Autroprime®

Interactive Fire Detection System

System Description

CE

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1. Introduction

1.1 About the Handbook

This document provides a description of the **Autroprime Interactive Fire Detection System** (hereby called **Autroprime**), a system for small-to-medium-sized applications.

1.2 The Reader

This handbook is intended for consultants, sales personnel, potential customers and distributors.

1.3 Reference Documentation

The table below shows an overview of the complete technical documentation that is available in several languages on the *Autroprime Documentation CD-ROM* delivered with the panel:

Documents on the Autroprime Documentation CD-ROM	Part number	File name
System Description	116-P-APRIME-SYSTEMD/XGB	aprimesystemd_xgb
Getting Started	116-P-APRIME-GESTART/EGB	aprimegestart_egb
Installation Handbook	116-P-APRIME-INSTALL/DGB	aprimeinstall_dgb
Connecting Loop Units	116-P-CONNECTLOOPUNIT/DGB	connectloopunit_dgb
Configuration Handbook	116-P-APRIME-CONFIGU/EGB	aprimeconfigu_egb
Operator's Handbook	116-P-APRIME-OPERATE/FGB	aprimeoperate_fgb
User Guide	116-P-APRIME-USERGUI/LGB	aprimeusergui_lgb
Wall Chart	116-P-APRIME-WALLCHA/LGB	aprimewallcha_lgb
Menu Structure	116-P-APRIME-MENUSTR/MGB	aprimemenustr_mgb
Datasheet; Fire Alarm Control Panel BS-200	116-P-BS200/CGB	bs200_cgb
Datasheet; Fire Alarm Control Panel BS-200M	116-P-BS200M/CGB	bs200m_cgb
Datasheet; Fire Alarm Control Panel BS-200L	116-P-BS200L/CGB	bs200l_cgb
Datasheet; Repeater Panel BS-211	116-P-BS211/CGB	bs211_cgb
Datasheet; Information Panel BV-210	116-P-BV210/CGB	bv210_cgb
Datasheet; Fire Brigade Panel BU-210	116-P-BU210/CGB	bu210_cgb
Datasheet; Mimic Driver BUR-200	116-P-BUR200/CGB	bur200_cgb

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2. System Characteristics

2.1 System Overview

Autroprime is a stand-alone fire detection system.

The Fire Alarm Control Panel supports 2 detection loops (the maritime variant supports 4 detection loops). All loop units can be mixed freely and connected at any point on the same detection loop.

A maximum of 8 additional panels can be freely mixed and connected to the Fire Alarm Control Panel via the RS-485 panel bus, including Repeater Panels BS-211, Information Panels BV-210, Fire Brigade Panels BU-210 and Mimic Drivers BUR-200.

For information on system capacity, refer to chapter 2.8.

Fire Alarm Control Panel BS-200

RS-485 Panel bus

BU-210

BV-210

BS-211

ESPA 444 Communication Protocol or
NMEA protocol for VDR systems (RS-232, RS-422/485)

Modbus RTU protocol (serial/ethernet)

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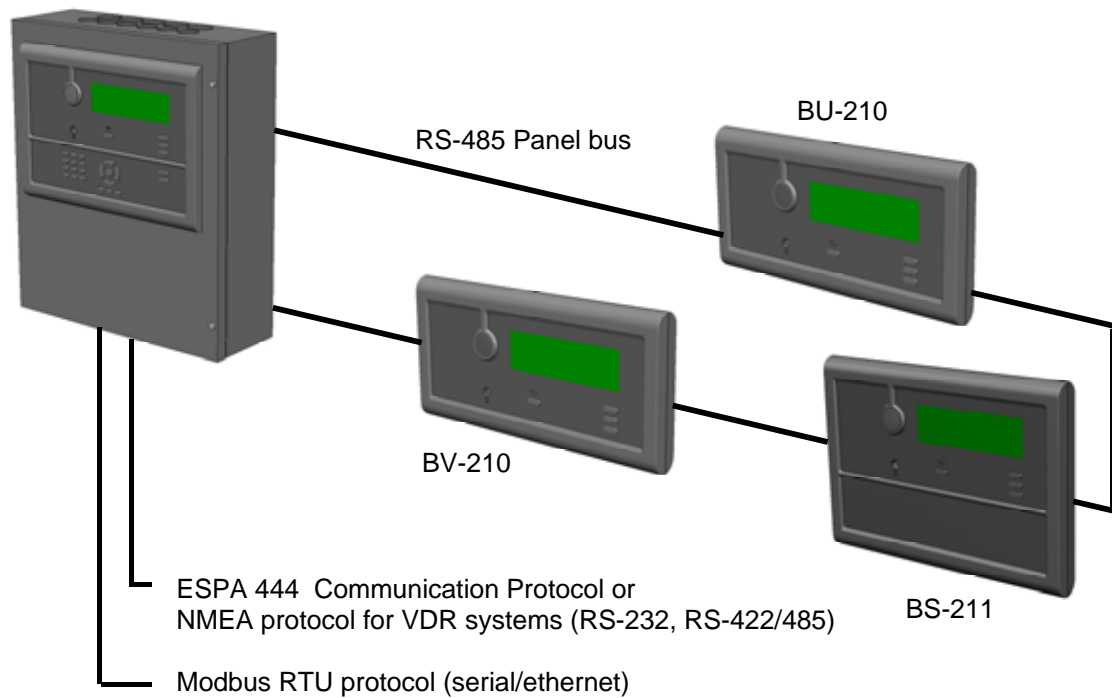
2.2 Applications

Autroprime covers a large range of applications; the panels are available in three variants intended for use in land applications, agricultural and horticultural applications as well as maritime applications (refer to Panel Description, chapter 3).

Among several *land applications*, **Autroprime** is especially suitable for
- day-care centres, health care institutions
- schools
- overnight stops, motels
- stores
- official buildings
- churches
- industrial and commercial buildings
- museums, art galleries, libraries, archives
- conference centres
- data centres

Agricultural and horticultural applications cover, among others:
- farm buildings
- store houses
- outbuildings
- market gardens
- hay barns
- grain silos
- stables, stud farms
- abbatoirs

Maritime applications cover, among others:
- smaller cargo boats
- fishing boats
- work boats
- ferries
- yachts

2.3 System Functionality

Autroprime provides both basic and advanced functionality within fire detection for a wide range of applications (refer to chapter 2.2). The system is developed for worldwide standards and regulations.

The system provides simple configuration, installation, operation and service routines.

For detailed information on the system functionality and how to operate the system, refer to the Operator's Handbook.

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2.4 Compliance with Regulations and Standards

Autroprime complies with C.E.N. EN 54 regulations, FM regulations (Factory Mutual) and the maritime SOLAS requirements (Safety Of Life At Sea).

2.5 EN 54-2 Functionality List

With reference to 12.2.1 in EN 54-2.

h) a general description of the equipment, including a list of the:
- optional functions with requirements of this European Standard (chapter 2.5.1 in this handbook)
- functions relating to other parts of EN 54 (chapter 2.5.2 in this handbook)
- ancillary functions not required by this European Standard (chapter 2.5.3 in this handbook)

2.5.1 Optional functions with requirements of this European Standard

EN 54-2 Clause	Imple-mented	Option text	Description/Requirement	Autroprime functionality
7.8	Yes	Output to Fire Alarm Device(s)	Automatic transmission of fire alarm signals to fire alarm devices.	
7.9	Yes	Output to Fire Alarm Routing Equipment	Automatic transmission of fire alarm signals to fire alarm routing equipment.	Indicated by separate light emitting indicator.
7.10	Yes	Output to Fire Protection Equipment	Transmission of fire alarm signals to controls for automatic fire protection equipment.	Output type A
7.11	Yes	Delays to outputs	Delay the actioning of outputs to fire alarm devices and/or fire alarm routing equipment.	Prepared through configuration. Entering Day-mode (input or menu) activates delays. Manual call points may override delays.
7.12	Yes	Dependency (Type C)	Inhibit either the indication fire alarm condition, or the operation of outputs, until confirmatory signals are received.	Detection zone configured as 'Dependency'. Panels will indicate fire alarm condition. Outputs inhibited until confirmatory signals. Manual call points overrides co-incidence.
7.13	No	Alarm counter	Record the number of instances that the c.i.e. enters the fire alarm condition.	Search 'filters' in Log may give alarms or resets only (with date/time).
8.3	Yes	Fault signal from points	Faults shall be indicated at least as zone faults.	Interpreted to be better to give detailed point info.
8.4	No	Total loss of power supply	An indication shall be given for a period of at least one hour.	
8.9	Yes	Output to Fault Warning Routing Equipment	Transmission of fault signals to fault warning routing equipment.	
9.5	Yes	Disablement of addressable points	Disabling and enabling points individually, or in groups, by manual operation.	If all points within a detection zone are disabled, the indication changes to zone disablement.

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EN 54-2 Clause	Imple-mented	Option text	Description/Requirement	Autroprime functionality
10	Yes	Test condition	Testing the processing and indication of fire alarm signals from zones.	
11	No	Standardized input/output interface	Standardized input/output interface, suitable for the transmission and reception of signals to and from ancillary equipment.	Communication options available. Serial line protocol to cover required functionality in 11a) and 11b) to be defined. See also ancillary function list.
12.5	Yes	Integrity of transmission paths	12.5.3 and 12.5.4. c.i.e. in more than one cabinet.	Operator panel may be separated from the main cabinet, additional operator panels on a panel bus.

2.5.2 Functions relating to other parts of EN 54

EN 54 part no	Description
EN 54-4 Power supply equipment	Battery internal resistance and deep discharge.

2.5.3 Ancillary functions not required by this European Standard

Ancillary function	Description
Supervisory condition	Condition for monitoring ancillary equipment related to life, safety or property protection.
Pre Alarm condition	A warning level from the detectors with zone indication on display. Point info. available. Implemented as a condition in line with those required by the standard.
Self Verifying Function	An automatic, calibrated test of all detectors, interfaces, connections and cables for 300- and 500-series equipment. Series 200 without SV.
DYFI+	Dynamic Filtering, introduced in our BS-100 c.i.e., further enhanced in AutroSafe and Autroprime.
Environmental Adaptivity	Autroprime detectors may be programmed for environments, clean, normal, industrial.
SOLAS functionality	Mandatory functional requirements given by Safety Of Life At Sea (SOLAS) for installations on ships.
Dependency on more than one alarm signal	As defined in proposal for new EN 54-2 (Type C dependency).
Repeater panels	Alarm indication and silence/reset buttons. (In accordance with Annex G, an ancillary function without requirements. See also above option: 11 Standardised input/output interface)
Information panel	Event indication only. (Comment as for Repeater panel).
Loop units short circuit isolators	Communication path between neighbouring loop units may be isolated in case of short circuit or break. Provided connection as a loop (recommended), no loop units will be lost in case of such a fault.
Alarm zones	Means of sub-dividing the alarming area in an installation during fire alarm condition

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2.6 CE Marking Information

$C\mathcal{E}$
Autronica Fire and Security AS 7483 Trondheim 07
EN 54 –2:2007 Control and indicating equipment for fire detection and fire alarm systems for buildings BS-200 / BS-200M / BS-200L Provided options: See chapter 2.5.1 in this handbook. Other technical data: See Autroprime Installation Handbook 116-P-APRIME-INSTALL/DGB

2.7 Definitions

- A System Unit is defined as a unit that is directly connected to the Fire Alarm Control Panel's internal bus system.
- A Loop Unit is defined as either a Point, an I/O-unit or an Electronic Sounder that is connected to a detection loop.
- A Point is defined as either a detector or a manual call point.

2.8 System Capacity

Maximum number of;	
Detection Loops per fire alarm control panel, standard and agricultural variant	2
Detection Loops per fire alarm control panel, maritime variant	4
Loop units per detection loop	127
Loop units per branch on a detection loop	32
Loop sounders per detection loop	40
Fire Brigade/Information/Repeater panels per fire alarm control panel	8
Serial ports	1
Ethernet	1
USB Host ports	2
Mimic Driver BUR-200	1
Languages supported	15

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2.9 Detection Loops

Autroprime uses the Al_Com Loop Technology (used in the AutroSafe system) for the communication with detection loops.

- The maximum number of detection loops are 2 for land variants (standard panel and panel for agrilcultural applications) and 4 for the maritime variant.
- The panel supports branch-offs on the loop. If necessary, a *branch-off* can be connected to a detection loop if the existing cable layout requires this. The maximum number of loop units on a branch is 32.

2.10 Zoning Concept

2.10.1 General

The term "zone" describes the zonal concept of the system. Assigning system components to zones enables control from detection to activation of alarm. The following zones apply:

- Detection Zone (DZ)
- Alarm Zone (AZ)
- Neighbour Alarm Zone

2.10.2 Detection Zone

A *Detection Zone (DZ)* is defined as a zone with one or more *points* (detectors or manual callpoints) that logically belong together, determined by geographical/functional parameters (for example, the sales department on the second floor).

A point can only be assigned to one Detection Zone, and can only refer to one specific location in the system (for example, a specific office on the second floor in a building).

The Detection Zone will be the trigger to generate outputs to the Alarm Zone.

2.10.3 Alarm Zone

An *Alarm Zone (AZ)* is activated by one or several Detection Zones.

Example:
An alarm from one of the devices in DZ3 will activate Fire Alarm Devices in AZ1.

Within the same alarm zone, alarm sounders give the same audible signal.

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2.10.4 Parent Alarm Zone

The top-level Alarm Zone is called the Parent Alarm Zone. A system can consist of a Parent Alarm Zone with several "sub-level" alarm zones in an hierarchy. Each "sub-level" alarm zone is related to a specific area of, for example, a building. If an alarm occurs in a Parent Alarm Zone, all Fire Alarm Devices (FADs) within the Parent Alarm Zone, plus all FADs belonging to all "sub-level" alarm zones will be activated.

2.10.4.1 Neighbour Alarm Zone

Geographically associated alarm zones can be defined as *neighbour alarm* zones, such that these can operate outputs for alarm zones adjacent to the incident.

Defining neighbour zones allows the fire alarm control panel to activate the sounders in alarm zones that are neighbours. This means that areas that are adjacent to each other – and may therefore be at risk – are warned in the event of a fire alarm.

2.11 Configuration / Service

2.11.1 Ready-to-use in a Pre-configured State

Autroprime is provided to the user in a pre-configured state, in this state the panel is set to recognize detectors and other loop units connected to the detection loops and the availability of routing equipment, etc. As such, the system is fully functional and ready-to-use simply by turning ON the power, but not configured to respond in any non-default way. A functional verification of the panel is run to assure the panel itself is fully functional.

2.11.2 Site-specific configuration

Basic site-specific configuration can be performed by means of the panel buttons (*access level 3/service*), typically including:
- naming and assigning detectors to Detection Zones
- naming and defining the number and type of Detection Zones (Immediate Action, Dependency Action, Delayed Action, Delayed Dependency Action, SOLAS)
- assigning Fire Alarm Devices to Alarm Zones
- specifying the Detections Zones that can activate selected Alarm Zones
- configuring "conditions" for outputs, for example, dependency action; meaning that at least two detector*s* in the same detection zone must be in alarm state before actions are initiated
- assigning Detection Zones to Disable devices (BW-200)

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2.11.3 Downloading / Uploading

Configuration data can be downloaded or uploaded by connecting a memory stick to one of the two USB outputs, easily accessible from the inside of the front panel door. The maximum load on each USB output is 100mA. Each USB port is provided with a resettable fuse.

2.11.4 Service

Autroprime provides readout of the loop topology (Loop Sequence Indexes) and loop unit ID-numbers.

The system generates reports providing the detection loop status at selected service intervals.

2.12 Communication Ports

- A serial bus communication is used for the communication between the Autroprime Fire Alarm Control Panel, Repeater panels, Fire Brigade panels and Information panels.
- The system offers 1 serial port for communication with third-party equipment via RS-232, RS-422 or RS-485. The baud rate is selectable.

2.13 Interfacing Peripheral Equipment

For communication with peripheral equipment / third-party equipment the following protocols are used:

- ESPA 4.4.4, allowing connectivity with devices such as AutroTel alarm routing via telephone networks and pocket paging systems.
- NMEA-0183, allowing connectivity with devices such as the maritime Voyage Data Recorder (VDR).
- MODBUS, allowing connectivity with Programmable Logic Controllers (PLC).

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2.14 Language Options

Autroprime supports the following languages (listed in alphabetical order):

- Danish
- Dutch
- English
- Finnish
- French
- German
- Hungarian
- Icelandic
- Italian
- Norwegian
- Polish
- Portuguese (Brazilian)
- Russian
- Spanish
- Swedish

2.15 Power Supply

Autroprime features an integrated power supply SC-150-27MB.

Mains monitoring:
If the mains power is lost, fault messages may be delayed 1-60 minutes (configurable).

The panel can be powered from a fixed 24VDC source.

2.16 Environmental Requirements

The equipment complies with environmental conditions of IEC-721-3-3 class 3k5.

Ambient temperature:-5 to +55 C

Degree of protection:
- BS-200 and BS-200L: IEC-529/IP30
- BS-200M: IEC-529/IP32

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2.17 SelfVerify™ Function

Autroprime features the **SelfVerify™** function which makes the system capable of inspecting and verifying itself every day. Every day the system completely checks all detectors, interfaces, connections and cables - from detector chamber through to the alarm output.
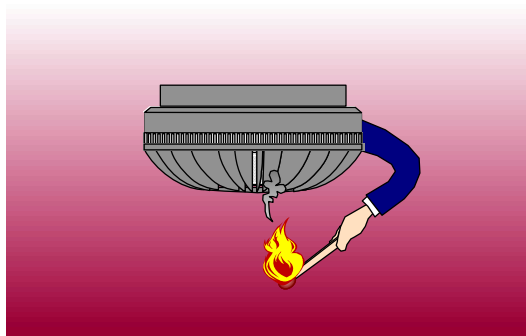
2.18 Operation Classes for different Detection Methods

The MultiSensor detector can be manually set to three different *Operation Classes*, allowing you to choose the MultiSensor's detection method and calculation. The Operation Classes are as follows;

- MultiSensor (optical detection with heat enhancement)
- Heat only (thermal detection only) - class A1
- MultiSensor with Heat (a combination of optical detection with heat enhancement *and* Heat class A1)

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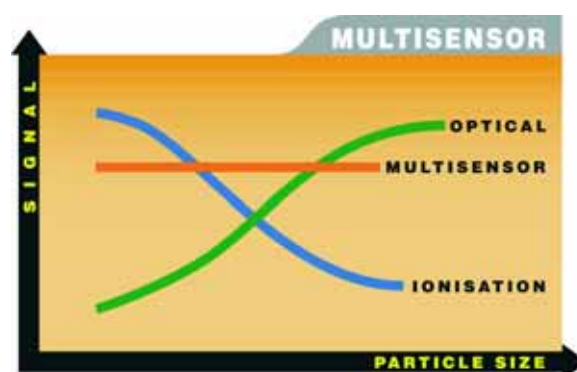
2.19 Performance Classes for Environmental Adaptivity

Autroprime uses detectors that can be programmed to one of three different *Performance Classes*, with sensitivity settings covering the following environments:

- *clean environments*, for example laboratories, data rooms etc.
- *normal environments*, for example offices and hospitals etc.
- *industrial environments*, for example, factories and warehouses etc.

By choosing a sensitivity setting that suits the environment, it is possible to achieve an accurate and reliable system, providing the optimal detection, whilst virtually eliminating false alarms.

All three different sensitivity settings comply with the C.E.N. regulations EN-54.

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2.20 Interactive Detectors with *Dynamic Filtering (DYFI+)*

Autroprime features detectors with the digital filter technology *DYFI+.* False alarms are virtually eliminated, and the system provides the earliest possible warning of a potential fire - before it becomes a problem.

The *DYFI+* digital filtering is present in each detector. Each detector has three different filter functions:

The *smouldering fire filter* provides accurate and quick detection in the event of a smouldering fire, i.e. in a situation where a potential fire with no flames develops during a longer period.
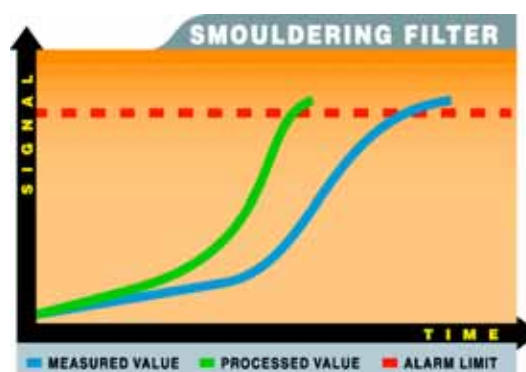
The *transient filter* virtually eliminates false alarms caused by phenomena that are not related to a real fire. Such phenomena can be short pulses caused by, for example, vapour, cigarette smoke etc.
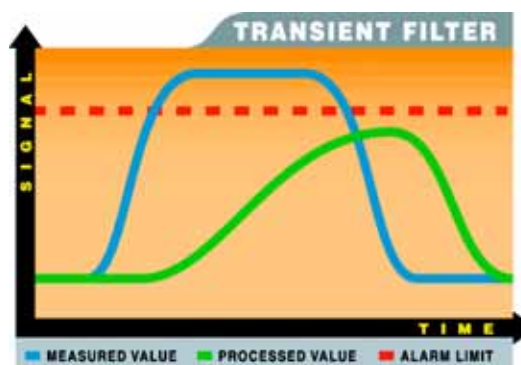
The *pollution filter* maintains the chosen sensitivity throughout the detector's entire lifetime, even with a polluted detector..

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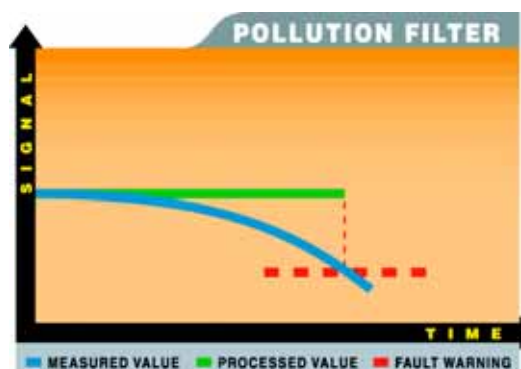
2.21 Built-in Short-circuit Isolator

The loop resistance on the detection loop is continously monitored to register a possible break or short-circuit on the detection loop. Each individual detector has a built-in *short-circuit isolator*.

In the event of a short-circuit in the detector cable, the short-circuit location will be isolated as the short-circuit isolator will be activated in the detectors on either side.

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3. Panel Description

3.1 Fire Alarm Control Panels BS-200

Autroprime fire alarm control panels are available in three variants BS-200, BS-200L and BS-200M, these variants differ in the following ways:

- BS-200; Standard panel for land applications
- BS-200L; Standard panel for agricultural and horticultural applications (FG-approval for the Norwegian market)
- BS-200M; Standard panel for maritime applications

BS-200 panels all feature the same interface and appearance, but differ slightly in capacity and whether or not they are approved/certified for use in given applications.

The panel serves as a stand-alone operating panel, or as a master panel in a networked system (on a RS-485 panel bus). All alarm handling and system features can be configured, controlled and monitored from the panel.

The Operator Panel (BS-210), which is an integrated part of the BS-200 panel, can also be mounted separately outside the cabinet.

See separate datasheets for details of each variant.

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3.2 Operator Panel BS-210

The Autroprime Operator Panel BS-210 is delivered as an integrated part of the Fire Alarm Control Panel but can also easily be removed from the Fire Alarm Control Panel and mounted separately outside a cabinet on a wall bracket.

3.3 Repeater Panel BS-211

The Autroprime Repeater Panel BS-211 is identical to the Operator Panel BS-210, but has no alphanumeric keypad.

A maximum of 8 additional panels (including Repeater Panels/Information Panels/Fire Brigade panels) can be connected to a Fire Alarm Control Panel via the RS-485 panel bus.

All alarm handling and system events can be controlled and monitored from the panel.

For detailed information, see separate datasheet.

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3.4 Fire Brigade Panel BU-210

The Autroprime Fire Brigade Panel BU-210 features the following:

- A maximum of 8 additional panels (including Repeater Panels/Information Panels/Fire Brigade panels) can be connected to a Fire Alarm Control Panel via the RS-485 panel bus.
- The panel presents fire alarms and pre-alarms in its display.
- The panel allows Silence and Reset of alarms.
- No menu operations are allowed.
- Light dimming.

For detailed information, see separate datasheet.

3.5 Information Panel BV-210

The Autroprime Information Panel BV-210 features the following:

- A maximum of 8 additional panels (including Repeater Panels/Information Panels/Fire Brigade panels) can be connected to a Fire Alarm Control Panel via the RS-485 panel bus.
- The panel presents the following information in different event windows:
  - o Fire alarms
  - o Faults
  - o Disablements
  - o Pre-alarms
  - o Technical alarms
- Scrolling function within each window.
- Light dimming.
- No system operations are allowed (Silence, Reset, menu functions).

For detailed information, see separate datasheet.

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3.6 Mimic Driver BUR-200

The BUR-200 is a Mimic Driver that is capable of driving 32 LEDs with series resistors on a mimic panel for additional indication of alarms. In addition, 8 standard monitored inputs can be used for reading various switches.

The Mimic Driver is connected to the RS-485 Panel Bus.

Power redundancy is achieved by using a daisy-chain connection with master and slave drivers.

3.7 "Larmlagringspanel" BU-211

The "Larmlagringspanel" BU-211 allows control of fire alarms from a Detection Zone or a small collection of Detection Zones.

Only alarms from Detection Zones within the scope of a specific "Larmlagringspanel" will be shown in the display.

The Fire Alarm Control Panel in an Autroprime system can be configured to operate with small local alarm areas which allows the system to function in a delayed coincidence alarm mode (based on two timers T1 and T2). This gives a local user to the "Larmlagringspanel" time to investigate a warning before either cancelling the possible alarm condition (if a false alarm) or to allow the user to set the system into alarm (if there is a real fire).

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4. Panel Inputs and Outputs

4.1.1 Main Terminal Block J1

Det.Loop2 in -	32	For connection of
Det.Loop2 in +	31	Max 127 detectors/loop units
Det.Loop2 out -	30	
Det.Loop2 out +	29	
Det.Loop1 in -	28	For connection of
Det.Loop1 in +	27	Max 127 detectors/loop units
Det.Loop1 out -	26	
Det.Loop1 out +	25	
Rel.Outp.2 NC	24	Default configured as
Rel.Outp.2 NO	23	Fault Warning Routing Equipment.(FWRE)
Rel.Outp.2 Com	22	Potential free changeover contact. Non-monitored. Max.30VDC/1A
Rel.Outp.1 NC	21	Default configured as
Rel.Outp.1 NO	20	Fire Alarm Routing Equipment.(FARE)
Rel.Outp.1 Com	19	Potential free changeover contact. Non-monitored. Max. 30VDC/1A
Aux1 +24V out	18	Supply voltage for loads connected to Open collector outputs 1 and 2. Max.1A
Open Collector Output 2	17	User configurable Open collector output. Non-monitored Switches to 0V at activation. Max.0,5A
Open Collector Output 1	16	User configurable Open collector output. Non-monitored Switches to 0V at activation. Max.0,5A
Mon.Outp.2 0V	15	
Mon.Outp.2 +24V	14	
Mon.Outp.1 0V	13	Default configured as Fire Alarm Device
Mon.Outp.1 +24V	12	Output. Monitored for short and open circuit. 2kohm end resistor. Max 500mA
Mon.Inp.0V	11	0V reference for Monitored Inputs 1 & 2
Mon.Inp. 2	10	User configurable input. Monitored for open and short circuit.2k resistor to 0V. Activates at 910 ohm to 0V
Mon.Inp. 1	9	User configurable input. Monitored for open and short circuit.2k resistor to 0V. Activates at 910 ohm to 0V
Aux2 0V out	8	Power to panel bus.
Aux2+24V out	7	Max 1A (Fuse F4)
Aux1 0V out	6	Power to panel bus.
Aux1+24V out	5	Max 1A (Fuse F1) (includes output 18)
Charger 0V	4	For connection of internal charger
Charger +24V	3	
Battery -	2	For connection of standby battery
Battery +	1	Fuse F2, 5A

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4.1.2 Auxiliary Terminal Block J4

1	RS232 Tx	
2	RS232 Rx	
3	RS232/485 0V	External Interface
4	RS422/485 A	Optional data lines
5	RS422/485 B	
6	RS422 Z	
7	RS422 X	
8	O.P.Output +24V	
9	O.P.Output 0V	
10	O.P.Output A	
11	O.P.Output B	
12	O.P.Input +24V	Connections to Operator Panel
13	O.P.Input 0V	(Return/Input for redundancy)
14	O.P.Input A	
15	O.P.Input B	
16	BU/BV Output A	Connections to panel bus. Connects from unit to
17	BU/BV Output B	unit.
18	BU/BV Input A	(Return/Input for redundancy)
19	BU/BV Input B	
20	Non-monitored inp.1 +	User configurable input
21	Non-monitored inp.1 -	Activates at application of 24VDC. Observe polarity
22	Non-monitored inp.2 +	User configurable input
23	Non-monitored inp.2 -	Activates at application of 24VDC. Observe polarity

4.1.3 User Configurable Inputs

User configurable inputs can be used for
- Day/Night input
- User Configurable input
- Morse input
- Mute Fire Alarm Device (FAD) input
- Reset in
- Silence in
- Fire Alarm Routing Equipment (FARE) feedback (signal from fire brigade)
- Activate all alarms
- Monitored Fault Warning Routing Equipment, FWRE

4.1.4 User Configurable Outputs

User configurable outputs can be used for
- User Configured output (or General output)
- Reset Out
- Silence Out
- Disable Out
- Silent Alarm Out
- Small Alarm Out
- Fire Alarm Device, FAD
- Fire Alarm Routing Equipment, FARE
- Fault Warning Routing Equipment, FWRE

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5. Detectors and Loop Units

5.1 Overview

Autroprime supports various Autronica loop units, including detectors, manual callpoints, input and output units, interfaces and alarm devices. These can be mixed freely and connected at any point on the same detection loop. The system supports SelfVerify™ detectors as well as Autronica 200, 300 and 500 series detectors.

Autroprime supports Autronica detectors and loop units with the most recent software versions.

The maximum number of loop units on each detection loop is 127.

The system provides the power necessary to activate 40 loop sounders per detection loop.

Note that EX-detectors require stub-mounted Zener barrier BZ-500.

5.1.1 Heat detectors

Autroprime supports the following heat detectors:
- BD-200
- BD-300
- BD-500
- BD-501

5.1.2 Smoke detectors

Autroprime supports the following smoke detectors:
- BH-200
- BH-300
- BH-500

5.1.3 MultiSensors

Autroprime supports the following MultiSensors:
- BH-220
- BH-320
- BH-520

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5.1.4 Manual Callpoints

Autroprime supports the following manual callpoints:
- BF-300 series
- BF-5xx series

5.1.5 Special detector interface

Autroprime supports the BN-320 detector interface.

5.1.6 Beam detectors

Autroprime supports AutroBeam beam detectors.

5.1.7 Flame detectors

Autroprime supports AutroFlame flame detectors.

5.1.8 Aspirating detectors

Autroprime supports AutroSense aspirating detectors.

5.1.9 Loop sounders (Fire Alarm Devices)

Autroprime supports the following loop sounders / fire alarm devices:
- BBR-110 Socket sounder
- BBR-200 Loop sounder

5.1.10 Control and Interface units

Autroprime supports the following control and interface units:
- BN-300 Interface Unit with SelfVerify
- BN-310 Signal Relay Output Unit
- BN-320/2 Door Control Unit
- BN-320/4 Monitoring and Control Unit
- BN-320/5 Sprinkler Control Unit
- BW-200 Disable Input Unit with Pushbuttons

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6. Reader's Comments

Please help us to improve the quality of our documentation by returning your comments on this manual:

Title: *System Description, Autroprime Interactive Fire Detection System,*

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Your information on any inaccuracies or omissions (with page reference):

Please turn the page

Suggestions for improvements

Thank you! We will investigate your comments promptly.

Would you like a written reply?   θ Yes   θ No

Name: ---
Title: ---
Company: ---
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Telephone: ---
Fax: ---
Date: ---

Please send this form to: Autronica Fire and Security AS
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       www.autronicafire.com

Autronica Fire and Security is an international company, headquartered in Trondheim, one of the largest cities in Norway. The company is owned by United Technologies Corporation and employs more than 319 persons with experience in developing, manufacturing and marketing of fire safety equipment. Our products cover a broad range of systems for integrated solutions, including fire detection systems, integrated fire and gas detection systems, control and presentation systems, voice alarm systems, public address systems, emergency light systems, plus suppression systems.

All products are easily adaptable to a wide variety of applications, among others, hospitals, airports, churches and schools, as well as to heavy industry and high-risk applications such as power plants, computer sites and offshore installations, world wide.

The company's strategy and philosophy is plainly manifested in the business idea:
Protecting life, environment and property.

Quality Assurance

Stringent control throughout Autronica Fire and Security assures the excellence of our products and services. Our products are CE marked and developed for worldwide standards and regulations, and conform with the CEN regulation EN54. Our quality system conforms to the Quality System Standard NS-EN ISO 9001:2000 and is valid for the following product and service ranges: marketing, sales, development, engineering, manufacture, installation, commissioning and servicing of suppression, integrated fire and gas detection and alarm systems, plus petrochemical, oil and gas instrumentation systems for monitoring and control.