

# 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](http://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** UL-US-2223410-1  
**Report Reference** EX5323-20110201  
**Date** 12-Jun-2023

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

**This is to certify that representative samples of** GMFZ - Self-contained Automatic Extinguisher Units  
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:** ANSI/CAN/UL/ULC 2166, 3rd Ed, Issue Date: 2017-5-10,  
Revision Date: 2021-12-8

**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** UL-US-2223410-1  
**Report Reference** EX5323-20110201  
**Date** 12-Jun-2023

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

<b>Model</b>	<b>Category Description</b>
940205	Total Flooding
940505	Total Flooding
940555	Total Flooding
941005	Total Flooding
941055	Total Flooding
942055	Total Flooding

*Deborah Jennings-Conner*

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** UL-CA-2222970-1  
**Report Reference** EX5323-20110201  
**Date** 12-Jun-2023

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

**This is to certify that representative samples of** GMFZ7 - Self-contained Automatic Extinguisher Units  
Certified for Canada  
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:** ANSI/CAN/UL/ULC 2166, 3rd Ed, Issue Date: 2017-5-10,  
Revision Date: 2021-12-8

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

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Deborah Jennings-Conner, VP Regulatory Services

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** UL-CA-2222970-1  
**Report Reference** EX5323-20110201  
**Date** 12-Jun-2023

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

<b>Model</b>	<b>Category Description</b>
940205	Total Flooding
940505	Total Flooding
940555	Total Flooding
941005	Total Flooding
941055	Total Flooding
942055	Total Flooding

*Deborah Jennings-Conner*

Deborah Jennings-Conner, VP Regulatory Services

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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](http://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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# 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](http://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

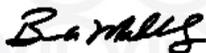
Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

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

**Additional Information:** See the UL Online Certifications Directory at  
[www.ul.com/database](http://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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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

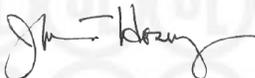
**Additional Information:** See the ULC Online Certification Directory at [www.ulc.ca](http://www.ulc.ca) for additional information

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.

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# 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)



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

**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.



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

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 / <b>2000015</b>	38 lbs (15L)	<b>10</b>	38	<b>4.5</b>	17.0	1"
FTF000029 / <b>2000029</b>	75 lbs (29L)	16	76	7.5	34.5	1"
FTF000062 / <b>2000062</b>	160 lbs (62L)	33	164	15.0	74.0	1 ½ "
FTF000103 / <b>2000103</b>	270 lbs (103L)	55	271	25.0	122.5	1 ½ "
FTF000153 / <b>2000153</b>	400 lbs (153L)	82	406	37.5	184.0	2 ½ "
FTF000227 / <b>2000227</b>	600 lbs (227L)	121	601	55.0	272.5	2 ½ "
FTF000368 / <b>2000368</b>	950 lbs (368L)	193	964	88.0	437.0	2 ½ "
FTF000490 / <b>2000490</b>	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)	<b>10</b>	38	<b>4.5</b>	17.0	1"

*B. Mahrenholz*

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 "



Bruce Mahrenholz, Director North American Certification Program

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