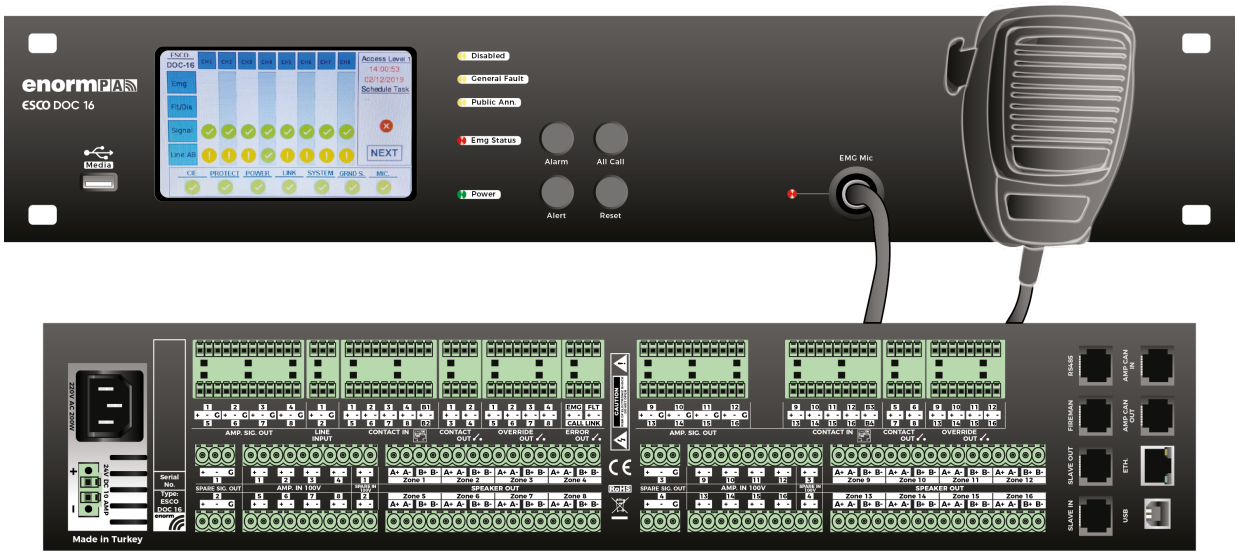
# DOC8 / DOC16

## MAIN CONTROL UNIT

## USER MANUAL




Network-based Public Address and Voice Alarm System

English

# Document Scope and Revision Notes

This manual covers the EnormPA ESCO DOC8 and DOC16 main control units. The products use the same operating concept, front-panel controls, touchscreen logic, DSP functions and current web interface. Model-specific channel and I/O quantities are identified wherever they differ.

**MODEL APPLICABILITY:** Unless a paragraph is specifically marked DOC8 or DOC16, the instruction applies to both models.

## Main model differences

| Function | DOC8 | DOC16 |
|---|---|---|
| Main zones / audio outputs | 8 | 16 |
| Speaker line outputs (A/B) | 8 | 16 |
| Supervised standard contact inputs | 8 | 16 |
| Programmable business inputs | 2 (B1-B2) | 4 (B1-B4) |
| Programmable contact outputs | 4 | 8 |
| Override outputs | 8 | 16 |
| Spare signal outputs | 2 | 4 |
| Main amplifier 50/100 V inputs | 8 | 16 |
| Spare amplifier 100 V inputs | 2 | 4 |
| Recommended maximum slave selection in legacy setup | 0-3 | 0-3 |

## Current web-interface mapping

| Current ESCO DOC v4.1 menu | Controls |
|---|---|
| Settings > System | Device configuration |
| File Upload | Uploading mp3 files (messages, gongs) |
| Device List | Introducing IP’s for communication |
| Settings > Channel | Zone configuration |
| Audio Matrix Left / Audio Matrix Right | MS40 (music server) configuration |
| Scheduled Task | Creating automatic messages |
| Control Input | Fire contacts configuration |
| Control Button | Alarm button configuration |

**IMPORTANT:** The web-interface chapter in this edition replaces the legacy interface chapter in the previous DOC16 manual.

# Contents

# 1. Important Notices and Safety

**WARNING:** To reduce the risk of fire or electric shock, do not expose the equipment to rain, moisture or liquids. Installation and servicing must be performed by qualified personnel.

## 1.1 Safety precautions

Read this manual before installation and keep it with the product for future reference.
Disconnect mains and battery power before installing, connecting or disconnecting any cable.
Use a properly grounded mains outlet. The metal chassis must remain protectively earthed.
Do not crush, stretch, sharply bend or otherwise damage the power cable.
Do not open the chassis. There are no user-serviceable parts inside.
Prevent foreign objects and liquids from entering the unit or connected loudspeakers.
Immediately switch off and disconnect the unit if smoke, unusual odour, severe impact or abnormal operation occurs.
Use only the specified power sources, fuses, microphone and connection accessories.
Do not cover ventilation openings and do not operate associated amplifiers continuously under excessive load.

## 1.2 Positioning and cleaning

- Install the unit in a dry, ventilated rack away from direct sunlight, strong heat sources and vibration.
- Leave sufficient clearance for airflow and cable access.
- Clean the exterior with a soft, slightly damp cloth. Do not use benzene, thinner, alcohol, bleach or other volatile/flammable liquids.
- Tighten Euroblock and loudspeaker-line connections securely and verify polarity before energising the system.

# 2. DOC8 / DOC16 Main Control Unit

The EnormPA DOC platform is an Ethernet-based public address and voice alarm control system. DOC8 controls up to 8 zones and DOC16 controls up to 16 zones. Both units support decentralised operation, spare-amplifier switching, fault detection and indication, real-time loudspeaker-line impedance supervision, open/short-circuit detection, programmable I/O, stored messages and scheduled announcements.

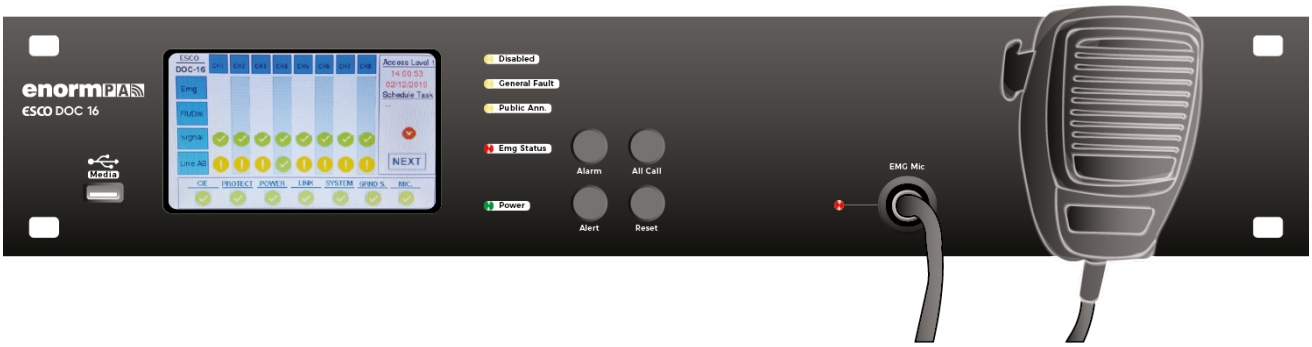



*Figure 1 - Common DOC8 / DOC16 front-panel concept (DOC16 channel display shown)*

## 2.1 Main functions

- Live emergency and public-address announcements using the supplied PTT microphone.
- Remote announcements from compatible network microphone consoles such as MA7/MA5.
- Alarm, alert and all-call operation from the front panel.
- A/B loudspeaker-line supervision and ground-fault monitoring for every available zone.
- Automatic transfer between main and standby power sources and support for spare amplifier operation.
- Playback of stored MP3 messages, tones and scheduled tasks.
- Zone naming, routing, volume, input, output and priority configuration through the web interface.
- Integrated DSP configuration through the rear USB service connection.
- Expansion with DOC-S slave units where additional zones are required.

## 2.2 Access levels

| Access level | Typical authority |
|---|---|
| Level 1 | Monitor system conditions and fault indications. |
| Level 2 | Emergency/public announcements, live microphone, reset, zone and volume control. |
| Level 3 | Installation, configuration and maintenance by authorised personnel. |
| Level 4 | Hardware or software repair by manufacturer-authorised technical service. |

# 3. Controls, Connectors and Indicators

## 3.1 Front Panel

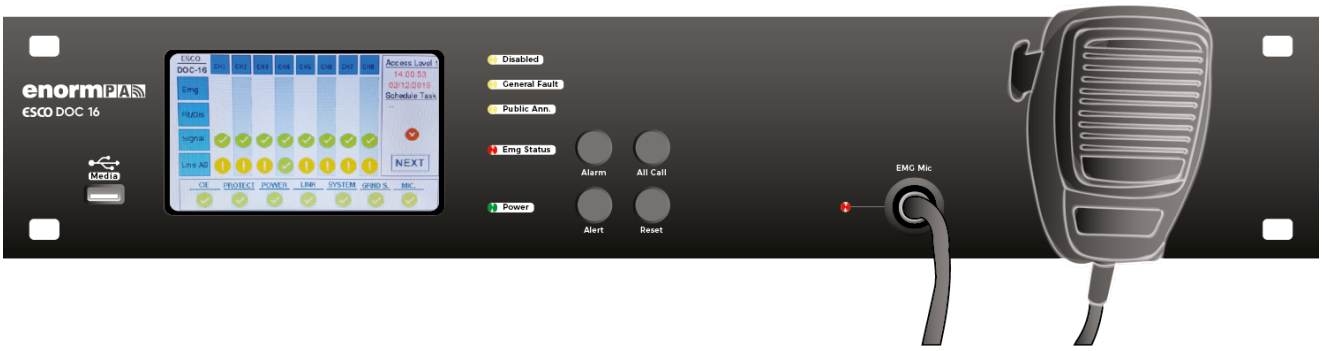



*Figure 2 - Front panel*

| No. | Control / indicator | Function |
|---|---|---|
| 1 | Media USB | USB input for local MP3 music playback. |
| 2 | Disabled LED | Yellow when supervision functions are disabled. |
| 3 | General Fault LED | Yellow when one or more system faults are present. |
| 4 | Public Announcement LED | Indicates normal public-address operating condition. |
| 5 | Emergency Status LED | Red during emergency state, emergency microphone use, alarm or alert playback. |
| 6 | Power LED | Green while the unit is supplied from mains power. Yellow when fault is present. |
| 7 | Alarm button | Starts the configured alarm message after authorisation and zone confirmation. |
| 8 | All Call button | Selects all available zones for the active alarm/alert or microphone operation. |
| 9 | Alert button | Starts the configured alert message after authorisation and zone confirmation. |
| 10 | Reset button | Stops/acknowledges an alarm or alert condition as permitted by the active access level. |
| 11 | EMG microphone connector | Input for the supplied supervised emergency PTT microphone. |
| 12 | LCD touchscreen | Local monitoring, zone selection, fault display and authorised controls. |

## 3.2 LCD Touchscreen

The touchscreen is used for local status monitoring, password entry, zone selection, emergency operation, channel volume control, line calibration and system logs. The DOC8 presents channels 1-8; the DOC16 presents channels 1-16, normally across two monitoring pages. When one or more DOC-S slave units are configured, the touchscreen automatically expands the displayed zone list and zone-selection pages to include the additional DOC-S zones.

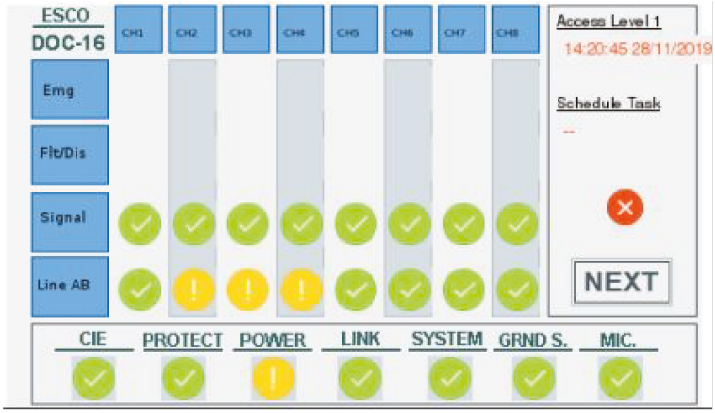



*Figure 3 - Amplifier and zone monitoring screen (DOC16 example)*

### 3.2.1 Monitoring indications

| Indication | Meaning |
|---|---|
| EMG | Emergency broadcast active in the respective zone. |
| FLT/DIS | Fault or disabled state in the respective zone. |
| Signal | Audio signal is present. |
| Line A/B | Condition of the supervised loudspeaker lines. |
| CIE | Condition of supervised contact-input wiring. |
| Protect | Connected amplifier protection/fault status. |
| Power | AC, DC/standby supply and charger condition. |
| Link | Communication with network consoles and slave units. |
| System | Internal controller/processor condition. |
| Ground | Loudspeaker-line ground fault supervision. |
| MIC | Emergency microphone and cable supervision. |

### 3.2.2 Password and access

Functions other than basic monitoring require Access Level 2. The factory password in the legacy local interface is 123456 unless changed during commissioning. After inactivity, the unit returns to Access Level 1. Password management must be restricted to authorised personnel.

### 3.2.3 Zone selection and emergency screens

- After Alarm, Alert or emergency microphone activation, select the required zones and confirm the operation.
- All zones may initially appear selected. Clear any zone that must not receive the broadcast.
- The emergency screen appears while emergency audio is active or when an amplifier condition requires attention.
- Fault screens identify the affected amplifier and may indicate mains, battery or CAN-bus communication faults.

## 3.3 Rear Panel and Model-specific I/O

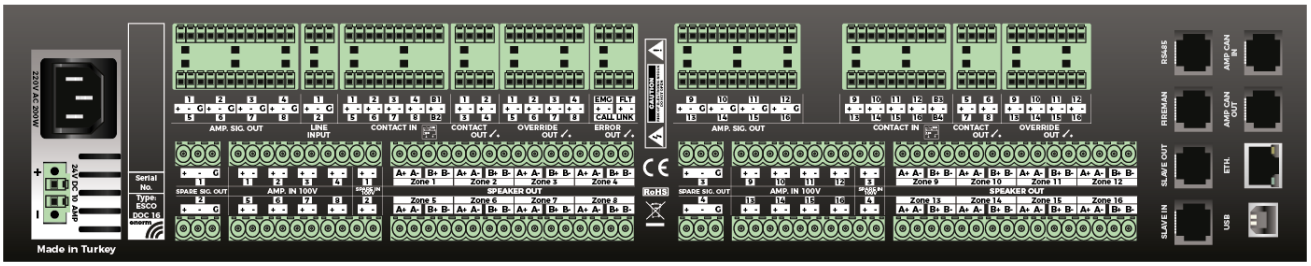



*Figure 4 - DOC16 rear panel. DOC8 uses the same connection principles with reduced channel quantities.*

### 3.3.1 Common connections

| Connection | Description |
|---|---|
| AC mains input | 160/230 VAC, 50/60 Hz. Use a grounded supply. |
| 24 VDC standby input | Connect an EN 54-4 compliant power supply/charger when required by the system design. |
| Line inputs | Two external analogue music inputs; balanced or unbalanced connection. |
| Error outputs | Four dry-contact status outputs: EMG, FLT, CALL and LINK. |
| RS485 / Fireman | Serial and fireman-panel communication interfaces. |
| Slave IN/OUT | Communication with DOC-S zone-expansion units. |
| AMP CAN IN/OUT | CAN-bus communication with compatible power amplifiers. |
| Ethernet | 10/100 Mb network connection for web configuration and network audio/control. |
| USB service | Connection to a computer for DSP configuration. |

### 3.3.2 Channel-dependent connections

| Connection group | DOC8 | DOC16 |
|---|---|---|
| AMP SIG OUT | 8 balanced main amplifier signal outputs | 16 balanced main amplifier signal outputs |
| SPARE SIG OUT | 2 spare signal outputs | 4 spare signal outputs |
| AMP IN 50/100 V | 8 main amplifier returns | 16 main amplifier returns |
| SPARE IN 100 V | 2 standby amplifier returns | 2 standby amplifier returns |
| SPEAKER OUT A/B | 8 supervised zones | 16 supervised zones |
| CONTACT IN | 8 supervised standard inputs | 16 supervised standard inputs |
| EMG / business inputs | B1-B2 | B1-B4 |
| CONTACT OUT | 4 programmable outputs | 8 programmable outputs |
| OVERRIDE OUT | 8 outputs | 16 outputs |

**WIRING RULE:** Match each audio signal output number to the same 50/100 V amplifier-return input number, then verify amplifier channel and polarity.

# 4. Computer Setup and Web Interface

The current ESCO DOC v4.1 web interface shown in this chapter is used for both DOC8 and DOC16. It replaces the legacy dark-theme interface described in earlier manuals.

## 4.1 Access and Status

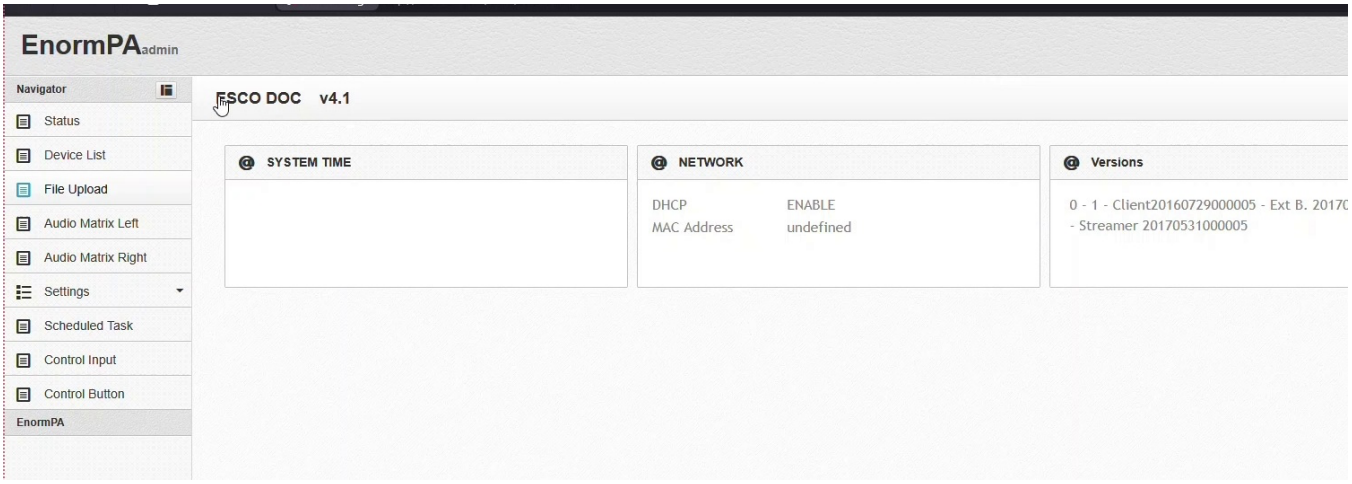



*Figure 5 - Status page*

1. Connect the computer and DOC controller to the same network switch or IP subnet.
2. Open a supported browser and enter http://192.168.1.33/html using the factory IP address.
3. If the controller IP address has been changed, replace 192.168.1.33 with the assigned address.
4. Log in with the authorised administrator credentials and log out after completing configuration.

The Status page displays system time, network information (including DHCP/MAC data where available) and software/firmware version information. Verify this page before making configuration changes.

**NETWORK SAFETY:** Record the new IP address before saving a network change. The web page will become unavailable at the old address after the controller restarts.

## 4.2 Device List

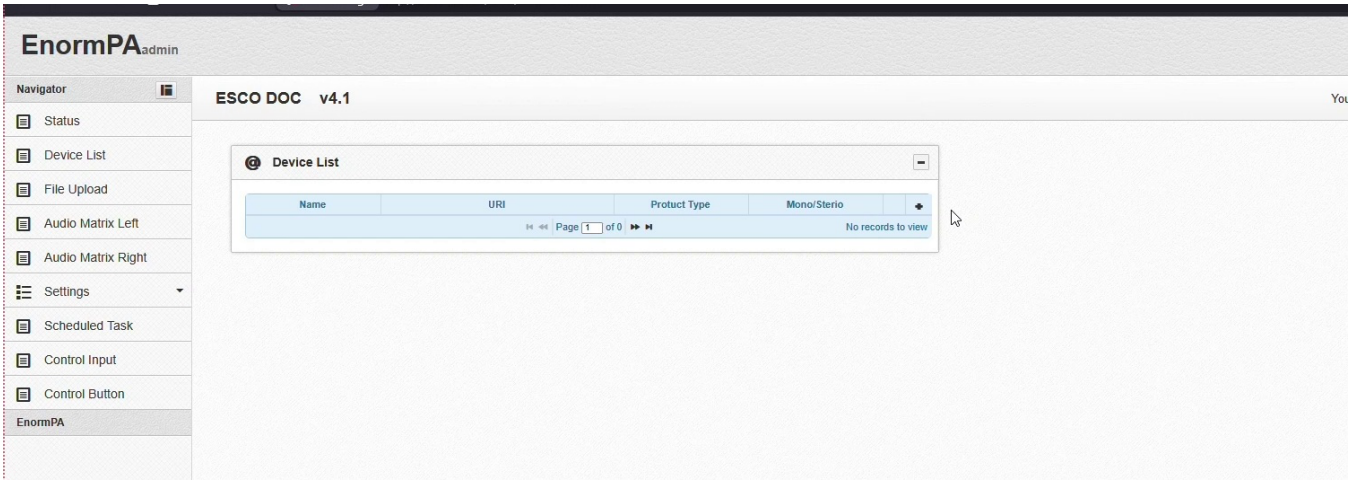



*Figure 6 - Device List*

Device List replaces the previous Device Match workflow. It defines the network devices and zones with which the selected DOC controller will communicate, including compatible MA7/MA5 microphone consoles, RP10 clients and other DOC controllers or network zones.

5. Click the plus/add icon in the Device List table.
6. Enter a clear device or zone name.
7. Select the correct product type.
8. Enter the URL/IP information in the exact format required for that product type.
9. Select Mono Left, Mono Right or Stereo when applicable.
10. Confirm the entry and verify that it appears in the list.
11. Perform a test announcement to each newly added zone.

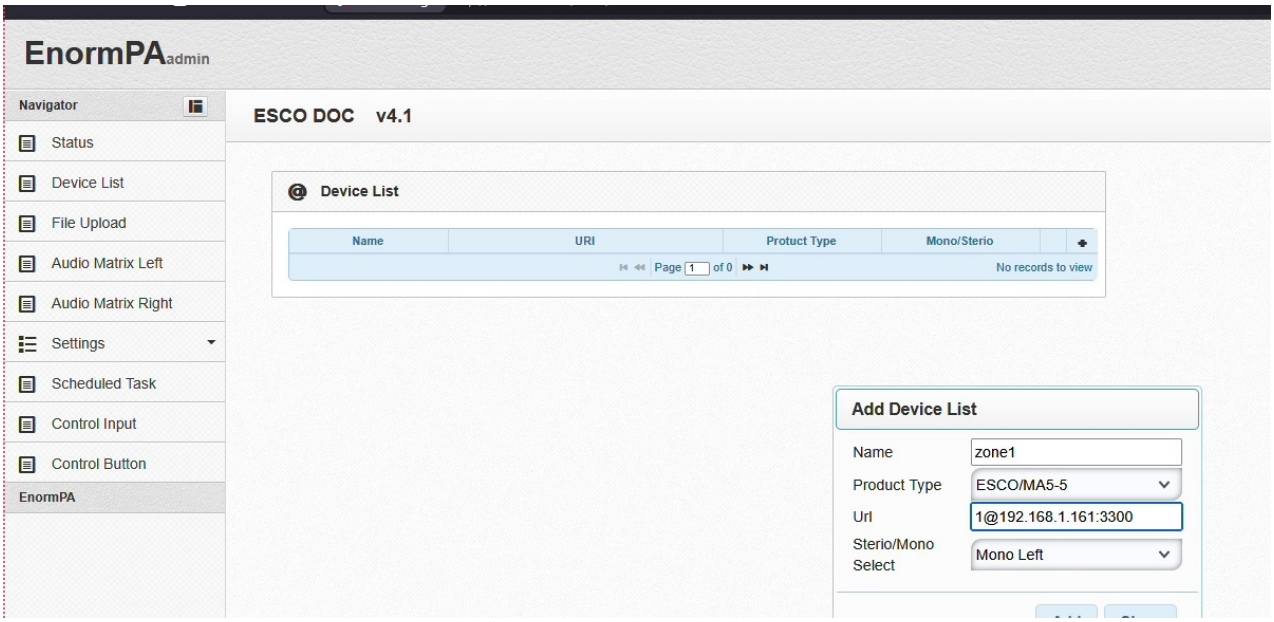



*Figure 7 - Add Device List dialog*

**URL FORMAT:** An incorrectly formatted URL prevents communication. Use the format prescribed for the selected device type; do not copy an example URL without adapting it to the actual network design.

## 4.3 File Manager / File Upload

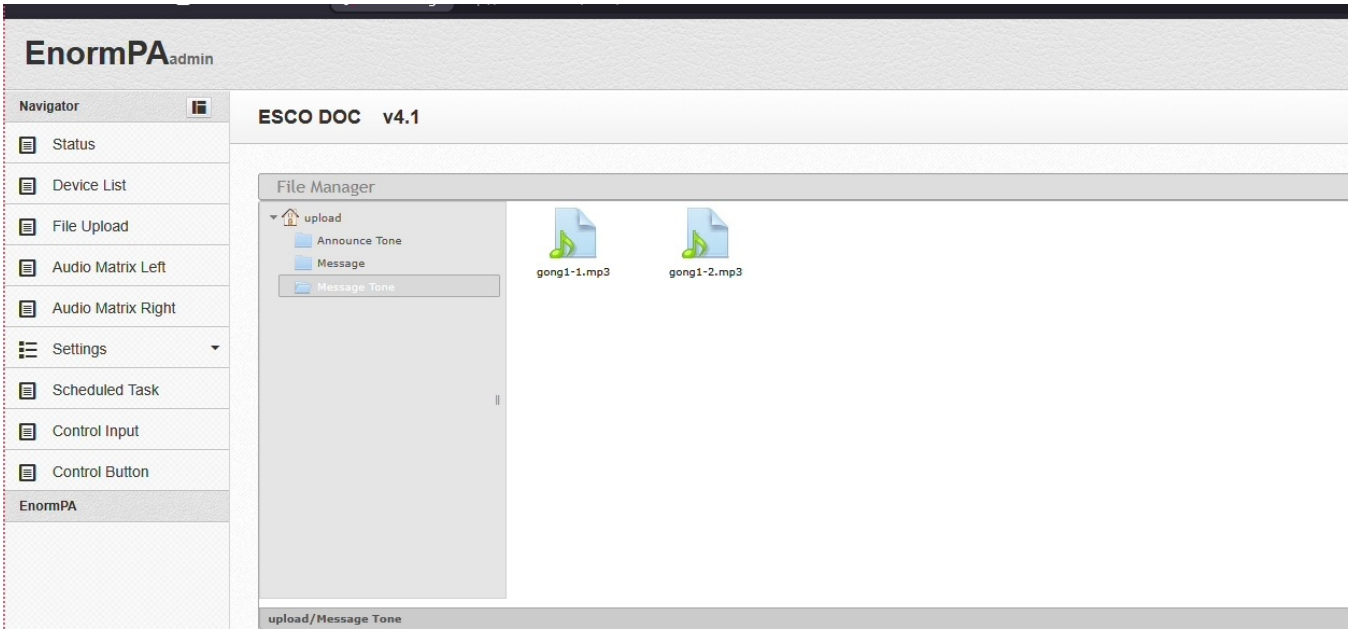



*Figure 8 - File Upload menu*

The current File Upload menu performs the function previously named File Manager. It stores audio used by emergency contacts, control buttons and scheduled tasks.

| Folder | Use |
|---|---|
| Message | Recorded alarm, evacuation, alert or general announcement messages. |
| Message Tone | Opening/closing tone played around stored-message broadcasts. |
| Announce Tone | Opening/closing tone played around live announcements. |

12. Prepare the audio as an MP3 file. A 48 kHz source is recommended for system compatibility.
13. Open the required folder and select the upload command.
14. Choose the local audio file and start the upload.
15. Confirm that the file name appears in the list.
16. Check the Remaining Disk Size indication before uploading large files.
17. After assignment in another menu, perform a controlled playback test at a safe level.

**FILE CONTROL:** Use unique, descriptive file names. Do not delete or rename a file that is already assigned to an input, control button or scheduled task without updating that assignment.

## 4.4 Audio Matrix Left and Audio Matrix Right

The Audio Matrix Left and Audio Matrix Right menus are used only when an MS40 music server is present. They route the left and right music-server channels to the required DOC destinations. In systems without MS40, leave these menus unchanged.

**STEREO ROUTING:** For stereo operation, maintain consistent left/right assignments. For mono systems, use the channel selected during device setup and verify all required zones receive the intended source.

### Recommended checks

- Confirm that MS40 and the DOC controller are on the same network and listed correctly.
- Confirm the source channel, destination and left/right selection.
- Test music routing independently from emergency and live-announcement audio.
- Emergency priorities must override music according to the commissioned system design.

## 4.5 Settings - System

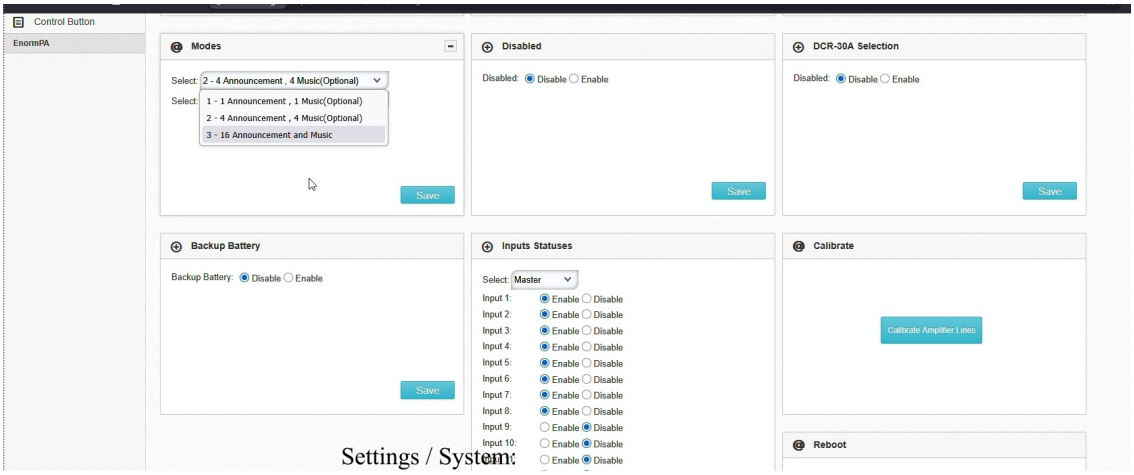



*Figure 9 - System settings*

| Panel | Function / commissioning guidance |
|---|---|
| Network | Set the controller IP parameters. Save the address in the project documentation. |
| System Time | Set the correct date and time; scheduled tasks depend on this value. |
| Number of Slaves | Select the number of DOC-S units communicating with this controller. |
| Modes | Select the amplifier/music operating principle appropriate to the design. |
| Disabled | Disables DOC supervision/operation. Use only during authorised service or non-compliant temporary conditions. |
| DCR-30A Selection | Enable when a DCR-30A battery charger is included in the system. |
| Backup Battery | Enable when standby batteries are connected through the charger/power system. |
| Input Statuses | Enable only the fire-panel contacts physically connected to the selected master or slave unit. |
| Calibrate | Measures/calibrates amplifier and loudspeaker lines after wiring is complete. |
| Reboot | Restarts the controller after significant configuration changes. |

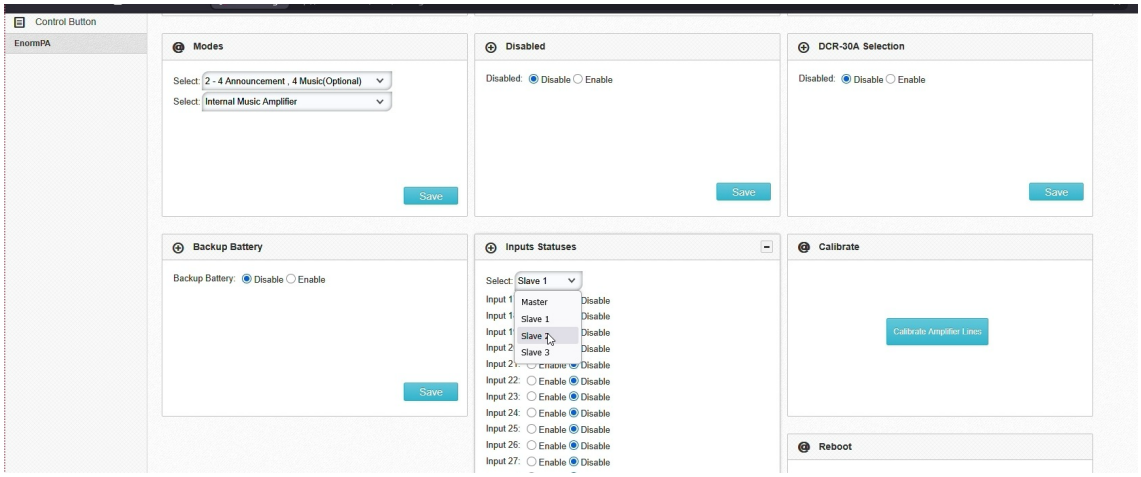



*Figure 10 - Input status selection for master/slave units*

**MODEL DIFFERENCE:** For DOC8, enable only Inputs 1-8 and EMG Inputs 1-2. For DOC16, Inputs 1-16 and EMG Inputs 1-2 are available. Inputs beyond the installed model or physical wiring must remain disabled.

## 4.6 Settings - Channel

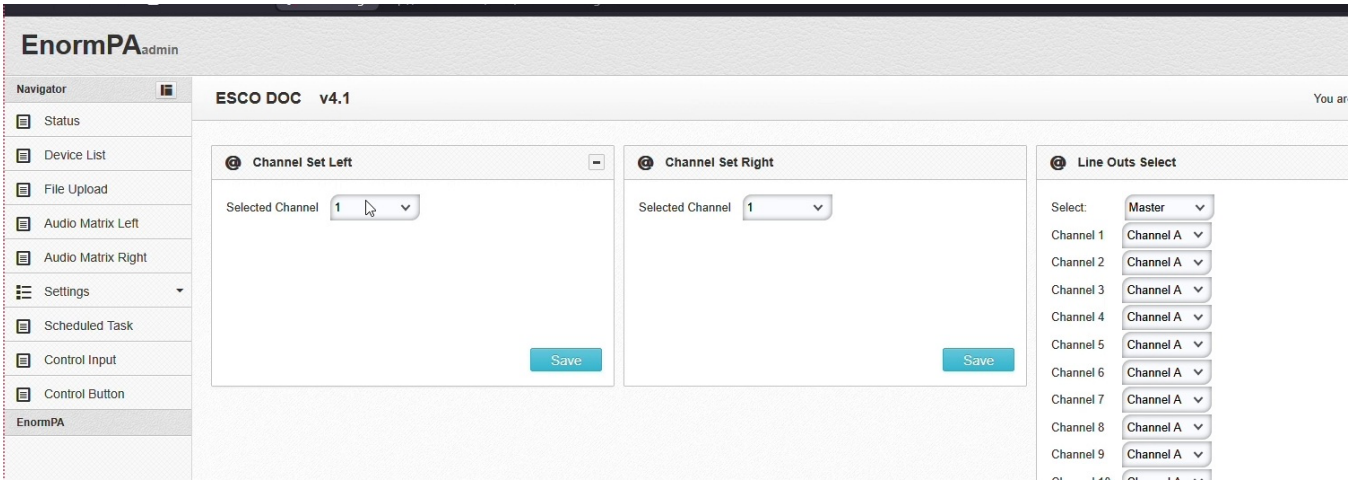



*Figure 11 - Channel settings and line-output selection*

Channel Set Left and Channel Set Right are retained for system-specific routing and normally do not require adjustment during standard commissioning. Line Outs Select and the volume panels are the primary channel controls.

| Control | Use |
|---|---|
| Line Outs Select | Select the line topology for each zone. Where an A/B loudspeaker-line loop is used, configure the channel to use both Channel A and Channel B as required by the design. |
| Announcement Volume | Sets the live/public-address announcement level for each channel. |
| Emergency Volume | Sets the manual/stored emergency-message level for each channel. |
| Selected device | Choose Master or the required Slave before changing its channel settings. |

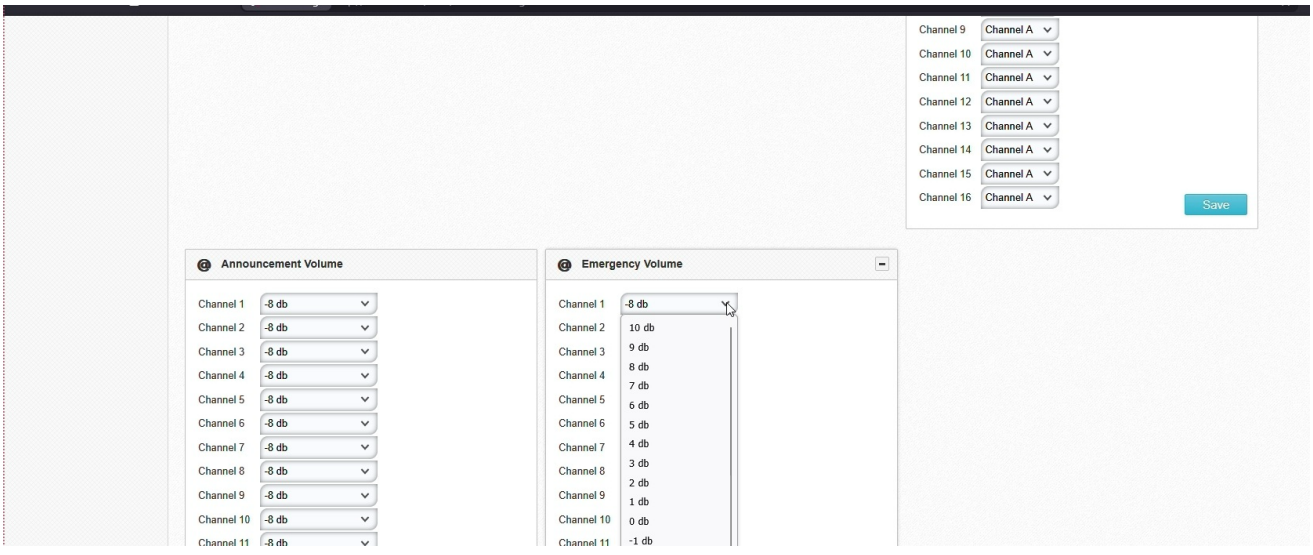



*Figure 12 - Per-channel announcement and emergency volume*

**LEVEL SETTING:** Set levels during commissioning with the actual loudspeaker load connected. Emergency intelligibility and required sound pressure level take priority over background-music balance.

## 4.7 Scheduled Tasks

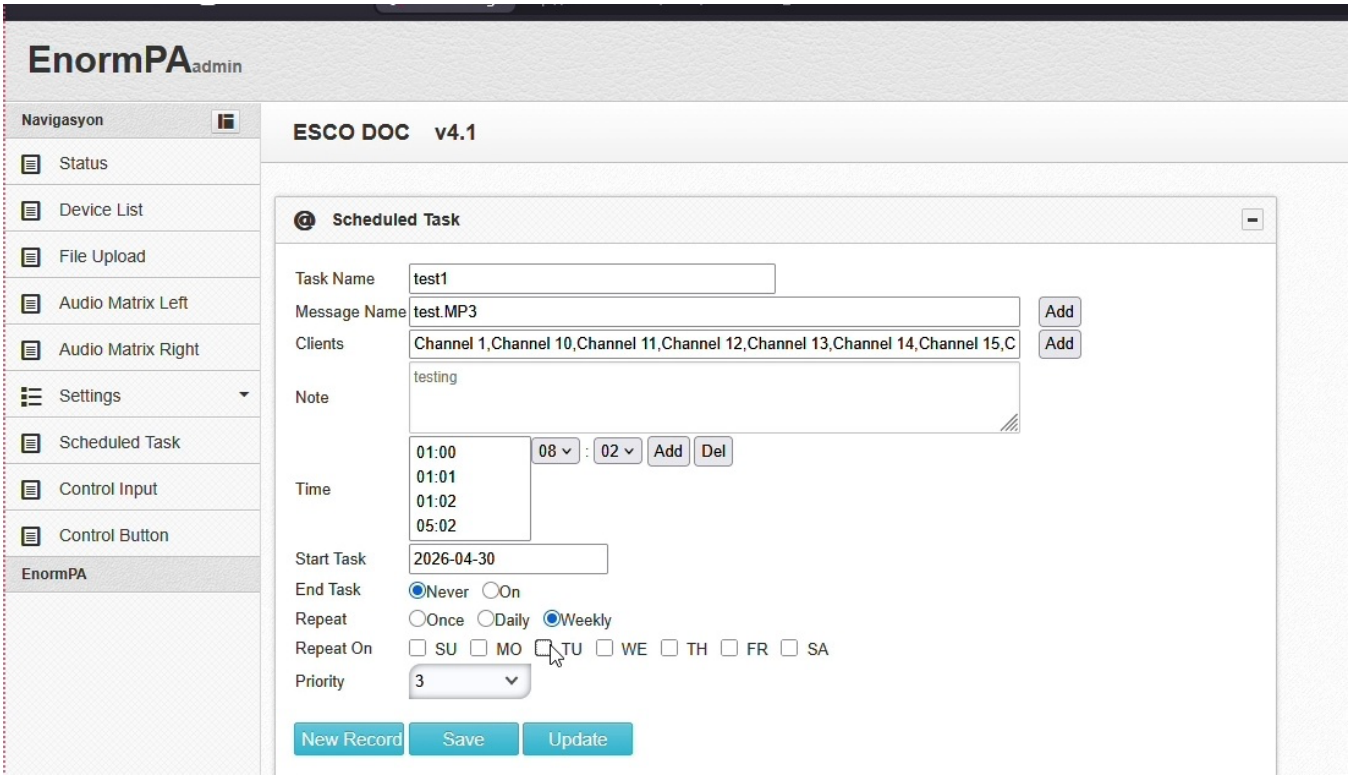



*Figure 13 - Scheduled Task menu*

Scheduled Task is used to plan automatic stored-message broadcasts. The required message must first exist in File Upload, and the destination zones/clients must already exist in Device List.

| Field | Description |
|---|---|
| Task Name | A unique, descriptive identifier. |
| Message Name | Select an uploaded message. |
| Clients | Select one or more configured zones/clients. |
| Note | Optional commissioning or operational description. |
| Time | Add one or more broadcast times. |
| Start Task | Date on which the task becomes active. |
| End Task | Never, or an enabled end date. |
| Repeat | Once, Daily or Weekly. |
| Repeat On | For Weekly mode, select the required weekdays. |
| Priority | Priority of the task relative to other non-emergency audio operations. |

18. Click New Record before creating a new task.
19. Complete the fields and add all required times.
20. Save the task and verify the success confirmation.
21. Check the task in the table; use the edit icon to update it or the delete icon to remove it.
22. Perform a supervised test before relying on an automatic operational schedule.

## 4.8 Control Input

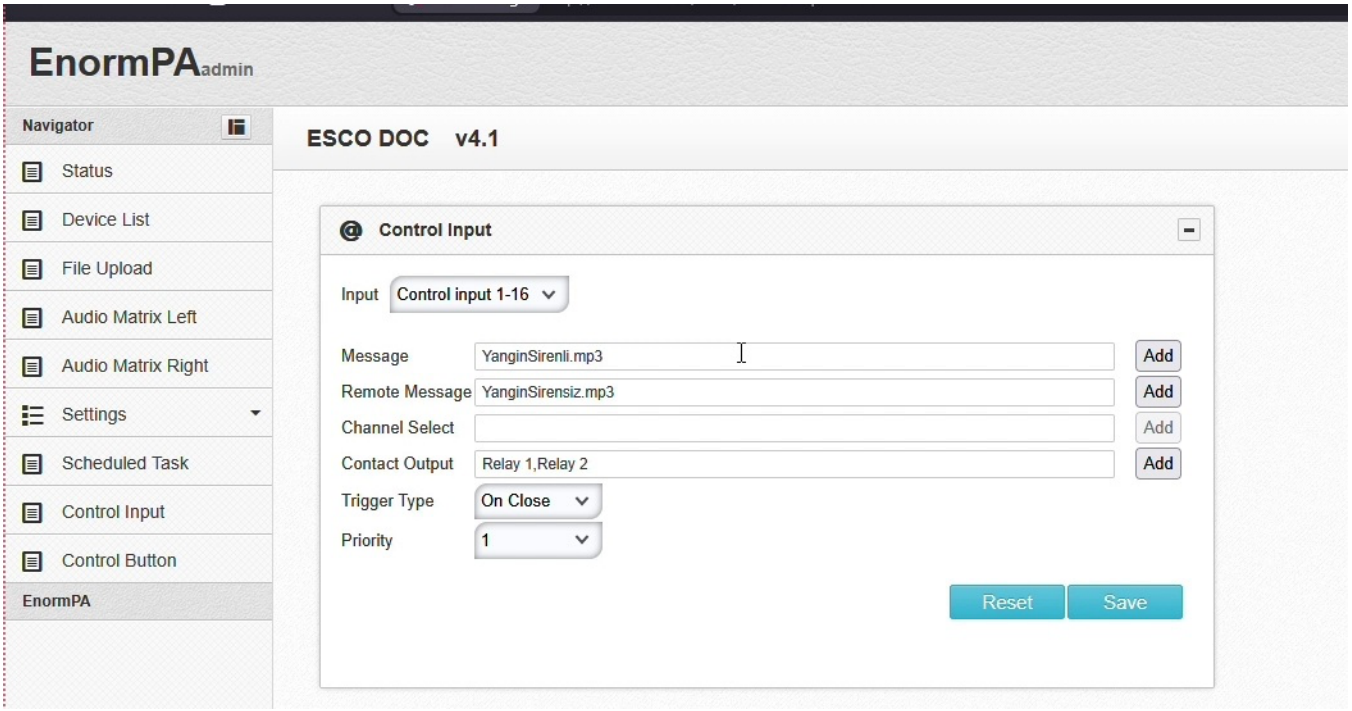



*Figure 14 - Standard Control Input configuration*

Control Input assigns stored messages, destination channels, relay/contact outputs, trigger behaviour and priority to fire-panel or other supervised contact inputs.

| Field | Function |
|---|---|
| Input | Select standard contacts or an EMG/business input. |
| Message | Message played in the directly affected/selected area. |
| Remote Message | For standard contact inputs only: message played in other selected areas when a different remote warning is required. Business inputs do not support a separate Remote Message scenario. |
| Channel Select | Zones/clients that receive the input-triggered broadcast. |
| Contact Output | Relay/contact outputs activated with the event. |
| Trigger Type | Select the electrical trigger logic, for example On Close, according to the fire-panel interface. |
| Priority | Sets the input-event priority. |
| Reset / Save | Reset the form or save the current assignment. |

### 4.8.1 Standard and business inputs

- DOC8: standard contact group 1-8; business contacts EMG Input 1-2 (B1-B2).
- DOC16: standard contact group 1-16; business contacts EMG Input 1-4 (B1-B4).
- When a standard fire input is triggered, Message is used for the event area and Remote Message may be used for other selected zones.
- Business inputs do not support separate Message and Remote Message scenarios. A single selected message is broadcast to all zones selected for that business input.

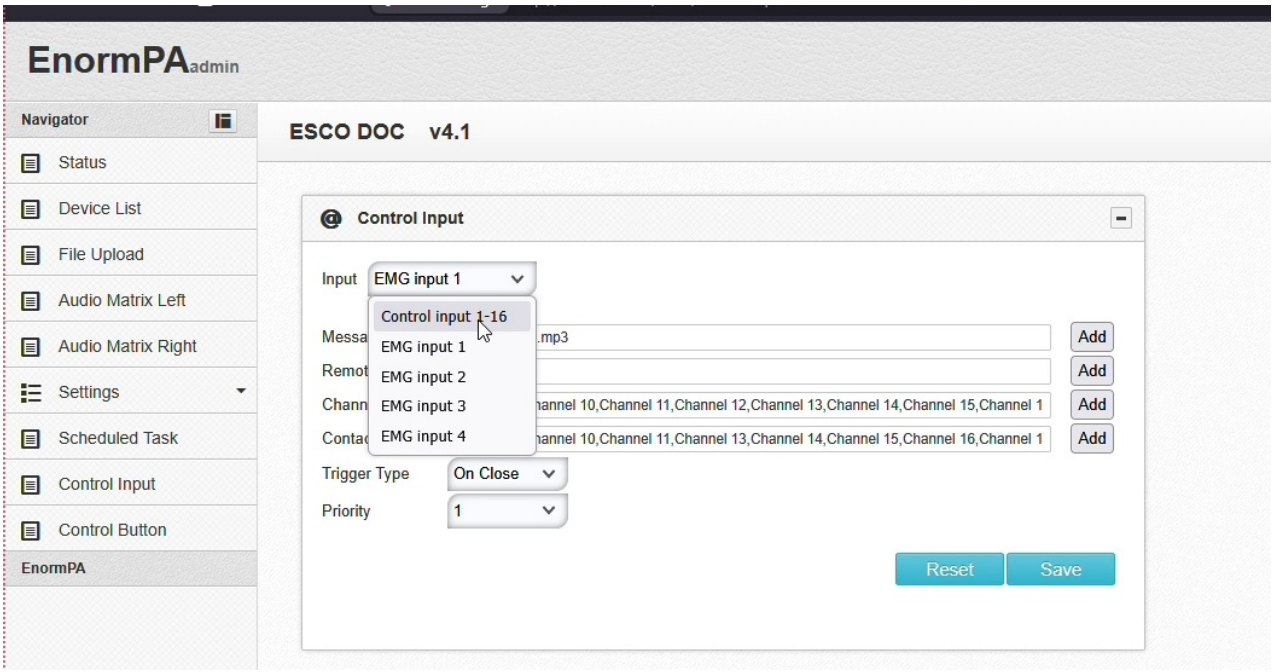



*Figure 15 - EMG/business input selection (DOC16 example)*

**FIRE INTEGRATION:** Trigger type, resistor supervision and fire-panel contact logic must match the approved cause-and-effect matrix. Test every input and every intended output during commissioning.

## 4.9 Control Buttons

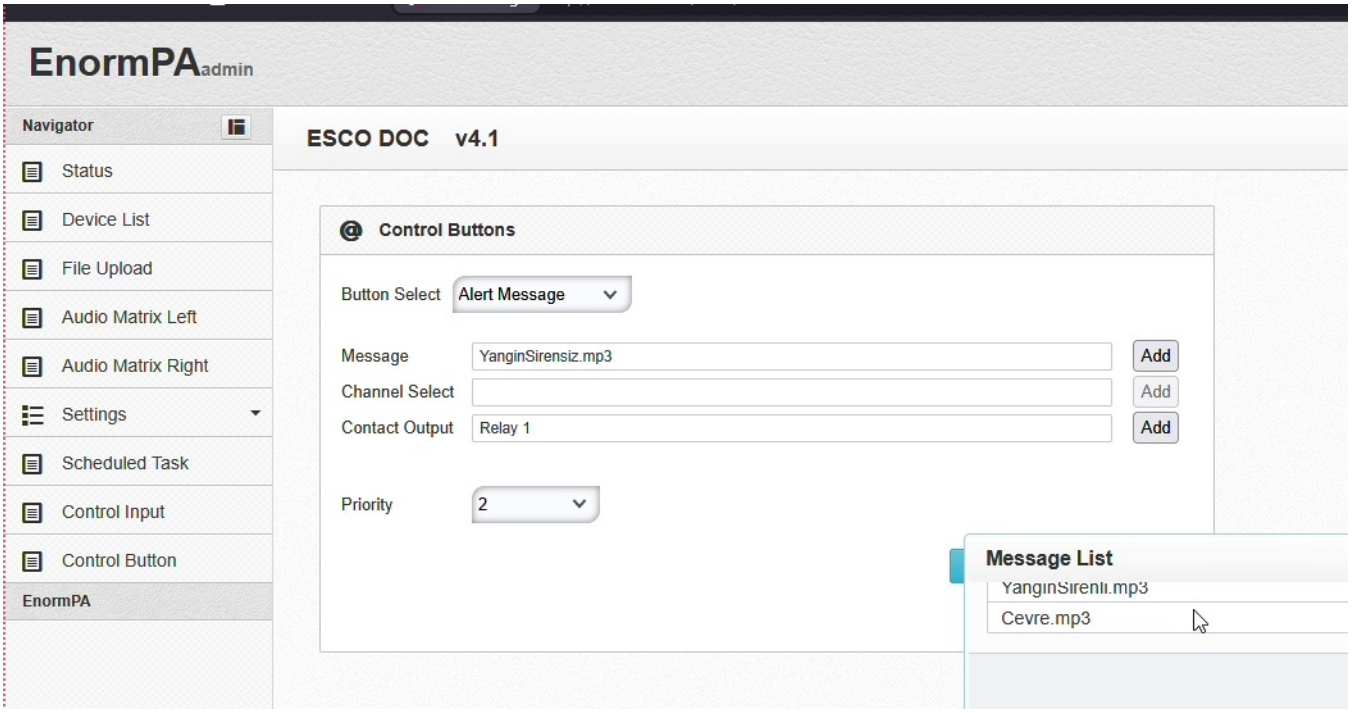



*Figure 16 - Control Buttons menu*

This menu assigns stored audio and routing to the Alarm and Alert buttons on the front panel.

23. Choose Alarm Message or Alert Message under Button Select.
24. Add the required message from the uploaded Message list.
25. Select destination channels/zones as required by the project cause-and-effect matrix.
26. Select any contact output that must operate with the button.
27. Set the appropriate priority and save.
28. From the front panel, carry out an authorised test of both buttons and Reset operation.

**PRIORITY:** The emergency microphone normally has the highest operational priority. Alarm and Alert priorities must be commissioned so that emergency functions override lower-priority music and general announcements.

# 5. DSP Setup

The integrated DSP is configured through the rear USB service connector using the compatible EnormPA DSP application. Connect a computer with a USB printer-type cable while the DOC unit is operating, open the application and select Connect.

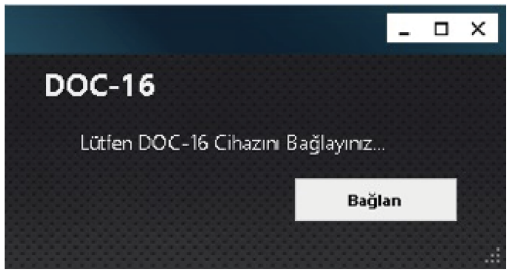



*Figure 17 - DSP connection screen (legacy software example)*

## 5.1 Output processing


*Figure 18 – DOC16 output controls*

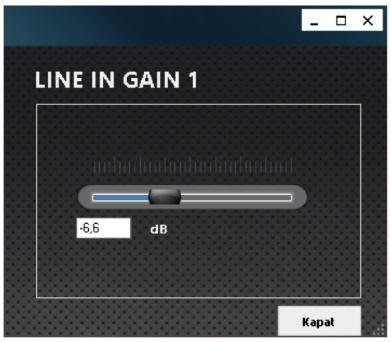



*Figure 19 - DSP output controls*

- Output name and channel identification.
- Gain and master volume.
- Parametric equaliser settings.
- High-pass/low-pass crossover filters.
- Limiter threshold and timing.
- Polarity inversion and channel mute.

**CAUTION:** Incorrect DSP, limiter or polarity settings may reduce intelligibility or damage loudspeakers. Save the approved commissioning file and restrict access to qualified personnel.

# 6. Installation and Commissioning

## 6.1 Before power-up

1. Mount the DOC controller and associated equipment securely in a ventilated 19-inch rack.
2. Confirm protective earth, mains voltage and standby-power polarity.
3. Complete all amplifier signal, 50/100 V return, loudspeaker A/B, contact, CAN-bus, slave and Ethernet wiring.
4. Check that every amplifier signal output corresponds to the correct amplifier return and loudspeaker zone.
5. Confirm line supervision components and cable resistance according to the approved design.
6. Disconnect or mute non-essential audio sources before first power-up.

## 6.2 Commissioning sequence

7. Power the associated amplifiers, power supply/charger and DOC controller in the specified system sequence.
8. Allow the controller to complete its startup checks.
9. Open the Status page and confirm network, time and software information.
10. Configure System settings, the installed model, slave count, DCR-30A and backup-battery options.
11. Enable only physically connected input-status channels.
12. Add network devices and zones in Device List.
13. Configure line-output type and announcement/emergency levels for every zone.
14. Upload required messages and assign scheduled tasks, contacts and front-panel buttons.
15. Run line calibration after the final loudspeaker loads are connected.
16. Test mains failure, standby power, amplifier fault/spare switching, line open/short circuit, earth fault, network link, microphone supervision, every fire input and every relay/override output.
17. Record all final settings, test results, IP addresses and software versions in the commissioning documentation.

**FINAL CHECK:** The General Fault indicator must be off in the normal condition. Any disabled supervision or unresolved fault must be documented and corrected before handover.

# 7. Technical Specifications

## 7.1 Common specifications

| Parameter | Specification |
|---|---|
| Main supply | 160/230 VAC, 50/60 Hz; 6 A fuse |
| Power consumption | 200 W |
| Standby supply | 21.5-28.5 VDC; 10 A fuse |
| Audio processing | Integrated 48 kHz, 24-bit, 344 MIPS |
| SNR | >75 dB |
| THD | <0.03% |
| Line inputs | 3 channels total: 2 x 3-pin Phoenix plus 1 x USB media input |
| Input signal / impedance | -40 dBV to 0 dBV / 10 kOhm |
| Line output signal / impedance | <1.6 dBV (1.2 V) / <100 Ohm |
| Main amplifier returns | 50 V or 100 V; max. 300 W per input |
| Spare amplifier returns | 2 x 100 V; max. 600 W per input |
| Display | 4.3-inch, 480 x 272 TFT touchscreen |
| Dimensions | 2U; 88 x 483 x 455 mm (H x W x D) |
| Weight | 12 kg (26.45 lb) |
| Colour | RAL 7016 |
| Operating temperature | -5 C to +45 C |
| Relative humidity | 5% to 95%, non-condensing |

# 8. Cable and Block Diagrams

The following diagrams are retained from the DOC16 manual as connection-principle examples. For DOC8, apply the same wiring principle only to channels 1-8 and the DOC8-specific I/O quantities listed in this manual.

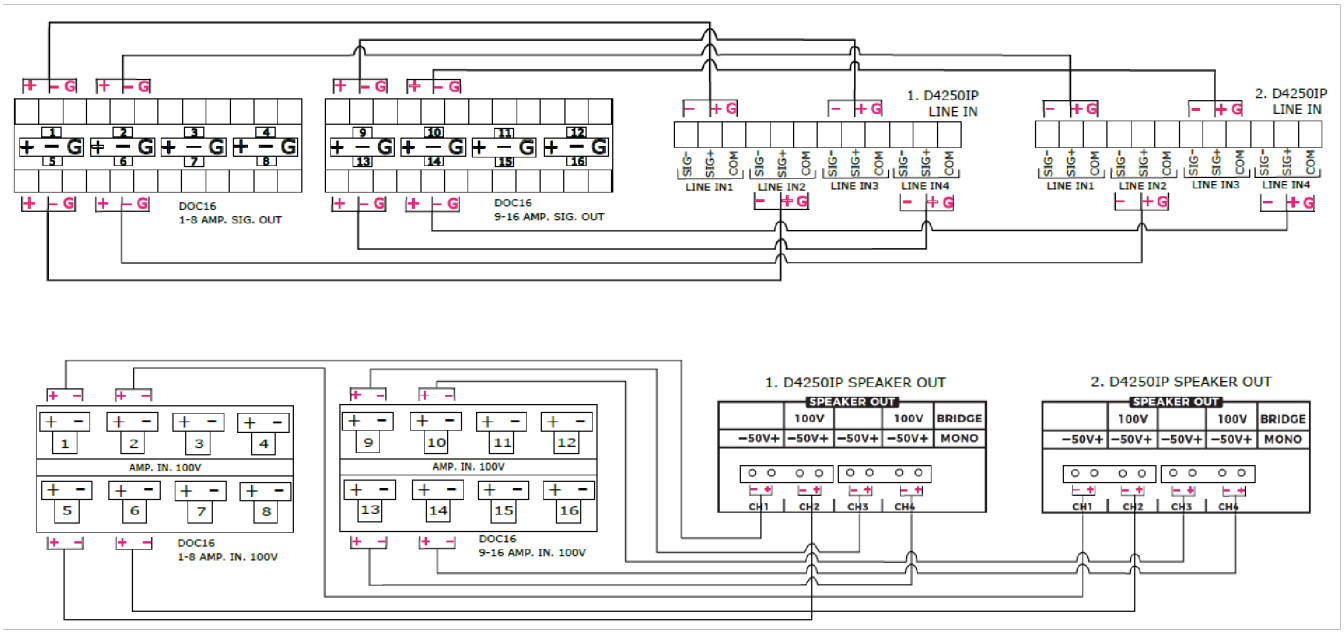



*Figure 20 - Example cable connection diagram (DOC16)*

## 8.1 System block diagram

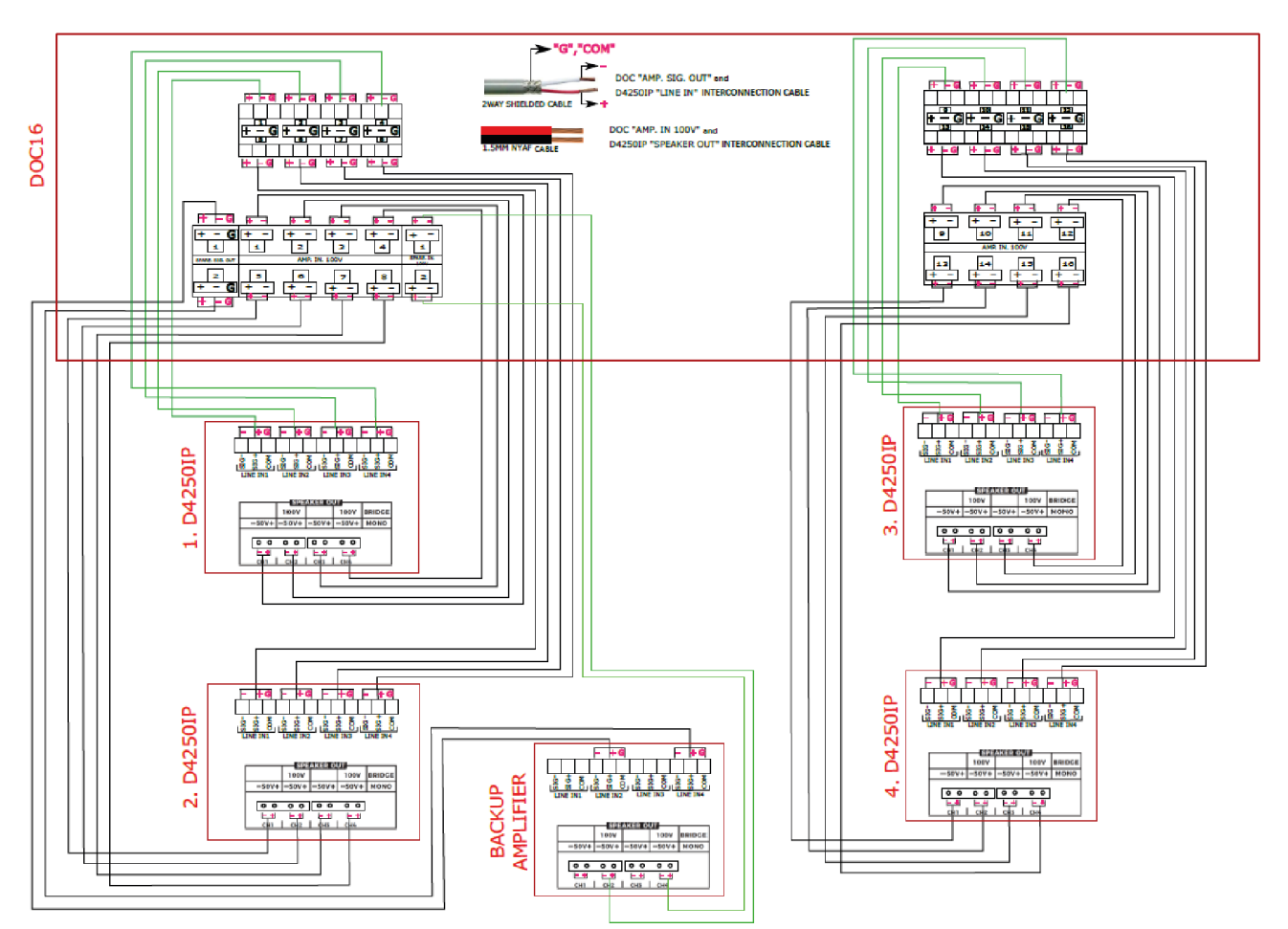



*Figure 21 - System block diagram (DOC16 example)*

**DESIGN RESPONSIBILITY:** These figures are examples, not project drawings. Final amplifier allocation, spare-amplifier logic, cable type, battery capacity, fire-panel cause-and-effect and loudspeaker loading must be established in the approved project documentation.

# 9. Maintenance and Warranty

## 9.1 Periodic maintenance

- Inspect rack ventilation, protective earth, mains and standby supplies.
- Check the event/fault log and investigate recurring warnings.
- Test the emergency microphone, Alarm, Alert, Reset and All Call controls.
- Test every supervised loudspeaker line, contact input, relay output and communication link.
- Confirm scheduled tasks, system time and stored-message playback.
- Verify batteries and the EN 54-4 charger according to their manufacturer instructions.
- Back up the web-interface configuration, DSP file and commissioning records after authorised changes.

## 9.2 Service

Do not open or repair the controller in the field unless authorised by the manufacturer. When requesting service, provide the model, serial number, software version, system topology, event-log information and a clear description of the fault.

## 9.3 Warranty

Warranty conditions are governed by the warranty document supplied with the product and applicable sales terms. Damage caused by incorrect installation, unauthorised modification, unsuitable power, liquid ingress, mechanical abuse or use outside the specified environmental limits may not be covered.

**DOCUMENT STATUS:** This revised English edition combines the DOC8 and DOC16 operating instructions and documents the ESCO DOC v4.1 web interface. Project-specific settings and certification documents must be retained separately.

# EC CERTIFICATE OF CONFORMITY

**This declaration of conformity is issued under the sole responsibility of the manufacturer:**

**Manufacturer:**
MİKAFON ELEKTRONİK İNŞ.SAN.LTD.ŞTİ.
**Address:**
Şair Ziya Paşa Cad.
No: 8 34420 Karaköy
ISTANBUL, TURKEY

| Reference | Brand | Comercial Name | Description |
|---|---|---|---|
| 15950380 | ENORM | DOC 16 | PAVA SYSTEM- 16 ZONE |
| 15950370 | ENORM | DOC 8 | PAVA SYSTEM- 8 ZONE |

**is in conformity with Directives:**

| Reference | Title |
|---|---|
| 2014/35/EU | Low Voltage Directive (LVD) |
| 2014/30/EU | Electromagnetic compatibility (EMC) |
| 2012/19/EU | Waste Electrical and Electronic Equipment (WEEE) |
| 2011/65/EU | Restriction of the use of certain hazardous substances (RoHS 2) |

**according to the provisons for compliance:**

| Reference | Date |
|---|---|
| IEC 60268-3 | 25.04.2018 |
| IEC 63000 | 10.12.2018 |
| EN 50849 | 31.03.2017 |
| EN 62368-1 | 30.10.2014 |
| EN 55032 | 23.10.2015 |
| EN 54-16 | 31.03.2008 |

**Signed for and on behalf of the manufacturer by:**
Name: Ercan Polat
Position: Chief Executive Officer (CEO)

Istanbul, January 08 20

# WARRANTY
# GARANTİ BELGESİ

Bu belgenin kullanılmasına; 4077 sayılı Tüketicinin Korunması Hakkında Kanun ve bu Kanun'a dayanılarak yürürlüğe konulan Garanti Belgesi Uygulama Esaslarına Dair Yönetmelik uyarınca, T.C. Sanayi ve Ticaret Bakanlığı İl Müdürlüğü tarafından izin verilmiştir.

**İMALATÇI FİRMANIN**

ÜNVANI: MİKAFON ELEKTRONİK İNŞ.SAN.LTD.ŞTİ.
MERKEZ ADRESİ: Şair Ziya Paşa Cad. No: 8/A 34420 Karaköy / İSTANBUL
TELEFON: 0(850) 450 18 63 (Dahili: 210)
FAKS: 0 212 244 5175

**MALIN**

CİNSİ: NETWORK TABANLI SESLENDİRME VE ACİL ANONS SİSTEMİ
MARKASI: enormPA

MODELİ:
SERİ NO:

GARANTİ SÜRESİ: 2 (İKİ) YIL — WARRANTY: 2 (TWO) YEARS VALIDITY
AZAMİ TAMİR SÜRESİ: 30 (OTUZ) İŞ GÜNÜ — MEAN TIME TO REPAIR: 30(THIRTY) WORK DAYS

**SATICI FİRMANIN**

ÜNVANI: _____
ADRESİ: _____
_____

TELEFONU: _____
FAKSI: _____
FATURA TARİH VE NO: _____ / _____

TARİH-İMZA-KAŞE: