OXYGEN 3000

(Rev. 2.0 - ENG)
OXYGEN 3000 · User Manual · ENG

C. GAIN ........................................................................................................................................... 38
D. F1 BUTTON .................................................................................................................................. 39
E. EQ BUTTON ................................................................................................................................ 40
F. PGM/SUB/AUX-1/AUX-2 BUTTONS ....................................................................................... 41
G. FADER ........................................................................................................................................ 42
H. FADER LED BAR ....................................................................................................................... 42
I. ON/START BUTTON .................................................................................................................. 43
J. PFL BUTTON ................................................................................................................................ 45

2.4 SPECIAL FUNCTION BUTTONS .................................................................................................. 47
A. OUTPUT BUTTON ..................................................................................................................... 47
B. METER BUTTON ..................................................................................................................... 48
C. TELEPHONE* .......................................................................................................................... 50
D. BLUETOOTH ............................................................................................................................ 50

2.5 MONITORS SECTION ................................................................................................................. 51
A. CONTROL ROOM SPEAKERS SOURCES & LEVEL – CUT FUNCTION ................................... 51
B. CONTROL ROOM – HEADPHONES SOURCES & LEVEL ....................................................... 55
C. STUDIO - SPEAKERS................................................................................................................... 58
D. STUDIO – HEADPHONES SOURCES & LEVELS ................................................................... 62
E. TALK BACK – FROM CONTROL ROOM TO THE STUDIO ................................................. 65

2.6 SMART KEY / JINGLE BUTTONS* .............................................................................................. 66

2.7 DISPLAY 7” TFT AND CONTROL BUTTONS ............................................................................ 66
A. COLOR DISPLAY 7” - 800X480 RESOLUTION ........................................................................... 66
B. BUTTONS FOR THE MENU NAVIGATION .............................................................................. 68
C. MENU DISPLAY PARTS ............................................................................................................. 69
D. ENCODER FOR THE MENU NAVIGATION ............................................................................ 70

3. MENU .......................................................................................................................................... 71

3.1 AUDIO/INPUTS ......................................................................................................................... 71
3.1.1 MIC (MIC-1 TO MIC-5) ..................................................................................................... 72
3.1.1.1 NAME: ......................................................................................................................... 73
3.1.1.2 GAIN: ............................................................................................................................ 74
3.1.1.3 BAL/PAN: ..................................................................................................................... 75
3.1.1.4 PREAMP: ..................................................................................................................... 76
3.1.1.5 PHASE: ......................................................................................................................... 77
3.1.1.6 PHANTOM 48V: .......................................................................................................... 78
3.1.1.7 CUT / ON AIR: ............................................................................................................ 79
3.1.1.8 EQ:................................................................. 81
3.1.1.9 AUX1, AUX2: .................................................. 84
3.1.1.10 BUTTON LIGHT, FADER BAR LIGHT: .................................................. 86
3.1.2 MIC-5 INPUT / TELCO INPUT .......................................................... 87
3.1.3 MONO-1 TO MONO-10 ................................................................. 91
3.1.4 STEREO ................................................................. 94
3.1.4.1 NAME:............................................................................. 96
3.1.4.2 GAIN:............................................................................ 97
3.1.4.3 BAL/PAN:..................................................................... 98
3.1.4.4 EQ:................................................................................ 99
3.1.4.5 AUX1, AUX2: .............................................................. 102
3.1.4.6 BUTTON LIGHT, FADER BAR LIGHT: .................................................... 103
3.1.5 AUX-IN:................................................................. 104
3.1.6 TEL/BL ................................................................. 104
3.1.7 DIGITAL ................................................................. 108
    AES/EBU.......................................................................... 108
    USB-1, USB-2 .................................................................. 108
    AUDIO/SETTINGS/VIPRO .................................................. 109
3.2 AUDIO/OUTPUTS ................................................................. 110
3.2.1 ANALOG & DIGITAL OUTPUTS .................................................. 111
3.2.2 MONITORS:....................................................................... 112
3.2.2. A SPK-CRM CONTROL ROOM SPEAKERS: ........................................... 112
3.2.2. B SPK-STUDIO (STUDIO SPEAKERS): ............................................... 116
3.2.2. C HDP-CRM (CONTROL ROOM HEADPHONES): ..................................... 120
3.2.2. D HDP-STUDIO & HDP-GUEST (STUDIO AND GUESTS HEADPHONE) ............. 123
3.2.3 TONE GEN. ( TONE GENERATOR ) .................................................. 126
3.3 SETTING................................................................. 127
    EXT. INPUT ........................................................................ 127
    INPUT MODE ...................................................................... 128
3.3.1 GENERAL ................................................................. 129
3.3.1.1 COMMUNICATIONS .......................................................... 129
3.3.1.2 TCP-IP ......................................................................... 130
3.3.1.3 TIME & DATE:.......................................................... 132
    A. TIME & DATE/DATE: ......................................................... 133
    B. TIME .............................................................................. 134
    C. TIME ZONE ...................................................................... 135
SAFETY WARNINGS

CONSIGNES DE SÉCURITÉ IMPORTANTES

ISTRUZIONI IMPORTANTI PER LA SICUREZZA

WICHTIGE SICHERHEITSHINWEISE

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

(Rel. 1.6)
PREFACE

For your safety and to prevent the warranty from being accidentally invalidated, please read carefully all the texts marked with the Warning Symbols.

The information contained in this manual is subject to change without notice and does not constitute a commitment by the seller.
The manufacturer will not be liable for any loss or damage resulting from the use of information or any errors contained in this manual or resulting from any erroneous operation or hardware failure contained in the product.
It is recommended that any repair and maintenance of the product be carried out by the manufacturer or its authorized agents. The manufacturer assumes no responsibility for any loss or damage caused by service, maintenance, or repair by unauthorized personnel.
SAFETY WARNINGS

The installation and servicing instructions in this manual are for use by qualified personnel only.

Read All Instructions. All safety and operating instructions must be read before operating the product. They also must be retained for future reference, as it contains a number of useful hints for determining the best combination of equipment settings for your particular application.

Heed All Warnings. All warnings on the product and those listed in the operating instructions must be adhered to.

Heat. This product must be situated away from any heat sources such as radiators or other products (including power amplifiers or transmitters) that produce heat.

Power Sources. This product must be operated from the type of power source indicated on the marking label and in the installation instructions. If you are not sure of the type of power supplied to your facility, consult your local power company. Make sure the AC main voltage corresponds to that indicated in the technical specifications. If a different voltage (ex. 110/115 VAC) is available, open the equipment closure and set the voltage switch on the main supply circuit, located behind the AC socket.

Power Cord Protection. Power supply cords must be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to the cords at AC wall plugs and convenience receptacles, and at the point where the cord plugs into the product.

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Lightning. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the AC wall outlet and the audio connections. This will prevent damage to the product due to lightning and power line surges.

Installation. Configuration and installation should only be carried out by a competent installation engineer.

Cabling. Using high-quality wires, well protected. Make sure the cable integrity.
This symbol alerts you to the presence of dangerous voltage inside the closure – voltage which may be sufficient to constitute a risk of shock. Do not perform any servicing other than that contained in the operating instructions. Refer all servicing to qualified personnel.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Do not change the voltage setting or replace the mains fuse without first turning the unit off and unplugging the mains cord.

Make sure the AC main voltage corresponds to that indicated in the technical specifications.

THIS APPARATUS MUST BE EARTHED!

To avoid the risk of fire use the correct value fuse, as indicated on the label stuck on the right side of the unit.

This apparatus uses a single pole mains switch and does therefore not separate the unit completely from the mains power. To completely separate from mains power (f.i. in the event of danger) unplug mains power cord. As the MAINS plug is the disconnect device, the disconnect device shall remain readily operable.
CONSIGNES DE SÉCURITÉ IMPORTANTES

Lire ces consignes.

Conserver ces consignes.

Observer tous les avertissements.

Suivre toutes les consignes.

Ne pas utiliser cet appareil à proximité de l’eau.

Ne pas obstruer les ouvertures de ventilation. Installer en respectant les consignes du fabricant.

Ne pas installer à proximité d'une source de chaleur telle qu'un radiateur, une bouche de chaleur, un poêle ou d'autres appareils (dont les amplificateurs) produisant de la chaleur.

Ne pas annuler la sécurité de la fiche de terre, la troisième branche est destinée à la sécurité. Si la fiche fournie ne s'adapte pas à la prise électrique, demander à un électricien de remplacer la prise hors normes.

Protéger le cordon d'alimentation afin que personne ne marche dessus et que rien ne le pince, en particulier aux fiches, aux prises de courant et au point de sortie de l’appareil.

Utiliser uniquement les accessoires spécifiés par le fabricant.

Utiliser uniquement avec un chariot, un support ou une table spécifié par le fabricant ou vendu avec l’appareil. Si un chariot est utilisé, déplacer l’ensemble chariot–appareil avec précaution afin de ne pas le renverser, ce qui pourrait entraîner des blessures.

Débrancher l’appareil pendant les orages ou quand il ne sera pas utilisé pendant longtemps.

Confier toute réparation à du personnel qualifié. Des réparations sont nécessaires si l’appareil est endommagé d’une façon quelconque, par exemple: cordon ou prise d'alimentation endommagé, liquide renversé ou objet tombé à l’intérieur de l’appareil, exposition de l’appareil à la pluie ou à l’humidité, appareil qui ne marche pas normalement ou que l’on a fait tomber.

NE PAS exposer cet appareil aux égouttures et aux éclaboussements. Ne pas poser des objets contenant de l’eau, comme des vases, sur l’appareil.
Ce symbole indique la présence d'une tension dangereuse dans l'appareil constituant un risque de choc électrique.

Ce symbole indique que la documentation fournie avec l’appareil contient des instructions d'utilisation et d'entretien importantes.

Avant de modifier le commutateur de changement de tension ou replacer le fusible il faut débrancher l’appareil de la prise électrique. Pendant son usage, l’appareil doit être branchée à la prise de terre.

Utiliser le fusible principal AC avec le valeur qui est indiquée sur l’étiquette collée sur le coffret.

Assurez-vous que la tension principale AC correspond à celle indiquée dans les spécifications techniques.

L’interrupteur d’alimentation interrompt un pôle du réseau d’alimentation excepté le conducteur de terre de protection. En cas de danger, debrancher le cordon d'alimentation. Parce que la prise du réseau de alimentation est utilisée comme dispositif de déconnexion, ce dispositif doit demeuré aisément accessible.
ISTRUZIONI IMPORTANTI PER LA SICUREZZA

Leggere le presenti istruzioni.

Conservare queste istruzioni.

Osservare tutte le avvertenze.

Seguire scrupolosamente tutte le istruzioni.

Non usare questo apparecchio in prossimità di acqua.

Non ostruire alcuna apertura per il raffreddamento. Installare l’apparecchio seguendo le istruzioni.

Non installare l’apparecchio accanto a fonti di calore quali radiatori, aperture per l’afflusso di aria calda, forni o altri apparecchi (amplificatori inclusi) che generino calore.

Non rimuovere il terminale di connessione a terra sul cordone di alimentazione: esso ha lo scopo di tutelare l’incolumità dell’utilizzatore. Se la spina in dotazione non si adatta alla presa di corrente, rivolgersi ad un elettricista per far eseguire le modifiche necessarie.

Evitare di calpestare il cavo di alimentazione o di comprimerlo, specialmente in corrispondenza della spina e del punto di inserzione sull’apparato.

Utilizzare solo dispositivi di collegamento e gli accessori specificati dal produttore.

Utilizzare l’apparecchio solo con un carrello, un sostegno, una staffa o un tavolo di tipo specificato dal produttore o venduto insieme all’apparecchio. Se si utilizza un carrello, fare attenzione negli spostamenti per evitare infortuni causati da ribaltamenti del carrello stesso.

Scollegare l’apparecchio dalla presa di corrente durante i temporali o quando inutilizzato a lungo.

Per qualsiasi intervento, rivolgersi a personale di assistenza qualificato. È’ necessario intervenire sull’apparecchio ogniqualvolta si verificano danneggiamenti di qualsiasi natura. Ad esempio, la spina o il cavo di alimentazione sono danneggiati, è entrato liquido nell’apparecchio o sono caduti oggetti su di esso, l’apparecchio è stato esposto alla pioggia o all’umidità, non funziona normalmente o è caduto.

Non esporre a sgocciolamenti o spruzzi. Non appoggiare sull’apparecchio oggetti pieni di liquidi, ad esempio vasi da fiori.
Il prodotto deve essere connesso ad impianti costruiti secondo la regola dell’arte e muniti di protezione differenziale del circuito con valore non superiore agli 0,03A.

Tenere il prodotto lontano da liquidi.

Il prodotto deve essere utilizzato solo se integro e non danneggiato. Se il prodotto è stato sottoposto a forti urti o fosse venuto a contatto con liquidi è necessario contattare l’assistenza prima di accenderelo.

Il prodotto non và aperto per nessun motivo, non và modificato o manomesso. E’ vietato tentare qualsiasi tipo di riparazione. E’ obbligatorio leggere il manuale utente prima di utilizzare il prodotto.

Il prodotto deve essere utilizzato da persone adulte. Tenere il prodotto fuori dalla portata dei bambini

Il prodotto và collegato ad impianti costruiti secondo la regola dell’arte e muniti di protezioni magnetotermiche del circuito. E’ proibito sovraccaricare le prese di corrente. E’ obbligatorio spegnere il prodotto se non utilizzato.

E’ proibito ostruire le aperture di raffreddamento e aerazione.

E’ obbligatorio tenere materiali infiammabili/combustibili lontani dal prodotto.

E’ vietato utilizzare il prodotto in presenza di sostanze che possano creare atmosfera esplosiva.

Il prodotto và utilizzato posizionato e utilizzato in maniera stabile.
Questo simbolo indica la presenza di alta tensione all'interno dell'apparecchio, che comporta rischi di scossa elettrica.

Questo simbolo indica la presenza di istruzioni importanti per l'uso e la manutenzione nella documentazione in dotazione all'apparecchio.

Non sostituire il fusibile o cambiare la tensione di alimentazione senza aver prima scollegato il cordone di alimentazione. L'APPARATO DEVE ESSERE CONNESSO A TERRA.

Sostituire il fusibile generale con uno di identico valore, come indicato sulla etichetta applicata sul mobile dell’apparato.

Assicurarsi che la tensione di rete corrisponda a quella per la quale è configurato l’apparecchio.

Questo apparato utilizza un interruttore di alimentazione di tipo unipolare e l’isolamento dalla rete elettrica non è pertanto completo. Per ottenere un isolamento totale (ad esempio in caso di pericolo), scollegare il cordone di alimentazione. Inoltre, poiché la spina di alimentazione è utilizzata come dispositivo di sezionamento, essa deve restare facilmente raggiungibile.
WICHTIGE SICHERHEITSHINWEISE

Diese Hinweise LESEN.
Diese Hinweise AUFHEBEN.
Alle Warnhinweise BEACHTEN.
Alle Anweisungen BEFOLGEN.
Dieses Gerät NICHT in der Nähe von Wasser verwenden.
KEINE Lüftungsoffnungen verdecken. Gemäß den Anweisungen des Herstellers einbauen.
Nicht in der Nähe von Wärmequellen, wie Heizkörpern, Raumheizungen, Herden oder anderen Geräten (einschließlich Verstärkern) installieren, die Wärme erzeugen.


VERHINDERN, dass das Netzkabel gequetscht oder darauf getreten wird, insbesondere im Bereich der Stecker, Netzsteckdosen und an der Austrittsstelle vom Gerät.

NUR das vom Hersteller angegebene Zubehör und entsprechende Zusatzgeräte verwenden.


Das Netzkabel dieses Geräts während Gewittern oder bei längerer Stillstandszeiten aus der Steckdose ABZIEHEN.

Alle Reparatur- und Wartungsarbeiten von qualifiziertem Kundendienstpersonal DURCHFÜHREN LASSEN. Kundendienst ist erforderlich, wenn das Gerät auf irgendwelche Weise beschädigt wurde, z.B. wenn das Netzkabel oder der Netzstecker beschädigt wurden, wenn Flüssigkeiten in das Gerät verschüttet wurden oder Fremdkörper hineinfielen, wenn das Gerät Regen oder Feuchtigkeit ausgesetzt war, nicht normal funktionierte oder fallen gelassen wurde.

Dieses Gerät vor Tropf- und Spritzwasser SCHÜTZEN. KEINE mit Wasser gefüllten Gegenstände wie zum Beispiel Vasen auf das Gerät STELLEN.
Dieses Symbol zeigt an, dass gefährliche Spannungswerte, die ein Stromschlagrisiko darstellen, innerhalb dieses Geräts auftreten.

Dieses Symbol zeigt an, dass das diesem Gerät beiliegende Handbuch wichtige Betriebs- und Wartungsanweisungen enthält.

Vor Änderung der Netzspannung oder Sicherungswechsel Netzkabel trennen.
Das Gerät muss für den Betrieb geerdet werden.

Hauptsicherung nur mit einer gleichwertigen austauschen (s. entsprechende Etikette).

Vor Einschalten Netzspannungseinstellung am Gerät überprüfen bzw. anpassen.

Inpoliger Netzschalter. In Notfälle oder für Wartungsarbeiten Netzkabel trennen. Der Netzstecker fungiert auch als Trennelement muss deshalb zugänglich bleiben.
INSTRUCCIONES IMPORTANTES DE SEGURIDAD

LEA estas instrucciones.
CONSERVE estas instrucciones.
PRESTE ATENCION a todas las advertencias.
SIGA todas las instrucciones.

NO utilice este aparato cerca del agua.

NO obstruya ninguna de las aberturas de ventilación. Instálese según lo indicado en las instrucciones del fabricante.

No instale el aparato cerca de fuentes de calor tales como radiadores, registros de calefacción, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.

NO anule la función de seguridad del enchufe polarizado o con clavija de puesta a tierra. Un enchufe polarizado tiene dos patas, una más ancha que la otra. Un enchufe con puesta a tierra tiene dos patas y una tercera clavija con puesta a tierra. La pata más ancha o la tercera clavija se proporciona para su seguridad. Si el toma corriente no es del tipo apropiado para el enchufe, consulte a un electricista para que sustituya el toma corriente de estilo anticuado.

PROTEJA el cable eléctrico para evitar que personas lo pisen o estrujen, particularmente en sus enchufes, en los toma corrientes y en el punto en el cual sale del aparato.

UTILICE únicamente los accesorios especificados por el fabricante.

UTILICESE únicamente con un carro, pedestal, escuadra o mesa del tipo especificado por el fabricante o vendido con el aparato. Si se usa un carro, el mismo debe moverse con sumo cuidado para evitar que se vuelque con el aparato.

DESENCHUFE el aparato durante las tormentas eléctricas, o si no va a ser utilizado por un lapso prolongado.

TODA reparación debe ser llevada a cabo por técnicos calificados. El aparato requiere reparación si ha sufrido cualquier tipo de daño, incluyendo los daños al cordón o enchufe eléctrico, si se derrama líquido sobre el aparato o si caen objetos en su interior, si ha sido expuesto a la lluvia o la humedad, si no funciona de modo normal, o si se ha caído.

NO exponga este aparato a chorros o salpicaduras de líquidos. NO coloque objetos llenos con líquido, tales como floreros, sobre el aparato.
Este símbolo indica que la unidad contiene niveles de voltaje peligrosos que representan un riesgo de choques eléctricos.

Este símbolo indica que la literatura que acompaña a esta unidad contiene instrucciones importantes de funcionamiento y mantenimiento.

Antes de cambiar la alimentacion de voltaje o de cambiar el fusible, desconecte el cable de alimentacion. Para reducir el riesgo de descargas electricas, esta unidad debe ser conectada a tierra.

Remplaze el fusible con lo mismo, que corresponde a lo indicado en el panel del equipo.

Antes de encender, controlar que la linea de alimentacion de voltaje corresponda a la indicada.

El interruptor de alimentación es unipolar. En el caso de peligro, desconecte el cable de alimentación. Porque la clavija de conexion a red sirve por la desconetion de la unidad, la clavija debe ser ubicada en proximidad de la unidad.
UNPACKING AND INSPECTION

Your equipment was packed carefully at the factory in a container designed to protect the unit during shipment. Nevertheless, we recommend making a careful inspection of the shipping carton and the contents for any signs of physical damage.

Damage & Claims

If the damage is evident, do not discard the container or packing material. Contact your carrier immediately to file a claim for damages. Customarily, the carrier requires you, the consignee, to make all damage claims. It will be helpful to retain the shipping documents and the waybill number.

Save all packing materials! If You should ever have to ship the unit (e.g. for servicing), it is best to ship it in the original carton with its packing materials because both the carton and packing material have been carefully designed to protect the unit.

Under normal conditions, no user maintenance or calibration is required. Internal links and preset controls may be set to configure the unit during installation. Any service work required should be carried out by qualified service personnel only.

We are able to offer further product support through our worldwide network of approved dealers and service agents.

To help us provide the most efficient service please would you keep a record of the unit serial number and date and place of purchase to be quoted in any communication regarding this product.

The actual equipment Serial Number is indicated on the silver label stuck on the rear panel of the equipment closure.

Tools And Equipment Needed

Only standard technician’s tools are required to install this equipment.
FIRST INSTALLATION RECOMMENDATIONS

POWER SUPPLY CABLE

A power supply cable of approx. 2 mt lengths is supplied with the device, which has a moulded IEC plug attached – this is a legal requirement. The type of plug for the power supply depends on the country in which it is delivered.

If for any reason, you need to use this appliance with a different plug, you should use the following wiring guidelines in replacing the existing plug with the new one:

<table>
<thead>
<tr>
<th>Earth</th>
<th>Green, or green and yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral (N)</td>
<td>Blue</td>
</tr>
<tr>
<td>Live (L)</td>
<td>Brown</td>
</tr>
</tbody>
</table>

Supply cables should be laid in such a manner that one does not step or walk on them. They should not be squashed by any objects.

**THIS EQUIPMENT MUST BE EARTHED.**

The chassis is always connected to mains earth to ensure your safety: check your mains wiring and earthing before switching on.

PROTECTION AGAINST LIGHTNING

Should the device be put out of action due to being struck by lightning or excess voltage, disconnect it from the power supply without delay. Do not reconnect until the device has been checked. If in doubt contact the technical support service.

Make sure there is a suitable lightning protection to protect the device. Alternatively, you should disconnect all connectors from the device during a storm or when the device is going to be unsupervised or not used for a longer period of time.

These measures will protect against damage by lightning or excess voltage.
OXYGEN 3000 INSTALLATION NOTE AND FIRST STEP

Best setup location
The Oxygen 3000 should be installed avoiding direct sunlight, close proximity to radiators and air conditioning, dust, water, and chemicals. Choose a console location that permits a clear view of the indicators on the device and ensures a sufficient heat dissipation of the device.

Power supply
The device is designed for operation with 100 to 240 V AC, 50 Hz to 60 Hz. Check the corresponding device labelling for compatibility with the domestic line voltage and frequency before connecting the IEC power connector to the mains supply!

| Power Supply | Please make sure that the device and the contained fuse(s) (please see p. 17) are compatible with the domestic line voltage and frequency. If the device is compatible, connect the power supply cord fully to the IEC power connector at the rear side of the device and a mains power outlet. The “LCD Screen” will then turn on. |
| Network configuration | OXYGEN 3000 have a display, so you can configure the IP settings directly: See step “LAN-1 PAGE FUNCTIONALITY (HOW TO SET THE TCP/IP ETH-1)” |
| Connect to network | Connect a network patch cable to the “10/100-Base-T” connector on the rear side of the device and your existing IP network. |
| Ready! | These first steps are only intended for a quick first start and do not cover all device functions. Please read carefully the entire manual to be able to use all functions of the device. |

WARNING
Disconnect mains power plug before you open the housing. Repair of the equipment must only be carried out by authorized and qualified personnel.
Oxygen 3000 is the new concept digital console and defines a new standard in the broadcast market.

- Characterized by an elegant design and compact size, Oxygen 3000 has been designed for both On Air and Production studios.
- Oxygen 3000 is based on digital technology with DSP audio processing to deliver high-end quality, latest features and flexibility with ease of use.
- Oxygen 3000 is the number 1 in the category at the best quality/price ratio.
- Oxygen 3000 is a powerful and compact unit featuring 10 faders, meters for every single channel, built-in 7” display for settings, wide range of connectivity and accessories in a rugged and classy steel chassis. Easy and reliable as the analog mixing consoles,
- Oxygen 3000 adds the value of the digital engine that grants a near 0 latency (< 0,7 ms I/O ) and plenty of advanced functions as the internal routing signal, customizable preset and easy recall, user-defined smart keys, analog and digital I/O.
1. GENERAL DESCRIPTION

1.1 MIXER DIMENSIONS
1.2 TALKBOX DIMENSIONS

- **Top:**
  - Width: 165mm
  - Height: 142mm

- **Side:**
  - Height: 56mm
  - Width: 142mm

- **Front:**
  - Height: 56mm
  - Width: 165mm

- **Rear:**
  - Height: 56mm
  - Width: 165mm
1.3 CUTTING TEMPLATE

CONNECTORS HOLE

MIXER HOLE

630mm

60mm

492mm

525mm

55mm

60mm

492mm
1.4 INPUT CONNECTIONS

1. Aux-In
   Stereo Input - Mini Jack 3.5mm - Unbalanced Audio Connection.

2. Ethernet Input
   RJ45 - Internet Connections.

3. USB-1, USB-2
   2 Audio Card Stereo Input- USB-Type B - PC Connections.

4. PLAYER-1, PLAYER-2
   Internal MP3/WAV Player - USB-Storage (max 32GB).

5. Digital-In
   AES/EBU Stereo Input - XLR Female - Balanced Digital Connection (110Ω).

6. Line-4, Line 5, Line-6, Line-7 (this is the EXT input for TUNER)
   4 Stereo Input - PIN RCA - Unbalanced Audio Connection.

7. Bluetooth
   Bluetooth Stereo/Mono Input - Wireless - Smartphone.

8. Line-1, Line-2, Line-3
   3 Stereo Input / 6 Mono - XLR Female - Balanced Audio Connection (50Ω).

9. Telephone
   Analog Telephone Line - RJ11 - PSTN Interface.

10. Telco/Mic-5
    Mono/Mic Input - XLR Female - Balanced Audio Connection (50Ω). It works as a LINE input. To use it as a normal MIC you have to amplify the MIC of +16 dB.

11. Mic-1, Mic-2, Mic-3, Mic-4
    4 Mic Input - XLR Female - Balanced Audio Connection (1K2Ω).

12. TBox-2, TBox-3, TBox-4, TBox-5
    4 Talk Box Input - RJ45 (SFTP Cable) - Balanced Audio (Mic2/3/4/5 Input).
1. **Headphones**
   C-Room and Headphones Studio Stereo Output - Jack 6.3mm - Unbalanced Audio Connection (nominal 32Ω).

2. **Ethernet Output**
   RJ45 - Internet Connections.

3. **USB-1, USB-2**
   2 USB Audio Card USB -Type B - PC Connections.

4. **Digital Out**
   AES/EBU Stereo Output - XLR Male - Balanced Digital Connection (110Ω).

5. **REC-1, REC-2, SPK C-ROOM, SPK STUDIO**
   4 Stereo Output - PIN RCA - Unbalanced Audio Connections.

6. **Bluetooth**
   Bluetooth Stereo/Mono Output - Wireless – Smartphone.

7. **PGM, SUB, AUX-1, AUX-2**
   4 Stereo Output - XLR Male - Balanced Audio Connection (47Ω).

8. **Telephone**
   Analog Telephone Line - RJ11 - PSTN Interface.

9. **Telco**
   Mono Output - XLR Male - Balanced Audio Connection (47Ω).

10. **HDP-STUDIO, HDP-GUEST**
    Talk Box Output - RJ45 (SFTP Cable) - Balanced Audio (Studio & Guest Headphone).
1.6 COMMUNICATION CONNECTIONS

1. HDMI Output*
   Standard HDMI Female Connector - External Monitor.

2. Ethernet
   RJ45 Female Connector - Remote control.

3. USB-1, USB-2
   Two USB Type A Female Connectors - External USB Devices.

4. GPIO-2
   SUB-D 9p Female - 2 GPI + 2 GPO.

5. GPIO-1
   SUB-D 9p Female - 2 GPI + 2 GPO.

6. Tel Set
   RJ11 (PSTN Interface).

7. TBox-HDP-STUDIO, TBox-HDP-GUEST
   2 RJ45 (SFTP Cable) - n° 1 GPO Connection.

8. TBox-MIC-2, TBox-MIC-3, TBox-MIC-4, TBox-MIC-5
   4 RJ45 (SFTP Cable) - n° 2 GPI Connections + n° 1 GPO Connection.

* It is unable to use in version 2.1.0.6 and previous releases.
1.7 TALK BOX CONNECTIONS

1. Power Supply
   12VDC 1A

2. Studio Light
   Screw Connector - (12VDC output).

3. HDP Output
   RJ45 Connectors (SFTP) - (Passive Loop Output).

4. HDP Input
   RJ45 Connectors (SFTP).

5. Talk Box Connection
   RJ45 Connectors (SFTP) - (Passive Loop Output).

6. Mic Light
   Screw Connector - (12VDC output).

7. Mic Input
   XLR Female Connector.

8. HDP-1-TBox
   Jack 6.3mm Female Connector - (Min. Imp. 32Ω).

9. HDP-2-TBox
   Jack 6.3mm Female Connector - (Min. Imp. 32Ω).
2. SURFACE

**2.1** INPUT LED METER
**2.2** OUTPUT LED METER
**2.3** CONTROL INPUT CHANNEL
**2.4** SPECIAL FUNCTION BUTTONS

**2.5** MONITORS SECTION
**2.6** SMART KEY / JINGLE BUTTONS*
**2.7** DISPLAY 7” TFT AND CONTROL BUTTONS

* It is inactive in version 2.1.0.6 and previous releases.
2.1 INPUT LED METER

A. The LED level meters display the audio signal input on the channel (audio presence). The LED level meters has a 10dB resolution, from -50 to +10dB. The level is PRE-GAIN, the GAIN action has no effect on the displayed level.

B. CLIP LED
   The lighting of the LED indicates a source level too high. This condition saturates the signal and creates audio distortions. ACTION TO BE TAKEN: turn down the input source level.

C. Sources level meters and clip LEDs of the 10 channels.
2.2 OUTPUT LED METER

A. LEDs Meter of the Program output signal (PGM).
   The LEDs Meter has a resolution of 2dB, from -60 to +20dB.
   The level is POST-GAIN, the PGM GAIN has effects on the displayed level.

B. LED Meter of the signal of the output PFL/SUB/AUX-1/AUX-2/MONITOR SELECTION.
   The LED Meter has a resolution of 2dB, from -60 to +20dB.
   The level is POST-GAIN, the BUS GAIN has effects on the displayed level.
C. It is possible to select the displayed BUS by pressing METER button. It is possible to switch the 4 Buses and MONITOR SELECTION sequentially, by a repeated pressing.

PFL -> SUB -> AUX-1 -> AUX-2 -> MONITOR SELECTION -> PFL -> SUB...
The selected **BUS** is forcibly displayed when the related LED (**PFL/SUB/AUX-1/AUX-2**) is on.

![Diagram of LED display](image)

The 4 LEDs are off in the MONITOR SELECTION position. The displayed signal is the source selected in **HDP C-ROOM**, as shown in the following picture.

![Diagram of monitor selection](image)
2.3 CONTROL INPUT CHANNEL

A. SET – BUTTON TO SET CHANNEL PARAMETERS.

B. CHB – BUTTON FOR THE SOURCE SWITCHING BETWEEN THE PRIMARY SOURCE (A) AND THE SECONDARY (B).

C. GAIN – KNOB TO ADJUST THE INPUT SOURCE LEVEL OF THE SIGNAL.

D. F1 – BUTTON TO ENABLE/DISABLE THE ASSOCIATED FUNCTION (Telephone / Telco).

E. EQ – BUTTON TO ENABLE OR TO SET THE EQUALIZER.

F. PGM – BUTTON TO ENABLE THE PGM BUS.
   SUB – BUTTON TO ENABLE THE SUB BUS.
   AUX-1 – BUTTON TO ENABLE THE AUX-1 BUS.
   AUX-2 – BUTTON TO ENABLE THE AUX-2 BUS.

G. FADER – THE FADER ALLOWS THE SOURCE LEVEL ATTENUATION.

H. FADER LED BAR – IT INDICATES THE ATTENUATION AND THE SOURCE TYPE.

I. ON/START – BUTTON TO SWITCH ON/OFF THE SELECTED SOURCE.

J. PFL – BUTTON TO ENABLE THE PFL BUS.
A. SET BUTTON

To enter in the settings menu and view channel parameters press **SET**. The single-clicking enables/disables the channel status viewer on the **TFT** and at the same time enables the settings menu for the channel parameters.

Button in **OFF** position: Channel viewing disabled.

Button in **ON** position: Channel viewing/setting enabled. The button starts blinking.

To exit from viewing/setting mode press on one of the buttons: (**SET**, **MENU** or **ESC**).
B. ChB BUTTON

For every channel, you can set two different input sources, ChA and ChB. By pressing ChB button you can switch over between A/B sources.

Button in OFF position: the ChA is active.
Button in ON position: the ChB is shown. The button starts lighting.

**ATTENTION:** If the source is already aired on another channel it is aired to the last one too. The faders will be added accordingly with the BUS selection.
If the Channel B is aired you cannot assign to it the EMPTY source.
C. GAIN

The **GAIN** knob rotation increases or decreases the input source gain. The **GAIN** value is associated with the selected source ChA/ChB, not with the physical channel. By switching the source the gain is always suitable to the connected one.

The **GAIN** value is the latest setting seated by the knob. The **GAIN** affects at the input level with +/- 20 dB.

Rotate a **GAIN** knob, it’s will active **SET** mode and shows the setting and **GAIN** level at the display. The step of the **GAIN** adjustment knob is 0.5 dB.
D. F1 BUTTON

Telephone Channel / Telco (Default Setting).

In the presence of an incoming call, the F1 button starts blinking,
By pressing F1 two times it will hook the call.

- F1 LED off – the line is not hooked.
- F1 LED blinks – RING – there is an incoming call.
- F1 LED on – the line is hooked.

By pressing F1 again also two times you drop the line.
E.  

EQ BUTTON

The equalizer is associated with the selected source when a source is selected for a channel also the related and customized equalization is loaded.

Press **EQ** Enable/Disable the equalizer.  
**EQ** button reports if the equalizer is ON or OFF by lighting.

Press & Hold **EQ** Button to entering in the equalizer configuration menu “the EQ editor on the display”. It’s possible to change **BASS/MID/HIGH** equalizations.  
It’s also able to adjust from the advanced settings “**ADV. SETTINGS**” an equalizer like ( LOW CUT, BASS, BASS-MID, MID, MID-HIGH, HIGH, HI-CUT ).
F. PGM/SUB/AUX-1/AUX-2 BUTTONS

The PGM, SUB, AUX-1, AUX-2 buttons enable or disable the output signal routing on the related BUS, the RGB LEDs under the related button have three different states:

1) LED OFF = BUS disabled.
2) LED ON in full light = BUS enabled + Channel ON.
3) LED ON in half-light = BUS ON + Channel OFF.

The Different in BUS’s status, it’s not associated with the source, like EQ and GAIN but with the physical channel. when you changing the source, the BUS’s status will not change.

It’s possible to set AUX-1 and AUX-2 to be POST-Fader or PRE-Fader, this choice is settable in the settings menu of every channel’s input source.

When a channel switch from ON to OFF or standby status, the related LEDs switches from ON Colour to standby colour. this function allows us to understand the channel and BUS's status.

ON/OFF channel status could depend on:
- ON/OFF of ON/START button.
- Fader position.
G. FADER

A command is generated everytime the Fader passes through the threshold value:

**ON** - crossing the threshold point from bottom to top.

**OFF** - crossing the threshold point from top to bottom.

Differently, from the **EQ** and the **GAIN**, the **FADER** status is not associated with the source, it is associated with the physical channel. Changing the source, the **FADER** attenuation and the **FADER** position will not changes.

MOTORIZED FADER (Optional).

**ATTENTION:**
It is possible to set AUX-1 and AUX-2 to be POST-Fader or PRE-Fader. The FADER does not affect the signal in the PRE-FADER case.

H. FADER LED BAR

The **FADER** LEDs BAR shows the channel level.
I. ON/START BUTTON

ON/START button enable or disable the channel (ON/OFF), the OFF status mutes the channel automatically, and the RGB LEDs under the buttons has three different statuses:

1) LED OFF - OFF status - the channel is MUTE.
2) LED ON in (full light) - ON status – the channel is OPEN.
3) LED ON in (Middle lights) – standby status.

Differently, from the EQ and the GAIN, the ON/OFF status is not associated with the source, it’s associated with the physical channel. Changing the sources between (ChA/ChB), the ON/OFF channel status will not change.

The ON/OFF channel status could be changed by:
- pressing at ON/START button as a shown below.
- The passage of the fader through a previously set threshold value.

In the case of ON BY FADER active, it is possible to combine the FADER action with the ON/START button.
J. PFL BUTTON

PFL button enables/disables the pre-listen of the channel. When the button’s LED is ON, the pre-listen is enabled on that channel. Differently, from the EQ and GAIN the PFL status is not associated with the source, it’s associated with the physical channel. Changing the source, the PFL status will not change.

If you press a second or more PFL button you will pre-listen for all of them. By pressing an enabled PFL you will disable it from the MONITOR pre-listening. By pressing the last active PFL you disable the automatic PFL listening from the MONITOR.
When a PFL Button is in ON position, the automatic pre-listening is activated on the MONITOR. In this condition the source button previously set starts blinking.

To disable the pre-listening press the enabled PFL or the blinking button in the Monitor section.
2.4 SPECIAL FUNCTION BUTTONS

A. OUTPUT BUTTON

The OUTPUT button recalls directly the OUTPUTS configuration menu. This button is a SHORTCUT to reach immediately the OUTPUT menu.
B. METER BUTTON

METER button manages the source displayed in the bottom section of the LED METER screen. By pressing METER you can select the displayed BUS.

The repeated pressing of METER button switches the 4 BUS and the MONITOR SELECTION, displaying them in a sequential way:

PFL -> SUB -> AUX-1 -> AUX-2 -> MONITOR SELECTION -> PFL -> SUB

METER BUTTON STATUS:

- PFL
- SUB
- AUX-1
- AUX-2

Diagram:

- METER button
- SET
- PFL
- SUB
- AUX-1
- AUX-2
- MONITOR SELECTION
- METER button on
If one of the four LEDs is on (PFL/SUB/AUX-1/AUX-2) the selected BUS is a forcibly displayed.

The selected source in HDP C-ROOM is being displayed in the MONITOR SELECTION status. In this case, all 4 LEDs are OFF as explained in the following picture.
C. TELEPHONE*

D. BLUETOOTH

The Bluetooth has two functioning ways:
- Microphone **TX**(Mono)- **RX**(Mono) Interface for telephone communication (in example Skype)
- **RX** (Stereo) interface for file/streaming player...

The device is in pairing mode after a fast pression (< 1 sec) of the Bluetooth button. It starts to blink in blue colour.

Search for the Oxygen3000D-XXXX in Bluetooth device and connect with it. Once the device is connected the blue light stops blinking.

Press the desired **SET** button and search for Bluetooth in the source menu. (In example **SET** button of the 4 ch).

Press the desired **BUS** on the channel (in example **PGM**)

Start the audio streaming (music, audio from YouTube/Music Player) or the phonecall (Call, Skype, WhatsApp,) from the Bluetooth device.

With a long Bluetooth button pression you will disconnect the device.

If you turn on again the Bluetooth in the device and if the device is still associated with the console, it will be automatically paired. You will see a fixed blue light.

* It is inactive in version 2.1.0.6 and previous releases.
2.5 MONITORS SECTION

A. CONTROL ROOM SPEAKERS SOURCES & LEVEL – CUT FUNCTION

- This section is used for the management of the Control Room Speakers.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the Speakers.
- The loudspeakers audio level goes from 0 to 99. 99 is the maximum allowed level.
- The step of the loudspeakers adjustment is 1 dB and the level goes from -80 dB to the maximum of +19dB.
- By setting the level on 80 dB we will have a total output level of 0dB.
- The Speakers level are displayed in the bottom-right section of LCD.
1SEL-PFL MODE*

Headphones and CR “Control Room” speakers receive the same selected sources, except for the PFL selection.
If you choose the 1SEL from MENU you must receive the selected source only.
Headphones and CR “Control Room” speakers will be independent.
When you choose one or more PFL to PRE-LISTEN the selected output source will start blinking.

* It is inactive in version 2.1.0.6 and previous releases.
**CUT-SOURCE**

It's allowed you to choose which microphone channel has effective to **MUTE** the loudspeakers audio output. The opening of a microphone source (if configured appropriately) can generate the closing command of the loudspeakers. That is possible to choose one or more source to cut the loudspeaker output of the CR “Control Room”.

When you open the associated source with a **CUT** function you will see it’s will **MUTE** CR Loudspeakers output and the **SPEAKER** icon at LCD will start plinking.
The **CUT** mode is triggered by the change from OFF to ON of a microphone source to which it has been set closing of the C-ROOM loudspeaker, using the following to set this function:

As shown in the MENU this function (**CUT**) is associated only with the loudspeakers, this to avoid LARSEN effects “feedback loop” from occurring between the nearby **CR** loudspeakers and On-Air microphones.

If you need to **MUTE** the loudspeakers just **PUSH** the volume knob.

**PUSH** the volume knob a second time or rotate it to activate Control Room loudspeakers output and amplification or attenuation.

The status of **MUTE-SPK** is indicated by a red cross on the SPEAKER icon and **SPK** button will start blinking.
B. CONTROL ROOM – HEADPHONES SOURCES & LEVEL

- This section is used for the management of the headphone’s Level for the Control Room.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the headphone.
- The headphone audio level goes from 0 to 99. 99 is the maximum allowed level.
- The step of the headphone adjustment is 1 dB and the level goes from -80 dB to the maximum of +19dB.
- By setting the level on 80 dB we will have a total output level of 0dB.
- The headphone’s level is displayed in the bottom-right section of LCD.
If you need to **MUTE** the headphone just **PUSH** the volume knob.

**PUSH** the volume knob a second time or rotate it to activate headphone output and amplification or attenuation. The status of **MUTE-HDP** is indicated by a **red cross on the SPEAKER icon**.
**1SEL-PFL MODE***

Headphones and CR “Control Room” speakers receive the same selected sources, except for the PFL selection.

If you choose the **1SEL** from MENU you must receive the selected source only. Headphones and CR “Control Room” speakers will be independent.

Normally Headphones listen to the selected source like the speakers. If PFL is pressed, headphones can listen for it, speakers no.

When you choose one or more **PFL** to **PRE-LISTEN** the selected output source will start blinking.

---

* It is inactive in version 2.1.0.6 and previous releases.
C. STUDIO - SPEAKERS

- This section is used for the management of the ST Studio Speakers.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the Speakers.
- The loudspeakers audio level goes from 0 to 99.99 is the maximum allowed level.
- The step of the loudspeakers adjustment is 1 dB and the level goes from -80 dB to the maximum of +19dB.
- By setting the level on 80 dB we will have a total output level of 0dB.
- The Speakers level are displayed in the bottom-right section of LCD.
1SEL-PFL MODE*

Headphones and ST “Studio” loudspeakers receive the same selected sources, except for the PFL selection. If you choose the 1SEL from MENU you must receive the selected source only. Headphones and ST “Studio” loudspeakers will be independent.

*It is inactive in version 2.1.0.6 and previous releases.
**CUT-SOURCE**

It’s allowed you to choose which microphone channel has effective to **MUTE** the loudspeakers audio output. The opening of a microphone source (if configured appropriately) can generate the closing command of the loudspeakers. That is possible to choose one or more source to cut the loudspeaker output of the ST “Studio”.

When you open the associated source with a **CUT** function you will see it’s will **MUTE** ST Loudspeakers output and the **SPEAKER** icon at LCD will start plinking.
The **CUT** mode is triggered by the change from **OFF** to **ON** of a microphone source to which it has been set closing of the Studio loudspeaker, using the following to set this function:

As shown in the MENU this function (**CUT**) is associated only with the loudspeakers, this to avoid LARSEN effects “feedback loop” from occurring between the nearby ST loudspeakers and On-Air microphones.

If you need to **MUTE** the loudspeakers just **PUSH** the volume knob.

**PUSH** the volume knob a second time or rotate it to activate Studio loudspeakers output and amplification or attenuation.

The status of **MUTE-SPK** is indicated by a red cross on the SPEAKER icon and **SPK** button will start blinking.
D. STUDIO – HEADPHONES SOURCES & LEVELS

- This section is used for the management of the headphone’s Level for the Studio.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the headphone.
- The headphone audio level goes from **0** to **99.99** is the maximum allowed level.
- The step of the headphone adjustment is **1 dB** and the level goes from **-80 dB** to the maximum of **+19 dB**.
- By setting the level on **80 dB** we will have a total output level of **0 dB**.
- The headphone’s level is displayed in the bottom-right section of LCD.
If you need to **MUTE** the headphone just **PUSH** the volume knob. **PUSH** the volume knob a second time or rotate it to activate headphone output and amplification or attenuation. The status of **MUTE-HDP** is indicated by a red cross on the **SPEAKER** icon.
1SEL-PFL MODE*

Headphones and ST “Studio” speakers receive the same selected sources, except for the PFL selection. If you choose the **1SEL** from MENU you must receive the selected source only. Headphones and ST “Studio” speakers will be independent.

Normally Headphones listen to the selected source like the speakers. If PFL is pressed, Studio headphone cannot listen to PFL, CR headphone only.

* It is inactive in version 2.1.0.6 and previous releases.
E. TALK BACK – FROM CONTROL ROOM TO THE STUDIO

This section is used for the management of the TB “TALKBACK” from the CONTROL ROOM to the Studio.

By pressing TB1 it’s possible to speak with the anchorman in STUDIO from the CONTROL ROOM.

By pressing TB2 it’s possible to speak with the GUESTS in STUDIO.
2.6 SMART KEY / JINGLE BUTTONS*

2.7 DISPLAY 7” TFT AND CONTROL BUTTONS

A. COLOR DISPLAY 7” - 800X480 RESOLUTION

The display is used to control the mixer setting and monitor all the parameters and it has own configuration menu. The display has some parameters that can be changed like DIMMER and LOGO.

* It is inactive in version 2.1.0.6 and previous releases.
The HOME THEME parameter defines what to see on the display in standard conditions when no function has been recalled. The following picture is the HOME PAGE:

1. ON/OFF channel STATUS
2. Source names associated with channels
3. Logo display.
4. NTP synchronized clock
5. ONAIR mic status
6. Telephone/Bluetooth status
7. Speakers and Headphones status
8. Firmware release

It is possible to adjust the display brightness, allowing you to deal with any environmental situation. You can find the parameter in the following menu: GENERAL SETTINGS/LIGHT & DISPLAY/DISPLAY/DIMMER (low, mid, high).
It is possible to have the logo of your own station on the Mixer display. The image must be 330x280px in PNG format.
B. BUTTONS FOR THE MENU NAVIGATION

1) The **MENU** button switches from HOME to MENU. With this button, you can recall the mixer configuration menu.

>> and << (2) (3) Buttons allow you to move between pages of parameters/functions on the same menu level.

ESC (4) allows you to exit from the menu level going up in the menu.
C. MENU display parts

1. From here you can browse all lists available in the menu.
2. To navigate the root of your page.
3. This number to indicate of the pages available and current page.
4. This part gave you instructions how the knobs work.
5. The editable function will show the part name in the display when continuous control is available. The function’s properties will show, indicate that a switch or toggle can be accessed by rotate and pushing the encoders.
6. Channel Set Panel for the selected audio source properties. As like CH A/B, source name, source type STEREO/MONO, the PAN L/R, POWER PHANTOM 48V, LOWCUT and HI-CUT. The active function is well shown in yellow colour. Each one will be explained in its section.
7. The PRE/POST level is displayed here along with the GAIN level and BAL monitor of the selected channel.
8. Graphic display shows the EQ curves. The waves full-featured graphic equalizer is displayed in different colour signals.
D. ENCODER FOR THE MENU NAVIGATION

- The 4 knobs (1) (2) (3) (4) allow you to adjust and confirm the menu parameters.
- It is also possible to **PUSH** the knob to confirm the parameter setting.
- Menus are designed to have a perfect matching between graphics and knobs.

- Parameter changes will be directly applied to the audio of the aired channel.
- The yellow value represents the stored value.
- While a knob is being moved the circle becomes white. A white value appears in the middle of the circle. The new value represents an instantaneous value that is different from the stored one.
- Push the related knob to confirm the parameter changes. Once you have confirmed the new value, the graphic will become yellow again.
- At the **ESC** pressing or at the next screen change if the changes will not be confirmed, the value will be restored to the one previously saved.
3. MENU

3.1 AUDIO/INPUTS

You can set input source parameters from the menu AUDIO > INPUTS by PUSH/RUTATE the knobs as like the following steps.

From this level of the menu, you choose which input source that you like to customize.
3.1.1 MIC (MIC-1 to MIC-5)

Here we can find all Microphones source parameters (MIC-1 to MIC-5).
That is able to manage our 5 microphones inputs like changing the NAME, GAIN, PAL/PAN, PREAMP, PHASE, PHANTOM 48V and many other functions we going to explain it briefly in below.
3.1.1.1 **NAME:**

This parameter allows the assignment of a **LABEL** to the various input sources. It is not possible to have a **LABEL** more than 8 characters. To change the microphone name and sign it as you like, it’s so easy way just rotate and push the knobs. To end editing the **LABEL**, just push the **ESC** button.

Just follow next steps. The description works the same for all Inputs. (In the example we are going to set the channel name as (MIC1).
3.1.1.2 **GAIN:**

This parameter allows you to adjust the input GAIN to bring the source to the right level. The input Gain has steps of **0.1 dB**.

N.B.: When the parameter control is activated, in real time the parameter value is updated, perceiving the increase and decrease of the GAIN, the graphics will change from yellow to white until the parameter is confirmed.
3.1.1.3 BAL/PAN:

This parameter changes the Input BAL/PAN. The parameter has a **1.0 dB** step.

**N.B.:** When you adjust the BAL/PAN parameter, you have a real-time change of the parameter value and the real-time perception of the BAL/PAN change. The Graphics will become white to indicate the parameter change, and it will become yellow again after the confirmation.
3.1.1.4 **PREAMP:**

The preamplifier is typically used to amplify signals from analog sensors such as microphones. It allows you to convert a weak signal for sending to a power amplifier or loudspeakers without any noise or distortion.

This parameter changes the Input PREAMPLIFIER.

The parameter has a **0.5 dB** step for maximum **+60.0 dB**.

**N.B.:** When you adjust the PREAMP parameter, you have a real-time change of the parameter value and the real-time perception of the PREAMP change. The Graphics will become white to indicate the parameter change, and it will become yellow again after the confirmation.
3.1.1.5 **PHASE:**

This option was created to control the microphones phase by flipping the phase to prevent **PHASE CANCELLATION**. By rotating the knob of **PHASE** you can flip it **180°**.
3.1.1.6 **PHANTOM 48V:**

This option allows you to turn the phantom power 48V ON/OFF for use with microphones (if the microphone requires it, such as a condenser microphone). The Phantom is shown in the [channel Set Panel](#).
3.1.1.7 **CUT / ON AIR:**

From this function, you can assign the MIC to a cut source that has to but the SPEAKERS in mute (CR ROOM or STUDIO). This option allows the MULTIPLE SELECTION, it is possible to select one source (CR ROOM, STUDIO) or both of them.

The opening of a microphone source (if configured appropriately) can generate the closing command of the loudspeakers. That is possible to choose one or more source to cut the loudspeaker.

When you open the associated source with a CUT /On-Air function, you will see it's will MUTE CR Loudspeakers output and the SPEAKER icon at LCD will start plinking.
The **CUT** / **On-Air** mode is triggered by feeding the microphone to **ON** position microphone of the source which it has been set closing of the loudspeakers, as the following example.

As shown in the MENU this function (**CUT/On Air**) is associated only with the loudspeakers, this to avoid **LARSEN** effects “feedback loop” from occurring between the nearby loudspeakers and On-Air microphones.
3.1.1.8 **EQ:**

These are graphic equalizers that provide an adjustable band between 22.4 Hz and 20 kHz. A master volume slider compensates for changes in volume caused by the equalization. An equalizer allows the sound in specified frequency bands to be amplified or reduced, in order to adjust the quality and character of the sound. A maximum boost or cut of is available for **LOW CUT** and **HI-CUT**.

Press the Equalizer knob to engage in this section. Select one of the 7 frequency bands with the **LOW CUT**, **BASS**, **BASS-MID**, **MID**, **MID-HIGH**, **HIGH** and **HI-CUT**.

Press the next button ( » ) or ( « ) to switch between the pages of EQ types are available. Select the specific frequency to be adjusted with the **FREQUENCY** knob, and adjust the bandwidth of the **EQ** with the **Q** knob, also you can choose between **PEAK** or **SHELVING** of **BASS** and **HIGH**. Finally, boost or cut the selected frequency with the **Gain** knob.

After confirming any editing you will see clearly the change that you do it at the graphic equalizer display with different colour signals, as well it’s effective at the input source quality and character.
**LOWCUT**: Is an audio frequency filter that cuts out all of the low sounds below a certain frequency. On **OXYGEN 3000** console you are given knobs to control the frequency of the low cut in a full range from **22.4Hz** to **20.0KHz**. Also, you can control how gradual or steep the cut is. Doing so will eliminate the amplification of unwanted low sound. Unwanted sound can be:

- Microphone handling or floor rumble (from bumping the mic or stepping on the floor that the mic stand is sitting on).
- The popping of “P’s” and “B’s” from a voice.
- Unwanted electrical hum (60hz).

When you active the **LOWCUT** function and confirmed it, that change will appear immediately at the output sources, and it will be shown in **EQ** graphic display as well the **LOWCUT** mark (ό) will change to yellow colour.

**HIGH CUT**: Is an audio frequency filter that cuts out all of the frequency above which the source signal a certain frequency. manipulates the reflection density in the simulated room.

![Diagram of OXYGEN 3000 console with LOWCUT and HIGH CUT settings]
**BASS, BASS-MID, MIDDLE, MID-HIGH, HIGH:**

In **OXYGEN 3000** the Parametric equalizers allow the adjustment of multi-band frequency equalizers which allow you to control the three primary parameters: AMPLITUDE, CENTER FREQUENCY and BANDWIDTH. The amplitude of each band can be controlled by the **GAIN** knob. The centre frequency can be shifted by **FREQUENCY** knob. Bandwidth (which is inversely related to "Q") can be widened or narrowed by **Q** knob.

**OXYGEN 3000** equalizers are capable of making much more precise adjustments to sound than other equalizers.
3.1.1.9 **AUX1, AUX2:**

From this section **OXYGEN 3000** gave you the possibility to set AUX-1 and AUX-2 to be **POST-Fader** or **PRE-Fader**, this choice is of every single channel.  

**ATTENTION:** When you set **AUX-1** and **AUX-2** to be **PRE-Fader**. The **FADER** does not affect the **AUX** output signal in this case.
DYN COMP:
Dynamic range compression (DRC) or simply compression is an audio signal processing operation that reduces the volume of loud sounds or amplifies quiet sounds thus reducing or compressing audio signals in DYNAMIC RANGE. Compression is commonly used in sound recording and reproduction, broadcasting, live sound reinforcement and in some instrument amplifiers.

THRESHOLD
A compressor reduces the level of an audio signal if it’s amplitude exceeds a certain threshold. The threshold is commonly set in decibels dB, where a lower threshold -70 dB means a larger portion of the signal is treated. When the signal level is below the threshold, no processing is performed and the input signal is passed, unmodified to the output. Thus, a higher threshold of 0 dB, results in less processing, less compression.

RATIO
The amount of gain reduction is determined by ratio. A ratio of 3 means that if the input level is 5 dB over the threshold, the output signal level is reduced to 2 dB over the threshold. The gain and output level has been reduced by 3 dB.
3.1.1.10 **BUTTON LIGHT, FADER BAR LIGHT:**

Button light **LED** it’s to indicate the channel status.
Fader bare **LED** indicates the fader level.
From this section, it is easy to change **LED**'s colour and mark it as you want by rotate and push the knobs.
3.1.2 MIC-5 INPUT / TELCO INPUT

To use an external telephone hybrid, you must change the MIC-5 to set it as a TELCO input. The telco input channel controls the connection to a telephone balance unit (or external hybrid). It has one balanced line level mono input on XLR. To do this follow the next steps by rotating and pushing the navigation knobs.
When you change the **MIC-5** to **TELCO MODE**, the **MIC-5** in input microphones setting will show in grey colour to indicate **MIC-5** is inactive. Observe the following figure.
Be sure that is no any channel use MIC-5 as a source A/B. it is necessary to change the configuration from MIC-5 to TELCO. If not, you will get an error message. EX: Src MIC5 (as A or B) on channel 10. Observe the next figure.

In this case, just goes to the intended channel source and change it form MIC-5 to empty or any other choice. To use the internal hybrid in OXYGEN 3000 connect the telephone line to the console RJ11 LINE port and the telephone set to the RJ11 SET port in the console.

If the line is well connected, you have to associate the TELEPHONE IN source to a Mixer Channel. When you will receive a phone call press F1 of the selected Channel to hook the line.

By pressing PFL of the same source channel you can speak in private to the caller from the selected microphone as a PRIVATE MIC.

If you want to connect the TELCO MODULE with one of the Axel Technology telephone hybrids (BOXTEL MKII, MACROTEL X1 X2, PHONEX D1 D2) Axel will give you a special DE9P cable.
If you want to connect the **TELCO MODULE** with a third parties **hybrid**, Axel will send to you a scheme to create the special **DE9P** cable. By pressing **PFL** you can speak in private to the radio listener (caller) with the **MIC1**.
3.1.3 MONO-1 to MONO-10

- **Line-1, Line-2, Line-3**
- **3 Stereo Input (L/R) / 6 Mono** - XLR Female - Balanced Audio Connection (50KΩ).
- **Line-4, Line 5**
- **2 Stereo Input (L/R) / 4 Mono** - PIN RCA - Unbalanced Audio Connection.

To browse the MONO source pages just click on next button (») in MIC/MONO page as the next figure.
ATTENTION:
When the associated STEREO input is active, the MONO will be shown in an inactive mode.
To change the source type from **MONO** to **STEREO** or in contrary you need to follow this steps.

**MENU/AUDIO/SETTING/INPUT MODE**

1. Access **AUDIO/SETTING**
2. Select **INPUT MODE**
3. Push to confirm the value
4. Rotate to modify the value

**Menu:**
- AUDIO
- GENERAL SET.
- FIRMWARE

**INPUTS:**
- IN
- OUT

**Menu:**
- AUDIO
- GENERAL SET.
- FIRMWARE

Push to confirm the value
Rotate to modify the value

**Menu:**
- AUDIO
- GENERAL SET.
- FIRMWARE

Push to confirm the value
Rotate to modify the value

**Menu:**
- AUDIO
- GENERAL SET.
- FIRMWARE

Push to confirm the value
Rotate to modify the value
3.1.4 STEREO

You can set Input Stereo source parameters from the menu AUDIO > INPUTS > STEREO by PUSH/RUTATE the knobs as like the following steps.

From this level of the menu, you choose which input STEREO source that you like to customize.
**STEREO-1 to STEREO-7**

Here we can find all **STEREO** source parameters ( **STEREO-1 to STEREO-7** )
That is able to manage our 7 microphones inputs like changing the **NAME, GAIN, PAL/PAN, EQ, AUX-1, AUX-2, BUTTON LIGHT** and **FADER BAR LIGHT**. we going to explain it briefly in below.
3.1.4.1 NAME:

This parameter allows the assignment of a **LABEL** to the various input sources. It is not possible to have a **LABEL** more than 8 characters.

To change the line name and sign it as you like, it's so easy way, just rotate and push the knobs. To end editing the **LABEL**, just push the **ESC** button.

just follow next steps. The description works the same for all Inputs. (In the example we are going to set the channel name as **LINE1**).
3.1.4.2  GAIN:

This parameter allows you to adjust the input GAIN to bring the source to the right level. The input Gain has steps of 0.1 dB.

N.B.: When the parameter control is activated, in real time the parameter value is updated, perceiving the increase and decrease of the GAIN, the graphics will change from yellow to white until the parameter is confirmed.
3.1.4.3 BAL/PAN:

This parameter changes the Input BAL/PAN. The parameter has a 1.0 dB step.

N.B.: When you adjust the BAL/PAN parameter, you have a real-time change of the parameter value and the real-time perception of the BAL/PAN change. The Graphics will become white to indicate the parameter change, and it will become yellow again after the confirmation.
3.1.4.4 EQ:

These are graphic equalizers that provide an adjustable band between 22.4 Hz and 20 kHz. A master volume slider compensates for changes in volume caused by the equalization. An equalizer allows the sound in specified frequency bands to be amplified or reduced, in order to adjust the quality and character of the sound. A maximum boost or cut of is available for LOW CUT and HI-CUT.

Press the Equalizer knob to engage in this section. Select one of the 7 frequency bands with the LOW CUT, BASS, BASS-MID, MID, MID-HIGH, HIGH and HI-CUT.

Press the next button ( » ) or ( « ) to switch between the pages of EQ types are available.

Select the specific frequency to be adjusted with the FREQUENCY knob, and adjust the bandwidth of the EQ with the Q knob, also you can choose between PEAK or SHELVING of BASS and HIGH. Finally, boost or cut the selected frequency with the Gain knob.

After confirming any editing you will see clearly the change that you do it at the graphic equalizer display with different colour signals, as well it’s effective at the input source quality and character.
LOWCUT: Is an audio frequency filter that cuts out all of the low sounds below a certain frequency. On OXYGEN 3000 console you are given knobs to control the frequency of the low cut in a full range from 22.4Hz to 20.0KHz. Also, you can control how gradual or steep the cut is. Doing so will eliminate the amplification of unwanted low sound. unwanted sound can be:

- Microphone handling or floor rumble (from bumping the mic or stepping on the floor that the mic stand is sitting on).
- The popping of “P’s” and “B’s” from a voice.
- Unwanted electrical hum (60Hz).

When you activate the LOWCUT function and confirmed it, that change will appear immediately at the output sources, and it will be shown in EQ graphic display as well the LOWCUT mark ( [ ] ) will change to yellow colour.

HIGH CUT: Is an audio frequency filter that cuts out all of the frequency above which the source signal a certain frequency. manipulates the reflection density in the simulated room.
**BASS, BASS-MID, MIDDLE, MID-HIGH, HIGH:**

In **OXYGEN 3000** the Parametric equalizers allow the adjustment of multi-band frequency equalizers which allow you to control the three primary parameters: AMPLITUDE, CENTER FREQUENCY and BANDWIDTH. The amplitude of each band can be controlled by the **GAIN** knob. The centre frequency can be shifted by **FREQUENCY** knob. Bandwidth (which is inversely related to "Q") can be widened or narrowed by **Q** knob. **OXYGEN 3000** equalizers are capable of making much more precise adjustments to sound than other equalizers.
3.1.4.5 AUX1, AUX2:

From this section OXYGEN 3000 gave you the possibility to set AUX-1 and AUX-2 to be POST-Fader or PRE-Fader, this choice is of every single channel.

**ATTENTION:**
When you set AUX-1 and AUX-2 to be PRE-Fader. The FADER does not affect the AUX output signal in this case.
3.1.4.6 BUTTON LIGHT, FADER BAR LIGHT:

Button light LED it’s to indicate the channel status.
Fader bare LED indicates the fader level.
From this section, it is easy to change LED’s colour and mark it as you want by rotate and push the knobs.
3.1.5 AUX-In

Stereo Input - Mini Jack 3.5mm - Unbalanced Audio Connection.
An aux-in (or auxiliary-in) socket in **OXYGEN 3000** is a 3.5mm jack into which you can plug anything that has a standard headphone connection. It’s enabling you to ‘stream’ music from a device like a **Phone** or **Music Player**... etc. through the **OXYGEN** console. We set it in the side position to be comfortable connect any device.

3.1.6 TEL/BT

This three different kind of implementations were been grouped all together. In fact, they have similarities on the source side. 3 kind of telephone connection is available on **OXYGEN 3000** Digital console:
- Telco
- Telephone Hybrid
- Bluetooth
Now, we are going to analyse a normal call (in example with the internal telephone hybrid):

In the presence of an incoming call, the F1 button starts blinking. By pressing F1 two times it will hook the call.

- F1 LED off – the line is not hooked.
- F1 LED blinks – RING – there is an incoming call.
- F1 LED on – the line is hooked.

By pressing F1 again also two times you drop the line.

**NOTE:**

- The behaviour of (RING/HOOK) is the same for the three interfaces (TELCO, BLUETOOTH, HYBRID).
- If you use the internal telephone hybrid you have to manage some settings of Tel Set*.

* It is inactive in version 2.1.0.6 and previous releases.
Once a phone call is hooked the received audio is managed like all other sources, **PFL/BUS** works standardly. Differently, from normal sources, these three telephone sources need to send back an audio **TX** to the caller/radio listener.

The **TX** audio has two different functioning ways:
1 – private mode (with channel **PFL ON**).
2 – On Air mode (with channel **PFL OFF**).

That is able to control the **GAIN TX** from the menu to decrease or increase the TX audio gain “output to the caller”. It’s easy to adjust it between **-20 dB** to **20 dB** by rotating the **GAIN TX** knob. The step of the adjustment is **0.1 dB**.
When you want to speak **privately** with a caller just press the TELEPHONE line in **PFL**.

to set the private microphone how can speaking with the caller privately just follow these steps:

**PRIVATE MIC** is the input dedicated to the communication with the caller. Like the Talkback, it is not ruled by the **ON/START** button or by the fader level.
3.1.7 DIGITAL

OXYGEN 3000 Digital Mixing Console is included a digital audio I/O sources. By the digital audio, it is able to connect any digital audio source via AES/EBU or USB.

AES/EBU

Stereo Input - XLR Female - Balanced Digital Connection (110Ω).

USB-1, USB-2

two Built-in stereo USB I/O audio Interface to connect directly to a computer. USB Audio Card Type-B. With this type of connections, you can save hundreds of dollars for an audio card. By OXYGEN 3000 Digital Mixing Console you can connect your computer or any digital device via perfect USB audio I/O sources.
If you have the Axel Technology VJPRO Console software we suggest you to configure parameters as shown in the following picture.

**CTRL-SOURCE**: The DJPro (Radio side) audio source rooted automatically in the PGM. We suggest you to select USB AUDIO-1.

**SOURCE-1**: First VjPro Console (TV side) audio source, in this channel you have a clip related with the DjPro song. The Audio rooting is specified by the last BUS-SOURCE parameter. We suggest you to select LINE-4.

**SOURCE-2**: Second VjPro Console (TV side) audio source, in this channel you have a preloaded clip of the LINE-4 next clip. Useful source if the radio song length is shorter than the TV clip length. The Audio rooting is specified by the last BUS-SOURCE parameter. We suggest you to select LINE-5.

**BUS-SOURCE**: General TV audio BUS for SOURCE-1(LINE-4) and for SOURCE-2(LINE-5). We suggest you to select AUX-1.

---

**PLAYER-1, PLAYER-2***

* It is inactive in version 2.1.0.6 and previous releases.
3.2 AUDIO/OUTPUTS

**OXYGEN 3000** Digital console is coming with variant audio outputs connectors like XLR, JACK, USB and RCA to give you maximum flexibility with your instruments and your project cabling. With all those functions you can save your time and your money. As well with the creative USB connection we don’t need a sound card or a professional instrument to connect any media player or recorder like PC, Workstation or laptop.

**OXYGEN 3000** outputs included:

- **4 Stereo Output** - XLR Male - Balanced Audio Connection (47Ω).
- **4 Stereo Output** - PIN RCA - Unbalanced Audio Connections.
- **2 USB Audio Card USB** - Type B - PC Connections.
- **2 Stereo Output** - Jack 6.3mm - Unbalanced Audio Connection (nominal 32Ω).
- **6 RJ45** (SFTP Cable) audio and GPIO connections.
- **AES/EBU Stereo Output** - XLR Male - Balanced Digital Connection (110Ω).
- **Analog Telephone Line** - RJ11 - PSTN Interface
- **Bluetooth Stereo/Mono Output** - Wireless – Smartphone.

You can set outputs parameters from the menu **AUDIO > OUTPUTS** by PUSH/RUTATE the knobs as like the following steps.
From this level of the menu, you choose which output that you like to customize.

### 3.2.1 ANALOG & DIGITAL outputs.

From this level of **MENU**, you can customize the main outputs. By this section you can select the main output source type, gain and mode. It’s also able to adjusting the audio output level by the **GAIN** knob. The gain has steps of **0.1 dB**. The audio output **GAIN** range goes from **-6 dB** to **6 dB**. From **MODE** can select the output type like **STEREO, MONO, MONO LEFT** or **MONO RIGHT**.

**N.B.**: When the parameter control is activated, in real time the parameter value is updated, perceiving the increase and decrease of the **GAIN**, the graphics will change from yellow to white until the parameter is confirmed.
3.2.2 MONITORS.

3.2.2.1 SPK-CRM CONTROL ROOM SPEAKERS

- This section is used for the management of the Control Room Speakers.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the Speakers.
- The loudspeakers audio level goes from 0 to 99. 99 is the maximum allowed level.
- The step of the loudspeakers adjustment is 1 dB and the level goes from -80 dB to the maximum of +19dB.
- By setting the level on 80 dB we will have a total output level of 0dB.
- The Speakers level are displayed in the bottom-right section of LCD.

![Control Room Speakers Control Panel](image)
1SEL-PFL MODE*

Headphones and CR “Control Room” speakers receive the same selected sources, except for the PFL selection. If you choose the 1SEL from MENU you must receive the selected source only. Headphones and CR “Control Room” speakers will be independent. When you choose one or more PFL to PRE-LISTEN the selected output source will start blinking.

* It is inactive in version 2.1.0.6 and previous releases.
CUT-SOURCE

It’s allowed you to choose which microphone channel has effective to MUTE the loudspeakers audio output. The opening of a microphone source (if configured appropriately) can generate the closing command of the loudspeakers. That is possible to choose one or more source to cut the loudspeaker output of the CR “Control Room”.

When you open the associated source with a CUT function you will see it’s will MUTE CR Loudspeakers output and the SPEAKER icon at LCD will start plinking.
The **CUT** mode is triggered by the change from **OFF** to **ON** of a microphone source to which it has been set closing of the **C-ROOM** loudspeaker, using the following to set this function:

As shown in the **MENU** this function (**CUT**) is associated only with the loudspeakers, this to avoid LARSEN effects “feedback loop” from occurring between the nearby **CR** loudspeakers and On-Air microphones.

If you need to **MUTE** the loudspeakers just **PUSH** the volume knob.

**PUSH** the volume knob a second time or rotate it to activate Control Room loudspeakers output and amplification or attenuation.

The status of **MUTE-SPK** is indicated by a red cross on the **SPEAKER** icon and **SPK** button will start blinking.
3.2.2. B SPK-STUDIO (STUDIO SPEAKERS)

- This section is used for the management of the ST Studio Speakers.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the Speakers.
- The loudspeakers audio level goes from 0 to 99. 99 is the maximum allowed level.
- The step of the loudspeakers adjustment is 1 dB and the level goes from -80 dB to the maximum of +19 dB.
- By setting the level on 80 dB we will have a total output level of 0 dB.
- The Speakers level are displayed in the bottom-right section of LCD.
1SEL-PFL MODE*

Headphones and ST “Studio” loudspeakers receive the same selected sources, except for the PFL selection. If you choose the 1SEL from MENU you must receive the selected source only. Headphones and ST “Studio” loudspeakers will be independent.

* It is inactive in version 2.1.0.6 and previous releases.
**CUT-SOURCE**

It’s allowed you to choose which microphone channel has effective to **MUTE** the loudspeakers audio output. The opening of a microphone source (if configured appropriately) can generate the closing command of the loudspeakers. That is possible to choose one or more source to cut the loudspeaker output of the ST “Studio”.

When you open the associated source with a **CUT** function you will see it’s will **MUTE** ST Loudspeakers output and the **SPEAKER** icon at LCD will start plinking.
The **CUT** mode is triggered by the change from **OFF** to **ON** of a microphone source to which it has been set closing of the Studio loudspeaker, using the following to set this function:

As shown in the **MENU** this function (**CUT**) is associated only with the loudspeakers, this to avoid LARSEN effects “feedback loop” from occurring between the nearby **ST** loudspeakers and On-Air microphones.  
If you need to **MUTE** the loudspeakers just **PUSH** the volume knob.  
**PUSH** the volume knob a second time or rotate it to activate Studio loudspeakers output and amplification or attenuation.  
The status of **MUTE-SPK** is indicated by a red cross on the **SPEAKER** icon and **SPK** button will start blinking.
3.2.2. C HDP-CRM (CONTROL ROOM HEADPHONES)

- This section is used for the management of the headphone’s Level for the Control Room.
- The rotary control knobs allow you to amplify/attenuate the selected signal in the headphone.
- The headphone audio level goes from 0 to 99.99 is the maximum allowed level.
- The step of the headphone adjustment is 1 dB and the level goes from -80 dB to the maximum of +19 dB.
- By setting the level on 80 dB we will have a total output level of 0 dB.
- The headphone’s level is displayed in the bottom-right section of LCD.
If you need to **MUTE** the headphone just **PUSH** the volume knob. **PUSH** the volume knob a second time or rotate it to activate headphone output and amplification or attenuation. The status of **MUTE-HDP** is **indicated by a red cross on the SPEAKER icon**.
1SEL-PFL MODE*

Headphones and CR “Control Room” speakers receive the same selected sources, except for the PFL selection. If you choose the 1SEL from MENU you must receive the selected source only. Headphones and CR “Control Room” speakers will be independent.

Normally Headphones listen to the selected source like the speakers. If PFL is pressed, headphones can listen for it, speakers no. When you choose one or more PFL to PRE-LISTEN the selected output source will start blinking.

* It is inactive in version 2.1.0.6 and previous releases.
3.2.2. D HDP-STUDIO & HDP-GUEST (STUDIO AND GUESTS HEADPHONE)

- This section is used for the management of the headphone’s Level for the Studio (Anchor-man and guests).
- The rotary control knobs allow you to amplify/attenuate the selected signal in the headphone.
- The headphone audio level goes from 0 to 99.99 is the maximum allowed level.
- The step of the headphone adjustment is 1 dB and the level goes from -80 dB to the maximum of +19dB.
- By setting the level on 80 dB we will have a total output level of 0 dB.
- The headphone’s level is displayed in the bottom-right section of LCD.
If you need to MUTE the headphone just PUSH the volume knob. Push the volume knob a second time or rotate it to activate headphone output and amplification or attenuation. The status of MUTE-HDP is indicated by a red cross on the SPEAKER icon.
1SEL-PFL MODE*

Headphones and ST “Studio” speakers receive the same selected sources, except for the PFL selection. If you choose the 1SEL from MENU you must receive the selected source only. Headphones and ST “Studio” speakers will be independent.

Normally Headphones listen to the selected source like the speakers. If PFL is pressed, Studio headphone cannot listen to PFL, CR headphone only.

* It is inactive in version 2.1.0.6 and previous releases.
3.2.3 TONE GEN. ( TONE GENERATOR )

**OXYGEN 3000** Digital Console comes with a built-in audio tone generator. The tone range is 30 Hz - 20 kHz and you can select it by following these steps MENU>AUDIO>OUTPUTS>TONE GEN. This option is too useful for tuning instruments, science experiments, or testing audio equipment (how low does my subwoofer go?).

![Tone Generator Menu](image)

Push to confirm the value

Rotate to modify the value

Menu: OUTPUT / TONE GEN.  

**1kHz**  
**400Hz**  
**100Hz**  
**5kHz**  
**1kHz**

-50.0dBFS

MODE | GAIN

Page: 1 / 1
3.3 SETTING

EXT. INPUT

From this page of MENU, you can set the EXT. input source. This function use to send the LINE input selected to the STUDIO or CONTROL ROOM loudspeakers like BY-PASS. You can select one of LINEs list (LINE-1, LINE-2, LINE-3, LINE-4, LINE-5, LINE-6 AND LINE-7) to set it like EXT.INPUT source by following these steps MENU > AUDIO > SETTINGS.
INPUT MODE

Here we can choose the mode of input sources and we can each one of them like STEREO or 2 MONO. Also, we can change the MIC-5 input to the TELCO input by following these steps MENU > SETTING > INPUT MODE.
3.3.1 GENERAL

3.3.1.1 COMMUNICATIONS

From the GENERAL page you can set the communication parameters like IP, DNS, Date & Time, Time zone, NTP server, Lighting and display. The high flexibility in OXYGEN 3000 Digital console design give you full ability to set this terrific console as you like and as your audio projects needed. As example OXYGEN 3000 coms with a two TCP/IP connection tow use one of them for a monitoring and data source (NTP server) and the second one we can used it to connect our console with other machine or software like VJ PRO.
3.3.1.2 TCP-IP

From the following pictures you can see how to set the parameters for all the menu: **IP, MASK and GATEWAY**. We will explain only one of these cases: the IP settings. The other cases work in the same way.
By rotating the 4 encoders you can set for a new IP Address.
Every encoder goes from 0 to 255.
By pressing the encoder you can confirm your choice.
3.3.1.3 TIME&DATE

From the **General > Communications > TIME&DATE** you can configure all parameters related with time and date.
A. TIME&DATE/DATE

From the following section you can set all the parameters related with the date settings. This data parameters is very important for device LOGS.
This parameter allows to set the **TIME**. It is a very important parameter to synchronize the clock on the **HOME PAGE** and it is important also for the device **LOGS**.
C. TIME ZONE

From this parameter you can set for the **TIME ZONE**. You can set for the right Offset to the **UTC time**.
D. NTP SERVER

From the following parameter is possible to set the NTP Server IP Address to automatically synchronize the mixer clock.

NTP Server in the world:
- europe.pool.ntp.org (217.147.223.78) / asia.pool.ntp.org (140.130.175.9)
- oceania.pool.ntp.org (203.23.237.200) / north-america.pool.ntp.org (66.250.45.2)
- south-america.pool.ntp.org (146.164.53.65) / africa.pool.ntp.org (196.25.1.9)
3.3.1.4 LIGHT & DISPLAY

From the following menu you can set the display light and the led brightness.

A. LED METER

Here you can set the LED METER Dimmer. Every LED METER will follow this setting of the brightness. (From -3, to +3)

B. DISPLAY

Here you can set the DISPLAY brightness (LOW, MID, HIGH)
3.3.2 FIRMWARE

From the following section you can read for the parameters related with the firmware version.

A. FIRMWARE/VERSION

---

<table>
<thead>
<tr>
<th>Software and firmware version:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment / OS</td>
<td>v1.3.0.72</td>
</tr>
<tr>
<td>GUI</td>
<td>1.5.5</td>
</tr>
<tr>
<td>Menu Pages</td>
<td>3.7</td>
</tr>
<tr>
<td>Engine</td>
<td>0.9-6132</td>
</tr>
<tr>
<td>Model</td>
<td>1.4-4679</td>
</tr>
<tr>
<td>DSP FW</td>
<td>1:22.0</td>
</tr>
<tr>
<td>DSP MCU</td>
<td>0.0-0</td>
</tr>
<tr>
<td>CH1 MCU</td>
<td>2.0-3018</td>
</tr>
<tr>
<td>CH2 MCU</td>
<td>2.0-3018</td>
</tr>
<tr>
<td>CH3 MCU</td>
<td>2.0-3018</td>
</tr>
<tr>
<td>CH4 MCU</td>
<td>2.0-3018</td>
</tr>
<tr>
<td>CH5 MCU</td>
<td>2.0-3018</td>
</tr>
<tr>
<td>Master MCU</td>
<td>2.0-3019</td>
</tr>
<tr>
<td>PSU MCU</td>
<td>0.0-0</td>
</tr>
</tbody>
</table>
B. FIRMWARE/REBOOT

From this section you can reboot the device. The device rebooting is also useful to upgrade the firmware. To upgrade the mixer firmware read the next paragraph.

![Reboot button](image)

C. MIXER FIRMWARE UPGRADE

- Download the upgrading archive
- Unzip it
- Fill the following files in a USB key:
  
  AxelO3K.md5  AxelO3K.tgz

  Follow the procedure below.
  The procedure takes around 10 minutes.

  **ATTENTION**: DO NOT PROCEED WHEN THE MIXER IS ONAIR.
- Plug the USB key inside one of the following USB ports

- Turn on the console

- press the Menu button from the Home Page,
- by pressing the right knob select **Firmware**

- Select Reboot by pressing the third knob
- while the system is restarting, keep the right knob pressed **FOR A LONG TIME** to enter the RECOVERY MODE

- RECOVERY mode starts:
- Wait all the screens (IP address, Insert USB key, Reading USB key..)

- Have a **long pression** on the third knob to start the Updating Process as shown in the following pictures:

- **ATTENTION:** You have to wait until the system will finish the Upgrade. The system requires more or less 5 minutes.
- At the end of the upgrade the System will reboot automatically. **Oxygen 3000** firmware is upgraded.
TALK BOX CONNECTIONS AND FUNCTIONING

Diagram showing connections and function of the talk box.
TALK BOX CONNECTIONS AND FUNCTIONING | SETTING
**GUEST/STUDIO CONNECTION**

- PIN 1 - LEFT SIGNAL +
- PIN 2 - LEFT SIGNAL -
- PIN 3 - RIGHT SIGNAL +
- PIN 4 - GND
- PIN 5 - N.C.
- PIN 6 - RIGHT SIGNAL -
- PIN 7 - GPO COLLECTOR
- PIN 8 - GPO EMITTER

**MIC CONNECTION**

- PIN 1 - SIGNAL +
- PIN 2 - SIGNAL -
- PIN 3 - GPI1
- PIN 4 - GND
- PIN 5 - GPI2
- PIN 6 - N.C.
- PIN 7 - GPO COLLECTOR
- PIN 8 - GPO EMITTER

**GPI0-1/GPI0-2 CONNECTION**

- PIN 1 - GPI01 COLLECTOR
- PIN 2 - GPI01 EMITTER
- PIN 3 - GND
- PIN 4 - GPI02 EMITTER
- PIN 5 - GPI02 COLLECTOR
- PIN 6 - GPI1 CATHODE
- PIN 7 - GPI2 CATHODE
- PIN 8 - GPI COMMON
- PIN 9 - +5V

**TELEPHONE CONNECTION**

- PIN 1 - N.C.
- PIN 2 - TIP
- PIN 3 - RING
- PIN 4 - N.C.
On the **OXYGEN 3000 DIGITAL** Console it is possible to connect a maximum of 4 Talk boxes. Every Talk Box is physically connected with a Mixer MIC-source.

**MIC2** -> **TB2**  
**MIC3** -> **TB3**  
**MIC4** -> **TB4**  
**MIC5** -> **TB5**

- MIC 5 works as a LINE input. It is designed to be a Telco input also.

Each Talk Box has two buttons corresponding to two **GPI** and lamps corresponding to two **GPO**. The two GPI correspond to ON AIR button and Talkback:

**ON-AIR Button**  
The ON-AIR button works parallely with the **ON/START** mixer button. If the MIC is in ON state on the MIXER, it is possible to disable the MIC from the Talkbox and vice versa. The GPI is in the RJ45 MIC connector.

**ON AIR LIGHT - MIC**  
The MIC ON-AIR light reflects the MIXER ON/START BUTTON. When the Channel is in ON state the MIC ON AIR light is on, when the Channel is in OFF state the MIC ON AIR light is off. This GPO is in the RJ45 MIC connector.

**ON AIR LIGHT -STUDIO**  
The STUDIO light reflects the logical operation (OR) between all Studio Microphones. If either or all the Studio Microphone/s is/were ON the light should be on, the light should be OFF only when all Microphones are OFF. This GPO is in the RJ45 MIC connector.

**TB Button**  
On each Talk Box, the TB button pressure sends the related mic signals to the Control Room SPEAKERS/HEADPHONES. The TB button works in an impulsive way. When the TB button pressure stops also the communication with the Control-Room will be stopped.

If you have a Talk Back signal, speakers or headphones will stay connected with the MIC source until you stop the TB button pression.
GPIO CONNECTIONS

GPIO-1

- GPI1 = TELCO RING
- GPI2 = Not Connected
- GPO1 = TELCO HOOK
- GPO2 = Not Connected

GPIO-2

- GPI1 = Not Connected
- GPI2 = Not Connected
- GPO1 = ONAIR LIGHT Control Room
- GPO2 = ONAIR LIGHT Studio
OXYGEN 3000 & MR. LIGHT – ONAIR LAMP CONNECTION

OXYGEN 3000 - GPIO 1 PORT

Sub-D 9p M

First Mr. Light Led

Second Mr. Light Led

ON AIR

ON AIR
In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.


Conformément à la Directive 2002/96/EC sur les déchets d’équipements électriques et électroniques (DEEE), ce produit électrique ne doit en aucun cas être mis au rebut sous forme de déchet municipal non trié. Veuillez vous débarrasser de ce produit en le renvoyant à son point de vente ou au point de ramassage local dans votre municipalité, à des fins de recyclage.

In navolging van richtlijn 2002/96/EG van het Europees Parlement en de Raad betreffende afgedankte elektrische en elektronische apparatuur (AEEA) mag dit elektrische product niet als ongescheiden huisvuil worden weggedaan. Breng dit product terug naar de plaats van aankoop of naar het gemeentelijke afvalinzamelingspunt voor recycling.

In ottemperanza alla Direttiva UE 2002/96/EC sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE), questo prodotto elettrico non deve essere smaltito come rifiuto municipale misto. Si prega di smaltire il prodotto riportandolo al punto vendita o al punto di raccolta municipale locale per un opportuno riciclaggio.

De conformidad con la Directiva 2002/96/CE de la UE sobre residuos de aparatos eléctricos y electrónicos (RAEE), este producto eléctrico no puede desecharse con el resto de residuos no clasificados. Deshágase de este producto devolviéndolo al punto de venta o a un punto de recogida municipal para su reciclaje.

I henhold til EU-direktiv 2002/96/EF om affald af elektrisk og elektronisk udstyr (WEEE) må dette udstyr ikke bortskaffes som usorteret husholdningsaffald. Bortskaf dette produkt ved at returnere det til salgsstedet eller til det lokale indsamlingssted, så det kan genbruges.
The manufacturer offers a one-year warranty ex-works. Do not open the equipment. Any breaking of the seals will result in forfeiture of the same. The manufacturer is not liable for damages of any kind arising from, or in connection with, the use of the wrong product.
DECLARATION OF CONFORMITY

Manufacturer: AXEL TECHNOLOGY S.r.l.
Company title: VIA C. DI SABBIUNO 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DECLARES UNDER ITS OWN RESPONSIBILITY THAT THE FOLLOWING EQUIPMENT

MODEL: OXYGEN 3000D  DESCRIPTION: Broadcast digital console.

IS COMPLIANT

To the requirements and all characteristics enacted from Community Directive:

1. 2014/30/UE “EMC” Electromagnetic Compatibility
2. 2014/35/UE “LDV” Low Voltage Directive
3. 2011/65/UE “on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2)”

and following Harmonized Standards:

✓ EN 60065:2016 Audio, video and similar electronic apparatus. Safety requirements.
✓ EN 50581:2012 - Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Remark: The present product must be installed as showed in the installation manual provided together with the equipment and used at the sole scope for which it has been manufactured.

Anzola Emilia (BO) Italy, 02/04/2017

C.E.O.
Giuseppe Vaccari
DICHIARAZIONE DI CONFORMITA' 

Nome Fabbricante: AXEL TECHNOLOGY S.r.l.
Ragione Sociale: VIA C. DI SABBIONI 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DICHIARA SOTTO LA PROPRIA RESPONSABILITÀ CHE IL PRODOTTO

MODELLO: OXYGEN 3000D  
DESCRIZIONE: Console Broadcast digitale.

RISPETTA

i requisiti essenziali e tutte le caratteristiche richiamate dalla Direttiva comunitaria:

1. 2014/30/UE “EMC” Compatibilità Elettromagnetica
2. 2014/35/UE “LDV” Bassa Tensione
3. 2011/65/UE “sulla restrizione dell’uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (RoHS 2)”

e alle seguenti normative tecniche armonizzate:

✓ EN 55103-1:2009 Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 1: Emissione
✓ EN 55103-2:2009 Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità.
✓ EN 60065:2016 Apparecchi audio, video e apparecchi elettronici similari Requisiti di sicurezza.
✓ EN 61000-6-1:2007 – EMC – Immunità per ambienti residenziali, commerciali e industria leggera.
✓ EN 60950-1:2006+A2:2013 – Sicurezza degli apparati ITE (Information Technology Equipment)
✓ EN 55024:2010 Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità Limiti e metodi di misura.
✓ EN 50581:2012 - Documentazione tecnica per la valutazione dei prodotti elettrici ed elettronici in relazione alla restrizione delle sostanze pericolose.
✓ EN 55032:2015 - Compatibilità elettromagnetica di apparecchiature multimediali - Requisiti di emissione.

Nota: il presente prodotto deve essere installato come previsto dal manuale d’uso fornito a corredo dell’apparato ed utilizzato ai fini del servizio per il quale è stato fabbricato e destinato.

Anzola Emilia (BO) Italy, 02/04/2017

Presidente del C.d.A.

Giuseppe Vaccari