

ASR Electronics
Blaupunkt - Holden sound system modification
Price List

The Output kit provides 4 channel low-level (RCA) outputs for external amplification.

The results are far superior to LOCs (Line Output Converters - also called "high-to-low" converters), as the signal is picked up inside the unit prior to the power amplifier stages. The four individual channels are fed through a buffer circuit to prevent loading effects and for protection of the head unit circuitry. A "remote" output is also provided for external amplifier power control. Internal operation of the head unit remains completely unaffected, standard speaker outputs can be restored at any time without problems.

The Input kit allows playback of a portable device through the car audio system.

A 3.5mm socket (such as is the headphone socket in most portable devices) and an activation switch are mounted externally to the unit, inside the console bin is a good location which remains invisible for the most part. The portable device (MP3 player for example) is connected to this socket with a short patch lead, and when the button is pressed the sound system switches over from the current source (radio or CD player) and the signal from the portable device is injected. There is no need to play specially prepared "blank track CDs" or any such fiddling, just plug it in and press the button. The function of the telephone audio and muting inputs is also retained, so if a hands-free phone kit is integrated into the sound system this still functions normally.

The Combo kit provides both the above modifications.

Both the output buffer and input switching PCBs are supplied.

Special features of ASR kits.

The connector: The Blaupunkt system is designed to slide into a "cradle", with captive connectors. This avoids having to access the rear to pull the plugs before removal. In order to maintain this methodology, the kit contains a specially crafted connector assembly which mounts to the head unit and cradle in a similar way. The connections run out from the rear of the cradle on short figure 8 shielded cables for the output signals (to be extended with the usual RCA cables to the amplifier inputs), and a 1 metre long cable for the Auxiliary input socket and switch where applicable. This wiring remains in the car if the unit needs to be removed, hence much less messing around.

The components: Close tolerance and high quality components used throughout. The PCBs are hand assembled, inspected, then tested for functionality.

The design philosophy: The entire aim of the project was to not detract from the stock appearance or operation in any way. Once installed and the unit re-fitted to the car, there is not a single sign. All additional wiring is hidden and integrated much as is the case with the existing harness, and not "hanging out" of the unit potentially creating problems later. The internal power amplifiers are unaffected - the standard wiring can be restored to the door speakers, or the mod can be fitted but not immediately connected to an amp - it's up to you.

A slight disadvantage: (Low-level output installation)

During operation there has been one small disadvantage which has come to light. This condition only occurs if the starter is cranked while the head unit - and hence the external amplifier - is powered up. For example, running on the "Acc" key position, or using the "On" button override. When the starter is first engaged, a negative going voltage "spike" is essentially delivered to the entire electrical system, which can cause a substantial "thump" through the speakers. Note that this also seems amplifier dependent - some amps do it, others don't. Much design / prototyping time was put into eliminating this phenomenon and whilst some improvement was made, it could not be completely removed. However, it only occurs under this condition - during a normal startup, the key is turned too quickly through the "Acc" and "Ign" positions to allow the unit to complete power-up, and so the problem does not occur. The simple solution if this occurs in your situation is to ensure the system is powered down before cranking the starter. Additionally, only some amplifiers seem to be affected. The insertion of a delay circuit in the remote line has been known to cure this problem, as has ground isolation between signal inputs in multi-amp systems.

Refer to the pricing matrix below. Note that prices are in Australian dollars, and partial install/full install services are NOT available outside Australia. Appropriate instructions are included with the kits for those installing themselves, based around an 18 page illustrated guide.

A bare PCB set provides **blank PCBs** which require assembly, although all connectors, components, and cables are supplied. Additional instructions are included for the PCB overlay and parts list.

The Assembled/tested kit requires reasonable electronic soldering skills to install successfully. All assembly work is done, including the external cable assembly. Full colour illustrated install instructions are supplied.

The Partial installation is aimed at those not local to the Sydney area. The head unit and cradle must be removed from the car and shipped, the mod is performed and the unit return shipped the following day. For input mods, the 3.5mm socket and push-button switch must be mounted to complete the install.

Full installation is exactly that. All disassembly, removal, modding, and re-fitting is done. The RCA cables will need to be extended to where the amp(s) is/are located, otherwise it's ready-to-run.

	Bare PCB set + components & cables	Assembled/tested Ready to install	Partial install (no removal/refitting)	Full installation
Combo kit	\$105.00	\$170.00	\$200.00	\$215.00
Output only	\$70.00	\$110.00	\$130.00	\$140.00
Input only	\$65.00	\$100.00	\$125.00	\$135.00

STOP PRESS: The push button supplied with the input kit is a generic type, and some might feel it doesn't blend in quite right. A Holden "blackout switch" can be used in its place, but incurs additional cost. The switch cap is illuminated, and is modified to read "AUX" rather than the icon of the dome light, and a spot LED fitted in one corner as an "active" indicator. Cabling is also attached to simplify installation. Additional cost is AU\$35.00 and does not include additional trim panels which may be required.

Note: The prices above include GST but do NOT include shipping/postage costs. As a guide, Express Parcel within Australia (overnight delivery) will add \$10.00 - For international postage rates please contact ASR.

Additional: For PayPal payments, please add 3.5% to the total. That's what they take from me.....