SAEVu
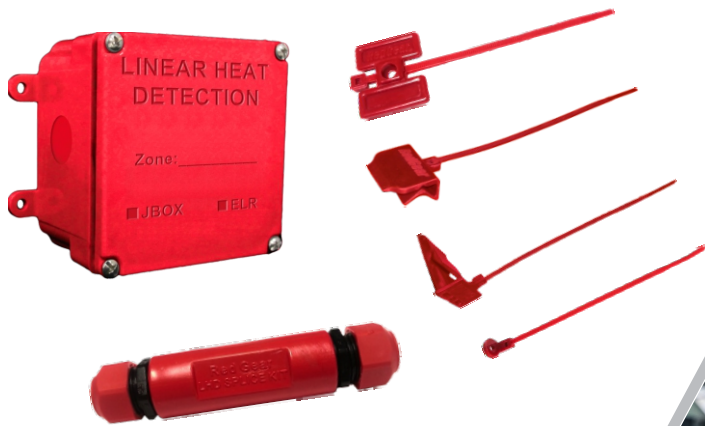
RedGear ®
Custom Installation Supplies

LINEAR HEAT INSTALLATION MATERIALS

ABOUT US

Traditionally, the fire industry has adapted off the shelf installation materials to install linear heat detection systems. RedGear's new simple designs combine the best of the old with the new by eliminating the need to use multiple parts for a single mount. This results in parts that are faster and easier to install at a significantly lower cost from a single source.

CUSTOM DESIGNED FOR THE FIRE INDUSTRY

- Fire Resistant
- UL Listed
- Lowest Cost Guaranteed
- Meets NFPA Standards
- Designed, Built and Shipped from USA

MADE IN THE U.S.A

We combine complex specialty chemicals to optimize the quality and performance of all of our accessories and Pipe fittings.

- Affordable
- Reliable
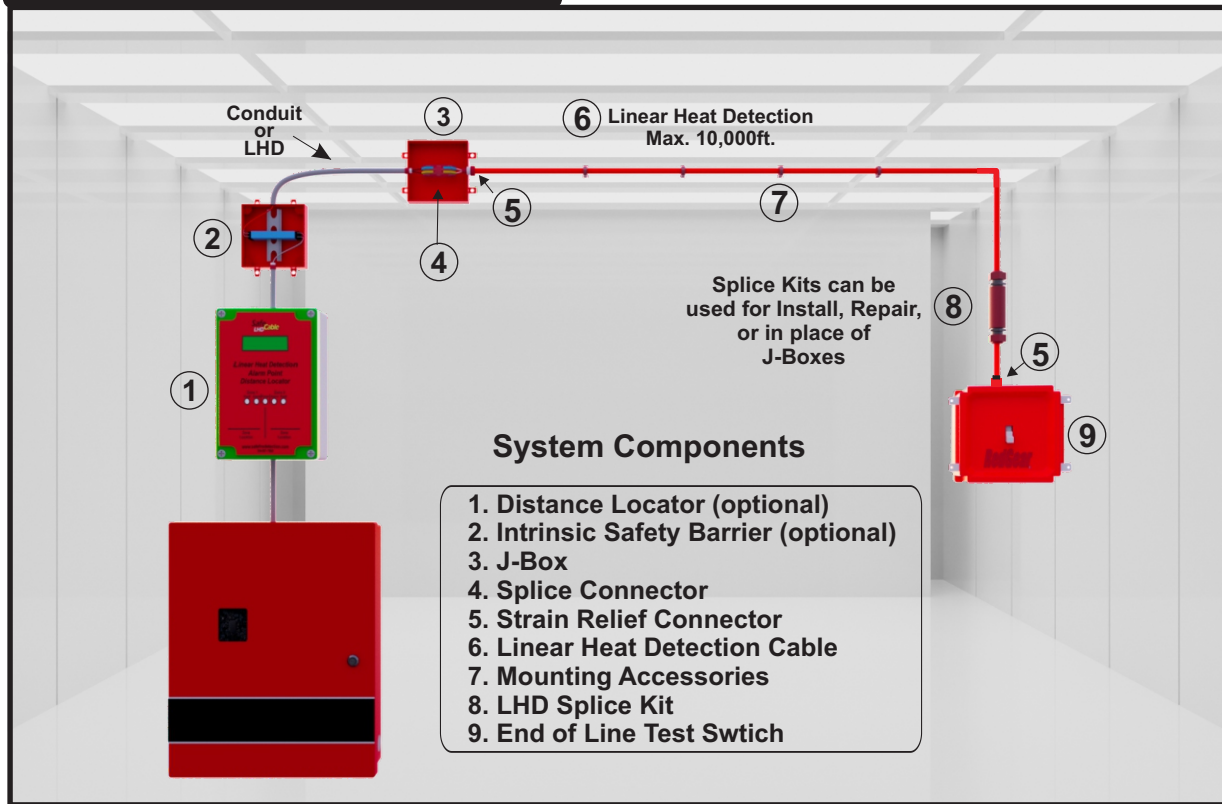- Easy to Use
- Single Source

MADE IN THE USA

RedGear® LHD Supplies

RedGear
Linear Heat Detection
System Examples:

Conduit or LHD

③

⑥ Linear Heat Detection Max. 10,000ft.

⑤

②

⑦

④

Splice Kits can be used for Install, Repair, or in place of J-Boxes

⑧

⑤

①

⑨

System Components

1. Distance Locator (optional)
2. Intrinsic Safety Barrier (optional)
3. J-Box
4. Splice Connector
5. Strain Relief Connector
6. Linear Heat Detection Cable
7. Mounting Accessories
8. LHD Splice Kit
9. End of Line Test Swtich

ADDRESSABLE SYSTEM EXAMPLE

ADDRESSABLE SYSTEM

Alarm/Release

JBox

Linear Heat Detection Cable

Splice Kits can also be used to connect two runs of LHD during install

Max. 10,000' per Zone

Mount every 3'

Annunciation

Releasing

Contact Monitor Module

Addressable Fire Alarm Releasing Panel

Optional Zone Class "A" Return

ONE LINEAR HEAT DETECTION SYSTEM PER CONTACT MONITOR MODULE
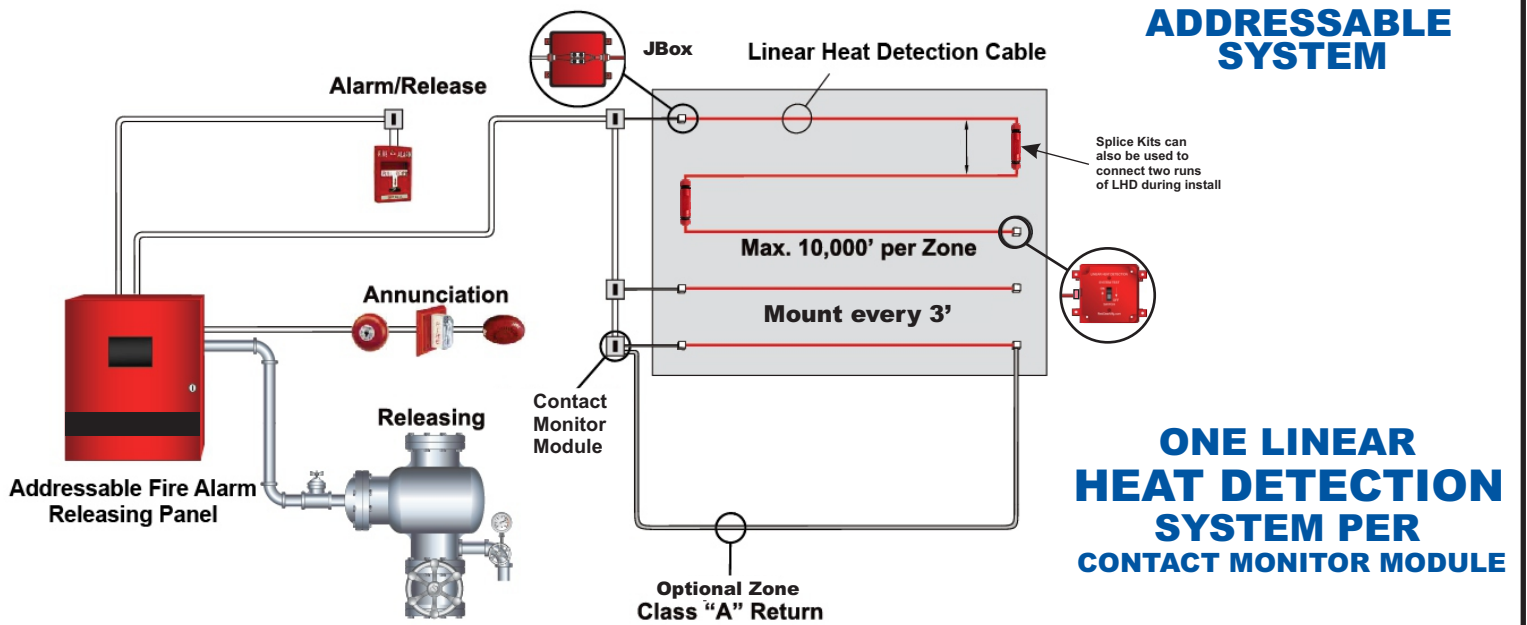
CONVENTIONAL SYSTEM EXAMPLE

CONVENTIONAL SYSTEM

Alarm/Release

JBox

Linear Heat Detection Cable

Leader Wire
Min. 18 AWG
18,000 ft.

Max. 10,000' per zone

Mount every 3'

Annunciation

Releasing

Or Any Fire Alarm Releasing Panel

Optional Zone Class "A" Return

ONE LINEAR HEAT DETECTION SYSTEM PER ZONE ON PANEL
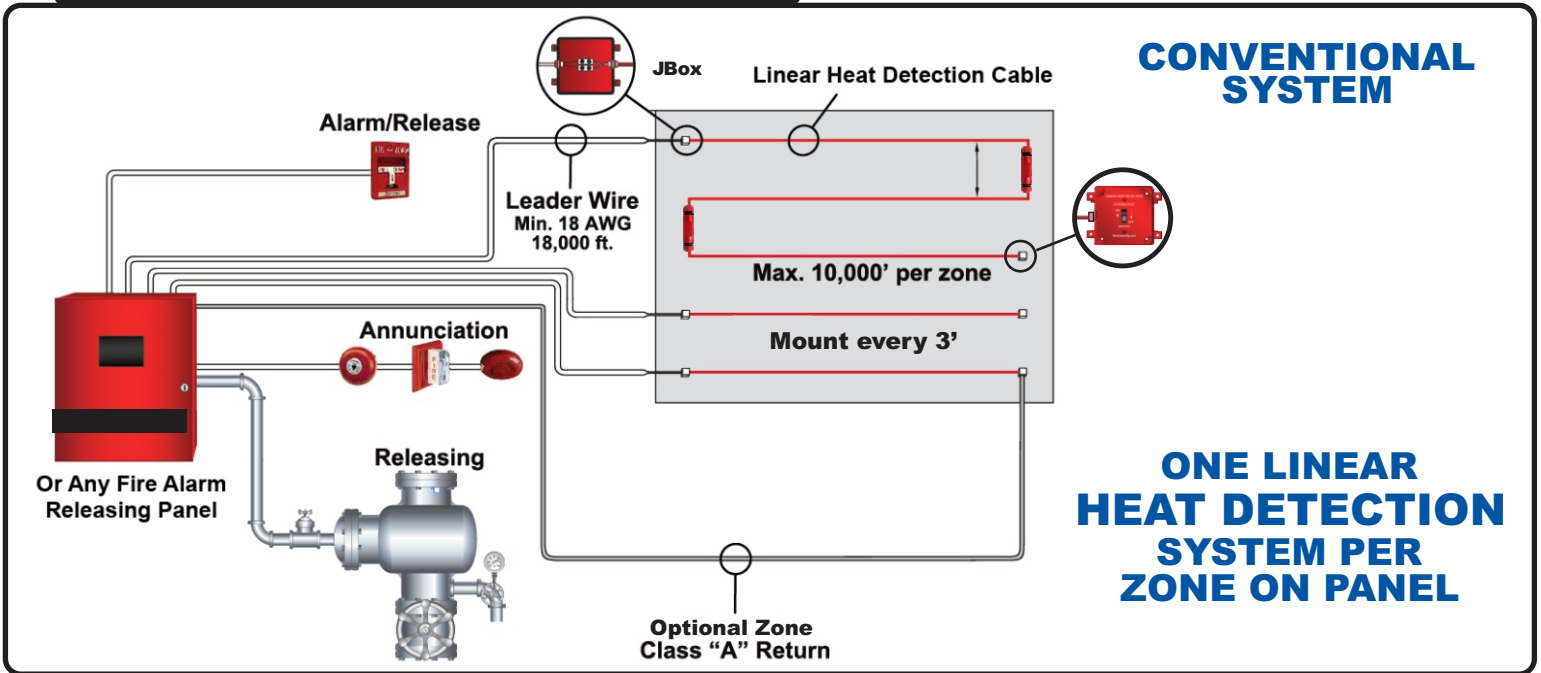
APPLICATION EXAMPLES

FLOATING ROOF TOP TANKS

To Determine Cable Amount:

2πr

2 x 3.14 x r =C

r=Radius C=Circumference

Ex. (2 x 3.14 x 40 =252ft of cable)

40=r

LINEAR HEAT DETECTION

RedGear ® JBox

RACK STORAGE

Sprinkler Pipe

LHD Cable

Sprinkler Pipe

LHD Cable

Double Loop Cable Tie

OR

Mount Every 3' (1m)

FLUE

Attach to sprinkler pipe mounting attaching cable every 3' (1m).

GENERATORS

RedGear

Universal Surface Mount with built in Cable Tie
Fire Resistant

Can be mounted with screw or adhesive.

Mount every 3'(1m) and at every change with direction

Surface Adhesive

*3ft(1m) Spacing

CONVEYORS

RedGear®

Guidewire/Messenger Wire Support Supplies

There are **four** areas you could use linear heat detection to protect a conveyor from different fire scenarios

Hood over conveyor collects heat to decrease response time

18" maximum between LHD Cable and load height

① Protection from material fire

② Optional protection for overheating bearings and rollers

③ LHD Cable run when grated floor under conveyor

Return Belt

④ LHD Cable run when solid floor under conveyor

Solid or Grated Floor

Mount 3' (1m)

Tightens from Both Ends

15' (4.6m) Mounting when using Guidewire/ Messenger Wire

Linear Heat Detection Zone

New easy to use Tensioner, tighten with a drill and socket.

Splice, End of Line or Jbox

Jbox or Test Switch

TUNNELS

Zone 3

Equipment Room

J-Box

Zone 1

LHD Cable — Up to 10,000 ft. per Zone

Zone 1

Leader Wire

Fire Alarm Control Panel

Control Room

CABLE CLIP TIE

EyeBolt with Guide Wire every 15'(5m)

OR

Cable Clip Ties every 3'(1m).

RedGear®

Cable Clip Tie
One Piece Cable Clip, All in one Design.
Fire Resistant

CABLE TRAYS

RedGear®

Cable Tray Clip
One Piece with built-in Cable tie
Fire Resistant

Peak

Valley

6'(1.8m) Maximum

Cable Tray Clip

Cable Tray Length divided by Width Coefficient = Total Length of LHD Cable

Determine the number of clips you need by dividing the length of the cable tray by 3, then add 1.

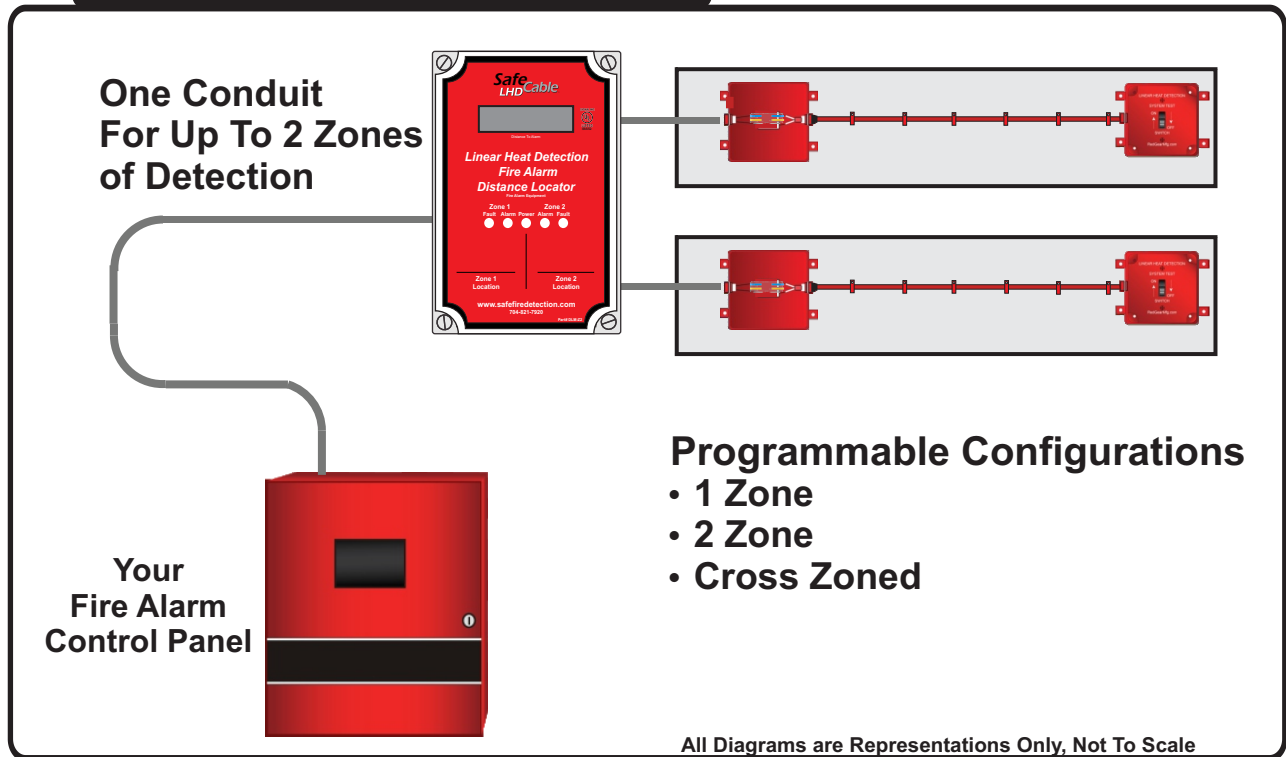| Cable Tray Width	Width Coefficient
1'6"(.5m)	.87
2'(.6m)	.78
3'(.9m)	.65
4'(1.2m)	.57

Sine Wave Calculation for Cable Tray to determine amount of cable required

DISTANCE LOCATOR

Find The Location of Your Fire Event
Can Be Used as a One Zone, Two Zone
Or Cross-Zoned Systems

DLM-Z2 Example

**One Conduit
For Up To 2 Zones
of Detection**

**Your
Fire Alarm
Control Panel**

Programmable Configurations
• **1 Zone**
• **2 Zone**
• **Cross Zoned**

All Diagrams are Representations Only, Not To Scale

DLM-Z2 DISTANCE LOCATOR

Dimensions (W x H x D):	H7.1in x W4.72in x D2.38in
	(H180mm x W120mm x D60.5mm)
Weight:	1 lb. (0.45kg)
Operating Temperature:	-4°F – +122°F(-20°C – +50°C)
Power Requirements:	Normal Operation: 8mA @ 24VDC
	Alarm Point Locating: 28mA @24VDC
Systems:	Addressable or Conventional
Enclosure:	NEMA 4x
Max. LHD length:	10,000 ft. (3,000m) per Run

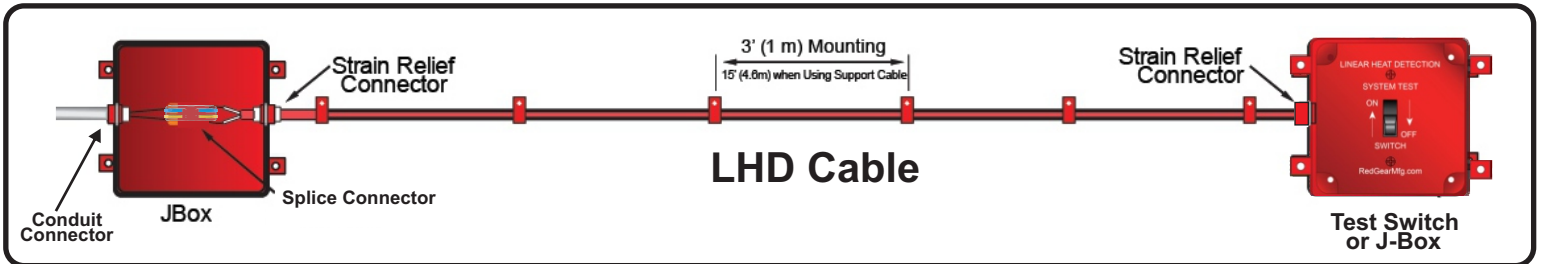## DLM-Z2 DISTANCE LOCATOR

J-BOXES

No more Hole Saws Needed
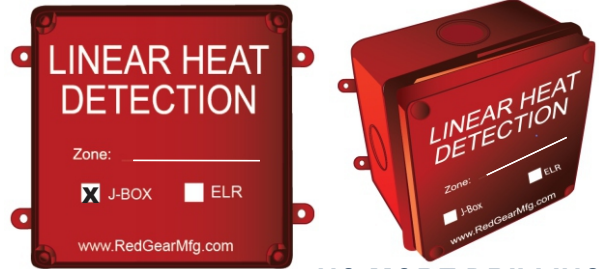
Spaces on cover to mark if the box is the J-Box or end of line

Strain Relief Connector

3' (1 m) Mounting
15' (4.0m) when Using Support Cable

Strain Relief Connector

LINEAR HEAT DETECTION
SYSTEM TEST
ON
OFF
SWITCH
RedGearMfg.com

LHD Cable

Conduit Connector

JBox

Splice Connector

Test Switch or J-Box

EASY TO USE:

NO MORE HOLE SAWS

NOTE: Text on product is not White

NEW EZ KNOCKOUTS

NO HOLE SAWS REQUIRED
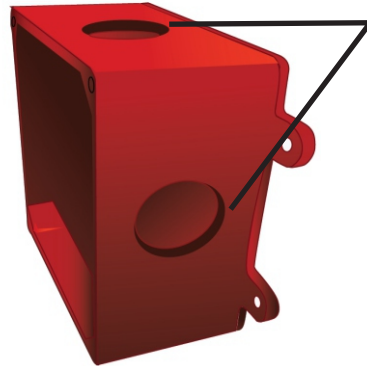
NEMA 4   (IP66)
NEMA 6P (IP68)
NEMA 4X (IP67)

ACCESSORIES

J-BOX/EOL Box

RedGear ®

Strain Relief Connectors

Strain Relief Connectors

Splice Connector
For Cable splices and connections in J/ELR-Boxes and HDJ/ELR-Boxes.
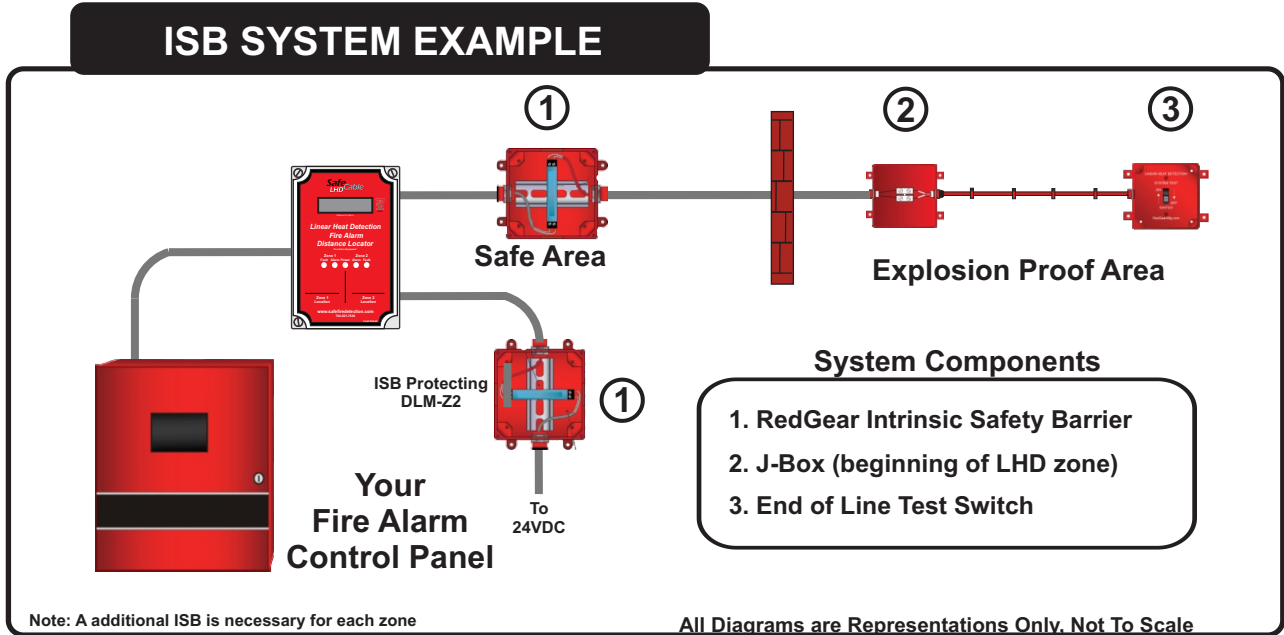
RedGear ® J-Box
FIRE RESISTANT & EZ KNOCKOUTS
Dim.: 4" x 4" x 2" (10cm x 10cm x 5cm)
Easy to use J-Box requires Screw Terminal or in line connectors and Strain Relief Connectors for installation. Has ½" and 3/4" knockouts. Use at the beginning and end of line of LHD systems.

LINEAR HEAT DETECTION
Zone: _____
☐ JBOX   ☐ ELR

INTRINSIC SAFETY BARRIERS

ISB MODULE

Intrinsic Safety Barriers for Explosive and Hazardous Areas

ISB SYSTEM EXAMPLE

① ② ③

Safe Area

Explosion Proof Area

Linear Heat Detection Fire Alarm Distance Locator

ISB Protecting DLM-Z2

①

Your Fire Alarm Control Panel

To 24VDC

System Components

1. RedGear Intrinsic Safety Barrier
2. J-Box (beginning of LHD zone)
3. End of Line Test Switch

Note: A additional ISB is necessary for each zone

All Diagrams are Representations Only, Not To Scale

PRE-ASSEMBLED INTRINSIC SAFETY BARRIER

CONVENTIONAL

RedGear
Conventional Intrinsic Safety Barrier

ADDRESSABLE

RedGear
Addressable Intrinsic Safety Barrier

DISTANCE LOCATING *

RedGear
Distance Locating Intrinsic Safety Barrier

REPLACEMENT SAFETY BARRIERS

ADDRESSABLE

Intrinsic Safety Barrier

CONVENTIONAL

Intrinsic Safety Barrier

DISTANCE LOCATING

Intrinsic Safety Barrier

Note: Intrinsic Safety Barriers are non-restorable. Once activated the Barrier will need to be replaced

*replaces Conventional or Addressable ISBs when Using Distance Locating

CABLE TIES

New RED nylon 6.6 fire resistant cable ties; multiple sizes for use with pre-action sprinkler systems and other applications

Double Loop Cable Tie

Sprinkler Pipe

Linear Heat Detection Cable

Double Loop Cable Tie
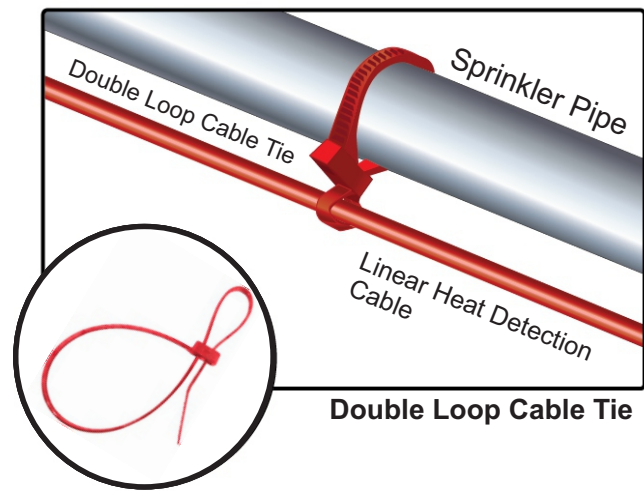
UNIVERSAL SMALL SINGLE LOOP TIE

RedGear ® Small Single Loop Cable Ties
Length: 5in.

DOUBLE LOOP CABLE TIES

RedGear ® Pre-Action Double Loop Cable Ties

Fits Sprinkler Pipe Size
3/4"- 2"

UNIVERSAL LARGE SINGLE LOOP TIE

Standard Extra Large Single Loop Cable Ties
Length: 22in.

Note: RS7064L is black in color

DOUBLE LOOP CABLE TIES

RedGear ® Pre-Action Double Loop Cable Ties

Fits Sprinkler Pipe Size
2 ½" - 3 ½"

UNIVERSAL CABLE CLIP-TIE AND BEAM CLAMPS

For use in all applications

RedGear **Cable Clip-Tie**

3' (1m)

Mount Every 3 Feet(1 Meter).

Typical Installation
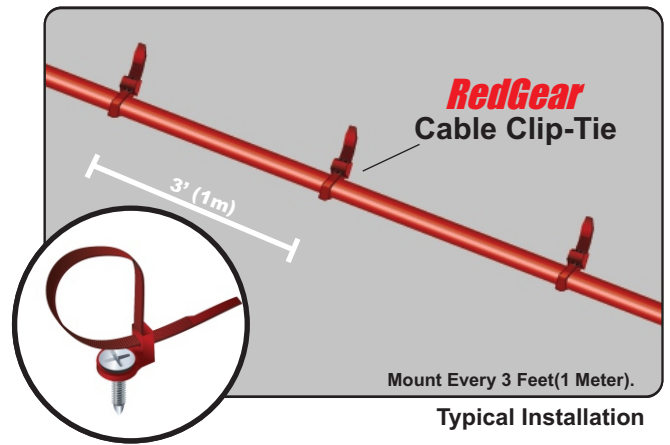
1 Piece Cable Clip-Tie

LESS LABOR TIME AND COST

ONE SIZE FITS ALL

RedGear **Cable Clip-Tie**

Fire Resistant Nylon 6.6
Rated from -100°F to 392°F(-73°C to 200°C. 3/16"
(4.8mm mounting hole. Used for most ceiling or wall
mount applications.

RedGear®

Now 1 Part Does The Work of 3

LESS LABOR TIME AND COST
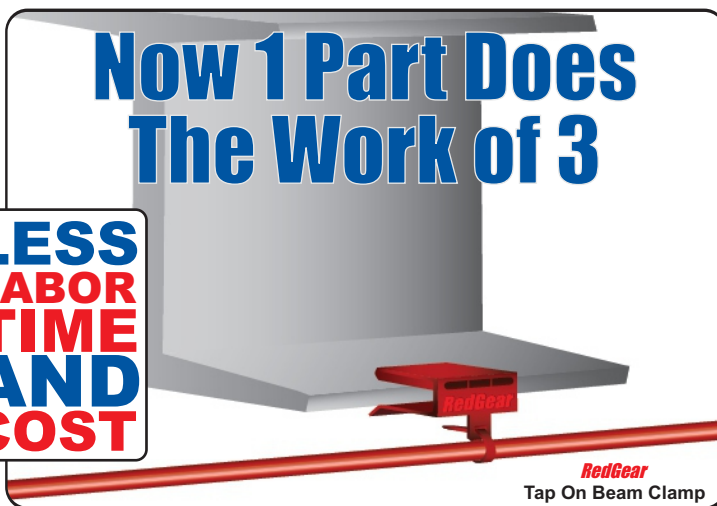
RedGear
Tap On Beam Clamp

RedGear®
MADE IN AMERICA

RedGear **Beam Clamp** (with Built-in Cable Tie)

Fire Resistant Nylon 6.6
Combines a beam clamp and cable tie all in one for easy use. Rated from
-100°F to 392°F(-73°C to 200°C).

Fits Beam Size:
1/4", 5/16", 3/8"

Fits Beam Size:
7/16", 1/2"

CABLE TRAY CLIPS

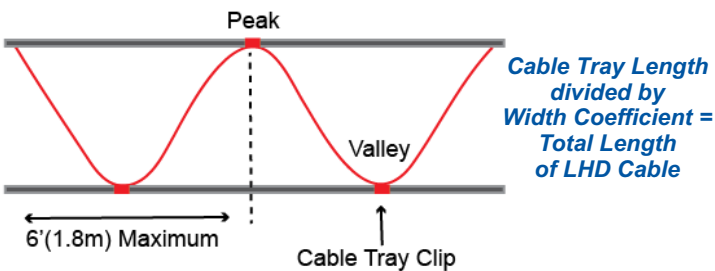*New all in one clip does the job of what used to take three parts*
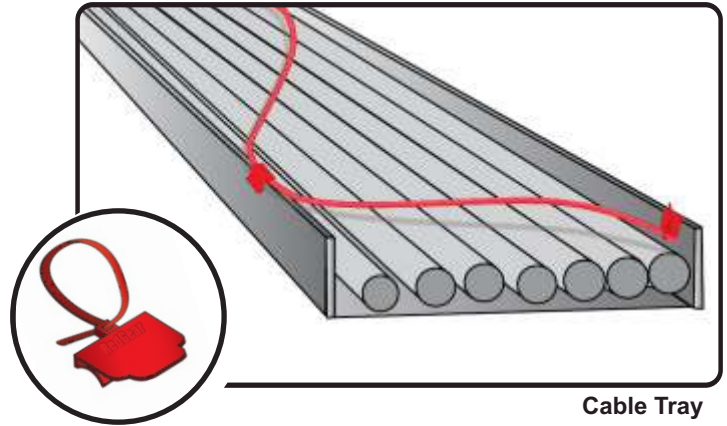
Cable Tray
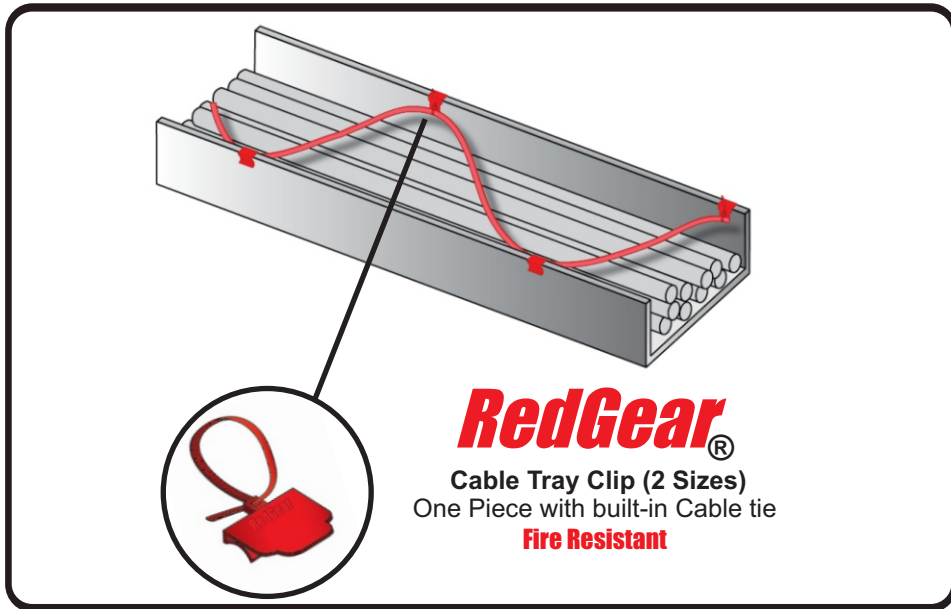
RedGear®
Cable Tray Clip (2 Sizes)
One Piece with built-in Cable tie
Fire Resistant

Cable Tray Clip

CABLE TRAY CLIP SPACING

Peak

Cable Tray Length divided by Width Coefficient = Total Length of LHD Cable

Valley

6'(1.8m) Maximum

Cable Tray Clip

Determine the number of clips you need by dividing the length of the cable tray by 3, then add 1.

Cable Tray Width	Width Coefficient
1'6"(.5m)	.87
2'(.6m)	.78
3'(.9m)	.65
4'(1.2m)	.57

Sine Wave Calculation for Cable Tray to determine amount of cable required

---

CABLE TRAY CLIP

RedGear

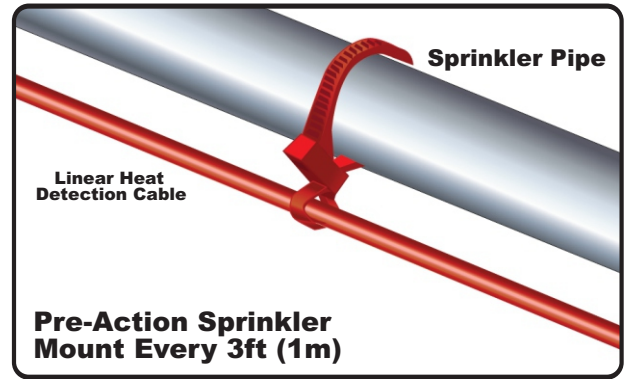**RedGear Cable Tray Clip**

Fire Resistant Nylon 6.6
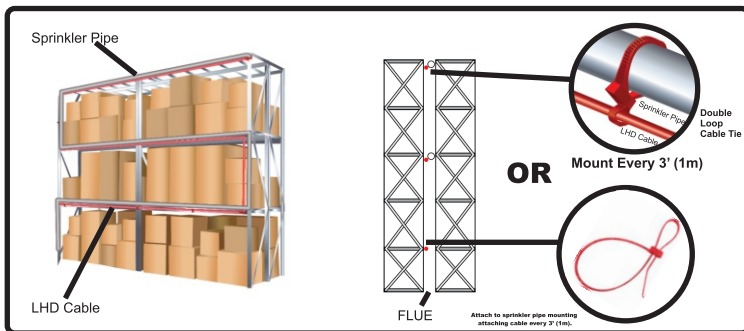Used in cable trays to mount LHD cable. Rated from -100°F to 392°F(-73°C to 200°C).

Cable Tray
Fits Tray Size: 1/16"-1/4"(1.6 - 4mm)

FREEZER MOUNTS

New Double Loop Cable Ties Developed For Pre-Action Sprinkler Pipe

Sprinkler Pipe

Linear Heat Detection Cable

Pre-Action Sprinkler Mount Every 3ft (1m)

FREEZER

Pre-Action Mount
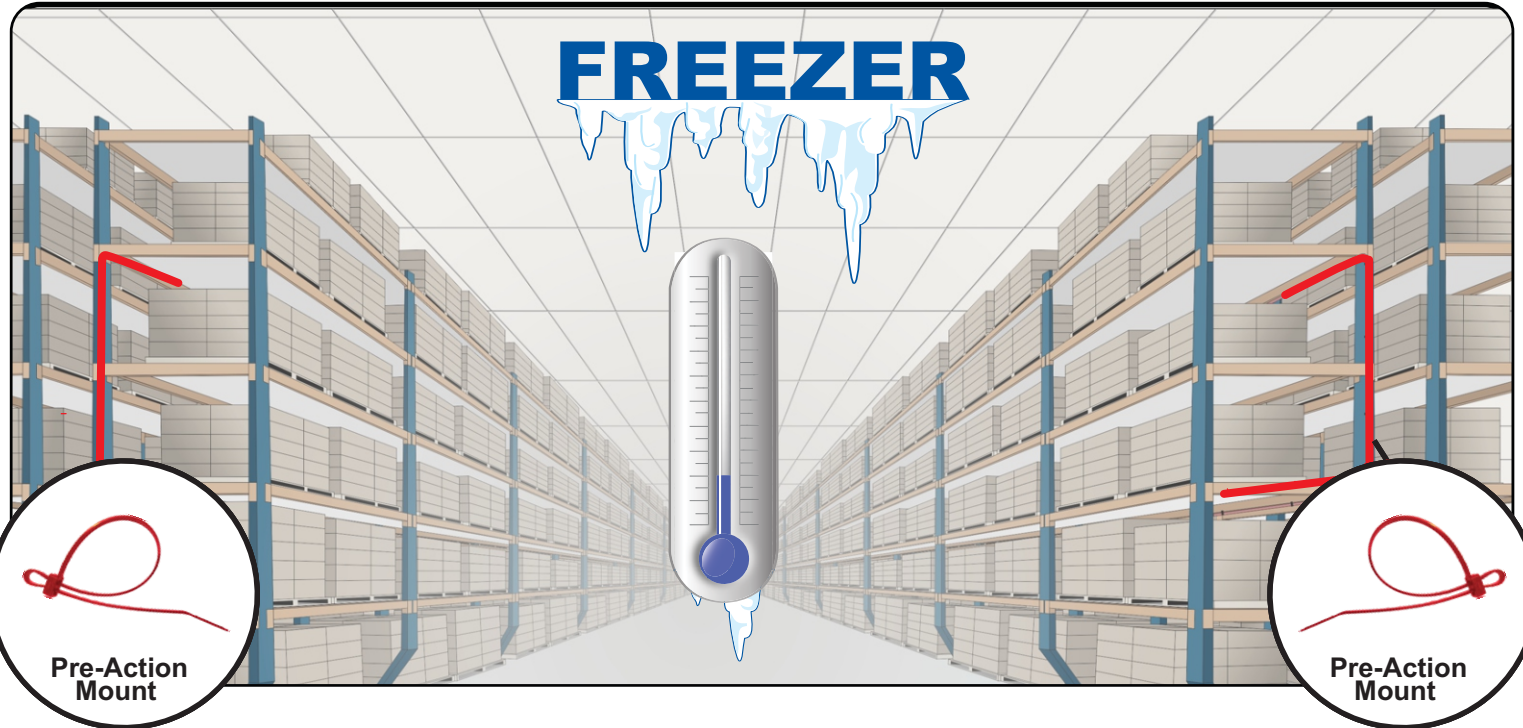
Pre-Action Mount

FREEZER RACK PROTECTION

Sprinkler Pipe

Sprinkler Pipe

Double Loop Cable Tie

LHD Cable

OR

Mount Every 3' (1m)

LHD Cable

FLUE

Attach to sprinkler pipe mounting attaching cable every 3' (1m).

FREEZER PREACTION MOUNTS

Fits Pipe Sizes
3/4"- 2"

RedGear Pre Action
Double Loop Cable Ties

Fire Resistant Nylon 6.6
Fits 3/4"-2" (2cm-5cm Pipe.
Very durable, highly reliable cable ties, use to mount LHD cable on Pre-Action Sprinkler Systems
For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C.
Length: 11 7/8" (30.16cm)

Fits Pipe Sizes
2 ½" - 3 ½"

RedGear Pre Action
Double Loop Cable Ties

Fire Resistant Nylon 6.6
Fits 2½" - 3½" (6cm - 8.9cm Pipe
Very durable, highly reliable cable ties use for cable ties, to mount LHD cable on Pre-Action Sprinkler Systems. For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C.
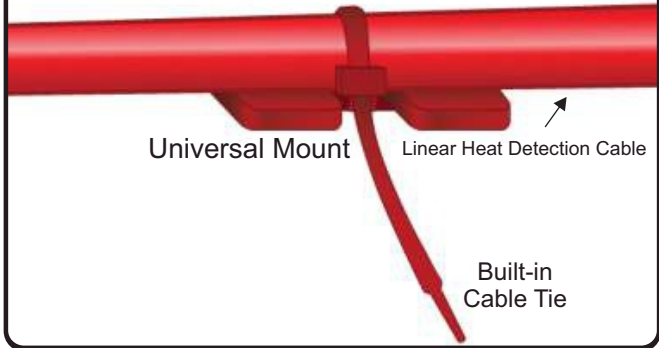Length: 14 7/8" (37.78 cm)

UNIVERSAL MOUNT

Surface, ceiling, racks, cabinets, walls, for use in all applications almost anywhere
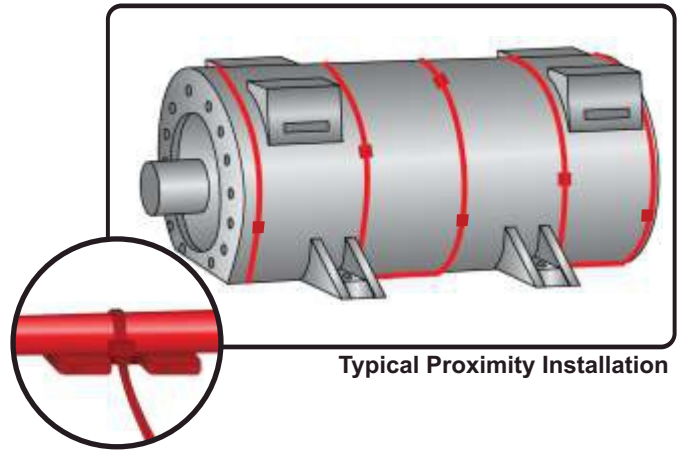
Typical Proximity Installation

NEW DESIGN

SURFACE MOUNT & CABLE TIE IN ONE

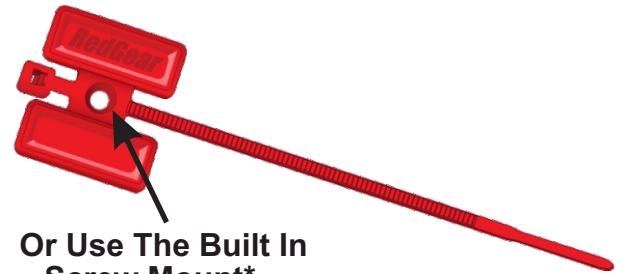Universal Mount   Linear Heat Detection Cable

Built-in
Cable Tie

TWO PARTS IN ONE

FIRE RESISTANT
One Size Fits All LHD Cables

Simply Apply Surface Mount Adhesive to Back

Or Use The Built In Screw Mount*

SURFACE MOUNT ADHESIVE or SCREW MOUNT

Standard Surface Mount Adhesive

For securing Mount to surface. Used with RedGear Surface Mounts to adhere to surface that cannot be drilled into.

---

2 IN 1 SURFACE MOUNT

RedGear

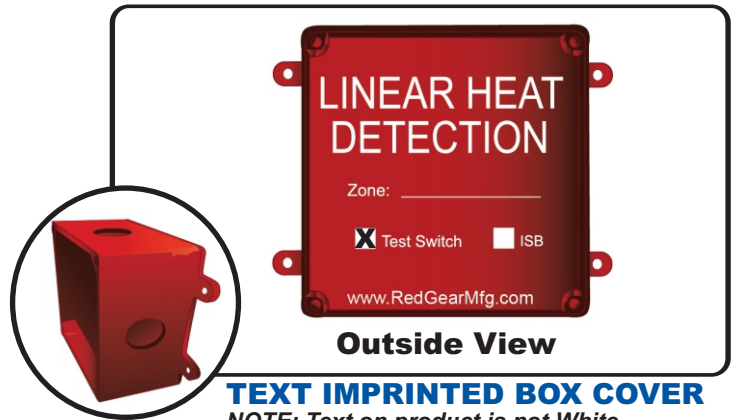**RedGear Universal Mount with Cable Tie**

Fire Resistant
Use with Surface Mount Adhesive or screws and bolts when drilling into mounting surface.
Temperature: Rated from -100°F to 392°F(-73°C to 200°C).

---

*Use the type, size, and length screw appropriate for your application

TEST SWITCH

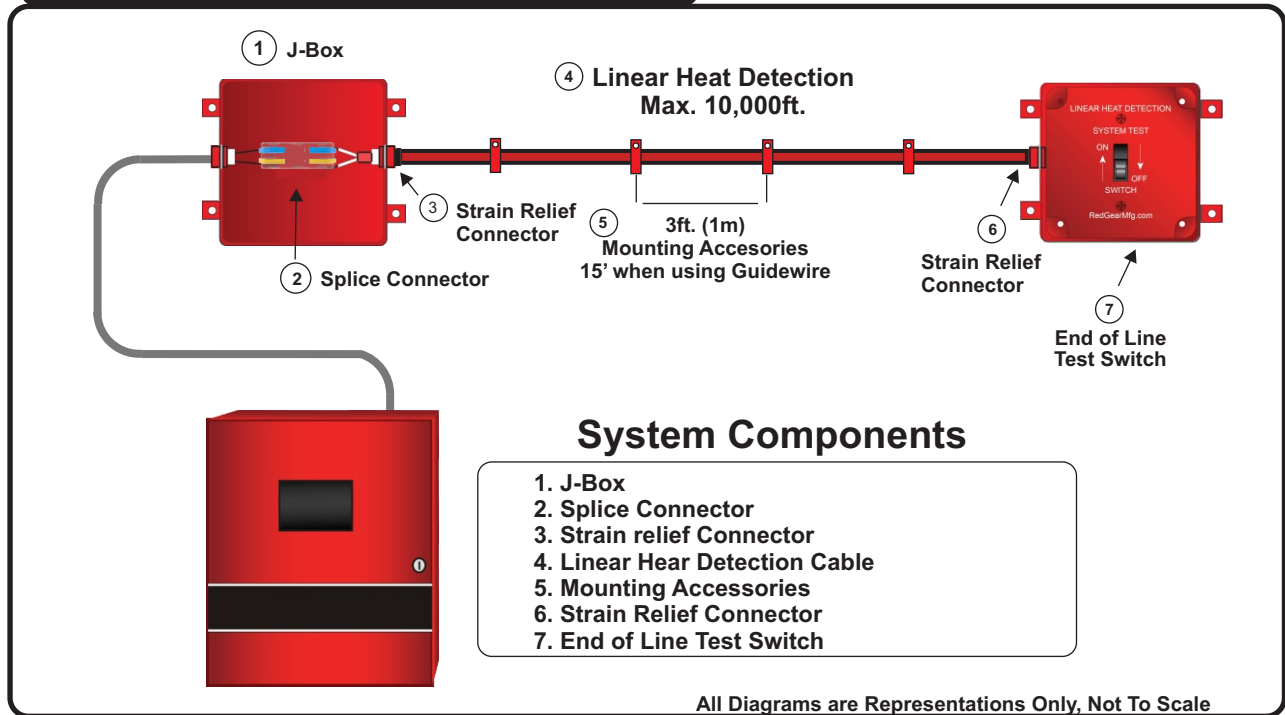*New easy to use test switch, no more complicated hard wired boxes now just flick of a switch*

LINEAR HEAT DETECTION

Zone: _____

☒ Test Switch ☐ ISB

www.RedGearMfg.com

Outside View

TEXT IMPRINTED BOX COVER
NOTE: Text on product is not White

LHD SYSTEM EXAMPLE

① J-Box

④ Linear Heat Detection Max. 10,000ft.

LINEAR HEAT DETECTION
SYSTEM TEST
ON
OFF
SWITCH
RedGearMfg.com

③ Strain Relief Connector

⑤ 3ft. (1m) Mounting Accesories 15' when using Guidewire

⑥ Strain Relief Connector

② Splice Connector

⑦ End of Line Test Switch

System Components

1. J-Box
2. Splice Connector
3. Strain relief Connector
4. Linear Hear Detection Cable
5. Mounting Accessories
6. Strain Relief Connector
7. End of Line Test Switch

All Diagrams are Representations Only, Not To Scale

Easy To Use Test Switch

LINEAR HEAT DETECTION
SYSTEM TEST
ON
OFF
SWITCH
RedGearMfg.com

INSIDE VIEW

IMPRINTED METAL SWITCH PLATE WITH NEW IMPRINTED LID

NEMA 4 (IP66)

END OF LINE TEST SWITCH

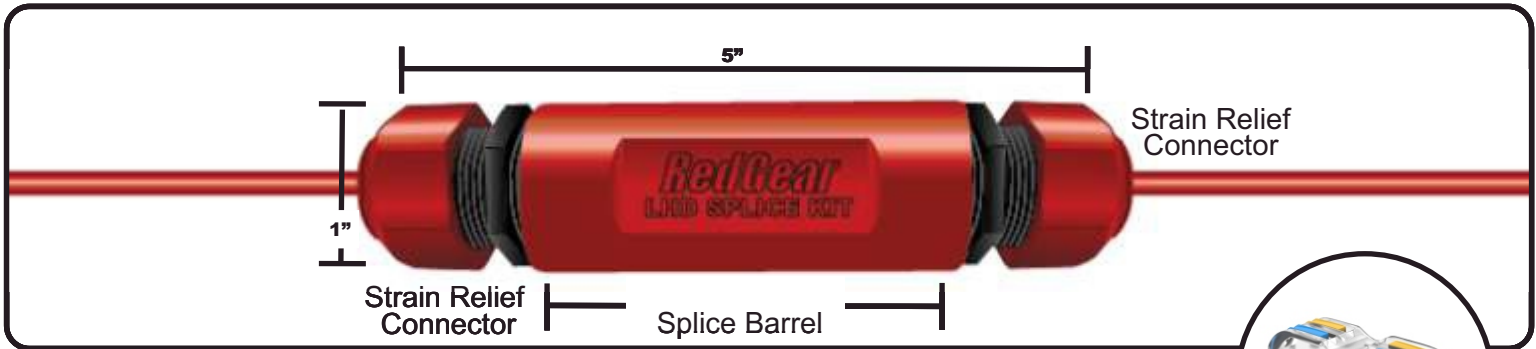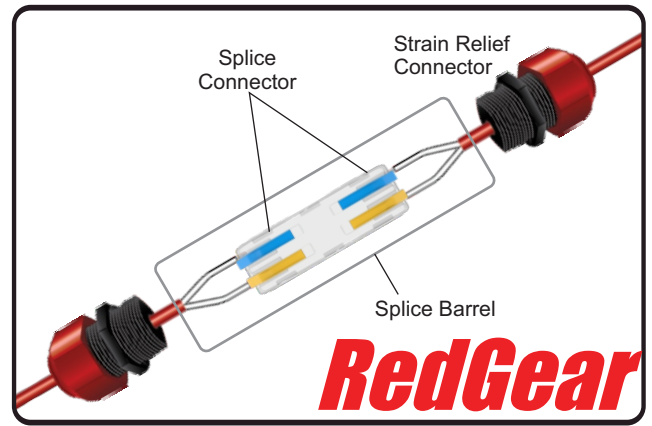LINEAR HEAT DETECTION
SYSTEM TEST
ON
OFF
SWITCH
RedGearMfg.com
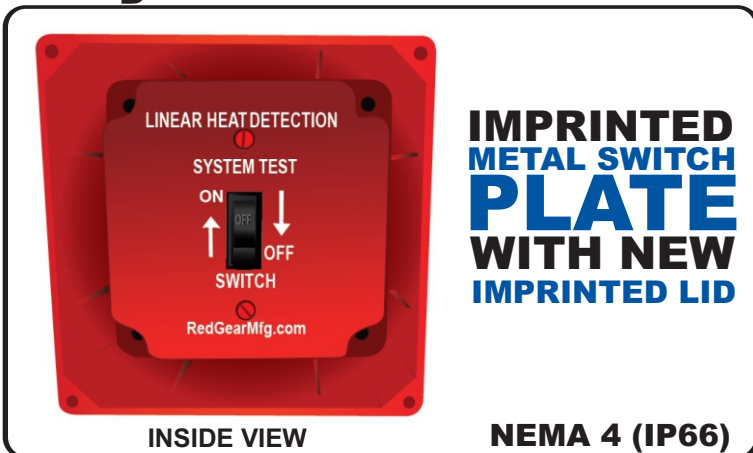
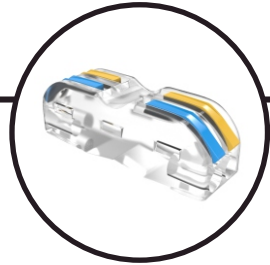**RedGear HD/ELR-Test Switch**
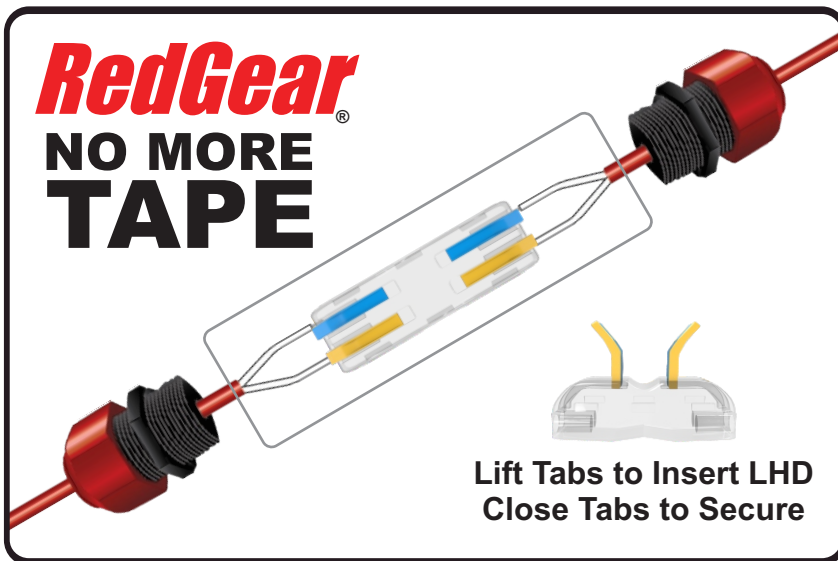
FIRE RESISTANT & EZ KNOCKOUTS

LHD
SPLICE KIT

Can Be Used to Join Together Cables During Installation, and Repair Broken or Alarmed Sections of LHD Cable.
No Need To Replace the Entire Cable

Splice Connector

Strain Relief Connector

Splice Barrel

RedGear

5"

1"

Strain Relief Connector

Strain Relief Connector

Splice Barrel

NEW WEATHERPROOF SPLICE FOR LHD
USE WITH QUICK SPLICE IN-LINE CONNECTOR

FAST & EASY TO INSTALL
IN DIFFICULT INSTALLATIONS

RedGear®

NO MORE
TAPE

Lift Tabs to Insert LHD
Close Tabs to Secure

TYPICAL SPLICE EXAMPLE:

NEW REDGEAR SPLICE KIT
NO MORE TAPE, NO MORE LEAKS

Existing Cable

Existing Cable

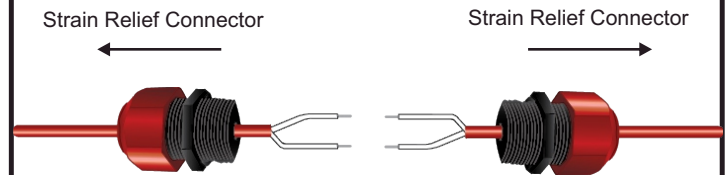New Cable

WEATHERPROOF

INSTRUCTIONS

1. Strip outer LHD jacket back 1"on one end of LHD to be spliced. Strip the inner conductors back ½". Repeat on the other LHD cable to be spliced.

2. Slide a Strain Relief connector on the end of each LHD cable. As illustrated.

Strain Relief Connector

Strain Relief Connector

3. Slide the splice barrel onto one of the LHD cable ends.

Splice Barrel

4. Lift the Splice Connector's tabs up, insert one end of the LHD cable ino to the Splice connector. Close the tabs to secure the cable.

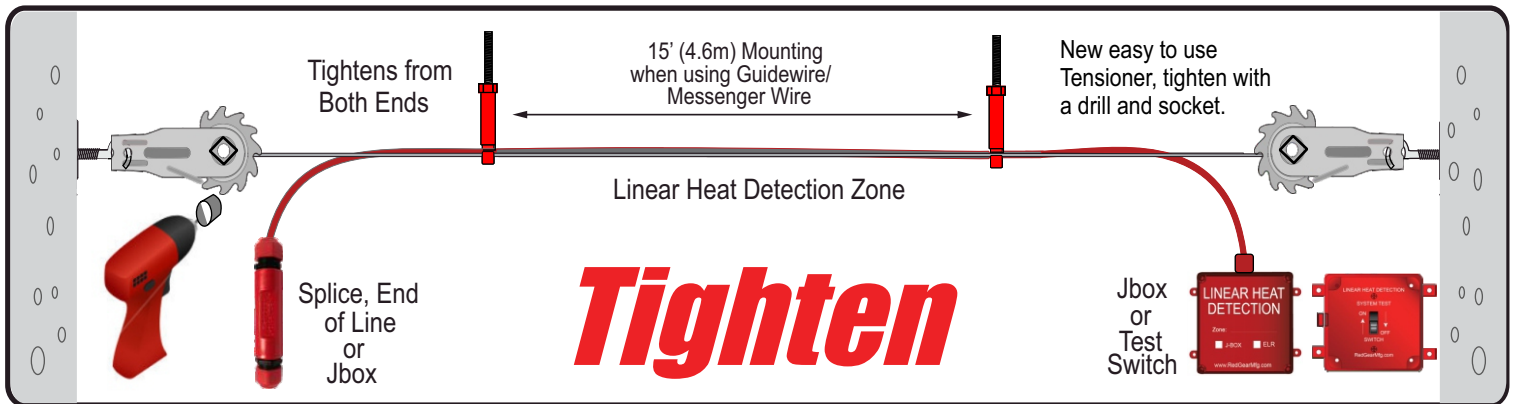Splice Connector Tabs

Lift Tabs to Insert LHD
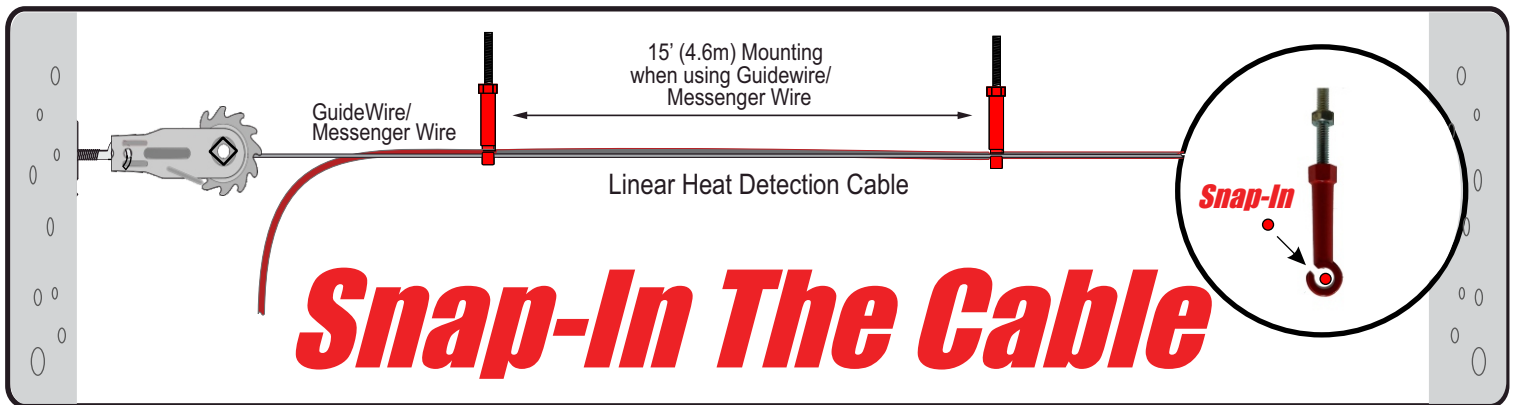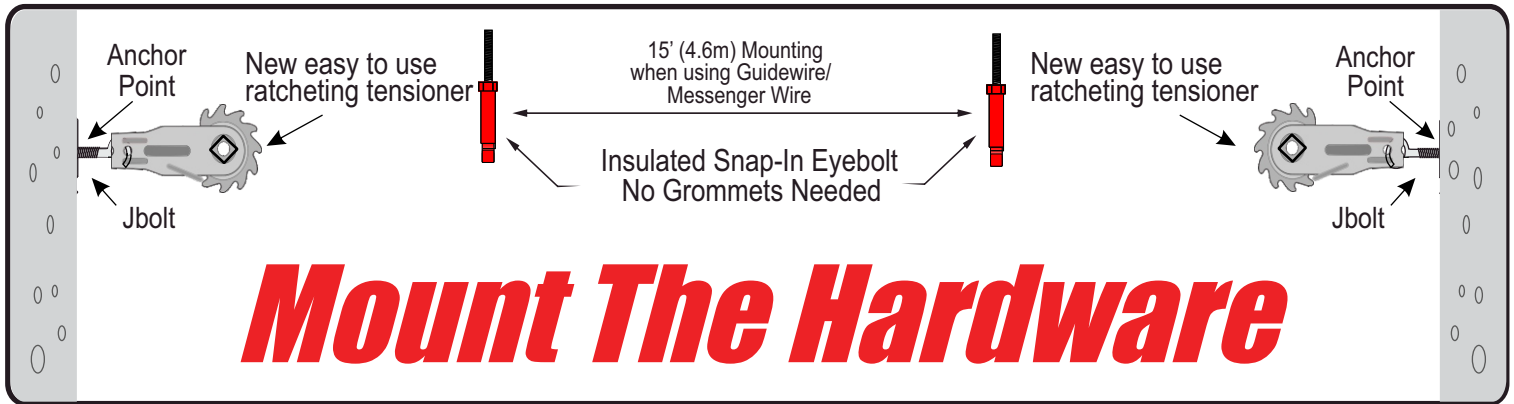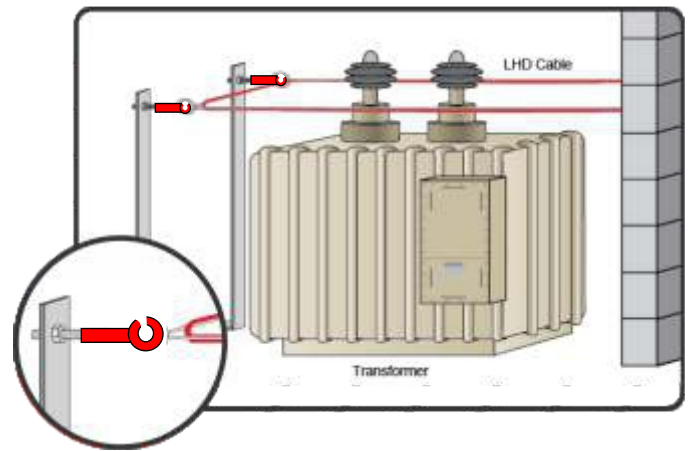Close Tabs to Secure

5. Repeat Step 4 to attach the other end of LHD cable to the opposite end of the Splice Connector, and complete the connection.

6. Slide the barrel over the connector, screw the two strain relief connectors onto the splice barrel, and tighten. You have completed your splice.

New GUIDEWIRE MOUNTING SYSTEM

LHD Cable

Transformer

Anchor Point | New easy to use ratcheting tensioner | 15' (4.6m) Mounting when using Guidewire/ Messenger Wire | New easy to use ratcheting tensioner | Anchor Point

Insulated Snap-In Eyebolt No Grommets Needed

Jbolt

Jbolt

Mount The Hardware

15' (4.6m) Mounting when using Guidewire/ Messenger Wire

GuideWire/ Messenger Wire

Linear Heat Detection Cable

Snap-In

Snap-In The Cable

Tightens from Both Ends | 15' (4.6m) Mounting when using Guidewire/ Messenger Wire | New easy to use Tensioner, tighten with a drill and socket.

Linear Heat Detection Zone

Splice, End of Line or Jbox

Jbox or Test Switch

LINEAR HEAT DETECTION
Zone
J-BOX   ELR
www.RedGearMfg.com

LINEAR HEAT DETECTION
SYSTEM TEST
ON
SWITCH
RedGearMfg.com

Tighten

NO MORE PRE-THREADING EYE BOLTS ON CABLE

Easy to use Tensioners • *No more grommets or Turnbuckles*
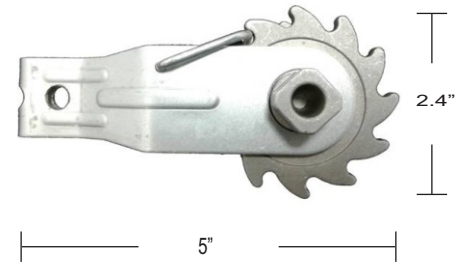
Snap-In Eyebolts

4.5"
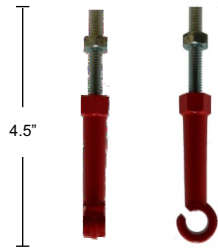
Insulated Snap-In Eyebolt
Zinc Plated or Stainless Steel
No Grommets Needed

For suspending LHD Cable every 15'.
Includes one 1/4" X 20 (6.4mm nut. Second nut
required to lock #RS7066ZC OR #RS7066SC.

Length: 4.5"

Snap-In Guidewire System

MADE IN THE USA

2.4"

5"

Guidewire Tensioner

New Guidewire/messenger wire tensioner.
Rated from   -100°F to 1000°F(-73°C to 200°C).

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