

PYROGEN TECHNICAL DATASHEET

Thermal Activated Device - Single LHD (TAD – SL)

Description:

The TAD – SL is a stand alone linear heat detector system with self contained power supply for activation of Pyrogen Generators

Construction:

The device consists of an aluminum casing connected to a digital Linear Heat Detector (LHD) cable at one end and a connector at the other end. An AA sized battery (min 1.5V) with long self life is placed in the casing to power the unit. The aluminum casing, battery and LHD are integral to the operation of the circuit thus removal of any part will disconnect the circuit. The casing can be opened at the LHD end by turning the cap anti-clockwise.

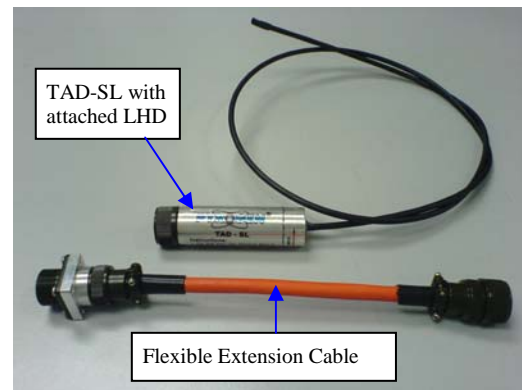
Note that this exercise is done only for the purpose of removing the seal to “arm” the unit or to replace the battery, and shall not be opened by any person other than the maintenance personnel.

The unit can be connected straight to the Pyrogen Generator or with the provided flexible extension cable.

Operation:

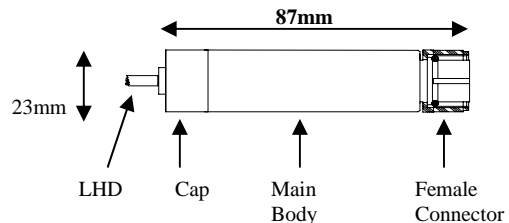
TAD - SL uses the LHD to act as a detector and a trigger. LHD cable operates by making a circuit in a fire condition or where LHD operating temperature levels are exceeded. The battery current will then activate the Pyrogen Generator.

TAD-SL has been designed to discharge a maximum of one Pyrogen generator only.



Thermal Activated Device – Single LHD (TAD- SL).

Dimension:



Product Specification/Limitations:

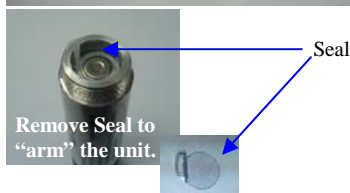
Model:	TAD - SL
Made In:	Malaysia
Battery :	Refer to attached battery Specs.
Dimension:	OD23mm x L87mm
LHD Type:	Alarmline Digital LHD - Part No:D5387-105 - Ref: H8028
LHD Max. Length:	2m
LHD Max. Operating Temp. :	Refer to attached LHD Specs.

Installation:

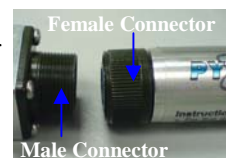
WARNING!

Before Proceeding, Please ensure the TAD-SL is isolated (not attached to Pyrogen generator).

1. Open cap to remove seal to arm the TAD-SL. Re-cap upon completion.



2. Insert the **TAD- SL** either straight to the Pyrogen Generator by mating the female connector with the male end or to the flexible extension cable. After which the female end of the extension cable should be connected to the Pyrogen



A TAD – SL unit connected directly to the Pyrogen Generator



A TAD-SL unit connected to a Pyrogen Generator using the supplied flexible extension cable.

- 3) "Nail" type cable clips should not be used on the LHD.
- 4) Care must be taken to avoid mechanical impact, unacceptable heat sources or other factors which may affect the functionality of the unit.

Caution: Avoid placing the unit near extreme heat area or excessive magnet field as it may affect battery lifespan and output.

WARNING!

Cutting the LHD while the TAD-SL has been "armed" and attached to Pyrogen generator may result in unwanted discharge.

Maintenance:

WARNING!

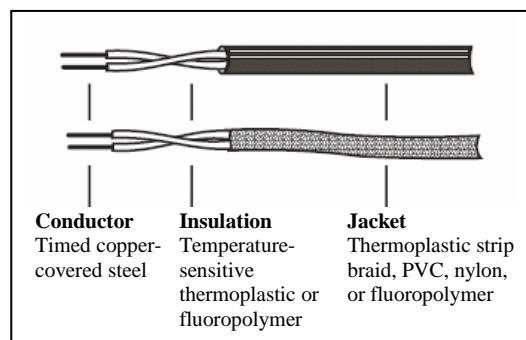
- **Isolate the TAD-SL from Pyrogen Generator during Battery Replacement.**
- Use a multimeter and set to voltage (dc) to check female connector hole 1&2 for any voltage. If there's no voltage, TAD-SL is ready for use. If there's voltage, repeat step 1 and check again.



1. Replace battery every 2 years.
2. Replacement battery should be as specified in the attached data sheet or better.

Alarmline Digital LHD Specification

- Tinned copper-covered steel Conductor diameter 0.9mm (nominal)
- Maximum conductor resistance (per km at 20°C) 100 ohms
- Voltage Rating 100V DC
- Insulation Material Temperature sensitive to 1.55mm thickness
- Inner Cores
H8028, H8040, H8040N, H8045, H8045N: each two cores (red, black) twinned together: 3.0mm dia (nominal).
- Outer Sheath
H8028: PVC (black): 4.25mm dia (nominal)



Battery Specification

Energizer L91 – AA size

Classification:	"Cylindrical Lithium"
Chemical System:	Lithium/ Iron Disulfide (Li/FeS ₂)
Designation:	ANSI 15-LF, IEC-FR6
Nominal Voltage:	1.5 Volts
Typical Weight:	14.5grams (0.5 oz.)
Typical Volume:	8.0 cubic centimeters (0.5 cubic inch)
Max Discharge:	2.0 Amps Continuous 3.0 Amps Pulse (2 sec on / 8 sec off)
Typical Li Content:	0.98 grams (0.03 oz.)
Typical IR:	90 to 150 milliohms*
Shelf Life:	15 years at 21(°C) (90% of rated capacity)
Part Number	D5387-105
Ref	H8028
Max. Ambient Temp. (°C)	70
Min. Alarm Temp. (°C)	101
Max. Alarm Temp(°C)	108
Appropriate Detection Time (secs) – small flame	10
Application	Internal/External

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Ref	H8028
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Min. Alarm Temp. (°C)	101
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Appropriate Detection Time (secs) – small flame	10
Application	Internal/External

NOTE: External cables should not be installed in direct sunlight and should be provided with a suitable cover

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