

fmGenie Tx & Phonak MLxS Fast Track Guide



This **Fast Track Guide** takes you through the basic steps required to get an fmGenie transmitter working with a Phonak MLxS receiver.

The fmGenie transmitter is worn by the teacher/tutor and their voice is transmitted to the MLxS receiver which attaches to a direct input shoe and then to the user's own direct input hearing aid.

Part 1 fmGenie batteries

The fmGenie uses standard size AA batteries. Rechargeable batteries are the recommended option and, once fitted, are charged 'in situ' – just like a mobile phone.

Rechargeable batteries – nickel metal hydride (NiMH)

New rechargeable batteries require charging before use.

- 1 To fit the batteries, slide open the battery cover and insert as shown. The technique is a combination of 'squeeze, thumb and wiggle' – you won't break it and the firm fit stops the battery cover accidentally falling off.



- 2 Do NOT turn on the fmGenie.
- 3 Plug one lead from the twin tail charger into the socket marked 'Chg', rolling battery bars should be visible on the right of the status display.



The spare lead from the twin tail charger can be left dangling or neatly coiled and secured with a rubber band.

- 4 The equipment will be given an initial 4 hour charge – enough for a few days' use.
- 5 When display goes blank, fmGenie is ready for use.



After this initial charge, your fmGenie will automatically take either a full or top up charge as required.




Alkaline batteries

The fmGenie can also be used with alkaline AA batteries – which can be useful in an emergency – you could even borrow some from your TV remote controls!

The performance is the same whatever type of AA battery is used.

Part 2a fmGenie transmitter - connecting up and turning on

- 1 Connect either an aerial or lapel microphone into the fmGenie transmitter external microphone socket (Ext mic).
- 2 Turn on the transmitter by pressing and holding the ON/OFF button  until the display turns on and the alert indicator flashes.



Either with an aerial to use the internal mic ...

...or with a lapel mic

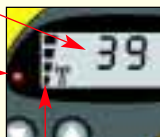
- 3 Set the channel number of the fmGenie transmitter to the channel used by your MLxS.

Remember that the H prefix MLxS channel number will differ from the fmGenie channel number - see next page.



Channel number

Alert indicator



Aerial bars

- 4 Check that there are 4 aerial bars on the left. (3 bars = normal range and 4 bars = long range). The transmitter should be set to long range for use with MLxS receivers - see page 11 to change.

Part 2b Setting the channels

European channel frequencies

All new fmGenies are now supplied on the 50KHz channel grid.

If your MLxS is channel no. H02 or H06 then do nothing except set your fmGenie to the correct channel:

MLxS on H02=fmGenie on 39. MLxS on H06=fmGenie on 63.

For use with any other MLxS channel numbers: you will need to adjust your fmGenie to the pre-2004 UK channel scheme by changing the under flash switch settings 1 & 2 to 'DOWN, DOWN' - then choose the appropriate fmGenie channel from the table opposite. See page 12 of this Fast Track.

As a multichannel device, the MLxS can be programmed to receive on any of the permitted fm channels, however we advise maintaining a channel separation of 5 channels to avoid the possibility of cross channel interference from a nearby transmitter. See page 7 of this Fast Track for more information on reprogramming.

The fmGenie transmitter and the MLxS receiver both have to use the same frequency channel.

MLxS channel number



- 1 Check the channel number shown on the side of your MLxS receiver and then set your fmGenie transmitter to the appropriate fmGenie channel.

It is the actual frequency that is being matched rather than the channel numbers.

Eg: MLxS channel H02 is using the frequency 173.400 MHz so it needs to be used with an fmGenie transmitter set to channel 01.

Frequency channel coding comparisons		
MHz	fmGenie	MLx
173.400	39/01	H02
174.120	11	H16
174.415	15	H20
174.600	63/17	H06
174.770	19	H08



- 2 To set the fmGenie transmitter default channel to match an MLxS, follow the instructions on page 11 of this Fast Track guide - *but you must choose the correct channel scheme first or you will get an E1 error message.*

An MLxS is a multi-frequency device which has a fixed default channel. The MLxS returns to this default channel when the hearing aid is turned off or the connection is broken - sometimes simply as the result of an intermittent shoe.

An fmGenie transmitter works well with MLx/MLxS receivers; however, unlike with Campus S, SmartLink or EasyLink transmitters, an fmGenie cannot re-sync the MLxS to a different channel.

For the majority of users this should not be a problem - a wallpilot can be used to change a group of MLxS users for sessions such as group assemblies.

If frequent channel changing is required for an MLxS then an fmGenie transmitter may not be the best choice!

 Pages 36 and 78 - fmGenie User Guide (2nd Edition)

Part 3 – MLxS configuration

The MLxS receiver module has two possible mounting orientations – crosswise and lengthwise.

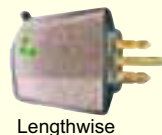
It is very important to have the correct orientation for your aid to optimise the performance of the internal antenna – otherwise you will unnecessarily limit the operating range.

For best sensitivity the MLxS should be set so that the Phonak logo is facing to the side and the switch moves from front to back.

An easy way to check the orientation is to simply fit the hearing aid and shoe together and then plug in the MLxS – another easy way is to note the orientation under the icon for your shoe in section 2 of the Connevans Catalogue!



Crosswise



Lengthwise



User's own hearing aid fitted to direct input shoe and MLxS receiver

MLxS switch moves from front to back

Does the switch move from front to back? If it does, then no adjustment is required; if it does not then it is necessary to re-orientate.

Orientation instructions are supplied with MLxS units and re-orientation can be easily carried out. Please read the Phonak instructions to avoid damaging the unit but, in essence, use your fingernails to gently pull out the collar about 1mm, twist the pins 90 degrees and push back the collar.



Connevans Catalogue – Section 2, Hearing Aid Direct Input Shoes

Battery power for the MLxS

As the MLxS receiver takes its power from the hearing aid battery it is very important that the battery is in good condition. A low battery will result in increased hiss and reduced range – the normal life of a hearing aid battery will be more than halved when used with an MLxS, if in doubt fit a new hearing aid battery.

Part 4 – MLxS operational features

The Phonak MicroLink™ receiver has one 3 position switch. This switch selects the two operating modes 'FM' (●), 'FM+M' (●●) and 'off' (○).



Select 'FM+M' (●●) when both FM input and environmental sound from the hearing aid microphone is required. This position allows both the hearing aid microphone and FM signal to be heard simultaneously at the same level. Variations between different makes of hearing aid may affect the balance of the two signals.



Select 'FM' (●) to reduce the pickup of ambient noise from around the hearing aid by 20dB.

For hearing aids where the microphone and audio input are decoupled – typical for hearing aids with dual microphones and some programmable instruments – the principal of microphone attenuation will not work. For these instruments the MLxS should always be set to 'FM' (●).



The MLxS takes its power from the hearing aid, typically 1.8mA, so the battery life of the aid is reduced by more than half. When switched to 'off' (○) position the MLxS goes into a low current sleeping mode drawing typically 40µA.

Note: It should be emphasised that different hearing aids (from different manufacturers) will respond differently – we are not aware that this is documented so you will need to confirm for yourself exactly how your hearing aid performs.

Wearing the MLxS receiver

The MLxS receiver fits to the hearing aid itself via a direct input shoe and therefore needs no leads or pouches.

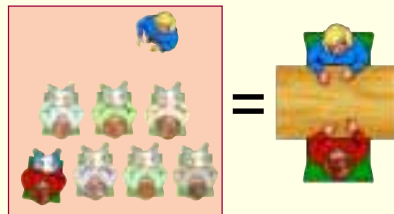
It is, however, fair to note the small size of the MLxS does mean that care must be taken not to lose it!



Part 5 – Testing for a listening advantage

In an ideal world, testing system performance would be done with the help of an audiologist who would follow our fmAdvantage procedure using a hearing aid test box (yes, you can test an MLxS fm system in a text box). However, it is also possible for a good listener to adequately test the system themselves.

The objective is very simply that the sound heard at a distance through the MLxS should be slightly louder than the sound heard from the hearing aid on its own at close range in a quiet room. This is known as the ‘fm listening advantage’.



- 1 Initially establish a satisfactory listening level with the hearing aid(s) alone, at arm’s length from somebody talking to you.
- 2 Turn on the fmGenie & MLxS system, give the transmitter to your helper and ask them to walk away whilst talking.
- 3 You should again listen to the hearing aids but this time through the MLxS receiver. Check that the transmitter volume is similar in quality but slightly louder than the original listening level at arm’s length.
- 4 Try the different switch positions on the MLxS to confirm how your particular hearing aid operates. Do not forget to listen and understand how the different switch positions affect the general room/own voice sound. Make sure that you and the system user both understand and are happy with how the system performs.



NOTE: If the sound from the transmitter via the MLxS does *not* have an fm listening advantage, re-programming of the MLxS will be required to increase the level from the MLxS. The ● and ●● can have different gain levels so please indicate the additional gain required for both settings when returning the unit for re-programming.

Pages 62-63 – User Guide (2nd Edition)

Programmable hearing aids – all digital and some analogue

The programming of a hearing aid will affect the way that an MLxS unit works. For instance, has a specific programme been chosen for use with fm? At the most basic level, if the direct input facility is not enabled or turned on at the hearing aid programming stage then the MLxS will not work!



Many digital hearing aids have more than one programme, is the direct input facility actually enabled in all of them?

The MLxS receiver can be reprogrammed to have a different output level and default channel. If your local service does not have a Phonak MLxS programmer, as a Connevens customer – please return the unit to the address on the original invoice and we will be pleased to reprogramme it for you.

Transmitter microphone muting (Default setting: enabled)

The microphone mute is a useful facility for making discreet aside comments without being overheard or for use when the tutor is talking to people other than the fmGenie user.

If there is no flashing △, a short press of the star function button will mute the transmitter microphone – as long as the facility has not been disabled.

If the feature is active the alert indicator and microphone mute symbol will flash (as a reminder that users cannot hear you). Another press of the button returns to normal.



Pages 35 & 82 – fmGenie User Guide (2nd Edition)

Further information

For day to day help, refer to the encapsulated cards – ‘Tutor Courtesy Card’ and ‘Morning & Evening Check List’.



For detailed information on all aspects of the fmGenie refer to the fmGenie Information Booklet & Operating Guide.




All this information is also available for you to download from our information website www.connevens.com

fmGenie transmitter and accessory options

Please refer to the Instruction Booklet for full information, however the following illustrations will give you a quick guide to some alternatives.

Using fmGenie Transmitter with integral microphone



Sound input

fmGenie Transmitter
Part No. FMG110


fmGenie aerial supplied with transmitter, fits into external microphone socket (Ext Mic)

Page 34 - fmGenie User Guide (2nd Ed.)

Lapel microphone

The microphone pack (Part no. FMG2136) contains 3 items; a microphone head, lead and lapel clip.


The microphone head plugs directly into the lead with a push on fitting.



- Black stub microphone head
Part No. FMG211
- Lapel clip for black stub mic head
Part No. FMG212
- fmGenie stub microphone lead
Part No. FMG21L600

Page 20 - fmGenie User Guide (2nd Edition)

Using fmGenie Transmitter with lapel microphone



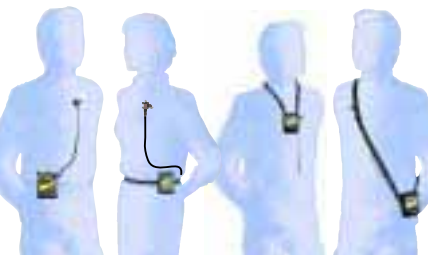
Sound input

fmGenie Transmitter with lapel mic

Page 28 - fmGenie User Guide (2nd Edition)


Wearing the fmGenie transmitter

Tx with pouch	Tx with pouch & modular waist harness	Tx with neck pouch	Tx with hip pouch
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Pages 22-25 - User Guide (2nd Ed.) and Connevens Catalogue - section 1

Using an fmGenie Transmitter with conference microphone



Tx and conference microphone in centre of table



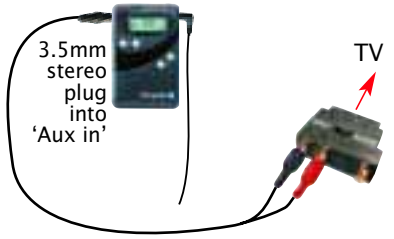
Conference mic plugged into receiver, presenter wearing transmitter



Pages 67-68 - fmGenie User Guide (2nd Edition)

Connecting an fmGenie transmitter to a TV

An fmGenie can be directly connected to a TV SCART socket




3.5mm stereo plug into 'Aux in'

SCART plug to phono sockets
Part Nos *A121BA* and *T114*

Connecting an fmGenie Tx or Rx to external equipment

A transmitter input adaptor allows you to connect an fmGenie Tx (or Rx) to other equipment such as hi-fi or computer



fmGenie transmitter stereo input adaptor
Part No. FMG81

External audio equipment plugs in here - see below

2.5mm plug into 'Ext mic'

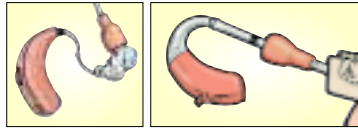
Pack of stereo audio leads
Part No. FMG81PK

Pages 64-66 - User Guide (2nd Ed.) and Connevens Catalogue sections 1 & 11

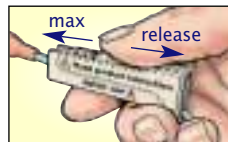
Stetoclip listener and variable attenuator



Stetoclip is used to listen to the hearing aid either through the earmould or direct to earhook.



Variable attenuator has a roller wheel to allow hearing aids to be listened to at a comfortable level.



Stetoclip listener and variable attenuator
Part No. 22880F

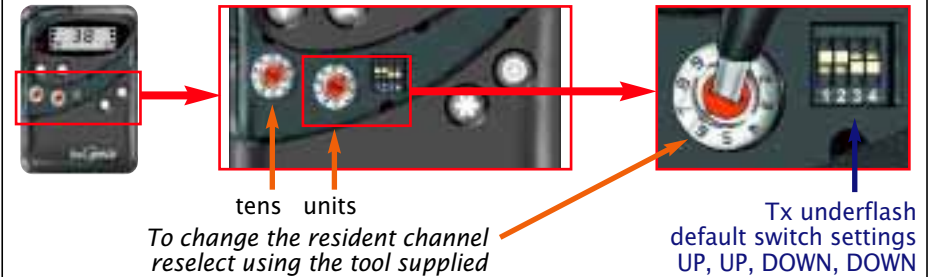
Pages 57-58 - fmGenie User Guide (2nd Edition) and Connevens Catalogue - section 1 fmGenie & section 6 for separate items and spares

fmGenie user facility settings

The fmGenie default settings can be easily changed - the 2nd edition of the fmGenie User Guide & Reference Manual has a lot of improved and clearer information including clear diagrams for activating or changing fmGenie features. Turn off fmGenie when making changes to settings.

Connevens tip: we advise using the bent out end of a paperclip to change switch settings; we can sell you a magnifying glass too, if you need one!

Default channel setting - transmitter



Normally the default channel should be set to match the users MLxS channel. Be relaxed about changing channel, if an invalid channel is chosen by mistake the display will show an 'E1' error message to alert you.

Channel settings: page 78 and Error messages: page 92 - fmGenie User Guide (2nd Edition)

Tips for maintaining radio system reliability

Don't scrunch or wind up your leads when not in use - they will break more quickly.



Don't remove shoes by pulling on the leads - unclip the shoe itself.



Daily testing should cover the overall system and include the hearing aids, shoes and leads.

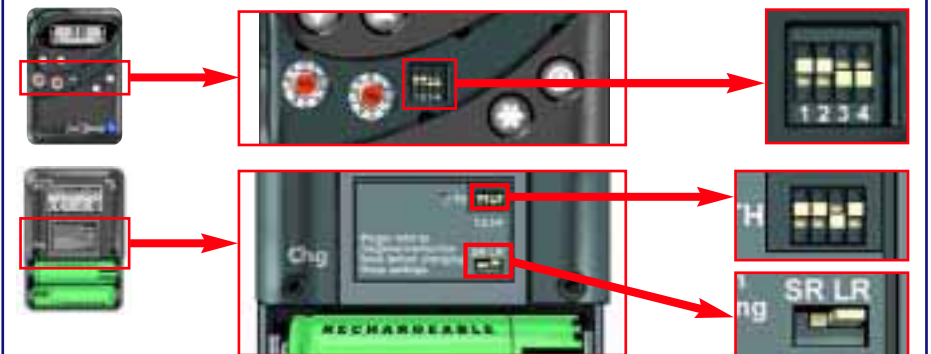
It is not necessary to change the HI/LO switch in the battery compartment during routine testing.



Save time by not unplugging leads more often than really necessary, leave them connected - this helps reliability too.

Phonak MLx/MLxS receivers & Cochlear implant processors - fmGenie transmitter settings

The fmGenie transmitter works well with Phonak MLxS receivers. The normal fmGenie transmitter features are available - but the Tx must be set to Long Range.



Pages 34-36 - fmGenie User Guide (2nd Edition)

Euro channel frequencies

From January 2004, all new radio aid equipment has to be supplied on the new 50KHz Euro channel frequencies.

ALL fmGenies ever made are able to use these frequencies, but from January 2004 all new fmGenies are supplied factory set to the new Euro frequency channels.

Older fmGenies can be reset to the new channels by setting the under flash switches 1 & 2 to UP/UP as shown.

New fmGenies being used in conjunction with MLxS receivers on channels other than 02 or 06 must be changed over to the 'traditional' frequencies.

To change to the 'traditional' frequency channels, set switches 1 & 2 to DOWN/DOWN.

It is important that you only use one set of channel frequencies on any site.

For more information see www.connevans.com/fmGenie



Switch 1 & 2:
UP, UP
= Euro channels
(MLxS 02 or 06)

DOWN, DOWN
= traditional
(all other
MLxS
channel
numbers)



CONNEVANS ON CD – the entire catalogue on CD plus lots of other useful information including Powerpoint presentations for fmGenie users.

Please ask Customer Services if you would like a free copy with your next order.



Order spares online at:
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