



Replacement radio amplifier

Julian Drew needed a replacement for his faulty amplifier and placed a wanted advert on the V8 Spares for Sale webpage on the V8 Website. Here he reports how he made the replacement.

I had recently changed my RV8 for a UK model over the Christmas period and like many RV8s I have seen, the original radio unit had been replaced with a non-genuine alternative. Fortunately the previous owner had retained the original unit and my initial thoughts were of re-fitting this as I am quite happy for just a radio as I quite like the original look. However, on investigation the replacement head unit had quite a few nifty features like Bluetooth telephone, music streaming and the option for a media card to be used for digital music reproduction. Furthermore, my son (12) insisted these features were a necessity! After a time I got quite used to it and found the unit did not look too out of place.

There was one issue and that was the rear most bulkhead large speakers were not working. These rear-most speakers are powered through a small amplifier (sub-woofer) which is housed behind the boot bulkhead rear panel. This amplifier is also not driven in the conventional way for modern head units (through RCA connections with the Red & White push on connectors) and the RV8 set up had a particular harness and connection arrangement that allowed the genuine head units to connect to the amplifier in a rather bespoke way. This also differed across the Japanese and UK spec RV8s, where of course different brand head units were used.

On my previous RV8 I had a similar issue and found adapting a small RCA lead harness was a solution to have the amplifier operating from the radio pre outs (Red & White connections on the rear of the radio) and something I thought I would repeat again on this RV8. Sadly, this was not going to be possible, as on testing I had found the amplifier in the boot had an internal fault, an open circuit on the supply.

Replacement options and finding a suitable amplifier

The options at the time were to have the unit repaired, (as new units are no longer available) - this was a thought but most repairers quoted in excess of £150 - £180 plus postage etc I felt was a little excessive which then led to my posting a "wanted" request on the V8 Spares for Sale & Wanted webpage on the V8 Website.

I started to trawl the internet for alternatives, however the majority of amplifiers on the market are rather large units really developed for significant in-car entertainment systems requiring large dedicated power supplies and this was not what I wanted to achieve. I essentially wanted a low power small solution that would

fit in a similar manor to the original unit, enabling the system to be used as originally intended.

Research had led me to a small **Kenwood Amp (KAC-1814)** which looked a suitable sized replacement and furthermore, could be powered by the existing vehicle supply, therefore utilising the original wiring harness without the need for additional unsightly power supplies.

I found a company in London called "**Dynamic Sounds**" who had stock and were able to confirm its suitability for my application. The unit itself will fit quite conveniently where the old unit resided and can use one of the original amplifier's screw fixings along with one of the speaker fixing points. Albeit this leaves the amplifier at an angle, but this is only a cosmetic issue and will not impair performance as the amplifier does not require any particular fitting position. This does also avoid the need for any drilling or adapting to enable a suitable fixing retainer.

Electrical installation

For my electrical installation, I retained the fused power supply which powered the original amplifier and enabled a trigger feed from the head unit adapting the original facia radio harness by removing the small PCB (printed circuit board, about 100mm up the harness from the radio ISO plugs) and utilising the light green wire (which was the original trigger supply) to take the replacement head units trigger supply to the rear. Most replacement head units use the ISO connectors, the grey and tan coloured plugs which we already have, but without the trigger supply pin fitted in the plug. I was able to add an additional pin to the grey plug that allowed connection to the new radio head unit trigger supply (normally detailed within your radio wiring details but is often the pin next to the radio supply pin). Our ISO connectors on the RV8 do not have a pin allocated to this position, but you can quite simply purchase the ISO block connector pins (female) from the internet, then solder it to your trigger wire (light green vehicle harness) then simply plug the pin into the back of the block connector.



Image 1: Standard IOS plugs Grey and Tan, with additional amp trigger wire fitted to grey plug next to green power supply, additional Red and White RCA (Radio Corporation of America plugs) that will connect directly to the amp

You can see in the photo above I have used a red and black wire as the additional pin in the ISO connector which I already had, then soldered this to the vehicle harness light green wire. This then gives you the supply and trigger to the amplifier - for the earth use

the existing earth point connection from the original amplifier. You will need to also run an RCA cable (red and white plugs) from the radio unit to the rear, this will then plug directly into the new amplifier. Again, available from the internet, 3 meter in length RCA connections at both ends required, I got one with right angled plugs for the amplifier end. I ran this under the centre consul following the vehicle harness all the way to the rear panel and then gained access to the boot via a small hole just behind the seat belt fixing.

Finally the rear speakers need connecting

On this amplifier there is provision for four speakers, of course I only wanted the two rear-most connected, so I terminated the two additional connections from the amplifier. The instructions within the amplifier are quite supportive of a number of options and this set up in the RV8 is quite a conventional and simple method. I did remove the factory harness plugs from the vehicle and soldered in each connection and then applied loom tape, so it presented a more genuine look about it once complete. Once operational you do also have a few setting options within the amplifier via switches to enable low and high pass filtering along with high and low filter adjustments if you so wished.

So, all in all it ended up being £90 for the repair and upgrade. I am always conscious of anything that is not as the original installation, but happy here it's all hidden away and can't be noticed. The other benefit is quite a positive difference in audio quality; however, you still can't beat the V8 soundtrack!



Image 2: Detailing adjustment to vehicle loom and new Kenwood amplifier plug now incorporated into harness



Image 3: You can see here I have removed the original vehicle plugs for the speaker connections and amp connections and soldered the Kenwood supplied loom to the two speaker outputs (orange & yellow wires), the fused power which is already in the boot (dark green) the amp trigger which is coming from the radio ISO plug (light green) as detailed in image 1 and finally the earth black wire, to the original harness that resides in the boot

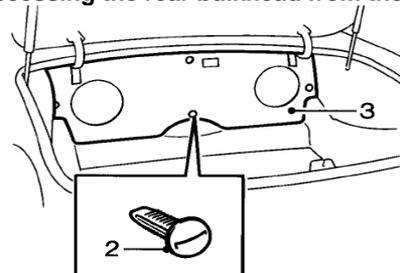


Image 4: Boot wire harness now complete with loom tape applied



Image 5: Kenwood amp fitted in place of original amplifier using one speaker fixing and one original amp fixing, loom/harness now tucked behind central pillar, Red & White RCA plugs coming up from the carpet to connect to the amp via the small hole that exists within the rear panel towards the bottom left.

Accessing the rear bulkhead from the boot



Turn the 4 studs (2) 90 degrees and release from the retainers. Remove the carpet from the rear bulkhead (3). Position carpet on the rear bulkhead and engage the 4 studs.