

Operating Manual

ALTAIR 5 with WirelessUSB module ALTAIR 5X with WirelessUSB module

Supplementary Information



MSA AUER GmbH
Thiemannstrasse 1
D-12059 Berlin

Germany

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1 Safety Regulations

1.1 Correct Use

The ALTAIR 5/ALTAIR 5X WirelessUSB module is used for communication with other devices, e.g. *alphaSCOUT*.

The ALTAIR 5/ALTAIR 5X Multigas Detector is intended for use by trained and qualified personnel. It is designed to be used when performing a hazard assessment to:

- Assess potential worker exposure to combustible and toxic gases and vapours as well as low level of oxygen.
- Determine the appropriate gas and vapour monitoring needed for a workplace.

It is imperative that this operating manual be read and observed when using the product. In particular, the safety instructions, as well as the information for the use and operation of the product, must be carefully read and observed. Furthermore, the national regulations applicable in the user's country must be taken into account for a safe use.



Danger!

This product is supporting life and health. Inappropriate use, maintenance or servicing may affect the function of the device and thereby seriously compromise the user's life.

Before use the product operability must be verified. The product must not be used if the function test is unsuccessful, it is damaged, a competent servicing/maintenance has not been made, genuine MSA spare parts have not been used.

Alternative use, or use outside this specification will be considered as non-compliance. This also applies especially to unauthorised alterations to the product and to commissioning work that has not been carried out by MSA or authorised persons.

1.2 Liability Information

MSA accepts no liability in cases where the product has been used inappropriately or not as intended. The selection and use of the product are the exclusive responsibility of the individual operator.

Product liability claims, warranties also as guarantees made by MSA with respect to the product are voided, if it is not used, serviced or maintained in accordance with the instructions in this manual.

2 Description



This manual only contains information regarding the WirelessUSB module.

Refer to the Operating Manuals of ALTAIR 5/ALTAIR 5X for information on all other functions of the device.

ALTAIR 5



Fig. 1 Instrument view

- | | | | |
|---|----------------------|---|--------------------|
| 1 | ALTAIR 5 WirelessUSB | 4 | ▲ Button |
| 2 | ▼ Button | 5 | Belt Clip |
| 3 | ON/OFF Button | 6 | WirelessUSB module |

ALTAIR 5X

Fig. 2 *Instrument view*

1 ALTAIR 5X WirelessUSB

4 ▲ *Button*

2 ▼ *Button*

5 *Belt Clip*

3 **ON/OFF** *Button*

6 *WirelessUSB module*

3 Operation

3.1 Measurement Mode [Normal Operation]

The following options pages can be executed from the Normal Operation screen:

BUMP page [ALTAIR 5X only]	This page allows user to perform a Bump Test on installed sensors
Peak Page*	 This page shows the peak readings for all sensors.
Min Page	 This page shows the minimum readings for the oxygen sensor.
STEL Page*	 This page shows the calculated STEL readings of the instrument.
TWA Page	 This page shows the calculated TWA readings of the instrument.
Date Page	This page shows actual date settings of the instrument.
Last Cal Date	This page shows the date of the last calibration.
Cal Due*	This page shows the set date for the next calibration.
Motion Alert	 This page allows the Motion Alert Feature to be activated or deactivated.
Wireless	 This page allows the Wireless communication to be activated or deactivated.

* The display of these pages can be de-activated through MSA Link software

Using the three instrument buttons, the user can navigate through each sub-menu in a top/down sequence.

Refer to the Operating Manual of ALTAIR 5/ALTAIR 5X and additional information in chapter 5 [appendix] for detailed instructions on navigating through these screens.

3.2 Activation



Fig. 3 Switch Wireless ON / OFF

- (1) To activate the WirelessUSB module, follow the menu sequence described in chapter 5.
 - ▷ The WirelessUSB module can be switched ON or OFF.
- (2) Switch the WirelessUSB module ON.
 - ▷ The following options are shown below the antenna symbol:

Retry Try again to connect to the last partner, e.g. partner is activated to pair
 New Connect to a new partner
 Abort Cancel operation and return to main menu

The symbol will have different colours for different connection states:

Status	Indication	Symbol
WirelessUSB module available	strength bars visible [otherwise no symbol with strength bars on display]	
No connection	black strength bars	
Pairing mode [ready for pairing]	blinking black strength bars	
Connection established and data exchange working	green strength bars	
Connection lost	blinking red strength bars	

3.3 Startup

The product recognises an attached WirelessUSB module automatically. During the power-up sequence, the product will pair automatically with the last connected product.



To pair two products, the pairing mode must be activated for all products. Otherwise no partner can be found.



Fig. 4 Display with antenna symbol

The strength bars in the status bar of the colour display are used for displaying the availability of a WirelessUSB module. During the startup sequence the product tries to pair with the last partner. The strength bars are blinking. After the Fresh Air Setup [FAS] the antenna symbol will be displayed.

4 Pairing



For further information see Operating Manual of the respective products.

4.1 alphaSCOUT

Pairing with the alphaSCOUT

- (1) Make sure that the *alphaSCOUT* is already switched ON.
 - If the *alphaSCOUT* is switched OFF the *alphaSCOUT* will start pairing with an *alphaMITTER* and not with an ALTAIR 5 WirelessUSB.
- (2) Push the green button on the *alphaSCOUT* for approx. 3 seconds.
 - ▷ The *alphaSCOUT* is ready for pairing with an ALTAIR 5 WirelessUSB.
 - ▷ On the display the message "DATA" blinks.
 - ▷ A short signal sounds.
 - ▷ The "bar" symbol is shown when the communication between *alphaSCOUT* and *alphaMITTER* is established. The "bar" symbol is not affected by pairing devices [such as *alphaHUD* and ALTAIR 5 WirelessUSB].
 - ▷ When the pairing of the ALTAIR 5 WirelessUSB module and the *alphaSCOUT* was successful the "DATA" symbol stops blinking and remains static.

The unit is now paired with this product. If this combination is to be kept, during the next operation only the valve on the compressed air cylinder has to be opened.

When replacing the products, the pairing procedure must be carried out again in order to clearly allocate the units to each other.

4.2 alphaHUD Alarm Status

Status / Alarm	LED display	Visual representation
Gas alert 1	Radio status LED flashing orange: - all gas alarms [low/high], sensor failure, pump blocked	
Gas alert 2	Radio status LED flashing yellow: - battery warning	

4.3 TecBOS.solutions

The user interface of the monitoring software is self-explanatory.

The user interface is subdivided into three main areas:

- Log in area for users with *alphaSCOUT*,
- Team overview,
- Detailed display of pressure, remaining service time and alarm, and the menu bar [→ Fig. 5].

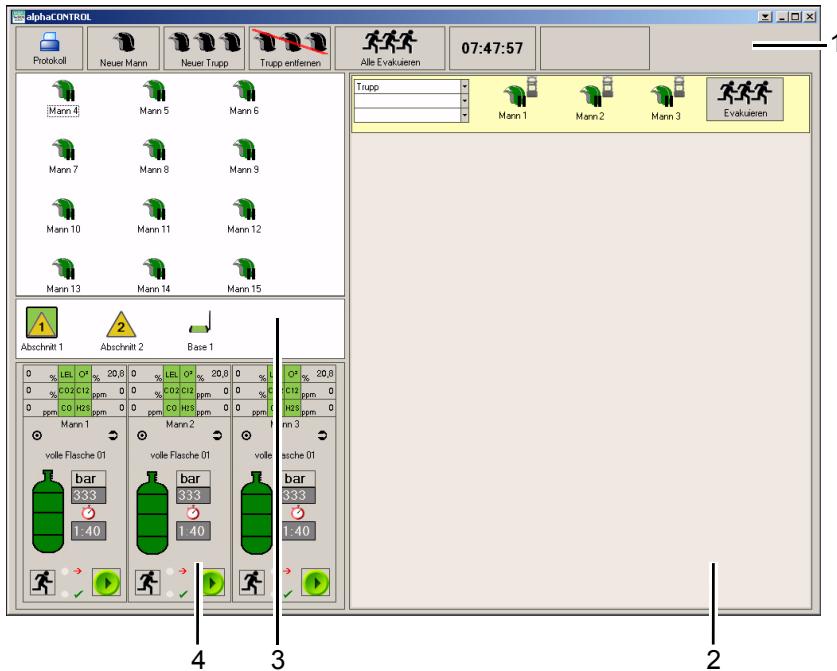


Fig. 5 User interface telemetry monitoring software

- 1 Menu bar
- 2 Team overview
- 3 Log in area for users with *alphaSCOUT*
- 4 Detailed display [pressure, remaining service time, alarm]

Integration into the Monitoring & Alarm System



The software only displays the data of the WirelessUSB. There is no interaction between software and WirelessUSB module.

The WirelessUSB module enables the integration of ALTAIR 5/ALTAIR 5X into the *alpha* Personal Network. You can monitor people using breathing apparatus and portable gas detection equipment while sending information to a central control station.

If a WirelessUSB module is connected to an *alphaSCOUT*, an icon of the WirelessUSB module is shown near to the helmet [→ Fig. 5].

normal:



error:



gas alert:

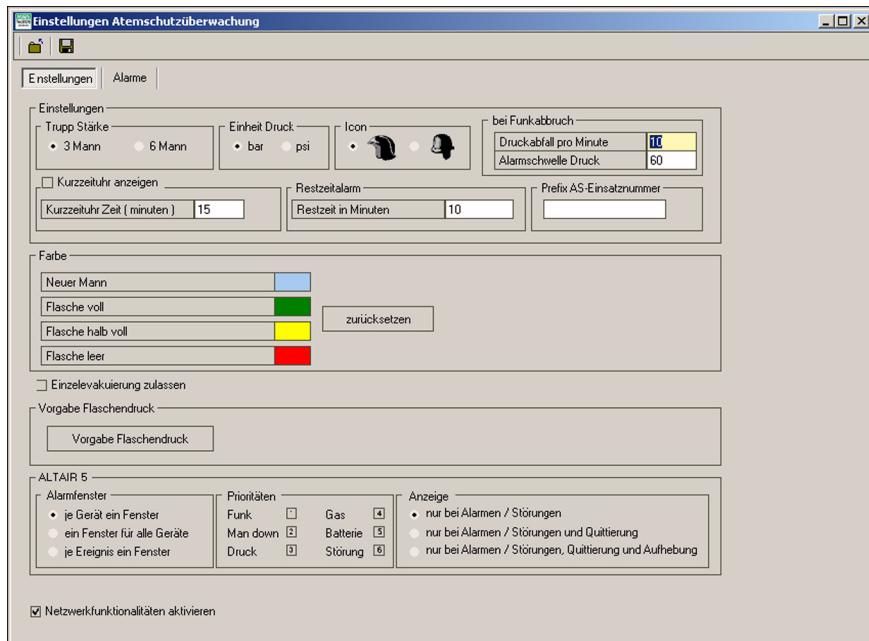


connection lost:



Data display in detail



Default Settings for ALTAIR 5/ALTAIR 5X WirelessUSB*Fig. 6 Default settings*

5 Appendix

5.1 Menu Sequence from Main Page

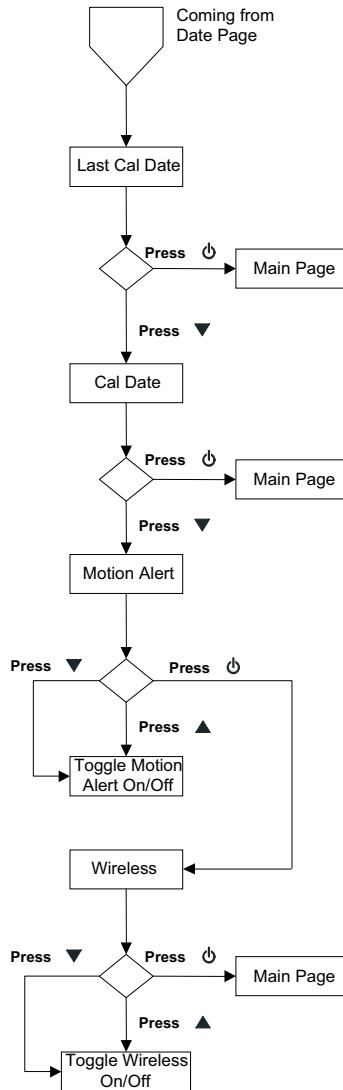


Fig. 7 Turn wireless ON/OFF

5.2 Menu Sequence Startup

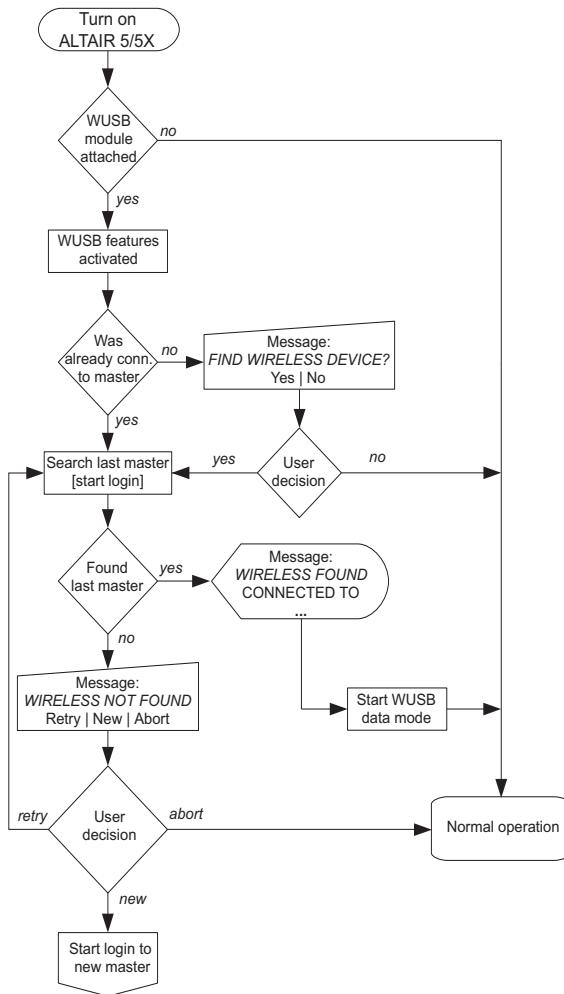


Fig. 8 Startup ALTAIR 5/ALTAIR 5X WirelessUSB

5.3 Menu Sequence Pairing Procedure

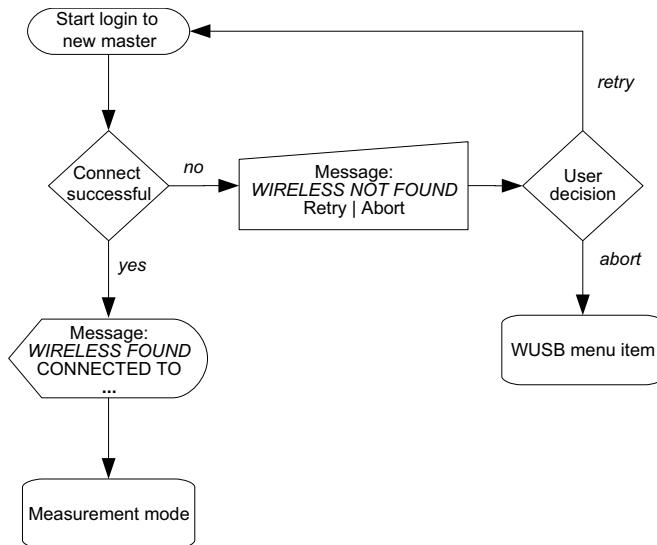


Fig. 9 WirelessUSB pairing procedure

5.4 Sequence of lost WirelessUSB Connection

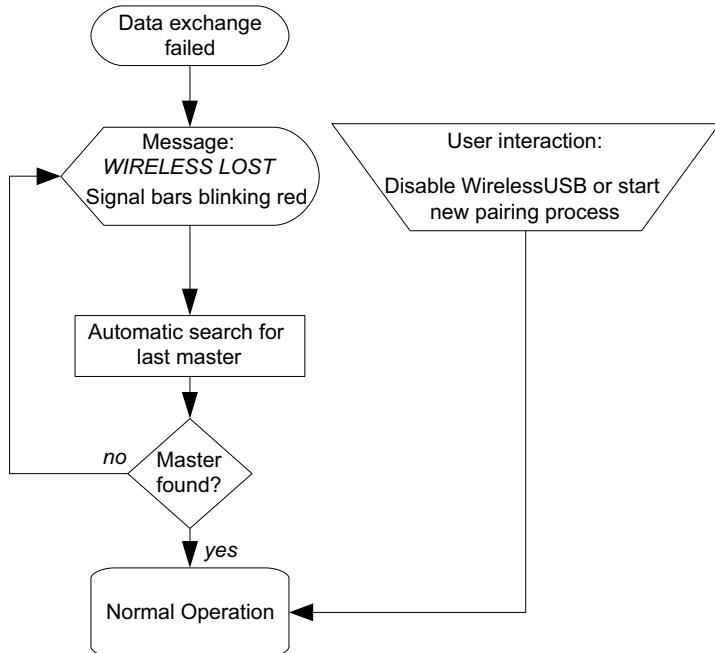


Fig. 10 Handling of lost WirelessUSB connection

MSA in Europe

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Northern Europe	Southern Europe	Eastern Europe	Central Europe
Netherlands MSA Nederland Kernweg 20 1627 LH Hoorn Phone +31 [229] 25 03 03 Fax +31 [229] 21 13 40 info@msaned.nl	France MSA GALLET Zone Industrielle Sud 01400 Châtillon sur Chalaronne Phone +33 [474] 55 01 55 Fax +33 [474] 55 47 99 message@msa-gallet.fr	Poland MSA Safety Poland ul. Wschodnia 5A 05-090 Raszyn k/Warszawy Phone +48 [22] 711 50 33 Fax +48 [22] 711 50 19 eer@msa-europe.com	Germany MSA AUER Thiemannstrasse 1 12059 Berlin Phone +49 [30] 68 86 0 Fax +49 [30] 68 86 15 17 info@auer.de
Belgium MSA Belgium Duwijkstraat 17 2500 Lier Phone +32 [3] 491 91 50 Fax +32 [3] 491 91 51 msabelgium@msa.be	Italy MSA Italiana Via Po 13/17 20089 Rozzano [MI] Phone +39 [02] 89 217 1 Fax +39 [02] 82 59 228 info-italy@ msa-europe.com	Czech Republic MSA Safety Czech Pikartská 1337/7 716 07 Ostrava-Radvanice Phone +420 [59] 6 232222 Fax +420 [59] 6 232675 info@msa-europe.cz	Austria MSA AUER Austria Kaplanstrasse 8 3430 Tulln Phone +43 [22 72] 63 360 Fax +43 [22 72] 63 360 20 info@msa-auer.at
Great Britain MSA Britain Lochard House Linnet Way Strathclyde Business Park BELLSHILL ML4 3RA Scotland Phone +44 [16 98] 57 33 57 Fax +44 [16 98] 74 0141 info@msabritain.co.uk	Spain MSA Española Narcís Monturiol, 7 Pol. Ind. del Sudoeste 08960 Sant-Just Desvern [Barcelona] Phone +34 [93] 372 51 62 Fax +34 [93] 372 66 57 info@msa.es	Hungary MSA Safety Hungaria Francia út 10 1143 Budapest Phone +36 [1] 251 34 88 Fax +36 [1] 251 46 51 info@msa.hu	Switzerland MSA Schweiz Eichweg 6 8154 Oberglatt Phone +41 [43] 255 89 00 Fax +41 [43] 255 99 90 info@msa.ch
Sweden MSA NORDIC Kopparbergsgatan 29 214 44 Malmö Phone +46 [40] 699 07 70 Fax +46 [40] 699 07 77 info@msanordic.se		Romania MSA Safety Romania Str. Virgil Madgearu, Nr. 5 Ap. 2, Sector 1 014135 Bucuresti Phone +40 [21] 232 62 45 Fax +40 [21] 232 87 23 office@msanet.ro	European International Sales [Africa, Asia, Australia, Latin America, Middle East] MSA EUROPE Thiemannstrasse 1 12059 Berlin Phone +49 [30] 68 86 55 5 Fax +49 [30] 68 86 15 17 contact@msa-europe.com
MSA SORDIN Rörläggvägen 8 33153 Värnamo Phone +46 [370] 69 35 50 Fax +46 [370] 69 35 55 info@sordin.se		Russia MSA Safety Russia Pokhodny Proezd, 14 125373 Moscow Phone +7 [495] 921 1370/74 Fax +7 [495] 921 1368 msa-moscow@ msa-europe.com	