

CERTIFICATE OF COMPLIANCE

Certificate Number 20140705- S35465
Report Reference S35465-20140628
Issue Date 2014-July-05

Issued to: FIRETRACE USA L L C
SUITE 2, 8435 N 90TH ST,
SCOTTSDALE AZ 85258


This is to certify that representative samples of COMPONENT - HEAT AUTOMATIC FIRE DETECTORS
Heat Detection Tubing, Model Firetrace, rated 195° C

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

Standard(s) for Safety: UL 521 STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS

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

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

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Recognized Component Mark on the product.



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

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CERTIFICATE OF COMPLIANCE

Certificate Number 20170525-EX5323
Report Reference EX5323-20170523
Issue Date 2017-MAY-25

Issued to: FIRETRACE USA L L C
8435 N 90TH ST
Suite 2
SCOTTSDALE AZ 85258

This is to certify that representative samples of SELF-CONTAINED AUTOMATIC EXTINGUISHER UNITS
Automatic FM-200 (HFC-227ea) Clean Agent Extinguisher
Units
Model- 940301,940601,941201

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

Standard(s) for Safety: ANSI/UL 2166 - Clean agent fire extinguisher units
containing HFC227ea clean agent in accordance with the
applicable requirements

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
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 20170525-EX5323
Report Reference EX5323-20170525
Issue Date 2017-MAY-25

Issued to: FIRETRACE USA L L C
8435 N 90TH ST
Suite 2
SCOTTSDALE AZ 85258

This is to certify that representative samples of SELF-CONTAINED AUTOMATIC EXTINGUISHER UNITS
Automatic Novec 1230 Clean Agent Extinguisher Units
Model- 940205,940505,941005

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

Standard(s) for Safety: ANSI/UL 2166 - Clean agent fire extinguisher units containing HFC227ea clean agent in accordance with the applicable requirements

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

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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 20170725-EX5323
Report Reference EX5323-20170524
Issue Date 2017-JULY-25

Issued to: FIRETRACE USA L L C
8435 N 90TH ST
Suite 2, SCOTTSDALE AZ 85258

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

SELF-CONTAINED AUTOMATIC EXTINGUISHER UNITS
Automatic Indirect Dry Chemical Extinguisher Units –
Model- 940202,940502,941002,942002

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

Standard(s) for Safety: UL 2166 - Pre-Engineered Dry Chemical Extinguishing
System Units

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
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 20170725-EX5323
Report Reference EX5323-20170524
Issue Date 2017-JULY-25

Issued to: FIRETRACE USA L L C
8435 N 90TH ST
Suite 2, SCOTTSDALE AZ 85258


This is to certify that representative samples of SELF-CONTAINED AUTOMATIC EXTINGUISHER UNITS
Automatic Indirect Dry Chemical Extinguisher Units –
Model- 940202,940502,941002,942002

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

Standard(s) for Safety: UL 1254 - Pre-Engineered Dry Chemical Extinguishing System Units

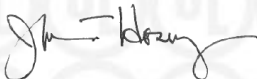
Additional Information: See the ULC Online Certification Directory at www.ulc.ca for additional information

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

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

To confirm the status, validate the above information via the online directory.

Look for the ULC Listing Mark on the product.



Joseph Hosey, General Manager, Director of Sales - Canada

UNDERWRITERS LABORATORIES OF CANADA INC.

Any information and documentation involving ULC Mark services are provided on behalf of Underwriters Laboratories of Canada Inc. (ULC) or any authorized licensee of ULC. For questions, please contact a local ULC Customer Service Representative at <http://ul.com/aboutul/locations/>



CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20071113
Issue Date 2018-NOVEMBER-27

Issued to: FIRETRACE USA L L C
SUITE 2
8435 N 90TH ST
SCOTTSDALE AZ 85258

This certificate confirms that representative samples of CLEAN AGENT EXTINGUISHING SYSTEM UNITS
, Complementary Product Category CLEAN AGENT EXTINGUISHING SYSTEM UNITS
SEE NEXT PAGE

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

Standard(s) for Safety: ANSI/CAN/UL/ULC 2166 Standard for Halocarbon Clean Agent Extinguishing System Units

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

This *Certificate of Compliance* does not provide 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.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20071113
Issue Date 2018-NOVEMBER-27

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

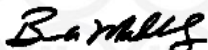
Models:

USL and CNL - HFC-227ea, designated as HFC-227ea, Clean Agent Engineered Extinguishing System Units, stored pressure type. The units are super-pressurized with nitrogen to 360 psig at an ambient temperature of 70°F, and have an operating temperature range of 32 to 130°F. The extinguishing system units are intended for use in accordance with the installation, operation, and maintenance instruction manual p/n FTF-000001 Rev B, dated June 7, 2018. These installations required the use of the Listee's flow calculation software HFC-227ea Flow Calc Software, FTF 4.00 dated May 2016, for engineered units

| MODEL | CYLINDER (Nominal) | FILL RANGE (lbs) | | FILL RANGE (kgs) | | VALVE SIZE (Nominal) |
|-----------------------|-----------------------|------------------|---------|------------------|---------|-------------------------|
| | | Minimum | Maximum | Minimum | Maximum | |
| FTF000035 / 200035 | 35 lbs (15L) | 16 | 35 | 7.5 | 16.0 | 1" (25mm) |
| FTF000070 / 200070 | 70 lbs (29L) | 31 | 71 | 14.0 | 32.0 | 1" (25mm) |
| FTF000150 / 200150 | 150 lbs (62L) | 66 | 152 | 30.0 | 69.0 | 1 ½" (40mm) |
| FTF000250 / 200250 | 250 lbs (103L) | 109 | 253 | 49.5 | 114.5 | 1 ½" (40mm) |
| FTF000375 / 200375 | 375 lbs (153L) | 163 | 379 | 74.0 | 172.0 | 2 ½" (65mm) |
| FTF000560 / 200560 | 560 lbs (227L) | 241 | 561 | 109.5 | 254.5 | 2 ½" (65mm) |
| FTF000900 / 200900 | 900 lbs (368L) | 390 | 910 | 177.5 | 412.5 | 2 ½" (65mm) |
| FTF001200 / 201200 | 1200 lbs (490L) | 519 | 1211 | 234.0 | 549.5 | 4" (100mm) |

USL and CNL - HFC-227ea, designated as HFC-227ea, Clean Agent Engineered Extinguishing System Units, stored pressure type. The units are super-pressurized with nitrogen to 360 psig at an ambient temperature of 70°F, and have an operating temperature range of 32 to 130°F. The extinguishing system units are intended for use in accordance with the installation, operation, and maintenance instruction manual p/n 01-001338-A, dated May 24, 2016. These installations required the use of the Listee's flow calculation software HFC-227ea Flow Calc Software, FTF 4.00 dated May 2016, for engineered units.

| MODEL | CYLINDER (Nominal) | FILL RANGE (lbs) | | FILL RANGE (kgs) | | VALVE SIZE (Nominal) |
|-----------|-----------------------|------------------|---------|------------------|---------|-------------------------|
| | | Minimum | Maximum | Minimum | Maximum | |
| 01-001372 | 35 lbs (15L) | 16 | 35 | 7.5 | 16.0 | 1" (25mm) |
| 01-001407 | 70 lbs (29L) | 31 | 71 | 14.0 | 32.0 | 1" (25mm) |
| 01-001487 | 150 lbs (62L) | 66 | 152 | 30.0 | 69.0 | 1 ½" (40mm) |



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20071113
Issue Date 2018-NOVEMBER-27

| | | | | | | |
|-----------|-----------------|-----|------|-------|-------|-------------|
| 01-001587 | 250 lbs (103L) | 109 | 253 | 49.5 | 114.5 | 1 ½" (40mm) |
| 01-001712 | 375 lbs (153L) | 163 | 379 | 74.0 | 172.0 | 2 ½" (65mm) |
| 01-001897 | 560 lbs (227L) | 241 | 561 | 109.5 | 254.5 | 2 ½" (65mm) |
| 01-002237 | 900 lbs (368L) | 390 | 910 | 177.5 | 412.5 | 2 ½" (65mm) |
| 01-002537 | 1200 lbs (490L) | 519 | 1211 | 234.0 | 549.5 | 4" (100mm) |



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CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20140409
Issue Date 2018-NOVEMBER-27

Issued to: FIRETRACE USA L L C
SUITE 2
8435 N 90TH ST
SCOTTSDALE AZ 85258

This certificate confirms that representative samples of CLEAN AGENT EXTINGUISHING SYSTEM UNITS, Complementary Product Category CLEAN AGENT EXTINGUISHING SYSTEM UNITS
See next page

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

Standard(s) for Safety: ANSI/CAN/UL/ULC 2166 Standard for Halocarbon Clean Agent Extinguishing System Units

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

This *Certificate of Compliance* does not provide authorization to apply the UL Mark.

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Look for the UL Certification Mark on the product.



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CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20140409
Issue Date 2018-NOVEMBER-27

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

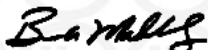
Models:

USL and CNL ENGINEERED UNITS – NOVEC 1230, designated as Novec 1230, Clean Agent Extinguishing System Units, stored pressure type. The units are super-pressurized at 500 psi (35 bar) at 70°F, and have an operating temperature range of 32°F to 130°F. The units are designed for total-flooding protection against Class A surface burning, Class B flammable liquid, and Class C fires occurring within an enclosure. The extinguishing system units are intended for use in accordance with the installation, operation, and maintenance instruction manual p/n FTF000003, Rev B, dated June 7, 2018. These installations require the use of the Listee’s flow calculation software Vds Novec 1230, Version 7.5, dated April 2010, for engineered units.

| MODEL* | CYLINDER (Nominal) | FILL RANGE (lbs) | | FILL RANGE (kgs) | | VALVE SIZE (Nominal) |
|--------------------------------|-----------------------|------------------|---------|------------------|---------|-------------------------|
| | | Minimum | Maximum | Minimum | Maximum | |
| *FTF000015 / 2000015 | 38 lbs (15L) | 10 | 38 | 4.5 | 17.0 | 1" |
| FTF000029 / 2000029 | 75 lbs (29L) | 16 | 76 | 7.5 | 34.5 | 1" |
| FTF000062 / 2000062 | 160 lbs (62L) | 33 | 164 | 15.0 | 74.0 | 1 ½ " |
| FTF000103 / 2000103 | 270 lbs (103L) | 55 | 271 | 25.0 | 122.5 | 1 ½ " |
| FTF000153 / 2000153 | 400 lbs (153L) | 82 | 406 | 37.5 | 184.0 | 2 ½ " |
| FTF000227 / 2000227 | 600 lbs (227L) | 121 | 601 | 55.0 | 272.5 | 2 ½ " |
| FTF000368 / 2000368 | 950 lbs (368L) | 193 | 964 | 88.0 | 437.0 | 2 ½ " |
| FTF000490 / 2000490 | 1300 lbs (490L) | 260 | 1297 | 118.0 | 588.0 | 4 " |

USL and CNL ENGINEERED UNITS – NOVEC 1230, designated as Novec 1230, Clean Agent Extinguishing System Units, stored pressure type. The units are super-pressurized at 500 psi (35 bar) at 70°F, and have an operating temperature range of 32°F to 130°F. The units are designed for total-flooding protection against Class A surface burning, Class B flammable liquid, and Class C fires occurring within an enclosure. The extinguishing system units are intended for use in accordance with the installation, operation, and maintenance instruction manual p/n 01-001340, Rev A, dated April 14, 2016. These installations require the use of the Listee’s flow calculation software Vds Novec 1230, Version 7.5, dated April 2010, for engineered units.

| MODEL | CYLINDER (Nominal) | FILL RANGE (lbs) | | FILL RANGE (kgs) | | VALVE SIZE (Nominal) |
|------------|-----------------------|------------------|---------|------------------|---------|-------------------------|
| | | Minimum | Maximum | Minimum | Maximum | |
| *01-001352 | 38 lbs (15L) | 10 | 38 | 4.5 | 17.0 | 1" |



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20181127-EX15893
Report Reference EX15893-20140409
Issue Date 2018-NOVEMBER-27

| | | | | | | |
|-----------|-----------------|-----|------|-------|-------|-------|
| 01-001366 | 75 lbs (29L) | 16 | 76 | 7.5 | 34.5 | 1" |
| 01-001399 | 160 lbs (62L) | 33 | 164 | 15.0 | 74.0 | 1 ½ " |
| 01-001440 | 270 lbs (103L) | 55 | 271 | 25.0 | 122.5 | 1 ½ " |
| 01-001490 | 400 lbs (153L) | 82 | 406 | 37.5 | 184.0 | 2 ½ " |
| 01-001564 | 600 lbs (227L) | 121 | 601 | 55.0 | 272.5 | 2 ½ " |
| 01-001705 | 950 lbs (368L) | 193 | 964 | 88.0 | 437.0 | 2 ½ " |
| 01-001827 | 1300 lbs (490L) | 260 | 1297 | 118.0 | 588.0 | 4 " |



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