LORIENT

TALKBACK DAMPER CONTROL SYSTEM

SPECIFICATION OVERVIEW

TALKBACK DAMPER CONTROL SYSTEM

All ducts and airways in doors and walls can be protected against fire and hot smoke using Lorient intumescent air transfer grilles. However, these grilles will not prevent the passage of cold smoke which can be equally dangerous.

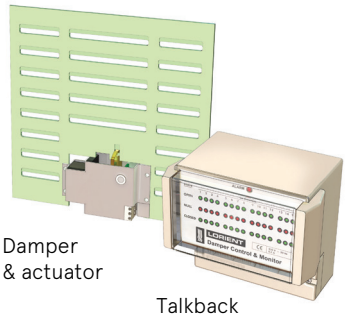
To address this problem Lorient has developed a smoke damper/shutter assembly for use in conjunction with Lorient intumescent air transfer grilles.

The unique 2-way communication system between the Damper Control & Monitor Unit (DCM) and the damper actuators facilitates rapid assessment of serviceability of the installation and immediately identifies the location of a defective damper.

The "Talkback" system comprises a "Damper Control & Monitor" (DCM) and up to 16 uniquely addressed damper/shutter assemblies. The interconnecting 3-core cable can be installed as a "ring" for greater reliability and maximum range, or it may be spurred if necessary.

An extra optional audio warning device (AMS) can be connected to the DCM wiring circuit as shown in diagram "A" (pg.5). This device would be incorporated to draw attention to the DCM status display in the event of a fault occurring. It may also be connected to the B.M.S to provide a fault indication.

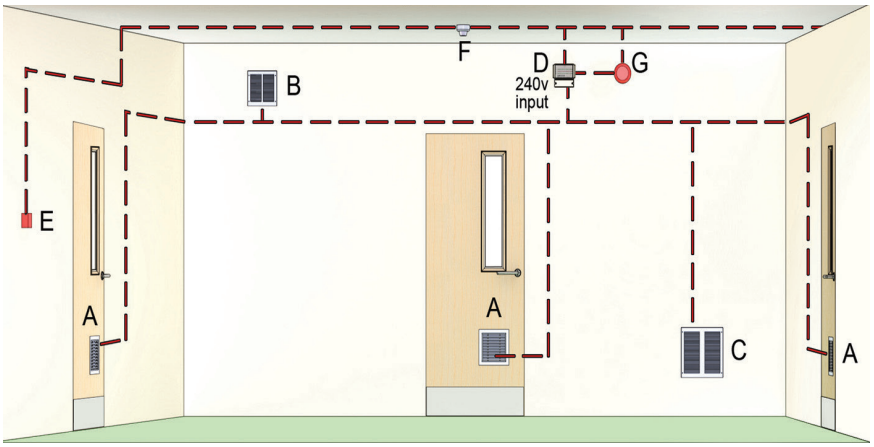
PLEASE NOTE
The DCM also incorporates connection for a battery backup option, as shown in wiring instructions. An appropriate re-chargeable battery and enclosure is available from Lorient if required.

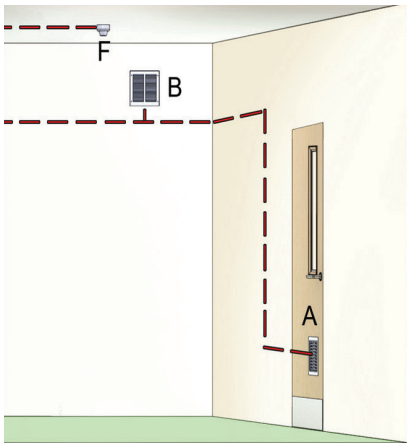


Damper & actuator

Talkback DCM

TYPICAL INSTALLATION OF THE LORIENT TALKBACK SYSTEM





A: Door mounted fire and smoke dampers
B: End of duct fire and smoke dampers
C: Wall mounted fire and smoke damper
D: Power and monitor unit

E: Fire point
F: Smoke sensors
G: Fire alarm

TALKBACK DAMPER CONTROL SYSTEM

The talkback system offers a number of operating features as standard, including:

FAIL SAFE	Designed to close automatically in the event of a fire alarm being activated, a power failure or wiring damage.
AUTO RESET	Will reset automatically to the open position when the fire alarm is cancelled or power restored.
AUTO CYCLING	Once in every twenty-four hours each damper/shutter is closed and re-opened to prevent a build up of dust or debris between moving parts.
RING WIRING	Up to 16 dampers/shutters can be connected via a 3-core cable that can be arranged in a ring. The Damper Control & Monitor powers the dampers/shutters using only safe low DC voltages.
CONTINUOUS MONITORING	"Talkback" dampers/air transfer grilles are monitored continuously by the Lorient DCM which identifies the status of each individual damper/shutter through its unique address.
POSITIVE CLOSING	Energy stored within a capacitor on each damper/shutter actuator is used to power the electric motor to the closed position in the event of a fire alarm being activated.
SOLID STATE	Solid state microchip technology is employed to provide versatility and reliability.
ASSEMBLED / TESTED	Each damper/shutter is assembled and fully tested at Lorient, therefore requiring no adjustment to the mechanism on site, facilitating simple installation. It is only necessary to confirm that each damper has been allotted its own address and resetting if required.
COMPATIBILITY	The "Talkback" system is designed to interface with any fire alarm panel and subsequent to the initial installation, additional dampers/shutters can be incorporated up to a maximum of 16 per DCM.
C E MARKING	Successfully tested in accordance with the requirements of Electro Magnetic Compatibility and Low Voltage Directive, and therefore bears the CE mark. (Conformité Européen).
ADDRESSABLE ACTUATORS	Each actuator address number can be set on site but dampers must not be allotted a shared number on the same DCM.

Optional features:

AUDIO WARNING	An extra optional audio warning device (AMS) can be connected to the DCM wiring circuit as shown in Diagram "A". This device would be incorporated to draw attention to the DCM status display in the event of a fault occurring.
B.M.S MONITORING	The Audio Monitor can be used to communicate with a BMS or fire panel. A no volt contact (normally open) is provided for within the AMS in order to provide a fault indicator to the BMS.
BATTERY BACK UP	The DCM incorporates a connection for a battery back up option. An appropriate re-chargeable battery and enclosure is available from Lorient if required.

TALKBACK DAMPER SPECIFICATION TABLE

ATG MODELS:	LVN20S, LVH20S, LVH44S, LVV40S, LVHCTD, TALKBACK
TEST STANDARDS	BS 476-31/31.1 BS 476-20/22 BS EN 1364-5 (LVV40S & LVH44S) AS 1530-4 (LVH20S) EN 58001-1: 1992 EN 58002-1: 1992 IEC 1010-1: 1990, Amendment 1: 1992 & Amendment 2: 1995
DESIGNATION	Smoke Control Shutter System. Provides Fire & Smoke resistance in conjunction with Intumescent Air Transfer Grille.
APPLICATION	Door, Wall & Duct: Effective for cold smoke.
SUPPLY VOLTAGE	230 VAC 50/60 Hz
OUTPUT VOLTAGE	12.8 VDC
INPUT TRIGGER FIRE PANEL	24 VDC or No Volt Contact
B.M.S TRIGGER	No Volt Contact
SHUTTER ACTUATOR CURRENT DRAW	5mA per actuator in open position / 200mA on opening
BATTERY BACKUP (OPTIONAL)	Capacity 12 VDC 1.2 Ah
CABLE RUNS	**Ring Circuit (Max 1 Circuit):** 1.5mm2 3 core cable max 150m 2.5mm2 3 core cable max 250m **Radial Circuit (Max 2 Circuits):** 1.5mm2 3 core cable max 75m 2.5mm2 3 core cable max 125m
DCM DIMENSIONS	165 w x 155 h x 125 d mm
BATTERY BACKUP DIMENSIONS	160 w x 120 h x 72 d mm
AMS DIMENSIONS	105 w x 105 h x 55 d mm
SMOKE SHUTTER DIMENSIONS	Max size determined by ATG choice and application. Various options covered under third party certification : Certifire CF564
DCM CONNECTIONS	Mains Supply: (+ve / -ve) Alarm Interface 1: 24V Normally On (+ve / -ve) Alarm Interface 2: 0 Volt Normally Closed (+ve / -ve) Supply/Signal 1: 12.8 VDC (+ve / -ve / Sig) Supply/Signal 2: 12.8 VDC (+ve / -ve / Sig) Battery Backup: (+ve / -ve)
SYSTEM MONITORING	Auto cycles each damper every 24hrs DCM displays damper status (Open/Closed/Fault or Not Connected) Communication between DCM & damper every 10s Fail Safe within 10s of signal loss Manual Test override for alarm simulation

WIRING LAYOUT

TALKBACK DAMPER CONTROL SYSTEM – SCHEMATIC WIRING INSTALLATIONS

DIAGRAM A:
Ringed wiring installation

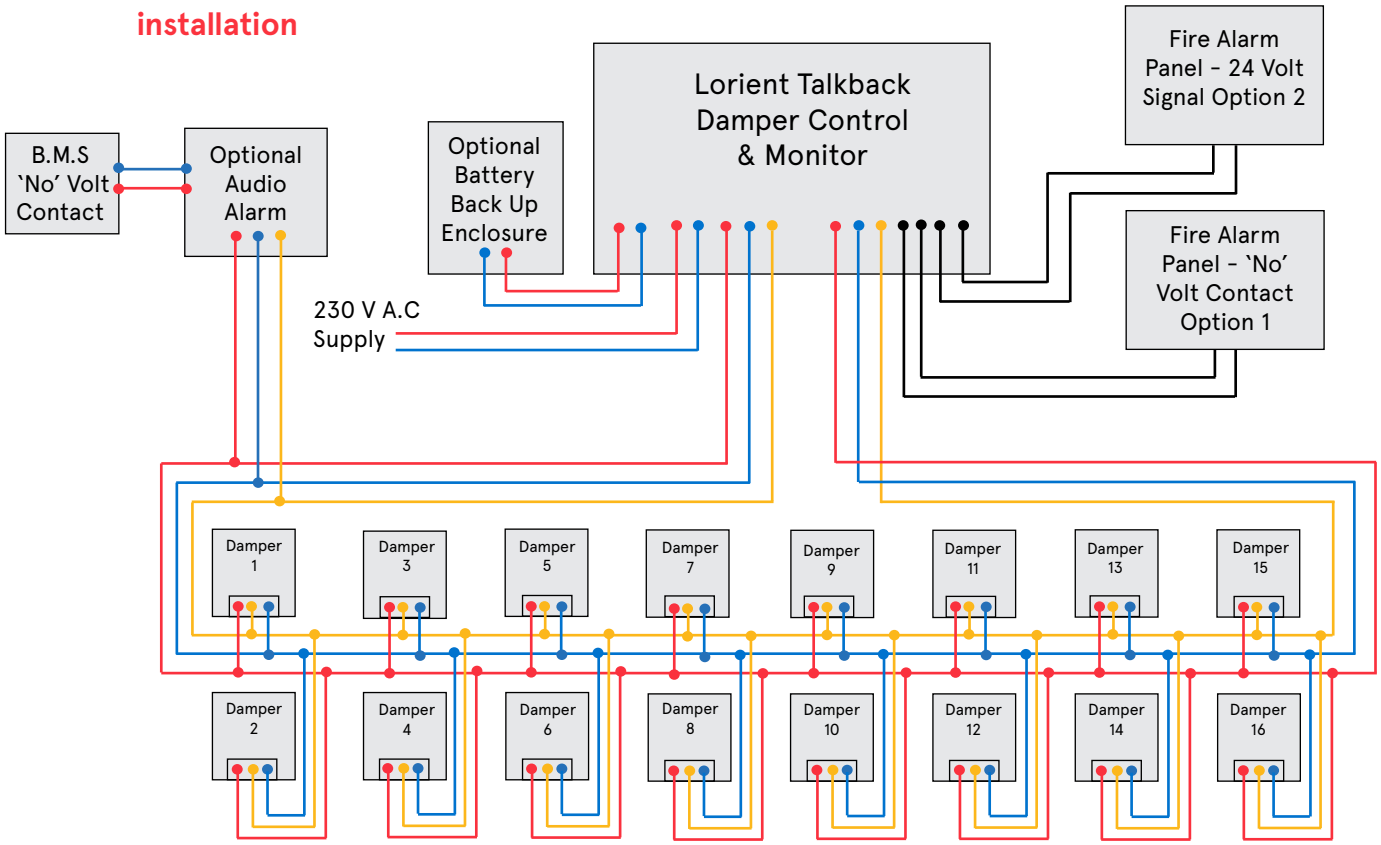
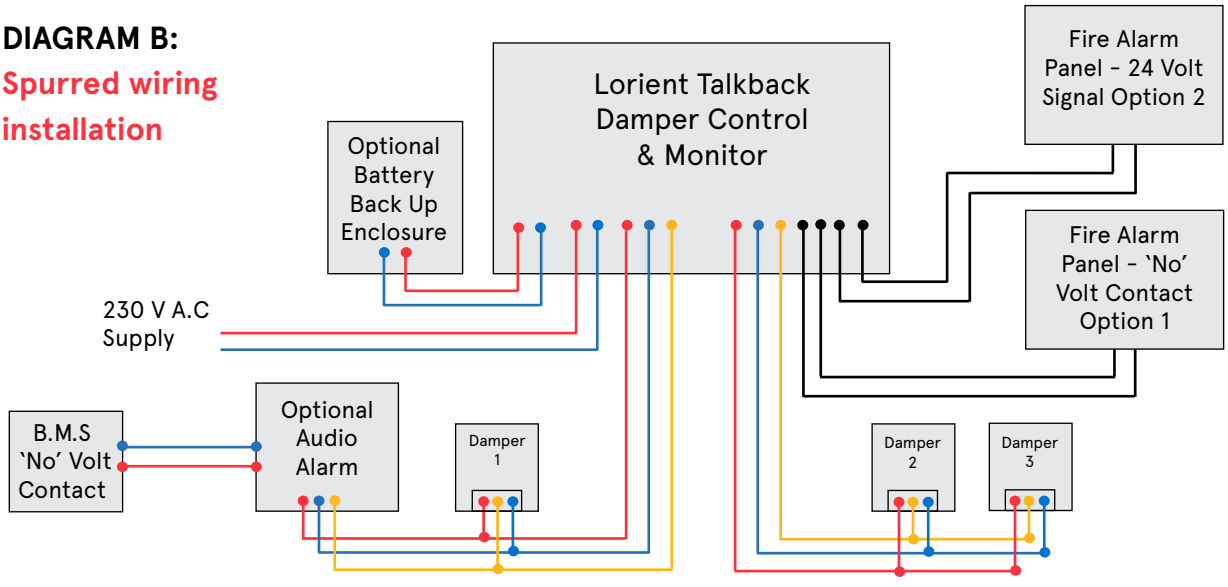


DIAGRAM B:
Spurred wiring installation



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