TELEFIRE
FIRE & GAS DETECTORS

EVS-6400

public address system

Technical instructions

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Please note

Do not install, operate, or perform maintenance on the equipment before reading thismanual in its entirety.

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Table of Contents

Table of Contents

1 Introduction 1

2 Safety Notes and Warnings 1

3 Main features, and additional functions 2

System Components 3 3.1

4 Installation and Maintenance 3

Connecting the speaker cables 3 4.1

Speaker Line Control 5 4.2

Enabling messages and fault relays 5 4.3

Connecting Controlled Microphones 6 4.4

Introduction to Background Music and Emergency Alerts 6 4.5

Connection to the national power grid and grounding 7 4.6

Power supply to the system 8 4.7

System Maintenance 8 4.8

Every six months 8 4.8.1

5 Menu Description 9

System Modes 9 5.1

System Menus 10 5.2

Setting zones for background music 11 5.3

Speaker Line Test Time Settings 12 5.4

Fault Monitoring 12 5.5

6 Technical data..... 13

7 Standardization 15

introduction 1

The Telfire -6400EVS public address system is an integrated, modular public address system with a power of 240 W that includes emergency announcements in Hebrew and standard warning sounds in accordance with UL and NFPA requirements.

The 6400-EVS is an integrated monolithic system, built in a single enclosure and containing amplifier units (without line transformer), main board, power supply and backup batteries. The system is capable of playing recorded alarm and evacuation messages stored on a microSD card. In addition, there is the option to announce messages using the integrated microphone on the front panel, or using the remote emergency microphone. On-board microphone and remote microphones – controlled emergency microphones.

The 6400-EVS system includes a pre-recorded evacuation announcement in accordance with NFPA requirements and additional announcements that can be played according to different scenarios. Upon receiving an alarm from the fire detection system, the evacuation announcement will be played automatically. Upon arrival of the firefighters, an announcement can be made manually using the integral microphone or using a remote microphone, giving priority to the announcement from the microphone.

The system is certified by the Standards Institute of Israel and can be operated by direct connection to the hub or through addressable output assemblies -723ADR or -741ADR.

The public address system also has inputs for an uncontrolled microphone for service purposes, an input for playing background music, and inputs for activating a chime clock and "red color" or "earthquake" alerts.

"Red Color" or "Earthquake" chime and alarm clock – optional future connection. *

Safety notes and warnings 2

This system shall be installed and maintained in accordance with SI 1220 Part 3 and 11 by a qualified technician only.

This manual must be read and understood before installation and operation. This device is designed to operate on a mains voltage of -15% +10% Vac230 and a pair of backup batteries of 12 V voltage and 20 Ah capacity. This unit must be grounded.

Connection to the national power grid and grounding. It is essential to carefully follow the instructions contained in section 4.6. The device is protected by fuses located on the main power supply (V230) and on the backup power source located on the main board (2*V12 battery). The fuses, marked A12 Fuse (Batteries), all connections to the unit shall be made when it is disconnected from the mains voltage and battery voltage to prevent the risk of electric shock. The unit must be handled with care when it is turned on. It is the installer's responsibility to install a 6C-A6 circuit breaker (in a suitable electrical panel) dedicated to this device. The circuit breaker must be installed in a location with easy access. The following words must be marked on the circuit breaker: "Voice alarm system - do not disconnect / turn off" When it is necessary to perform an operation inside the device enclosure, to prevent the risk of electric shock, ensure that the mains voltage (V230) is disconnected. The backup battery must also be disconnected since there is a dangerous level of energy inside the device.

Do not expose the device to moisture, rain or any other liquid. Keep the device away from objects or containers containing liquids that may accidentally spill into the device through the ventilation openings. The device must be installed on site in a cool, ventilated place, and away from heat sources. Position the device so that the ventilation openings are not blocked. For backup purposes, use only batteries with the voltage and capacity specified in this manual.

Date: April 2021

Batteries in the unit must be replaced with the same voltage and capacity as defined in the technical instructions – do not connect batteries with a configuration other than the nominal V12 voltage.

Do not connect batteries to the system with the polarity opposite to that indicated on the input connectors. This will damage the unit and void the manufacturer's warranty. The batteries must be in a case with a fire resistance rating of HB or higher. When assembling the system, when using tools such as pliers or a screwdriver, be very careful not to damage the electronic board.

Main features, and additional functions 3

Integrated 6-zone public address system, including a Class D power amplifier (without line transformer) and a power supply unit based on a mains voltage source (230 V mains voltage) and a backup voltage source (2*12 V batteries)

On the front panel is a dynamic microphone controlled by a password to allow access to the device's functional levels (optional) Alarms and general messages, recorded on a microSD card

Class D power amplifier, W240 power

V100 constant voltage speaker line Independent monitoring of speaker lines with direct measurement of DC voltage

6 inputs for triggering an alarm or evacuation message

Input for a remote emergency microphone workstation with controlled connection Input for connection for emergency messages (red color, earthquake)

The user interface diagram below schematically shows the links outside the system.

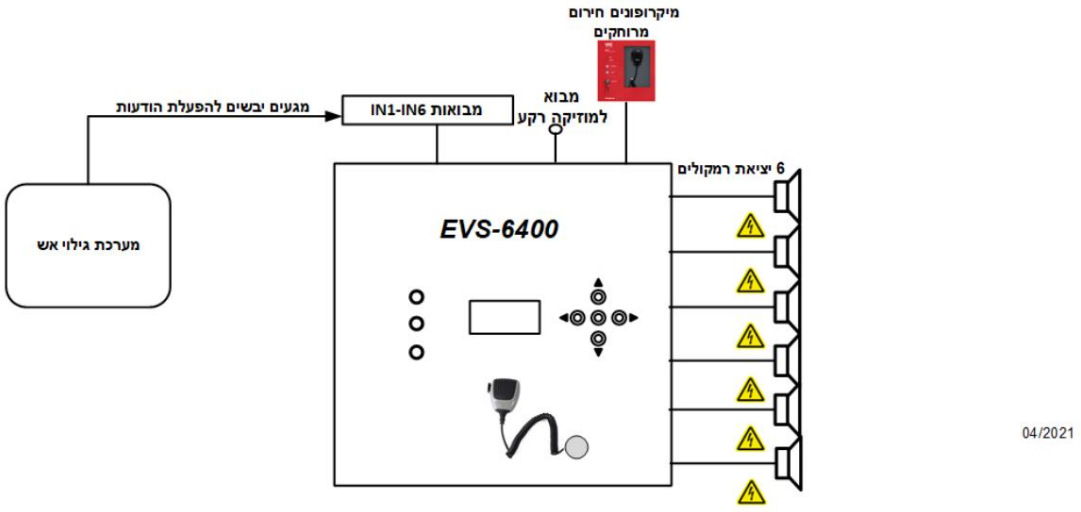


Figure 1

System components 3.1

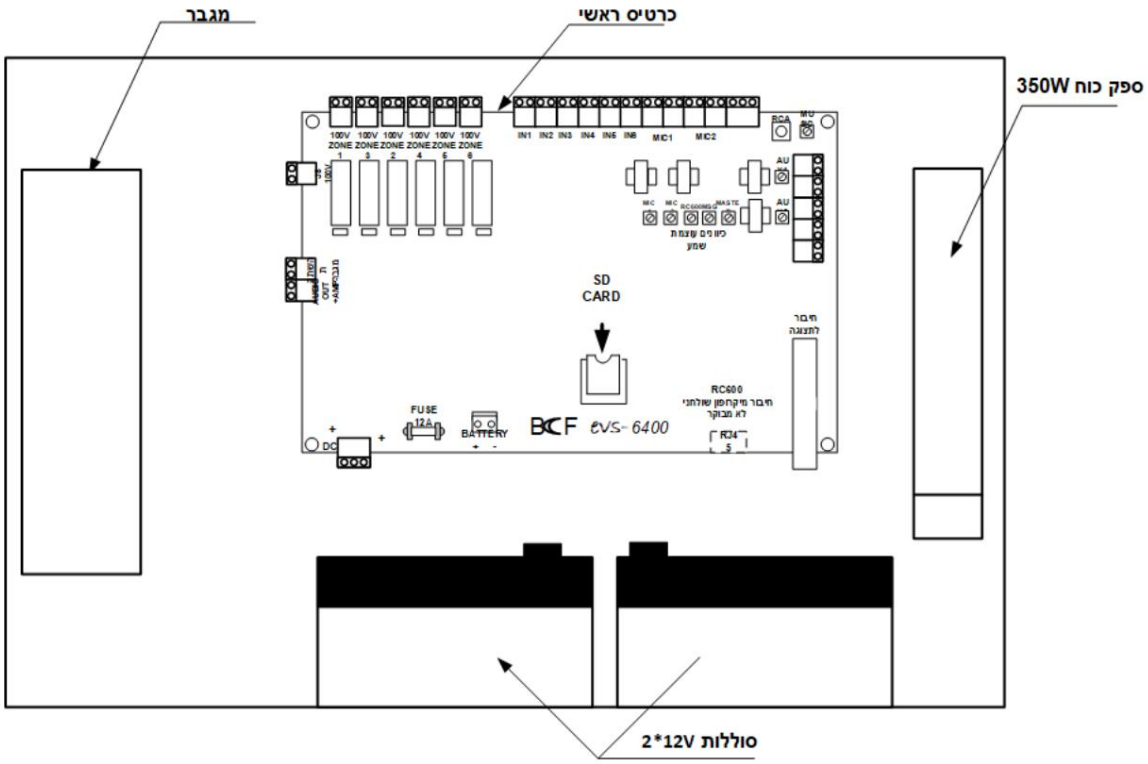


Figure 2

4 Installation and maintenance

The system will be installed in accordance with the guidelines of T.I. 1220 and by a trained person.

Connecting the speaker wires 4.1

All speakers must have a V250*uF.2.2 capacitor.

The connection points for the speaker lines are located on the top left side of the main board. Connect the speaker lines to the V100 as shown in the diagram. The total power delivered through the speaker lines should not exceed W240 on any line or all lines alone.

When wiring the speaker line, care must be taken to prevent a short circuit between the two poles. If a short circuit occurs between the line, even if a fault is reported on the user interface, the system will not be able to transmit any alarm messages, the speakers,

V100 output provides a uniform constant voltage for speaker lines. Power levels: 100Vac nom, 240Wrms nom, Rmin=40Ohm It is recommended to use a cable with a minimum cross-sectional thickness of 1.5 mm for optimal power transmission.	1-100V + 100V zone1-zone6 2-100V-	

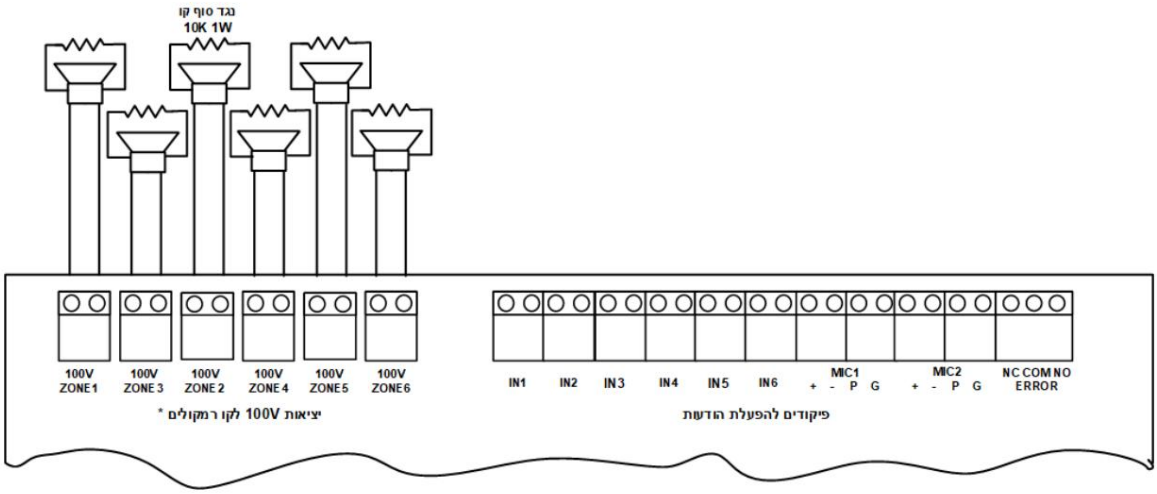


Figure 3

4.2 Speaker Line Control

The system performs speaker line control using the "end-of-line resistor" method.

The end-of-line resistor value W1 K.10

Speaker lines are tested for disconnection, short circuit, leakage to ground.

4.3 Activation of messages and fault relay

The system has six uncontrolled inputs for triggering messages, recorded on a microSD memory card. Each message is triggered by closing a dry contact, as shown in the diagram.

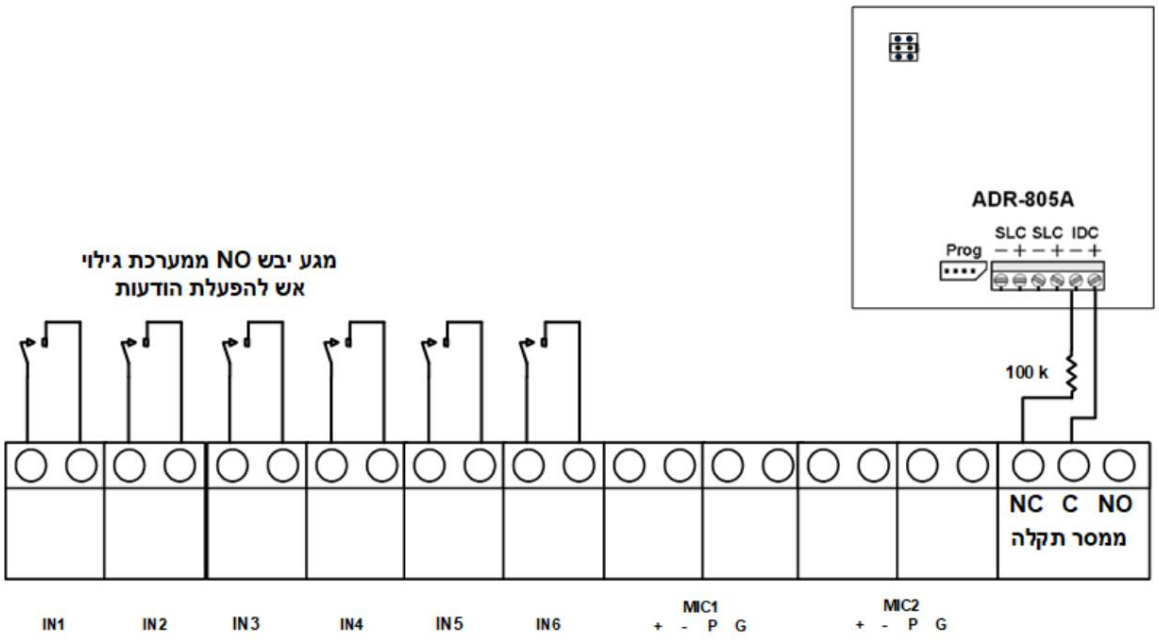


Figure 4

Connecting controlled microphones *4.4*

The system has an input for emergency announcement microphones (local microphone, system-mounted, remote microphone).

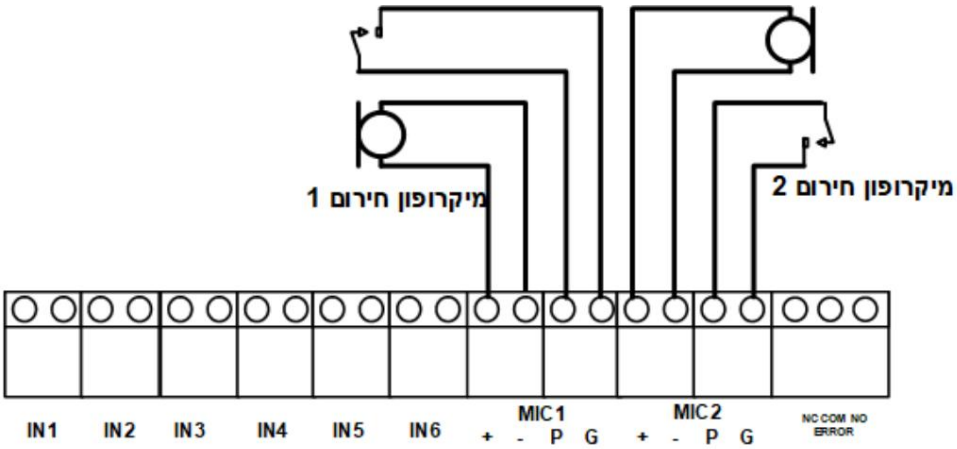


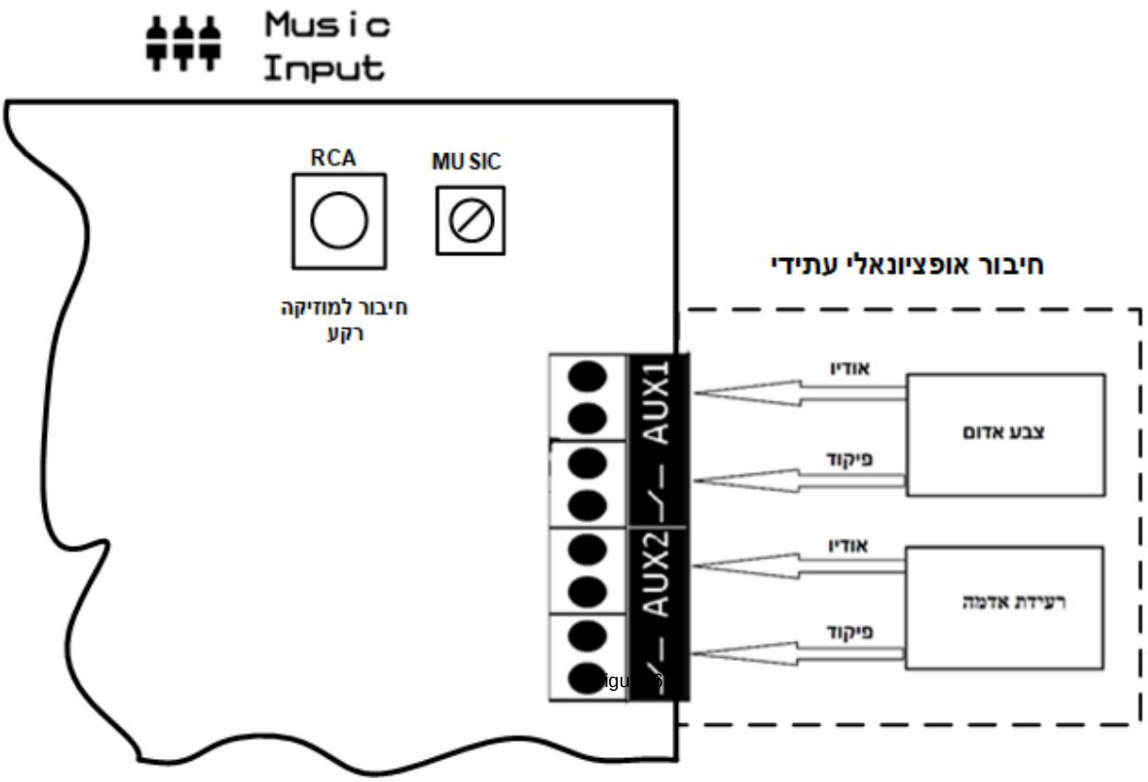
Figure 5

Introductory background music and emergency alerts *4.5*

The system has an RCA input for connecting an audio source for playing background music and two inputs for connecting alarms.

Emergency.

In the "Background Music" menu, you can program music to play for all zones!



Connection to the national power grid and grounding 4.6

The electrical wiring and connection to the electrical network, including the disconnect switch, will be done according to the guidelines of T.I. 1220 Part 3 in force and as required by the Israeli Electricity Law, and will be carried out by someone authorized to do so by law.

The mains voltage supply to the system will be made by direct connection from a semi-automatic circuit breaker in a private circuit in the electrical panel using standard electrical conduit and cable. If there is an emergency power generator, the system will be connected in such a way that its supply is also guaranteed in the event of a power outage in the mains.

The power cable will be entered through a separate entrance to the hub or in a separate duct. Care must be taken to pass the piping through an opening in the hub body or, alternatively, to protect the passage with a rubber grommet or a passage that includes a mechanical lock, such as Legrand number 98012 or equivalent. The ground connection will be made directly to the ground screw (Ground) marked on the amplifier.

According to T.I. 1220 Part 3, 2014 edition, a marking must be added near the amplifier regarding the physical location of the semi-automatic circuit breaker that feeds the hub and the circuit number from which the circuit breaker is powered. The main circuit breaker used to feed the system from the electrical network will also be marked with a clear and durable marking indicating that this circuit is connected to a fire detection system.

The connection point for the V230 mains power supply and the earthing connector are located on the top right, next to the cable entry slot. The image below shows the earthing and neutral line connections.

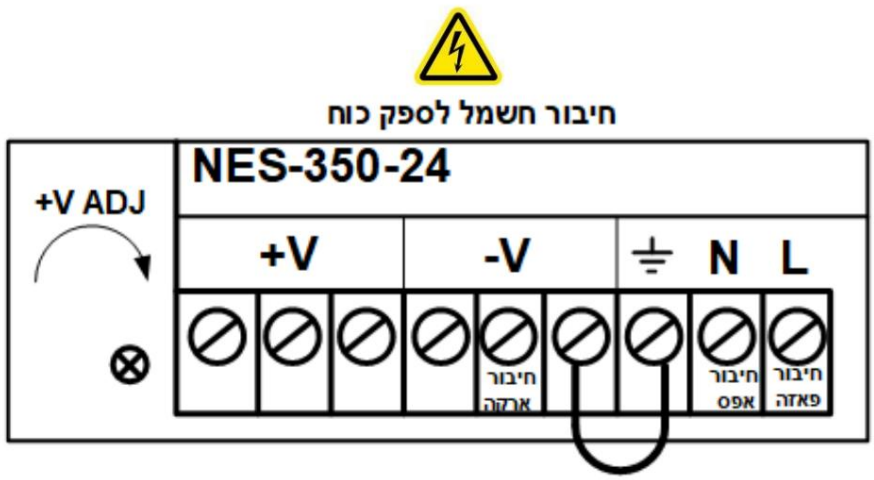


Figure 7

Please note: The network and ground connections must be made as shown in the picture.

For the connection to the national electricity grid, A 6C-A6 circuit breaker dedicated to this equipment must be installed; there is place it in a convenient place for access.

For both the mains power supply and grounding, cables with a cross-section of 1.5 mm must be used.

Make sure that there is no accidental or unintentional contact between the signal cables and low voltage cables in general, and the voltage points of the mains and the areas marked with the symbol (danger of electric shock). These are the points for connection with the mains voltage inside the device.

4.7 Power supply to the system

Connect power to the system, connect the positive and negative poles of the batteries to ,After making and checking all connections

Main card.

"

The system display shows **"System is in progress".**

System maintenance 4.8

4.8.1 Every six months

Clean the device with a dry cloth.

Make sure the ventilation openings are not blocked.

Check the wiring and connections.

Check the effectiveness of the ground

connections. Check the proper operation of the system according to Maintenance Standard 1220 Part 11.

Description of the seams 5

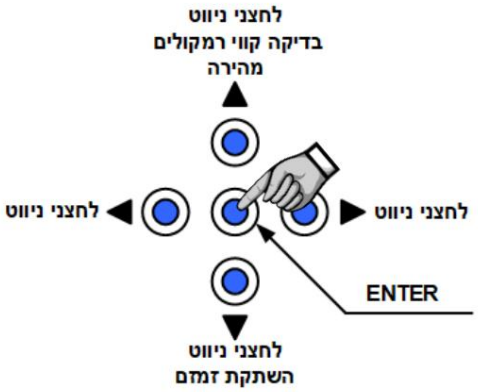
System states *5.1*

The system is designed to operate under various operating conditions. The system status is displayed via LEDs on the system's front panel and LCD screen.

Normal condition: Fault-free mode, without emergency voice messages. When the system is in good condition, only the green LED is on on the front panel of the The system.	
EMERGENCY Alarm: An operating mode in which a pre-recorded emergency message or a voice message transmitted via a microphone is triggered from the emergency microphone workstation. This can be triggered via an external device or from a workstation connected to one of the controlled contacts, the The system turns on ，emergency microphone. While the emergency message is being triggered, a red light is on to indicate the voice emergency message mode. The display shows the number of the active emergency message.	
ERROR: An operating state indicating the presence of at least one fault detected by the system. The state is indicated by an intermittent acoustic fault signal (buzzer) and the yellow LED lights up on the system display. The display shows the faults detected and a brief description of them.	

Note : It is also possible for operating modes to work simultaneously. The LEDs associated with the active modes light up on the front panel and the display shows a pop-up window indicating which and how many events are active.

Press the “ENTER” button to enter the menus.

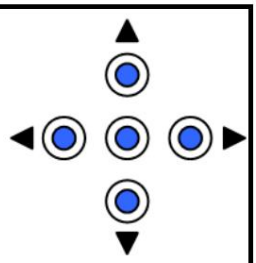


Main screen – System menus, select the "Commands" menu and press “ENTER“.

Using the navigation buttons **> <,** select a command number to activate messages.

Use the navigation buttons **> <** to select a message number.

Using the navigation buttons **> <,** select a zone number to play a selected message.

Press the “ENTER” button to enter the sea menu.	
Select "Background Music" menu.	
Select an area to play background music and press "ENTER".	
Continue to “Save” and press “ENTER“.	
To exit the menu, click "Exit".	

Speaker line test time settings *5.4*

Go to the "System" menu.	
Select a pause using the navigation button and click "Save".	
To exit the menu, click "Exit".	

Fault monitoring *5.5*

Enter the "Zone Mode" menu to check all speaker lines.	
Zone disconnection fault. Zone number in fault changes to an exclamation mark.	

Technical data 6

Hub dimensions (width, height, depth). ..... 14.5x52x62 cm

Hub weight (without batteries)..... 5.3 kg Operating temperature range..... C+60 - C-10 Relative humidity..... 10% - 90% non-condensing 230V +10%/-15%; 50Hz..... AC mains voltage

Current consumption

Idle mode ..... 300 mA

Maximum current at power W.....240 A2.8

Batteries

Charging voltage V27.3

Maximum charging current..... ..... 300 mA

Current consumption from battery at maximum power..... Ah20

The battery capacity will be determined in accordance with the requirements of Israeli Standard 1220 Part

Amplifier data (Class D)

Maximum power.....W240

Input sensitivity.. .... mV±480 dB±35

Frequency range in announcement ..... (dB±3 (2.4 KHz – 800 Hz)

Frequency range in music ..... dB±3 (20 KHz – 20 Hz)

Efficiency ..... 90%>

Temperature range..... . °C+105 - °C-20

DC 25V – 30V .....Working voltage

The system is approved to work with the following speakers and devices:

Notes	Description	model
Internal installation	6.5" speaker	-601RDS-BCF
Internal installation	2-Way Speaker	CT-108-6BCF
Internal installation	6" recessed speaker	TH-153-6BCF
Internal installation	5" recessed speaker	T-126-HSR-BCF
Internal installation	3" recessed speaker	T-162-HSR-BCF
Internal installation	5" box speaker	T-125HSR-BCF
Internal installation	3" box speaker	T-111HWR-BCF
Internal installation	Half-moon speaker	TH-118HWR-BCF
IP66	30W horn	BCF-SC-30
Internal installation	W20 Projector	T-312-6BCF
Internal installation	10W projector	T-312-5BCF
	PTT Microphone	BCF-ECM-30
	Remote microphone box	-1PKM-BCF
	Remote microphone junction boxes	BCF-PKL

Notes	Description	model
UL approved	50E-TLS Speaker/Strobe – 4" Wall Mount	
UL approved	Speaker / Flasher – 4" UL Approved Ceiling Mount	TLS-E60
Internal installation	W30 ABC mouthpiece	-030TLS
Internal installation	8" Music Speaker, 2-W10-20 WAY	TLS-108
Internal installation	Moon speaker on the wall	-118TLS
Internal installation	5" speaker in a white wooden box on Plaster	TLS-125
Internal installation	5" Metal Grill Ceiling Speaker	-126TLS
Internal installation	6" ceiling speaker	-153TLS
Internal installation	W10 mouthpiece	-310TLS
Internal installation	W20 mouthpiece	-312TLS
UL approved for wall mounting	Speaker / Flasher	-188TLS
UL approved for ceiling mounting	Speaker / Flasher	-189TLS

Certified to Israeli Standard 1220

Please note

Do not install, operate or perform maintenance on the system before reading the entire manual.
This instruction manual.