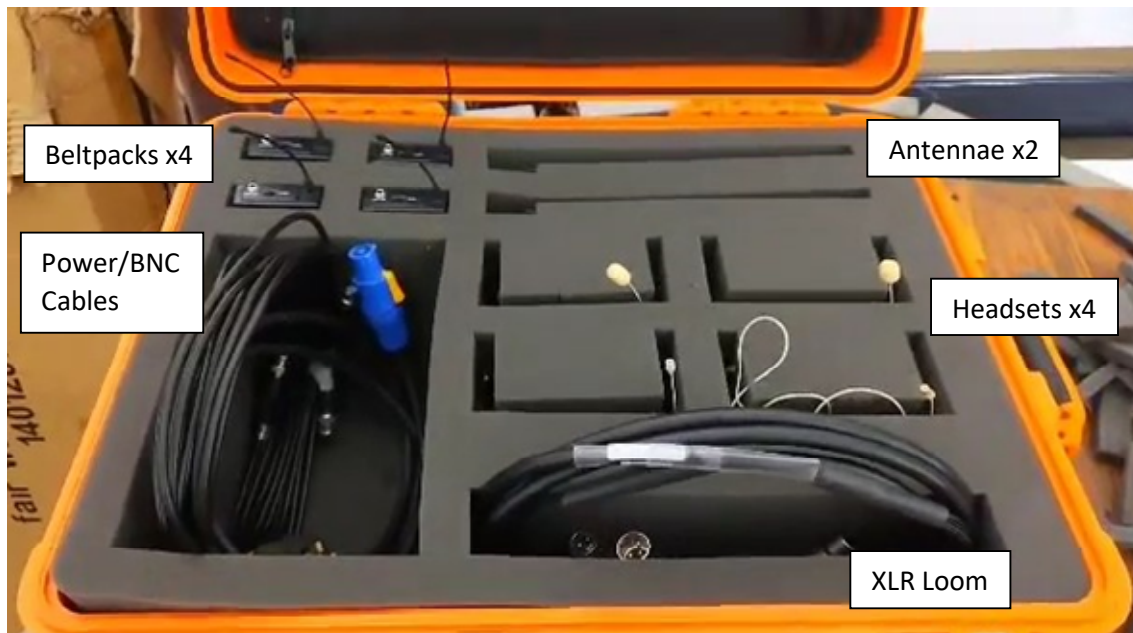


# 4-WAY SENNHEISER RADIO MIC SYSTEM



## INVENTORY

This system is supplied in two parts – a **receiver rack** and an **orange Peli case** which contains all the mic packs, headsets and accessories.



Item	Qty
4-Way Sennheiser Radio Mic System (Racked)	1
BNC Cable (5m)	2
Omnidirectional Antenna	2
Sennheiser G4 ew100 Beltpack	4
Headset Radio Mic	4
13A-Powercon cable	1
4-way short XLR loom	4

## INTRODUCTION

The OUTTS 4-way radio mic system is a Sennheiser G4 ew100 based radio mic package, containing all the parts needed to mic up 4 actors. It is a professional grade system with very high audio quality and is ideal for smaller musicals, conferences, and similar events. It may be used alongside other Sennheiser systems including our own 8-way system for more ambitious projects.

This system is a Channel 38 system (606.500 - 613.500 MHz). This is licensed on a shared non-protected basis by OFCOM. OUTTS holds a license for these frequencies and its use is included in the system hire fee.

This system is **not supplied with batteries or tapes**. You will have to source these yourself. Each pack will require two AA batteries per performance for best operation.

The radio mic system is extremely fragile. Therefore additional care is needed to ensure that these high-value items remain in good condition for all to enjoy. Failure to heed these instructions may result in refused hire, fines, or other actions as determined by the OUTTS Terms of Hire. **The radio microphones may only be hired and used by those who have received training from OUTTS.** A log will be kept of trained individuals. This includes sound designers, technicians, mixers, and A2s (mic fitters).

## DOS AND DON'TS

- DO NOT use this system without having first attended a radio mic workshop organised by OUTTS. If you are the Sound Designer of a show, this extends to any A2s you may have – second-hand knowledge is not good enough. We are happy to arrange workshops - contact [hires@outts.org](mailto:hires@outts.org).
- DO NOT change the frequencies or other front panel settings on the mic packs or receivers.
- DO NOT secure headsets using any tape other than transpore tape.
- DO NOT attempt to unscrew, extract or otherwise separate any of the components within the rack.
- DO NOT leave any part of the system outdoors when it is not in use.
- DO NOT allow performers to drink or eat anything other than bottled water when wearing a headset.
- DO NOT apply phantom power to any of the XLR outputs in this system.
- DO ensure you have the accompanying OFCOM license documentation before powering up this system. You must heed its conditions, and keep it with the system at all times.
- DO inform the OUTTS hires managers immediately of any damage or issues, in particular with headsets. We do anticipate normal wear and tear of headsets, within reason.
- DO ensure your system has spare capacity in the event of pack failure. For example, it is best practice to run this system with 3 performers + 1 spare pack.
- DO take measures to protect the packs from excess sweat or moisture, for example by using a sandwich bag or ziplock bag around the pack.

## CONNECTIONS



- AF 1-4: XLR line level audio outputs from each mic receiver. Connect these to your mixer with the included loom.
- RF IN A: Main antenna connection. Use a BNC cable to connect this to an antenna paddle.
- RF IN B: Backup antenna connection. Use a BNC cable to connect this to an antenna paddle. The system will automatically switch between antennae to get the best possible signal.
- RF OUT A: passes RF signals onwards – good if you need to share antennae with another system, but unnecessary in normal usage.
- Power: Power input to the system. This is a PowerCON socket, which can take power from the included 13A to PowerCON. Remember to twist-lock the cable in place.

The two antennae are not supplied with stands. Ideally they should be fitted to mic stands to raise them above crowds for better signal. Mic stands may be hired separately from OUTTS at a low rate.

## HEADSETS

New headsets are typically supplied in a cream colour – this may not be suitable for all members of your cast. Typical methods for temporarily colouring a headset are Pentel permanent markers (which produce rich colours but tend to wear off under sweat so may need reapplication). A more robust solution is dye or paint (e.g. Warhammer paint) which OUTTS can arrange. OUTTS aims to keep a stock of headsets that are dyed to various skin tones available and can prepare specific colours on request – please enquire.

## ALTERNATIVES TO HEADSETS

The belt packs can support lapel/lav mics or guitar jack adapters, as well as instrument mics like the DPA 4099 as long as they use a 3.5mm locking jack. Such alternatives are not included in this system, but we can advise on where to source them. Please consult OUTTS for advice before using anything other than the supplied headsets.

## BELTS

OUTTS has a small collection of home-made belts to carry the belt packs – please enquire. Depending on the costume design for your show, other methods of attaching a mic include mounting on bra straps, in trouser or jacket pockets.

## TRANSMITTER FREQUENCIES

The operating frequencies of this system are preset so as to not interfere with each other, and not overlap with the 8-way OUTTS radio mic system. This means that the two systems may be operated entirely within a Channel 38 license together for a total of 12 channels with no interference. The full list of these frequencies is as follows. These are based on the standard Sennheiser banks.

System	Channel	Frequency/MHz
4-way	1	609.325
	2	609.775
	3	610.475
	4	612.000
8-way	1	606.500
	2	607.375
	3	608.000
	4	611.000
	5	611.400
	6	613.275
	7*	606.875
	8*	608.425

\*on the 8-way system, the two wireless handheld (HH) mics share a frequency with the last two belt packs. These can therefore be substituted for belt packs if needed for a show, **however** the last two belt packs cannot be used at the same time as the handheld mics.