

# AV Units and All That

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This article was originally planned to be Part 4 of *Connecting AV Units* but some of the feedback from Parts 1-3 falls outside that theme. So if readers will bear with us, we'll finish off the series firstly by clearing up the remaining connections issues and then deal with the other matters under the broader heading.

### Connecting AV units

In Part 1, we started with a straightforward combination of a digibox, VCR and TV. This arrangement is usually covered in the various user-guides but, in our view, their pictorial representations are not easily deciphered, hence our preferred, alternative use of the block diagrams shown in Parts 1-3.

Additionally, user-guides tend to gloss over the niceties of making SCART connections, opting at times to take the low-quality path of using RF coaxial cables. Nor do they deal adequately with configuring the system to use the highest quality video afforded by the RGB link. So we hope the extra detail given in Part 1 will assist.

An LwT reader pointed out that, on his system, the SCART lead linking the VCR (AV1) to the TV (AV2) is unnecessary as tapes can be replayed via the alternative route from the VCR (AV2) to the digibox (labelled VCR) and thence to the TV (AV1). Setting the VCR to **Play** puts a priority switching signal onto pin 8 of the SCART socket, giving the VCR output precedence over the digibox signal.

In other words, he is able to use a simple 'daisy chain' of units consisting of the VCR, digibox and TV. This is good news for him, saving on the cost of the second SCART lead and simplifying the rat's nest of cables.

However, when we tried this arrangement on our various domestic systems, it didn't always work, the reason almost certainly being due to

subtle differences in priority switching signals. However, it always worked if the digibox is switched **Off**.

So there's Lesson No. 1 for us all: Don't feel you have to slavishly follow the connection diagrams shown in the user guide(s). In our experience, these will not necessarily depict the optimum configuration and indeed, on occasion, have been known to be in error.

Don't hesitate to try a different arrangement which you feel might better suit your requirements. If it works, that's fine. If it doesn't, try to work out why not; for example, does it work if a unit not in use is switched **Off** rather than left at **Standby**?

A further point is that, for this reader's findings to work, the digibox must have two SCART sockets. Not all of the current crop do. Similarly, not all TV sets have two SCART sockets.

But that wouldn't necessarily deny the three units being interconnected. In this situation, the daisy-chain could simply be re-arranged with the digibox at one end, the VCR in the middle and the TV at the other end. That is made possible because the majority of VCRs have two SCART sockets, which are 'linked-through' when the VCR is switched **Off**. Indeed, if you are not simultaneously watching *and* recording the digibox programme, it may be necessary to switch the VCR to **Off** to allow the digibox signal to be linked through to the TV.

In Parts 2 and 3, we looked at increasingly complex arrangements, firstly by adding a single-SCART DVD player (Part 2, p2) and then going the whole hog with a DVD recorder (Part 3, p1). Although the latter complicates the issue by requiring cable links for both *Play and Record*, this proves to be a straightforward exercise thanks to having two SCART sockets.

Lesson No. 2: Having two SCART sockets on a unit is invariably better than just one.

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We also noted the inherent flexibility of the arrangement in that the VCR could simply be moved across to form part of a single daisy-chain, with RGB signals being linked-through when the VCR is **Off**. This also frees up SCART sockets for the direct link from the digibox (VCR) to the TV (AV2), for use when the DVD recorder and VCR are busy dubbing.

Lesson No. 3: This flexibility may well result in there being more than one way of cabling up the AV units to achieve the results you require; but one may prove to be better than another.

A couple of readers came back with even more complex arrangements, adding surround sound units and, in one case, a Playstation! Can you just imagine the rat's nest at the back of that lot?

Two other readers mentioned that their DVD recorders each had a *digital* audio output connector (one optical, the other coax) to connect to their 'home cinema' units, in addition to the conventional analogue phono (RCA) sockets.

### **Planning and ...**

To summarise the whole question of connecting up a number of AV units, we suggest you start with a blank sheet of paper and the relevant user-guide connection pages to hand.

Firstly, decide whether one or more units will necessarily be placed at the end of a daisy-chain through having only one SCART socket, then position the remaining units at intermediate points in block diagram fashion.

Draw in and label the various sockets on each unit and determine if they are **IN**, **OUT** or **IN/OUT** – noting that, invariably, they are never captioned as such on the units.

Digibox SCART VCR/TV sockets are usually wired for RGB **IN** and **OUT** respectively, but this needs to be confirmed by reference to the user guide.

On other units, RGB **IN** is more often than not marked **AV2**, and **OUT** is **AV1**, but this should be

double-checked. Composite video and stereo audio are *bi*-directional in a SCART cable/socket.

Draw in the inter-unit connections and, we suggest, show the signal format (RGB, S-video, composite video, RF link or audio) and – if not bi-directional – its flow direction. Don't be afraid to draft different combinations to achieve the same ends (*q.v.* Lesson 3).

### **... execution**

Now to try out the plan. For preference, use the highest-quality cables you can afford and do *firmly* fix labels at each end, marked to show where the plugs should be fitted, e.g. **VCR/AV1** and **TV/AV2**. For round SCART cables, looping sticky labels around the cable itself helps to ensure they don't come adrift (Lesson No. 4...).

We recommend you start by interconnecting just the TV and another unit which form the ends of a daisy-chain. Once they're up and running, insert a third unit into the chain and thoroughly test out the result. Does it work as expected? If not:

- Have you got the SCART cables plugged into the right sockets?
- Are you selecting the right **AV** inputs?
- Does the intermediate unit 'take over' as expected? (Through priority switching.)
- Does the first unit work if you switch the intermediate unit to **Standby** or **Off**? (A common requirement.)
- Have you configured the unit(s) correctly for RGB, through the menu systems?
- Any loss of sound or colour problems? (Beware SCART plugs coming partially adrift.)

If further units are involved, insert one at a time and repeat the procedure. If you hit new problems, don't hesitate to try out different arrangements; sometimes a priority switching oddity can be resolved simply by swapping over two units (*q.v.* Lesson 3).

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Finally, connect up feeds to external units such as the audio link to a hi-fi. Do they work as expected? Do you have to have the 'host' unit switched **On** or are the signals linked through even if the unit is **Off** or **Standby**?

A non-essential policy but one we strongly recommend, is: Once you've got everything running as you want, go back to the plan and amend it as necessary to reflect the final working arrangement. This is an insurance against the day when you disconnect everything – e.g. for a house-move or just shifting furniture – and then find you've forgotten how it was all connected up (Lesson No. 5...).

### **What to buy?**

Quite a lot of the feedback centred on what units do we recommend? While we couldn't advocate particular items (what suits one may not suit another), from a connections point of view a number of general considerations came up:

– When buying a new unit, do try to budget for one which has two SCART sockets. Having only one can often be restrictive and limit flexibility in possible arrangements (*q.v.* Lesson 2).

– On the question of compatibility, don't feel you have to stick to buying units from the same manufacturer. Indeed, two units with the same logo/badge might well have been designed and manufactured in different hemispheres! In practice the only difficulties are likely to be subtle problems with priority switching signals and, as discussed above, invariably there are ways round this.

– Combined units such as a VCR and DVD player in one box are now available and, in our view, are well worth considering. They are good value, compatibility problems are minimised, they require only one set of IN/OUT cables instead of two and solve the problem of most DVD players having only one SCART socket. Against that is the usual debate of combined or separate units; you lose one, you lose the lot.

### **VCR and/or DVD player?**

Perhaps inevitably, some of the feedback raised the topic of whether it was worthwhile getting a DVD player to supplement or replace an existing VCR?

In effect, this is the same question for video that applied to audio some years back. The poser then was whether a digital CD would ever replace the analogue compact cassette? The answer of course is that, to a very great extent, it already has (and no, we're not going to fall into the trap of discussing the merits of vinyl disc!)

Having listened to CDs, we really wouldn't wish to revert to listening to cassette or record. By the same token, viewing DVDs arguably can make watching a video tape a down-market experience. So for our money, DVD players are here to stay; reportedly there are 9m in the UK [2003]. Buy one and enjoy (*but* be aware that a commercially-recorded DVD is much more expensive than the same content on video tape).

An obvious point must still be made that DVD *players* do not record and therefore do not replace VCRs (in the same way that CD players do not replace compact cassette tape recorders). So they both have their place under the TV or on the shelf, and we've already looked at the necessary connections and configuration in detail (Part 2).

### **DVD recorder?**

The thrust of more than one enquiry was whether we were seriously suggesting spending up to £500 on a DVD recorder – let alone £700 or more on the Panasonic big-boy DMR-HS2? [2003 RRP's! *Since then, prices have roughly halved while, in the same period, capabilities have improved markedly.*]

Again, we believe hindsight will support us. Who would have thought, even a few years ago, that DVD/CD burners would today be almost a standard fit in PCs and cost sub-£50 as an upgrade?

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In other words, DVD players have arrived. DVD recorders are definitely coming, of that there can be little doubt – but you might wish to wait a year or three for prices to fall. *[Well, the three years have gone by and prices have halved – so why aren't you buying one?]*

In other than financial terms, are they worth it? This is back to the subjective question of replay quality. DIY recordings from a digital signal source such as a digibox are, in our view, of considerably higher quality than from a standard VCR or even an S-VHS unit.

Plus of course recorders will replay commercially-recorded DVDs, CDs, MP3s, etc, and even JPEG images. For our money, it is simply a matter of justifying the extra cost against significantly increased enjoyment.

Does a DVD recorder replace the VCR? The simple answer is it certainly can do. But life isn't so simple; Sod's Law being what it is, that digital Freeview programme is *bound* to clash with a terrestrial/analogue TV offering, so why not record both (the latter on the VCR)?

What about other digital recorders such as the Sky+ or Pace Twin units? These certainly have their place and are ideal for time-shifting digital TV programmes but, should you wish to keep a programme (archiving), it needs to be dubbed either to a VCR or, if you wish to retain the digital quality, to a DVD recorder.

This again is very much a subjective decision. Presently *[2003 again ...]* your contributor Richard W is happy with a Pace Twin digibox/recorder for viewing one (digital) programme and time-shifting another, with an (analogue) VCR for archiving.

Your other contributors T.O.M.S. are equally happy with a digibox and a DVD recorder, the latter for time-shifting and/or (digital) archiving. It really is a personal choice.

*[2006 – and no changes to that general view. It seems we all got it right first time.]*

### **Cost of ownership**

In addition to the capital cost of a DVD recorder, there is the cost of consumables to consider; i.e. the discs. All commercial DVDs and blank discs in the various formats are more expensive than video tapes and this may well colour the purchase decision *[although by 2006 the gap has narrowed considerably]*.

For purely time-shifting, re-writable discs are ideal but are more expensive, while the price of write-once discs is falling rapidly. But think twice before putting your favourite programmes onto the cheapest, unbranded, DVDs now available in a 'cake'. In our experience, they're great for storing data but do tend to suffer 'dropouts' when used for video-DVD, especially if long play (LP) is selected. We've never had dropouts with the well-known brands such as Packard Bell, TDK and Verbatim.

Provided you are sold on the principle of DVD, producing your own discs – at a small fraction of the price of commercial offerings – can soon justify the capital cost of a consumer recorder against a much cheaper player.

### **Caveat emptor ...**

Do be aware there's a practical downside to having a DVD recorder. As soon as relations and friends with a DVD player find out, they will undoubtedly be at your door with a "Would you mind just recording so-and-so and putting it onto this disc for me?" Don't say we didn't warn you...

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