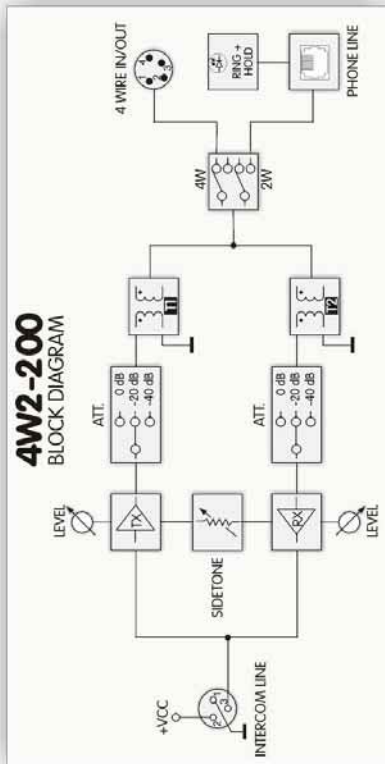




It is recommended readjust the SIDE-TONE after concluding the whole intercom installation, since this is affected by several factors like the cable longitude, the number of stations connected to the system, the cables quality, etc.

BLOCK DIAGRAM:



4W2-200

UNIVERSAL 4W/2W INTERFACE E-200 SERIES INTERCOM SYSTEM

OWNERS MANUAL



EQUIPOS EUROPEOS ELECTRÓNICOS, S.A.L

Avda. de la Industria, 50. 28760 TRES CANTOS
MADRID (SPAIN).

34-1-761 65 80

34-1-804 43 58

altair@altairaudio.com

www.altairaudio.com



TECHNICAL SPECIFICATIONS

INTERFACE 4W2-200:	
3,4 WIRE MODE:	<ul style="list-style-type: none"> RX > 2 KΩ / -45 dBu to +10 dBu. TX < 600 Ω / +10 dBu to -60 dBu.
2 WIRE MODE (TELEPHONE LINE):	<ul style="list-style-type: none"> ZTERM: Adjustable 500 Ω a 1500 Ω.
INTERCOM LINE:	
IMPEDANCE:	<ul style="list-style-type: none"> 220Ω AC / 4700Ω DC.
NOMINAL LEVEL:	<ul style="list-style-type: none"> -10 dBu.
MAXIMUM LEVEL:	<ul style="list-style-type: none"> 3 dBu.
SIDETONE CANCELLATION (int.):	<ul style="list-style-type: none"> Adjustable 0 – 30 dB @ 1KHz.
BUZZER RING:	<ul style="list-style-type: none"> 90 dBA.
POWER SUPPLY:	<ul style="list-style-type: none"> 12 – 30 VDC. 24 VDC nominal.
DC CURRENT:	<ul style="list-style-type: none"> 60 mA
DIMENSIONS:	<ul style="list-style-type: none"> 84x38x130 mm.
WEIGHT:	<ul style="list-style-type: none"> 270 gr.

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

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 one year, 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 with any request for the technical service.

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



SERIAL NUMBER



INTRODUCTION

Congratulations on your purchase of the ALTAIR E-200 SERIES intercom system, universal interface 4W2-200.

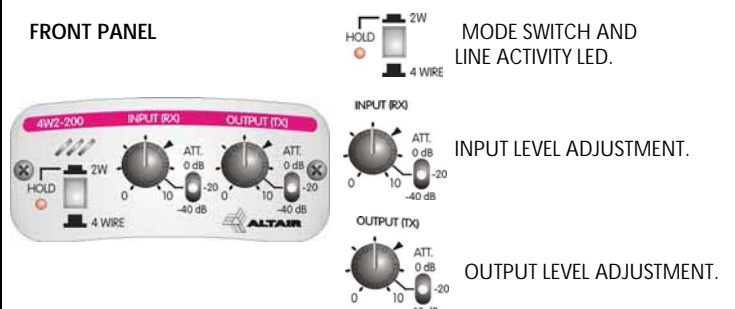
There are many characteristics that make of the ALTAIR 4W2-200 one of the most highlighted in the audio professional market, some are enumerated here:

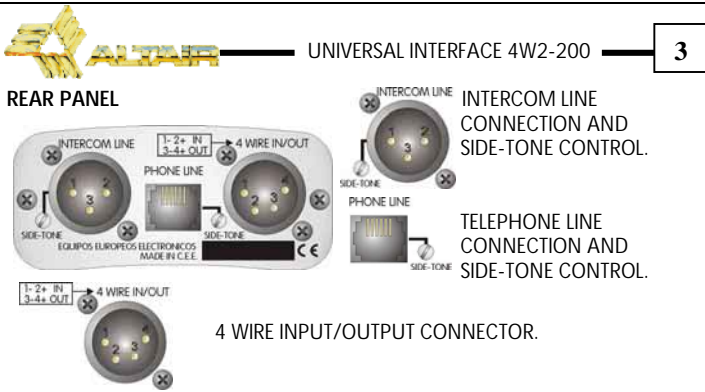
- Powered from the intercom line.
- Converts 2 wire intercom signals to unidirectional IN/OUT 4 wire signals.
- Allows easy interfacing to camera 4 wire intercom systems, and to another non-compatible systems.
- Wide range in/out adjustments enables interfacing to many different audio systems (mixers, page amplifiers, etc.).
- Interfaces to the telephone line, incorporating HOLD switch, buzzer-ring and line activity led.
- Input and output signals are transformer balanced to guarantee galvanic isolation and EMI protection from external connected equipment.

SWITCHES, CONTROLS, ADJUSTMENTS AND CONNECTORS

These are the switches, controls, adjustments and connectors that you can find in your ALTAIR universal interface. The description and explanation of each will be found in the corresponding section.

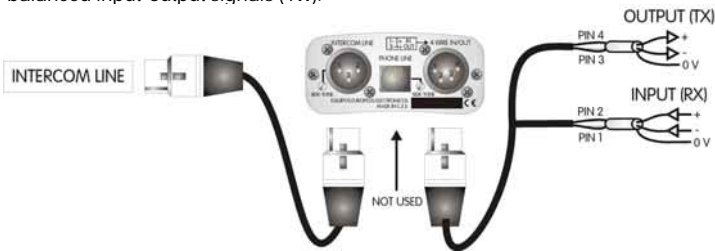
FRONT PANEL





4 WIRE MODE (4W)

Converts the 2W intercom signal to independent floating transformer balanced input-output signals (4W).



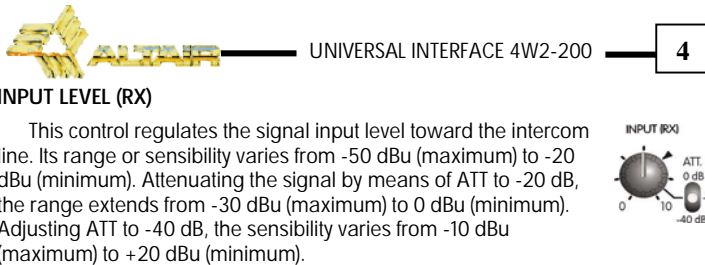
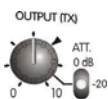
NOTE: The CALL signal is not transmitted.

MODE SWITCH

Selects the 4 wire position (switch in the up position).

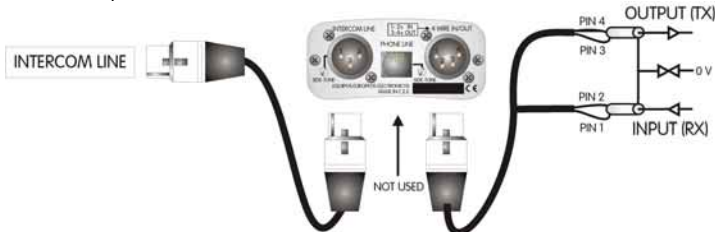
OUTPUT LEVEL (TX)

This control regulates the signal output level that comes from intercom line. Its range varies from +10 dBu (maximum) to -16 dBu (minimum). This signal can be attenuated by means of ATT to -20 and to -40 dB in order to adapt it appropriately to different applications.



3 WIRE MODE (3W)

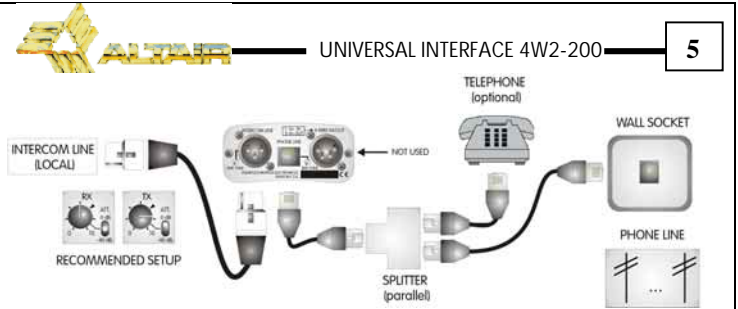
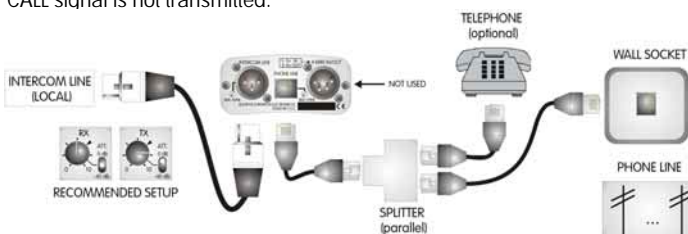
This mode is a variant in the 4 wire mode (4W) where the ground signal is common to both RX and TX signals. The input-output signals are floating balanced by transformer.



NOTE: The controls and adjustments are the same as in the 4 wire mode (4W).

MODE

In this mode, the unit converts and adapts the intercom signal to the telephone line in order to receive or generate phone calls or in order to link two remote intercom systems by means of the standard phone line. The intercom CALL signal is not transmitted.



MODE SWITCH

In order to receive phone calls, the mode switch must be in the 4W position (switch not pressed). When a call is received, the interface will generate an audible ring tone in order to pick up the incoming phone call. The phone call is retained when the mode switch is pressed (position 2W), indicating its presence by means of the HOLD red LED. Upon finishing the call, we will hang the phone line pressing again the mode switch (position 4W).

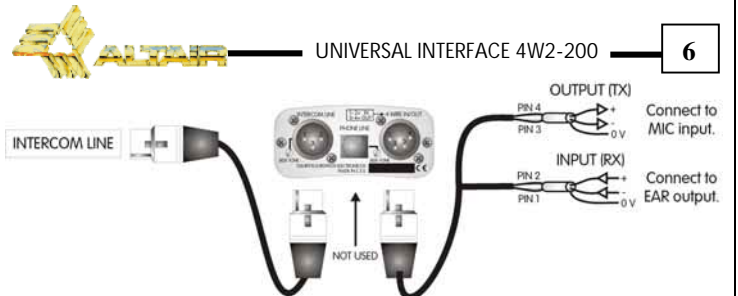
In order to carry out a phone call, we will need a telephone with dial since the universal interface doesn't incorporate it, wiring in parallel mode as indicated in the previous diagrams. Once carried out, the call will pass to catch it in the interface pressing the mode switch (position 2W), the HOLD red LED will and the phone call will remain retained in the unit. Like in the previous case, the call will be concluded hanging from the interface upon pressing again the mode switch (position 4W).

SIDE-TONE ADJUSTMENT (PHONE-LINE) Z

This adjustment adapts the universal interface level impedance to the real level of the phone connection. It comes factory set-up in order to fulfill most of the phone profiles of the private switchboards or public nets. The predetermined adjustment range is of 500 to 1500 Ω. It can be changed to other impedances by means of the components R1 and C1. It is advisable adjust this control only when whistles or feedbacks appear in the phone connection.

VIDEO/TV CAMERAS APPLICATION (4W)

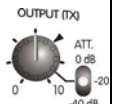
For this type of application, we will select 4W mode (mode switch without pressing). The unit 4W2-200 are powered through the intercom line.



Consult the user manual of the camera CPU (MPU) in order to select the intercom mode to 4W.

OUTPUT LEVEL ADJUSTMENT (TX)

Adjust the rotary control and the attenuator TX in order to adapt it to the MIC input sensibility recommended in the CPU. This adjustment will determine the signal level perceived in the camera headphones that comes from the microphones of the intercom stations. With the rotary control at 50%, adjust the attenuator to the appropriate position and readjust the level with the variable control.



INPUT LEVEL ADJUSTMENT (RX)

This adjustment will determine the signal level that coming from the camera microphones is injected in the headphones of the intercom stations. With the rotary control at 50%, adjust the attenuator to the appropriate position and readjust the level with the variable control.



SIDE-TONE ADJUSTMENT (INTERCOM)

The SIDE-TONE adjustment determines the relative level that exists between the input signal (RX) and the output signal (TX), that is to say the level that will hear the camera operator from their own voice. It comes factory set up, guaranteeing the maximum audio quality, exempt of whistles or feedbacks when removing us the headphone.

If a more natural conversation is wanted, it is to convenient displace the adjustment toward the left or right to the point of maxim cancellation, that is, approximately to 2/ 3 of the SIDE-TONE control travel.



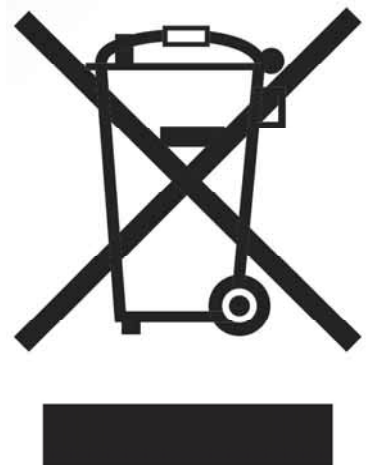
European Union Waste Electronics Information Unión Europea Información sobre residuos electrónicos

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



AUDIO ELECTRONICS DESIGN

EQUIPOS EUROPEOS ELECTRÓNICOS, S.A.L

Avda. de la Industria, 50. 28760 TRES CANTOS-MADRID (SPAIN).



34-91-761 65 80



34-91-804 43 58



altair@altairaudio.com

www.altairaudio.com