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Exigo PA/GA System

User Manual

EN

A100K11471

1.   Introduction

1.1. About this Document

This document provides relevant information on how to use the Access Panels for the Exigo Public Address & General Alarm System.

1.2. Publication Log

Revision	Date	Author	Comments
1.0	05.02.2015	HKL	Published
1.1	22.06.202	HKL	PAM1H Mic
1.2	20.02.2025	CV/JS	Adopted for MED approval

1.3. Related Documents

Document Number	Documentation
A100K11460	Exigo Technical Manual
A100K11510	Exigo System Description
A100K11579	Exigo Industrial Access Panels Mounting
A100K11499	Exigo Ex Access Panels Installation & Maintenance

1.4. Rules and Regulations

The Exigo Public Address and General Alarm System is designed to meet the requirements in accordance with SOLAS & Marine Equipment Directive (MED):
-   SOLAS reg. II-2 & III/6.4, 6.5
-   MED 2014/90/EU
-   MSC.48(66) – International Life-Saving Appliance (LSA) Code
-   MSC/Circ.808 – Recommendation on Performance Standards for Public Address Systems on Passanger Ships
-   Res. A.1021(26) – Code on Alarms and Indicators
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The system also meets additional requirements from the following class societies:
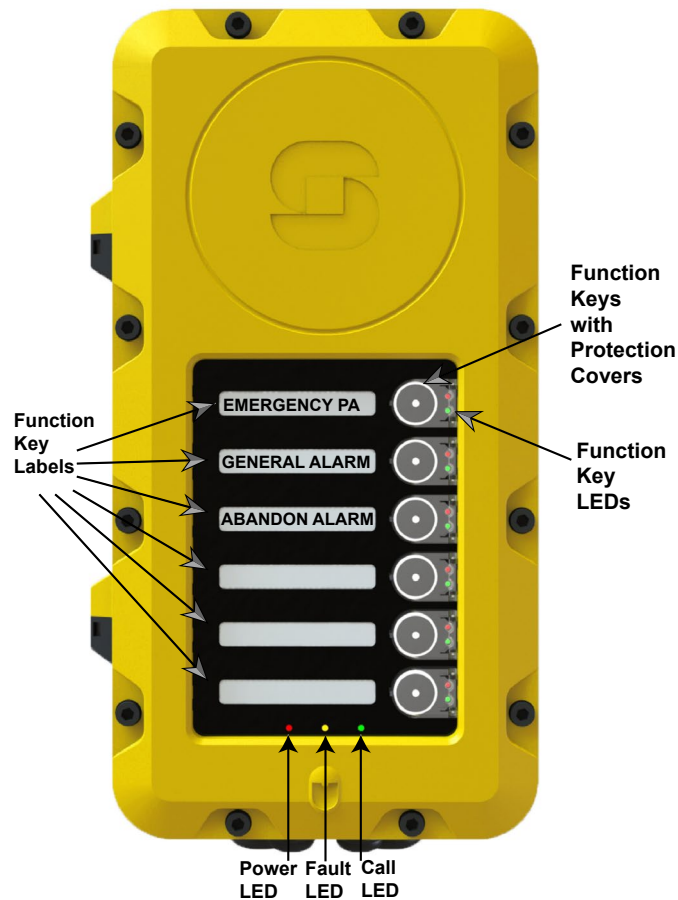DNV, BV, CRS, CCS, RINA, and ABS.

The Exigo system and its components have been tested according to the following standards:

- **IEC 60945: Fourth edition, 2002**
"Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results".
- **IACS E10: Revision 8, 2021**
"Unified environmental test specification - Testing procedure for electric control and monitoring, safety and protection, onboard computer based systems and peripherals, loading instruments, internal communication and other electrical equipment as considered appropriate".
- **EN 50695:2021**
"Public Address & General Alarm Systems, communication system for marine applications."
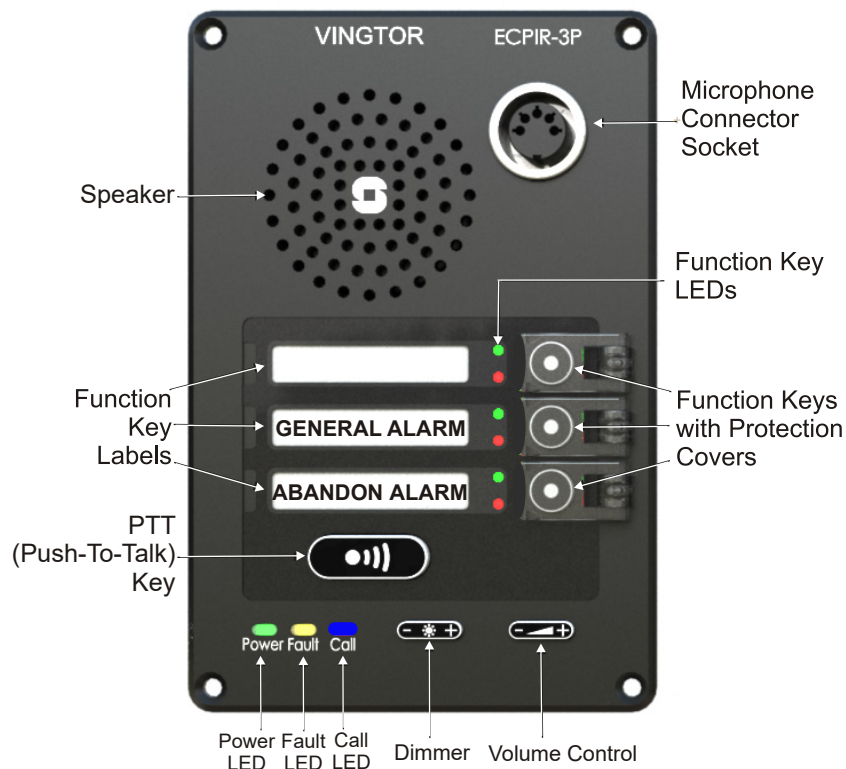
2. Exigo Access Panels

2.1. Access Panel

Outdoor Access Panel

Function Keys with Protection Covers

Function Key Labels

EMERGENCY PA

GENERAL ALARM

ABANDON ALARM

Function Key LEDs

Power LED   Fault LED   Call LED

Indoor Access Panel

VINGTOR   ECPIR-3P

Microphone Connector Socket

Speaker

Function Key LEDs

Function Key Labels

GENERAL ALARM

ABANDON ALARM

Function Keys with Protection Covers

PTT (Push-To-Talk) Key

Power LED   Fault LED   Call LED   Dimmer   Volume Control

Power Fault Call

Important: Above indoor access panels and the use of functions and coloring is mandatory only for Marine Equipment Directive (MED) installations.
For MED alarm functions must be with red LEDs in function keys while other functions including Emergency PA, zone selections, pre-recorded messages etc. must be blue LEDs in function keys

Microphone Connector Socket
Both the handheld or gooseneck microphone can be plugged into this socket.

Function Keys
Functions such as PA, alarms, zone selection, etc. can be dynamically programed into these keys.

Key Protection Covers
The protection covers are for preventing accidental use of the function keys. When keys are used for alarms, protection covers are required so as to force a 2-step action for activating the alarms.

Function Key LEDs
Each function key has one green and one red LED to indicate different status information related to the function.

PTT (Push-To-Talk) Key
The PTT key is used in conjunction with the gooseneck microphone when making PA broadcasts.

Power LED
The green Power LED is lit to indicate that the access panel is powered up.

Fault LED
The yellow Fault LED blinks to indicate that there are faults in the system.

Call LED
The blue Call LED is lit when the microphone is in use or active.

Dimmer
The intensity of the backlight in the keys can be adjusted by pressing the dimmer button. The light intensity is increased or decreased by pressing the plus (+) or minus (-) side of the dimmer button respectively.

Volume Control
The volume can be adjusted by pressing the volume button. The volume is increased or decreased by pressing the plus (+) or minus (-) side of the button respectively.

2.2. Indoor Panel Models

Item Number	Item Name	Item Description
1000662	EAPIR-8	Exigo Alarm Panel, 8 Buttons, Ethernet, Blue Call
1000663	ECPIR-P	Exigo Call Panel, PTT Button, Plug. Microphone, Ethernet, Blue Call
1000664	ECPIR-3P	Exigo Call Panel, PTT + 3 Buttons, Plug. Mic, Ethernet, Blue Call
1000665	ECPIR-3P-B	Exigo Call Panel, PTT + 3 Buttons, Plug. Mic, Ethernet, Blue
1000670	EBMDR-8-B	Exigo Button Expansion Module, 8 Buttons, Blue
1023253008	EBMDR-8	Exigo Button Expansion Module, 8 Buttons, Red

2.3. Outdoor Panel Models

Item Number	Item Name
1023201201	EAPII-1 Industrial Access Panel, 1 Button
1023201206	EAPII-6 Industrial Access Panel, 6 Buttons
1023221611	EAPFX-1-V2 Ex Access Panel, 1 Button
1023221616	EAPFX-6-V2 Ex Access Panel, 6 Buttons

2.4. Microphones

Item Number	Item Name	Panel Usage
1023533012	PAM1H Handheld Mic	Indoor Access Panels
3005020033	MB-30G Gooseneck Mic	Indoor Access Panels
1023533312	EMMAI-2H Handheld Compact Mic	Outdoor Industrial Access Panels
1023533511	EMMAX-1H Handheld Compact Mic	Outdoor Ex Access Panels

PTT (Push-To-Talk) Key

PAM1H   EMMAI-2H/EMMAX-1H

3.   Emergency PA Broadcast

The function keys have protection covers to prevent accidental use.

An Emergency PA will be broadcasted to all zones.

Emergency PA Procedure
1. Flip open the key protection cover for the key designated for **Emergency PA**

2. Press the Emergency PA key and the Public Address broadcast is set up.
- Indicated by a steady green LED beside the function key.
- Ongoing alarm, PA message with lower priority, entertainment broadcast will be muted.
- Volume control for entertainment broadcast will be overridden.

3. Press and hold the PTT key on the panel or microphone.
- The blue Call LED will be lit

4. Speak close to and clearly into the microphone to broadcast the message.

5. Release the PTT key to terminate the PA broadcast.
- If an alarm, PA message with lower priority, entertainment broadcast have been muted, they will automatically resume.

4.   General Alarm Broadcast

General Alarm can be programed into the function keys of the access panel.
The General Alarm is recognized through the sounding of 7 short tones followed by 1 long tone.

Alarm Broadcast Procedure
1. Flip open the protection cover for the key designated for the alarm you wish to start.

2. Press the GENERAL ALARM key to activate the alarm.
- Indicated by a steady green LED beside the ALARM key.
- Corresponding LEDs on all other panels in the system will also be lit
- Ongoing entertainment broadcast and other activities with lower priority will be muted.

3. Press the GENERAL ALARM key again to terminate the alarm.
- Entertainment broadcast and other activities with lower priority will resume.

 General Alarm started from the bridge cannot be terminated from panels in other locations on the vessel.
However, it is possible to terminate any General Alarm in the system from the bridge alarm panel.

5.   Manual Alarm Broadcast

Manual Alarm can be programed into the function keys of the access panel.
By pressing and releasing the MANUAL ALARM key, an alarm tone sequence can be broadcasted.

Alarm Broadcast Procedure
1. Flip open the protection cover for the key designated for the alarm you wish to start.

2. Press and release the MANUAL ALARM key to broadcast an alarm tone sequence
- As long as the key is pressed, the tone will be broadcasted
- Indicated by a steady green LED beside the MANUAL ALARM key.
- Corresponding LEDs on all other panels in the system will also be lit
- Ongoing entertainment broadcast will be muted.
- When the key is not pressed within a period of 10 seconds (or less depending on the programming), the alarm is terminated and entertainment broadcast will resume.

6.   Abandon Alarm Broadcast

Abandon Alarm can be programed into the function keys of the alarm panel.

Alarm Broadcast Procedure

1. Flip open the protection cover for the key designated for the alarm you wish to start.

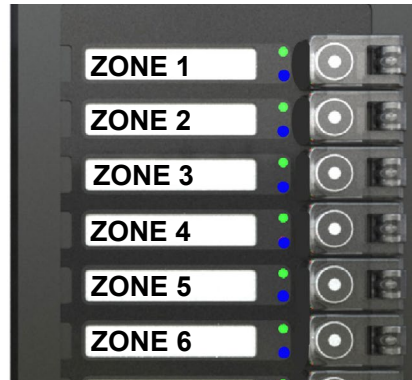

2. Press the ABANDON ALARM key to activate the alarm.
- Indicated by a steady green LED beside the ALARM key.
- Corresponding LEDs on all other panels in the system will also be lit
- Ongoing entertainment broadcast and other activities with lower priority will be muted.

3. Press the ABANDON ALARM key again to terminate the alarm.
- Entertainment broadcast and other activities with lower priority will resume.

7. PA Broadcast with Zone Selection

The function keys on the panel can be designated as various zones.

PA Broadcast Procedure

1. Flip open the protection cover for the key(s) designated for the zone(s) to which the PA will be broadcasted

2. Select zones by pressing the function keys for the desired PA zones.
- When the zone is selected, the green LED by the ZONE key will be lit.
- To deselect the zone, press the ZONE key again.

3. Press and hold the PTT key on the panel or microphone.
- The blue Call LED will be lit

4. Speak close to and clearly into the microphone to broadcast the message.
- Ongoing entertainment broadcast will be muted.

5. Release the PTT key to terminate the PA broadcast.
- Entertainment broadcast will resume.

8.   PA Broadcast with Recall

PA with Recall can be programed into the function keys of the access panel.
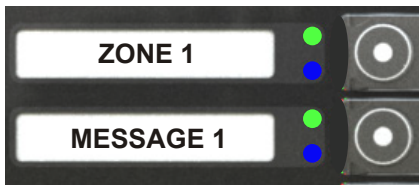One key is programed to RECORD while another key is programed to DISPATCH the PA.

Broadcast Procedure

1. Flip open the protection covers for the function keys.

2. Select zones by pressing the function keys for the desired PA zones.
- When the zone is selected, the green LED by the ZONE key is lit.
- To deselect the zone, press the function key again.

3. Press and hold the RECORD key.

4. Speak close to and clearly into the microphone to record the message.

5. Release the RECORD key to play back the recorded message.
- If the message is not satisfactory, press the RECORD key to record the message again

6. Press the DISPATCH key to broadcast the message

9.   Prerecorded Message Broadcast

A Prerecorded Message Broadcast can be programed into the function keys of the access panel.
The prerecorded message can be programed into e.g. a key labeled MESSAGE 1.

Broadcast Procedure

1. Flip open the protection covers for the function keys.

2. Select zones by pressing the function keys for the desired PA zones.
- When the zone is selected, the green LED by the ZONE key is lit.
- To deselect the zone, press the function key again.

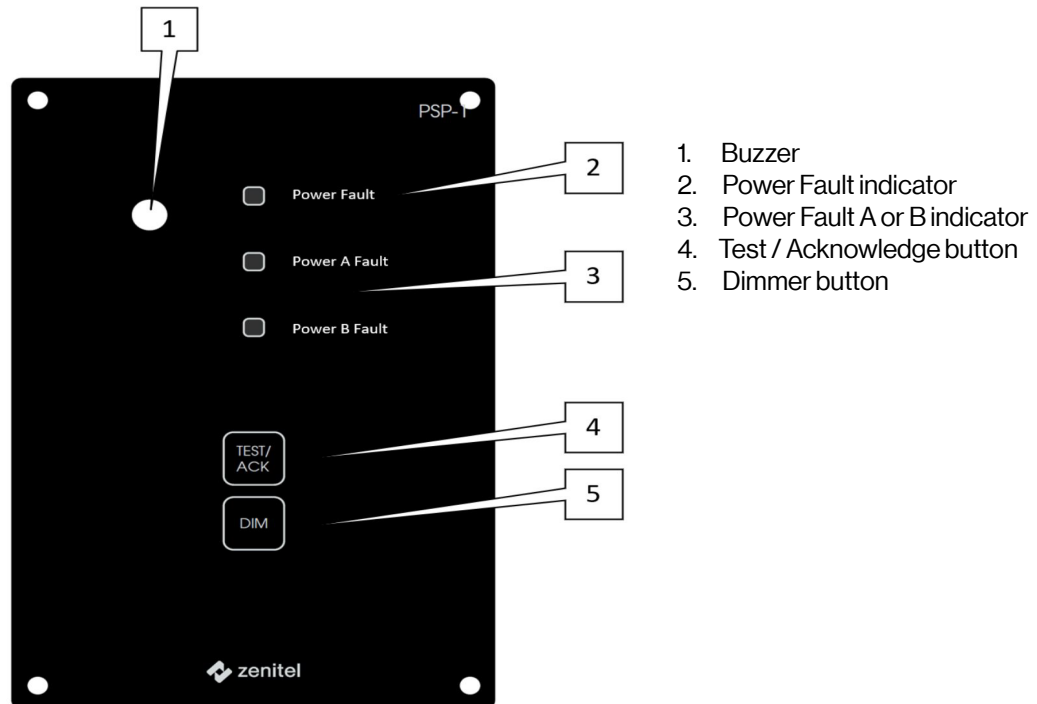3. Press the MESSAGE 1 key to broadcast the prerecorded message.

10. Surveillance Panel PSP-1

The purpose of the PSP-1 is to monitor the presence of either of the two DC power sources and inform visually and audibly if any of the monitored power sources go missing.

The PSP-1 has 3 LED indicators, two yellow and one amber, and one buzzer and two backlighted push buttons for adjusting light level and one dual function button for visual and audible function test of panel and to acknowledge a power fault alarm.

The buzzer audio level is 80 dB ±5 dB at 1 meter and buzzer frequency is 2400 Hz.

The PSP-1 has an embedded power source used to keep the device alive if both monitored DC powers go missing. This will keep the PSP-1 up and running for at least 30 minutes (typical 45 mins). The embedded power source in PSP-1 needs to be charged at initial power up and at least one of the monitored 24 V DC power sources must be connected for at least 2 minutes for the embedded power source to be fully charged. The mentioned power source is maintenance free capacitors.

1. Buzzer
2. Power Fault indicator
3. Power Fault A or B indicator
4. Test / Acknowledge button
5. Dimmer button

The functional description of the possible states for the PSP-1 is listed below:

Normal state	Both power A and B present
"Power Fault" indicator, Amber LED	OFF
"Power A Missing" indicator, Yellow LED	OFF
"Power B Missing" indicator, Yellow LED	OFF
Buzzer	OFF
"TEST/ACK" backlight button, Green LED	ON at preset dim level
"DIM" backlight button, Green LED	ON at preset dim level
"TEST/ACK" button	Test function. If button pressed: • buzzer ON at max level • all indicators ON at max level
"DIM" button	Dim function, changes dim light level in all indicators and backlight buttons. If button toggles: • NIGHT • DUSK • DAY • LED will be NIGHT and backlight buttons will be Off.
External Test output	ON/OFF follows "TEST/ACK" button
External Dim output	ON at preset dim level

User action: Possible to activate "DIM" and "TEST/ACK" buttons to set new dimming level and to test all indictor LEDs and buzzer.

Single power missing state	Either power A or B missing
"Power Fault" indicator, Amber LED	OFF
"Power A Missing" indicator, Yellow LED	ON if power A missing else OFF
"Power B Missing" indicator, Yellow LED	ON if power B missing else OFF
Buzzer	OFF
"TEST/ACK" backlight button, Green LED	ON at preset dim level
"DIM" backlight button, Green LED	ON at preset dim level
"TEST/ACK" button	Test function. If button pressed: • buzzer ON at max level • all indicators ON at max level
"DIM" button	Dim function, changes dim light level in all indicators and backlight buttons. If button toggles: • NIGHT • DUSK • DAY • LED will be NIGHT and backlight buttons will be Off.
External Test output	ON/OFF follows "TEST/ACK" button
External Dim output	Changes according to "DIM" button

User action: Possible to activate "DIM" and "TEST/ACK" buttons to set new dimming level and to test all indictor LEDs and buzzer. If the missing power reappears then state will "self-rectify" and "Normal state" indicator will be shown.

Both powers missing unacknowledged state	Both power A and B missing
"Power Fault" indicator, Amber LED	Flash
"Power A Missing" indicator, Yellow LED	OFF
"Power B Missing" indicator, Yellow LED	OFF
Buzzer	2 audible signals at max level, alarm follows flashing "Power Fault" indicator. Repeated after 30 seconds.
"TEST/ACK" backlight button, Green LED	ON at preset dim level
"DIM" backlight button, Green LED	OFF
"TEST/ACK" button	Ack function. If button pressed: • buzzer OFF • "Power Fault" indicator flashing
"DIM" button	No function
External Test output	OFF
External Dim output	OFF

User action: Only user option is pressing "TEST/ACK" button which will change state to "Both powers missing acknowledged state".

This unacknowledged state will persist for at least 30 minutes or until one or both powers reappears, or the PSP-1 "dies" due to empty "super-caps".

If either or both power A or B reappears state will change to "Power Fault self-rectified when in unacknowledged state".

Both powers missing acknowledged state	Both power A and B missing
"Power Fault" indicator, Amber LED	ON, flashing
"Power A Missing" indicator, Yellow LED	OFF
"Power B Missing" indicator, Yellow LED	OFF
Buzzer	OFF
"TEST/ACK" backlight button, Green LED	ON at preset dim level
"DIM" backlight button, Green LED	OFF
"TEST/ACK" button	No function.
"DIM" button	No function
External Test output	OFF
External Dim output	OFF

User action: No user action possible.

This acknowledged state will persist for at least 30 minutes or until one or both powers reappears, or the PSP-1 "dies" due to empty "super-caps".

If either or both power A or B reappears state will change to "Power Fault self-rectified when in unacknowledged state".

Power Fault self-rectified when in unacknowledged state	Either power A and/or B reappears
"Power Fault" indicator, Amber LED	Continuous flashing
"Power A Missing" indicator, Yellow LED	ON if power A missing else OFF
"Power B Missing" indicator, Yellow LED	ON if power B missing else OFF
Buzzer	OFF
"TEST/ACK" backlight button, Green LED	ON at preset dim level
"DIM" backlight button, Green LED	OFF
"TEST/ACK" button	Ack function. If button pressed: • "Power Fault" indicator OFF
"DIM" button	No function
External Test output	OFF
External Dim output	OFF

User action: Only user option is pressing "TEST/ACK" button which will change state to either "Normal state" or "Single power missing state".

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