disconnect switch
- 4009 IDNet NAC Extenders to extend NAC capability for power and distance
- Battery brackets for seismic area protection; see [Mechanical description](#) for more information

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7165-0026:0378 for allowable values and/or conditions concerning material presented in this document. NYC Fire Dept COA #6191A. At the time of publication only UL and ULC listings are applicable to ES Net network products. Additional listings may be applicable; contact your local product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

Introduction

4007ES Series Fire Detection and Control Units provide extensive installation, operator, and service features with point and module capacities suitable for a wide range of system applications. Panels can be configured for stand-alone or networked fire control operation. The convenient and intuitive color touchscreen provides easy access for typical system response actions and for detailed system review or configuration updates with password control to limit user access. Standard conventional IDCs and addressable IDNet 2 communications provide flexibility for both new and retrofit systems. IDC and NAC EOL resistor values are selectable to match a wide range of existing initiating device circuits and notification appliance circuits.

ES panel compatibility with ES Net

Simplex ES Network (ES Net) is a next generation IP-based fire network that uses industry standard network technology and infrastructure, and allows for simplified network upgrades, easy terminal connectivity and IP file transfer between nodes, and advanced network diagnostics.

You can upgrade ES fire alarm control units (FACUs) to operate on an ES network by adding an ES Net NIC to the panel.

To upgrade an existing 4120 network to ES Net, you must replace all of the 4120 NIC cards on the network loop with ES Net NICs.

Note: ES NICs and 4120 NICs cannot be mixed on the same network loop.

For more detailed information on ES Net, refer to data sheet **S4100-0076**, and talk to your local Simplex product supplier.

Operator interface

Convenient status information

With the locking door closed, the glass window allows viewing of the display status LEDs. The user interface is a 4.3 in. (109 mm) diagonal color touchscreen LCD with separate status LEDs, see Figure 2.

LED indicators describe the general category of activity being displayed and the LCD provides more detail. Authorized user can unlock the door to gain access to the control functions and scroll through the display for additional detail.

Operator interface and software features

- Convenient and detailed operator information is easily accessible using a logical, menu-driven touchscreen display with password access control
- Multiple automatic and manual diagnostics for maintenance reduction
- Alarm and Trouble History Logs (up to 1000 entries for each, 2000 total events) are available for viewing from the display or for printing to a connected printer, or downloaded to a service computer
- Module level ground fault searching assists installation and service by locating and isolating modules with grounded wiring
- WALKTEST silent or audible system test performs an automatic self-resetting test cycle and supports up to eight WALKTEST groups
- Install Mode allows grouping of multiple troubles for uninstalled modules and devices into a single trouble condition (typical with future phased expansion); with future equipment and devices grouped into a single trouble, operators can more clearly identify events from the commissioned and occupied areas

Touchscreen display with LED status indicators

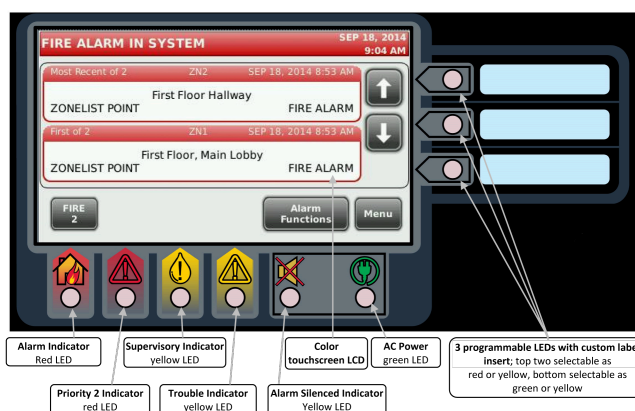
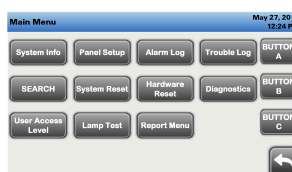


Figure 2: Touchscreen display with LED status indicators

Note: Seismically compliant under the State of California Statewide Office of Housing and Development (OSHPD) Special Seismic Certification (SSC) program guidelines. Refer to *Simplex Seismic Application Guide* 579-1213 and *Battery Brackets for Seismic Activity Applications* S2081-0019 for details.

Operator screen reference

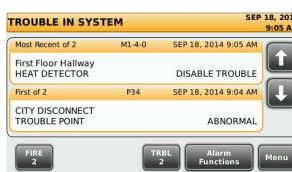
Main Menu screen provides easy navigation to the function required. Buttons A, B, and C have programmable functions.



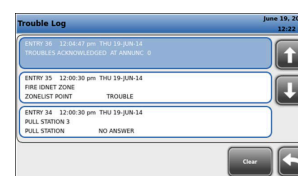
System Alarm screen identifies active alarms with custom labels displayed. Use the arrows to allow navigation through the list.



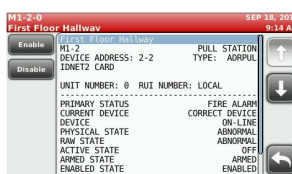
System Trouble screen identifies active troubles with custom labels displayed, arrows allow navigation through the list.



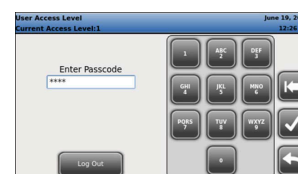
Trouble Log screen allows review of past troubles with time stamp and point details shown.



Point Information screen allows review of point details, arrows allow navigation through the information.



User Access Login screen controls access to panel operations as determined per panel.



Mechanical description

- Locking door with polycarbonate window
- Latching front panel assembly swings forward for convenient internal access
- Smooth box surfaces are provided for locally cutting conduit entrance holes exactly where required
- Modules are power-limited except as noted, such as relay modules

- Battery compartment (bottom) accepts two batteries, up to 18 Ah, to be mounted within the cabinet without interfering with module space; charger capacity is up to 33 Ah; for information about batteries greater than 18 Ah and external battery cabinets, see [Module and accessories selection information](#)
- Cabinet assembly design has been seismic tested and is certified to IBC and CBC standards as well as to ASCE 7 categories A through F, requires battery brackets, refer to data sheet **S2081-0019** for more information
- Seismically compliant under the State of California Statewide Office of Housing and Development (OSHDP) Special Seismic Certification (SSC) program guidelines. Refer to *Simplex Seismic Application Guide* 579-1213 and *Battery Brackets for Seismic Activity Applications* S2081-0019 for details.

IDNet 2 addressable device control

The 4007ES Hybrid provides an IDNet 2 addressable initiating device signaling line circuit (SLC) that supervises wiring connections and the individual device communications status on the SLC. With 2-wire IDNet 2 SLCs, initiation, monitoring, and control devices such as manual fire alarm stations, TrueAlarm sensors, control relays, and sprinkler waterflow switches can communicate their identity and status and receive fire alarm system control. Additional addressable interface modules include circuit isolators, conventional IDC zone adapters, and interface to other system circuits such as fans, dampers, and elevator controls.

IDNet 2 addressable device operation

Each addressable device on the IDNet 2 communication channel is continuously interrogated for status condition such as: normal, off-normal, alarm, supervisory, or trouble. Both Class B and Class A operation is available. Sophisticated poll and response communication techniques ensure supervision integrity and allow for T-tapping of the circuits for Class B operation. Devices with LEDs pulse the LED to indicate receipt of a communications poll and can be turned on steady from the panel. With addressable devices, the location and status of the connected device is monitored, logged, and displayed on the operator interface LCD with each device having its own 40-character custom label for precise identification.

TrueAlarm addressable sensor operation

Addressable initiating device communications include operation of TrueAlarm smoke and temperature sensors. Smoke sensors transmit an output value based on their smoke chamber condition and the CPU maintains a current value, peak value, and an average value for each sensor. Status is determined by comparing the current sensor value to its average value. Tracking this average value as a continuously shifting reference point filters out environmental factors that cause shifts in sensitivity.



Figure 3: TrueAlarm Photo Sensor with base



Figure 4: TrueAlarm Photo/Heat Sensor in CO base

Programmable sensitivity

Programmable sensitivity of each sensor is selectable at the control panel for different levels of smoke obscuration, shown directly in percent, or for specific heat detection levels. To evaluate whether the sensitivity should be revised, the peak value is stored in memory and can be easily read or downloaded as a report and compared to the alarm threshold directly in percent.

CO sensor bases

CO sensor bases combine an electrolytic CO sensing module with a TrueAlarm analog sensor to provide a single multiple sensing assembly using one system address. You can enable and disable the CO sensor, and you can use it in LED/Switch modes and custom control. Refer to data sheet **S4098-0052** for more details.

TrueAlarm heat sensors

You can select TrueAlarm heat sensors for fixed temperature detection, with or without rate-of-rise detection. Utility temperature sensing is also available, typically to provide freeze warnings or alert to HVAC system problems. Readings are selectable as either Fahrenheit or Celsius.

TrueSense early fire detection

Multi-sensor 4098-9754 provides photoelectric and heat sensor data using a single IDNet address. The panel evaluates smoke activity, heat activity, and their combination, to provide TrueSense early detection. For more details on this operation, refer to data sheet **S4098-0024**.

Diagnostics and default device type

Sensor status

TrueAlarm operation allows the FACU to automatically indicate when a sensor is almost dirty, dirty, and excessively dirty. The NFPA 72 requirement for a test of the sensitivity range of the sensors is fulfilled by the ability of TrueAlarm operation to maintain the sensitivity level of each sensor. CO sensors track their 10 year active life status providing indicators to assist with service planning. Indicators occur at: 1 year, 6 months, and end of life.

Modular TrueAlarm sensors

TrueAlarm sensors use the same base and different sensor types (smoke or heat sensor) and can be easily interchanged to meet specific location requirements. This allows intentional sensor substitution during building construction when conditions are temporarily dusty. Instead of covering smoke sensors causing them to disable, heat sensors may be installed without reprogramming the FACU. The FACU will indicate an incorrect sensor type, but the heat sensor will operate at a default sensitivity to provide heat detection for building protection at that location.

IDNet 2 addressable channel capacity

The 4007ES Hybrid provides an isolated output IDNet 2 SLC that supports up to 250 addressable monitor and control points intermixed on the same pair of wires. 250 total requires two 4007-9803 IDNet 2 loop expansion modules.

Table 1: IDNet 2 SLC wiring specifications

Specification	Rating	
Maximum distance from control panel for each device load	0 to 125	4000 ft (1219 m); 50 ohms
	126 to 250	2500 ft (762 m); 35 ohms
Total wire length allowed with T-taps for Class B wiring	Up to 12,500 ft (3.8 km); 0.60 μ F	
Maximum capacitance between IDNet 2 channels	1 μ F	
Wire type and connections	Shielded or unshielded, twisted or untwisted wire, see note.	
Connections	Terminal blocks for 18 AWG to 12 AWG	
Compatibility includes: IDNet communicating devices and TrueAlarm sensors including QuickConnect and QuickConnect2 sensors; see data sheet <i>S4090-0011</i> for additional reference.		
Note: Some applications may require shielded wiring. Review your system with your local Simplex product supplier.		

Table 2: Current draw for each IDNet device

Condition	Current
Standby	0.8 mA
Alarm, with LED off	1.0 mA
Alarm, with LED on	3.0 mA
Note: A maximum of 20 devices with LED on is supported for each channel. Additional device LEDs do not turn on.	

Power supply output and zone/relay module details

Power supply output details

- RUI Communications controls up to 10 remote devices at up to 2500 ft (762 m) for single run, or 10,000 ft (3048 m) total if wiring is Class B and T-tapped; selectable as Class B or Class A
- Compatible RUI remote equipment includes: 4606-9202 and 4606-9205 Color Touchscreen Annunciators (up to 6 total), 4100 Series 24 I/O and LED/Switch modules, 4602 Series LED/Switch and I/O Annunciator modules, including 4602-9101 Status Command Units (SCU), and 4602-9102 Remote Command Units (RCU)
- IDNet 2 SLC output provides electrically isolated Class B or Class A communication; standard capacity is up to 100 addressable points with expansion for up to 250 points using up to two 4007-9803 IDNet 2 Loop Expansion Modules; as described in [IDNet 2 addressable channel capacity](#)
- 6 A output rating, including current for: special application notification appliances; IDNet devices; module currents; and auxiliary output current (battery charging, CPU, and power supply current does not subtract from the 6 A); when NACs are controlling Regulated 24 DC Appliances, total NAC current available is 3 A
- Four on-board Class B/Class A NACs, rated 3 A each for Special Application appliances; selectable for SmartSync horn and strobe control, or strobe synchronization; rated 2 A each for Regulated 24 DC appliances
- NAC EOL resistor values are selectable as: 10 kohms, 3.9 kohms, 4.7 kohms, 5.1 kohms, 5.6 kohms, or 15 kohms
- Battery charger is dual rate, temperature compensated, and charges up to 18 Ah sealed lead-acid batteries mounted in the battery compartment, and charges up to 33 Ah batteries mounted in an external cabinet
- Battery and Charger Monitoring includes battery charger status and low or depleted battery conditions; status information provided to the master controller includes analog values for: battery voltage, charger voltage and current, actual system voltage and current, and NAC current
- Low Battery Voltage Cutout is selectable when required (required for ULC Listing applications)
- 2 A Auxiliary Output (AUX/SNAC) can be selected either as resettable auxiliary power of 2 A @ 24 VDC, or selected to be a simple NAC (SNAC) for sounder base power, four-wire detector power, or door holder power

Zone/relay module details

- Select as IDC or Relay; configure up to eight Class B IDCs, or up to four Class A IDCs; or up to eight Relay outputs rated 2 A resistive @ 30 VDC (N.O. or N.C.); or combinations of IDCs and Relays; each zone is separately configurable as an IDC or Relay output
- IDC Support. Each IDC supports up to 30, two-wire devices
- IDC EOL resistor values are selectable as: 3.3 kohms, 2 kohms, 2.2 kohms, 3.4 kohms, 3.9 kohms, 4.7 kohms, 5.1 kohms, 5.6 kohms, 6.34/6.8 kohms, and 3.6 kohms + 1.1 kohms; see instructions for more details

4007ES mounting and module location reference

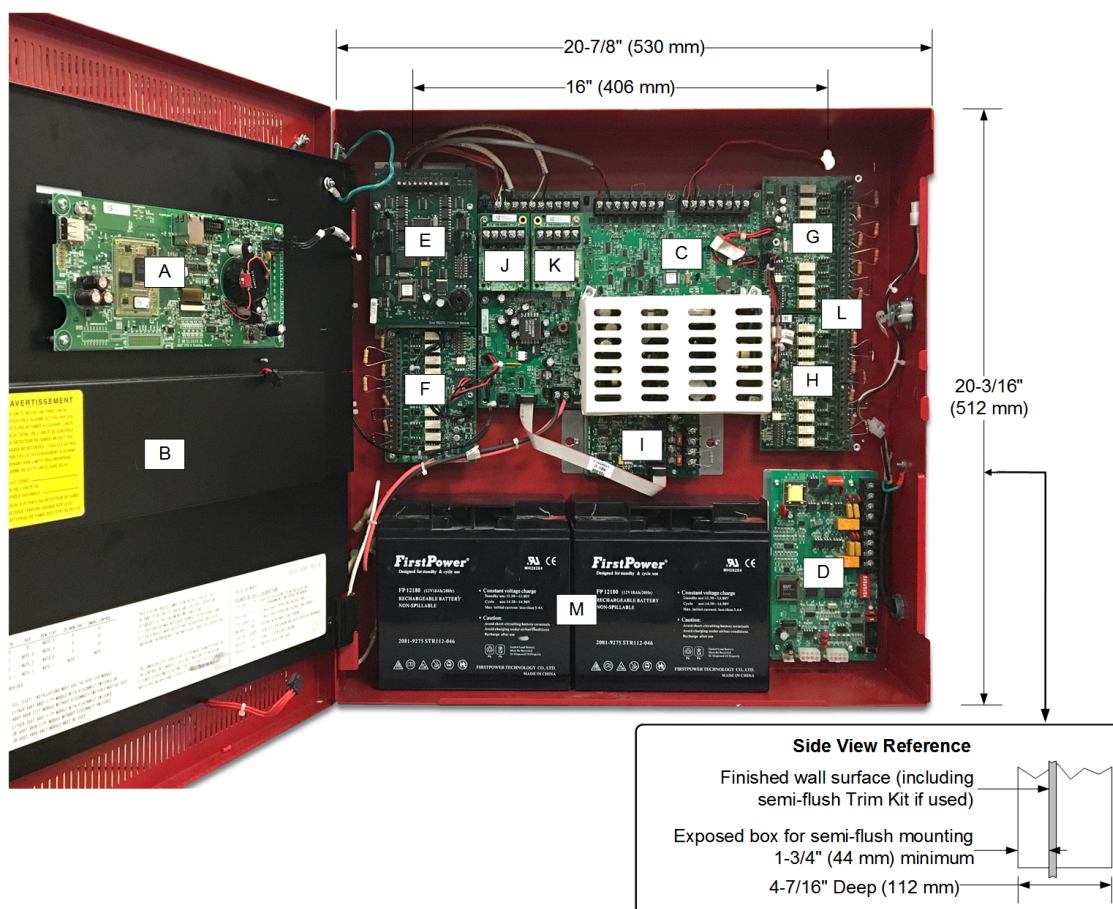


Figure 5: 4007ES mounting and module location reference

Table 3: Module locations

Key	Description
A	CPU and user interface assembly.
B	Location for optional 4007-9805 LED module.
C	Power Supply Assembly.
D	4007-9806 SDACT location. Note: The SDACT includes a 650-1838 flat mounting bracket (available separately). Some pre-existing systems with an angled SDACT bracket will need to be replaced with the flat mounting bracket when an NIC is installed.
E	Location for 4007-9801 Zone/Relay Module, 4007-9812 Dual RS-232 Interface, 4007-9804 Dual Class A IDNAC Isolator (DCAI), or (as shown) 4007-9802 25 V Regulator Module
F	Primary location for 4007-9801 Zone/Relay Module.
G	Location for additional 4007-9801 Zone/Relay Module.
H	Location for additional 4007-9801 Zone/Relay Module.
I	4007-9807 or 4007-9808 City Circuit Module, or 4007-9809 Relay Module.
J	4007-9803 IDNet 2 Loop Expansion Modules, maximum of two (two are shown).
K	4007-9803 IDNet 2 Loop Expansion Modules, maximum of two (two are shown).
L	Block L is an additional block that sits on spacers above block G and H. You can mount the 4007-9810 or 4007-9817 NIC in block L with or without modules mounted below it in blocks G and H. When you use fiber media cards and an SDACT is present, the SDACT requires a 650-1838 flat mounting bracket, ordered separately.
M	Battery location for up to 18 Ah batteries. Note: No conduit entry or wiring in this area, 14 7/8 in. (378 mm) wide.

Note: A system ground must be provided for Earth Detection and transient protection devices. This connection shall be made to an approved, dedicated Earth connection per NFPA 70, Article 250, and NFPA 780.

Product selection

Table 4: 4007ES Hybrid product selection

Model	Color	Description	Supv.	Alarm
4007-9101	Red	4007ES Hybrid with four conventional NACs, 6 A output power supply/battery charger and one IDNet 2 SLC for up to 100 addressable points	145 mA	190 mA
4007-9101BA				
4007-9102	Platinum			
4007-9102BA				
Both models above include:		One 4007-9801 Zone/Relay Card	83 mA	295 mA

Note:

- Models with (BA) are available assembled in the USA.
- The current draw for the 4007ES Hybrid Unit (without included modules) does not subtract from the 6 A of power available for optional modules and external loads. For power supply loading calculations include all modules plus all external loads and exclude the 4007ES Hybrid Unit current. For battery standby calculations include all modules, all external loads, and the base 4007ES Hybrid Unit current.

Module and accessories selection information

Table 5: Factory programming options

Model	Description
4007-8810	Factory Programming (select)
4007-0831	Custom Labels and Programming (requires 4007-8810)

Table 6: Field installed optional modules

Model	Description		Supv.	Alarm
4007-9801	Eight Point Zone/Relay Module, each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is included as standard, select up to three additional. Alarm current shown is for eight Class B IDCs using 3.3K EOL resistors with four IDCs in alarm and four IDCs in standby. Supervisory current shown is for all eight IDCs in standby. Detector current is added separately. Refer to <i>579-1103 Zone/Relay Module Installation Instructions</i> for more information.		83 mA max	295 mA max
4007-9802	25 VDC Regulator Module; 2 A maximum output; use to power Zone/Relay modules connected to initiating devices requiring nominal 25 VDC voltage. Refer to technical publication <i>579-832 2-Wire Detector Compatibility Chart</i> for application details.	with 1 module	190 mA	445 mA
		with 2 modules	290 mA	801 mA
		with 3 modules	390 mA	1156 mA
4007-9803	IDNet 2 Loop Expansion Module; provides an additional isolated loop with short circuit isolation to the existing IDNet 2 channel, also provides an additional 75 addressable points to the IDNet 2 channel capacity, maximum of two		NA	NA
4007-9805	Panel Mounted 48 LED Status Annunciator Module; provides 24 Yellow LEDs, 20 Red LEDs, and four Red/Green LEDs that are programmable for up to 24 IDC zones of alarm and trouble annunciation, or as required for custom annunciation requirements	no LEDs on with LEDs on	10 mA 1.75 mA per LED, 105 mA max	10 mA
4007-9806	SDACT Module for Point or Event Reporting Order 2080-9047 connection cables as required; see Table 10		30 mA	40 mA
4007-9807	City Circuit Module with disconnect switch		20 mA	36 mA
4007-9808	City Circuit Module without disconnect switch		20 mA	36 mA
4007-9809	Relay Module; relays for Alarm, Supervisory, and Trouble; rated 2 A resistive @ 32 VDC		15 mA	37 mA
4007-9812	Dual RS-232 Interface Module; Compatible with Simplex remote printer, PC annunciator or third party interface (two ports/connections maximum)		60 mA	60 mA

Table 7: Field installed optional network modules

Model	Description	Supv.	Alarm
4007-2504	Connected Services Gateway with IP Communicator	125 mA	125 mA

Network interface and network media card product selection

4007ES FACUs are compatible with Simplex ES Net network or 4120 network fire alarm products.

- Refer to data sheet **S4100-0076** for additional information on compatible ES Net fire alarm products.
- Refer to data sheet **S4100-0056** for additional information on compatible 4120 network fire alarm products.
- Refer to data sheet **S4100-0061** for additional information on the Building Network Interface Card (BNIC).

Table 8: Batteries

Model	Capacity	Battery mounting details
2081-9272	6.2 Ah	12 V Batteries for cabinet mounting; select one battery model per system standby requirements; order quantity of two; to be wired in series for 24 VDC
2081-9274	10 Ah	
2081-9288	12.7 Ah	
2081-9275	18 Ah	
2081-9287	25 Ah	Requires 4009-9801 external battery cabinet, see Table 9
2081-9276	33 Ah	

Table 9: Battery cabinets

Model	Color	Capacity	Dimensions (H x W x D)	Description
4009-9801	Beige	For up to 33 Ah batteries, see note	13 1/2 in. x 16 1/4 in. x 5 3/4 in (413 mm x 343 mm x 146 mm)	External battery cabinet without charger for mounting close-nipped to the fire alarm control unit cabinet; includes locking solid door. Use battery harness 734-304 for a NAC power supply and harness 734-303 for an IDNAC power supply; battery harnesses are shipped with the panel.

Note: 33 Ah capacity requires 2081-9276 **square** 33 Ah batteries.

Table 10: Accessories

Model	Description
2080-9047	DACT cable, 14 ft (4.3 m) long, RJ45 plug one end, spade lugs on the other; order one per phone line connection required
2975-9812	Red semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
2975-9813	Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
2081-9031	Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
4081-9002	3.3 kohms, 1 W EOL resistor for Class B non-addressable initiating zones
4081-9018	10 kohms, 1 W EOL resistor harness for non-addressable NACs

General specifications

Table 11: General specifications

Specification		Rating	
Input power	120 VAC input	2 A maximum @ 102 VAC to 132 VAC, 50/60 Hz	
	240 VAC input	1 A maximum @ 204 VAC to 264 VAC, 50/60 Hz	
4007ES Hybrid power supply output ratings	Power supply output rating	Including module currents and auxiliary power outputs; 6 A total	Output switches to battery backup during mains AC failure or brownout conditions
	NAC ratings	3 A each for Special Application Appliances 2 A each for Regulated 24 DC Appliances	
	Auxiliary power tap	2 A maximum, 24 VDC nominal (19.5 VDC to 31.1 VDC)	
Special application non-addressable appliances		Simplex horns, strobes, and combination horn/strobes and speaker/strobes; contact your Simplex product representative for compatible appliances	
Regulated 24 DC non-addressable appliances		Power for other UL listed appliances; use associated external synchronization modules where required	
Battery charger ratings (sealed lead-acid batteries)	Battery capacity range	UL and ULC listed for battery charging of 6.2 Ah up to 33 Ah; batteries larger than 18 Ah require a remote battery cabinet	
	Charger characteristics and performance	Temperature compensated, dual rate, recharges depleted batteries within 48 hours per UL Standard 864; to 70% capacity in 12 hours per ULC Standard S527	

Table 12: Custom background and environmental details

Item	Description
Custom background display details	Supported file types: JPG, BMP, GIF, and PNG
	Recommended image type is JPG, recommended image size is 480 x 240, and the file size limit is 100 kb
Environmental	Operating temperature
	Operating humidity

Additional 4007ES and network product reference data sheets

Table 13: Additional 4007ES and network product reference data sheets

Title	Document number
Serial DACT (SDACT) for 4100ES, 4010ES, 4007ES	S2080-0009
Connected Services Gateway - Central Station Communication and SafeLINC Cloud Services	S2080-0091
Seismic Battery Brackets Reference	S2081-0019
4003EC Voice Control Unit	S4003-0002
4007ES Panels with Addressable Notification	S4007-0002
4007ES Extinguishing Release Applications	S4007-0003
4009 IDNet NAC Extender	S4009-0002
4009 IDNAC Repeater	S4009-0004
External 110 Ah Battery Charger for 4100ES, 4010ES	S4081-0002
Graphic I/O Modules for 4100ES, 4010ES, 4007ES	S4100-0005
Interface to VESDA Air Aspiration Detection Systems	S4100-0026
NDU with SPS Power Supplies for 4120 Network	S4100-0036
InfoAlarm Command Center with SPS Power Supplies	S4100-0045
Multiple Signal Fiber Optic Modems for 4120 Networks	S4100-0049
BACpac Ethernet Module	S4100-0051
4120 Network Products and Specifications	S4100-0056
Building Network Interface Card (BNIC)	S4100-0061
ES Net Network Products and Specifications	S4100-0076
NDU with SPS Power Supplies for ES Net	S4100-0077
InfoAlarm Command Center with EPS Power Supplies	S4100-0101
NDU with EPS Power Supplies for 4120 Network	S4100-0102
NDU with EPS Power Supplies for ES Net	S4100-0104
PC Annunciator	S4190-0013
TrueSite Workstation	S4190-0016
TrueSite Incident Commander	S4190-0020
24-Pin Dot Matrix Fire Alarm System Remote Printer	S4190-0027
SCU/RCU Annunciators	S4602-0001
4606 Series Color Touchscreen LCD Annunciators	S4606-0003

4007ES Hybrid additional reference



Figure 6: 4007ES Hybrid with optional 48 LED Annunciator Module (4007-9805)



Figure 7: 4606-9205 (Platinum) Color LCD Touchscreen Remote Annunciator



Figure 8: 4606-9202 (Red) Color LCD Touchscreen Remote Annunciator

Battery 12V-7A

UXL7-12



Physical Specification

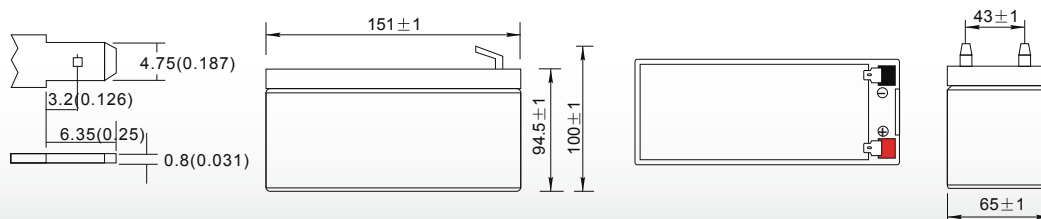
Part Number:	UXL7-12
Length:	151 ± 3 mm (5.94 inches)
Width:	65 ± 3 mm (2.56 inches)
Container Height:	93.5 ± 3 mm (3.70 inches)
Total Height (with terminal):	99 ± 3 mm (3.94 inches)
Approx Weight:	Approx 2.15 Kg

Specifications

	Nominal Voltage	12V
	Nominal Capacity (10HR)	7AH
Terminal Type	Standard Terminal	F1
	Optional Terminal	F2
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	7.42 AH/0.37A	(20hr, 1.80V/cell, 25°C / 77°F)
	7.00 AH/0.70A	(10hr, 1.80V/cell, 25°C / 77°F)
	6.07 AH/1.21A	(5hr, 1.75V/cell, 25°C / 77°F)
	5.53 AH/1.84A	(3hr, 1.75V/cell, 25°C / 77°F)
	4.31 AH/4.31A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	105.0A (5s)	
Internal Resistance	Approx 18.0mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (32 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 2.1A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
	Capacity affected by Temperature	40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%
Design Floating Life at 20°C	15 Years	
Self Discharge	Ultracell batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

F1 Terminal



ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

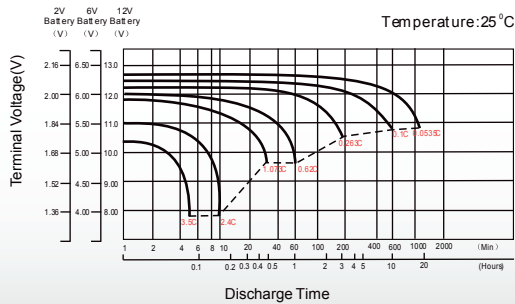
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	9.03	7.53	6.42	5.25	3.97	3.33	2.12	1.68	1.36	1.10	0.97	0.77	0.661	0.368
1.80V/cell	11.5	9.10	7.59	6.19	4.61	3.73	2.32	1.81	1.46	1.18	1.04	0.82	0.700	0.371
1.75V/cell	12.7	9.9	8.17	6.43	4.79	3.90	2.40	1.84	1.49	1.21	1.07	0.84	0.707	0.375
1.70V/cell	13.8	10.6	8.58	6.69	4.98	4.02	2.50	1.89	1.53	1.24	1.09	0.85	0.714	0.382
1.65V/cell	14.9	11.3	9.12	7.06	5.10	4.16	2.57	1.98	1.58	1.28	1.11	0.86	0.729	0.386
1.60V/cell	16.2	12.1	9.71	7.45	5.32	4.31	2.65	2.04	1.63	1.32	1.14	0.87	0.736	0.389

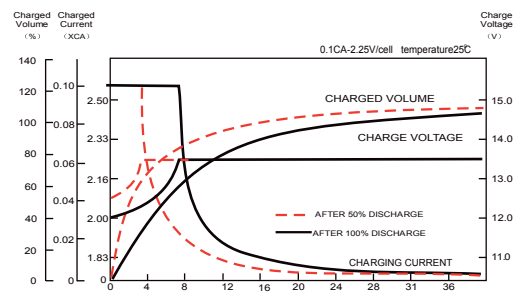
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.0	14.3	12.3	10.2	7.76	6.53	4.20	3.34	2.71	2.20	1.93	1.55	1.33	0.741
1.80V/cell	21.5	17.1	14.4	11.8	8.96	7.28	4.55	3.57	2.88	2.35	2.07	1.65	1.41	0.747
1.75V/cell	23.2	18.4	15.3	12.2	9.21	7.58	4.70	3.62	2.94	2.40	2.12	1.67	1.42	0.753
1.70V/cell	24.7	19.4	16.0	12.6	9.55	7.80	4.88	3.72	3.01	2.46	2.16	1.69	1.43	0.767
1.65V/cell	26.5	20.5	16.8	13.2	9.70	8.00	4.99	3.86	3.10	2.52	2.20	1.71	1.46	0.776
1.60V/cell	28.1	21.5	17.7	13.8	10.05	8.24	5.13	3.96	3.19	2.60	2.24	1.73	1.47	0.779

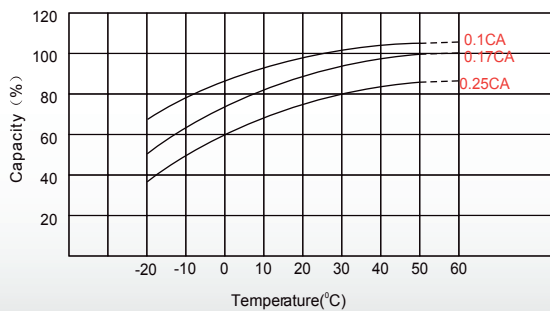
Discharge Characteristics



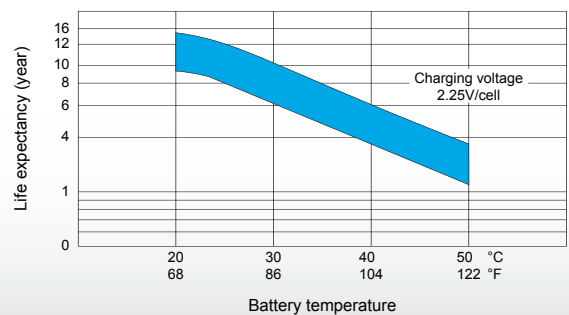
Float Charging Characteristics



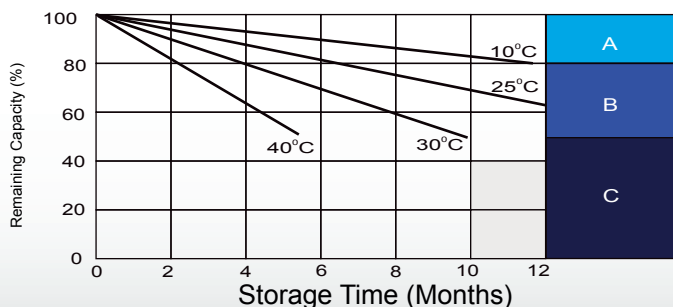
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



A

No supplementary required
(Carryout supplementary charge before use if 100% capacity is required.)

B

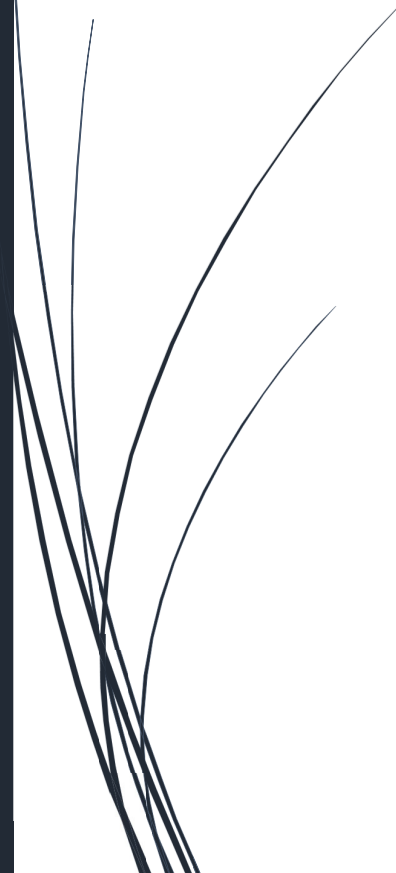
Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.
3. Charged for 8 ~ 10 hours at limited current 0.05 CA.

C

Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

Addressable Detectors





UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

TrueAlarm Multi-Point Analog Sensing

TrueAlarm Multi-Sensor Model 4098-9754
Providing TrueSense Early Fire Detection

Features

TrueAlarm photoelectric smoke sensing and heat sensing combined in one housing to provide:

- Smoke activity accurately monitored by TrueAlarm photoelectric sensing technology
- Thermal activity accurately monitored by TrueAlarm thermistor sensing technology
- And **TrueSense detection**, a correlation of smoke activity and thermal activity providing intelligent fire detection earlier than with either activity alone

For use with Simplex® 4007ES, 4010ES, 4100ES, and 4100U fire alarm control panels:

- TrueAlarm analog sensor information is digitally communicated to the control panel via IDNet two-wire communications
- Special point types allow the 4098-9754 multi-sensor to communicate smoke and heat analog sensing data **using only one IDNet address**
- Individual sensor information is processed by the host control panel to determine sensor status and to determine whether conditions are normal, off-normal, or alarm
- (4100U fire alarm control panels require software revision 11 or higher with multi-point compatible IDNet transmission modules)

Alarms can be determined by either:

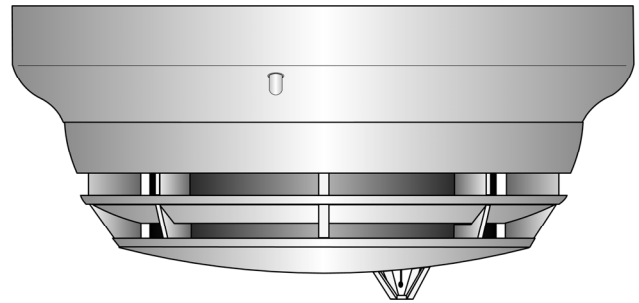
- Smoke detection with selectable sensitivity from 0.2 to 3.7 %/ft obscuration (refer to additional information on page 2)
- Heat detection selectable as fixed temperature or fixed with selectable rate-of-rise
- TrueSense intelligent analysis of the combination of smoke and heat activity

Additional design features:

- Functional and architecturally styled enclosures for ceiling or wall mounting
- Smoke sensor louver design that directs air flow to chamber enhancing smoke capture
- Built-in magnetic test feature
- Compatible with standard bases (including relay control), sounder bases, and isolator bases
- Designed for EMI compatibility

UL listed to Standard 268

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listings 7272-0026:218 and 7300-0026:217 for allowable values and/or conditions concerning material presented in this document. Accepted for use – City of New York Department of Buildings – MEA35-93E. Refer to page 4 for ULC listing status. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.



TrueAlarm Multi-Sensor 4098-9754
Mounted in Standard Sensor Base

TrueAlarm Multi-Sensor Description

TrueAlarm multi-sensor model 4098-9754 combine the established performances of a TrueAlarm photoelectric smoke sensor with a fast-acting and accurate TrueAlarm thermal sensor to provide both features in a single sensor/base assembly.

Digital Communication of Analog Sensing.

Analog information from each sensor is digitally communicated to the control panel where it is analyzed. Photoelectric sensor input is stored and tracked as an average value with an alarm or abnormal condition being determined by comparing the sensor's present value against its average value. Thermal data is processed to look for absolute or rate-of-rise temperature as desired.

Intelligent Data Evaluation. Monitoring each photoelectric sensor's average value provides a software filtering process that compensates for environmental factors (dust, dirt, etc.) and component aging, providing an accurate reference for evaluating new activity. The result is a significant reduction in the probability of false or nuisance alarms caused by shifts in sensitivity, either up or down. Status indications of dirty and excessively dirty are automatically generated allowing maintenance to be performed per device.

Control Panel Selection. Peak activity per sensor is stored to assist in evaluating specific locations. The alarm set point for each TrueAlarm sensor is determined at the control panel, selectable as more or less sensitive as the individual application requires.

Multi-Point Reporting and CO Base Reference.

Reporting 4098-9754 "sub-points" under its single address varies with the base used. Multi-point details are listed in data sheet S4090-0011.

Using the 4098-9754 with CO sensor bases is detailed in data sheet S4098-0052.

Description (Continued)

Timed/Multi-Stage Selection. Alarm set points can be programmed for timed automatic sensitivity selection (such as more sensitive at night, less sensitive during day). Control panel programming can also provide multi-stage operation per sensor. For example, a 0.2% level may cause a warning to prompt investigation while a 2.5% level may initiate an alarm.

Sensor Alarm and Trouble LED Indication. Each sensor base's LED pulses to indicate communications with the panel. If the control panel determines that a sensor is in alarm, or that it is dirty or has some other type of trouble, the details are annunciated at the control panel and that sensor base's LED will be turned on steadily. During a system alarm, the control panel will control the LEDs such that an LED indicating a trouble will return to pulsing to help identify the alarmed sensors.

TrueAlarm Analog Sensor Features

General mechanical:

- Housing is sealed against rear air flow entry
- Electronics are EMI/RFI shielded

Smoke sensing:

- Photoelectric light scattering sensing technology
- 360° smoke entry for optimum response
- Chamber screen provides protection from dirt, dust, and insects

Heat sensing:

- Fast response thermistor design
- Rate compensated, self-resetting operation
- Control panel can select per sensor for fixed temperature sensing, rate-of-rise temperature sensing, or the combination of both

Photoelectric Sensing Details

TrueAlarm photoelectric sensors use a stable, pulsed infrared LED light source and a silicon photodiode receiver to provide consistent and accurate low power smoke sensing. Seven levels of sensitivity are available for each individual sensor, ranging from 0.2% to 3.7% per foot of smoke obscuration. Sensitivities of 0.2%, 0.5%, and 1% are for special applications in clean areas. Standard sensitivities are 1.5%, 2.0%, 2.5%, 3.0%, and 3.7%. Application type and sensitivity are selected and then monitored at the fire alarm control panel.*

Sensor head design provides 360° smoke entry for optimum smoke response. Because of the photoelectric sensing technology, the 4098-9754 sensor is UL listed for air velocity of up to 4000 ft/min. However, care must be taken in determining sensor locations to avoid areas where local airflow may also impact any smoke flow. (Refer to the application reference section on this page.)

Heat Sensing Details

TrueAlarm heat sensors monitor a fast reacting thermistor providing operation that is self-restoring and rate compensated. Due to its small thermal mass, the sensor accurately and quickly measures the local temperature for analysis at the fire alarm control panel. The control panel allows alarm selection to be per sensor as fixed temperature, or rate-of-rise temperature, or the combination of both.

Temperature Detection. Rate-of-rise temperature detection is selectable at the control panel for either 15° F (8.3° C) or 20° F (11.1° C) per minute. Fixed temperature sensing is independent of rate-of-rise sensing and selectable to operate at 135° F (57.2° C) or 155° F (68° C). In a slow developing fire, the temperature may not increase rapidly enough to operate the rate-of-rise feature. However, an alarm will be initiated when the temperature reaches its selected fixed temperature setting.

Utility Temperature Monitoring. TrueAlarm heat sensors can be programmed as a utility device to monitor for temperature extremes in the range from 32° F to 122° F (0° C to 50° C). This feature can provide freeze warnings or alert to HVAC system problems.

TrueSense Detection Details

Control Panel Sensor Analysis. Each multi-sensor's smoke and heat sensing element provides data for evaluation at the fire alarm control panel where four independent detection modes are evaluated. They are:

- Fixed temperature heat detection
- Rate-of-rise heat detection
- TrueAlarm photoelectric smoke detection
- And TrueSense correlation detection

Comparing Photoelectric Activity and Thermal Activity.

TrueSense analysis correlates both thermal activity *and* smoke activity at a single multi-sensor location using an extensively tested covariance relationship. As a result, TrueSense detection improves response to conditions indicative of faster acting, hot flaming fires when compared to the response of either photoelectric smoke activity or thermal activity alone.

High Integrity Detection. TrueSense operation provides early fire detection and maintains the established high level of immunity to false alarms and nuisance alarms that is inherent with TrueAlarm sensor operation.

Application Reference

Sensor locations should be determined after careful consideration of the physical layout and contents of the area to be protected. Refer to NFPA 72, the *National Fire Alarm and Signaling Code*. On smooth ceilings, smoke sensor spacing of 30 ft (9.1 m) may be used as a guide.*

* For detailed application information, refer to *4098 Detectors, Sensors, and Bases Application Manual*, document number 574-709.

Multi-Sensor Base Features

Base mounted address selection allows the address of the multi-sensor base to remain with its programmed location when the sensor is removed for service.

Integral red LED indicates power-on by pulsing, or alarm or trouble when steady on, reflecting status of either sensor. The exact status of the specific sensing element is annunciated at the fire alarm control panel.

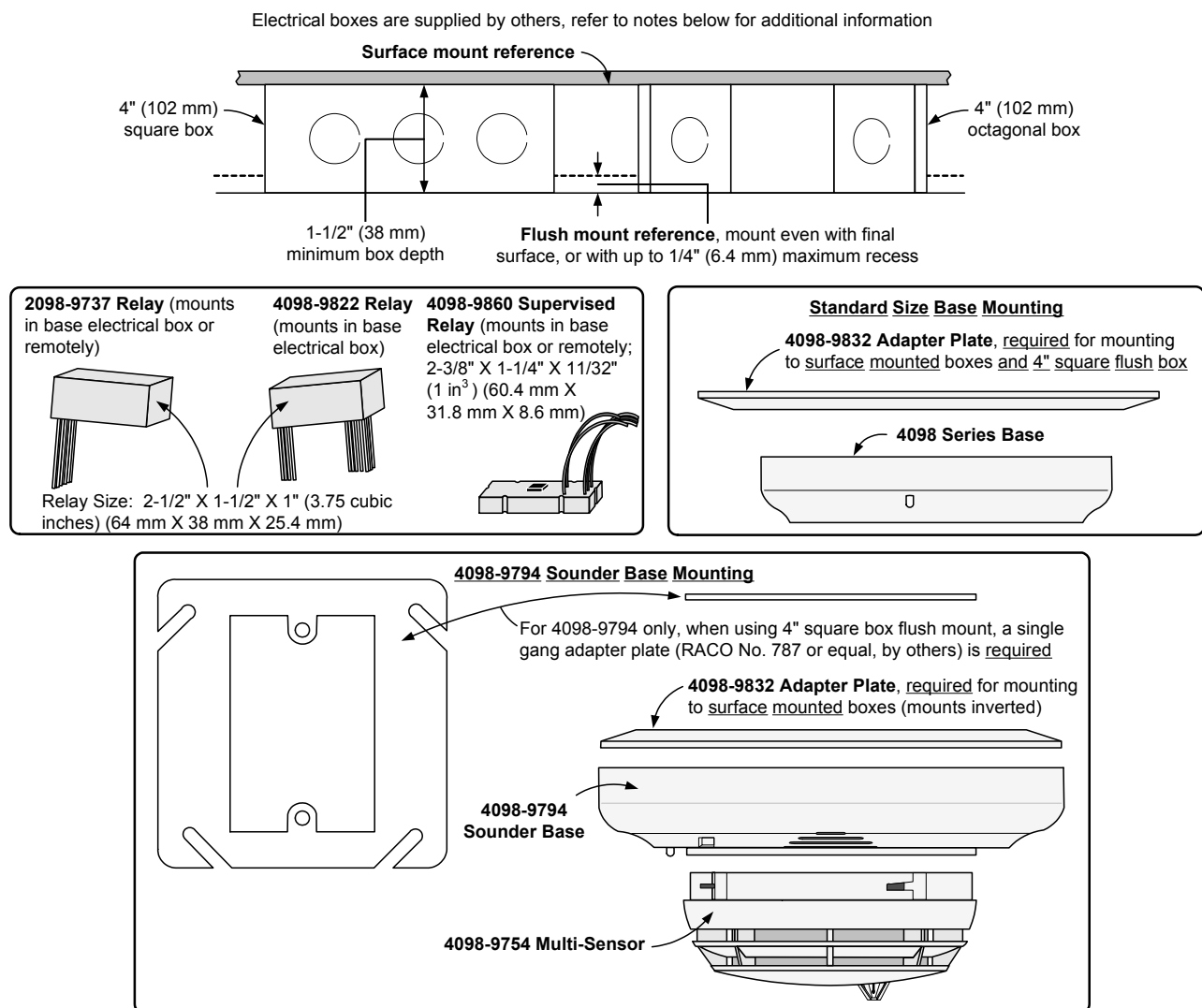
Fire Alarm Control Panel Features

- Individual smoke sensitivity and temperature operation is selectable for each sensor
- Sensitivity monitoring that satisfies NFPA 72 sensitivity testing requirements

Mounting Reference

Fire Alarm Control Panel Features (Cont'd)

- Peak value logging allows accurate analysis for sensitivity selection
- Automatic, once per minute individual sensor calibration check verifies sensor integrity
- Multi-stage alarm operation
- Selectable alarm verification
- Automatic environmental compensation and determination of dirty and excessively dirty
- TrueSense analysis of smoke and heat activity
- Ability to display and print detailed sensor information in plain English language
- Smoke sensitivity displayed in percent per foot and temperature readings selectable as Fahrenheit or Celsius



NOTES:

1. Review wire size, wire count, box type, and whether a locally mounted relay is used before determining box size.
2. When a locally mounted relay is used, mount relay in electrical box and use 1-1/2" extension ring (by others) on 4" square or octagonal box of 1-1/2" or 2-1/8" depth as required.
3. Flush mounting also fits a single gang box, 2-1/8" (51 mm) deep if compatible with wiring requirements. (Not applicable if a locally mounted relay is used.)
4. Refer to Systems Manual 574-709 for additional information.

Product Selection

TrueAlarm Multi-Sensor (ordered separately, refer to page 3 for mounting requirements)

Model*	Color	Description
4098-9754	White	Multi-sensor, photoelectric sensor with integral thermal sensor; select base from list below
4098-9754 IND		
4098-9779	Black	

TrueAlarm Multi-Sensor Bases (ordered separately, refer to page 3 for mounting requirements)

Model*	Color	Description		For More Detail See Data Sheet
4098-9792	White	Standard Sensor Base, no options		S4098-0019
4098-9776	Black			
4098-9789	White	Sensor Base with connections for remote LED alarm indicator or unsupervised relay.		
4098-9789 IND				
4098-9775	Black			
4098-9791	White	4-Wire Sensor Relay Base	Includes connections for Supervised Remote Relay and for remote LED alarm indicator or unsupervised relay; see below for details	
4098-9780	White	2-Wire Sensor Relay Base		
4098-9793	White	Isolator Base with built-in IDNet communications isolator, no options		S4098-0025
4098-9794	White	Sounder Base with connections for remote LED alarm indicator or unsupervised relay		S4098-0028

Accessories Reference (ordered separately as required, refer to page 3 for additional mounting requirements)

Model	Description
4098-9832	Adapter Plate, 6-3/8" (162 mm) diameter, 1/4" (6.4 mm) deep, matches bases, see page 3 for required applications
2098-9808	Red LED Alarm Indicator on single gang stainless steel plate, mounts on single gang box, 1-1/2" (38 mm) minimum depth
4098-9822	Choose one if applicable Relay with operation that tracks base led status, mounts in base electrical box, 4" square or octagonal box with 1-1/2" (38 mm) extension ring, select box depth per actual wiring requirements; DPDT contacts for resistive/suppressed loads, power limited rating of 2 A @ 28 VDC; non-power limited rating of 1/2 A @ 120 VAC, (requires external 24 VDC coil power)
2098-9737	Supervised Relay for use with 4098-9791 only; DPDT contacts for resistive/suppressed loads, power limited rating of 3 A @ 28 VDC; non-power limited rating of 3 A @ 120 VAC (requires external 24 VDC coil power)
4098-9860	Supervised Relay for use with 4098-9780 only; SPDT dry contacts, power limited rating of 2 A @ 30 VDC, resistive; non-power limited rating of 0.5 A @ 125 VAC, resistive
	Mount remotely or in base electrical box; remote mounting requires 4" octagonal or 4" square box, 1-1/2" minimum depth; base mounting requires 4" octagonal box, 2-1/8" deep with 1-1/2" extension ring; see page 3 for dimension reference

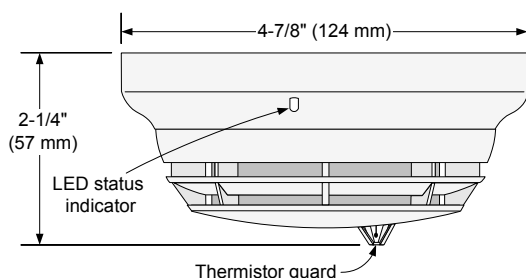
* **Note:** Model numbers ending in IND are assembled in India.

Specifications

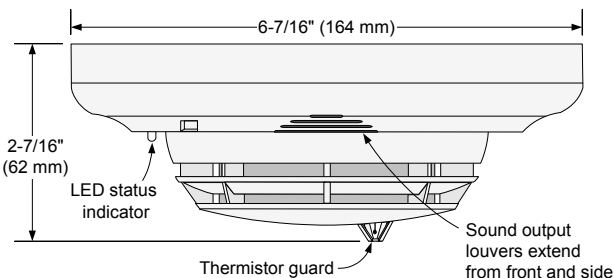
General Operating Specifications (refer to data sheet list for additional detail)

Communications and Sensor Supervisory Power	IDNet communications, 1 address per base
UL Listed Operating Temperature Range	32° F to 100° F (0° C to 38° C)
Operating Temperature Range	15° F to 122° F (-9° C to 50° C)
Storage Temperature Range	0° F to 140° F (-18° C to 60° C)
Humidity Range	10 to 95% RH
Smoke Sensor Sensitivity Range	0.2 % to 3.7% per foot of smoke obscuration, selected at control panel (refer to additional information on page 2)
Smoke Sensor Air Velocity Range	0-4000 ft/min (0-1220 m/min)
Thermal Sensor Operation (selected at control panel)	Fixed alarm temperature setting of 135° F (57.2° C), and/or rate-of-rise temperature alarm at 15° F (8.3° C) or 20° F (11.1° C), also selectable as utility monitoring operation from 32° F to 122° F (0° C to 50° C)
Housing Color	Frost White or Black

4098-9754 Sensor and Base Dimensions



Standard Size Base Mounting



Sounder Base Mounting

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www.simplex-fire.com

S4098-0024-12 11/2016

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Features

TrueAlarm analog sensing provides the following features

- Digital transmission of analog sensor values using IDNet or MAPNET II two-wire communications

For use with the following Simplex products

- 4007ES, 4010, 4010ES, 4100ES, and 4100U Series control units ; and 4008 Series control units with reduced feature set (refer to data sheet *S4008-0001* for details)
- 4020, 4100, and 4120 Series control units, Universal Transponders, and 2120 TrueAlarm CDTs equipped for MAPNET II operation

Fire alarm control unit provides the following features

- Peak value logging with accurate analysis of each sensor for individual sensitivity selection
- Sensitivity monitoring meets NFPA 72 sensitivity testing requirements; automatic individual sensor calibration check verifies sensor integrity
- Automatic environmental compensation, multi-stage alarm operation, and display of sensitivity directly in percent for each foot
- Display and print detailed sensor information in plain English language

Photoelectric smoke sensors provide the following features

- Sensitivity levels from 0.2% to 3.1%. See [TrueAlarm sensors](#) for more information.

Heat sensors have these features

- Three fixed temperature sensing thresholds: 135°F, 155°F and 190°F
- Rate-of-rise temperature sensing
- Utility temperature sensing
- Listed to UL 521 and ULC-S530

General features

- Ceiling or wall mounting
- Listed to UL 268 7th Edition and ULC-S529
- NEMA 1 rated. See [TrueAlarm analog sensing product selection chart](#) for more information.
- Louvered smoke sensor design enhances smoke capture by directing flow to chamber; entrance areas are minimally visible when ceiling mounted
- Designed for EMI compatibility
- Magnetic testing
- Different bases support a supervised or unsupervised output relay, or a remote LED alarm indicator

Additional base reference

- For isolator bases, refer to data sheet *S4098-0025*
- For sounder bases, refer to data sheet *S4098-0028*
- For photo/heat sensors, refer to data sheet *S4098-0024* , single address and *S4098-0033* , dual address

Description

Digital communication of analog sensing

TrueAlarm analog sensors provide an analog measurement digitally communicated to the host control panel using Simplex addressable communications. The control unit analyses the data, determines an

average value and stores it. Comparing the sensor's present value against its average value and time, determines an alarm or other abnormal condition.

Intelligent data evaluation

Monitoring each sensor's average value provides a continuously shifting reference point. A software filtering process compensates for environmental factors, such as dust and dirt, and component aging, to provide an accurate reference for evaluating new activity. This filtering reduces the probability of false or nuisance alarms caused by shifts in sensitivity, either up or down.

Control unit selection

The control unit stores peak activity for each sensor to assist in evaluating specific locations. The host control unit determines the alarm set point for each TrueAlarm sensor, selectable as more or less sensitive as the individual application requires.

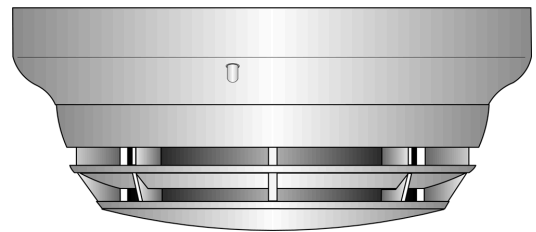


Figure 1: 4098-9714 TrueAlarm photoelectric sensor mounted in base

Timed/multi-stage selection

You can program the sensor alarm set points for timed automatic sensitivity selection, such as more sensitive at night, less sensitive during day. You can program the control unit to provide multi-stage operation for each sensor.

Sensor alarm and trouble LED indication

Each sensor base's LED pulses to indicate communications with the unit. If the control unit determines a sensor is in alarm, is dirty, or has some other type of trouble, the details are annunciated at the control unit and the sensor's base LED will turn on steadily. During a system alarm, the control unit will control the LEDs such that an LED indicating a trouble will return to pulsing to help identify the alarmed sensors.

TrueAlarm sensor bases and accessories

Sensor base features

Base mounted address selection

- Address remains with its programmed location
- Accessible from front, DIP switch under sensor

General features

- Automatic identification provides default sensitivity when substituting sensor types
- Integral red LED for power-on, pulsing, or alarm or trouble, steady on
- Locking anti-tamper design mounts on standard outlet box
- Magnetically-operated functional test

* These products have been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listings 7272-0026:218, 7271-0026:231, 7270-0026:216, and 7300-0026:217 for allowable values and/or conditions concerning material presented in this document. Additional listings may be applicable, contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

Sensor bases

4098-9792, standard sensor base

4098-9789, sensor base with wired connections

- 2098-9808 remote LED alarm indicator or 4098-9822 relay (relay is unsupervised and requires separate 24 VDC)

Supervised relay bases not compatible with 2120 CDT:

- **4098-9791, 4-wire sensor base**, use with remote or locally mounted 2098-9737 relay, requires separate 24 VDC
- **4098-9780, 2-wire sensor base**, use with remote or locally mounted 4098-9860 relay, no separate power required
- Supervised relay operation is programmable and can be manually operated from control unit
- Includes wired connections for remote LED alarm indicator **or** 4098-9822 relay, relay is unsupervised and requires separate 24 VDC

Sensor base options

2098-9737, remote or local mount supervised relay

- DPDT contacts for resistive/suppressed loads
- power limited rating of 3 A at 28 VDC
- non-power limited rating of 3 A at 120 VAC, requires external 24 VDC coil power

4098-9860, remote or local mount supervised relay

- SPDT dry contacts, power limited rating of 2 A at 30 VDC, resistive; non-power limited rating of 0.5 A at 125 VAC, resistive

4098-9822, LED annunciation relay

- Activates when base LED is on steady, indicating local alarm or trouble
- DPDT contacts for resistive/suppressed loads, power limited rating of 2 A at 28 VDC; non-power limited rating of 1/2 A at 120 VAC, (requires external 24 VDC coil power)

4098-9832, adapter plate

- Required for surface or semi-flush mounting to 4 in. square electrical box and for surface mounting to 4 in. octagonal box
- Can be used for cosmetic retrofitting to existing 6 3/8 in. diameter base product

2098-9808, remote red LED alarm indicator

- Mounts on single gang box



Figure 2: Remote red LED alarm indicator

Description

TrueAlarm sensor bases contain integral addressable electronics that constantly monitor the status of the detachable photoelectric or heat sensors. Each sensor's output is digitized and transmitted to the system fire alarm control unit every four seconds.

You can easily interchange different TrueAlarm sensor types to meet specific location requirements. This feature allows intentional sensor substitution during building construction. When conditions are temporarily dusty, you can install heat sensors without reprogramming the control unit, as covering smoke sensors causes them to be disabled. Although the control unit will indicate an incorrect sensor type, the heat sensor will operate at a default sensitivity providing heat detection for building protection at that location.

Mounting reference

Electrical Box Requirements: (boxes are by others)

Without relay in the box: 4" octagonal or 4" square, 1-1/2" deep; single gang, 2" deep

With relay in the box: 4" octagonal or 4" square, 1-1/2" deep, with 1-1/2" extension ring

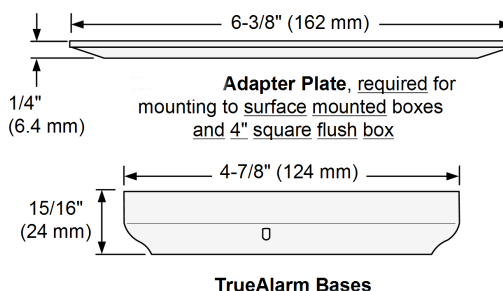
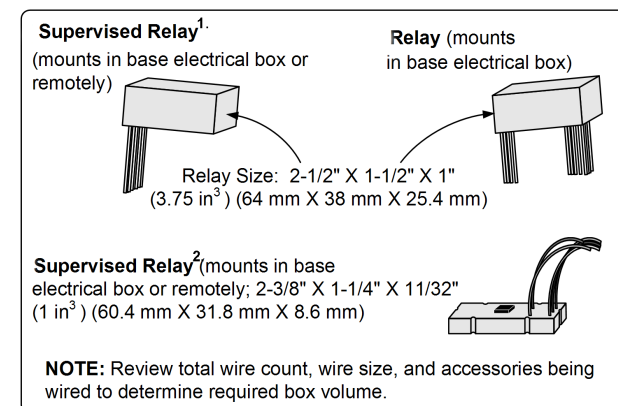
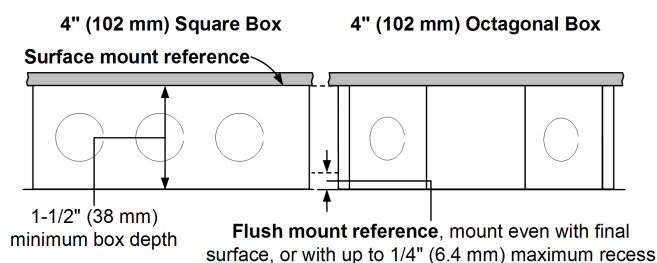


Figure 3: Mounting reference

Table 1: Product mounting - SKU reference

Product	SKU
Relay	4098-9822
Supervised relay	Example 1 2098-9739 Example 2 4098-9860
Adapter plate	4098-9832
TrueAlarm bases	4098-9780, 4098-9789, 4098-9791, 4098-9792

TrueAlarm sensors

Features

- Sealed against rear air flow entry
- Interchangeable mounting
- EMI/RFI shielded electronics
- Heat sensors:
 - Selectable rate compensated, fixed temperature sensing with or without rate-of-rise operation
 - Rated spacing distance between sensors:

Fixed Temp. Setting	UL and ULC Spacing	FM Spacing, Either Fixed Temperature Setting
135°F (57.2°C) 190°F (88°C)	60 ft x 60 ft (18.3 m)	20 ft x 20 ft (6.1 m) for fixed temperature only; RTI = Quick
155°F (68°C)	40 ft x 40 ft (12.2 m)	50 ft x 50 ft (15.2 m) for fixed temperature with either rate-of-rise selection; RTI = Ultra Fast

Note: 190°F (88°C) ratings apply only to the 4098-9734 sensor.

Smoke sensors

- Photoelectric technology sensing
- 360° smoke entry for optimum response
- Built-in insect screens

4098-9714 photoelectric sensor

TrueAlarm photoelectric sensors use a stable, pulsed LED light source and a silicon photodiode receiver to deliver consistent and accurate low power smoke sensing. There are three user-selectable sensitivities for special applications for each individual sensor: 0.2%, 0.5%, and 1% for each foot. Standard sensitivity is 1.25% to 3.1% for each foot. The fire alarm control unit runs an algorithm that can vary the sensitivity for normal applications between 1.25% and 3.1% for each foot.

Note: Fixed sensitivity settings higher than 1.0% for each foot are not UL268 7th Edition compliant.

The sensor head design provides 360° smoke entry for optimum response to smoke from any direction. Due to its photoelectric operation, air velocity is not normally a factor, except for impact on area smoke flow.

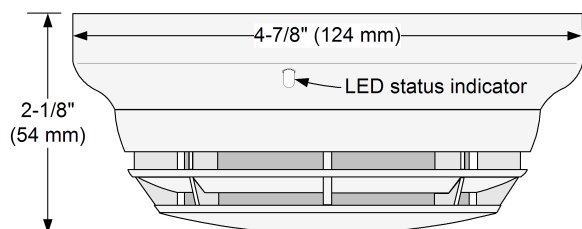


Figure 4: 4098-9714 photoelectric sensor with base

4098-9733 and 4098-9734 heat sensors

TrueAlarm heat sensors are self-restoring and provide rate-compensated, fixed temperature sensing, you can select with or without rate-of-rise temperature sensing. Due to its small thermal mass, the sensor accurately and quickly measures the local temperature for analysis at the fire alarm control unit.

You can select rate-of-rise temperature detection at the control unit for either 15°F or 20°F (8.3°C or 11.1°C) for each minute. Fixed temperature sensing is independent of rate-of-rise sensing and you can program it to operate at 135°F or 155°F (57.2°C or 68°C). The 4098-9734 sensor provides an additional 190°F (88°C) set point.

In a slowly developing fire, the temperature may not increase rapidly enough to operate the rate-of-rise feature. However, an alarm will be initiated when the temperature reaches its rated fixed temperature setting.

You can program TrueAlarm heat sensors as a utility device to monitor for temperature extremes in the range of 32°F to 155°F (0°C to 68°C). This feature can provide freeze warnings, or alert you to HVAC system problems. Refer to panel specifications for availability.

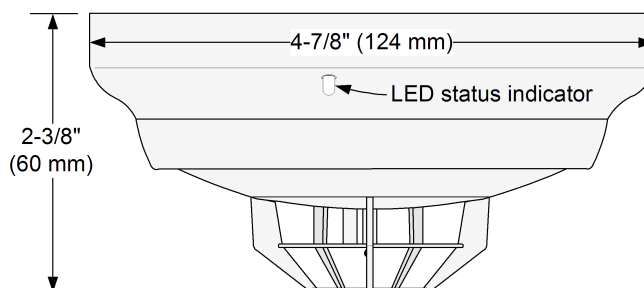


Figure 5: 4098-9733 heat sensor with base

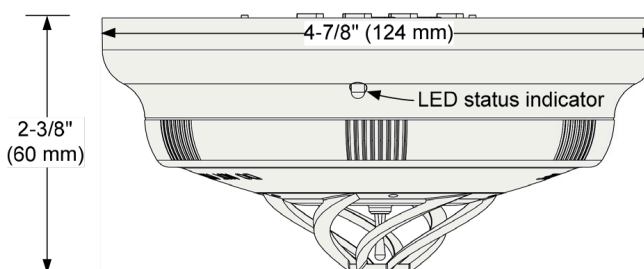


Figure 6: 4098-9734 high temperature heat sensor with base

WARNING: In most fires, hazardous levels of smoke and toxic gas can build up before a heat detection device would initiate an alarm. In cases where Life Safety is a factor, the use of smoke detection is highly recommended.

Application reference

Sensor locations should be determined only after careful consideration of the physical layout and contents of the area to be protected. Refer to NFPA 72, *the National Fire Alarm and Signaling Code*. On smooth ceilings, a smoke sensor spacing of 30 ft (9.1 m) can be used as a guide.

For detailed application information including sensitivity selection, refer to *Installation Instructions 574-709*.

TrueAlarm analog sensing product selection chart

Table 2: TrueAlarm sensor bases (for use with sensors 4098-9714 and 4098-9733)

SKU	Color	Description	Compatibility	Mounting requirements
4098-9792 GSA4098-9792	White	Standard sensor base	No options	4 in. octagonal or 4 in. square box, 1 1/2 in. min. depth; or single gang box, 2 in. min. depth
4098-9776	Black			
4098-9789 4098-9789IND GSA4098-9789	White	Sensor base with connections for remote LED alarm indicator or unsupervised relay	2098-9808 remote alarm indicator or 4098-9822 unsupervised relay	4 in. octagonal or 4 in. square box
4098-9775	Black			
4098-9791	White	4-wire sensor supervised relay base with connections for LED indicator or unsupervised relay	2098-9737 supervised remote relay	Note: Box depth requirements depend on total wire count and wire size, see Table 4 for reference.
Note: NOT compatible with the 2120 CDT			2098-9808 remote alarm indicator or 4098-9822 unsupervised relay	
4098-9780 GSA4098-9780	White	2-wire sensor supervised relay base with connections for LED indicator or unsupervised relay	4098-9860 supervised remote relay	
Note: NOT compatible with the 2120 CDT			2098-9808 remote alarm indicator or 4098-9822 unsupervised relay	

Note: SKU numbers ending in IND are assembled in India. SKU numbers with GSA prefix are assembled in the USA.

Refer to *Application Manual 574-709* and *Installation Instructions 574-707* for additional information.

Table 3: TrueAlarm sensors

SKU	Color	Description	Compatibility	Mounting requirements
4098-9714				
4098-9714-IND	White	Photoelectric smoke sensor	Bases 4098-9775, 4098-9776, 4098-9792, 4098-9789, 4098-9791, and 4098-9780	Refer to base requirements
GSA4098-9714				
4098-9774	Black			
4098-9733	White	Heat sensor		
GSA4098-9733				
4098-9778	Black			
4098-9734				
GSA4098-9734	White	High temperature heat sensor		

Note:

- All of these SKUs are NEMA 1 rated.
- The 4098-9734 Heat Sensor is compatible with IDNet on the 4100ES, 4010ES, and 4007ES only.
- SKU numbers with GSA prefix are assembled in the USA.

Table 4: TrueAlarm sensor/base accessories

SKU	Description	Compatibility	Mounting requirements
2098-9737	Supervised relay, mounts remote or in base electrical box	For use with 4098-9791 base	Remote mounting requires 4 in. octagonal or 4 in. square box, 1 1/2 in. minimum depth
4098-9860	Supervised relay, mounts remote or in base electrical box	For use with 4098-9780 base	Base mounting requires 4 in. octagonal box, 2 1/8 in. deep with 1 1/2 in. extension ring
2098-9808	Remote red LED alarm indicator on single gang stainless steel plate	Bases 4098-9789, 4098-9791, and 4098-9780	Single gang box, 1 1/2 in. minimum depth
4098-9822	Unsupervised relay, tracks base led status. Note: Mounts only in base electrical box.	Bases 4098-9789, 4098-9791, and 4098-9780	4 in. octagonal box, 2 1/8 in. deep with 1 1/2 in. extension ring
4098-9832	Adapter plate	Bases 4098-9792, 4098-9789, 4098-9791, and 4098-9780	Required for surface or semi-flush mounted 4 in. square box and for surface mounted 4 in. octagonal box

Note: 2098-9808 is NEMA 1 rated.

Specifications

Table 5: General operating specifications

Specification	Rating
Communications and sensor supervisory power	IDNet or MAPNET II communications, auto-selected, one address for each base
Communications connections	Screw terminals for in/out wiring, 18 to 14 AWG, 0.82 mm ² to 2.08 mm ²
Remote LED alarm indicator current	1 mA typical, no impact to alarm current
Remote LED alarm indicator and relay connections	Color coded wire leads, 18 AWG, 0.82 mm ²
UL listed operating temperature range	32°F to 100°F, 0°C to 38°C
Operating temperature range	with 4098-9733 Heat Sensor 32°F to 122°F, 0°C to 50°C
	with 4098-9714 Smoke Sensor 15°F to 122°F, -9°C to 50°C
	with 4098-9734 Heat Sensor 32°F to 150°F, 0°C to 66°C
Storage temperature range	0°F to 140°F, -18°C to 60°C
Humidity range	10% to 95% RH
4098-9714 smoke sensor air velocity rating	0 to 4000 ft/min, 0 to 1220 m/min
Housing color	Frost white or black

Table 6: 4098-9791 Base with supervised remote relay 2098-9737

Specification	Rating
Externally supplied relay coil voltage	18 VDC to 32 VDC, nominal 24 VDC
Supervisory current	270 µA, from 24 VDC supply
Alarm current with 2098-9737 relay	28 mA, from 24 VDC supply
Note: See Sensor base options for contact ratings.	

Table 7: 4098-9780 Base with supervised remote relay 4098-9860

Specification	Rating
Power	Supplied from communications

Table 8: 4098-9822 Unsupervised relay, requirements for bases 4098-9789, 4098-9791, and 4098-9780

Specification	Rating
Externally supplied relay coil voltage	18 VDC to 32 VDC, nominal 24 VDC
Supervisory current	Supplied from communications
Alarm current	13 mA from separate 24 VDC supply
Note: See Sensor base options for contact ratings.	

Call Station 4099-9006

Features

Individually addressable manual fire alarm stations with:

- Power and data supplied by IDNet or MAPNET II addressable communications using a single wire pair
- Operation that complies with ADA requirements
- Visible LED indicator that flashes during communications and is on steady when the station has been activated
- The NO GRIP Single Action Station and Retrofit Kit are available with a more easily operated pull lever for applications where anticipated users may find the standard station lever difficult to activate
- Pull lever that protrudes when alarmed
- Break-rod supplied (use is optional)
- Models are available with single or double action (breakglass or push) operation
- UL listed to Standard 38
- NEMA 1 rated. See [Addressable manual station product selection](#) for more information.

Compatible with the following Simplex control panels:

- Model Series 4007ES, 4008, 4010, 4010ES, 4100ES, 4100U, 4020, 4100, and 4120 fire alarm control panels equipped with either IDNet or MAPNET II communications
- Model Series 2120 Communicating Device Transponders (CDTs) equipped with MAPNET II communications

Compact construction:

- Electronics module enclosure minimizes dust infiltration
- Allows mounting in standard electrical boxes
- Screw terminals for wiring connections

Tamper resistant reset key lock, keyed same as Simplex fire alarm cabinets.

Multiple mounting options:

- Surface or semi-flush with standard boxes or matching Simplex boxes
- Flush mount adapter kit
- Adapters are available for retrofitting to commonly available existing boxes

Description

The Simplex addressable manual station combines the familiar Simplex manual station housing with a compact communication module that is easily installed to satisfy demanding applications. Its integral individual addressable module (IAM) constantly monitors status and communicates changes to the connected control panel through IDNet or MAPNET II communications wiring.

Operation

Activation of the 4099-9004 single action manual station requires a firm downward pull to activate the alarm switch. Completing the action breaks an internal plastic break-rod which is visible below the pull lever, use is optional. The use of a break-rod can be a deterrent to vandalism without interfering with the minimum pull requirements needed for easy activation. The pull lever latches into the alarm position and remains extended out of the housing to provide a visible indication.

Single Action NO GRIP Station 4099-9021. For applications such as California Building Code, Title 24, which requires "Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist" the model 4099-9021 station provides a more easily operated pull lever compared to standard stations. Retrofit of existing stations is available using the 4099-9805 Retrofit kit.

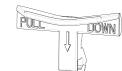
Double Action Stations (Breakglass) require the operator to strike the front mounted hammer to break the glass and expose the recessed pull lever. The pull lever then operates as a single action station.



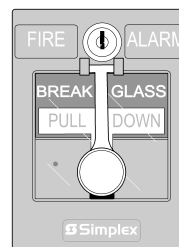
4099-9004
Single action



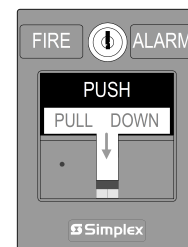
4099-9021 NO
GRIP Single action



4099-9805 NO
GRIP Retrofit kit



4099-9005 Breakglass



4099-9006 Push



With 2099-9828
Institutional Cover kit

Double Action Stations (Push Type) require that a spring loaded interference plate, marked PUSH, be pushed back to access the pull lever of the single action station.

Station reset requires the use of a key to reset the manual station lever and deactivate the alarm switch. If you use the break-rod, you must replace it.

Station testing is performed by physical activation of the pull lever. You can also perform electrical testing by unlocking the station housing to activate the alarm switch.

Specifications

Refer to 4099 MAPNET II/ IDNet Addressable Manual Pull Station with LED Installation Instructions 579-1135 for additional information.

Table 1: Specifications

Specification	Rating
Power and communications	IDNet or MAPNET II communications, 1 address for each station
Address means	DIP switch, 8 position
Wire connections	Screw terminal for in/out wiring, for 18 AWG to 14 AWG wire (0.82 mm ² to 2.08 mm ²)
UL listed temperature range	32°F to 120°F (0°C to 49°C) intended for indoor operation
Humidity range	Up to 93% RH at 100°F (38°C)
Housing color	Red with white raised lettering
Material	Housing and pull lever are Lexan polycarbonate or equal
Pull lever color	White with red raised lettering
Housing dimensions	5 in. H x 3 3/4 in. W x 1 in. D (127 mm x 95 mm x 25 mm)

Addressable manual station semi-flush mounting

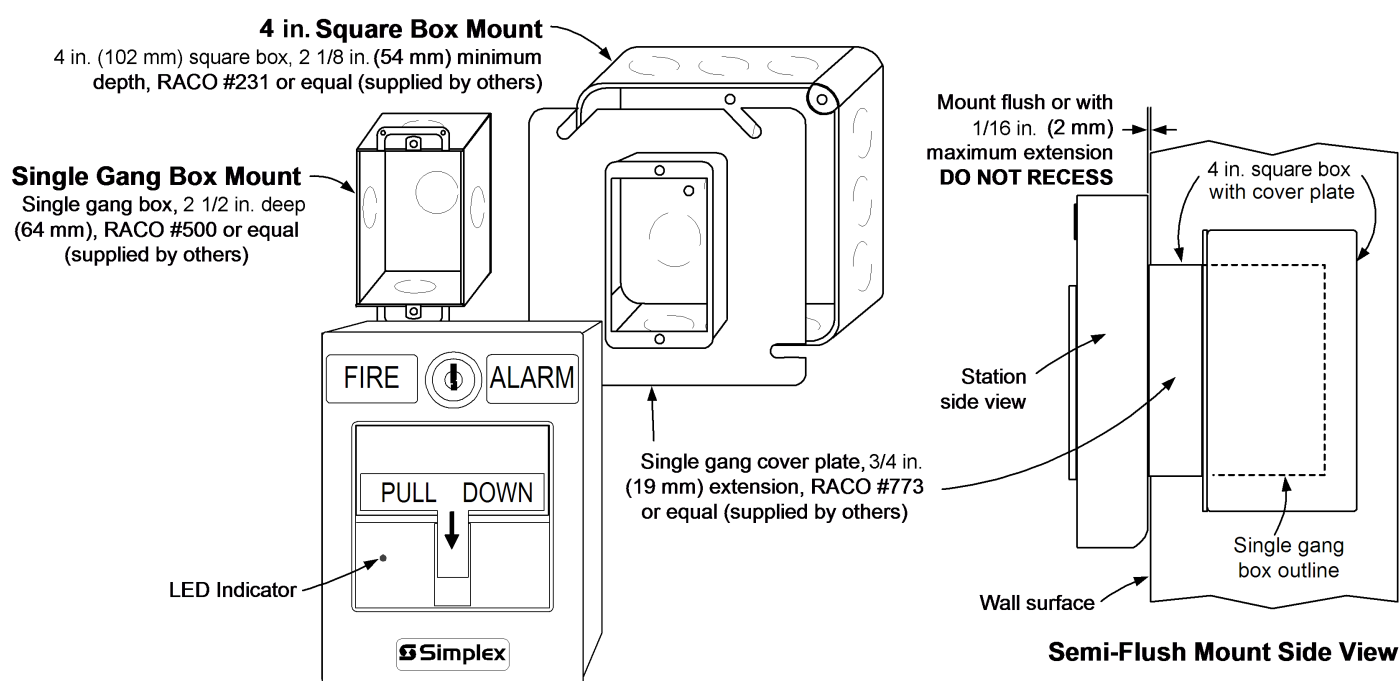


Figure 1: Addressable manual station semi-flush mounting

Addressable manual stations surface mounting

Preferred mounting. For surface mounting of these addressable manual stations, the preferred electrical boxes are shown in Figure 2.

Additional mounting reference. See [Addressable manual station, additional mounting information](#) for Wiremold box mounting compatibility.

Figure 2 shows the 2975-9178 box and the 2975-9022 cast box.

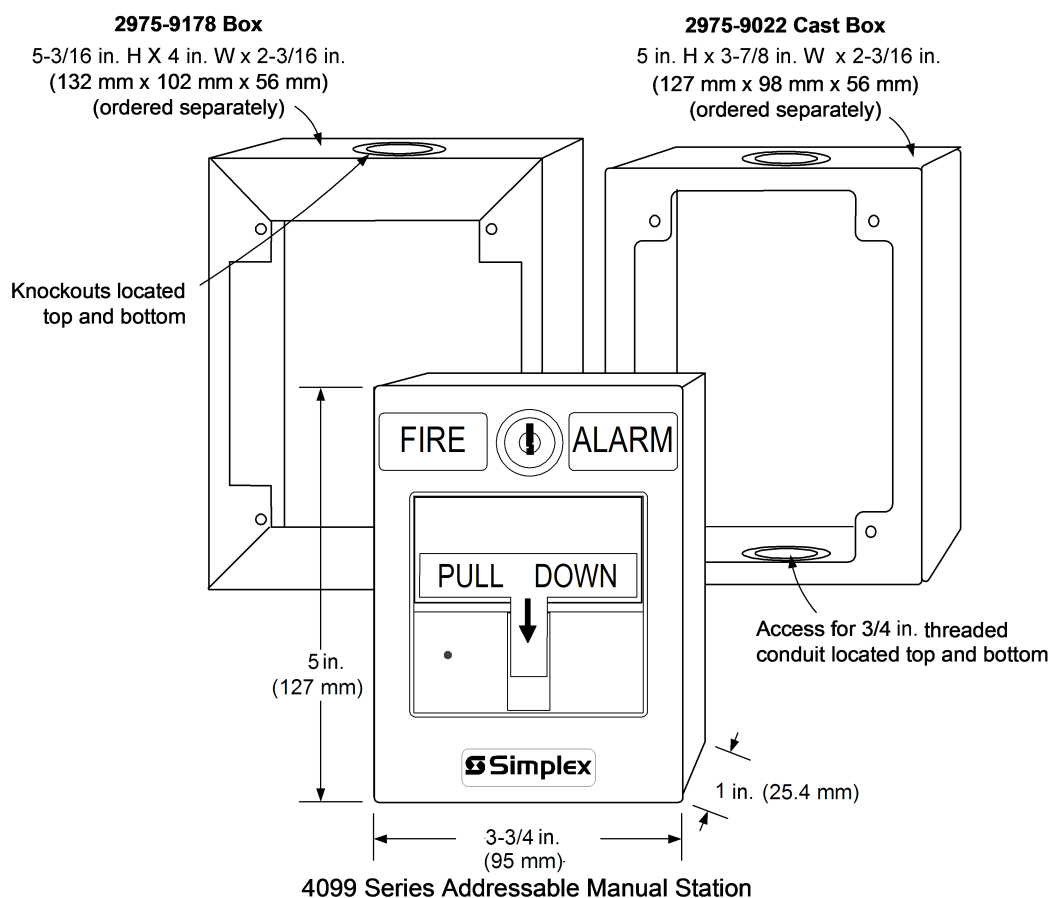


Figure 2: 4099 Series addressable manual station

Surface mount side view with internal detail

Figure 3 shows the 2975-9178 box.

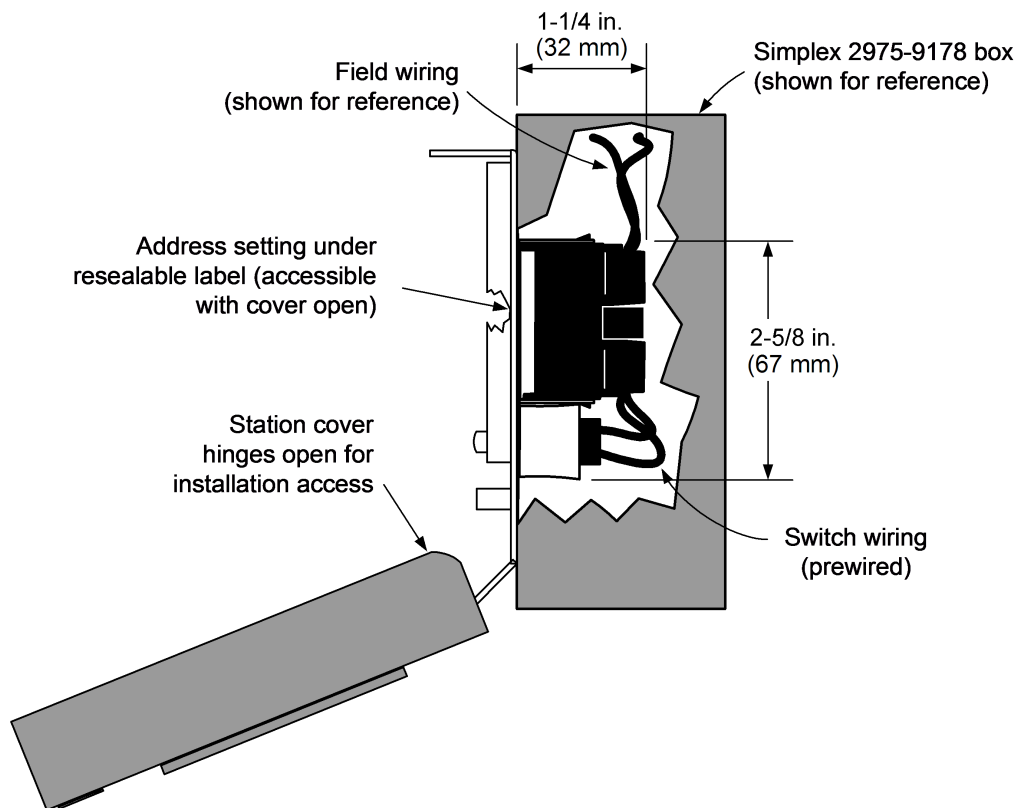


Figure 3: Surface mount side view with internal detail

Application reference

Refer to NFPA 72, the *National Fire Alarm and Signaling Code*, and all applicable local codes for complete requirements for manual stations. The following summarizes the basic requirements:

1. Stations shall be located in the normal path of exit and distributed in the protected area such that they are unobstructed and readily accessible.
2. Mounting shall be with the operable part not less than 42 in. (1.07 m) and not more than 48 in. (1.22 m) above floor level.
3. At least one station shall be provided on each floor. Additional stations shall be provided to obtain a travel distance not more than 200 ft (61 m) to the nearest station from any point in the building.
4. When manual station coverage appears limited in any way, additional stations should be installed.

Addressable manual station, additional mounting information

For retrofit and new installations, additional compatible mounting boxes and the required adapter plates are shown in Figure 4. Figure 4 shows the 2099-9814 surface trim for Wiremold boxes and the 2099-9813 semi-flush trim for 2 gang switch boxes.

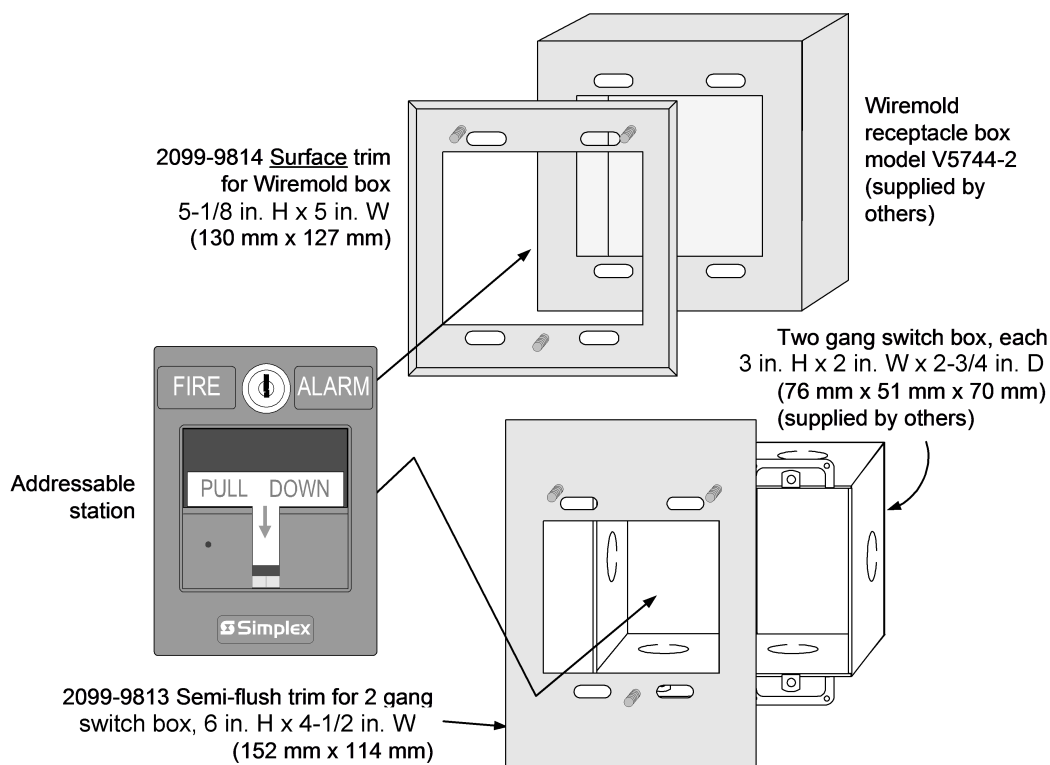


Figure 4: Addressable manual station, additional mounting information

Addressable manual station, flush mounting information

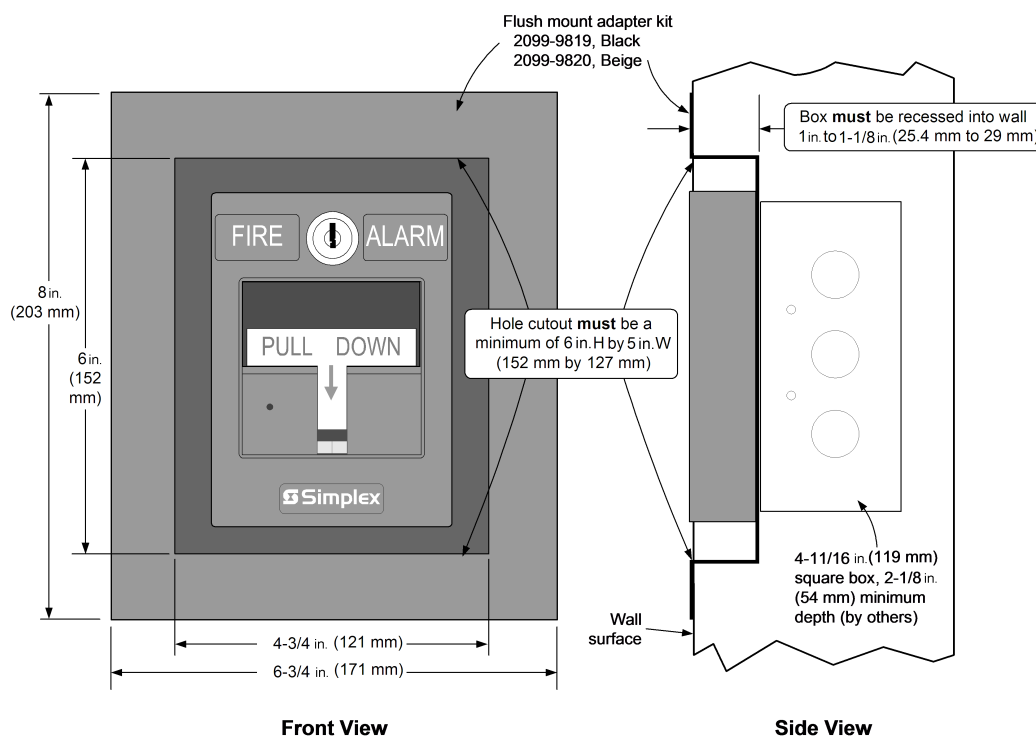


Figure 5: Addressable manual station, flush mounting information

The flush mount adapter kit is available in beige (2099-9820) or black (2099-9819).

Addressable manual station product selection

Table 2: Addressable manual station product selection red housing with white letters and white pull lever

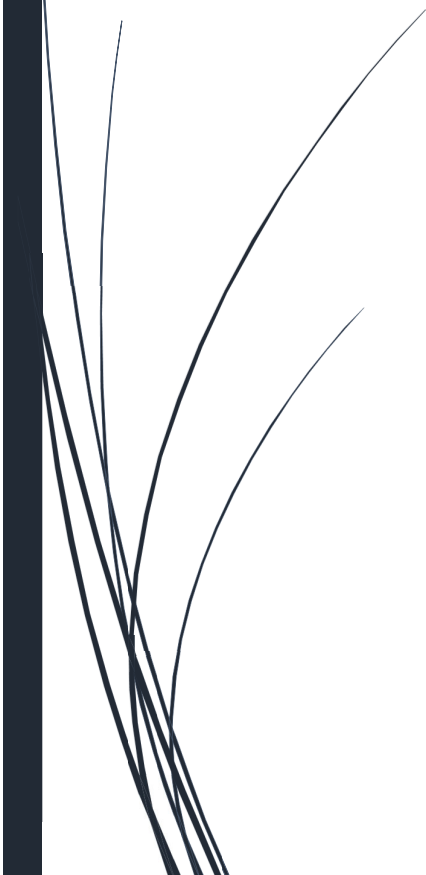
Model	Description	Housing	Pull lever	Listings
4099-9004, see note	Single Action, English	FIRE ALARM	PULL DOWN	UL, ULC, FM, CSFM
4099-9004CB, see note	Single Action, Bilingual English and French	FEU FIRE	TIREZ PULL	ULC
4099-9004CF, see note	Single Action, French	ALARME FEU	ABAISSÉZ	
4099-9004PO, see note	Single Action, Portuguese	FOGO ALARME	PUXE	UL, FM
4099-9004SP, see note	Single Action, Spanish	ALARMA FUEGO	JALE	
4099-9005, see note	Double Action, Breakglass operation, English	FIRE ALARM	PULL DOWN	UL, ULC, FM, CSFM
4099-9005PO, see note	Double Action, Breakglass operation, Portuguese	FOGO ALARME	PUXE	UL, FM
4099-9005SP, see note	Double Action, Breakglass operation, Spanish	ALARMA FUEGO	JALE	
4099-9006, see note	Double Action, Push operation, English	FIRE ALARM	PUSH PULL DOWN	UL, ULC, FM, CSFM
4099-9006PO, see note	Double Action, Push operation, Portuguese	FOGO ALARME	EMPURRE PUXE	UL, FM
4099-9006SP, see note	Double Action, Push operation, Spanish	ALARMA FUEGO	EMPUJE JALE	
4099-9021, see note	Single Action NO GRIP operation, English	FIRE ALARM	PULL DOWN	UL, ULC, FM, CSFM

Note: NEMA 1 rated when used with 2975-9178 back box.

Table 3: Accessories

Model	Description
2975-9022	Cast aluminum surface mount box, red
2975-9178	Surface mount steel box, red
2099-9813	Semi-flush trim plate for double gang switch box, red
2099-9819	Flush mount adapter kit, black
2099-9820	Flush mount adapter kit, beige
4099-9805	Retrofit Kit for field conversion of a single action station to a NO GRIP station; refer to the <i>NO GRIP Actuator (4099-9805) Installation Instructions 579-1007</i> for details
2099-9803	Replacement breakglass
2099-9804	Replacement break-rod
2099-9828	Institutional cover kit for field installation on 4099-9004; Note: Covers LED indicator
2099-9814	Surface trim plate for Wiremold box V5744-2, red
2099-9822	Replacement retaining clip for breakglass
252-019	B key for manual station reset.

Indoor Serin 4906-9127





TrueAlert® Multi-Candela Notification Appliances

UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

SmartSync™ Operation Audible/Visible Notification
with Horn and Synchronized Flash, Non-Addressable

Features

Audible/visible (A/V) notification appliances with efficient electronic horn and high output xenon strobe, available for wall or ceiling mount

- Operation is compatible with ADA requirements (refer to important installation information on page 3)
- Rugged, high impact, flame retardant thermoplastic housings are available in red or white with clear lens

Operates over a two-wire SmartSync circuit to provide:

- Horns that are controlled separately from strobes on the same two-wire circuit
- “On-until-silenced” and “on-until-reset” operation on the same two-wire pair
- SmartSync horn activation of Temporal pattern, March Time pattern (at 60 BPM), or on continuously
- Strobe appliances on the same circuit operating at a synchronized 1 Hz flash rate
- Class B (Style Y) operation requires connection to a compatible SmartSync NAC or to SmartSync Control Module (SCM) 4905-9938
- Class A (Style Z) operation when connected to the 4905-9938 SCM or with 4100U series fire alarm control panel NACs

Wall mount A/Vs features:

- Wiring terminals are accessible from the front of the housing providing easy access for installation, inspection, and testing
- Covers are available separately to convert housing color

Optional adapters and wire guards:

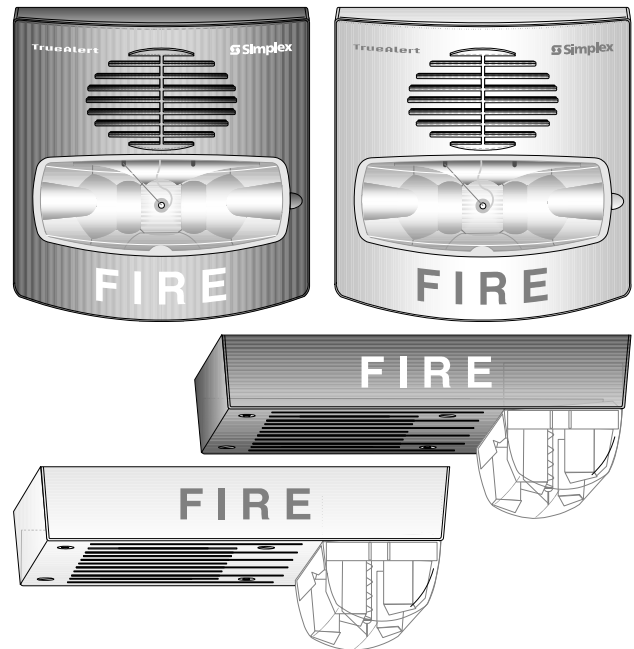
- Wall mount A/V adapters are available to cover surface mounted electrical boxes and to adapt to Simplex® 2975-9145 boxes
- UL listed red wire guards are available for wall or ceiling mount A/Vs

Visible notification appliance (strobe):

- 24 VDC xenon strobe; intensity is selectable as 15, 30, 75, or 110 candela with visible selection jumper secured behind strobe housing
- UL listed to Standard 1971
- Regulated circuit design ensures consistent flash output and provides controlled inrush current

Audible notification appliance (horn):

- Low current, 24 VDC electronic horn with harmonically rich sound output suitable for either steady or coded operation (Temporal or 60 BPM March Time pattern)
- UL listed to Standard 464



Wall and Ceiling Mount A/Vs

Description

Multi-Candela TrueAlert A/Vs with horn and synchronized strobe

provide convenient installation to standard electrical boxes. The enclosure designs are both impact and vandal resistant and provide a convenient strobe intensity selection. Since each model can be selected for strobe intensity output, on-site model inventory is minimized and changes encountered during construction can be easily accommodated.

Wall mount A/V housings are a one-piece assembly (including lens) that mounts to a single or double gang, or 4” square standard electrical box. The cover can be quickly removed (a tool is required) and covers are available separately for color conversion.

Ceiling mount A/Vs install using standard 4” electrical boxes. Color choice is determined by model number.

Strobe Intensity Selection

During installation, a selection plug at the back of the housing determines the desired strobe intensity. An attached flag with black letters on a highly visible yellow background allows the selected intensity to be seen at the side of the strobe lens.

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7125-0026:317 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Accepted for use – City of New York Department of Buildings – MEA35-93E. Refer to page 2 for listing status of wire guards. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Safety Products Westminster.

** Simplex multi-candela SmartSync two-wire horn/strobe appliance operation is protected under one or more of the following U.S. Patent Numbers: 5,559,492; 5,622,427; 5,865,527; 5,886,620; 6,281,789; 6,954,137; 7,005,971; and 7,006,003.

Strobe Application Selection

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm Code* (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

Synchronized Strobes

Multiple Strobes. When multiple strobes and their reflections can be seen from one location, synchronized flashes reduce the probability of photo-sensitive reactions as well as the annoyance and possible distraction of random flashing. The multi-candela strobes of these A/Vs are synchronized by the controlling SmartSync operation NAC.

Product Selection

Multi-Candela A/Vs

Model	Mounting	Housing Color	"FIRE" Lettering	Description
4906-9127	Wall	Red	White	Horn with Multi-Candela Strobe; strobe intensity selectable as: 15, 30, 75, or 110 candela; operates with SmartSync two-wire control
4906-9129		White	Red	
4906-9128	Ceiling	Red	White	
4906-9130		White	Red	

Wall Mount A/V Adapters

Model	Description	Dimensions
4905-9937	Red Surface Mount Adapter Skirt; use to cover 1-1/2" (38 mm) deep surface mounted boxes	5-3/8" H x 5-1/4" W x 1-5/8" D (136 mm x 133 mm x 41 mm) depth with strobe = 4-3/8" (111 mm)
4905-9940		
4905-9931	Red Adapter Plate for mounting to Simplex 2975-9145 box (typically for retrofit, may be mounted vertical or horizontal)	8-5/16" x 5-3/4" x 0.060" Thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red Mounting Box, requires Adapter Plate 4905-9931	7-7/8" x 5-1/8" x 2-3/4" D (200 mm x 130 mm x 70 mm)

SmartSync Control Module

Model	Description	Dimensions
4905-9938	SmartSync Control Module with Class B or Class A output; mounts in 4" (102 mm) square box; refer to data sheet S4905-0003 for details	4" x 4-1/8" x 1-1/4" D (102 mm x 105 mm x 32 mm)

Replacement Covers for Wall Mount A/Vs

Model	Description	Dimensions
4905-9994	Red cover with white "FIRE" lettering	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4905-9995	White cover with red "FIRE" lettering	

Wire Guards and Ceiling Mount A/V Adapter

Model	Description	Dimensions
4905-9961*	Wall mount red wire guard with mounting plate, compatible with semi-flush or surface mounted boxes	6-1/16" H x 6-1/16" W x 3-1/8" D (154 mm x 154 mm x 79 mm)
4905-9927*	Red Wire Guard for mounting to flush mounted electrical box	8-1/2" x 6-1/8" x 3" (216 mm x 156 mm x 76 mm)
4905-9928*	Ceiling Mount Red Adapter Plate, required to mount guard to surface mounted electrical box	9" x 7" (229 mm x 178 mm)
4905-9915	White Surface Mount Adapter Box Extension, use to cover 1-1/2" deep surface mounted boxes	4-3/4" x 6-7/8" x 1-1/2" deep, (121 mm x 175 mm x 38 mm)
4905-9916		

* UL listed by Space Age Electronics Inc.

SmartSync Two-Wire Control

SmartSync operation mode allows a two-wire circuit to provide the ability to activate both the horn and strobe on the same NAC and then allow the horn to be silenced while the strobe remains flashing. The horn operates as "on-until-silenced" while the strobe operation is "on-until-reset."

SmartSync Control Sources

- **4006, 4008, 4100U, and 4010 Fire Alarm Control Panels** (refer to individual product data sheets for more information)
- **4009 IDNet NAC Extender** (refer to data sheet S4009-0002)
- **SmartSync Control Module (SCM)** 4905-9938 (refer to data sheet S4905-0003)

Additional SmartSync compatible notification appliances include separate horns and combination horn/strobe notification appliances.

A/V Specifications

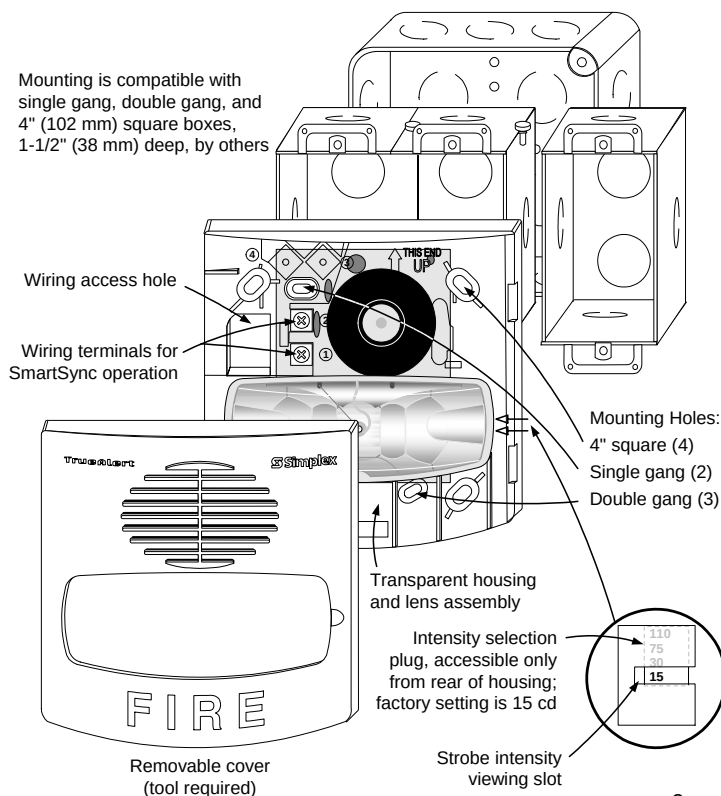
Wall Mount or Ceiling Mount, Common Specifications

Rated Voltage Range		UL Listed Rating	Regulated 24 DC; see Note 1 below					
		ULC Listed Rating	20 VDC to 30 VDC per ULC S526-M878					
Flash Rate and Synchronized NAC Loading			1 Hz; with up to 35 synchronized strobes maximum per NAC					
Environmental; Temperature and Humidity			32° to 122° F (0° to 50° C); 10% to 93%, non-condensing at 100° F (38° C)					
Connections			Terminal blocks for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²) ; two wires per terminal for in/out wiring					
Horn Output Characteristics			2400 to 3700 Hz sweep, modulated at 120 Hz rate					
Horn Output Ratings @ 10 ft (3 m) (see Note 2)	Voltage		16 VDC		24 VDC		33 VDC	
	Sound Type (see Note 2)		Steady	Coded	Steady	Coded	Steady	Coded
	UL 464 Reverberant Chamber		86 dBA	82 dBA	88 dBA	84 dBA	90 dBA	86 dBA
	Anechoic Chamber		92 dBA	91 dBA	94 dBA	95 dBA	96 dBA	96 dBA
Wall Mount	Housing Dimensions (with lens)		5-1/8" H x 5" W x 2-3/4" D (130 mm x 127 mm x 70 mm)					
	Maximum RMS Current Rating per Strobe Setting (see Note 3 below)		15 cd	30 cd	75 cd	110 cd		
			75 mA	116 mA	221 mA	285 mA		
	Reference RMS Currents at other voltages		18 VDC	70 mA	101 mA	184 mA	243 mA	
24 VDC			60 mA	84 mA	143 mA	185 mA		
Ceiling Mount	Housing Dimensions (with lens)		4-3/4 L" x 6-7/8" W x 2-5/8" D (121 mm x 175 mm x 67 mm)					
	Maximum RMS Current Rating per Strobe Setting (see Note 3 below)		15 cd	30 cd	75 cd	110 cd		
			86 mA	132 mA	250 mA	320 mA		
	Reference RMS Currents at other voltages		18 VDC	81 mA	119 mA	216 mA	283 mA	
24 VDC			70 mA	97 mA	167 mA	217 mA		

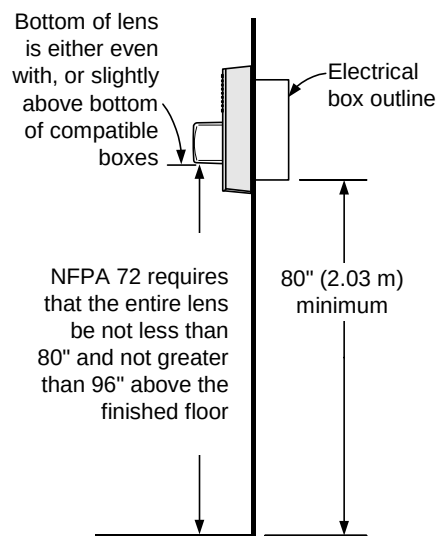
NOTES:

1. "Regulated 24 DC" refers to the voltage range of 16 to 33 VDC per UL Standard 1971, *Signaling Devices for the Hearing Impaired*, changes effective May 1, 2004. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the appliance. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions.
2. Coded values are typical of the output measured with a Temporal coded or a March Time coded pulse and with a sound level meter reading on a "fast" setting. Under the same test conditions, coded horn output "peak" sound level readings are typically 4 dBA higher. Anechoic horn output ratings are typically more representative of actual installed sound output.
3. Currents are with horn on steady. The maximum RMS current listed is the device nameplate rating. Strobe designs are constant wattage and the maximum RMS current rating occurs at the lowest allowable operating voltage. (RMS is root mean square and refers to the effective value of a varying current waveform.)

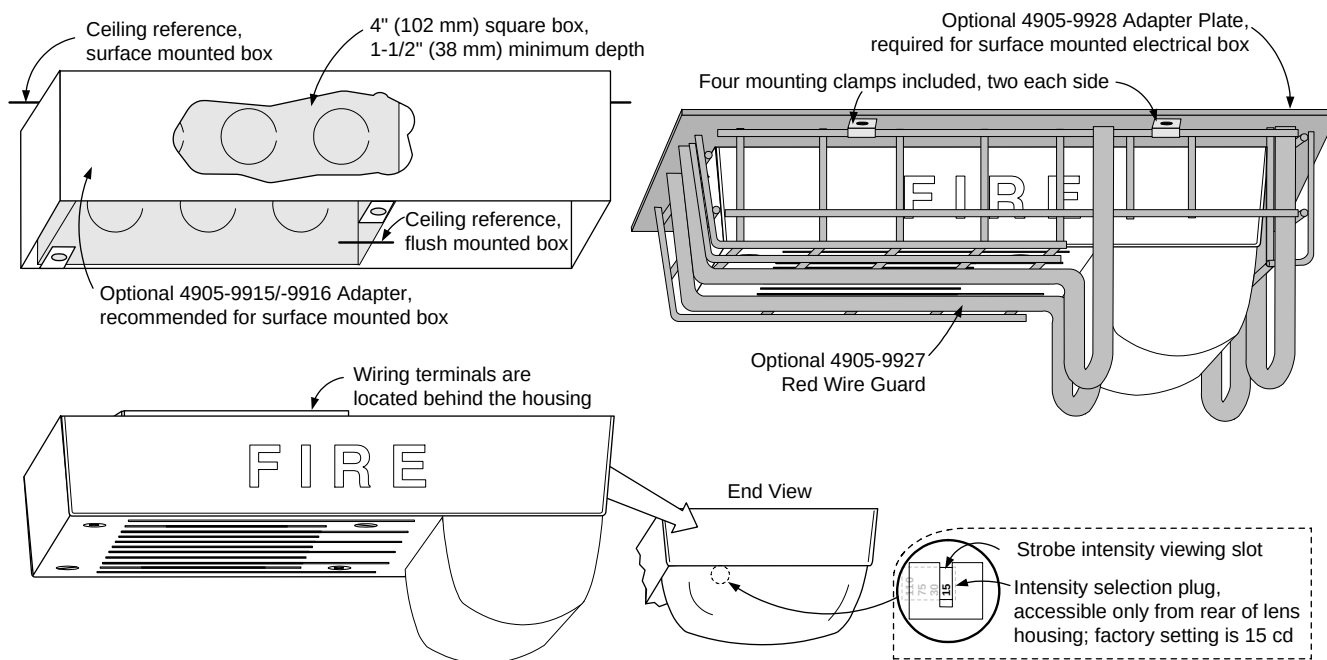
Installation Reference, Surface or Semi-Flush Mounting



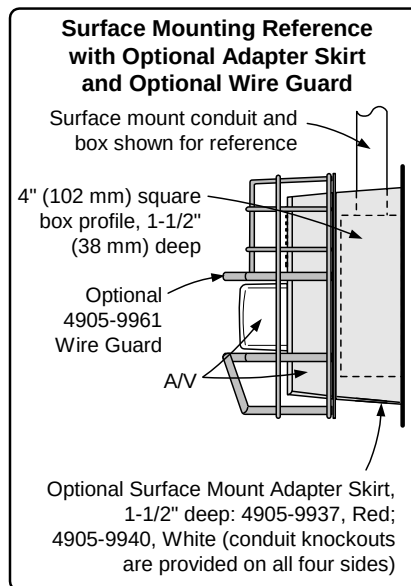
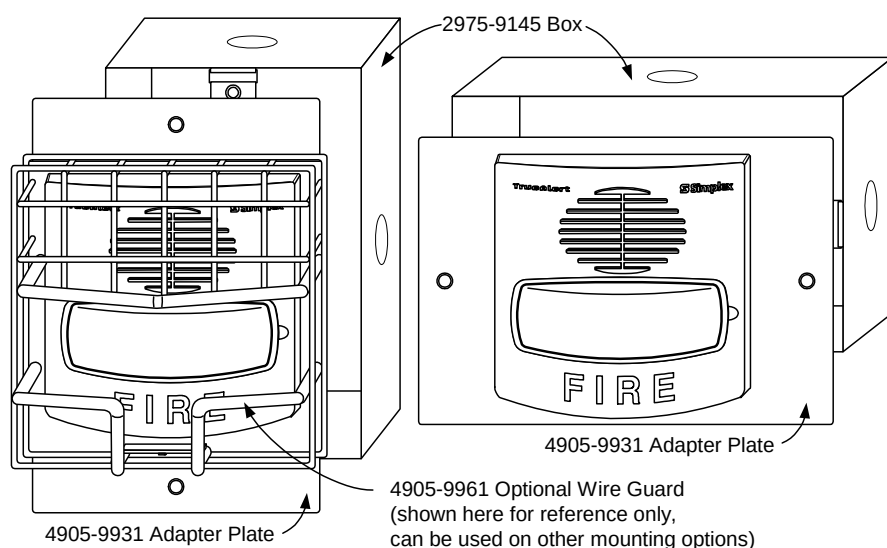
IMPORTANT! WALL MOUNT INSTALLATION HEIGHT REFERENCE



Ceiling Mount A/V and Guard Installation Reference



Wall Mount Installation Reference; Adapter Plate, Guard, and Adapter Skirt



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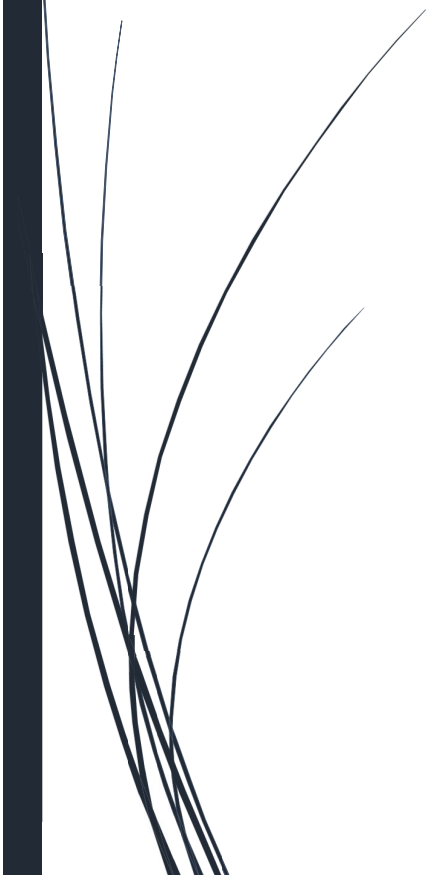


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Out Door Serin 4906-9131





TrueAlert® Multi-Candela Notification Appliances

UL, ULC, CSFM Listed;
FM Approved*

Weatherproof Notification Appliances (non-addressable)
Wall Mount Visible Only (V/O) and Audible/Visible (A/V)

Features

Weatherproof 24 VDC notification appliances for extended temperature and extended humidity operation:

- NEMA 3R rated enclosure with ratings for indoor or outdoor applications
- Rugged, high impact, flame retardant thermoplastic housings are available in red or white with clear lens
- Red housings are for indoor or outdoor applications and provide UV light stable color
- White housings are for indoor applications with limited UV light exposure
- Mounting is to matching weatherproof boxes (required), ordered separately
- Wiring terminals are accessible from the front of the housing providing easy access for installation, inspection, and testing

Agency listings reference:

- UL listed to Standard 1638 for outdoor applications with strobe rated at 75 cd (WP75)
- UL listed to Standard 1971 for indoor applications with strobe intensity selectable as 15, 60, or 75 candela; indoor applications are compatible with ADA requirements (refer to important installation information on page 4)
- Separate models are ULC listed to Standard S526 (strobes) and S525 (horns) for outdoor applications with strobe intensity selectable as 5, 20, or 30 candela (available in red only)

Operation details:

- A visible intensity selection jumper is secured behind the strobe housing
- Polarized input allows connection to compatible reverse polarity, supervised notification appliance circuit (NAC)
- Regulated circuit design ensures consistent flash output and provides controlled inrush current
- A/V appliances have an efficient electronic horn

Synchronized strobe compatibility:

- Simplex® fire alarm control panels and NAC Extenders when selected to provide strobe synchronization or SmartSync™ two-wire control**
- Separate strobe Synchronization Modules or SmartSync Control Modules (SCMs) that convert conventional NAC inputs to a Smartsync output

SmartSync two-wire operation provides:

- Horns controlled separately from strobes on the same two-wire circuit, activated as Temporal pattern, March Time pattern (at 60 BPM), or on continuously



Weatherproof A/V (top) and Strobe (middle), side view of A/V on Weatherproof Mounting Boxes (bottom)

Description

Weatherproof multi-candela TrueAlert appliances provide V/O and A/V SmartSync operation for indoor and outdoor, extended temperature and extended humidity applications. The enclosures are impact and vandal resistant and provide a convenient strobe intensity selection. Since each model can be selected for intensity output, on-site model inventory is minimized and changes encountered during construction can be easily accommodated.

Strobe Intensity Selection

During installation, a selection plug at the back of the housing determines the desired strobe intensity. An attached flag with black letters on a yellow background allows the selected intensity to be seen at the side of the strobe lens.

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7125-0026:331 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Safety Products Westminster.

** Simplex multi-candela SmartSync two-wire horn/strobe appliance operation is protected under one or more of the following U.S. Patent Numbers: 5,559,492; 5,622,427; 5,865,527; 5,886,620; 6,281,789; 6,954,137; 7,005,971; and 7,006,003.

Strobe Application Reference

Proper selection of weatherproof notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm Code* (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA). Requirements may differ from indoor appliance applications, contact your local authority having jurisdiction (AHJ) to assist in determining requirements.

SmartSync Two-Wire Control

SmartSync operation mode allows a two-wire circuit to provide the ability to activate both the horn and strobe on the same NAC and then allow the horn to be silenced while the strobe remains flashing. The horn operates as “on-until-silenced” while the strobe operation is “on-until-reset.”

SmartSync Control Sources

SmartSync two-wire control is available from:

- 4006, 4008, 4100U, and 4010 Fire Alarm Control Panels (refer to individual product data sheets for more information)
- 4009 IDNet NAC Extenders (refer to data sheet S4009-0002)
- SmartSync Control Module (SCM) Model 4905-9938 (refer to data sheet S4905-0003)
- Additional SmartSync compatible notification appliances include separate horns and combination horn/strobe notification appliances.

Product Selection

UL Listed TrueAlert Weatherproof Multi-Candela Notification Appliances

Model	Type	Housing	“FIRE” Lettering	Description	UL 1971 Intensity Rating	UL 1638 Intensity Rating
4906-9105	Strobe (V/O)	Red	White	UL listed weatherproof appliance with multi-candela strobe; requires weatherproof box below	15, 60, or 75 cd	75 cd (setting WP75)
4906-9106		White	Red			
4906-9131	Horn/Strobe (A/V)	Red	White			
4906-9132		White	Red			

ULC Listed TrueAlert Weatherproof Multi-Candela Notification Appliances

Model	Type	Housing	“FIRE” Lettering	Description	ULC Intensity Ratings
4906-9113	Strobe (V/O)	Red	White	ULC listed weatherproof appliance with multi-candela strobe; requires weatherproof box below	5, 20, or 30 cd
4906-9143	Horn/Strobe (A/V)				

Wall Mount Weatherproof Boxes (Required)

Model	Description	Dimensions
4905-9828	Red	Surface Mount Weatherproof Mounting boxes 5-1/2" H x 6-1/8" W x 1-5/8" D (140 mm x 156 mm x 41 mm)
4905-9829	White	

Aftermarket Red Bilingual (French/English) Covers (for field installation)

Model	Description	
4905-9832	Red strobe (V/O) cover	White “FEU/FIRE” lettering
4905-9833	Red horn/strobe (A/V) cover	

Synchronization Module Reference (refer to data sheet S4905-0003 for additional information)

Model	Description	Dimensions
4905-9914	Class B	Synchronized Flash Module; epoxy encapsulated with in/out 18 AWG (0.82 mm ²) wire leads, rated for 2 A NAC, requires 10 mA for power 1-3/8" x 2-7/16" x 13/16" (35 mm x 62 mm x 20 mm)
4905-9922	Class A	
4905-9938	SmartSync Control Module with Class B or Class A output; mounts in 4" (102 mm) square box	4" x 4-1/8" x 1-1/4" D (102 mm x 105 mm x 32 mm)

Specifications

Rated Voltage Range		Regulated 24 VDC; see Note 1 below
Flash Rate		1 Hz; Up to 24 synchronized strobes maximum per NAC
Temperature Range	UL 1971 Listed Rating	32° to 122° F (0° to 50° C); selectable 15/30/75 cd
	UL 1638 Listed Rating	-31°F to 150°F (-35° C to 66°C); 75 cd rating
	ULC S526 & S525 Listed Rating	-40°F to 150°F (-40° C to 66°C); 5/20/30 cd rating
Humidity Range	UL 1971 Listed Rating	10% to 93%, at 100° F (38° C)
	UL 1638, ULC S526, & ULC S525	up to 98%, at 104 °F (40° C)
Wiring Connections		Terminal blocks for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²); two wires per terminal for in/out wiring

Horn Output; Models 4906-9131, 4906-9132, & 4906-9143; UL & ULC Ratings as noted

Output Sound Characteristics	2400 to 3700 Hz sweep, modulated at 120 Hz rate						
Horn Output Ratings @ 10 ft (3 m) (see Note 2)	Voltage	16 VDC		24 VDC		33 VDC	
	Sound Type (see Note 2)	Steady	Coded	Steady	Coded	Steady	Coded
	UL 464 Reverberant Chamber	80 dBA	76 dBA	83 dBA	79 dBA	86 dBA	81 dBA
	ULC S525 Anechoic Chamber	96 dBA	96 dBA	99 dBA	99 dBA	101 dBA	101 dBA

Maximum RMS Current Ratings (see Note 3 below)

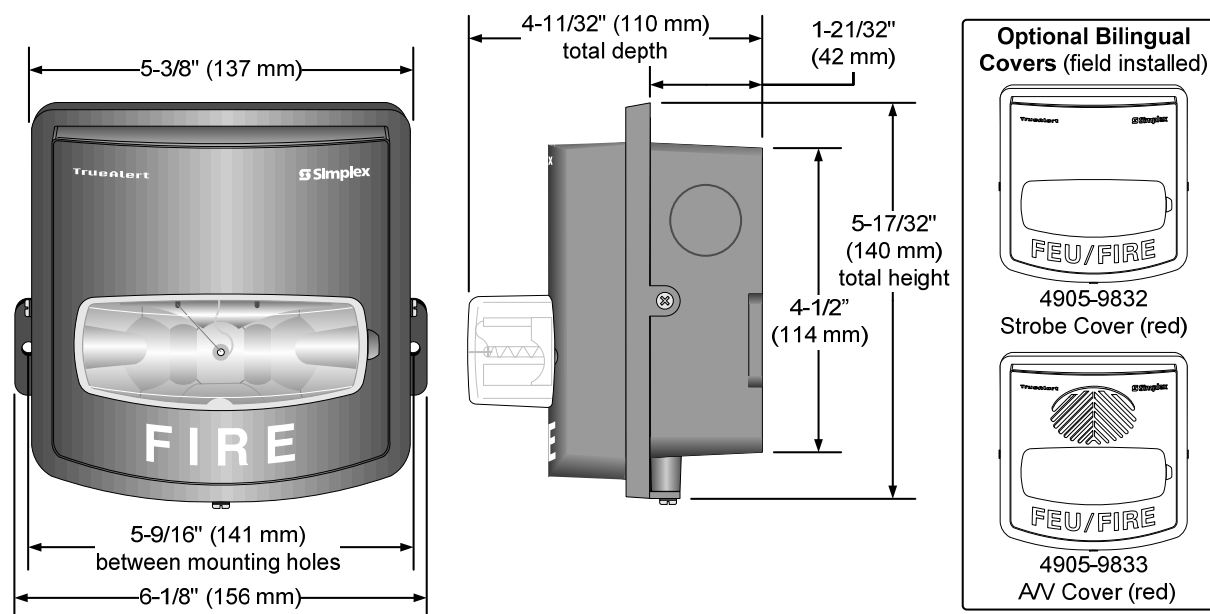
Model	Intensity Selection/Temperature	UL 1971 Ratings (32° F to 122° F)			UL 1638 Ratings 75 cd (WP75)	
		15 cd	60 cd	75 cd	32° F to 150°F (0° C to 66°C)	-31° F to below 32°F (-35° C to 0° C)
V/O Models 4906-9105 & 4906-9106		77 mA	192 mA	231 mA	189 mA	273 mA
A/V Models 4906-9131 & 4906-9132		91 mA	204 mA	249 mA	205 mA	277 mA

Model	ULC S526/S525 Ratings per Intensity Selection		
	5 cd	20 cd	30 cd
V/O Model 4906-9113	115 mA	270 mA	295 mA
A/V Model 4906-9143	125 mA	275 mA	322 mA

NOTES:

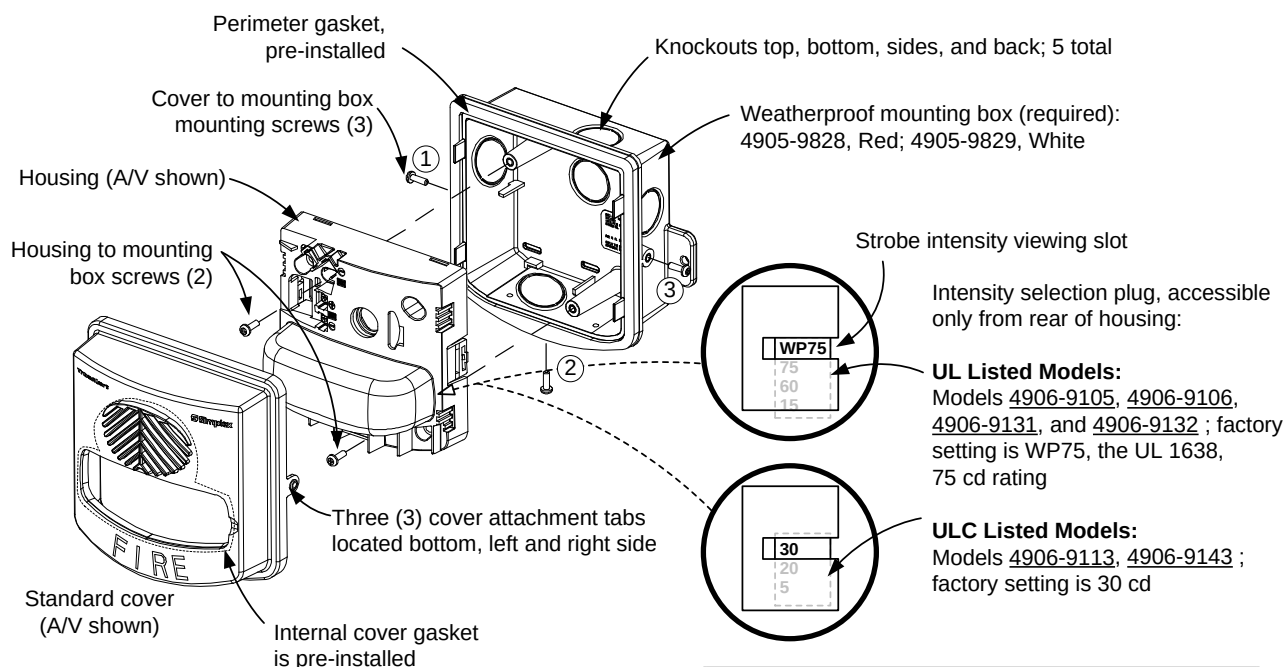
1. "Regulated 24 VDC" refers to the voltage range of 16 to 33 VDC per UL 1971 and UL 1638. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the strobe. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions.
2. Coded values are typical of the output measured with a Temporal coded or a March Time coded pulse and with a sound level meter reading on a "fast" setting. Under the same test conditions, coded horn output "peak" sound level readings are typically 4 dBA higher. Anechoic horn output ratings are typically more representative of actual installed sound output
3. Currents of A/Vs are with horn on steady. The maximum RMS current listed is the device nameplate rating. Strobe designs are constant wattage and the maximum RMS current rating occurs at the lowest allowable operating voltage. (RMS is root mean square and refers to the effective value of a varying current waveform.)

Dimension and Optional Cover Reference

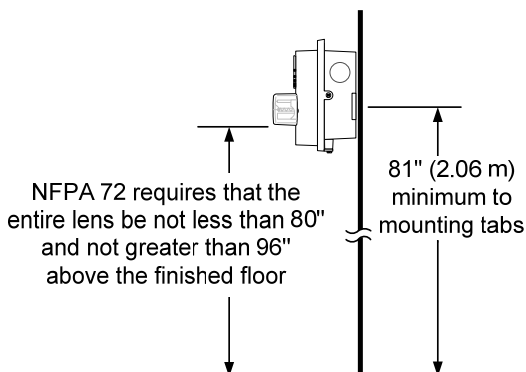


Weatherproof Appliance Installation Reference

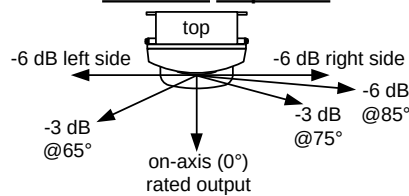
NOTE: For detailed installation information, refer to Installation Instructions 579-857 for UL listed products, and Installation Instructions 579-885 for ULC listed products.



IMPORTANT! INDOOR WALL MOUNT INSTALLATION HEIGHT REFERENCE

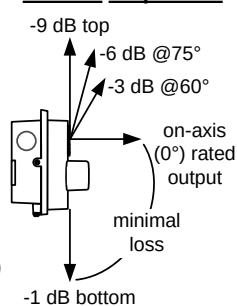


Horizontal Dispersion



A/V Sound Dispersion per ULC S525
(anechoic testing performed at 3 m (10 ft))

Vertical Dispersion



Polar Light Dispersion Reference, Each Intensity Selection; Percent of Rated Light Output at 77° F (25° C)

Vertical Dispersion			Horizontal Dispersion		
Angle Below Axis	UL 1971 Minimum	Typical Output	Angle from Axis	UL 1971 Minimum	Typical Output
0	100%	322%	0	100%	320%
5	90%	217%	±5	90%	214%
10	90%	168%	±10	90%	177%
15	90%	179%	±15	90%	175%
20	90%	210%	±20	90%	174%
25	90%	184%	±25	90%	170%
30	90%	149%	±30	75%	169%
35	65%	172%	±35	75%	157%
40	46%	189%	±40	75%	151%
45	34%	203%	±45	75%	138%
50	27%	152%	±50	55%	130%
55	22%	166%	±55	45%	121%
60	18%	166%	±60	40%	117%
65	16%	164%	±65	35%	109%
70	15%	163%	±70	35%	105%
75	13%	159%	±75	30%	98%
80	12%	138%	±80	30%	90%
85	12%	113%	±85	25%	78%
90	12%	88%	±90	25%	67%

WP75 Intensity Selection Light Output Reference

Angle	On-Axis 0°	Vertical, Below Axis		Horizontal, Left/Right of Axis	
		45°	90°	45°	90°
UL 1638 Minimum Candela Rating (over temperature range)	75	35	10	32	15
Typical Candela at 77° F (25° C)	215	103	24	94	39

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S4906-0010-2 12/2009

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TrueAlert® Multi-Candela Notification Appliances

UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

Visible Notification Appliances with Synchronized Flash;
Non-Addressable, SmartSync™ Operation Compatible

Features

Visible only (V/O) 24 VDC notification appliances with high output xenon strobe, available for wall or ceiling mount:

- UL listed to Standard 1971
- Intensity is selectable as 15, 30, 75, or 110 candela with visible selection jumper secured behind strobe housing
- Operation is compatible with ADA requirements (refer to important installation information on page 3)
- Polarized input allows connection to compatible reverse polarity, supervised notification appliance circuit (NAC)
- Regulated circuit design ensures consistent flash output and provides controlled inrush current
- Rugged, high impact, flame retardant thermoplastic housings are available in red or white with clear lens

Strobes provide synchronized flash for use with:

- 4006, 4008, 4010, and 4100U Series fire alarm control panels with NACs selected to provide strobe synchronization or SmartSync two-wire control**
- 4009 IDNet™ NAC Extenders
- Separate strobe Synchronization Modules that are available for Class B or Class A operation
- Separate SmartSync Control Modules (SCMs) that provide Class B or Class A output from conventional NAC inputs

Strobe housings provides flexible, easy, and convenient semi-flush or surface wall mounting:

- Rear of housing does not extend into box
- Wall mount strobes easily mount to single gang, double gang, or 4-inch square outlet box
- Ceiling mount strobes mount to single gang boxes

Wall mount strobe features:

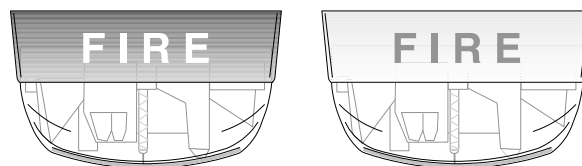
- Wiring terminals are accessible from the front of the housing providing easy access for installation, inspection, and testing
- Covers are available separately to convert housing color

Optional adapters and wire guards:

- Wall mount strobe adapters are available to cover surface mounted electrical boxes and to adapt to Simplex® 2975-9145 boxes
- UL listed red wire guards are available for wall or ceiling mount strobes



Wall Mount Strobes



Ceiling Mount Strobes

Description

Multi-Candela TrueAlert synchronized strobes

provide convenient installation to standard electrical boxes. The enclosure designs are both impact and vandal resistant and provide a convenient strobe intensity selection. Since each model can be selected for intensity output, on-site model inventory is minimized and changes encountered during construction can be easily accommodated.

Wall mount strobe housings are a one-piece assembly (including lens) that mounts to a single or double gang, or 4" square standard electrical box. The cover can be quickly removed (a tool is required) and covers are available separately for color conversion.

Ceiling mount strobes install using standard single gang electrical boxes. Color choice is determined by model number.

Strobe Intensity Selection

During installation, a selection plug at the back of the housing determines the desired strobe intensity. An attached flag with black letters on a highly visible yellow background allows the selected intensity to be seen at the side of the strobe lens.

Strobe Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm Code* (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7125-0026:316 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Refer to page 2 for listing status of wire guards. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Safety Products Westminster.

** Simplex multi-candela SmartSync two-wire horn/strobe appliance operation is protected under one or more of the following U.S. Patent Numbers: 5,559,492; 5,622,427; 5,865,527; 5,886,620; 6,281,789; 6,954,137; 7,005,971; and 7,006,003.

Synchronized Strobes

Multiple Strobes. When multiple strobes and their reflections can be seen from one location, synchronized flashes reduce the probability of photo-sensitive reactions as well as the annoyance and possible distraction of random flashing. These multi-candela strobes are synchronized over a two-wire circuit when connected to compatible NACs, to compatible Synchronized Flash Modules, or to SmartSync Control Modules.

SmartSync Two-Wire Control

Some applications desire the audible notification appliances to be capable of being silenced before the alarm condition is reset (on-until-silenced) while the visible notification appliances are kept activated until the alarm condition is reset (on-until-reset). SmartSync operation mode provides this function using a single circuit (two-wire operation).

SmartSync Control Sources

Class B SmartSync two-wire control is available from:

- **4006, 4008, 4100U, and 4010 Fire Alarm Control Panels** (refer to individual product data sheets for more information)
- **4009 IDNet NAC Extender** (refer to data sheet S4009-0002)
- **SmartSync Control Module (SCM)** 4905-9938 (refer to data sheet S4905-0003)

Class A SmartSync two-wire control is available from 4100U NACs and from the 4905-9938 SCM.

Additional SmartSync compatible notification appliances include separate horns and combination horn/strobe notification appliances.

Product Selection

Multi-Candela Visible Notification Appliances (Strobes)

Model	Mounting	Housing Color	"FIRE" Lettering	Description
4906-9101	Wall	Red	White	Multi-candela strobe with intensity selectable as: 15, 30, 75, or 110 candela; synchronized flash rate; SmartSync two-wire control compatible
4906-9103		White	Red	
4906-9102	Ceiling	Red	White	
4906-9104		White	Red	

Wall Mount Strobe Adapters

Model	Description	Dimensions
4905-9937	Red Surface Mount Adapter Skirt; use to cover 1-1/2" (38 mm) deep surface mounted boxes	5-3/8" H x 5-1/4" W x 1-5/8" D (136 mm x 133 mm x 41 mm)
4905-9940		Total depth with strobe = 4-3/8" (111 mm)
4905-9931	Red Adapter Plate for mounting to Simplex 2975-9145 box (typically for retrofit, may be mounted vertical or horizontal)	8-5/16" x 5-3/4" x 0.060" Thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red Mounting Box, requires Adapter Plate 4905-9931	7-7/8" x 5-1/8" x 2-3/4" D (200 mm x 130 mm x 70 mm)

Ceiling Mount Strobe Adapter

Model	Description	Dimensions
4905-9910	Surface Mount Adapter Plate; zinc plated; required for mounting to handy box; not needed when using 4905-9926 guard	4-7/8" x 3-1/8" x 0.060" D (124 mm x 79 mm x 1.5)

Synchronization Modules (refer to data sheet S4905-0003 for additional information)

Model	Description		Dimensions
4905-9914	Class B	Synchronized Flash Module; epoxy encapsulated with in/out 18 AWG (0.82 mm ²) wire leads, rated for 2 A NAC, requires 10 mA for power	1-3/8" x 2-7/16" x 13/16" (35 mm x 62 mm x 20 mm)
4905-9922	Class A		
4905-9938	SmartSync Control Module with Class B or Class A output; mounts in 4" (102 mm) square box		4" x 4-1/8" x 1-1/4" D (102 mm x 105 mm x 32 mm)

Replacement Covers and Guards

Model	Description	Dimensions
4905-9992	Red cover with white "FIRE" lettering	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4905-9993	White cover with red "FIRE" lettering	
4905-9961*	Wall mount	Red wire guard with mounting plate, compatible with semi-flush or surface mounted boxes
4905-9926*	Ceiling mount	
		6-1/16" H x 6-1/16" W x 3-1/8" D (154 mm x 154 mm x 79 mm)
		6-1/8" x 4-3/8" x 2-7/8" deep (156 mm x 111 mm x 73 mm)

* UL listed by Space Age Electronics Inc.

Strobe Specifications

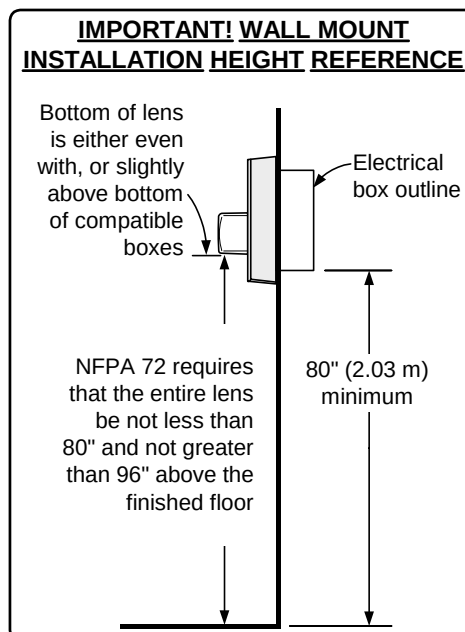
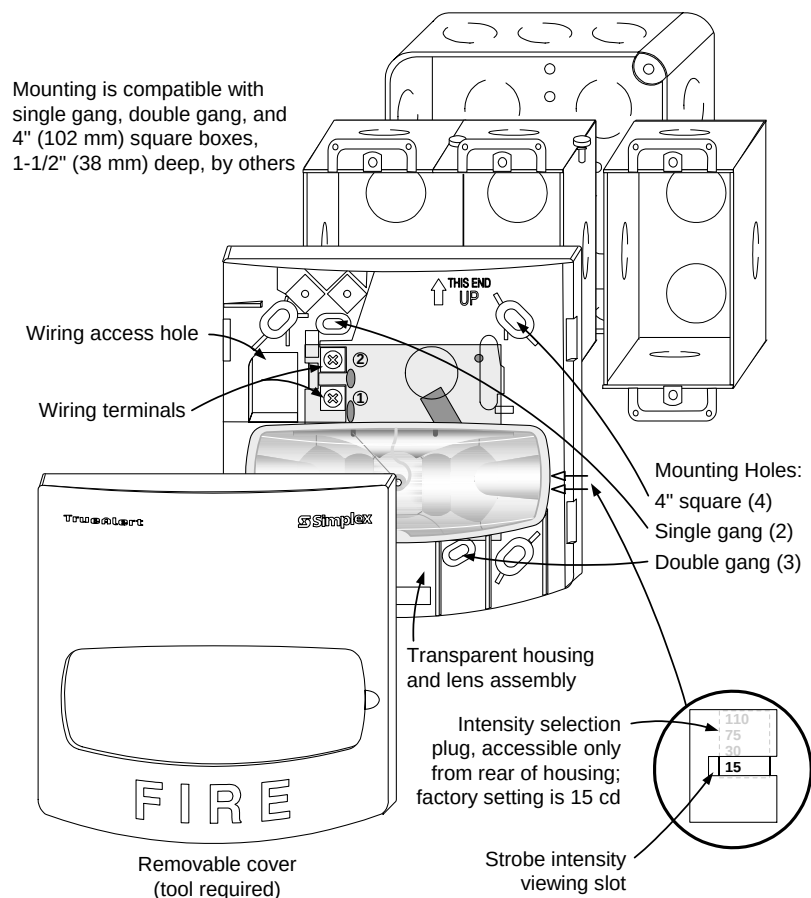
Wall Mount or Ceiling Mount, Common Specifications

Rated Voltage Range		UL Listed Rating	Regulated 24 VDC; see Note 1 below			
		ULC Listed Rating	20 VDC to 30 VDC per ULC S526-M878			
Flash Rate		1 Hz				
Synchronized NAC Loading		Up to 35 synchronized strobes maximum per NAC				
Temperature Range		32° to 122° F (0° to 50° C)				
Humidity Range		10% to 93%, non-condensing at 100° F (38° C)				
Connections		Terminal blocks for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²); two wires per terminal for in/out wiring				
Wall Mount	Housing Dimensions (with lens)		5-1/8" H x 5" W x 2-3/4" D (130 mm x 127 mm x 70 mm)			
	Maximum RMS Current Rating per Strobe Setting (see Note 2 below)		15 cd	30 cd	75 cd	110 cd
			60 mA	94 mA	186 mA	252 mA
	Reference RMS Currents at other voltages	18 VDC	55 mA	85 mA	169 mA	226 mA
		24 VDC	41 mA	63 mA	123 mA	164 mA
Ceiling Mount	Housing Dimensions (with lens)		4-3/4" L x 2-5/16" W x 2-5/8" D (121 mm x 75 mm x 67 mm)			
	Maximum RMS Current Rating per Strobe Setting (see Note 2 below)		15 cd	30 cd	75 cd	110 cd
			75 mA	125 mA	233 mA	316 mA
	Reference RMS Currents at other voltages	18 VDC	64 mA	102 mA	199 mA	266 mA
		24 VDC	49 mA	76 mA	146 mA	195 mA

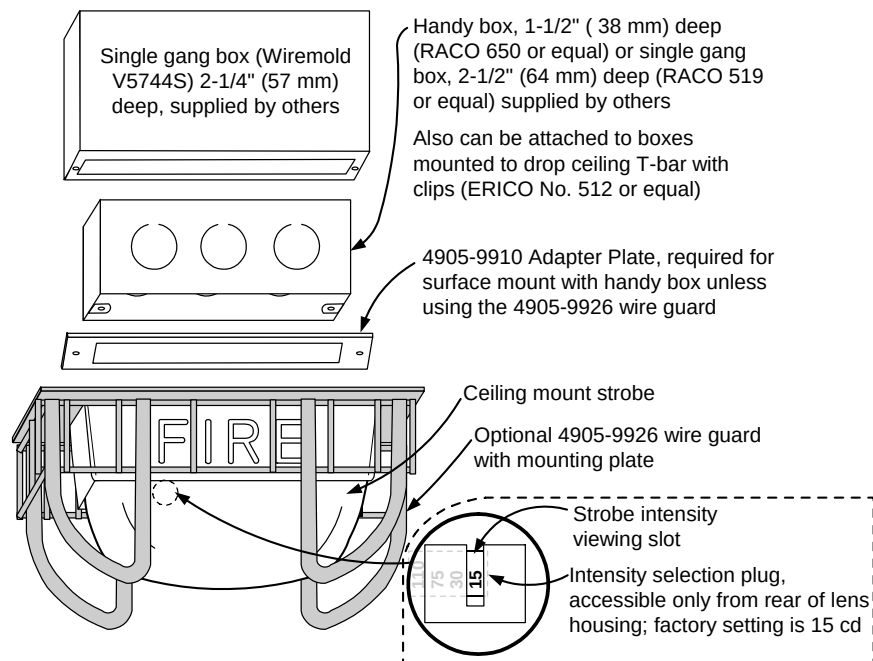
NOTES:

1. "Regulated 24 VDC" refers to the voltage range of 16 to 33 VDC per UL Standard 1971, *Signaling Devices for the Hearing Impaired*, changes effective May 1, 2004. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the strobe. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions.
2. The maximum RMS current listed is the device nameplate rating. Strobe designs are constant wattage and the maximum RMS current rating occurs at the lowest allowable operating voltage. (RMS is root mean square and refers to the effective value of a varying current waveform.)

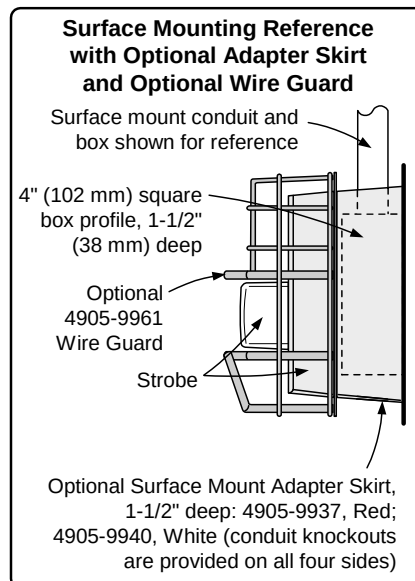
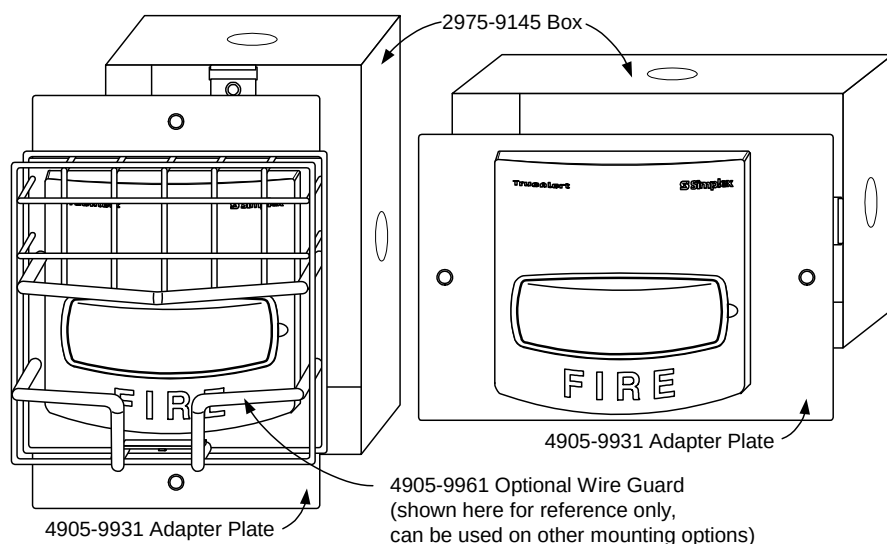
Installation Reference, Surface or Semi-Flush Wall Mounting



Ceiling Mount Strobe Installation Reference



Wall Mount Installation Reference; Adapter Plate, Guard, and Adapter Skirt



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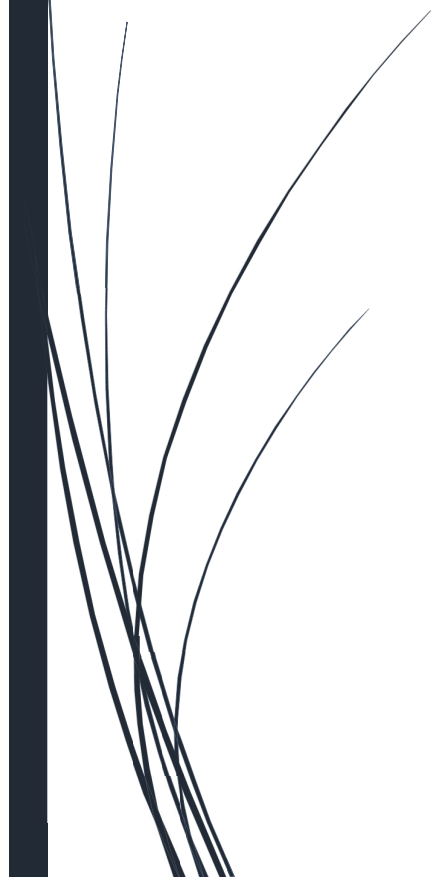


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www.tycosafetyproducts-usa-wm.com

S4906-0001-2 5/2007

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**Addressable Monitor
Module 4090-9001**





UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

Multi-Application Peripherals

IDNet and MAPNET II Communicating Devices,
Individual Addressable Modules (IAMs)

Features

IDNet or MAPNET II addressable communications supply both data and power over a single wire pair to provide:**

- Supervised Class B monitoring of normally open, dry contacts
- Total wiring distance from IAM to supervision resistor(s) of up to 500 ft (152 m)
- Monitored connection is compatible with Simplex® 2081-9044 Overvoltage Protectors for outdoor wiring or electrically noisy applications
- For use in indoor locations up to 158° F (70° C) such as attic spaces or similar applications

For use with following Simplex control panels:

- Model Series 4007ES, 4008, 4010, 4010ES, and 4100ES fire alarm control panels for IDNet communications
- Model Series 4100/4100U/4100ES, 4120, 4020, and 2120 Communicating Device Transponders (CDTs) equipped with MAPNET II communications

Model 4090-9001:

- Enclosed design minimizes dust infiltration
- Mounts in standard single gang electrical box
- Screw terminals for wiring connections
- Visible LED flashes to indicate communications
- Optional covers are available to allow LED to be viewed after installation (requires mounting bracket, ordered separately)

Model 4090-9051:

- Encapsulated design for extended exposure to high humidity (LED is not present on this model)
- Color coded 18 AWG leads for wiring

IDNet communications provides current limited monitoring:

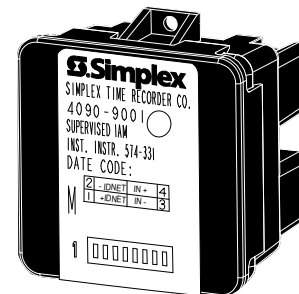
- Provides monitoring of tamper switch (supervisory) and waterflow switch (alarm) on same circuit using one point
- Available with IDNet communications only

Multiple operation modes are available and are selectable at the control panel:

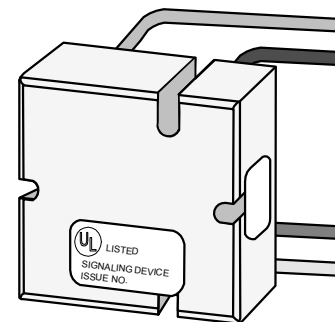
- Contact closure status can be tracked
- Momentary contact closure conditions can be selected at the panel to be latched or tracked (not available with the 2120 CDT)

UL listed to Standard 864

* These products have been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7300-0026:223 for allowable values and/or conditions concerning material presented in this document. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.



4090-9001 Supervised IAM
(shown approximately 3/4 size)



4090-9051 Supervised IAM
(shown approximately 3/4 size)

Description

Individual addressable modules (IAMs) receive both power and communications from a two-wire MAPNET II or IDNet circuit. They provide location specific addressability to a single initiating device (such as single station smoke detector alarm contacts or heat detector contacts) or multiple devices at the same location by monitoring normally open dry contacts and the wiring to an end-of-line resistor.

Model 4090-9001 is packaged in a thermoplastic housing and provides screw terminal connections and a status indicating LED.

Model 4090-9051 is an encapsulated package with wire leads. It does not provide a status indicating LED.

Operation

Contact Closure. Closure of the monitored contact(s) initiates an alarm or other response as programmed at the fire alarm control panel. An open in the monitored circuit wiring will cause a trouble to be reported.

Panel Selections. Selections can be made at the control panel to maintain the alarm condition if the initiating device contacts are momentary, such as from a rate-of-rise heat detector, or to track the device contact status (not available with the 2120 CDT).

Current Limited Operation Applications

For use with IDNet communications only, these IAMs can provide quad-state sensing of normal, open circuit, short circuit, and current limited conditions. (Program type is “T-sense.”) With the proper end-of-line and current limiting resistors, dual functions such as tamper switch and waterflow switch monitoring can be determined and communicated by a single addressable point.

IAM Product Selection

Model	Description
4090-9001	Supervised IAM, mounted in thermoplastic housing with screw terminals; see applicable options below
4090-9051	Supervised IAM, encapsulated with wire leads

Optional Trim Plates and Mounting Bracket for Model 4090-9001

Model	Description
4090-9806	For semi-flush mounted box
4090-9807	For surface mounted box
4090-9810	Mounting bracket, mounts IAM to electrical box and provides screw holes for trim plate, required for optional trim plates

End-of-Line Resistor Harnesses (ordered separately as required)

Model	Reference No.	Description
4081-9004	733-886	6.8 k Ω , 1/2 W; Standard end-of-line resistor harness for N.O. contact supervision
4081-9003	733-896	4.7 k Ω , 1/2 W
4081-9005	733-984	1.8 k Ω , 1/2 W

Use for current limited monitoring applications

Specifications

Electrical

Power and Communications		MAPNET II or IDNet, auto selected, 1 address per IAM
Input Requirements		Normally open, dry contacts
Wire Connections	4090-9001	Screw terminals for in/out wiring, 18 to 14 AWG wire (0.82 mm ² to 2.08 mm ²)
	4090-9051	Color coded wire leads, 18 AWG (0.82 mm ²), 8" long (203 mm)
Reference Documents	Installation Instructions	574-331 for 4090-9001; 579-572 for 4090-9051
	Field Wiring Diagrams	842-073 for IDNet operation; 841-804 for MAPNET II operation

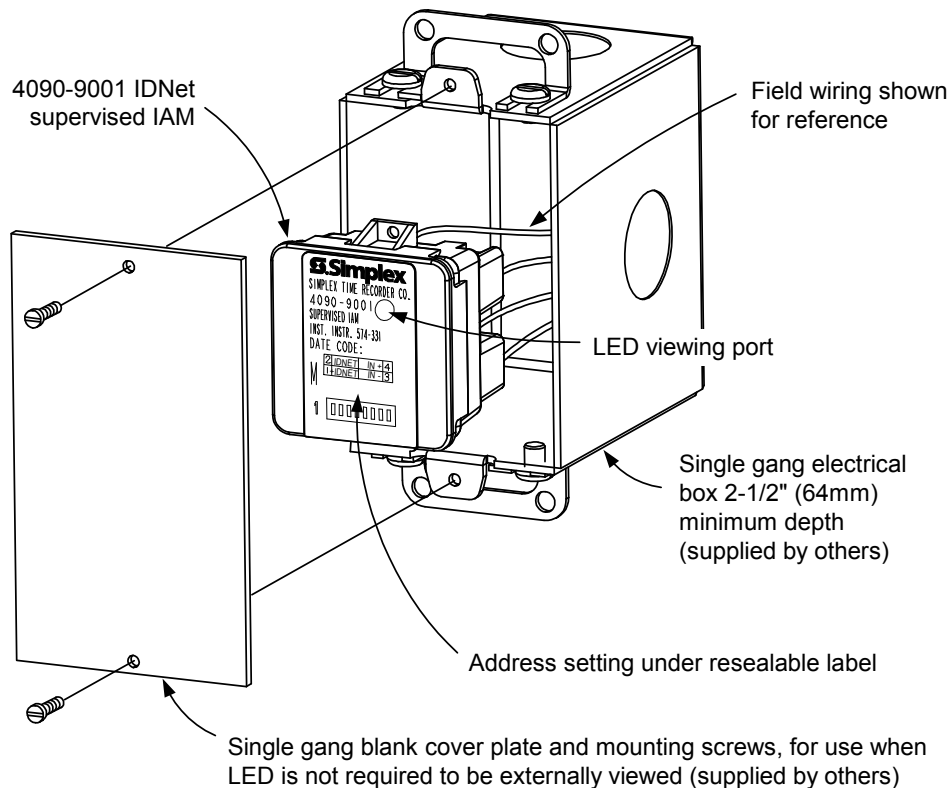
Wiring Distances

Distance from IAM to Contacts	500 ft (152 m) maximum without protectors
	400 ft (122 m) maximum with 2081-9044 Overvoltage Protectors
Wiring Distance Reference per channel, MAPNET II or IDNet Communications	2500 ft (762 m) maximum from fire alarm control panel
	10,000 ft (3048 m) maximum total wiring distance (including T-Taps)

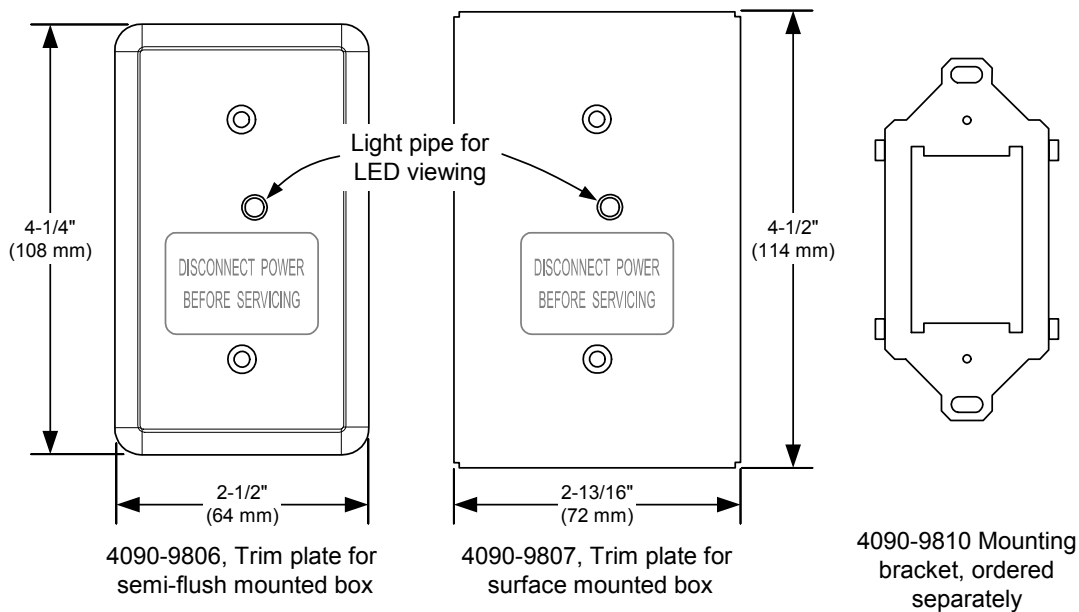
Mechanical

Dimensions	4090-9001	1-9/16" W x 1-3/4" H x 1-1/4" D (40 mm x 44 mm x 32 mm)
	4090-9051	1-9/16" W x 1-9/16" H x 9/16" D (40 mm x 40 mm x 14 mm)
Housing Material, 4090-9001	Black thermoplastic	
Encapsulation Material, 4090-9051	Epoxy, beige	
Temperature Range	32° to 158° F (0° to 70° C); intended for indoor operation	
Humidity Range	Up to 93% RH at 100° F (38° C)	

Mounting Information



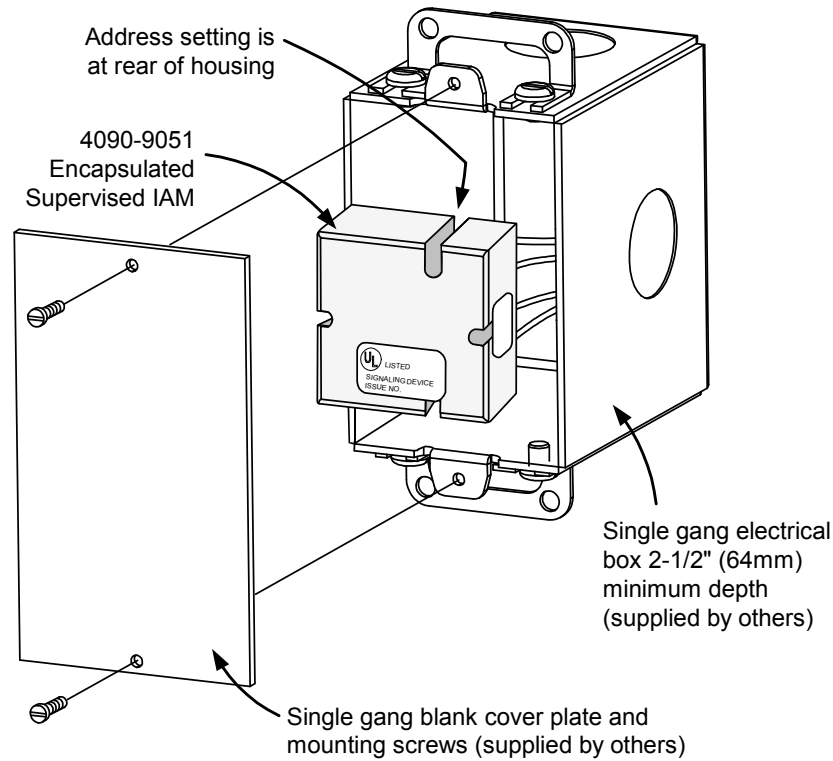
Mounting Reference, Single Gang Blank Cover Plate



NOTE: These mounting plates require mounting bracket 4090-9810.

Optional Trim Plates and Mounting Bracket for Visible LED

4090-9051 Mounting Information



**Addressable Control
Module 4090-9002**



UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

Multi-Application Peripherals

IDNet Communicating Devices
Model 4090-9002 Relay IAM

Features

Individual Addressable Relay Module (Relay IAM):

- IDNet addressable control for use with Simplex® fire alarm control panel models 4007ES, 4008, 4010, 4010ES, 4100ES, and 4100U
- A single addressable point provides control and status tracking of a Form “C” contact
- Low power latching relay design allows IDNet communications to supply both data and module power
- Relay is set to OFF on initial power up and upon loss of IDNet communications

Compact, sealed construction:

- Enclosed design minimizes dust infiltration
- Mounts in standard 4” (102 mm) square electrical box, optional adapter bracket is available to mount in a 4 11/16” (119 mm) square electrical box
- Screw terminals for wiring connections
- Visible LED flashes to indicate communications
- Optional covers are available to allow LED to be viewed after installation

UL listed to Standard 864

Description

IDNet Relay IAMs allow fire alarm control panels to control a remotely located Form “C” contact using IDNet addressable communications for both data and module power. Typical applications would be for switching local power for control functions such as elevator capture, or control of HVAC components, pressurization fans, dampers, etc. Relay status is also communicated requiring only one device address.

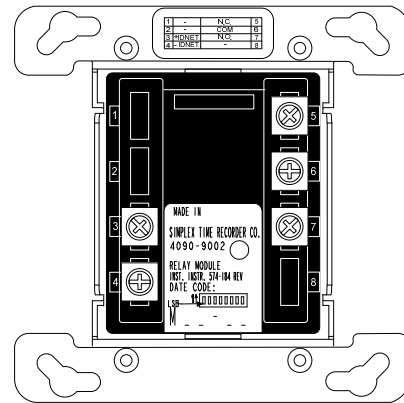
Product Selection

Model	Description
4090-9002	Relay IAM

Optional Adapter and Trim Plates

Model	Description	
4090-9813	Adapter plate to fit 4 11⁄16" (119 mm) square electrical box	
4090-9801	For semi-flush mounted box	Trim Plate, galvanized steel, with LED viewing window; includes mounting screws
4090-9802	For surface mounted box	

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7300-0026:223 for allowable values and/or conditions concerning material presented in this document. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

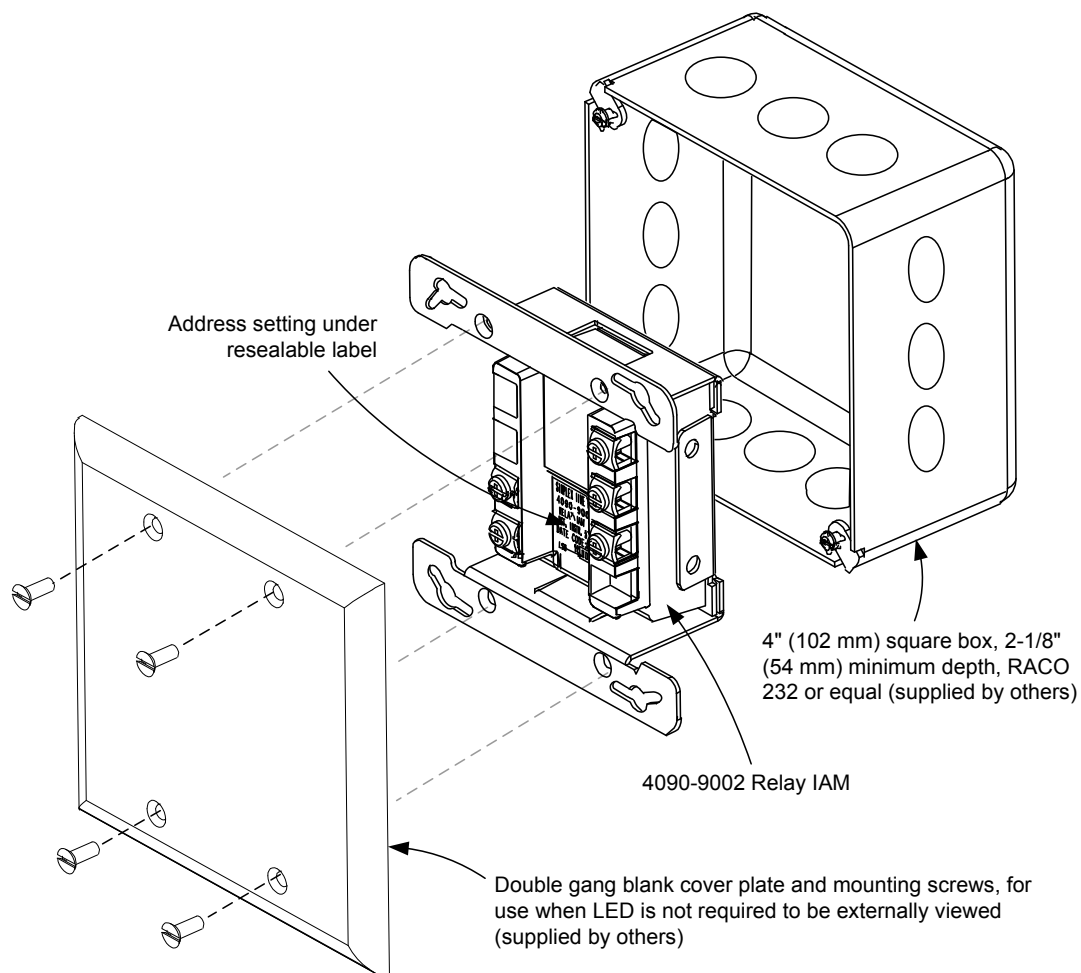


4090-9002 IDNet Relay IAM Package
(shown approximately 1/2 size)

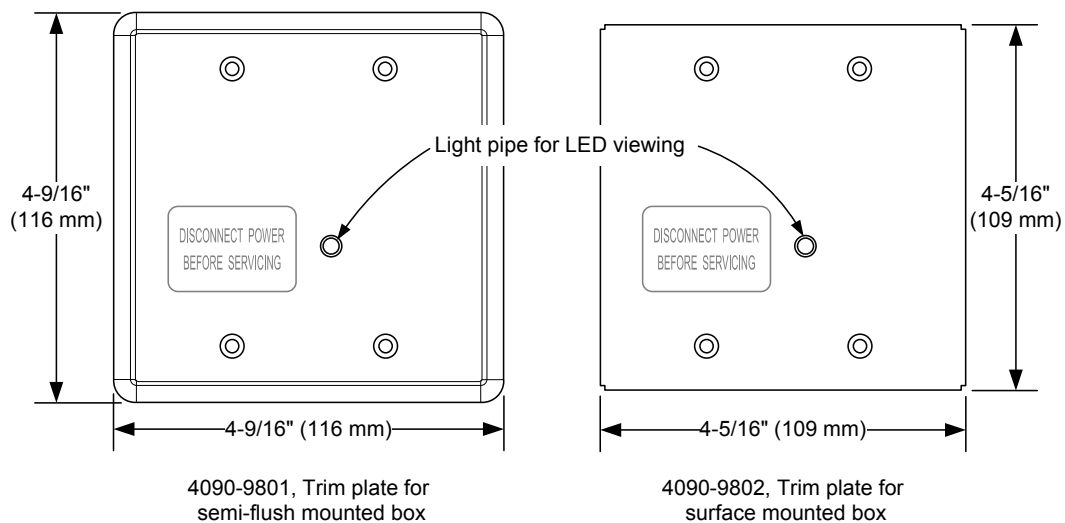
Specifications

Communications	IDNet communications, 1 address per device	
Relay IAM Power	Supplied by IDNet communications	
Contact Ratings* (not rated for incandescent switching)		
Type	Form C, SPDT	
Power-Limited	2 A @ 24 VDC, resistive	from listed fire alarm supply
	1 A @ 24 VDC, inductive	
Nonpower-Limited	0.5 A @ 120 VAC, resistive	
* Provide circuit fusing and transient suppression as required per application. DC inductive loads can typically be diode suppressed; 120 VAC loads may require RC networks or varistors, depending on device type. Refer to the installation instructions for additional information.		
Wire Connections	Screw terminals for in/out wiring, 18 to 14 AWG wire (0.82 to 2.08 mm ²)	
IDNet Communications Wiring Reference	Up to 2500 ft (762 m) from control panel	
	Up to 10,000 ft (3048 m) total wiring distance (including T-Taps)	
	Compatible with Simplex 2081-9044 Overvoltage Protectors	
Dimensions	4 1⁄8" H x 4 1⁄8" W x 1 3⁄8" D (105 mm x 105 mm x 35 mm)	
Housing Material	Black thermoplastic	
Mounting Plate	Sheet metal, galvanized	
Temperature Range	32° to 120° F (0° to 49° C), intended for indoor operation	
Humidity Range	Up to 93% RH at 100° F (38° C)	
Installation Instructions	574-184	

Relay IAM Mounting Information



Mounting Reference, Double Gang Blank Cover Plate



Optional Trim Plates for Visible LED

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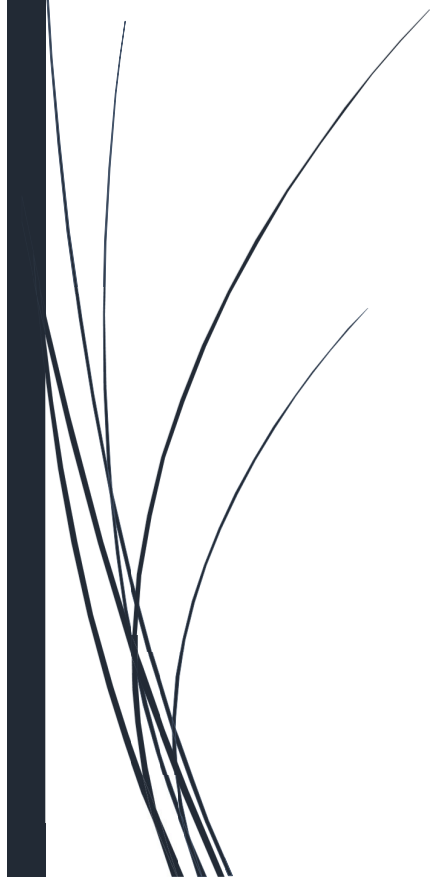


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S4090-0002-10 11/2014

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**Addressable Zam
Module 4090-9101**





UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

Multi-Application Peripherals

IDNet or MAPNET II Communicating Devices
4090-9101 and 4090-9106, Zone Adapter Modules

Features

IDNet or MAPNET II communications compatible Monitor ZAMs (Zone Adapter Modules) provide an addressable interface to a conventional initiating device circuit (IDC)

Available for Class B or Class A IDCs:

- 4090-9101, Class B monitoring for 2-wire or 4-wire initiating devices, with power reset connections for 4-wire devices
- 4090-9106, Class A monitoring for 2-wire initiating devices
- Zone device power is supplied separately (typically from fire alarm control panel)
- Refer to device compatibility list on page 2

For use with the following Simplex® fire alarm control panels:

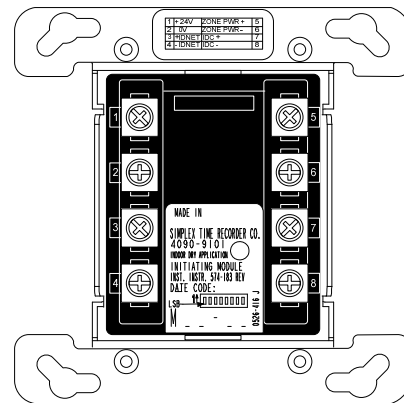
- Model Series 4007ES, 4008, 4010, 4010ES, 4100ES, and 4100U fire alarm control panels using IDNet communications
- Model Series 4100/4100U, 4120, 4020, and 2120 Communicating Device Transponders (CDTs) equipped with MAPNET II communications

Compact, sealed construction:

- Enclosed design minimizes dust infiltration
- Mounts in standard 4" (102 mm) square electrical box
- Screw terminals for wiring connections
- Visible LED flashes to indicate communications
- Optional covers are available to allow LED to be viewed after installation
- UL listed to Standard 864

Description

IDNet/MAPNET II Monitor ZAMs allow a single addressable point to monitor a conventional initiating device circuit (IDC) populated with 2-wire or 4-wire initiating devices. Refer to page two for compatible devices.



4090 Series ZAM Package
(shown approximately 1/2 size)

Specifications

Communications	IDNet or MAPNET II, 1 address per device
ZAM Input Voltage	18.9 to 32 VDC (nominal 24 VDC)
ZAM Current @ 24 VDC	Supervisory = 16 mA maximum Alarm = 72 mA maximum (actual current is determined by total device requirements)
4090-9101 ZAM, Zone Supervision Resistor	3.3 kΩ, 1 W
Wire Connections	Screw terminals for in/out wiring, 18 to 14 AWG wire (0.82 to 2.08 mm ²)
IDNet or MAPNET II Wiring	Up to 2500 ft (762 m) from fire alarm control panel
	Up to 10,000 ft (3048 m) total wiring distance (including T-Taps)
	Compatible with Simplex 2081-9044 Overvoltage Protectors
Dimensions	4 1/8" H x 4 1/8" W x 1 3/8" D (105 mm x 105 mm x 35 mm)
Housing Material	Black thermoplastic
Mounting Plate Material	Sheet metal, galvanized
Temperature Range	32° to 120° F (0° to 49° C) intended for indoor operation
Humidity Range	Up to 93% RH at 100° F (38° C)

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7300-0026:223 for allowable values and/or conditions concerning material presented in this document. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

Product Selection

ZAM Modules

Model	Description
4090-9101	Zone Adapter Module for Class B monitoring of 2-wire or 4-wire initiating devices; with power reset connections for 4-wire devices
4090-9106	Zone Adapter Module for Class A monitoring of 2-wire initiating devices

Optional Adapter and Trim Plates

Model	Description
4090-9813	Adapter plate to fit 4 $1\frac{1}{16}$ " (119 mm) square electrical box
4090-9801	For semi-flush mounted box
4090-9802	For surface mounted box
Trim plate with LED viewing window, includes mounting screws; galvanized steel	

End-of-Line Resistor Harness

Model	Reference No.	Description
4081-9002	733-893	3.3 kΩ, 1 End-of-Line Resistor Harness for 4090-9101, Class B zone monitoring

Monitor ZAM Two-Wire Initiating Device Compatibility Reference Chart

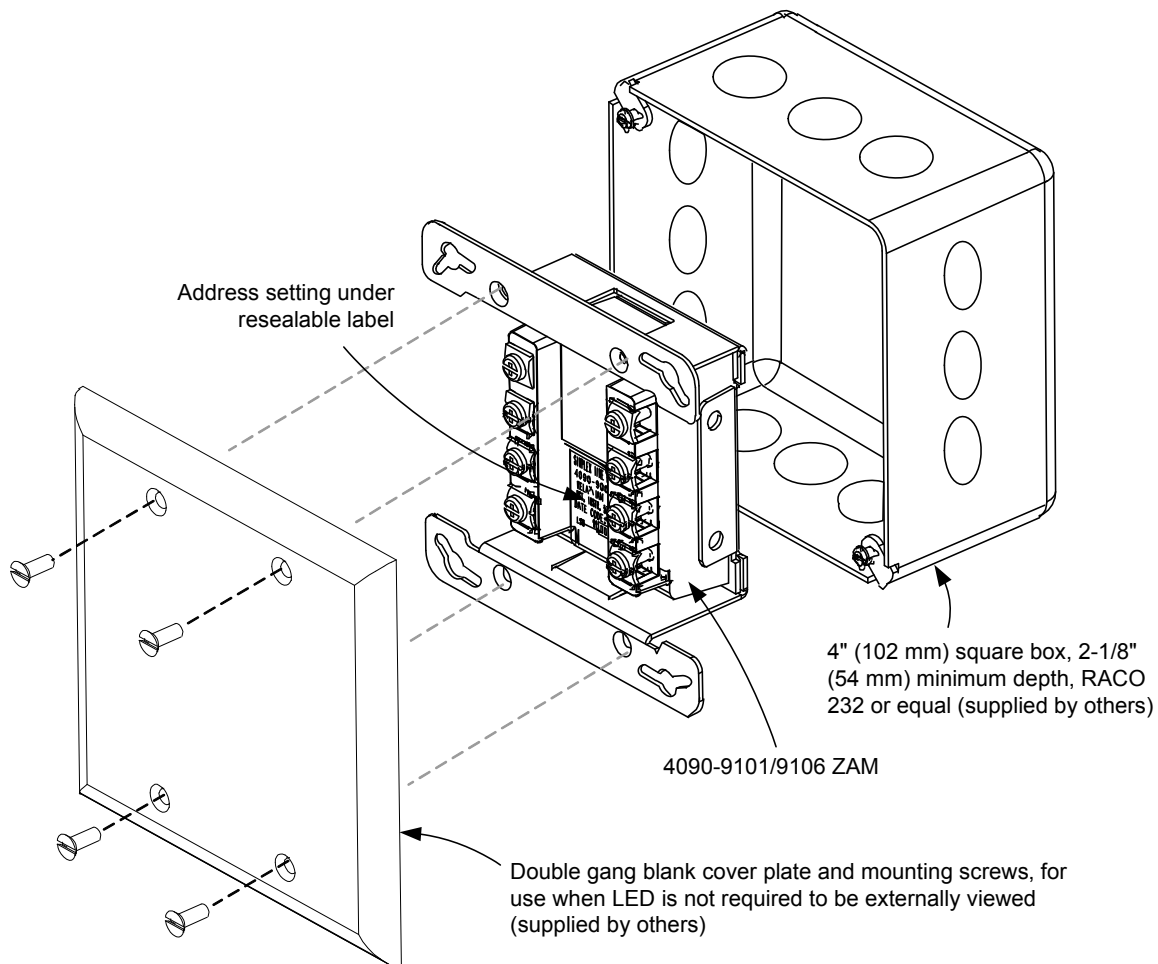
Description	Model	Compatible Bases	Maximum Quantity
Direct connect photoelectric smoke detector	2098-9209	No base required	20
Electronic heat detectors	4098-9401		
	4098-9402		
	4098-9403		
	4098-9404		
	4098-9612	4098-9788	20
	4098-9613	4098-9684	
	4098-9614	4098-9683	1
	4098-9615		
Photoelectric smoke detectors	4098-9601	4098-9788	20
	4098-9602	4098-9683	1
	4098-9605		
Ionization smoke detector	4098-9603	4098-9788	20
		4098-9683	1
Duct detector housing with 4098-9601 detector	4098-9685	N.A.	20

Reference for Existing Equipment

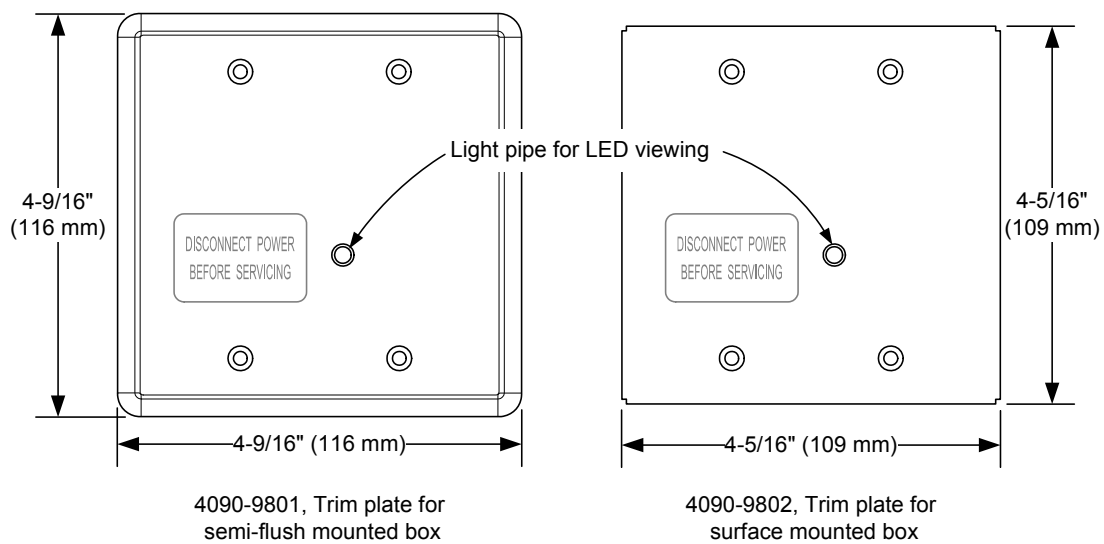
Description	Model	Compatible Bases	Maximum Quantity
Smoke detectors	2098-9201	2098-9211	20
	2098-9202		
	2098-9203	2098-9637	1
	2098-9576		
Electronic heat detectors	4098-9407	2098-9211	20
	4098-9408		
	4098-9409		
	4098-9410		

NOTES:

- Four-wire detector operation is compatible with conventional listed contact closure initiating devices.
- Four-wire detectors require detector voltage to be connected to resettable power terminals.
- Refer to installation instructions 574-183 and field wiring diagram 842-073 for additional information.
- Contact your local Simplex product supplier for additional compatible devices.



Mounting Reference, Double Gang Blank Cover Plate



Optional Trim Plates for Visible LED

UI FM Certificates

CERTIFICATE OF COMPLIANCE

Certificate Number S771
Report Reference S771-2014-10-01
Date 2023-April-11

Issued to: Simplex Time Recorder Co
6 Technology Park Dr
Westford MA, 01886 US

**This is to certify that
representative samples of** CONTROL UNITS, SYSTEM
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: REFER ADDENDUM PAGE FOR STANDARDS

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.


Deborah Jennings-Conner, VP Regulatory Services

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CERTIFICATE OF COMPLIANCE

Certificate Number S771
Report Reference S771-2014-10-01
Date 2023-April-11

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Standard(s) for Safety –

UL 864 - Control Units and Accessories for Fire Alarm Systems

CAN/ULC S527 - Control Units for Fire Alarm Systems

CAN/ULC-S559-13 - Equipment for Fire Signal Receiving Centers and Systems

UL 2017 - General-Purpose Signaling Devices and Systems

Models

USL1 – UL Fire Alarm and Emergency Signaling Equipment:

4007-9101, 4007-9101AR, 4007-9102, 4007-9201, 4007-9202, 4007-9301, 4007-9302, 4007-9401, and 4007-9402.

A007-9101, A007-9102, A007-9201, A007-9202

USL1 – UL Fire Alarm and Emergency Signaling Subassembly:

4007-9801 Zone/Relay Module
4007-9803 IDNet+ Loop Module
4007-9805 24 Zone LED Module
4007-9802 25 V Regulator Module
4007-9806 SDACT Module
4007-9807 City Circuit Module with Disconnect Switch
4007-9808 City Circuit Module without Disconnect Switch
4007-9809 Alarm Relay Module
4007-9804 Dual Class A Isolator Module,
4190-6106 Remote Service Gateway
0566-1030 NAC Power Supply
0566-989 IDNAC Power Supply
0566-1295 NAC Power Supply
0566-1298 IDNAC Power Supply
0566-1023 CPU and User Interface
4007-9814 Fiber-Optic Media Module
4007-9813 Wired Media Module
4007-9812 Dual RS232 Module
4007-9810 Flat Network Card Interface
4007-6312 ESMX Loop Expansion Module



Deborah Jennings-Conner
Deborah Jennings-Conner, VP Regulatory Services

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CERTIFICATE OF COMPLIANCE

Certificate Number S771
Report Reference S771-2014-10-01
Date 2023-April-11

4007-9820 LED Module
4007-9821 LED/Switch Module

COMPLIANCE

The products described herein as USL1 have been investigated to, and found to be in compliance with the standards identified in the Test Record and Description Reference.

CNL1 - CNL Fire Alarm Equipment:

4007-9101, 4007-9101AR, 4007-9102, 4007-9201, and 4007-9202
A007-9101, A007-9102, A007-9201, A007-9202

CNL1 - CNL Fire Alarm Subassembly:

4007-9801 Zone/Relay Module
4007-9803 IDNet+ Loop Module
4007-9805 24 Zone LED Module
4007-9802 25 V Regulator Module
4007-9806 SDACT Module
4007-9807 City Circuit Module with Disconnect Switch
4007-9808 City Circuit Module without Disconnect Switch
4007-9809 Alarm Relay Module
4007-9804 Dual Class A Isolator Module,
4190-6106 Remote Service Gateway
0566-1030 NAC Power Supply
0566-989 IDNAC Power Supply
0566-1023 CPU and User Interface
4007-9814 Fiber-Optic Media Module
4007-9813 Wired Media Module
4007-9812 Dual RS232 Module
4007-9810 Flat Network Card Interface
4007-9820 LED Module
4007-9821 LED/Switch Module

COMPLIANCE

The products described herein as CNL1 have been investigated to, and found to be in compliance with the standards identified in the Test Record and Description Reference.

Deborah Jennings-Conner
Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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CERTIFICATE OF COMPLIANCE

Certificate Number 20171117-S1199
Report Reference S1199-19970321
Issue Date 2017-NOVEMBER-17

Issued to: SIMPLEX TIME RECORDER CO
50 TECHNOLOGY DR
WESTMINSTER MA 01441

**This is to certify that
representative samples of** SMOKE-AUTOMATIC FIRE DETECTORS; SMOKE-
AUTOMATIC FIRE DETECTORS
See Addendum Page for Models

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 268, Smoke Detectors For Fire Protective Signaling
Systems
CAN/ULC S529-09, Smoke Detectors for Fire alarm
Systems

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

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Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20171117-S1199
Report Reference S1199-19970321
Issue Date 2017-NOVEMBER-17

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Fire Alarm Subassembly:

USL - Smoke detector, photoelectric analog, Models GSA4098-9714, -9714TTP, and A4098-9714BA.

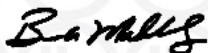
Smoke/heat detector, photoelectric analog, 135°F fixed and 12°F
Rate of rise, Model GSA4098-9754.

CNL - Smoke detector, photoelectric analog, Model 4098-9714C, .

Smoke/heat detector, photoelectric analog, 135°F fixed and 12°F
Rate of rise, Model 4098-9754C.

USL/CNL - Smoke detectors, photoelectric analog, Model 4098-9714,
4098-9714TP, 4098-9774, JTY-GM-CN 4098-9714, 4098-9714-9792, A4098-9714, and A4098-9774.

Smoke/heat detector, photoelectric analog, 135°F fixed and 12°F
Rate of rise, Model 4098-9754, CN 4098-9754 and 4098-9779.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20180305-S844
Report Reference S844-19961127
Issue Date 2018-MARCH-05

Issued to: Simplex Time Recorder Co
50 TECHNOLOGY DR
WESTMINSTER MA 01441

**This is to certify that
representative samples of** HEAT-AUTOMATIC FIRE DETECTORS
See Addendum Page for Models

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 521, Heat Detectors for Fire Protective Signaling
Systems
CAN/ULC-S530, Heat Actuated Fire Detectors for Fire
Alarm Systems

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

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Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

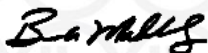
Certificate Number 20180305-S844
Report Reference S844-19961127
Issue Date 2018-MARCH-05

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Heat detector for fire alarm service. Electronic, Models JTW-ZOM-CN 4098-9733, 4098-9778, GSA4098-9733, 4098-9733E, GSA4098-9734, and 4098-9734E.

Heat detector for fire alarm service. Electronic, Model 4098-9733C.

Heat detector for fire alarm service. Electronic, Models 4098-9733, 4098-9778 and 4098-9734.



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CERTIFICATE OF COMPLIANCE

Certificate Number S772
Report Reference S772-1991-08-09
Date 2023-June-21

Issued to: Simplex Time Recorder Co
6 Technology Park Dr
Westford MA, 01886 US

This is to certify that BOXES, NONCODED
representative samples of See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 38, Manual Signaling Boxes for Fire Alarm Systems
CAN/ULC-S528-14, Manual Stations for Fire Alarm
Systems, Including Accessories

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.


Deborah Jennings-Conner, VP Regulatory Services

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number S772
Report Reference S772-1991-08-09
Date 2023-June-21

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Fire Alarm Equipment:

USL Non-coded Boxes, Type 2099-9101, -9102, -9103, -9104, -9105, -9107, -9108, -9147, -9148, -9149, -9152, -9754, -9755, -9756, -9757, -9758, -9759 and -9762.

CNL1, CNL2 Non-coded Boxes, Type 2099-9101, -9102, -9104, -9107, -9149, -9152, -9754.

USL Non-coded boxes, Type 4099-9001, -9002, -9003, -9004, -9005, -9006, -9010, -9011, -9012, -9015, -9020, and -9021 addressable boxes. Intended for use with the manufacturer's separately Listed 4010, 4100, and 4008 control units.

CNL1, CNL2 Non-coded boxes, Type 4099-9004, -9005, -9006, -9015, and -9021 addressable boxes. Intended for use with the manufacturer's separately Listed 4010, 4100, and 4008 control units.

CNL2 Non-coded boxes, Type 4099-9004CB, -9004CF addressable boxes. Intended for use with the manufacturer's separately Listed 4010, 4100, and 4020 control units.

USL Non-coded boxes, Type 4099-5201, -5202 addressable boxes. Intended for use with the manufacturer's separately Listed 4100 control unit. Type 4099-9004SP, -9004PO, -9005SP, -9005PO, -9006SP, -9006PO. Intended for use with the manufacturer's separately Listed 4010, 4100, and 4008 control units. Type 4099-5205 addressable box. Marketed for use with a third party's Listed control unit. Type A4099-5201, -5202 addressable boxes. Intended for use with the manufacturer's separately Listed Autocall 4100ES control unit.

USL Non-coded boxes, Type 4099-5212, -5213, -5214, -5215, -5216 addressable boxes. Intended for use with the manufacturer's separately Listed 4010ES & 4100ES control unit.

Fire Alarm Subassembly:

USL Alarm Box Accessory, ADA Conversion Kit Type 4099-9805. Intended for use with the manufacturer's noncoded box models 2099-9101, -9102, -9107, -9754, -9755 and models 4099-9004, -5201 and -5214.

CNL1, CNL2 Alarm Box Accessory, ADA Conversion Kit Type 4099-9805. Intended for use with the manufacturer's noncoded box models 2099-9101, -9102, 9107, 9754 and model 4099-9004.

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number 20150819-E31205
Report Reference E31205-20040115
Issue Date 2015-AUGUST-19

Issued to: SIMPLEX TIME RECORDER CO
50 TECHNOLOGY DR
WESTMINSTER MA 01441

**This is to certify that
representative samples of**

AUDIBLE-SIGNAL APPLIANCES; VISUAL AND VISUAL-
AUDIBLE SIGNAL APPLIANCES, FIRE ALARM,
INCLUDING ACCESSORIES; SIGNALING APPLIANCES
AND EQUIPMENT FOR THE HEARING IMPAIRED.
See Addendum Page

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety:

UL 464, Audible Signal Appliances.
UL 1971, Signaling Devices for the Hearing Impaired.
CAN/ULC-S525-07, Audible Signal Devices for Fire Alarm
Systems, Including Accessories.
ULC-S526, Visible Signal Devices for Fire Alarm Systems,
Including Accessories.

Additional Information:

See the UL Online Certifications Directory at
www.ul.com/database for additional information

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Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20150819-E31205
Report Reference E31205-20040115
Issue Date 2015-AUGUST-19

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Fire Alarm Equipment:

Audible signal appliance for fire alarm use with signaling appliance for the hearing impaired, Models **4906-6127**, 4906-9127, 4906-9129, 4906-9139, 4906-9141 wall mount and Models 4906-6128, 4906-9128, 9906-9130, 4906-9140, 4906-9142 ceiling mount horn/strobes for indoor use only.

Audible Signal Appliance Accessories – Model 4905-9838 Sound Damper, Model 4905-9937/-9940 surface mount skirts.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20180306-S3079
Report Reference S3079-20090124
Issue Date 2018-MARCH-06

Issued to: SIMPLEX TIME RECORDER CO
50 TECHNOLOGY DR
WESTMINSTER MA 01441

**This is to certify that
representative samples of**

VISUAL-SIGNAL APPLIANCES FOR FIRE-PROTECTIVE
SIGNALING SYSTEMS
AUDIBLE-SIGNAL APPLIANCES
SIGNALING APPLIANCES AND EQUIPMENT FOR THE
HEARING IMPAIRED
See Addendum

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety:

UL 464, Audible Signal Appliances
UL 1638, Visual Signaling Appliances - Private Mode
Emergency and General Utility Signaling
UL 1971, Signaling Devices for the Hearing Impaired
CAN/ULC-S525-07, Audible Signal Devices for Fire Alarm
Systems, Including Accessories
CAN/ULC-S526-07, Visible Signal Devices for Fire Alarm
Systems, Including Accessories

Additional Information:

See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
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Bruce Mahrenholz, Director North American Certification Program

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



CERTIFICATE OF COMPLIANCE

Certificate Number 20180306-S3079
Report Reference S3079-20090124
Issue Date 2018-MARCH-06

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Fire Alarm Equipment:

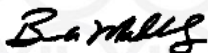
USL-1 Horn/Strobe models 4906-9131, 4906-6131, and 4906-9132.

USL-2 Strobe models 4906-9105 and 4906-9106.

CNL-1 Horn/Strobe model 4906-9143.

CNL-2 Strobe model 4906-9113.

USL-1, CNL-1 Weatherproof backbox models 49WPBB-AVVOWR and 49WPBB-AVVOWW.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20130809-S771
Report Reference S771-19971107
Issue Date 2013-AUGUST-09

Issued to: SIMPLEX TIME RECORDER CO
50 TECHNOLOGY DR
WESTMINSTER MA 01441

**This is to certify that
representative samples of**

CONTROL UNIT ACCESSORIES, SYSTEM; CONTROL
AND COMMUNICATION EQUIPMENT
See Addendum

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety:

UL864, Control Units and Accessories for Fire Alarm
Systems
UL1711, Amplifiers for Fire Protective Signaling Systems
UL2572, Mass Notification Systems

Additional Information:

See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Listing Mark should be considered as being covered by UL's
Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle:  with the
word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category
name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



William R. Carney, Director, North American Certification Programs
UL LLC

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contact a local UL Customer Service Representative at www.ul.com/contactus



CERTIFICATE OF COMPLIANCE

Certificate Number 20130809-S771
Report Reference S771-19971107
Issue Date 2013-AUGUST-09

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Fire Alarm Equipment - Supervised IAM (4090-9001TSP, CN-4090-9001) monitor module; Relay IAM (4090-9002TSP,) Relay Module; Class "A" ZAM (4090-9106TSP,) Initiating Module; Class "B" ZAM (4090-9101TSP, CN-4090-9101) Initiating Module, Two Point I/O Module (2190 9173).

Fire Alarm and Emergency Equipment - 4090-9001 Supervised IAM, 4090-9051 Encapsulated IAM, 4090-9002 Relay IAM, 4090-9101 Class B ZAM, 4090-9106 Class A ZAMs.



William R. Carney, Director, North American Certification Programs
UL LLC

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4007ES Fire Alarm Control System

Certificate Number: **FM23FPUS0135-2**

Company

Simplex Time Recorder LLC

6 Technology Park Drive, Westford , Massachusetts 01886

United States of America

<http://simplexgrinnell.com>



Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | [Local Protective Signaling, Fire](#)

Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | [Central Station Signaling Systems, Fire](#)

Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | [Remote Station Signaling Systems, Fire](#)

Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | [Automatic Releases for Extinguishing Systems and Other Fire Protection Equipment](#)

Fixed Extinguishing Systems | Deluge and Preaction Systems | [Automatic Releases, Preaction and Deluge Sprinkler Systems](#)

Programmable Fire Alarm Control, Series 4007ES

Description of Equipment:

Programmable Fire Alarm Control, Series 4007ES

Fire Alarm Control, Series 4007ES. Programmable control panel uses revision 6.04 operating [executive/configuration] software. Models 4007-9101, -9102, -9201, -9202, -9101AR, A007-9101, -9102, -9201, and -9202. Each model number may also include a suffix of "BA". Models ending in "1" are red colored, while models ending in "2" are platinum colored. The system power is provided by a switching power supply with a universal input rating of 120/240 VAC, 50/60 Hz and an output capacity of 6A (Models 4007-910x) or 4A (Models 4007-920x). All models provide a 100 point IDNet channel, an auxiliary power (2 A) circuit that can optionally be configured as a 2 A "Simple" NAC, a Class A/B Remote Unit Interface (RUI) interface, and a battery charger that can charge up to 33 AH batteries. Simplex Model 4190-9027 printer used for permanent recording of signals.

The Models 4007-9101, -9101AR, -9102, A007-9101, and -9102 provide four Class A/B TrueAlert non-addressable NACs (up to 3A each). TrueAlert Non-addressable NACs support the FM Approved Simplex non-addressable SmartSync appliances providing visual synchronization and independent control of the audibles and strobes. The "Simple" NAC is a reverse polarity NAC that has no sync or control capability and is used with constant on devices which follow the voltage provided on the circuit, which can support coded signals (temporal three, march time, etc.). The 4007-9101, -9101AR, -9102, A007-9101, and -9102, also come standard with one Eight Point Zone/Relay Card. Up to three additional Zone/Relay Cards may be added as option modules.

The 4007-9201, -9202, A007-9201, and -9202 provide one Class B TrueAlert addressable NAC (3A) and two dry Contact Relays (NO and NC). TrueAlert Addressable NACs support the previously Approved Simplex addressable TrueAlert appliances. The "Simple" NAC is identical to the same circuit provided on the Models 4007-9101, -9101AR, -9102, A007-9101, and -9102. The 4007-9201, -9202, A007-9201, and -9202 also come standard with one Eight Point Zone/Relay Card. Up to three additional Zone/Relay Cards may be added as option modules. The Models 4606-9202, 4606-9202AR or -9205 Remote Touchscreen Remote Annunciators may be provided for remote annunciation.

The IDNet signaling line is compatible with the Model 4098-9714, A4098-9714, 4098-9774, A4098-9774, GSA4098-9714, and A4098-9714BA photoelectric smoke sensor, -9717 ionization smoke sensor, -9733 and -9778 heat sensor, -9754 and -9779 photoelectric smoke with integral heat sensor; with all sensors fitted into the 4098-9789, -9775, -9791, -9792, -9776, -9793, -9777, -9754, -9797 and -9798 sensor bases. Other compatible sensors consist of the models 4098-9750 and -9751 (In-Duct) and -9755 and -9756 (Duct Housing with sampling tubes) duct sensors. In addition the following IDNet devices are compatible with the IDNet signaling line: 4099-9001 through -9003 addressable manual stations, 4090-9001 and -9051 supervised individually addressable modules (IAM), 4090-9119 Relay IAM with Unsupervised Feedback, 4090-9118 Relay IAM with Supervised Feedback, 4090-9120 Six Point I/O IAM, 4090-9008 relay IAM, 4090-9010 Eight Amp Relay IAM, 4090-9007 signal IAM, 4090-9116 addressable IDNet isolator, 4090-9117 addressable power isolator, and 4090-9101 and CN4090-9101 Class B and 4090-9106 Class A zone adapter modules (ZAM) which are compatible with two-wire



detectors.

As well as the 4007-9801 Eight Point Zone/Relay Card, other option modules which may be included inside of the units consist of a selection of the following assemblies: 4007-9807 and -9808 city circuit modules, 4007-9809 relay module, 4007-9802 Twenty-Five Volt Regulator module, 4007-9803 IDNet+ Loop Module (up to two of these modules are supported), and 4007-9805 twenty-Four LED Module. The LED module is used to meet the eight simultaneous event requirement for Canada. The Model 4007-9201, -9202, A007-9201, and -9202 may also include the Model 4007-9804 Dual Class A Isolator Module for use with the TrueAlert Addressable NAC. (See separate description of the 4009-9401 TrueAlert NAC Extender under LOCAL PROTECTIVE SIGNALING for a list of compatible TrueAlert addressable notification appliances).

Zone and IDNet assemblies that support two-wire detectors are compatible with the following: Models 2098-9201, -9202, -9203, -9544, and -9576 smoke detectors with 2098-9211 and 9637 bases; Models 4098-9575 and -9577 smoke detectors; Models 4098-9401, 9402, 9403, and 9404 heat detectors; Models 4098-9601, -9602, -9603, and 9605 detectors with 4098-9788 and 9683 bases; Models 4098-9612, -9613, -9614, and 9615 heat detectors with 4098-9788, -9683, and 9684 bases; and Models 4098-9681, -9685 and -9688 duct sensor housings with 4098-9601 smoke detector. Standby batteries from 6.2 to 33 AH are available to provide 24 hour emergency power. Batteries larger than 18 AH mount in a separate battery box, Model 4009-9801 (25 AH) or 4009-9802 (33 AH).

4120 Fiber Media Bidi card is for optional network modules, for Network communications, or local Control Panel equipment communications to support the 4120 network SIMPLEX UART/network data link protocol. 4120 Fiber Media Bidi card consists of the following part numbers: 4190-6301 [single mode left (SM – L)], 4190-6302 [single mode right (SM – R)], 4190-6303 [multi mode left (MM – L)], and 4190-6304 [multi mode right (MM – R)].

The Connected Services Gateway Module (CSGM) 4007-2500 and 4007-2501 [Simple Power Over Ethernet Switch (SPES)] include: IP DACT with a dual phone line interface, RJ45 10/100 Base-Tx Ethernet interface, cellular interface for connection to a central station. DACT supports – ADEMCO Contact ID, DSC Fiber protocol (cellular or Ethernet). The CSGM with the IP links can also connect to the panel as a remote service monitor interface [similarly to currently listed TrueInsight Remote Gateway]. The CSGM mounts inside the panel. The gateway can be mounted remotely and powered through the SPES, mounted in the panel (using the same space the CSGM occupied). Ethernet connection up to 100m away. This connection supports Class B only. When the CGSM is remote mounted, it must use the CSGM external enclosure (3 colors) with the following PIDs: 2975-9234 (R), 2975-9235 (P), 2975-9236 (B)

The following option PIDs have been created when ordering the CSGM depending on cellular carrier type:

4007-6400	CSGM with Verizon Cellular Carrier, LTE
4007-6401	CSGM with AT & T Cellular Carrier, 3G W/2G Fallback
4007-6402	Verizon Cellular Carrier, LTE option, for the External Enclosure



4007-6403	AT & T Cellular Carrier, 3G W/2G Fallback option, for the External Enclosure
4007-9818	IP Communication Module only with the CSGM with alternate software

AT&T Gateway module firmware: 1.1.x.xxxx

AT&T LTE 4G	Description
4007-6416	AT&T 4G/LTE Cellular module kit for IP Communicator/Connected Service Gateway modules mounted in the 4007ES FACU.
4007-6417	AT&T 4G/LTE Cellular module kit for IP Communicator/Connected Service Gateway modules mounted in the external mounted enclosure, for External Enclosure in the 4007ES FACU.
4007-2504	IP Communicator and Connected Services Gateway Module mounted in the 4007ES FACP.

The following panel PIDs have been created with the 4007-2500 option added from the factory:

4007-9151	4007ES, Hybrid, W/CSGM, Red	Same as 4007-9101, A007-9101 with 4007-2500 added
4007-9152	4007ES, Hybrid, W/CSGM, Platinum	Same as 4007-9102, A007-9102 with 4007-2500 added
4007-9251	4007ES, W/CSGM, Red	Same as 4007-9201, A007-9201 with 4007-2500 added
4007-9252	4007ES, W/CSGM, Platinum	Same as 4007-9202, A007-9202 with 4007-2500 added

ES Net is the next generation networking solution for Simplex fire alarm control panels. ES Net is a networking platform similar to the 4120 Network. ES Net communication module/cards with network supporting Ethernet, DSL, or fiber media connection types using optional media modules at high speeds up to 100Mbit/sec. ES Net will support up to 99 ES Net nodes.

4007-6306	ES Net Dual Channel Ethernet Media Card
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4007-6307	ES Net Dual Channel DSL Media Card
4007-6308	ES Net Dual Channel Single-Mode Fiber Media Card
4007-6309	ES Net Dual Channel Multimode Fiber Media Card
4007-9817	ES Network Interface Card - FLAT Type

The 4120 Fiber Modem Transceiver is a small board that mounts on top of the main Fiber Modem PCA to convert an electrical signal to an optical signal and vice versa. A newly designed Transceiver board with the following new part numbers are being listed as a replacement.

4120 Expansion cabinet and related modem assemblies for remote mounting

Model	Fiber Type	Description		Application
4190-9035	Single-Mode	Red	Expansion Cabinet with Left-Port Fiber Modem Assembly	Cabinets mount externally to compatible panels where internal mounting space is not available. Typical applications are for expansion to 4100ES, 4010ES, or 4007ES
4190-9038	Multi-Mode			
4190-9036	Single-Mode	Beige		
4190-9039	Multi-Mode			
4190-9037	Single-Mode	Fiber Optic Modem Right-Port Assembly (For Expansion Cabinet Only}		Expansion Cabinet Only



4007 Annunciator LED and LED/Switch modules

Model	Description
4007-9820	LED module
4007-9821	LED/Switch module

Annunciator LED Switch controller cards

Model	Description
4100-1451	Local LED/Switch controller card
4602-1451	Remote LED/Switch controller card

Annunciator Modules

Model	Description
4602-1457	Vertical remote command unit module
4100-1458	8 rotary switch HOA module
4100-1459	8 red-green-yellow (RGY) LED module



4100-1460

16 RGY LED module

4100-1461

8 button and 8 RGY LED module

4100-1462

8 button and 16 RGY LED module

4100-1463

16 button and 16 RGY LED module

4100-1464

8 red-green-blue (RGB) LED module

Annunciator Enclosures

Model

Description

4602-1453

Two slot alterable, wall mount - Red

4602-1471

Two slot alterable, flush mount - Red

4602-1454

Four slot alterable, wall mount - Red

4602-1472

Four slot alterable, flush mount - Red

4602-1455

Five slot door, color LCD, wall mount - Red

4602-1473

Five slot door, color LCD, flush mount - Red

4602-1456

Five slot door, 2x40 LCD module, wall mount - Red



4602-1474	Five slot door, 2x40 LCD module, flush mount - Red
4602-1475	ES Annunciator blank plate, five slot door - Black
4602-1476	ES Annunciator blank plate, LED module - Black
4602-1479	Two slot alterable, wall mount - Platinum
4602-1484	Two slot alterable, flush mount - Platinum
4602-1480	Four slot alterable, wall mount - Platinum
4602-1485	Four slot alterable, flush mount - Platinum
4602-1481	Five slot door, color LCD, wall mount - Platinum
4602-1486	Five slot door, color LCD, flush mount - Platinum
4602-1482	Five slot door, 2x40 LCD module, wall mount - Platinum
4602-1487	Five slot door, 2x40 LCD module, flush mount - Platinum
2975-9237	Cabinet back box - Red
2975-9238	Cabinet back box - Red
Non-Configurable Annunciator	



Model	Color	Description
4602-1452	Red	Two slot non-configurable wall mount
4602-1478	Platinum	
4602-1470	Red	Two slot non-configurable flush mount
4602-1483	Platinum	

Central Station Signaling Systems, Fire

4007ES Series control equipped with digital alarm communicator transmitter 4007-9806 at the protected premises transmitting signals to two or more Approved versions of the Silent Knight Model 9000, Bosch Radionics Models D6500 and D6600, FBI Model CP-220FB or Ademco Model 685 digital alarm communicator receivers (DACR) in the central station via a signaling channel established through the public switched telephone network. One back-up receiver, switchable within 30 seconds, is required for up to five on-line receivers. Equipment suitable for operation in ambient temperatures from 32° to 120° F (0° to 49°C). The DACT and DACR must be provided with a minimum of 60 hours of standby power. (See control panel description under LOCAL PROTECTIVE SIGNALING.)

Remote Station Signaling Systems, Fire

4007ES Series control equipped with digital alarm communicator transmitter 4007-9806 at the protected premises transmitting signals to two or more Approved versions of the Silent Knight Model 9000, Bosch Radionics Models D6500 and D6600, FBI Model CP-220FB or Ademco Model 685 digital alarm communicator receivers (DACR) in the central station via a signaling channel established through the public switched telephone network. One back-up receiver, switchable within 30 seconds, is required for up to five on-line receivers. Equipment suitable for operation in ambient temperatures from 32° to 120° F (0° to 49°C). The DACT and DACR must be provided with a minimum of 60 hours of standby power. Alternatively, for auxiliary signaling and remote station signaling, the 4007-9807 and -9808 City Circuit Modules connect to a local energy master-box or provide reverse polarity type service. (See control panel description under LOCAL PROTECTIVE SIGNALING.)

Automatic Releases, Preaction and Deluge Sprinkler Systems



4007ES Addressable Control System comes in 2 versions standard: 4007-9201, A007-9201 (red), 4007-9202, A007-9202 (platinum), and Hybrid: 4007-9101, A007-9101 (red), 4007-9102, A007-9102 (platinum), and 4007-9101AR (Autopulse Z20, Red). The standard version comes with a TrueAlert Addressable NAC channel and an Aux power/traditional NAC output. The Hybrid version comes with 4 TrueAlert non-addressable NACs and an Aux power / traditional NAC Both versions come standard with an IDNet channel. Control panel with Software Revision Level 6.04 using programmed Notification Appliance Circuits that can be either a traditional NAC or a TrueAlert non-addressable NAC along with the IDNet Channel. The Optional 4090-9005 and -9006 Suppression Release Peripheral connects to the) either a traditional NAC or a TrueAlert non-addressable NAC from the 4007 addressable control system to the releasing device. This peripheral monitors the output releasing appliance circuit wiring for opens and shorts. Each releasing appliance circuit must connect to a 2081-9046 coil supervision module which in turn is connected to a compatible 24 V dc solenoid. For FM Approved combinations of solenoid and water control valves, refer to the Automatic Water Control Valve listings that follow. IDNet signaling line circuits must be configured for Class A, Style 6 wiring for this application. 24 V dc batteries rated 18-33 AH are available to provide 90 hours of emergency operation.. (See description under LOCAL PROTECTIVE SIGNALING.)

Automatic Releases for Extinguishing Systems and Other Fire Protection Equipment

4007ES Addressable Control System comes in 2 versions standard: 4007-9201, A007-9201 (red), 4007-9202, A007-9202 (platinum), and Hybrid: 4007-9101, A007-9101 (red), 4007-9102, A007-9102 (platinum), and 4007-9101AR (Autopulse Z20, Red). The standard version comes with a TrueAlert Addressable NAC channel and an Aux power/traditional NAC output. The Hybrid version comes with 4 TrueAlert non-addressable NACs and an Aux power / traditional NAC Both versions come standard with an IDNet channel. Control panel with Software Revision Level 6.04 or greater using programmed Notification Appliance Circuits that can be either a traditional NAC or a TrueAlert non-addressable NAC along with the IDNet Channel. The Optional 4090-9005 and -9006 Suppression Release Peripheral connects to the) either a traditional NAC or a TrueAlert non-addressable NAC from the 4007 addressable control system to the releasing device. This peripheral monitors the output releasing appliance circuit wiring for opens and shorts. Each releasing appliance circuit must connect to a 2081-9046 coil supervision module which in turn is connected to a compatible 24 V dc solenoid. For FM Approved combinations of solenoid and water control valves, refer to the Automatic Water Control Valve listings that follow. IDNet signaling line circuits must be configured for Class A, Style 6 wiring for this application. 24 V dc batteries rated 18-33 AH are available to provide 90 hours of emergency operation.. (See description under LOCAL PROTECTIVE SIGNALING.)

Details

Category	Local Protective Signaling, Fire
Class of Work	3010 - Fire Alarm Systems
Certification Type	FM Approved
Release Control Panel Grouping (For use with Solenoid Valves)	Group 3 - Rated 22W and below
Certificate Number	FM23FPUS0135-2



Listing Country United States of America



Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | **Local Protective Signaling, Fire**

Fire Alarm Control 4008

Product Description

Fire Alarm Control 4008-9101 (red), -9102 (beige) and 4008-9121. Addressable programmable control panels using revision 1.02 operating software. The 4008-9101, -9102 is intended for sale in the USA only. The 4008-9121, -9122 includes a front panel LED display to meet Canadian display requirements and is intended for sale in Canada and USA. Both models are provided with an addressable device signaling line circuit (SLC) that can be configured for (Class B) Style 4 or (Class A) Style 6 wiring. Each control is provided with 2 (Class A or Class B) Style Y or Z configurable notification appliance circuits rated 2 Amps per circuit or 3 Amps for both circuits. Each control is also provided with an auxiliary power circuit rated 500 mA that can be wired as either continuous or reset-able. The controls have 2 Form A or B (selectable) relay contact circuits rated 2A @ 30 V dc. The controls are each equipped with integral digital alarm control transmitters (DACT) for providing central station and remote station off-premise signaling. Optional remote Zone LED module with 10 red and 14 yellow LED indicators may be connected to the 4008-9101, -9102 control's serial communication circuit. Other optional modules for use with the controls are as follows: Model 4008-9802 Relay Module, Model 4810-9111 Remote LED/Switch Annunciator, and Model 4008-9801 Expansion Power Supply. The compatible addressable devices consist of the following: Model 4098-9714, A4098-9714, 4098-9774, A4098-9774, GSA4098-9714, A4098-9714BA and CN 4098-9714, A4098-9714 photoelectric smoke sensors; Model 4098-9754, 4098-9779, GSA4098-9754 photoelectric smoke sensor with integral heat sensor; Model 4098-9733, 4098-9778, GSA4098-9733, CN4098-9733, 4098-9734 and GSA4098-9734 heat sensor heads with bases: 4098-9780, GSA4098-9780, 4098-9789, 4098-9775, GSA4098-9789, 4098 -9791, 4098-9792, 4098-9776, GSA4098-9792, CN4098-9792, 4098-9793, 4098-9777, GSA4098-9793, 4098-9794, GSA4098-9794, 4098-9795, GSA4098-9795, 4098-9796, GSA4098-9796, 4098-9770, 4098-9771, Models 4098-9733E, 4098-9734E sensor heads with bases 4098-9780E, 4098-9789E, 4098-9791E, 4098-9792E, 4098-9793E, 4098-9794E; Models 4098-9755, -9755C, -9756 and -9756C duct type sensor housings with optional 2098-9806 remote LED w/test switch, or 2098-9808 remote LED. In addition, the following IDNet devices are compatible with the addressable signaling line: 4099-9001 through -9006, -9010 through -9015, -9020 and -9021 pull stations; individually addressable modules (IAM) 4090-9001 Monitor IAM, 4090-9002 relay IAM, 4090-9116 addressable IDNet isolator, 4090-9007 Signal IAM, and 4090-9101 and 4090-9106 initiating modules which are compatible with 2-wire smoke detectors: 4098-9601, -9602 and -9605; and 2-wire heat detectors: 4098-9612, -9613, -9614, -9615 with base models: 4098-9788 and -9683. The heat detectors may also be used with base model: 4098-9684. For auxiliary signaling and remote station signaling, the 4006-9805 and -9806 City Circuit Modules connect to local energy masterbox or provide reverse polarity type service. Universal AC input is rated 100 to 264 V ac at 50/60 Hz. Two 12 V dc batteries sized 7-18 AH are available to provide 24 hours of emergency operation. Batteries sized 7-18 AH are available to provide 24 hours of emergency operation. Batteries larger than 12.7 AH must be located in a 4009-9801 External Cabinet. See CENTRAL STATION and REMOTE STATION SIGNALING.

Details

Category	Local Protective Signaling, Fire
Class of Work	3010 - Fire Alarm Systems
Certification Type	FM Approved

Company

Simplex Time Recorder LLC
6 Technology Park Drive,
Westford , Massachusetts 01886
United States of America
<http://simplexgrinnell.com>

 Approvals

Listing Country

United States of America

Detection, Fire Alarm and Signaling Equipment | Fire Alarm Control Panels | **Local Protective Signaling, Fire**

Fire Alarm Control 4008

Product Description

Fire Alarm Control 4008-9101 (red), -9102 (beige) and 4008-9121. Addressable programmable control panels using revision 1.02 operating software. The 4008-9101, -9102 is intended for sale in the USA only. The 4008-9121, -9122 includes a front panel LED display to meet Canadian display requirements and is intended for sale in Canada and USA. Both models are provided with an addressable device signaling line circuit (SLC) that can be configured for (Class B) Style 4 or (Class A) Style 6 wiring. Each control is provided with 2 (Class A or Class B) Style Y or Z configurable notification appliance circuits rated 2 Amps per circuit or 3 Amps for both circuits. Each control is also provided with an auxiliary power circuit rated 500 mA that can be wired as either continuous or reset-able. The controls have 2 Form A or B (selectable) relay contact circuits rated 2A @ 30 V dc. The controls are each equipped with integral digital alarm control transmitters (DACT) for providing central station and remote station off-premise signaling. Optional remote Zone LED module with 10 red and 14 yellow LED indicators may be connected to the 4008-9101, -9102 control's serial communication circuit. Other optional modules for use with the controls are as follows: Model 4008-9802 Relay Module, Model 4810-9111 Remote LED/Switch Annunciator, and Model 4008-9801 Expansion Power Supply. The compatible addressable devices consist of the following: Model 4098-9714, A4098-9714, 4098-9774, A4098-9774, GSA4098-9714, A4098-9714BA and CN 4098-9714, A4098-9714 photoelectric smoke sensors; Model 4098-9754, 4098-9779, GSA4098-9754 photoelectric smoke sensor with integral heat sensor; Model 4098-9733, 4098-9778, GSA4098-9733, CN4098-9733, 4098-9734 and GSA4098-9734 heat sensor heads with bases: 4098-9780, GSA4098-9780, 4098-9789, 4098-9775, GSA4098-9789, 4098 -9791, 4098-9792, 4098-9776, GSA4098-9792, CN4098-9792, 4098-9793, 4098-9777, GSA4098-9793, 4098-9794, GSA4098-9794, 4098-9795, GSA4098-9795, 4098-9796, GSA4098-9796, 4098-9770, 4098-9771, Models 4098-9733E, 4098-9734E sensor heads with bases 4098-9780E, 4098-9789E, 4098-9791E, 4098-9792E, 4098-9793E, 4098-9794E; Models 4098-9755, -9755C, -9756 and -9756C duct type sensor housings with optional 2098-9806 remote LED w/test switch, or 2098-9808 remote LED. In addition, the following IDNet devices are compatible with the addressable signaling line: 4099-9001 through -9006, -9010 through -9015, -9020 and -9021 pull stations; individually addressable modules (IAM) 4090-9001 Monitor IAM, 4090-9002 relay IAM, 4090-9116 addressable IDNet isolator, 4090-9007 Signal IAM, and 4090-9101 and 4090-9106 initiating modules which are compatible with 2-wire smoke detectors: 4098-9601, -9602 and -9605; and 2-wire heat detectors: 4098-9612, -9613, -9614, -9615 with base models: 4098-9788 and -9683. The heat detectors may also be used with base model: 4098-9684. For auxiliary signaling and remote station signaling, the 4006-9805 and -9806 City Circuit Modules connect to local energy masterbox or provide reverse polarity type service. Universal AC input is rated 100 to 264 V ac at 50/60 Hz. Two 12 V dc batteries sized 7-18 AH are available to provide 24 hours of emergency operation. Batteries sized 7-18 AH are available to provide 24 hours of emergency operation. Batteries larger than 12.7 AH must be located in a 4009-9801 External Cabinet. See CENTRAL STATION and REMOTE STATION SIGNALING.

Details

Category	Local Protective Signaling, Fire
Class of Work	3010 - Fire Alarm Systems
Certification Type	FM Approved

Company

Simplex Time Recorder LLC
 6 Technology Park Drive,
 Westford , Massachusetts 01886
 United States of America
<http://simplexgrinnell.com>

 Approvals

Listing Country

United States of America



Detection, Fire Alarm and Signaling Equipment | Notification Appliances | **Notification Appliances**

Models 4906-9105, -9106, -9131, -9132, -9113,-9143

Product Description

TrueAlert® series 4906 strobes and horn/strobe combinations. Models 4906-9105, -9106, -9131, -9132, -9113 and -9143 for wall installations. The following appliances are strobes only (V/O): 4906-9113 (red housing), 4906-9106 (white housing) and 4906-9105 (red housing). The following appliances are horn/strobe combinations (A/V): 4906-9143 (red housing) , 4906-9132 (white housing) and 4906-9131 (red housing). Used in 24 volt DC fire alarm systems. Model 4905-9938 module used for synchronization and tone selection (steady, Temporal or March Time). All units utilize multicandela strobe slide switch for candela selections: Canadian models (4906-9113; -9143) have 5, 20 and 30 candela selection switch. The US models (Models 4906-9105, -9106, -9131 and -9132) have 15, 60, 75 and WP75 candela selection. Strobes and horn/strobe combinations come in two wire settings only. All the appliances are NEMA 3R rated for outdoor use if utilized with either model 4905-9828 (red housing) or 4905-9829 (white housing) weatherproof back box. The weatherproof appliances use either model 4905-9832 (V/O) or model 4905-9833 (A/V) weatherproof escutcheon.

Details

Category	Notification Appliances
Class of Work	3150 - Audible Signal Appliances
Certification Type	FM Approved
Listing Country	United States of America

Company

Simplex Time Recorder LLC
6 Technology Park Drive,
Westford , Massachusetts 01886
United States of America
<http://simplexgrinnell.com>