AUTOMATIC FIRE
SUPPRESSION SYSTEMS

Technical Manual

Installation and Operation
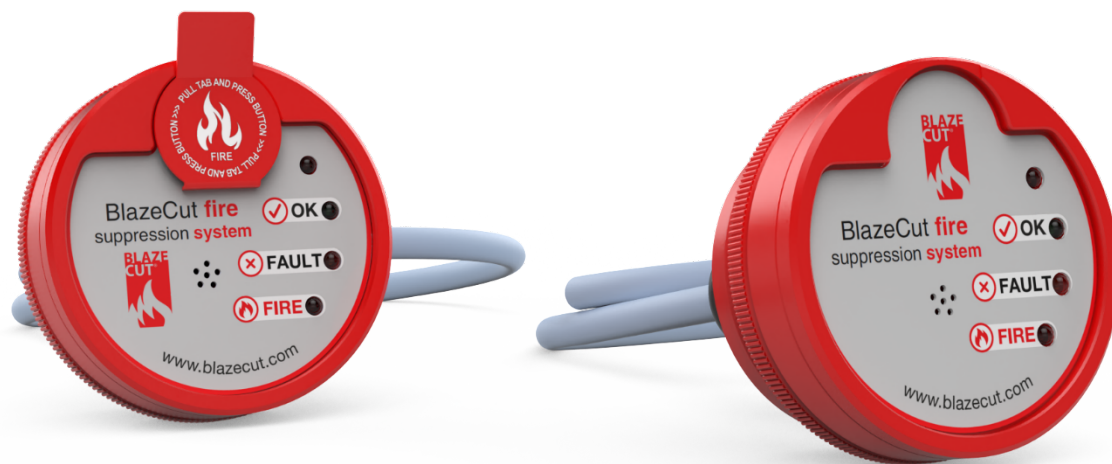
Alarm Panel for C Series

AAP210
AAP211
AAP310

AUTOMATIC FIRE
SUPPRESSION SYSTEMS

TABLE OF CONTENTS

AUTOMATIC FIRE
SUPPRESSION SYSTEMS

1 INTRODUCTION

1.1.1 MANUFACTURER INFORMATION

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1.1.2 INSTRUCTIONS FOR USE OF THE MANUAL

This manual is intended to supply technical information for the trained and authorized by BlazeCut Group. Any personnel performing installation, inspection, maintenance or replacement of components with the BlazeCut system shall have this manual available and proceed solely in accordance with it. Failure to follow the instructions in this manual and any other BlazeCut manuals may result in system malfunctioning, causing damage to the protected equipment and presents serious danger to the life and health of others.

1.1.3 SAFETY FIRST

Please read this manual in its entirety. Operation and installation instructions need to be fully understood before this BlazeCut product is installed. Failure to do so may void warranty. Your local governing regulations for safety and compliance must be followed.

1.1.4 WARNINGS AND CAUTIONS

⚠️ **This symbol within the manual represents warning of specific risks, dangers, or warning of described procedures. Failure to follow the instructions in the text marked with this symbol may result in loss of warranty, damage to property, threat to safety or life of persons performing the operation on the system or persons in the vicinity. Do not proceed without following the instructions marked with such symbols.**

1.1.5 FURTHER INFORMATION

BlazeCut® is a registered trademark of BlazeCut and is recorded in the Register of Community Trade Marks.

If any of the instructions in this manual are unclear or in case of further questions, contact the BlazeCut Team.

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⚠️ WARNING
Please ensure that the safety instructions are fully understood before the equipment is put into service.
Do not modify any part of the BlazeCut components as this may cause serious injury or a failure of the system.
Always wear the appropriate protective equipment and clothing whilst installing or servicing.

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Page 3 of 31
APM210_310-2304EN Alarm Panel Manual
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AUTOMATIC FIRE
SUPPRESSION SYSTEMS

2 BASIC INFORMATION ABOUT THE DEVICE
2.1 EXPLANATION OF MODEL NAME CAPTION

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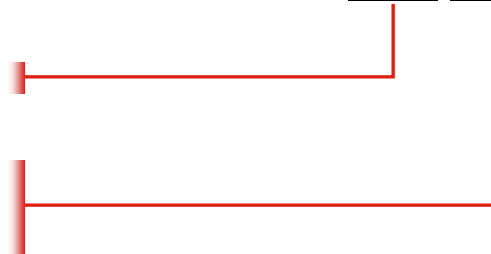
AAP 310
</div>

Product line
AAP – accessory alarm panel

Panel series
210 – fully configurable, without a fire button
211 – fully configurable, with a fire button
310 –preconfigured, without a fire button

Example: AAP210 – alarm panel (AAP) fully configurable, without a fire button (210)

2.2 TECHNICAL PARAMETERS

The BlazeCut Alarm Panels AAP210, AAP211 and AAP310 are simple and effective control units which can be used for monitoring the complete range of BlazeCut Fire Suppression Systems. Being the heart of the system, this gives BlazeCut Fire Suppression Systems customized performance to protect all types of equipment.

The main difference between the AAP210/AAP310 and AAP211 models is a manual actuation button function on the AAP211 model. The AAP211 panel is supplied to systems using a solenoid valve (e.g., ILP valves 211 and 212) to secure electronic activation of the system. The AAP210 panel is used with systems where only automatic activation of the system is required (e.g., ILP valves 201, 202, 203). The AAP310 panel is simplified version of AAP210, with only 6 wire connections and can be used as separate fire warning system (e.g., DLP with one pressure switch, fire warning device with a detector). All three alarm panels are constantly monitored for faults.

Table 1: Technical parameters

Parameter	Description
Material of body	red anodized aluminium
Dimensions	Ø 55 mm, depth 35 mm (excluding cable gland)
Operation temperature	from -30 °C to +70 °C
Ingress Protection	IP67 rated
Operation voltage	from 9 V DC to 36 V DC
External Cable	1 m cable, core Ø 0.34 mm
Detection limits (LHD only)	up to 50 m of BlazeWire, up to 10 detectors or heat probes
Sound power	85 dB @ 10 cm distance
External fuse	2 A
Maximum current draw (with a solenoid)	1.2 A (at 12 V DC), 0.6 A (at 24 V DC)
Luminous intensity of LED lights	300 mcd
Monitoring frequency	10 Hz

2.2.1 OTHER FEATURES

- durable anodized aluminium body suited for harsh environments
- design allows for optional mounting; flush mounted in a dash or the external bracket may be used to position the panel at any angle
- integrated relay for fire signalling output and equipment shutdown (delay can be programmed)
- integrated Wi-Fi module for wireless configuration/programming
- manual actuation button with tamper seal to prevent accidental discharge (AAP211 model)
- electromagnetic compatibility (EMC) and immunity testing in accordance with E/ECE/324 and EHK 10-04
- multiple fault identifications
- delay discharge: option to setup time delay between detection/actuation and system discharge (only available with ILP valves 211 and 212)
- instant full range of pressure monitoring every second with Pressure Transducer ATA100
- small footprint design having a diameter of 55 mm and a depth of 35 mm (excluding cable gland)

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Page 4 of 31
APM210_310-2304EN Alarm Panel Manual
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▪ maximized universality for the use in LOP or LHD installations with different applications: mobile equipment and fixed plants.

Table 2: Alarm panels

Part №	Description
AAP210	without a fire button for C Series, fully configurable via Wi-Fi, data logging, 9 - 36 V DC, 85 dB, IP67, CE, EMC tested, programmable integrated relay, red anodized aluminium body, 55 mm diameter.
AAP211	with a fire button for C Series, fully configurable via Wi-Fi, data logging, 9 - 36 V DC, 85 dB, IP67, CE, EMC tested, programmable integrated relay, red anodized aluminium body, 55 mm diameter.
AAP310	without a fire button for C Series, preconfigured from factory, data logging, 9 - 36 V DC, 85 dB, IP67, CE, EMC tested, integrated N/O relay output, red anodized aluminium body, 55 mm diameter. Can be used for: a) C Series with just one pressure switch b) as a fire warning device

AAP210, AAP310

AAP211

Table 3: Alarm panel kits

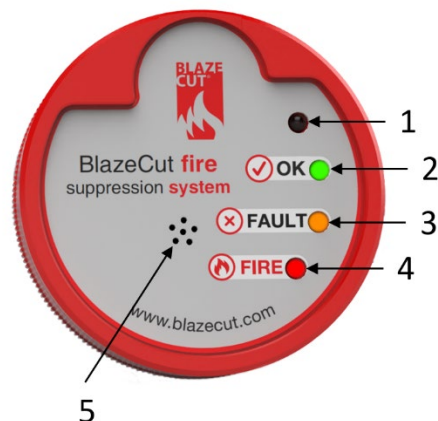| Part №	Content
KAAP210	Alarm Panel AAP210 without a fire button, Panel Bracket APB210, 12-pin Connector ADC012, 8x Sealing Plug ADP001, Fuse AEF002, Fuse Case ACF001, 2x End-of-line Resistor AER101, labels ALA004 and ALA005
KAAP211	Alarm Panel AAP211 with a fire button, Panel Bracket APB210, Tamper Seal ATS002, 12-pin Connector ADC012, 8x Sealing Plug ADP001, Fuse AEF002, Fuse Case ACF001, 2x End-of-line Resistor AER101, labels ALA004 and ALA005
KAAP310	Alarm Panel AAP310 without a fire button, Panel Bracket APB210, 6-pin Connector ADC006, 2x Sealing Plug ADP001, Fuse AEF002, Fuse Case ACF001, End-of-line Resistor AER101, label ALA005

KAAP210

KAAP211

KAAP310

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Page 5 of 31
APM210_310-2304EN Alarm Panel Manual
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2.2.2   FRONT PANEL DESCRIPTION

1. Dimming sensor – adjusts brightness of the green LED to the surrounding lighting conditions.
2. **OK green LED** – constant green light indicates normal operation of the panel.
3. **FAULT orange LED** – intermittent or constant orange light indicates different faults of the system.
4. **FIRE red LED** – intermittent or constant red light indicates fire alarm.
5. Buzzer – beeping signals various states of the alarm panel; holes are covered with a membrane to protect the inside of the alarm panel.

For detailed description of the individual indicated events, see Chapter 6.

3   INSTALLATION

3.1   PANEL BRACKET

The BlazeCut alarm panels have both, a flush dash mount option and an external installation option using a stainless-steel Panel Bracket APB210. The external bracket may be used to position the panel at any angle/position.

For dash-in installation, it is necessary to prepare round mounting hole with Ø 48 mm. Once the alarm panel is inserted in the mounting hole, use the alarm panel's locking nut from behind to fix the panel in the dash.

For external installation use a stainless-steel panel bracket APB210 which is supplied in a kit or can be ordered as a separate part. The panel has holes for screws in two positions so the panel can be fixed vertically or angled depending on the place of installation. The panel bracket can be installed to any surface and position. Use the alarm panel's locking nut to fix the alarm panel to the bracket as shown in the picture.

⚠️ **Mount the alarm panel in a highly visible location for the operator of the equipment. Do not cover or lean on the alarm panel.**

Panel Bracket APB210

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Page 6 of 31
APM210_310-2304EN Alarm Panel Manual
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3.2   WIRING

The BlazeCut alarm panels are provided with clear labelling on wires to ensure correct configuration.

- Alarm Panel AAP210 and AAP211 includes 1 m output cable with 14 wires and a 12-pin connector ADC012, as maximum of 12 wires are used at any one time.
- Alarm Panel AAP310 includes 1 m output cable with 6 active wires and a 6-pin connector ADC006.

The cable can be shortened to a desired length, as well as unnecessary wires can be cut off, before connecting them to the supplied 12 or 6-pin connector. Use the provided unshrunk heat-shrink tubing. It contains a layer of adhesive on the inside to help provide a good seal and better adhesion.

Heat-shrink tubing as supplied

Slid down the unshrunk heat-shrink tubing to cover the end of the cable jacket and about 2 cm of the wires. Heat up the heat-shrink with a hot air gun to wrap tightly around.

Correctly applied heat-shrink at the cable jacket end

Maximum bending radius for the 14-wire cable is 63 mm for non-fixed and 34 mm for fixed cable (e.g., with APC008).

Minimal cable bending radius

3.2.1   WARNINGS

⚠️ **The cable with the cable gland is permanently attached to the alarm panel's body and cannot be removed or rotated. Unscrewing of the cable gland or any excessive movement with the cable near the cable gland can lead to disconnection of the internal parts or cause loss of the IP integrity.**

⚠️ **Be aware of the danger posed by the device. When working in the vicinity of electrical equipment observe corresponding safety rules and instructions. Work on electrical installations may be performed only by qualified persons.**

⚠️ **Place the alarm panels output cable connector in a reachable place to enable connector disconnection and reconnection during future maintenance.**

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Page 7 of 31

APM210_310-2304EN Alarm Panel Manual

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3.2.2 POWER SUPPLY

The power source can be in form of an external power supply or a battery with the corresponding voltage output (9 – 36 V DC; if combined with a solenoid valve 211 use 12 V, when with valve 212 use 24 V power source). An External Fuse AEF002 rated at 2 A must be installed between the panel wiring and the external power source to provide additional protection in case of overloading. Put the External Fuse AEF002 in the Fuse Case ACF001. Connect the fuse to the positive power wire near the external power source (see diagram *Connection between the alarm panel and individual components*) or in a place with low risk of water ingress.

Additional Connector ADC002 can be ordered for separate wiring of the power supply for easy disconnection.

3.2.3 SOLENOID

To connect the solenoid in LHD version of the system, where detection is secured through BlazeWire or other electrical detection, like optical, smoke, heat detectors etc. Solenoid also provides option to activate the system manually by pressing "Fire" button on the Alarm Panel AAP211 or other external electrical actuation point. The solenoid voltages are ± 10 % of the 12 V and 24 V ratings. Power supplies may drop to the lowest values of 10.8 V for the 12 V and 21.6 V for the 24 V.

*External Fuse AEF002 in a Fuse Case ACF001 and wires*

3.2.4 PRESSURE SWITCH APS001-xx

There are two separate wire circuits on the alarm panel for a Pressure Switch APS001-xx. One of the circuits is used for pressure switch for fire indication, the second one is for low pressure monitoring. The set point of the pressure switches depends on the operation pressure of the cylinder with extinguishing agent and is set up at the factory.

For fault monitoring of the pressure switch circuits, insert a resistor AER101 into connection point 1 and 3.
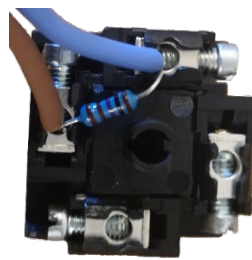
Resistor AER101 plugged in the pressure switch connection point 1 and 3

3.2.5 PRESSURE TRANSDUCER ATA100

Pressure Transducer ATA100 serves as a fire indication and a low/high pressure monitoring device simultaneously. It can be used instead of two pressure switches providing the same functionality. Black wire from the Pressure Transducer ATA100 is left unused.

Fault monitoring of the pressure transducer circuits does not require additional parts.

3.2.6 ELECTRIC DETECTION CIRCUIT

Electric detection circuit is used only in LHD version to connect BlazeWire or other electrical detection device (e.g., smoke, heat detector). The detection circuit must be secured by the End-of-line Resistor AER001, otherwise the Alarm Panel will report a fault.

The detection circuit provides option to connect one or more additional electric actuators.

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Page 8 of 31
APM210_310-2304EN Alarm Panel Manual
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3.2.7 RELAY OUTPUT

Alarm Panels AAP210, AAP211 and AAP310 contain integrated relay which can be used for several operations. It can be set to switch at fire or fault signal and in normally closed or normally open position. The output from the integrated relay can be set to switch on an external signalling units (see Table 11), switch off ventilation, shutdown equipment, with or without a delay etc.
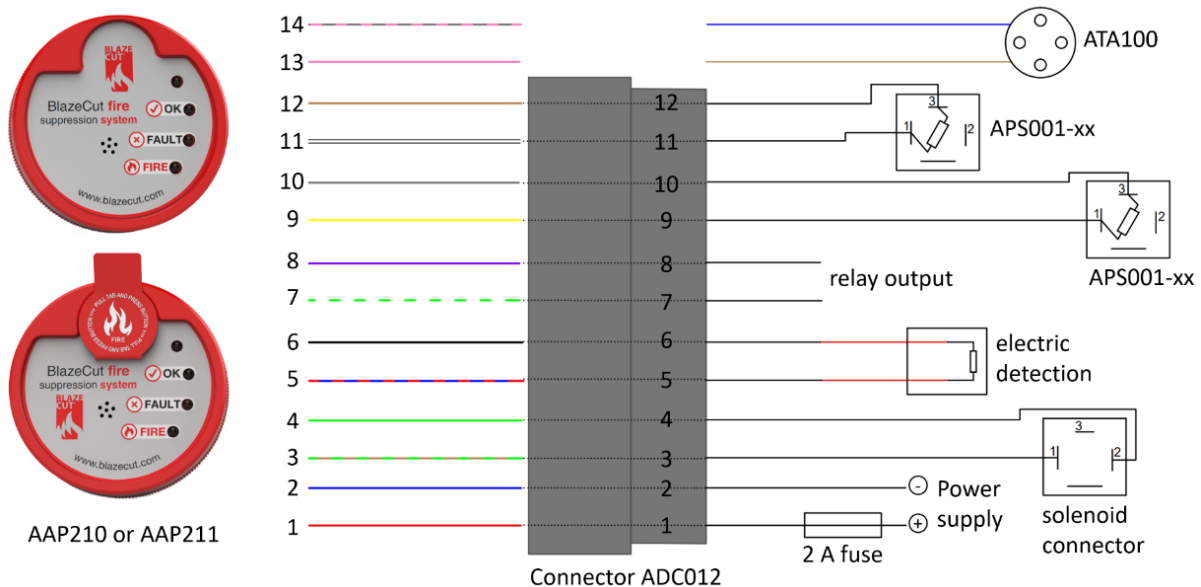
Wiring diagram of Alarm Panels AAP210 or AAP211 and individual components

Depending on number of connected components, some wires will stay unused. Maximum number of connected wires from the alarm panel to the connector ADC012 is 12, as there is no case where all 14 wires from the alarm panel would be required. Always connect the 12 wires from the alarm panel to the Connector ADC012 to preserve its ingress protection level or use ADP001 sealing plugs (see Chapter 3.4.1). Isolate the unused wires with a heat shrink or electrical tape.

Table 4: Connection of Alarm Panels AAP210 or AAP211 with other components

Wire №	Connector pin	Wire from alarm panel	Wire from the component	Component
1	1	red	positive pole	power supply*1
2	2	blue	negative pole	
3	3	brown-green	pin 1	solenoid connector*2
4	4	green	pin 2	
5	5	red-blue		fire detection*3
6	6	black		
7	7	white-green		relay output*4
8	8	violet		
9	9	yellow	pin 1	Pressure Switch APS001-xx LP*5
10	10	grey	pin 3	
11	11	white	pin 1	Pressure Switch APS001-xx FI*6
12	12	brown	pin 3	
13	11	pink	brown	Pressure Transducer ATA100*7, 8
14	12	grey-pink	blue	

*1 connect External Fuse AEF002 to the positive wire

*2 solenoid operation voltage (12 V or 24 V) must correspond with power supply's output voltage

*3 for connection of fire detection components e.g., BlazeWire with an End-of-line Resistor AER001, detectors with relay output (see Table 10) with a resistor AER101

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Page 9 of 31
APM210_310-2304EN Alarm Panel Manual
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*[4] output from the integrated relay; can be set to fire or fault signal and in normally closed or normally open position (see Chapter 1); for connection of external signalling units (see Table 11), power turn off, etc.

*[5] Pressure Switch APS001-xx for low pressure monitoring with inserted resistor AER101 for fault monitoring

*[6] Pressure Switch APS001-xx for fire indication with connected resistor AER101 for fault monitoring

*[7] Pressure Transducer ATA100 for low/high pressure monitoring and fire indication; black wire from the Pressure Transducer ATA100 is not used

*[8] connect the corresponding wires to the free contacts on the Connector ADC012, left by another unused component.
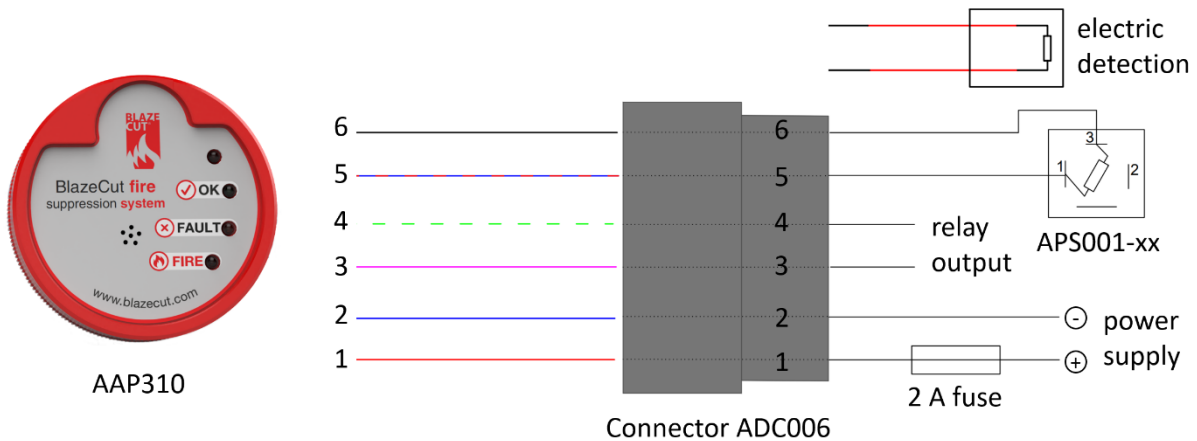
Wiring diagram of Alarm Panel AAP310 and individual components

Always connect the 6 wires from the alarm panel to the Connector ADC006 to preserve its ingress protection level or use ADP001 sealing plugs (see Chapter 3.4.1). Isolate the unused wires with a heat shrink or electrical tape.

Table 5: Connection of Alarm Panel AAP310 with other components

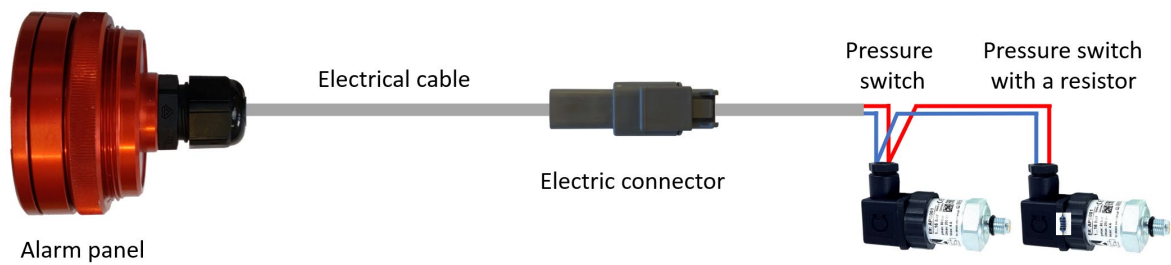| Wire №	Connector pin	Wire from alarm panel	Wire from the component	Component
1	1	red	positive pole	power supply*[1]
2	2	blue	negative pole	
3	3	white-green		relay output*[2]
4	4	violet		
5	5	red-blue	pin 1	Pressure Switch APS001-xx FI*[3]
6	6	black	pin 3	
5	5	red-blue		fire detection*[4]
6	6	black		

*[1] connect External Fuse AEF002 to the positive wire

*[2] output from the integrated relay; can be set to fire or fault signal and in normally closed or normally open position (see Chapter 1); for connection of external signalling units (see Table 11), power turn off, etc.

*[3] Pressure Switch APS001-xx for fire indication with inserted resistor AER101 for fault monitoring

*[4] for connection of fire detection components e.g., BlazeWire with an End-of-line Resistor AER001, detectors with relay output (see Table 10) with resistor AER101

When installing two or more pressure switches, they have to be of the same type and set point. They have to be connected in parallel. The furthest one requires a resistor AER101 installed. If any of the pressure switches activates, the alarm panel will signal the corresponding event.

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Page 10 of 31
APM210_310-2304EN Alarm Panel Manual
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Parallel connection of two pressure switches to the alarm panel
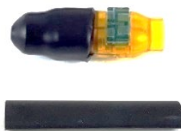
3.3 END-OF-LINE RESISTOR

When using BlazeWire, the end of detection line must be secured by the End-of-line Resistor (EOR) AER001 that is supplied in a kit. For electric detectors a resistor AER101 is required. It is recommended to keep the EOR low in the main fire risk areas to avoid heat sources, so it is not exposed to the risk of damage. Maximum allowed operation temperature of the EOR AER001 is 100 °C. The resistor is supplied with a glue heat shrink that is placed over the resistor and BlazeWire when spliced to the resistor connector to seal and hold it firmly to the BlazeWire. The EOR with equal parameters can be yellow or transparent in colour.

It is recommended to use the Electrical Splice AES3550-2 with the heat shrink between the BlazeWire and electrical cable for firm hold and sealing. The electrical splice connectors are supplied in the BlazeWire kits. See below pictures for suggested installation of the Electrical splice connector. The electrical splice with equal parameters can be yellow or transparent in colour. It is not necessary to install the BlazeWire in whole length from the protected enclosure to the alarm panel. The BlazeWire can be used in the main fire risk area and standard or silicone cable can be used to connect to the alarm panel. See below figures for connection options.
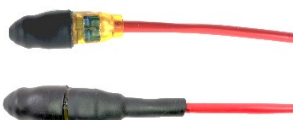

5 m coil of BlazeWire ABW185

End of line resistor AER001 with heat shrink

Silicone cable connected with the AER001 and covered with heat shrink
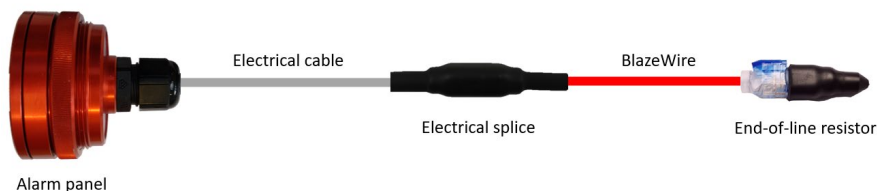

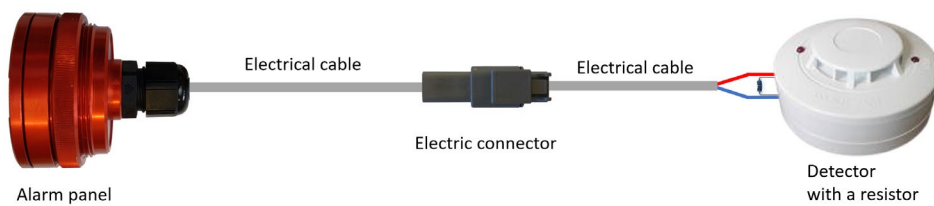*BlazeWire connected with the AER001 and covered with heat shrink*

Silicone cable and BlazeWire connected to the Electrical splice AES3550-2

Silicone cable and BlazeWire connected to Electrical splice AES3550-2 heat shrink covered
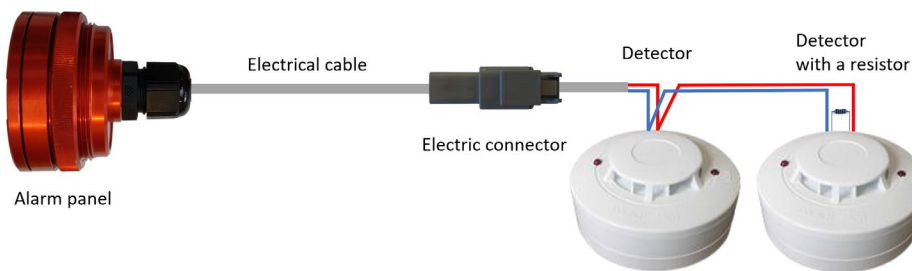

Connection of the BlazeWire to the alarm panel

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Page 11 of 31
APM210_310-2304EN Alarm Panel Manual
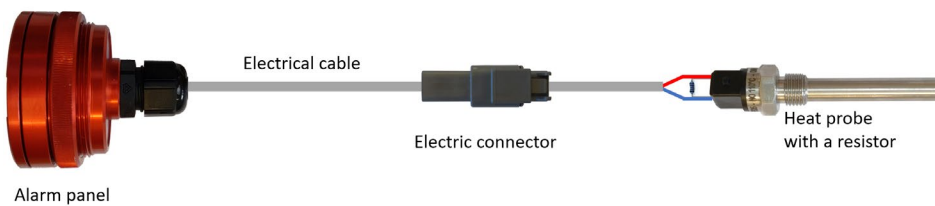© 2023 BlazeCut, all rights reserved

Connection of a detector to the alarm panel

When installing two or more relay detectors, they have to be connected in parallel. The furthest one requires a resistor AER101 installed.
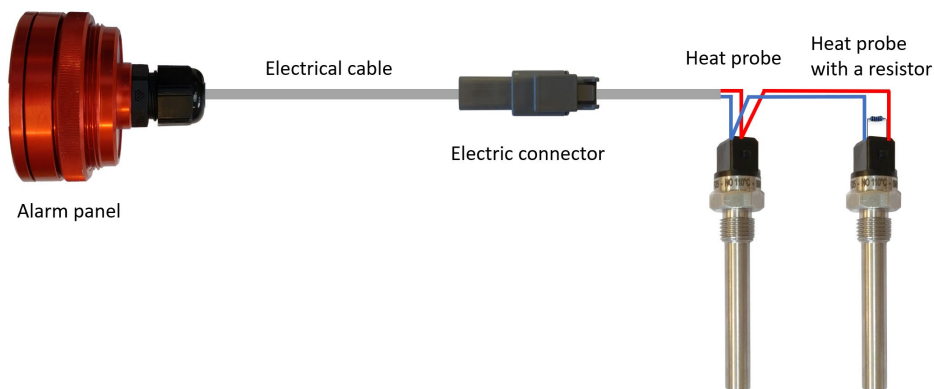

Parallel connection of two detectors to the alarm panel

Connection of a heat probe to the alarm panel

When installing two or more heat probes, they have to be connected in parallel. The furthest one requires a resistor AER101 installed. For specifications and connection details see manual HPD - HEAT PROBE DETECTOR.

Parallel connection of two heat probes to the alarm panel

Table 6: Standard BlazeWire kits

Part №	Content
KABW185-005	5 metres 185 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 20x Cable Ties ACT314 and 2x label ALA018
KABW185-010	10 metres 185 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 40x Cable Ties ACT314 and 4x label ALA018

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Page 12 of 31
APM210_310-2304EN Alarm Panel Manual
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KABW185-015	15 metres 185 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 60x Cable Ties ACT314 and 6x label ALA018
KABW185-020	20 metres 185 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 80x Cable Ties ACT314 and 8x label ALA018
KABW105-005	5 metres 105 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 20x Cable Ties ACT314 and 2x label ALA018
KABW105-010	10 metres 105 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 40x Cable Ties ACT314 and 4x label ALA018
KABW105-015	15 metres 105 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 60x Cable Ties ACT314 and 6x label ALA018
KABW105-020	20 metres 105 °C BlazeWire, 3x Electrical Splice connector AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001, P-clamp APC014, 80x Cable Ties ACT314 and 8x label ALA018

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Page 13 of 31
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Table 7: Heavy duty BlazeWire kits

Part №	Content
KABW185-005-HD	5 metres 185 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 10x silicone grommets AGBW003 with P-clamps APC020 and 2x label ALA018
KABW185-010-HD	10 metres 185 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 20x silicone grommets AGBW003 with P-clamps APC020 and 4x label ALA018
KABW185-015-HD	15 metres 185 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 30x silicone grommets AGBW003 with P-clamps APC020 and 6x label ALA018
KABW185-020-HD	20 metres 185 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 40x silicone grommets AGBW003 with P-clamps APC020 and 8x label ALA018
KABW105-005-HD	5 metres 105 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 10x silicone grommets AGBW003 with P-clamps APC020 and 2x label ALA018
KABW105-010-HD	10 metres 105 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 20x silicone grommets AGBW003 with P-clamps APC020 and 4x label ALA018
KABW105-015-HD	15 metres 105 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 30x silicone grommets AGBW003 with P-clamps APC020 and 6x label ALA018
KABW105-020-HD	20 metres 105 °C BlazeWire, 3x Electrical Splice connectors AES3550-2, 3x Heat Shrink AHS001, End-of-line Resistor AER001 with P-clamp APC014, 40x silicone grommets AGBW003 with P-clamps APC020 and 8x label ALA018

BlazeWire Standard Kit   *BlazeWire Heavy Duty Kit*

3.4 CONNECTORS

Alarm Panel Kits KAAP210, KAAP211 and KAAP310 include high quality Deutsch connectors to be used in harsh environment applications where reliable signal circuits are critical to operating performance. Connectors are high temperature rated for use in engine compartments or other high temperature applications and IP67 rated without need to apply heat shrink.
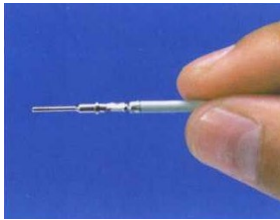
Table 8: Connector parameters

Parameter	Value
Operating temperature	-55 °C to +125 °C
Current rating	7.5 A @ 125 °C
Wire core acceptance	0.34 mm² - 1.5 mm²
Ingress Protection	IP67

For spare connectors see Table 16.

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Page 14 of 31
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Assembly of a receptacle is shown in the procedure below. Use the same procedure also for a plug.

Step 1:

Grasp crimped contact approximately 25.4 mm behind the contact barrel.

Step 2:

Hold the connector with the rear grommet facing you.

Step 3:

Push the contact straight into the connector grommet until a click is felt. A slight tug will confirm it is properly locked in place.

Step 4:

Once all contacts are in place, insert the orange wedge: receptacles – with half holes aligning with contacts. Plugs – with contacts aligning behind full holes. The orange wedge will snap into place.

Step 5:

Any open cavity must be sealed to prevent contaminants to enter the connector. To maintain seal integrity, insert a sealing plug ADP001 all the way in to the seal's cavity.

3.4.2 CONTACT REMOVAL

Disassembly of a receptacle is shown in the procedure below. Use the same procedure also for a plug.

Step 1:

Remove orange wedge using needle nose pliers to pull wedge straight out.

Step 2:

To remove the contacts, gently pull wire backwards, while at the same time releasing the locking finger by moving it away from the contact with a screwdriver.

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Step 3:

Hold the rear seal in place, as removing the contact will displace the seal.

4   ALARM PANEL CONFIGURATION – AAP210, AAP211 ONLY

Alarm panels come with default settings set to everything turned off. Before putting the alarm panel into operation, it is required to configure it depending on installed system components. The alarm panel has integrated Wi-Fi module, which serves for wireless connection between the alarm panel and external device (mobile phone, computer, notebook).
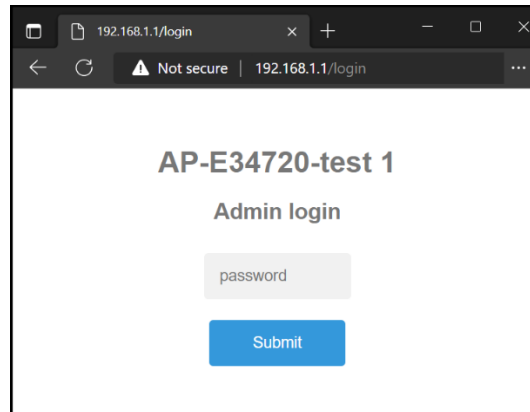
IMPORTANT

For safety reasons, the alarm panel's Wi-Fi module turns off (short beep) automatically after 10 minutes of inactivity in the configuration menu. Every confirmed change in the configuration menu resets the timer. To turn on the Wi-Fi module, it is required to disconnect and reconnect the power supply.

1. Make sure the time elapsed after connecting the alarm panel to a power supply (two fast consecutive beeps) is less than 10 minutes.
2. Search for a wireless network with a name in form of AP-xxxxx-NAME and connect to it. Password for the connection is *pass1234* and cannot be changed.
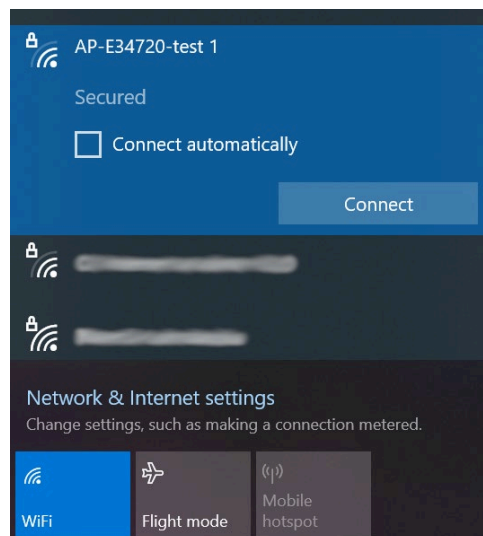
3. Open an internet browser on the connected device.
4. To the internet browsers address bar write a value *192.168.1.1* and press Enter. Login screen will appear.

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Page 16 of 31
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5. Fill in the password (***pass1234*** as default) and press *Submit*. Device information and configuration panel will open.

IMPORTANT

After first login, change the devices login password and save it in a safe location.

6. Set up the alarm panel depending on system components.

- Wi-Fi SSID – identification number of the alarm panel
- Wi-Fi password – unchangeable password for logging in the alarm panels Wi-Fi
- Device name – variable part of the name identification number
- Admin password – current password for logging in the alarm panel
- FW version – firmware version of the alarm panel
- AP time – saved time in the alarm panel
- Your time – time on the connected device
- Input voltage – input voltage from the connected power supply to the alarm panel
- Ambient light – value increases with the ambient light intensity
- Wi-Fi disconnection – remaining time till alarm panel's Wi-Fi module turns off (refresh the page for the time to update)

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Page 17 of 31
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AUTOMATIC FIRE SUPPRESSION SYSTEMS

4.1 RELAY CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
Relay function	Fire signal	Fault signal
Relay operation	Normally open	Normally closed
Delay Shutdown Time	0 sec	Change

Relay function options:

- Fire signal – relay activates when a fire signal is sent
- Fault signal – relay activates when a fault signal is sent

Relay operation options:

- Normally open – the electrical circuit through the relay is open
- Normally closed – the electrical circuit through the relay is closed

Delay shutdown time:

- time between getting a signal and relays operation
- input a numeric value (integer) from the range 0 to 100 seconds and press the *Change* button

4.2 SOLENOID CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Response	Active	

Solenoid states:

- Disabled – use when solenoid is not used in the connected system
- Enabled – use when solenoid is used (valves 211 and 212)

Solenoid response:

- Disabled – when no solenoid is connected
- Active – when solenoid is correctly connected to the alarm panel

4.3 FIRE BUTTON CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Delay Discharge Time	0 sec	Change

Fire button states:

- Disabled – use with alarm panels AAP210 and AAP310 without a fire button
- Enabled – use with alarm panel AAP211 to make its fire button functional

Delay discharge time:

- time between getting a fire signal and initiating the extinguishing system
- input a numeric value (integer) from the range 0 to 100 seconds and press the *Change* button

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Page 18 of 31
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4.4 PRESSURE TRANSDUCER CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Extinguishing agent	ABC powder ⌄	Change
Response	Disabled	

Pressure transducer states:

- Disabled – use when no pressure transducer is connected
- Enabled – use when Pressure Transducer ATA100 is connected to the system

Extinguishing agent:

- from the dropdown menu, choose the extinguishing agent used in the connected system and press the *Change* button

Pressure transducer response:

- Disabled – when no pressure transducer is connected
- Active – when Pressure Transducer ATA100 is correctly connected to the alarm panel

4.5 FIRE ALARM PRESSURE SWITCH CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Response	Disabled	

Pressure switch states:

- Disabled – use when no pressure switch for fire indication is connected
- Enabled – use when Pressure Switch APS001 for fire indication is connected to the system

Pressure switch response:

- Disabled – no pressure switch for fire indication is connected
- Active – Pressure Switch APS001 for fire indication is correctly connected to the alarm panel

4.6 LOW-PRESSURE PRESSURE SWITCH CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Response	Disabled	

Pressure switch states:

- Disabled – use when no pressure switch for low pressure monitoring is connected
- Enabled – use when Pressure Switch APS001 for low pressure monitoring is connected to the system

Pressure switch response:

- Disabled – no pressure switch for low pressure monitoring is connected
- Active – Pressure Switch APS001 for low pressure monitoring is correctly connected to the alarm panel

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Page 19 of 31
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4.7 ELECTRIC DETECTION CONFIGURATION OPTIONS

Default settings are shown in the picture.

Description	Actual State	Change
State	Disabled	Enable
Delay Discharge Time	0 sec	Change
Response	Disabled	

Electric detection states:

- ▪ Disabled – use when no electric detection component is connected
- ▪ Enabled – use when one of the electric detection components (BlazeWire, smoke detector, heat detector etc) is connected to the system

Delay discharge time:

- ▪ time between getting a fire signal and initiating the extinguishing system
- ▪ input a numeric value (integer) from the range 0 to 100 seconds and press the *Change* button

Electric detection response:

- ▪ Disabled
- ▪ xxx R – numerical value of resistance in the circuit

4.8 EVENT LOG AND SERVICE OPTIONS

Read logfile		Read
Add a Service Note		Add

Read log file – opens the current log file

Add a service note – adds an entry to the log file with your comment

---

NOTE

Log file has a limited number of entries (around 350). After reaching the limit, the log file is automatically saved in the alarm panels memory, and a new log file is created. The old log file can be opened in the *Read log file* menu and saved (see Chapter 4.8.1). At one time, only one old and one new log file can be accessed from the memory. When another log file is created, the oldest log file will be automatically deleted.

4.8.1 SAVE LOG FILE

1. Open the log file by clicking on *Read* button. The log file opens.

Read LogFile

1. 2022-07-27 07:46:32 - > Device time updated: 2022-07-27T07:46:32.994Z
2. 2022-07-27 08:15:59 - > Power on
3. 2022-07-27 08:15:59 - > Relay initiated
4. 2022-07-27 08:16:30 - > Setup entry
5.

Read Old LogFile

BACK

2. Right click in the area of log entries and select *Save as*. New window will appear.

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Page 20 of 31
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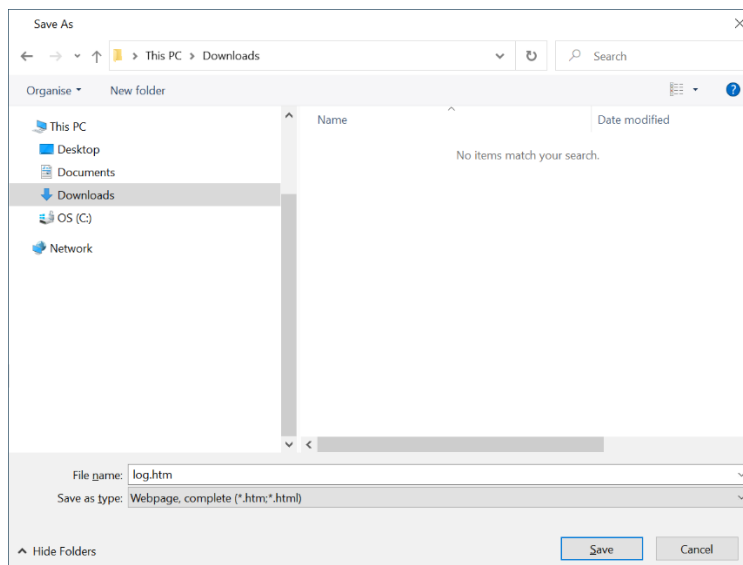
3. Save the file to a desired location. The file extension is *.htm* and can be open by any web browser.

4.9 TOOLS

4.9.1 FIRMWARE UPDATE

Firmware update tool available to the user.

IMPORTANT

After new firmware update, all settings are reset to their defaults – all components will be disabled and need to be set again.

1. click on the *Firmware update* button and a new window will open.

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Page 21 of 31

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2. click on *Choose file…* and select the new firmware file (file_name.bin),

3. click on *Update* button and wait for the progress bar to reach 100 %. The alarm panel will reboot and beeps two times.

4. click the *Back* button to return to the Device Information Panel and check the firmware version.

4.9.2   RESTORE DEFAULT SETTINGS

Restores the default settings of the alarm panel to all components disabled.

4.9.3   REBOOT DEVICE

The alarm panel turns off and on again.

5   MANUAL ACTUATION BUTTON

Alarm Panel AAP211 is equipped with a "Fire" button which is used for activation of the extinguishing system. The alarm panel is supplied with a tamper seal ATS002, which prevents accidental manual activation.

5.1   TAMPER SEAL

The Tamper Seal ATS002 consists of a foam ring with adhesive on both sides and an aluminium tag to cover the "Fire" button. It has to be mounted on the alarm panel right after installation. It secures the "Fire" button against accidental activation. Tamper seals can be ordered separately for replacement after the seal has been broken.

Tamper Seal ATS002

5.1.1   WARNING

⚠ **It is recommended to power down the panel (or turn off the FIRE button in the configuration menu) when installing the tamper seal. If the power cannot be isolated, be careful not to press the "Fire" button when installing the tamper seal, as it can activate the system.**

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Step 1:

Make sure the surface (highlighted with green) around the Fire button is clean.

Step 2:

From one side of the foam ring remove the adhesive protector and stick it to the surface with the straight side facing middle of the alarm panel.

Step 3:

From the other side of the foam ring remove the adhesive protector and stick the aluminium tag on it, as shown on the picture.

5.2   MANUAL ACTUATION BUTTON

Manual actuation (or "FIRE") button is used in cases when the operator spots a fire before the detection system reacts. If the operator wants to manually activate the system, the tamper seal needs to be pulled-off and the "Fire" button pressed. Once the tamper seal has been peeled-off it is not possible to stick it back and it must be replaced with a new tamper seal.

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AUTOMATIC FIRE
SUPPRESSION SYSTEMS

FIRE ALARM

Indications:

- constantly lit RED light and
- constant beep for 120 seconds
- after 120 seconds the RED light remains lit with intermittent beep once every 5 seconds

Reasons:

- Fire button was pressed;
- electric fire detection circuit was triggered;
- pressure switch detected agent discharge;
- pressure transducer detected agent discharge.

LOW PRESSURE

Indications:

- rapid ORANGE flash 1x per 4 sec. and
- beep 1x per 4 sec.

Reasons:

- pressure transducer detected low pressure in the system;
- pressure switch detected low pressure in the system.

DELAY OF FIRE ALARM

Indications:

- rapid RED flash 2x per 1 sec. and
- rapid beeping

Reasons:

- delay discharge time was set for Fire button activation;
- delay discharge time was set for electric detection.

HIGH PRESSURE

Indications:

- rapid ORANGE flash 1x per 1 sec.
- beep 1x per 1 sec.

Reasons:

- pressure transducer detected high pressure in the system.

WORKING ORDER

Indications:

- constantly lit GREEN light

Reasons:

- all active components are working correctly and pressure in the system is optimal.

COMPONENT FAULT

Indications:

- constantly lit ORANGE light and
- beep 1x per 2 sec.

Reasons:

- component is disconnected;
- component is faulty.

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Page 24 of 31

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Wi-Fi TURN OFF	OTHER STATES
Indications:	**Indications:**
▪ constantly lit GREEN light ▪ one beep	▪ no light indication and sound indication;
Reasons:	**Reasons:**
▪ 5 minutes of inactivity in the configuration menu.	▪ the alarm panel could be without power or with a malfunction; ▪ other unmentioned states.

For always at hand alarm state table, ask for the DRIVERS QUICK GUIDE – ALARM PANEL.

6.1 LABELS

Various high quality UV stabilized labels are supplied with the BlazeCut system to ensure that the operator or people that may come in contact with the system are informed about its presence and operation. All labels can be reordered separately when replacement is required due to damage.

Table 9: Notification labels

Part №	Description	Comment
ALA004	"In the event of a fire" 100 x 70 mm	Vehicle system label placed in the cabin to notify the operator about procedure in the event of a fire.
ALA005	"In the event of a fire" 100 x 70 mm	Gas system label (fixed installation) placed in the protected area to notify the operator or personnel about procedure in the event of a fire.
ABS110	"BlazeCut" 110 x 68 mm	promotional sticker
ABS220	"BlazeCut" 220 x 135 mm	promotional sticker
ABS300	"BlazeCut" 300 x 110 mm	promotional sticker AFSS

ALA004

ALA005

ABS110 and ABS220

ABS300

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Page 26 of 31
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AUTOMATIC FIRE
SUPPRESSION SYSTEMS

BLAZECUT

ANNEX 1: DETECTION, SIGNALLING AND ALARM PANEL ACCESORIES

A1.1. DETECTORS

Table 10: Detectors

Part №	Type	Description
ASD001	smoke detector	with relay output and base, IP40, 0 – 45 °C, EN54
AHD001	heat detector	differential with relay output and base, IP40, -10 – 45 °C, EN54, actuates at 54 °C
AHD002	smoke and heat detector	optical with relay output and base, IP40, 0 – 45 °C, EN54, actuates at 54 °C
AER101	end-of-line resistor	1 kΩ for ASD001, AHD001, AHD002
AHP110	heat probe detector	switching temperature 110 °C, IP67, operating temperature up to 130 °C, with a 2-pin connector and a mounting nut

ASD001   *AHD001*   *AHD002*

AER101   *AHP110*

A1.2. SIGNALLING UNITS

Table 11: Signalling units

Part №	Type	Description
ASU001	sound and light signalling unit	81 dB, CE, 6 - 28 V DC, CE exceeds EN54-3; suitable for indoor, fixed, low vibration installations
ASU002	sound and light signalling unit	high base, 114 dB, IP44, EN54-3/CE/LPCB, 24 V DC, CE exceeds EN54-3; suitable for indoor, fixed, low vibration installations
ASU003	sound and light signalling unit	high base, 101 dB(A), IP65, 18-24 V DC, CE exceeds EN54-3; suitable for indoor, fixed, low vibration installations
ASR001	sounder	multitone with high base, 92 – 112 dB, IP65, CE/VdS, LPCB, 9 – 15 V DC, CE exceeds EN54-3; suitable for indoor, fixed, low vibration installations
ABR001	red xenon beacon	IP65, CE, VdS, 9 – 60 V DC, CE exceeds EN54-3; suitable for indoor, fixed, low vibration installations
ABR002	red led beacon	IP65, CE, R10, 12-24 V DC, -20 to +50 °C, 3 bolt mounting; suitable for outdoor mobile applications
ASB001	sounder	97 dB, IP65, SAE J994 Type C, AMCA, UL, CE, E, 12 – 24 V DC, -40 to +85 °C; suitable for outdoor mobile applications
AWB012	warning buzzer	red LED dots, 12V DC, 80 dB (@1 m), IP54. -20 to +50 °C, stainless steel; suitable for fixed and mobile installations; includes ALA019 label
AWB024	warning buzzer	red LED dots, 24 V DC, 80 dB (@1 m), IP54. -20 to +50 °C, stainless steel; suitable for fixed and mobile installations; includes ALA019 label

<div align="center">

ASU001　　　　　*ASU002*　　　　　*ASU003*

</div>

<div align="center">

ASR001　　　　　*ABR001*

ABR002

</div>

<div align="center">

ASB001　　　　　*AWB012 and AWB024*

</div>

A1.3. ALARM PANEL ACCESORIES

Table 12: Alarm panel accessories

Part №	Type	Description
APB210	panel bracket	stainless steel, for AAP210, AAP211, AAP310 Alarm Panels
ATS002	tamper seal	for Alarm Panel AAP211
ABP212	backup power supply	12 V for AAP alarm panels, includes 1 x 7.0 Ah battery, for indoor use only
ABP224	backup power supply	24 V for AAP alarm panels, includes 2 x 7.0 Ah battery, for indoor use only
ACF001	fuse case	case for external fuse for Alarm Panels AAP210, AAP211 and AAP310
AEF002	fuse	external fuse 2 A for Alarm Panels AAP210, AAP211 and AAP310

<div align="center">

APB210　　　　　*Tamper Seal ATS002*

</div>

ACF001

AEF002

ABP212

ABP224

ANNEX 2: ELECTRICAL COMPONENTS

A2.1.   ELECTRICAL CABLES, CONDUITS AND CONNECTORS

For installation of electrical components use the appropriate electrical cables supplied as optional components:

- solenoid – two core electrical cable,
- Pressure Transducer ATA100 – three or four core electrical cable,
- Pressure Switch APS001 – two or three core electrical cable.

Table 13: Specifications of cables

Part №	Description	Comment	Length
ASC002	standard cable, 2x0.75 mm^2, -40°C up to 80 °C, UV stabilized	for standard installations	per metre
ASC004	standard cable 4x0.5 mm^2, -40°C up to 80 °C, UV stabilized	for standard installations	per metre
ASC008	standard cable 8x0.5 mm^2, -40°C up to 80 °C, UV stabilized	for standard installations	per metre
ASC010	standard cable 10x0.5 mm^2, -40°C up to 80 °C, UV stabilized	for standard installations	per metre
ASC102	silicone cable 2x0.75 mm^2, -60 °C up to 180 °C, UV stabilized, up to 500 V	for installations with high temperatures like in engine compartments	per metre
ASC103	silicone cable 3x0.50 mm^2, -60 °C up to 180 °C, UV stabilized, up to 500 V	for installations with high temperatures like in engine compartments	per metre
ASC104	silicone cable 4x0.50 mm^2, -60 °C up to 180 °C, UV stabilized, up to 500 V	for installations with high temperatures like in engine compartments	per metre

Standard cable

Silicone cable

Table 14: Silicone cable kits

Part №	Description
KASC102-005	2-core Silicone cable kit, 5 metres, 15 cable ties, -60 °C up to 180 °C
KASC102-010	2-core Silicone cable kit, 10 metres, 30 cable ties, -60 °C up to 180 °C
KASC102-015	2-core Silicone cable kit, 15 metres, 45 cable ties, -60 °C up to 180 °C
KASC102-020	2-core Silicone cable kit, 20 metres, 55 cable ties, -60 °C up to 180 °C
KASC103-005	3-core Silicone cable kit, 5 metres, 15 cable ties, -60 °C up to 180 °C
KASC103-010	3-core Silicone cable kit, 10 metres, 30 cable ties, -60 °C up to 180 °C
KASC103-015	3-core Silicone cable kit, 15 metres, 45 cable ties, -60 °C up to 180 °C
KASC103-020	3-core Silicone cable kit, 20 metres, 55 cable ties, -60 °C up to 180 °C
KASC104-005	4-core Silicone cable kit, 5 metres, 15 cable ties, -60 °C up to 180 °C
KASC104-010	4-core Silicone cable kit, 10 metres, 30 cable ties, -60 °C up to 180 °C
KASC104-015	4-core Silicone cable kit, 15 metres, 45 cable ties, -60 °C up to 180 °C
KASC104-020	4-core Silicone cable kit, 20 metres, 55 cable ties, -60 °C up to 180 °C

In case of installation in spaces with increased risk of damage due to mechanical interference use the cable conduit with conduit connector to protect the electrical cables.

Table 15: Specifications of conduits

Part №	Description	Length
ACC110	internal Ø 10 mm, -40 °C to 120 °C, UV stabilized	per metre

ACC110

Table 16: Specifications of electrical connectors

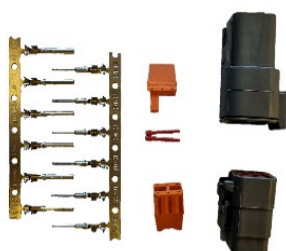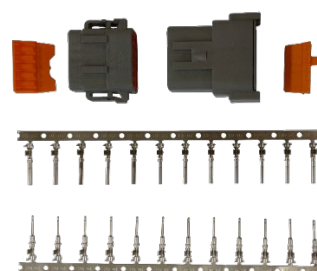| Part №	Description	Working temperature
ADP001	sealing plug for Deutsch connectors	-55 °C to +125 °C
ADC002	2-pin Deutsch connector	
ADC006	6-pin Deutsch connector	
ADC012	12-pin Deutsch connector	

ADP001
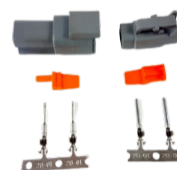
2-pin Deutsch connector

6-pin Deutsch connector

12-pin Deutsch connector

AUTOMATIC FIRE
SUPPRESSION SYSTEMS

ADDITIONAL NOTES

Please note any suggestions for BlazeCut to improve our manuals and email us at technical@blazecutgroup.com