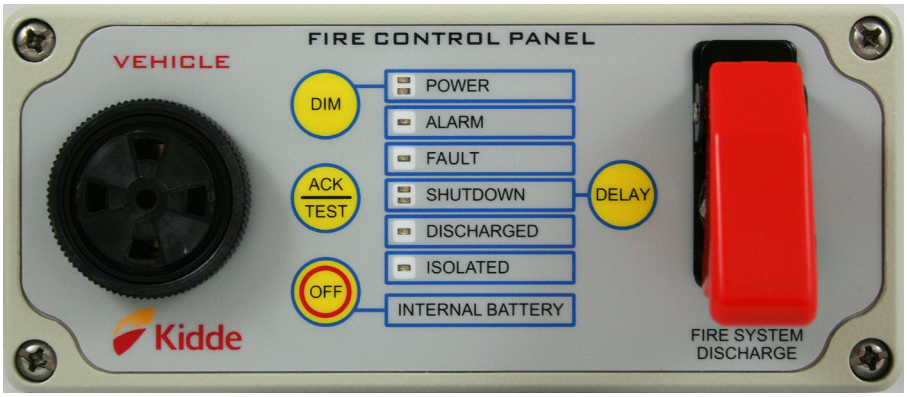
Kidde® Light Vehicle Panel detection & control

The latest in compact vehicle detection & control panels. Specifically designed for small mobile equipment such as mining 4WDs, forklifts, site generators, and other small to medium applications protected by Stat-X® aerosol suppression systems.



Developed and manufactured by Kidde in Australia to meet the requirements of AS 5062, the Light Vehicle (LV) panels have a comprehensive feature set. The panels are configurable so that each fire protection system can be tailored to meet individual customer, or equipment requirements. Detection and actuation circuits as well as power supplies are supervised. The panels incorporate a manual release, audible and visual alarms and internal back-up battery (in case of loss of vehicle power) in a single IP65 rated metal enclosure. The panel also incorporates an event log capable of storing up to 600 events.

The new panels are especially suited to Stat-X® aerosol suppression systems. They are capable of discharging up to 5 Stat-X® aerosol generators connected in series. The panel also incorporates a number of relay outputs which can be used to interface with engine shut down or operation of auxiliary audible and visual alarms.

The light vehicle (LV) panel [Part No. 001926] has been designed and tested to meet the requirements of Australia Standard AS 5062, Fire protection of mobile and transportable equipment.

It incorporates visual and audible alarms and manual controls in a single, weatherproof enclosure and is suited for use in small vehicles, such as, four wheel drive (4WD), in forklifts, generator sets and other mobile equipment.

Immunity to electromagnetic interference

Most industrial environments produce high levels of electrical noise, so the LV panel has been compliance tested for immunity to electromagnetic interference according to the requirements of Australian Standard AS 61000.6.2:2006, Electromagnetic compatibility (EMC) – General standards – Immunity for industrial environments.

To minimize the effects of electromagnetic emissions from high energy sources the LV panel input cables should not be run parallel, or in close proximity to any cables or equipment that may produce high RF (radio frequency) energy.

For example, cabling for RF transceiver antennas, inverters, motors etc.

Typical applications

- Vehicle Engine Compartments
- Bus Engine Compartments
- Crane engine Compartments
- Shovels, dragline excavators, mobile tools
- Pumps and generators
- Drilling jumbos
- Forklifts
- Small to medium mobile equipment machinery spaces

The Light Vehicle panel

- Supports automatic fire detection, alarm and control of the fire suppression system.
- Incorporates a manual discharge switch (fire system discharge) to allow the manual operation of the fire suppression system.
- Display provides visual indications of system status, alarms, and faults.
- Allows manual extension of the equipment shutdown delay

Light Vehicle Panel: Features and Specifications	
Feature	**Description**
Battery backup	Field replaceable, nonrechargeable, lithium 9 V battery.
Electrical field connections	IP65rated Deutsch DT series connectors.
Enclosure	IP65rated metal enclosure.
Indications	• ALARM – red LED • Buzzer • DISCHARGED – red LED • FAULT – amber LED • ISOLATED – amber LED • POWER – FAULT amber LED • POWER – ON green LED • SHUTDOWN – amber and red LEDs
Inputs	• 1 detection input (supervised for open circuit and earth faults). Suitable for use with LHD cable and thermal probes. • 1 discharge confirmation input (latching).

Manual controls	• ACK/TEST – push button used to:
	  • Test (panel idle) – operates all audible and visual indicators and auxiliary output.
	  • Acknowledge – suppresses audible fault and alarm indications.
	• DELAY – shutdown extension push button.
	• DIM – push button used:
	  • In the normal state to adjust the brightness of the LED indicators.
	  • In a FAULT state to provide access to the faultfinding diagnostic function (common system faults).
	• FAULT – fault finding function to identify fault type.
	• FIRE SYSTEM DISCHARGE – a missilestyle.
	• INTERNAL BATTERY – OFF push button.
	• ISOLATE - push button located on panel printed circuit board (PCB). Used to isolate actuation, shutdown and auxiliary outputs for testing purposes.
	• System reset – used to reset panel following fault or alarm indications.

Outputs	• 1 auxiliary output relay, (singlepole, doublethrow) rated for 2 amps. • 1 discharge output (supervised for open circuit and earth faults). Capable of activating of up to a maximum of 5 StatX® aerosol generators, connected in series. Configurable: • For manual or automatic activation. With discharge delay periods of: 0 (default), 5, 10, 15, 20, 30 and 40 seconds, OR To coincide with shutdown output operation. • 1 engine shutdown relay, (singlepole, doublethrow) rated, for 2 amps with selectable delay periods of: 0 (default), 5, 10, 15, 20, 30, 40 and 60 seconds.
Power supply	Nominal 8 to 30 V DC.

Shutdown and Auxiliary Relays: Specifications	
Feature	**Description**
Type	Latching
Contact arrangement	FormC, SPDT (changeover)
Nominal switching capacity	2 A, 30 V DC
Maximum switching power	60 W, 125 V A
Maximum switching voltage	48 V DC
Maximum switching current	2 A

Warranty

Kidde Australia warrants to the Customer that each new Light Vehicle Panel is free from defects in material and workmanship under normal use for a period of twelve (12) months from the date of commissioning of Stat-X® system. Please refer to Kidde's Terms and Conditions of Sales and for full details

Stat-X® highly-advanced fire suppression technology offers a highly compact and economical fire extinguishing solution. A Stat-X® unit consists of an extremely rugged, hermetically sealed, stainless steel canister containing a stable, solid compound. The canister is durable and non-pressurized, and is capable of withstanding harsh, corrosive environments. In the event of a fire, Stat-X units automatically release ultra-fine particles and propellant inert gasses which quickly and effectively extinguish fires without depleting oxygen levels and has zero Ozone Depletion Potential (ODP) and zero Global Warming Potential (GWP).

Stat-X® Fire Suppression Systems - Advanced Technology

Compared to traditional pressurized gas or chemical agent piped systems Stat-X® advanced technology is economical to install and own. No special storage space or distribution piping is needed. And since the Stat-X® agent is generated only when the system actuates, you don't have regular agent level inspections or containers to weigh and hydro-test over the years. When discharged, the aerosol agent remains buoyant protecting the space for an extended period of time. Afterwards, it is easily vented out for clean-up leaving little residue. Spent Stat-X® units are simply replaced and the system can be restored.

Key Benefits of Stat-X® Fire Suppression Technology

- Highly effective fire suppression
- Compact, light and durable, 90% less weight and space required compared to gaseous suppression systems
- Rugged stainless steel construction
- Virtually maintenance-free
- 10+ year service life
- Easy to install
- Easy replacement, no recharging or refilling
- Minimal residue after discharge
- Non-corrosive, non-conductive, non-toxic (when designed and operated to listing requirements)
- Reduced downtime for mining operations
- Zero Ozone Depletion and Zero Global Warming Potential
- UL and multiple international approvals and certifications

Stat-X® vehicle and marine systems must only be designed, installed, and commissioned by technicians accredited by Kidde Australia.

Kidde Australia assumes no responsibility for the application of any systems other than those addressed in the Light Vehicle Installation and Maintenance manual. The technical data contained herein is limited strictly for informational purposes only.

All information contained in this document is based on the latest product information available at the time of preparation and Kidde reserves the right to make changes at any time without notice.

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