Special features:

Pure Class GD amplifier technology

Audiotec Fischers proprietary Pure Class GD concept takes the efficiency of conventional Class D amps to the next level. By varying the internal supply voltage depending on the amplifier's input signals, idle losses are significantly reduced and overall efficiency is close to maximum at any time.
So heat dissipation is almost negligible thus allowing smallest heat sinks and most compact form factors. Besides that Pure Class GD amp outperforms conventional Class D designs in terms of sound quality by implementing a fully differential signal path and improved output filter design.

ACO – Advanced 32 Bit CoProcessor

The HELIX V TWELVE DSP incorporates an extraordinary powerful 32 Bit CoProcessor of the latest generation for all monitoring and communication tasks, both internally and externally. In opposite to the 8 Bit predecessor generation this MCU achieves way higher speeds with respect to setup switching and data communication with our DSP PC-Tool software. A further significant advantage is the integrated, native boot loader of the CoProcessor.
It allows software upgrades of all components of the integrated DSP in order to adjust the microcontroller-controlled ADEP.3 circuit for example to future requirements of the diagnostic system of factory radios or if the device will be extended with additional interfaces. In addition, thanks to the new flash memory, the ACO offers 10 memory locations for sound setups instead of the common two.

Smart highlevel input ADEP.3

Modern, factory-installed car radios incorporate sophisticated possibilities of diagnosing the connected speakers. In particular the latest generation of car radios are equipped with additional monitoring functions so that failure messages and loss of specific features (e.g. fader function) quite often appear if an amplifier will be hooked up – but not with the V TWELVE DSP.
The new ADEP.3 circuit (Advanced Diagnostics Error Protection, 3rd Generation) avoids all these problems without loading the speaker outputs of the OE radio during high volumes unnecessarily.

Start-Stop capability

The switched power supply of the HELIX V TWELVE DSP assures a constant internal supply voltage even if the battery's voltage drops to 6 Volts during engine crank.

Power Save Mode

The Power Save Mode is incorporated in the basic setup. It allows to significantly reduce the power consumption of the amplifiers that are connected to the HELIX V TWELVE DSP once there's no input signal present for more than 60 seconds. Please note that in many up-to-date cars with "CAN" or any other internal bus structures it may happen that the radio

remains “invisibly” turned on for up to 45 min. even after locking and leaving the car! Once the “Power Save Mode“ is active the remote output and therefore the connected amplifiers will be turned off.
The V TWELVE DSP will reactivate the remote output within a second if a music signal is applied. It is possible to either modify the turn-off time of 60 sec. or completely deactivate the “Power Save Mode” via the DSP PC-Tool software.

DSP features

RealCenter

The “RealCenter” feature is an algorithm, developed by Audiotec Fischer, that emphasizes the music information which is present in both the left and right front channel to create an unique center signal. In contrast to common procedures, in which only the channels are summed up, the intensity of the center signal is also dynamically controlled by the stereophonic informational content of the left and right channel.
Sounds complicated but this effect is astonishing: That means if solely the left or right channel delivers an audio signal, the center channel will not reproduce a signal. In the case of common algorithms, the volume level of the center channel is only reduced by 6 dB (= half volume level). Audiotec Fischer’s “RealCenter” allows a unique, broadened sound staging for both driver and co-driver at the same time! Therefore, the disadvantages of a conventional center channel, such as an intrusive, small sound stage, are things of the past.

Augmented Bass Processing

Audiotec Fischer’s proprietary “Augmented Bass Processing”, consisting of the two revolutionary sound features “Dynamic Bass Enhancement” and “SubXpander”, has been especially developed to dramatically improve the bass reproduction of subwoofers.
The “Dynamic Bass Enhancement” ingeniously combines maximum deep bass and highest sound pressure – regardless of the music style or the tone controls in the head unit. Depending on the input signal, the “Dynamic Bass Enhancement” gains the lower frequency range and varies the cut-off frequency of the subsonic filter. The result is a significantly more powerful and deeper bass response at low and medium volume levels without the risk of overloading the subwoofer neither mechanically nor electrically at high volume levels. It is simply fascinating which bass performance is suddenly possible.
If you want an even lower and “darker” bass reproduction, the “SubXpander” can be additionally activated. Therefore, subharmonic tones are added to the fundamental tones in the frequency range between 50 and 100 Hz.

StageXpander

Depending on the speaker arrangement in the vehicle, a more or less wide stereo sound stage can be created on the front seats. A center speaker may limit the spatial reproduction of the music additionally. This is where Audiotec Fischer’s new “StageXpander” comes into

play – a sound feature which seems to break the acoustic limitations and thus allows to create a way broader stereo base without negatively affecting the precision of the localization of voices or instruments!
The effect can be adjusted according to your personal preferences in four steps.

ClarityXpander

You are looking for more transparency and substance in the treble reproduction? With the “ClarityXpander” Audiotec Fischer is now offering the right tool. Properly adjusted (and therefore selectable in three steps) the feature adds additional harmonics in the upper frequency range – this is especially useful if the original speakers lack some brilliance in the treble response. The extra treble-kick is not only available for the two front channels but also separately adjustable for the center channel. Even better – the center channel allows to activate an automatic and dynamic control so that music with “loads” of treble doesn’t fatigue your hearing.