

ATS-80 Tour Guide System

These instructions are intended for users without any specific technical knowledge. Please read the instructions carefully prior to operation and keep them for later reference. For help contact us at our website www.tourguide-systems.co.uk/contact

1 Applications

Combined with one or multiple receivers ATS-80R, the transmitter ATS-80T creates a mobile wireless voice transmission system, e.g. for guided tours, lectures and wireless command transmission. The transmission range depends on local conditions and may reach 150m as a maximum in the open.

1.1 Conformity and approval

Herewith, MONACOR INTERNATIONAL declare that the units ATS-80R and ATS-80T comply with the directive 2014/53/EU. The EU declarations of conformity are available on the Internet: www.monacor.com

Frequency range 863–865 MHz*:

Licence-free and no registration required in EU and EFTA countries

Frequency range 823–832 MHz*:

Restrictions or requirements apply in the following countries:

	AT	CZ	FR	LT	PL	SE	UK
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*The corresponding channels are listed in the table which can be found in chapter 8 "Specifications".

2 Safety Notes

The transmitter/receiver corresponds to all relevant directives of the EU and is therefore marked with CE.

- The transmitter/receiver is suitable for indoor use only. Protect it against dripping water, splash water and high air humidity. The admissible ambient temperature range is 0–40 °C.
- For cleaning only use a dry, soft cloth; never use water or chemicals.
- No guarantee claims for the transmitter/receiver and no liability for any resulting personal damage or material damage will

be accepted if the transmitter/receiver is used for other purposes than originally intended, if it is not correctly operated, or if it is not repaired in an expert way.

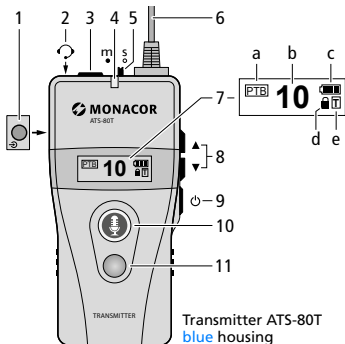


If the transmitter/receiver is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

3 Overview

Transmitter


- 1 Signal input (3.5 mm jack) for a unit with line level, e.g. MP3 player
- 2 Integrated microphone
- 3 Connection for the earphone/microphone set supplied
- 4 Power and status indicator
- 5 Selector switch (master/slave mode)
- 6 Antenna
- 7 Display
 - a Mode of the talk button (10)
 - b Transmission channel
 - c Battery status
 - d Channel selection locked (see item 18)
 - e Operating mode (Teaching/Guiding/Discussing)
- 8 Control buttons ▲/▼
- 9 Power switch (keep pressed for 2 seconds)



- 10 Talk button
lights up in green = microphone
switched on
lights up in red = microphone
switched off

11 Call button

Receiver

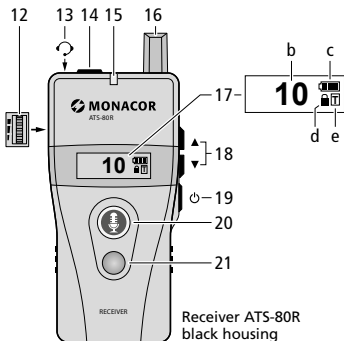
- 12 Volume control
13 Integrated microphone
14 Connection for the earphone supplied
15 Power and status indicator
16 Antenna
17 Display (see item 7 of the transmitter)
18 Buttons ▲/▼ for channel selection
To deactivate the key lock, keep both
buttons pressed until  (d) goes out.
19 Power switch (keep pressed for 2s)
20 Talk button (keep pressed to talk)
21 Reset button for warning signal and
call signal

4 Setting into Operation

4.1 Power supply

For power supply, two 1.5V batteries of size AA are required. When the status indicator (4, 15) lights up or starts flashing in red, the batteries are discharged and must be replaced.

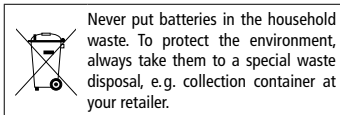
- Only insert batteries of the same type and always replace both of them.



- If the transmitter/receiver is not used for a longer period of time, always remove the batteries so that the transmitter/receiver will not be damaged in case the batteries should leak.

- To open the battery compartment, slide down the cover on the rear side.
- Insert the batteries with the positive and negative poles as indicated in the battery compartment.
- Close the battery compartment.

Instead of non-rechargeable batteries, it is also possible to insert two rechargeable NiMH batteries of size AA. To charge these batteries, the chargers ATS-85PS, ATS-825C and ATS-850PS are ideally suited: Leave the batteries in the unit and insert the unit into a charging slot. Power is supplied via the contacts at the lower end of the unit.





4.2 Selecting the operating mode

Three operating modes are available.

Guiding: The leader of the group uses the transmitter and can talk freely to the group members who are supplied with a receiver each. One member of the group [the one who presses the talk button (20) first] can also talk and ask a question, for example.

Teaching (factory setting): In addition to the leader of the group, an assistant supplied with a transmitter can talk to all members of the group or a member of the group can talk and ask a question, for example.

Discussing: Two members of the group (each of them supplied with a transmitter) can talk freely; all other members (supplied with a receiver) can only listen.

- All units must be switched off: Keep the button  (9, 19) pressed until OFF is shown on the display.
- On the transmitter, keep the buttons ▼ (8) and  (9) pressed until the transmitter is switched on. The display will show



"Mode" and the operating mode set. Select the mode desired by means of the buttons ▲/▼.

- 3) Press the button ○ to confirm the mode selected. The selection mode will be exited; the rectangle (e) on the right side of the display will show the first character of the mode selected.




The receivers will automatically change to the operating mode as soon as they are set to the same transmission channel as the transmitter (chapters 4.3 and 4.4).

4.3 Setting the transmission channel

Always observe chapter 1.1 when selecting the transmission channel.

As long as the symbol  (d) is shown on the display, the channel selection is locked. To unlock, press the buttons ▲ and ▼ (8, 18) at the same time until the symbol  goes out. Then immediately select the channel by means of the buttons ▲/▼. The channel selection will be locked 1 second after the channel has been selected.

Automatic transfer of the transmission channel to all receivers

- 1) Switch off the transmitter and set the selector switch "s/m" (5) to the position "m".
- 2) Keep the talk button  (10) and the button ○ (9) pressed to switch the transmitter on again. The channel number will flash on the display.
- 3) Use the buttons ▲/▼ (8) to select the transmission channel and then press the button ○ to confirm your selection or wait for 5 seconds. The status indicator (4) will flash rapidly and the talk button  will light up in green; the transfer of the transmission channel to the receivers has been activated.
- 4) All receivers must have been switched off. When the receivers are switched on again, they will automatically be set to the operating mode and transmission channel of the transmitter.
- 5) Exit the transfer mode on the transmitter: Either use the talk button  (10) to go to the normal mode or use the button ○ to switch off the transmitter.

4.4 Creating a group of a transmitter and receivers

When a group consisting of a transmitter and all receivers is created, the following additional features will be available:

1. Presence check: By the press of a button, the group leader can check how many receivers are switched on and thus if all members of the group are present.
2. Call signal: By the press of a button, the leader of the group can send a signal to all members (e.g. to ask the group members to gather).
3. When a group member leaves the reception range, a warning signal will sound at the corresponding receiver.

To create a group:

- 1) Switch off the transmitter and all receivers.
- 2) Set the selector switch "s/m" (5) on the transmitter to the position "m".
- 3) Keep the red call button (11) and the button ○ (9) pressed to switch on the transmitter. On the left side of the display, a chain symbol will be shown; on the right side, the channel number will start flashing.
- 4) Use the buttons ▲/▼ (8) to select the transmission channel and then press the button ○ to confirm your selection or wait for 5 seconds. The status indicator (4) will flash rapidly; the group creation function has been activated.
- 5) Switch on all receivers of the group.
- 6) The display will show the number of receivers switched on. If the number is correct, exit the group creation mode on the transmitter: Either use the red call button (11) to go to the normal mode or use the button ○ to switch off the transmitter.

4.5 Connecting microphone/earphone Putting the unit around your neck

- 1) Connect the earphone/microphone set supplied to the jack (3) of the transmitter. Put the earphone on your ear and align the microphone in such a way that it is close to your mouth.
- 2) Connect the earphone supplied to the jack (14) of the receiver and put it on your ear.

- 3) To put the transmitter/receiver around your neck, attach the neckband supplied to the clip on the rear side of the transmitter/receiver. As an alternative, use the clip to directly attach the transmitter/receiver to your belt or waistband.

5 Operation

- 1) To switch on the units, keep the button \odot (9, 19) pressed until the display is illuminated; to switch off, keep the button \odot pressed until OFF is shown on the display.

The LED status indicator (4, 15) on the transmitter flashes continuously. The LED status indicator on the receiver will only flash when the transmission channel of the receiver does not match the transmission channel of the transmitter or when the transmitter has been switched off. When the LED indicator lights up or flashes in red, the batteries are discharged and must be replaced (chapter 4.1).

- 2) According to the factory settings, the talk button ☺ (10) will light up in green and PTB will be shown on the left side of the display (a) when the transmitter is switched on. It is possible to talk. For a break, switch off the microphone by means of the talk button ☺ ; the button will light up in red. To continue talking, press the talk button ☺ again; the button will light up in green.

It is also possible to set the transmitter in such a way that the button ☺ must be kept pressed for talking or that the microphone will be switched off as long as the button ☺ is pressed (chapter 6).

- 3) On the receiver, use the small wheel (12) on the left to adjust the volume for the earphone.
- 4) To allow questions or comments by the group members, set the selector switch "s/m" (5) on the transmitter to the position "s". In the position "m", the talk buttons (20) of the receivers will not have any function.

The member who is the first to keep the talk button ☺ (20) pressed will be able to talk; the button will light up in green. The talk buttons of the other receivers will be locked and will not light up when

pressed. While talking, keep the integrated microphone (13) close to your mouth.

- 5) On the transmitter, use the buttons $\blacktriangle/\blacktriangledown$ (8) to adjust the volume for the earphone (indication: $\blacktriangle\times$, VOL 01–11).

Notes concerning the operating mode "Teaching"

1. The group leader and the assistant are provided with a transmitter each. Set the selector switch "s/m" (5) on the transmitter of the group leader to the position "m" (master) and on the transmitter of the assistant to the position "s" (slave).
2. All transmitters and receivers must be set to the mode "Teaching" (chapter 4.2) so that the rectangle (e) on the right side of the displays shows "T".
3. The group leader and the assistant can talk alternately as long as their talk buttons ☺ (10) light up in green. A member of the group can only talk when the assistant switches off his/her microphone by means of the talk button and the talk button lights up in red.

Notes concerning the operating mode "Discussing"

1. Each of the two members who are to talk freely is supplied with a transmitter.
2. All transmitters and receivers must be set to the mode "Discussing" (chapter 4.2) so that the rectangle (e) on the right side of the displays shows "D".
3. In contrast to the mode "Teaching", the members supplied with a receiver can only listen and are not able to ask questions.

5.1 Additional functions

When a group consisting of a transmitter and receivers has been created (chapter 4.4), additional functions are available.


Presence check

- 1) On the transmitter, briefly press the red call button (11): two numbers will be shown on the display; the large number indicates the number of the people present, the small number indicates the number of the group members. When both numbers


are the same, all members of the group are present with their receivers switched on.

- 2) To go back to the previous display indication, press the red button again.

Call signal, e.g. to ask the group to gather








- 1) On the transmitter, keep the red call button (11) pressed until CALLING... is shown on the display. To go back to the previous display indication, press the button again.
- 2) A call signal will sound at the corresponding receivers, the display will show GATHER, the talk button  (20) will flash in red and the receiver will vibrate for 30 seconds. To terminate the call signal, press the red reset button (21). If the call signal is not terminated, the receiver will automatically switch off after 20 minutes.

Warning signal on leaving the reception range




When a member of the group leaves the reception range, a warning signal will sound at the corresponding receiver, the talk button  (20) will flash in red and the display will show OUT OF RANGE. The warning will be terminated as soon as the member returns to the reception range or the red reset button (21) is pressed.

6 Additional Setting Options

The basic settings of the transmitter and the receiver can be changed as required. The units can also be easily reset to their factory settings.

- 1) Switch off the transmitter/receiver and then keep the button  (8, 18) and the button  (9, 19) pressed to switch it on again. On the display, the setting menu with the first menu item "Channel Lock" will be shown.
- 2) Use the button  or  change the setting and then use the button  to confirm: The setting selected will be underlined. If the setting is not to be changed, only press the button . The next menu item will be shown on the display.
- 3) When the final menu item is shown and the button  is pressed, the setting menu will be exited.

Setting options for the transmitter

Menu item	Setting
Channel Lock	<u>ON</u> , OFF
Talk: function of the talk button (10)	PTB (push to bolt) To switch between "Talk" and "Microphone off" PTT (push to talk) To talk, keep the button pressed PTM (push to mute) To mute, keep the button pressed
Mic. Gain: gain of the microphone signal	1, 2, <u>3</u> , 4, 5
RF Power: transmission power	<u>Low</u> (10 mW), Hi (20 mW)
Audio Priority: priority of the signal at the jack  (1)	<u>OFF</u> The signals of the microphone and at the jack  will be transmitted. <u>ON</u> Only the signal at the jack  will be transmitted (microphone off).

underlined = factory setting

Setting options for the receiver

Menu item	Setting
Channel Lock	<u>ON</u> , OFF
Auto Power Off: The receiver will automatically switch off after 20 minutes if it does not receive any signal from the transmitter.	<u>ON</u> , OFF
Auto Power On: The receiver will automatically switch on as soon as it is removed from the charger.	ON, <u>OFF</u>
Alarm: there will be a warning when the receiver is outside the reception range.	<u>ON</u> , OFF
Earphone Output: earphone level	<u>Regular</u> standard setting HAC level for hearing aids

underlined = factory setting

Reset to factory settings

The factory settings are underlined in the two previous tables. A reset to the factory settings will also set the transmission channel to 01 (823.5 MHz) and the operating mode to "Teaching".

- 1) Use the button \odot (9, 19) to switch off the transmitter/receiver.
- 2) Keep the buttons \blacktriangle and \blacktriangledown (8, 18) and the button \odot pressed until the unit is switched on again: The settings have been reset to their factory settings.
- 3) Set the transmission channel and the operating mode as desired.

7 Troubleshooting

No sound at the receiver

- Has the volume control (12) been turned up?
- Has the receiver been set to the transmission channel of the transmitter (chapter 4.3)?
- Is the mode shown on the receiver the same as the mode shown in the rectangle (e) on the right side of the display of the transmitter? Switch the receiver off and on again.

Talking via the receiver not possible

- In the mode "Guiding", the selector switch "s/m" (5) of the transmitter must be in the position "s".
- As long as a member of the group keeps the talk button M (20) pressed, the talk buttons of the other receivers are locked.
- In the mode "Teaching", a member can only talk when the assistant has switched off his/her microphone by means of the talk button.
- In the mode "Discussing", it is generally not possible to talk via a receiver.

Error messages on the transmitter

- \triangle NO DATA – No group has been created yet (chapter 4.4).
- \triangle NOT APPLICABLE – This function cannot be used. Set the selector switch "s/m" (5) to the position "m", if required.

8 Specifications

Radio frequency range

Transmission power (EIRP)

823–832 MHz: $\leq 10/20$ mW (Low/Hi)

863–865 MHz: ≤ 10 mW

Channels: see table below

Transmission range: . . . with the setting "Hi", up to 150 m in the open

Transmission type: digital

Audio frequency range: 300–4500 Hz

Power supply: 2 rechargeable or non-rechargeable batteries, size AA

Ambient temperature: 0–40 °C

Dimensions (W x H x D)

w/o antenna: 47 x 97 x 35 mm

Weight: 53 g

Connections: 3.5 mm jack

Channel configuration

CH	MHz	CH	MHz	CH	MHz	CH	MHz
01	823.500	11	863.500	21	823.250	31	828.250
02	864.500	12	824.000	22	823.750	32	828.750
03	831.500	13	825.000	23	824.250	33	829.250
04	824.500	14	826.000	24	824.750	34	829.750
05	825.500	15	827.000	25	825.250	35	830.250
06	826.500	16	828.000	26	825.750	36	830.750
07	827.500	17	829.000	27	826.250	37	831.250
08	828.500	18	830.000	28	826.750	38	831.750
09	829.500	19	831.000	29	827.250	39	863.250
10	830.500	20	864.000	30	827.750	40	863.750
						41	864.250
						42	864.750

Note: The channels printed in bold 02, 11, 20, 39–42 require no registration in EU and EFTA countries. Always observe chapter 1.1 when using the other channels.

Subject to technical modification.

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