



## Audio-Technica 1800 series

Radio mics are a necessary evil in film and video sound acquisition and they probably cause more trouble than just about any other location audio device. They also tend to be expensive; dual channel versions especially so. **ROB JAMES** reports on a good solution that is surprisingly affordable.

With the UHF 1800 series Audio-Technica has introduced a complete range of components intended to cover most eventualities when used with video cameras. The range includes single and dual channel diversity receivers, a body pack transmitter and a plug-on transmitter.

These are packaged in a variety of kits. I had the ATW-1823 kit (UK£1173 + VAT) which includes an ATW-R1820 dual-channel diversity receiver, an ATW-T1801 UniPak body-pack transmitter, an ATW-T1802 plug-on transmitter and a lavalier microphone, mains power supply and accessories.

Although the receiver body is metal, the end caps and battery hatch are plastic. The latter is not attached, so that's one more thing to lose, and it's a bit flimsy. With half-a-dozen alkaline AA batteries the receiver weighs a not inconsiderable 610g so; although it is intended for on-camera mounting this is only really applicable to shoulder-mount full size cameras. A sturdy pouch with a belt clip is included along with a couple of strips of 3M Dual-lock (big Velcro). I would expect most recordists/cameramen to make more sophisticated arrangements of their own for on-camera mounting with third party holders.

Six AAs will power the unit for around six hours. External power is 12V and this will usually be available from the camera powering system. On the top of the unit two BNC sockets accept the two flexible antennae. Since this is a true diversity receiver with two RF sections per channel there are two indicator LEDs beside each antenna that light to show which tuner has the best reception for each channel. The LCD display is small and not especially legible even with the couple of green LED backlights that illuminate when in Set mode. When the receiver is in normal operation channel one frequency and battery status are displayed. Two Power/Peak LEDs indicate which channels are switched on and these

will extinguish momentarily if excessive peaks are detected. The slide Power Switch has four positions, Ext, Off, 1 and Both. Adjacent to this another slide switch determines which receiver is controlled by the setup keys. Hold, the centre position, is the normal operating mode. When 1 or 2 is selected then the relevant receiver channel is muted. An LED shows red when either channel is being adjusted and green in normal operation.

The menu system is simple and operated by two up and down arrow buttons and a Set losenge button. Frequencies can be selected manually or there is a handy Scan function that will find a vacant channel in any of the scan groups. There are up to nine of these depending on which band is applicable in your area. (Band F, 840MHz-865MHz in the case of the review system with up to 996 frequencies per band in 25kHz increments.) Pressing the Up or Down keys scans through the group upwards or downwards. When a suitable channel is located the scan stops and the frequency can be accepted by pressing Set until Stored appears in the display. If you don't want the initial frequency you can just press Up or Down again to locate another.

On the bottom of the receiver, the main channel outputs are TA3M (mini XLR male) and short TA3F to XLR convertor tails are included. Slide switches select Channel 1 or a Mix of 1&2 for Output A and 1, 2 or a Mix of 1&2 for Output B. Two small pots set the output level of each receiver. A 3.5mm jack provides a monitor output with a slide switch to choose Channel 1 or 2 on both ears or 'stereo' and a horizontal pot adjusts the level.

Once you get your head around the menu on the receiver you already know how to set the transmitters. The ATW-T1801 UniPak body-pack and ATW-T1802 plug-on transmitters both use two AA batteries for a life of around 6-8 hours depending on the batteries and whether the transmitter is set to

high or low output. The displays are the same as the receivers and the menu system is very similar but frequency obviously has to be set manually. Audio Input level can be set to -6dB, 0dB, +6dB (default) and +12dB. The plug-on also has a +18dB setting and the Belt pack has a choice of mic or hi-z instrument input. The Power/Mute key turns the transmitter on or off, with a press and hold, or mutes/unmutes the mic with a short press. The button can be locked in the menus for power switching, muting, both or none. An LED lights green when the transmitter is powered on and red when muted.

Both transmitters have sliding plastic covers over the controls. The XLR plug-on simply plugs into a standard mic with a locking collar for greater security. Phantom power is provided but only at 12V. The belt pack uses a 4-pin latching connector that looks like a Hirose type. A miniature lavalier mic is supplied along with a range of mounting clips and a lavalier cord. Audio-Technica offers a range of mics terminated with a suitable plug and also a convertor terminated with an XLR as optional extras. While the belt pack is as light as a feather the plug-on is a chunky beast.

There is a downside to feeding four receivers from the same pair of antennae — range. Although the claimed range on full power is 100m I had trouble achieving this even in clear air. Put a wall or two in between transmitter and receiver and the safe range drops to more like 10m. The monitor out jack, although useful for setting up, is noisy even in the absence of signal and regardless of the level of the monitor volume control. Fortunately things are much better at the main signal outputs and when fed into my Sound Devices mixer the ATW-R1820 is no noisier subjectively than other units at the same price point.

Two-channel radio is becoming an increasingly common requirement and dual channel units are highly desirable to reduce the clutter and complexity associated with using two separate units. The 1800 series dual channel receiver has few rivals at anything close to the price and the packages are comprehensive and well worth auditioning. ■

### PROS

Twin channel receivers are rare in this price bracket; easy to operate; comprehensive packages.

### CONS

Range not as good as single units; monitor output a bit noisy; a bit too much plastic.

### EXTRAS



Audio-Technica has extended its Lifetime Warranty — previously only offered on its 40 Series studio microphones — to the Artist Elite and Artist Series live-oriented microphones. The free-of-charge warranty (the longest offered by any microphone manufacturer) covers all wired Artist Elite and Artist Series models purchased from authorised Audio-Technica resellers and registered on-line.

### Contact

**AUDIO-TECHNICA, JAPAN:**  
Website: [www.audio-technica.com](http://www.audio-technica.com)