ES-203 CL

DUAL CHANNEL DESK STATION WITH CUE LIGHT RECEIVER

EC-200 CUE LIGHT MASTER STATION
ER-200 CUE LIGHT RECEIVER

E-200 Series Intercom Systems



OWNERS MANUAL

Issue 14A16

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1. INTRODUCTION

Congratulations for your purchase of the **ALTAIR** dual channel desk station **ES-203 CL** of the **E-200** series wired intercom system. There are a lot of characteristics that make of the **ALTAIR E-203** series one of the most highlighted in the audio professional market, some are enumerated here:

The new **ALTAIR E-200** SERIES add more features to our popular Espiral E-100 series, maintaining compatibility. All the components in the system incorporate a microcontroller to implement different tasks as Mic Killer, Remote all Buzzer switch-off, Mic Switch Latch or Push To Talk, Program Interrupt, etc.

Remote All Mic switch-off helps the operator to maintain a lower noise conversation in noisy environments. Also implemented is the remote All Buzzers switch-off feature to avoid undesired audible CALL signalling during performances.

For operating the desk station a Master Station unit as the ALTAIR **EF-200/EF-204/WB-200/PS-200** is necessary to power the system components and setting the operating level.

The ALTAIR ES-203 CL includes a two channel intercom desk station plus a CUE Light (receiver) system. Both systems are designed to share signals on the same simple cabling consisting of a two wire screened cable than can be extended to more than 200 meters without loses.

Multiple Cue light receivers can be connected in parallel (loop) given the same cue signalling is managed between receivers.

The Cue Light system complements with the Cue light master (transmitter) ALTAIR EC-200 unit sold separately.

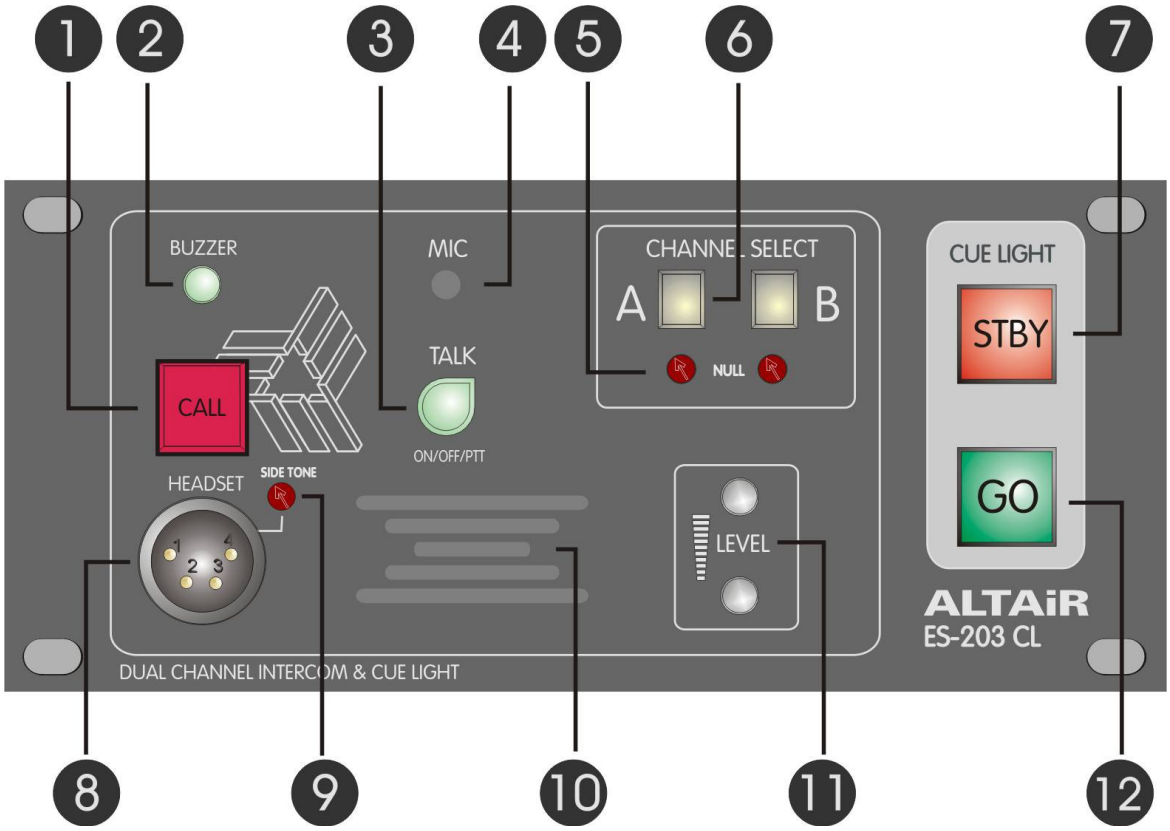
Before beginning it is important to read this manual. This manual will help you to install and use your new intercom desk station. It is very important to read it carefully, mainly the paragraphs marked as NOTE, PRECAUTION and DANGER, for your security.

Save the original packing, you can re-use it to transport the unit. **NEVER SHIP THE ALTAIR ES-203 CL WITHOUT ITS ORIGINAL PACKING**.

2. SWITCHES, CONTROLS, ADJUSTMENTS AND CONNECTORS

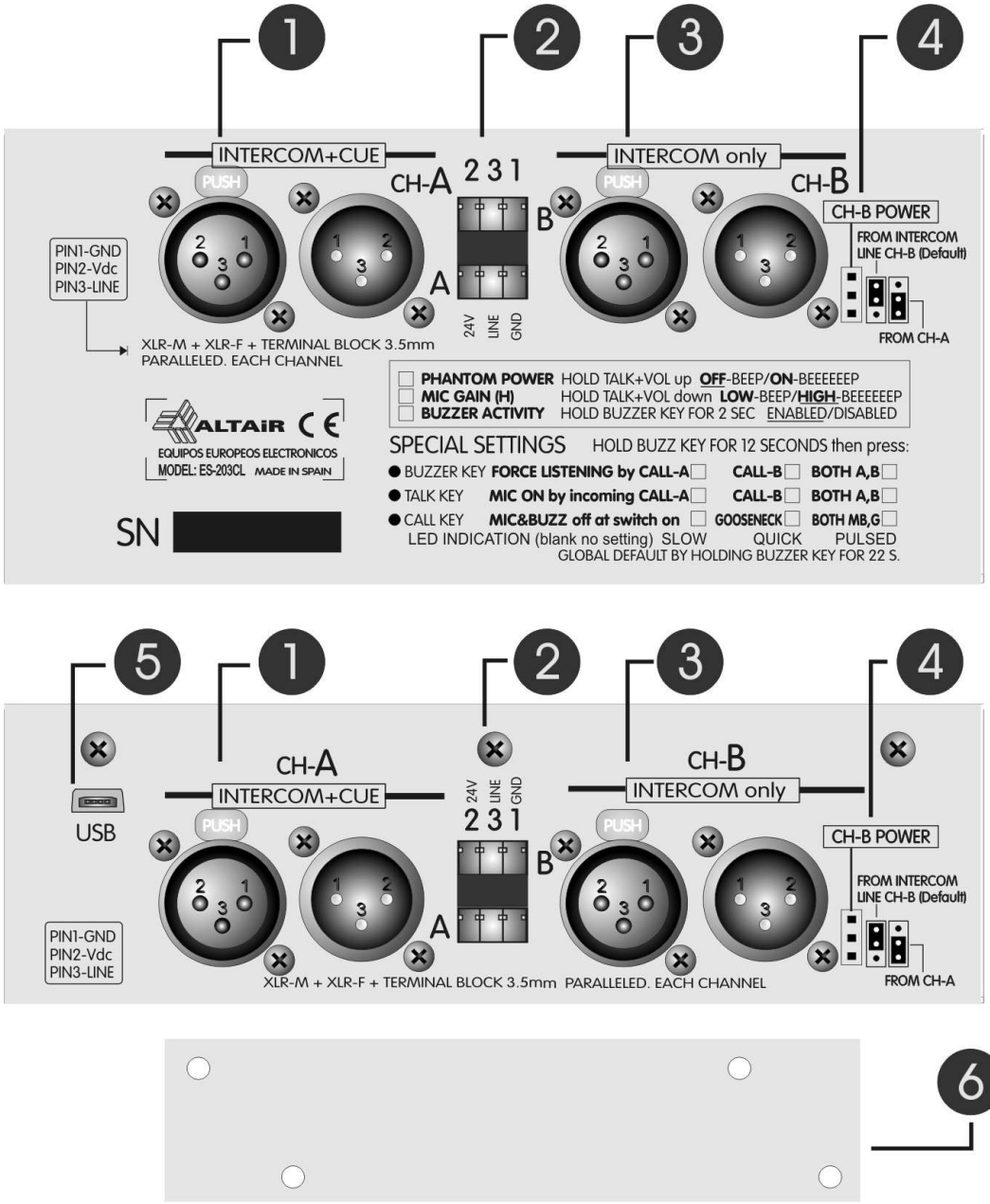
Find the switches, controls, adjustments, and connectors located in your ALTAIR intercom desk station.

2.1. FRONT PANEL



1 CALL SWITCH
2 BUZZER ON/OFF SWITCH. HOLD FOR SPECIAL SETTINGS. MORE INFO IN REAR PANEL
3 TALK (MIC) SWITCH. MOMENTARY/LATCH OPERATION
4 PANEL MICROPHONE. DISABLED WHEN HEADSET PRESENCE
5 NULL (SIDETONE) CONTROLS. ONE PER CHANNEL
6 CHANNEL SELECT. PRESS A/B TO SELECT
7 CUE STBY KEY and LIGHT. PRESS WHEN ILLUMINATED TO CONFIRM RECEPTION
8 HEADSET / GOOSENECK MIC CONNECTOR. HEADSET DISABLES PANEL MIC.
9 SIDE TONE ADJUSTMENT. YOUR VOICE ON THE HEADSET
10 SPEAKER. DISABLED WHEN HEADSET PRESENCE OR DURING PANEL MIC TALK
11 LEVEL CONTROLS. STEP BY STEP OR HIGH SPEED VOLUME CONTROL.
12 CUE GO LIGHT. YOUR INSTANT ACTION IS REQUIRED.

2.2. REAR PANEL



1. INTERCOM LINE A. CH-A XLR3-M AND XLR3-F CONNECTORS
2. INTERCOM LINE A/B. CHA/CHB TERMINAL BLOCK CONNECTORS
3. INTERCOM LINE B. CH-B XLR3-M AND XLR3-F CONNECTORS
4. CH-B POWER. CONFIGURATION JUMPER FOR CH-B CONNECTOR
5. MICRO USB CONNECTOR. FOR PROGRAM CONTROL AND FIRMWARE
6. CONNECTOR PLATE. USED TO COVER THE NON POPULATED CONNECTOR

3. WORKING PRECAUTIONS

The manufacturer is not responsible of any damage that can possibly happen to the intercom desk station outside the limits of the warranty or those produced by not taking care of the working precautions.

The intercom line DC voltage must be between the limits of the admitted power supply (12-32 VDC). Damage caused by a connection to an improper line DC voltage is not covered by any warranty.

DANGER: Inside the unit there are components at high temperature. Do not open it. The unit does not contain elements that could be repaired by the user. Whenever the intercom master station is connected to the intercom lines, it carries elements with moderate voltages. In order to disconnect the unit completely, you must disconnect it from the intercom lines.

CAUTION: Protect the unit from the rain and moisture. Ensure that no objects or liquids enter it. If liquid is spilled into the unit, disconnect the intercom system from the line and consult a qualified service technician.
Do not place the unit close to heat sources.

4. INSTALLATION

4.1. UNPACKING

Before leaving the factory, each intercom desk station has been carefully inspected and tested. You can unpack and inspect the unit for any damage that may have occurred during shipment. If any damage is found, does not connect the unit to the mains; notify the salesperson immediately; a qualified service technician should inspect the unit.

Save the original packing, you could use if you need to transport the unit. *NEVER SHIP THE INTERCOM DESK STATION WITHOUT ITS ORIGINAL PACKING.*

4.2. MOUNTING

The ALTAIR ES-203 CL desk station is designed to be mounted in different ways depending on the application environment. The rear connectors pcb can be mounted on the rear or in the upper side to facilitate connection.

DESK STATION



It is possible to mount either directly over the desk using the four enclosed adhesive feet or by using the two including lateral brackets in any angle position.

The brackets permits choosing different angle position of the desk station and can be installed with the screw holes inside/outside. It permits screw it to the mounting surface for extra stability.

CONNECTOR PANEL- Normally mounted on the upper side.

WALL MOUNT

You can mount it into the wall by using the lateral brackets as depicted above or by boxing it directly over the wall with appropriate tools and accessories.

CONNECTOR PANEL- It is advisable to change the connector panel position to the bottom side. See above. Alternatively you can use the terminal block connectors depending on the available deep. Thin walls admit XLR mounting so it is no necessary to reverse the connector panel.

RACK MOUNT

It is possible to mount it by using 2 HE 19" rack space. Use the rack accessory composed of:

- Two plates (200mm/82 mm)
- Two U brackes
- Rack screws set.

With this rack option it is possible to mount the unit on the right or on the left.
This accessory allows the mounting of two desk stations side by side to obtain a four channel desk station unit.

CONNECTOR PANEL- It is advisable to change the connector panel position to the bottom side. See above. Alternatively you can use the terminal block connectors depending on the available inter rack space. Depending of the rack space, it is possible a XLR mounting on the upper side so it is no necessary to reverse the connector panel.

4.3. CONNECTOR PANEL BOTTOM/SIDE MOUNTING

The connector panel printed circuit board (pcb) is factory installed on the upper side of the desk box permitting the desk station mounting over a desk so leaving the cables and connectors upside exhaust.
When the unit is to be installed on a rack you can change the connector panel pcb on the rear of the box so leaving the cables and connectors free in the rear side of the box.
To do so, remove the box cover by six screws and find the connectors pcb.
Remove the connector board and the blank connector plate and invert the mounting.
You can disconnect the pcb ribbon cable to facilitate operation. Once screwed connect the cable in the correct slot polarity.

CONNECTOR PANEL- Normally mounted on the upper side.

4.4. 1-2-3 INTERCOM LINE CONNECTION

The intercom line connection is carried through standard microphone double conductor shielded cable using either XLR3-M/XLR3-F connectors or terminal blocks. Each desk station channel provides one XLR3-M, one XLR3-F and one terminal block connector wired all three internally in parallel to be used as per your wiring convenience.
The terminal block solution minimizes the boxing dimension and permits an easy and low cost way for a no solder quick installation.
NOTE: Two terminal plugs are included in the ES-203 CL supply.

The next list shows the signal distribution in the pin XLR connectors.

XLR-3m/XLR-3F -	INTERCOM LINE
PIN 1	OV (GND)
PIN 2	+VCC (NOM 24Vdc)
PIN 3	SIGNAL

Certain rules have to be followed when installing the cables of an intercom system to avoid ground loops and to minimize the power loss and the possible effect of electromagnetic fields.

*Do not connect the XLR pin 1 to the XLR metal housing or to metal wall boxes. The ground loop created could increases notably the system background noise.

*Do not close the intercom line connection (avoid closed loops). Each intercom line leaves from the master station towards the remote stations, but it does not return to the master station. If the connection is closed, a ground loop with the increase from the system noise will take place.

*Use high quality cables and minimize its length. The increased DC resistance of a low quality or very long cable affects to the stability, noise, the channels crosstalk and affects all the intercom equipment connected to this branch.

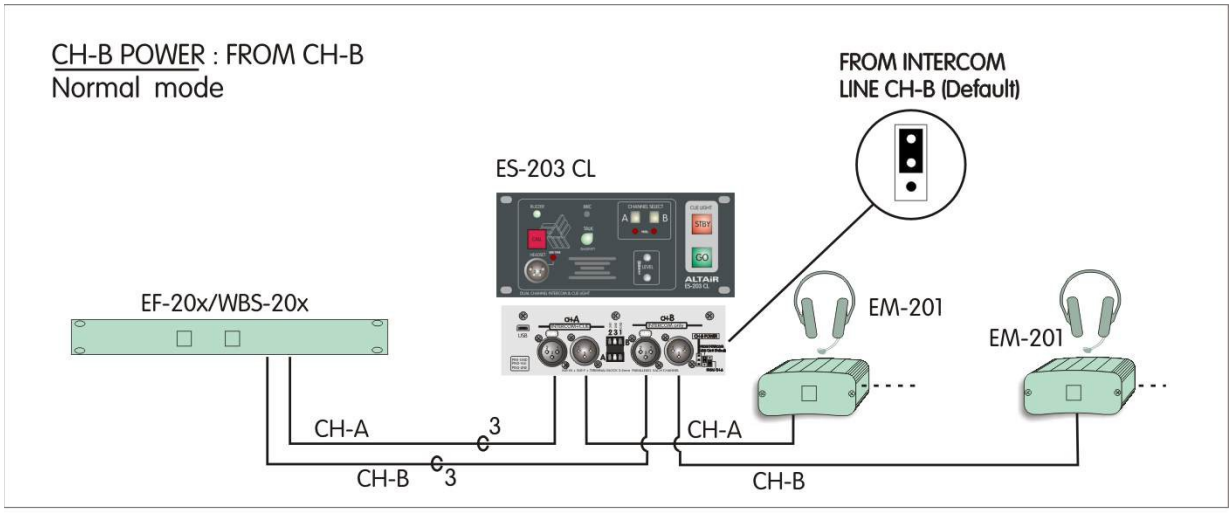
4.5. CH-B POWER CONFIGURATION JUMPER

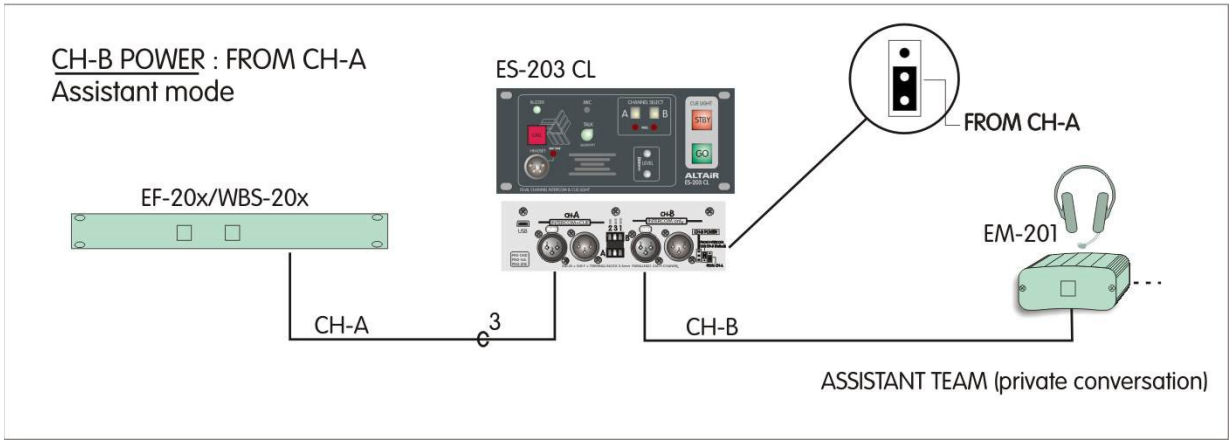
The rear panel includes a jumper configuration very helpful for some installations.

Normally the unit connects one or the two available channels to the corresponding installation channels A and B but there are applications where only a channel is used for connecting to the intercom line and the other channel can be used for private communication with an assistant or team.

See example bellow for configuration of the jumper.

When setting the jumper position first remove the isolator provided, set the jumper in the chosen position and set finally the isolator on the free pin.





5. OPERATION

The E-200 intercom system series are designed to allow maximum easy communication operations between the different control areas in music or theatre live performances, television, cinema, conference halls, and whatever broad events where multiple and fast communications are required, with its simultaneous listening-speaking operation system.

The ES-200 CL desk station provides two independent intercom channels.
Channel selection switch A/B dictates the assigned channel to operate the CALL switch, MIC on/off switch (TALK), listen circuit, or level volume control. Balance listening between channels AB is possible to adapt to the different crew levels.

The dual channel wall station incorporates a non-detachable panel microphone. Remote listening function with a defined high level enables priority emergency calls.

Remote MIC-on by incoming CALL allows the unit to operate as a monitor station, just to hear the room activity in theatre dressing rooms, dance rooms and more.

5.1. OPERATION MODES

- PANEL MIC:

This is the default operation mode. The panel mic and speaker is enabled. To avoid strong coupling (feedback) between the mic and the speaker, the speaker is automatically disabled when talking. In this mode, the TALK key only operates in PTT mode so it is not possible to lock it, always operating as momentary.

- GOOSENECK MIC:

Connect a standard 4 pin female boom microphone in the headset connector. Set mode GOOSENECK in the special settings setup to enable the speaker and allow the ON/OFF/PTT talk key normal operation.

- HEADSET:

This mode is automatically set when a headset is detected. The panel mic and the speaker are disabled. Talk key reverts to ON/OFF/PTT normal operation.

5.2. CALL SWITCH 1

The ES-203 CL desk station unit is provided with a CALL switch and operates over the selected channel A or B or both A+B. The CALL switch allows to generate a call signalling sent to the selected intercom channels.

The call signal makes the LED associated with the switch start blinking; if the buzzer is enabled (consult buzzer on/off section for more information) an intermittent sound takes place during three seconds on the desk station and to the units (beltpacks, desk stations, master stations, etc.) connected to the same intercom channel.

If the CALL switch is pressed continuously, the duration of the call signal will be higher (the time that the switch is pressed, and approximately 3 seconds more).

If a call signal is generated in an external unit, the call origin is identified by the channel select A or B indicators blinking and if the buzzer is enabled (see buzzer on/off section for more information) an intermittent sound will take place during about three seconds.

5.3. BUZZER ON/OFF 2

This switch enables/disables the buzzer sound when the unit receives a call.

When this switch is pressed, and the buzzer is enabled, it will be disabled, and the LED indicator will turn off. On the other hand, if the buzzer was disabled, it will be enabled and the LED indicator will lighten up.

The call origin is identified by the channel select A or B indicators blinking.

The buzzer also sounds when any switch is pressed, emitting a short beep.

The buzzer can be disabled/enabled by holding down the key for 2. Led indicator flashes quickly.

Buzzer key is used for setting up the unit by holding down the key for 12 seconds. See SPECIAL SETTINGS configuration bellow.

Remote buzz kill generated from the base unit would disable the buzzer. Led indicator flashes indicating remote buzz kill function is in operation.

Normally the buzzer and the mic key initializes with the same state as when the desk station was switched off, i.e. it remembers last state but the unit can be configured to initialize both in off state. This would avoid feedbacks or undesirable sounds at start up. See SPECIAL SETTINGS configuration bellow.

UNIT FACTORY DEFAULT. For a factory default of all unit settings hold down this key for 22 seconds.

5.4. TALK (MIC) button 3

The ES-203 CL desk station unit is provided with a TALK switch and operates over the selected channel A or B or both A+B. The TALK switch allows to open the microphone used; that way, we can speak with other units connected to the selected intercom channels.

The TALK switch have two operation modes. When this switch is pressed quickly, the microphone changes its state; if it was enabled it gets disabled and turns off the associated LED, and if it was disabled it gets enabled and turns on the associated LED.

When the TALK switches are pressed and held, the unit will enter in the special function PUSH TO TALK; this means that the microphone will be enabled until the switch is released. Use this mode as preferred to reduce the global noise on the system.

When using the panel mic, the unit only permits this mode to avoid feedback on the speaker.

The unit provides a MIC-KILL (turns off the MIC) system, so that when the mic is enabled it is possible to be remote muted by the MIC-KILL function from any ALTAIR EF/PS/WBS base stations. This MIC-KILL system is proprietary so is not compatible with other intercom brands.

5.5. PANEL MICROPHONE 4

The incorporated microphone allows talking with the intercom lines connected to the desk station.

In order to avoid feedback, the speaker is disconnected as long as TALK key is depressed.

Panel mic is disabled automatically when a headset is connected.

5.6. NULL ADJUSTMENT 5

Each channel includes a null adjustment to set up the return cancellation of the intercom line. The unit comes from factory with a initial setting but is necessary to set up in the final installation as the calibration depends on the characteristicas of the cabele used and the number of units connected on each line.

SET UP. This is an adjustment with all the equipment connected and running.
Connect a headset and turn the SIDETONE level to 0, minimum. Switch on the mic and select A channel. Set the volume level to maximum level. Calibrate the NULL A for a minimum hearing of your own voice. When finish select B channel and calibrate the NULL B as before.

5.7. CHANNEL SELECT 6

This buttons A and B defines in which channels operates the unit. The selected channel is shown by the indicators.
For selecting a different channel select it and deselect the previous.
To select both channels, select the one that is not selected.
When both channels are selected, press the channel you don't need to use the other.

Channel selectors also allows for setting up the balancing listening of both channels. It means the unit can listen a mix of the selected channel and a percentage of the channel not selected.
When both channels are selected it is possible to make a balance listening of both channels.

ONE CHANNEL SELECTED. Holding down the selected channel, adjust the level up/down keys to set the opposite channel percent listen from 0 (default) to 100%. Time on of the indicators shows the %.

BOTH CHANNELS SELECTED. Holding down any of the channel selector keys, adjust the level up/down keys to set a mix of listening channels from 0-100 to 100-100 (default) to 100-0 in six steps each side plus centre.

5.8. CUE LIGHT STBY SWITCH AND INDICATOR 7

This red colour indicator shows the cue light STBY or "pay attention" notified from the cue master panel.
The light is intermittent for added visibility.
When the user is ready for the scene he/she can press the STBY key to acknowledge it to the producer.
The STBY indicator turns steady showing standby. At this time producer would start the action by pressing the GO key that lit all the GO indicators, in green colour.

5.9. HEADSET CONNECTION 8

A XLR-4 type male (XLR-4-32) allows connecting a headset with microphone to the desk station or a gooseneck boom microphone/ (not included). The headset impedance must be 200 ⇄ or higher (up to 2 K⇄) and the microphone can be dynamic or electret type.
When the headset is connected, the speaker and the incorporated panel microphone will be disabled automatically to allow for private conversations.

GOOSENECK USE

This connector allow for connection of a gooseneck microphone. The microphone does not disables the speaker and panel mic so for operating it is necessary to select GOOSENECK mic on the special settings configuration to disable the panel mic and to set the talk key in normal ON/OFF/PTT mode.

PRE AMP SETTINGS

The microphone preamplifier gain can be configured by internal setting as +30 dB (low)/ +40dB (high).

Set to HIGH when using standard headsets equipped with dynamic microphones.

Set to LOW for electret type headsets.

SETTING MICROPHONE GAIN. Holding down the TALK key press Vol- to change from LOW to HIGH or from HIGH to LOW. The unit will produce a long beep when setting HIGH (default) and a short beep when LOW.

The electret microphones need to be powered. The dynamic ones don't need it.

SETTING PHANTOM POWER. Holding down the TALK key press Vol+ to change from OFF (disabled) to ON (active) or from ON to OFF. The unit will produce a long beep when setting ON and a short beep when OFF (default).

HEADSET connector pinout	
PIN 1	OV (MICROPHONE)
PIN 2	SIGNAL(MICROPHONE)
PIN 3	0V (HEADPHONES)
PIN 4	SIGNAL(HEADPHONES)

NOTE: Headphones can be ordered with a double or single muff earpiece. In case of using a double muff headphones, the two speakers should be wired in parallel.

5.10. SIDETONE CONTROL 9

The sidetone control adjusts the level of your own voice as you hear it in the headphones.

Set it to the desired listen level depending on the headsets used open or closed muff models.

NORMAL SETTING to ¼ turn from minimum, left side.

5.11. SPEAKER 10

The incorporated speaker allows listening the intercom channels selected. Set desired volume with the level control keys Vol+/Vol- in 16 steps.

CAUTION: In case of needing a quick disconnection, hold down the Vol-. The speaker would shut-off in just a second.

5.12. HEADSET / SPEAKER LEVEL (VOLUME) CONTROL 11

The volume control allows attenuating or amplifying the signal sent to the speaker and to the headphones. You can adjust the level in a step by step basis or quickly by holding down the key.

This volume control is used also when adjusting balance or mix settings between level A and level B for monitoring purposes. See channel select paragraph above for operation.

5.13. CUE LIGHT GO INDICATOR 12

GO indicator light shows the user (users) to run the action involved in the CUE.

When the user is ready for the scene he/she can press the STBY key to acknowledge it to the producer.

The STBY indicator turns steady showing standby.

At this time producer would start the action by pressing the GO key in the master cue station that would lit all the GO indicators, in green colour.

This indicator does not incorporate a switch as the user can not initiate/finish cues.

6. SPECIAL SETTINGS

The unit can be set to perform some special operating modes to ease daily operations, adding special functionalities, these are:

6.1. SPEAKER FORCE LISTENING by incoming CALL

Force listening sets briefly –as long as the remote call is hold- the listen volume of the unit to maximum setting independent of the normal volume setting of the unit. This mode is normally used to address a voice message to the surrounding area of the unit, to call attention or for evacuation purposes. You can select from which channel A, B or both the activation takes place.

Default setting. DISABLED

6.2. MIC ON by incoming CALL

MIC on by incoming call sets briefly –as long as the remote call is hold- the mic key activated independent of the state of the key. This mode is normally used to monitor the activity of the room where the unit is installed, to hear someone unable to depress the mic key or for evacuation purposes.

You can select from which channel A, B or both the activation takes place.

Default setting. DISABLED

6.3. MIC & BUZZER off at switch on.

When activated, the mic key and the buzzer would be disabled at switch on. This function avoids feedbacks and sounds when an unattended unit.

Default setting. DISABLED

6.4. GOOSENECK.

When activated allow operation of a gooseneck boom microphone installed on the headset connector. See HEADSET connector for details.

Default setting. DISABLED

6.5. SET-UP OF SPECIAL SETTINGS

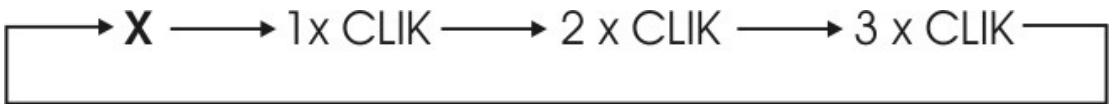
Various settings are initiated by pressing the **BUZZER KEY >**

PRESS & HOLD for 2 seconds. Buzzer Led blinks one time:
Now, by releasing the key the unit *Enables/disables the buzzer*.

PRESS & HOLD for 12 seconds. Buzzer led blinks two times:
Now by releasing the key, the unit enters in *settings mode programming*. See below.

PRESS & HOLD for 22 seconds. Buzzer led blinks three times:
By releasing the key the base station sets to *default settings*.

SETTINGS MODE PROGRAMMING. (12 seconds buzzer key > led blinks two times>)
In this mode you can set the unit to respond to the different mode settings by pressing the following keys one or more times. The state will be indicated by the key led in four on/off light sequences. When the settings are defined, depress any Vol+/Vol- or switch off the unit to revert to normal operating mode. The adjustments are circular meaning each keystroke jumps to the next of the four states.



KEY	MODE	LED SEQUENCE
BUZZER KEY		
-Initial state	No action	----------
-First click	Force Listening by incoming CALL-A	ON/**OFF**/ON/**OFF**….slow
-Second click	Force Listening by incoming CALL-B	ON/**OFF**/ON/**OFF**….quick
-Third click	Force Listening by incoming CALL-A or B	ON/ON/ON/**OFF**/ON/ON/ON
MIC KEY		
-Initial state	No action	----------
-First click	MIC on by incoming CALL-A	ON/**OFF**/ON/**OFF**….slow
-Second click	MIC on by incoming CALL-B	ON/**OFF**/ON/**OFF**….quick
-Third click	MIC on by incoming CALL-A or B	ON/ON/ON/**OFF**/ON/ON/ON
CALL KEY		
-Initial state	No action	----------
-First click	MIC&BUZZ OFF at switch on (default last)	ON/**OFF**/ON/**OFF**….slow
-Second click	GOOSENECK MIC setting (default panel)	ON/**OFF**/ON/**OFF**….quick
-Third click	Both MIC&BUZZ OFF /GOOSENECK MIC	ON/ON/ON/**OFF**/ON/ON/ON

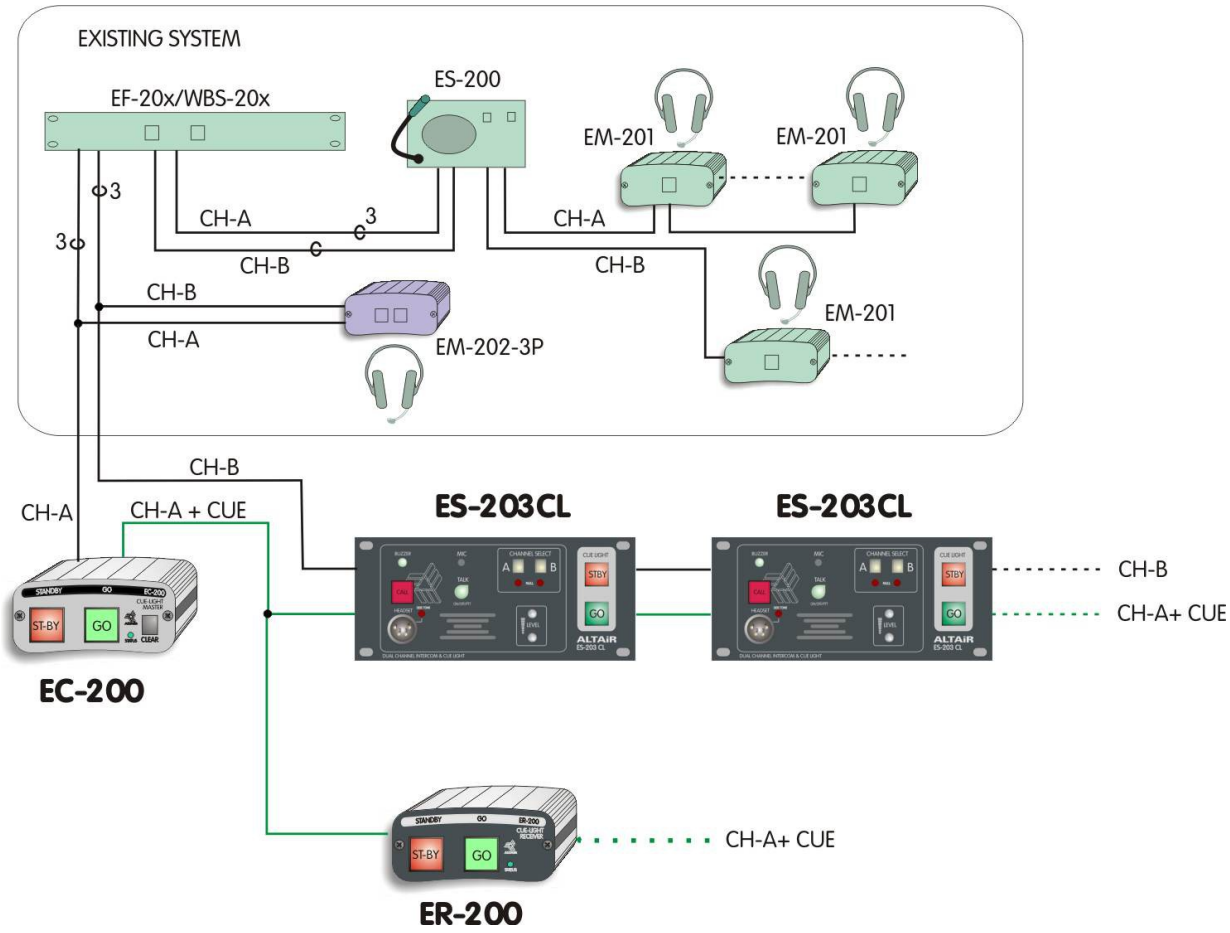
When the unit is set to *gooseneck mode* –hands free mode- the panel mic is disabled and it is necessary to install a 4 pin gooseneck as the Altair MF-200. Speaker is always activated so the volume and side tone settings must be set accordingly to avoid undesirable feedbacks when mic is activated.

7. CUE LIGHT SYSTEM DESCRIPTION

The series of cue-light products consist on three different models:

-EC-200 Cue Light master station,
-ER-200 standalone Cue Light receiver.
-ES-203 CL wall/desk intercom station with Cue Light. See description above.

All three devices are designed to be integrated into the Altair wired intercom system sharing the power supply and wiring.



As seen on the diagram, the master panel EC-200 makes the link from the existing intercom system to the cue light system. It incorporates a filter between both systems acting as separator of both worlds, the cue light signals and the intercom line. On the diagram, the same cue signal is driving the two ES203 CL and the ER-200.

Cue light signals and intercom are now sharing the same wiring to be connected to the receivers ER-200 or the new combined cue+intercom base stations ES-203 CL in standalone or chained stations (up to 8 units).

Multiple EC-200 plus cue light receivers ER-200 (or ES-203CL) can be used in parallel to the existing intercom lines so having separate cue signals as used on complex shows i.e. actors1, actors2, dance1, music cues.

7.1. CUE LIGHT OPERATION

CUE LIGHTS system work flow

-Producer/Director on EC-200 master presses the STBY –standby- key to prevent next scene preparation. RED lights flashing on both sides on all wall stations and receivers connected on this line.

-Operator/artist of any wall station ES-203 CL or receiver ER-200 sees the red light flashing and depresses STBY as acknowledge so turning RED light steady on all connected wall stations, receivers and master panel.

-Producer presses the GO key indicating scene to run immediately. GREEN lights lit steady on both sides on all connected wall stations or receivers showing scene to rush.

-When scene is at finish, producer presses the CLEAR key, all lights goes off on both sides. A new scene process can be initiated.

-It is up to Producer to run the GO straight without the previous STBY confirmation from the receivers.

-Operator/artist can not initiate a cue light sequence.

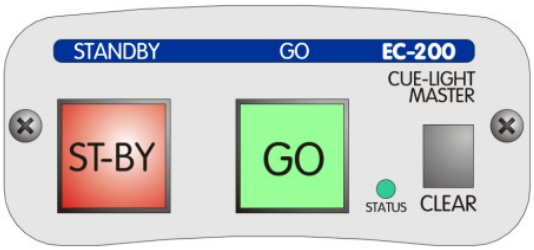
7.2. CUE LIGHT MASTER EC-200

The single channel cue light master EC-200 generates the cue signals and mixes it to the intercom line.

This station can be used stand alone in single channel operation or used in multiple cue channels.

In both cases it can be mounted on a PC-4-200 panel for a clean and easy operation. Power supply is obtained trough the intercom line.

FRONT PANEL



-STBY switch button with RED indicator. Initiates attention cue to all stations
-GO switch button with GREEN indicator. Clears the STBY indication when active and makes a GO cue.
-CLEAR push button. Clears the cue lights process to prepare for next scene.
-SATATUS led. Power On. Activity.

REAR PANEL



-INTERCOM only -XLR3 MALE- Input connection to the intercom line system. Cue is isolated.
-INTERCOM +CUE –XLR3 FEMALE. Output connection to the Cue Light and Intercom system receivers.
-INTERCOM + CUE –XLR3 MALE. Same as above.
-UBS connection. For firmware updating

SPECIFICATIONS	
POWER REQUIREMENTS	24 VDC nom.(12 to 32V oper.) / 50 mA
CONNECTIONS	INPUT XLR3m INTERCOM only
	OUTPUT XLR3m + XLR3f INTERCOM +CUE
DIMENSIONS/WEIGHT	84x38x105 mm /225 gr. net

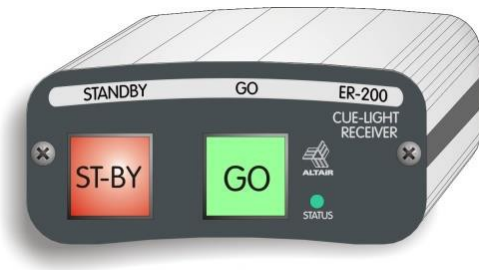
7.3. CUE LIGHT RECEIVER ER-200

The single channel cue light RECEIVER ER-200 receives the cue signals from the master unit.

This station can be placed on a desk position or mounted on the optional PC-4-200 panel for a clean and easy operation.

Power supply is obtained trough the intercom line.

FRONT PANEL



-STBY switch button with RED indicator. Receives cue signal from the master unit. Generates acknowledgement signal to the MASTER unit.
-GO, GREEN indicator. Shows cue light GO for an immediate action.
-STATUS led. Power On. Activity.

REAR PANEL



-INTERCOM only -XLR3 MALE- Optional connection. Not used.
-INTERCOM +CUE –XLR3 FEMALE. Input connection from the Cue Light and Intercom master.
-INTERCOM + CUE –XLR3 MALE. Output to next cue receiver.
-USB connection. For firmware updating

SPECIFICATIONS	
POWER REQUIREMENTS	24 VDC nom.(12 to 32V oper.) / 50 mA
CONNECTIONS	INPUT XLR3f INTERCOM + CUE
	OUTPUT XLR3m INTERCOM +CUE
DIMENSIONS/WEIGHT	84x38x105 mm /225 gr. net

8. TROUBLESHOOTING GUIDE

TROUBLESHOOTING GUIDE	
WHEN	**POSSIBLE CAUSE and SOLUTIONS**
1-Headset mic does not work	**Check type of microphone capsule used. In case of electret type, set preamp phantom powering > Holding TALK key press Vol+**
2-Headset mic level too low or too high	**Set the mic preamp gain to adapt to the capsule used> Holding TALK key press Vol-**
3-Panel mic does not work	**-Remove the headset or boom microphone. -Maybe the GOOSENECK mic is activated: See SPECIAL SETTINGS chapter/label on the back**
4-TALK key does not engage.	**The TALK key is forced to operate in PTT mode when the panel mic is in use (no headset used)**
5- Volume changes when receiving a CALL	**-Maybe the FORCE LISTENING is activated: See SPECIAL SETTINGS chapter/label on the back**
6-Mic is remotely activated when receiving a CALL	**-Maybe the MIC ON by incom. CALL is activated: See SPECIAL SETTINGS chapter/label on the back**
7- Excessive return/feedback when using boom microphone.	**-Reduce the listening level -Check NULL setting on the selected channels.**
8- Cue Light system error	**-Check for excessive number of units on the line -Check cabling class and length.**

9. TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS		
INTERCOM LINE	NUMBER OF CHANNELS	DUAL CHANNEL station
	IMPEDANCE:	220 ohm AC. 4700 ohm DC.
	NOMINAL/MAXIMUM LEVEL:	-10 dBu / +3 dBu.
	FREQUENCY RESPONSE:	100 Hz – 10 KHz (-3 dB).
SYSTEM SPECIFICATIONS	POWER REQUIREMENT:	+12 to +32 VDC / 110 mA
	DYNAMIC RANGE:	80 dB.
	BRINGING IMPEDANCE @ 1KHz:	> 10 K ohm
	SIDE-TONE CANCELLATION:	Adjustable from 0 to 30 dB @ 1khz
	MICROPHONE LIMITER:	Range: 28 dB.
	MAXIMUM CABLE LENGTH:	500-2.000 mts. Depends on cable type and installation.
	RECOMMENDED WIRE TYPE:	Shielded mic cable 2 x 0,30 mm^2.
	CALL SIGNAL:	+2,8 mA/11 VDC.
	CALL THRESHOLD:	3 VDC.
	REMOTE MIC-OFF:	Power interruption: 100 ms.
PREAMPLIFIER	MICROPHONE TYPE (headset):	Dynamic or electret.
	PANEL MICROPHONE:	Electret type
	INPUT IMPEDANCE:	4K7.
	NOMINAL/MAXIMUM LEVEL:	-45 dBu (H)/-20 dBu(L).
	LIMITER RANGE:	28 dB.
	PRESENCE FILTER:	+6 dB @ 4700 Hz.
	PHANTOM VOLTAGE:	+9 VDC (enabled by internal setting).
HEADSET AMPLIFIER	IMPEDANCE:	200 ohm (nominal), 2K ohm (maximum).
	MAXIMUM LEVEL:	20 Vpp (200 ohm).
	OUTPUT POWER:	250 mW (200 ohm).
	FREQUENCY RESPONSE:	250 Hz - 15 KHz.
	RESIDUAL NOISE:	-100 dBu (all mics off).
SPEAKER SECTION	BANDWIDTH:	100-10KHz
	MAX OPTPUT S.P.L.	92 dB SLP/1 m
	POWER:	4 WATT
CUE LIGHT SYSTEM	CHANNELS #	ONE CHANNEL (CHANNEL A only)
	NUMBER OF STATIONS	8 UNITS maximum (ES-203 CL / ER-200)
	STAND-BY function	KEY BUTTON and RED INDICATOR
	GO function	GREEN INDICATOR
ACCESSORIES	GOOSENECK MICROPHONE	REF: MF-200
	RACK MOUNTING KIT	REF: RM-203
DIMENSIONS	FRONT PANEL/DEEP	2U x 19"" 200x88mm /52 mm deep
	BOXING HOLE	175x80 mm. Connector panel on back side
WEIGHT		1 Kg. Net.

NOTE: Technical specifications are subject to variation without previous notice.

10. WARRANTY

This unit is warranted by Equipos Europeos Electrónicos to the original user, against flaws in the manufacturing and in the materials, for a period of two years (one year depending on some countries), starting from the date of sale.

Flaws due to wrong use of the unit, internal modifications or accidents, are not covered by this warranty.

There is no other warranty expressed or implicit.

Any faulty unit must be sent to the dealer or the manufacturer. The serial number of the unit must be included for any request to the technical service.

Equipos Europeos Electrónicos reserves the right to modify the prices or the technical specifications without further notice.

SERIAL NUMBER .....

Extract of the Declaration of Conformity (DoC)

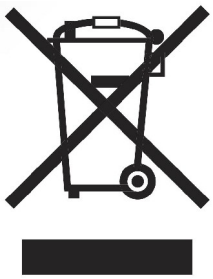
“We, Equipos Europeos Electrónicos, S.A. declare, that the above mentioned product is manufactured according to our Full Quality Assurance System in compliance with Directive 99/5/EC. The presumption of conformity with the essential requirements regarding Council Directive 99/5/EC is ensured.”

The Declaration of Conformity (DoC) has been signed. In case of needing a copy of the original DoC, it can be made available via the internet direction: http://www.altairaudio.com/DoC

European Union
Waste Electronics Information

Unión Europea
Información sobre residuos electrónicos

Waste from Electrical and Electronic Equipment (WEEE) directive
The WEEE logo signifies specific recycling programs and procedures for electronic products in countries of the European Union. We encourage the recycling of our products. If you have further questions about recycling, contact your local sales office.



Directiva sobre Residuos de Aparatos Eléctricos y Electrónicos (RAEE)
El logotipo de la Directiva RAEE se refiere a los programas y procedimientos específicos de reciclaje para aparatos electrónicos de países de la Unión Europea. Recomendamos el reciclaje de nuestros productos. Si tiene alguna consulta, póngase en contacto con su Distribuidor.

Information based on European Union WEEE Directive 2002/96/EC
Información basada en la Directiva de la unión europea RAEE 2002/96/EC y el Real Decreto 208/2005

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