SRS-248

TFSR-10

Smoke release System

Technical instructions

Talfire Fire and Gas Detectors Ltd.

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Please n o t e

Do not install, operate, or perform maintenance on the equipment before reading and fully understanding this instruction manual.

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1 Introduction

The smoke release system is manufactured in-house by **Talfire**. The system consists of a control unit from the zones in the building enables the creation of and and fire doors smo ke And motors installed in windows BCF-10326 are safe, as a command from the fire detection control panel allows smoke to be automatically released from those smoke windows and/or fire doors. In buildings where smoke cannot be released automatically in the event of a fire, the smoke release control panel will be forced to open the smoke windows and fire doors manually, allowing smoke to be released as required.

The BCF-10326 series smoke release control panel interfaces with the 7000/3000 series addressable fire detection control panels and the conventional control panels of the TSA series.In the event of a fire, the fire detection control panel will send a command to the smoke release control panel to open windows and doors for smoke release. The smoke release control panel is also controlled by an external command controller, which allows for manual opening or closing of windows and doors.

The system's motors are designed and operate in accordance with European standard EN-12101-2.

The system is approved by the Israeli Standards Institute and can be operated by connecting directly to a fire alarm control panel using ADR-723 (relay) or ADR-741 output modules.

Safety notes and warnings

- This system shall be installed and maintained in accordance with Israeli Standard 1220 SI Parts 3 and 11 by a certified technician only.
- This manual must be read and understood before installation and operation;
- The system's hub is designed to operate on mains power in the range of 230 V AC ±15%/+10% and pair Backup batteries with a voltage of 12 V and a capacity of 7 Ah;
- This unit must be grounded;
- It is essential to carefully follow the instructions contained in the section **Error! Reference source not found.** "**Error! Reference source not found**;**".**
- The hub is protected by fuses located both in the main power supply (230V) and in the backup power source (battery; 12V*2).
- All connections to the hub must be made when it is disconnected from the mains and battery power.
- When the hub is in operation, handle it with care to avoid the risk of electric shock.
- When performing work inside the hub enclosure, ensure that it is disconnected from the mains power supply (230V) to prevent the risk of electric shock. The backup battery must also be disconnected because there is a dangerous level of energy inside the hub.

- Do not expose the hub to moisture, rain, or any other liquid. Keep the hub away from objects or containers with liquids that could accidentally spill through the ventilation openings into the hub.
- Position the hub so that the ventilation openings are not blocked.
- Only use batteries with the voltage and capacity specified in this manual for backup power.
- Replace batteries in the hub with the same voltage and capacity as specified in the technical instructions – do not connect batteries with a configuration other than 12 V nominal voltage;
- Do not connect the battery hub with polarity opposite to that indicated on the input connectors. Doing so will damage the hub and void the manufacturer's warranty.

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- When assembling the hub, use tools such as pliers or screwdrivers with extreme caution to avoid damaging the electronic card.

3 Operating the smoke release hub

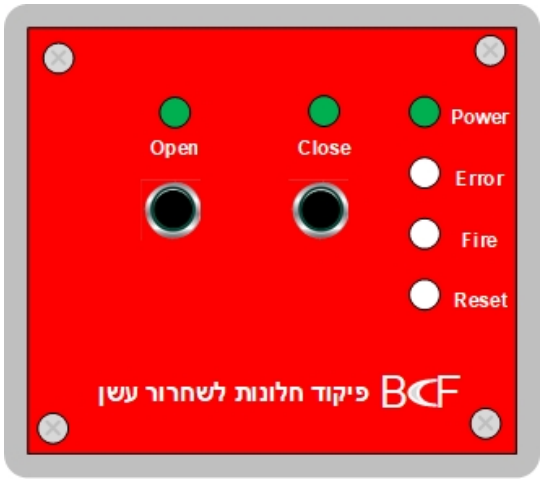
The smoke release control panel is quick and easy to operate. All initial installation, configuration, and programming are performed directly via the fire detection control panel keys or using **Telepire's TCS-7030** configuration software, without the need for additional accessories. The hub's configuration allows for great flexibility in design and installation, ranging from a smoke release system for small buildings that operates 10 motors to a smoke release system for medium and large buildings that operates 20 motors.

- The system is modular and expandable;
- Maximum flexibility in design and installation - up to 20 motors can be operated;
- Up to 8 systems can be connected using only a communication cable.
- Up to 8 controllers (control panels) can be connected using only a communication cable.

Advanced control and maximum reliability 3.1

The BCF series smoke release systems are designed and manufactured to provide installers and facility owners with peace of mind and operational reliability for years to come. Control and protection devices enable regular and stable operation of the system without fear of malfunctions or system shutdowns, while providing alerts via indicator lights regarding malfunctions, fire events, and system integrity.

System components 3.2



✓ The system serves two purposes: smoke release in an emergency and ventilation;

✓ Manual/automatic opening and closing by external control;

✓ The **OPEN/CLOSE** buttons are used to open or close the windows;

✓ The **RESET** button is used to reset the control panel (only after the command from the control panel to detect fire has been stopped);

✓ When the **POWER** light is on, the hub is functioning properly;

✓ The **ERROR** light is on when there is a malfunction;

✓ The **CLOSE** light is on when the operation is complete and flashes during operation;

✓ The **OPEN** indicator is lit when the operation is complete and flashes during operation.

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3.3 Electrical connection of smoke release control panel

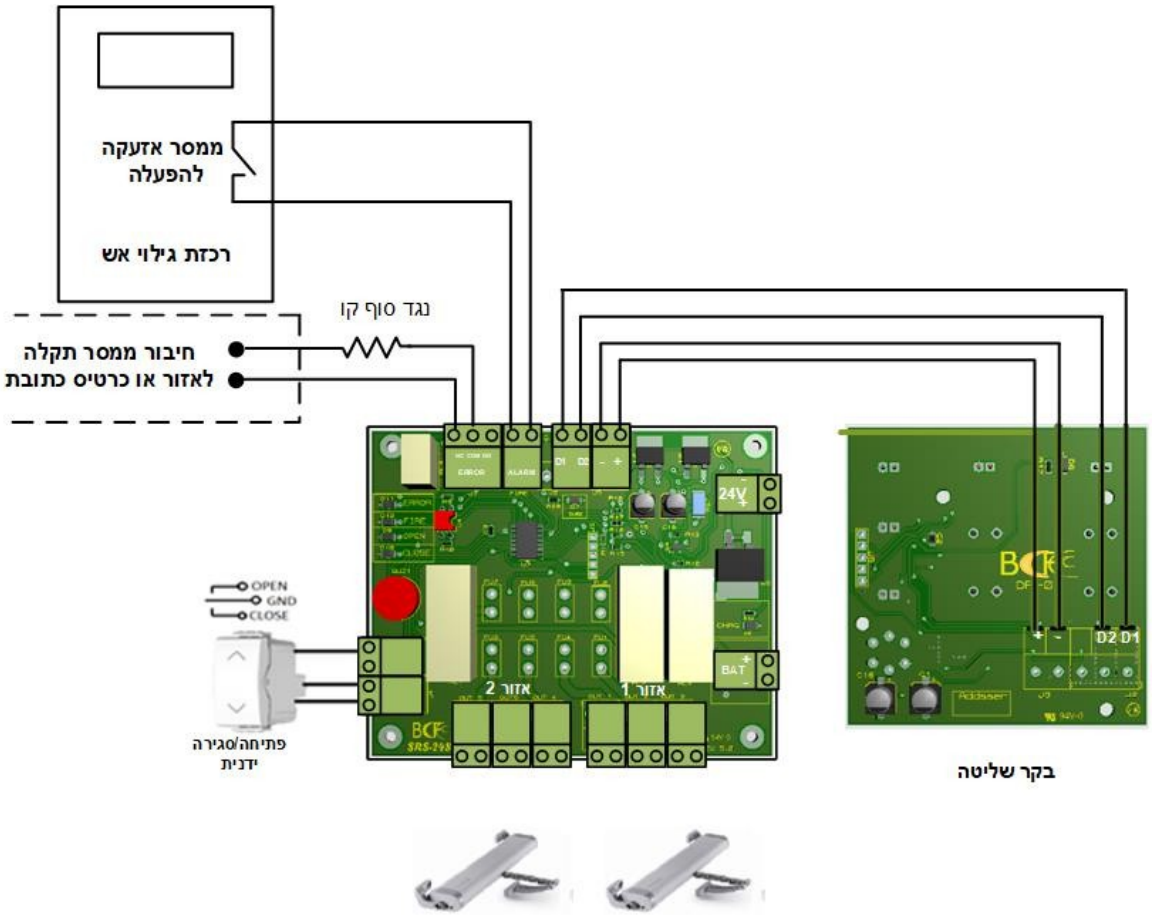
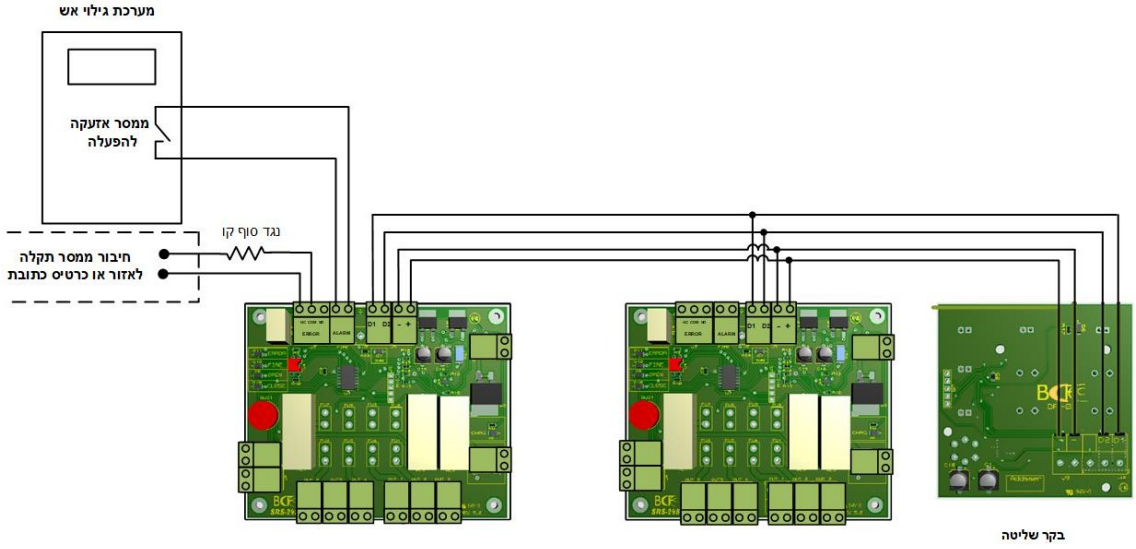


Figure 2 System connection of up to 10 motors

Up to 5 motors can be connected to each zone



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4 Maintenance

The BCF series smoke release systems provide the installer with tools that enable advanced management and simple maintenance of the system.

The system should be checked every six months:

- Manual window opening test using the **OPEN** key
- Checking manual window closure using the **CLOSE** key
- Manual command from the fire detection control panel via the ;7000 command on the monitor
- Diagnostic tool for detecting specific system faults;
- If there is a malfunction in the smoke release system, it will be indicated by the **ERROR** indicator light.

Smoke release systems are designed for installation in a variety of buildings, including factories, event halls, wide and high lobbies, sports halls, and more.

5 Motors approved for installation in smoke release systems

The system shall be installed in accordance with the guidelines of SI 1220 and only by those who have received training in this subject.

SKU	Description	Opening
BCF10329	Motor for tilt-and-turn window [1]	No. 35 - *N250*
BCF10330	Motor for tilt-and-turn window	Model 40 - *N250*
BCF10331	Motor for tilt-and-turn window	Model 60 - *N250*
BCF10332	Piston motor	Model No. 50 - *N300*
BCF10333	Piston engine	No. 70 - *N300*
BCF10334	Piston engine	No. 100 - *N300*

[1] A tilt window is a hinged window that opens partially at the top or bottom, inward or outward, and can let air in and out in a controlled and efficient way. The window is suitable for installation with a V24 smoke release motor that meets the new European standard EN12101.

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6 Technical data

Dimensions

Dimensions	Center	System
width28.0		cm Length
33.5		cm Depth
13.0		cm
	Panel	Control Width
10.5		cm Length
10.5		cm
Depth 4.0 cm		

Weight of hub without batteries 2..... kg Operating temperature range..... 50°C~ 0 Relative humidity..... 10% - 90% without condensation

Electrical data

Power supply 230V..... $^{-15\%/(+10\%)}$ The system is capable of operating motors at a load of 10A..... – 1
2X12V backup batteries.....
Battery charging voltage 27.3V.....

7 Normal

Approved to Israeli standard 1220

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