

Alpine F^{#1} Status™

www.alpinef1status.com



The road at the top is never crowded.





Alpine F#1Status™

Introducing the all-new Alpine F#1Status system.



Sophisticated shaping

Enhancing and refining the perfect sound

Faithful precision

Extracting the perfect sound



DVI-9990

DVD AUDIO/CD TUNER

- DVD-AUDIO (MLP), DVD-VIDEO, DVD-R/RW, Video CD Playback • CD-DA, CD-R/RW, MP3 and WMA Playback • CD Text and MP3/WMA ID3 Tag Information Display • IONBUS™
- DVD-Audio Link (IEEE 1394 Digital Output) • High Precision DT-ST Mechanism
- MaxTune Pro Tuner • Ai-NET Changer Control Ready (with KCI-500B)
- BioLite Display • S-Video Output for TMI-M990 • Composite Output • GUI Interface Capability for TMI-M990
- 3 Color Illumination (Blue/Green/Amber)
- Detachable Front Panel • Copper Chassis with Black Finish • Universal Remote Control Included
- Full Control over PXI-H990 • External Series Regulator

* To use the DVI-9990, you must also install the PXI-H990 or DAI-C990



PXI-H990

MULTIMEDIA MANAGER™

- Dolby Digital Surround EX/ Dolby Pro Logic II/ DTS-ES/ Neo:6 Decoding • Digital Time Correction
- Road EQ™ • MediaXpander™ • 31-Band Graphic Equalizer • AUREUS DSP
- 175-Band 1/3-Octave Digital EQ • 68-Band Parametric EQ • 8-Channel Variable Digital Crossovers
- 8ch Output (4 Volt) with High Performance DC-DC Converter • Burr-Brown K-Grade 96kHz/24-Bit Sign Magnitude DAC
- DVD-Audio Link (IEEE1394) • 1 Stereo Analog Input • USB PC Interface
- Dual Processor Capability • For use with DVI-9990 only

Transparently pure

Relaying the perfect sound



DAI-C990

HIGH RESOLUTION D/A CONVERTER

- IONBUS™ • 3 PreOuts (4 Volt) with High Performance DC-DC Converter
- Burr-Brown K-Grade 96kHz/24-Bit Sign Magnitude DAC
- DVD-Audio Link • Variable HP/LP Crossover • For use with DVI-9990 only

Visual Clarity

Visuals to match the perfect sound



TMI-M990

7" WVGA MOTORIZED IN-DASH MONITOR

- In-dash Motorized Monitor Mechanism • 7" Wide Screen Low-Temperature Polysilicon WVGA TFT Display (1.15 Million pixels)
- Visual EQ (4 Preset/ 2 User modes) • Auto Dimmer • IONBUS™ • Stand-alone Capable
- External TV Tuner Control (by Remote Control) • 3 AV AUX Inputs/ 1 S-Video Input (for DVI-9990)
- AV Input Name Setting: AUX (AUX 1.2.3/ DVD/ VTR/ Game/ TV/ Camera) S-Video (AUX/ DVD/ VTR/ Game/ TV)
- Rear Camera Input (AUX 3) • 2 Independent AV AUX Outputs
- NAVI in / NAVI Mix • Media Status Indicator • Built-In Road EQ™ Microphone

Inner strength

Driving the perfect sound



MRV-F900

4/3/2 CHANNEL POWER AMPLIFIER

- 400W RMS x 2 [4Ω Bridged @14.4V (0.3% THD+N)]
- 200W RMS x 4 [2Ω @14.4V (0.3% THD+N)]
- 150W RMS x 4 [2Ω @12V (0.3% THD+N)]
- 100W RMS x 4 [4Ω @14.4V (0.08% THD+N)]
- 75W RMS x 4 [4Ω -Bridged @12V (0.08% THD+N)]
- S/N Ratio 105dBA (IHF A Weighted Reference at Rated Power into 4Ω)
- High Efficiency True Double Stage Power Supply Design
- Independent Power Supplies for Pre and Power Stages
- 70mm Toroidal Transformer and 10,000µF Capacitors
- 6 Layer PCB Design • Copper Chassis
- 6 Triple Darlington Devices in a Parallel Push-Pull Configuration (per channel)
- Balanced Push-Pull Current Flow System
- Precision Level Adjustment Controls



SPX-Z18T

3-WAY COMPONENT SPEAKER SET

- 200W Peak Power • 50W RMS
- Frequency Response: 35Hz - 60kHz • Sensitivity: 89dB/W/m
- 7" Woofer (x2), 4" Mid (x2), and 1-1/4" Tweeter (x2) with Unique "Ring Radiator" Design
- Ultra-High Quality Crossover with Bi/Tri Wire Phase Coherent Design Input
- Independent Crossover Bypass Capabilities

Musical Purity

Realizing the perfect sound



SPX-Z15M

2-WAY SINGLE CHANNEL COMPONENT SPEAKER SET

- 200W Peak Power • 50W RMS
- Frequency Response: 45Hz - 60kHz • Sensitivity: 87dB/W/m
- 6" Woofer (x1), and 1-1/4" Tweeter (x1) Unique "Ring Radiator" Design
- Ultra-High Quality Crossover with Bi Wire Input
- Independent Crossover Bypass Capabilities

Concept 1

Achieving the ultimate in sound reproduction

No compromise, no limits—Alpine continues its quest to create the ultimate in-car sound. The ever-evolving AlpineF#1Status system continues to raise the bar.

With every new development in the car entertainment industry and every new media format that appears, our original Micro Dynamics technology keeps pace, evolving non-stop and now reaching new heights in sound reproduction. Delivering the ultimate sound quality—this is our goal.

AlpineF#1Status is the world's most sophisticated, highest quality in-car audio system. Full compatibility with the stunning multichannel sound of DVD-Audio, the ultimate high-quality sound format. Every component, every circuit, every mechanism—down to the tiniest screw—all have been meticulously crafted or selected to ensure the absolute best sound.

No other manufacturer comes close; no one else is even in the chase. All followers have been left in the dust and are out of sight. AlpineF#1Status retains its #1 rank. And you enjoy the absolute best in-car sound possible.

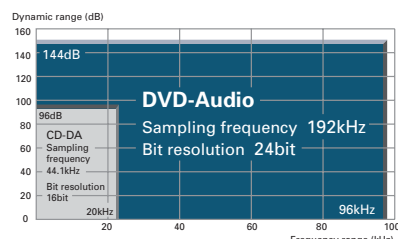
Micro Dynamics™

Full compatibility with the stunning multi-channel sound of DVD-Audio. Superior DACs for optimum reproduction accuracy. Built-in eight separate 96kHz/24-bit DACs—Burr-Brown K-grade sine-magnitude (PXI-H990)

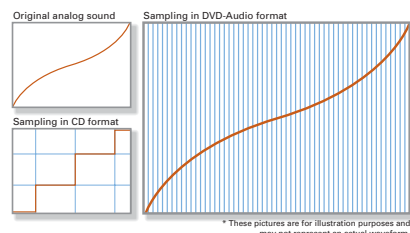
Designed to satisfy the most discerning music lovers and audiophiles, the new DVD-Audio format delivers the very best in audio quality. It has an ultra-high sampling frequency of 192 kHz (CD is only 44.1 kHz) and a resolution of 24 bits (CD is 16-bit). The audio resolution is around 1,000 times greater than that of the CD format, with a high frequency range of over 96 kHz (20 kHz for CD) and a dynamic range that stretches to 144 dB (CD is about 96 dB). This amazing capacity covers the entire range of sonic information that exists in nature. Take, for example, the sound of a violin. It contains a rich variety of harmonics far beyond what our ears can actually hear. Yet these ultra-high frequencies are a delicate but important part of the expressive range of the instrument and their presence can truly be felt. DVD-Audio, with its exceptionally high resolution, captures the passion, intensity and beauty of the music and the musician's deep intentions.

AlpineF#1Status is completely capable of extracting and reproducing the full sonic range of this new format. To do this, we've installed eight separate sets of the renowned Burr-Brown K-grade sine magnitude 96kHz/24-bit digital-to-analog converters for the eight independent channels of our PXI-H990 Multimedia Manager. These are the highest quality converters available in the market today, featuring exceptionally low distortion (1/3 that of conventional units) and an unmatched S/N ratio of 120dB. The output is virtually noise-free even at the lowest volume, and expressively reproduces the audio in all its subtle nuances and natural detail. This is without doubt the finest, most accurate D/A converter available today.

• Burr-Brown K-grade sine-magnitude 96kHz/24-bit DAC



• Reproduction range of DVD-Audio With a dynamic range of 144 dB and a frequency range that reaches over 90 kHz, DVD-Audio provides exceptionally rich, detailed sound.



• Resolution of DVD-Audio The DVD-Audio format has an extraordinarily high resolution of 192 kHz/24 bit, in comparison with CD's 44 kHz/16 bit—delivering approximately 1,000 times finer resolution, and reproducing the original analog sound with greater accuracy than ever before.

All-digital transport design for the highest signal accuracy. Newly developed mechanism / Black finish mechanism / Black finish mechanism cover (DVI-9990)

The AlpineF#1Status system takes a major step up in quality by completely separating the DVD/CD player, or what we call the 'digital transport' head unit, and the D/A converter. We have developed a high quality DVD drive mechanism to extract the digital signal on the disc with the highest accuracy and transmit it in its purest form—minus all distortion—to the D/A converter. Non-reflective black paint has been applied to virtually all parts of the drive mechanism in order to eliminate jitter distortion caused by scattered reflections of the laser, which would otherwise adversely affect the time characteristics of the digital signal. We designed everything in black, even the inside of the circuit board, to reduce optical noise to its absolute minimum. Also, by covering the drive mechanism with a sealed, airtight container, dust and other minute particles that could interfere with operation are completely blocked out, ensuring the highest performance and long-term reliability. For the circuit, we've applied a four-layer copper through-board design with our original S.T.A.R. circuit to realize ideal circuit patterns and optimum part layout and thus minimize noise interference. The MPEG decoding circuit utilizes a series regulator to provide stable, high power under low voltage (9V), and ensure the highest quality audio reproduction from the demanding DVD-Audio format.



• Black finish • Sealed video board unit

Full-spec digital transmission of DVD-Audio. DVD-Audio Link



Since this system features complete separation between the digital transport and D/A converter for ultimate accuracy, maintaining the highest fidelity digital connection between the two devices is of paramount importance. The AlpineF#1Status system utilizes FireWire (IEEE1394) technology, the international standard for digital signal transmission. The DVI-9990 is unique in the industry in that it delivers full-spec digital transmission of DVD-Audio data between the head unit and the processor (or DAC processor) at 24-bit/192kHz. Only after being processed as full-resolution digital data in the D/A converter and the Multimedia Manager, is the signal then converted from digital to analog. As a result, the signal remains clear and pure in its digital form all the way to the amplifiers. A 6-layer PCB for the DVD-Audio Link circuit and black copper chassis cover completely eliminate any digital noise generated in the process—specifically the increased high frequency noise due to the high-resolution, high sampling capacity—ensuring the purest, most accurate sound possible.



• DVD-Audio Link (connector part) • DVD-Audio Link circuit

Direct processing of 192kHz/24 bit 2-channel DVD-Audio. Highest quality D/A converters / Large DC-DC converter (DAI-C990)



• Large DC-DC converter

The advanced DAI-C990 is a D/A converter of the highest precision, designed to maintain the ultimate purity and accuracy of the original audio signal—one more crucial link in this ultimate audio system.

For optimum handling of the high-density digital audio, we've installed the top-quality Burr-Brown K-grade DACs. The unit is compatible with our new DVD-Audio Link interface and accepts ultra-high-resolution 192kHz/24-bit digital audio data sent from the head unit—for the most accurate sound possible. For the power supply—which has a significant effect on the quality of the sound—the built-in oversized DC-DC converter delivers extremely clean and stable power with minimal noise. The unit also features six gold-plated RCA output terminals for transmitting the D/A-converted signals to a power amplifier or amplifiers.



• Highest quality D/A converters



• DAI-C990 terminals

High-fidelity signal processing of high-resolution digital audio. 24-bit digital filter / High-precision GIC low-pass filter / Four-layer PCB with S.T.A.R. circuit (PXI-H990)

Alpine's quest for quality permeates every single component of the AlpineF#1Status system—and the absolute best in car-audio technology and materials are used in it. Our PXI-H990 Multimedia Manager utilizes the most advanced technology available—no other manufacturer comes close—from its primary digital circuitry to the final analog stage. This system also boasts a 24-bit digital filter with 8-times oversampling that ensures the highest accuracy in digital-to-analog conversion. In the final analog stage, a high-precision GIC (generalized impedance converter) low-pass filter reduces the risk of harmful noise generation and eliminates noise even in non-audible frequency ranges—far better than that of conventional 8x oversampling low-pass filters. The result is exceptional accuracy and depth in the sound. A high-precision, high-performance I/V converter uses an op-amp to convert the DAC output current to a voltage-level signal (over 4 volts). Thanks to this high-output design, the need for extra boost circuits—which would amplify noise—is minimized, thus ensuring that the final output is absolutely pure and clean.



• GIC low-pass filter

As with the DVI-9990, we've applied a four-layer circuit board with S.T.A.R. circuitry for all stages. This design lowers the impedance of the power supply for less noise. One of the four layers serves as the circuit ground, and features an original S.T.A.R. circuit of Alpine design with added grounding to optimize the circuitry scheme and patterning to reduce mutual interference within the circuit, delivering high-speed audio transmission.

board with S.T.A.R. circuitry for all stages. This design lowers the impedance of the power supply for less noise. One of the four layers serves as the circuit ground, and features an original S.T.A.R. circuit of Alpine design with added grounding to optimize the circuitry scheme and patterning to reduce mutual interference within the circuit, delivering high-speed audio transmission.



• Internal audio circuit Separate analog and digital sections, plus high-density circuit board—all superior quality parts and materials.



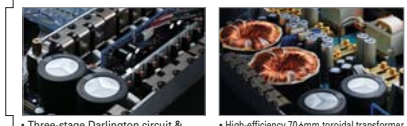
• PXI-H990 terminals

Direct, straight amplification of the purest music signal. Three-stage Darlington circuit & bipolar power supply / Six-layer copper through-board design / Copper-plated chassis (MRV-F900)

The power stage is crucial in accurate reproduction, requiring ultra-fast power for the high-density signal. The MRV-F900 employs a three-stage Darlington bipolar circuit, used previously in only high-end home audio systems. In order to deliver rich and dynamic sound, the final stage has a super-strong parallel push-pull circuit, designed in a perfectly independent two-channel structure, for double stage power supply in a symmetrical layout. Also, the output stage is directly linked to the power supply by a six-layer circuit board with a 70 μ thick copper plate—providing instantaneous signal response and high output stability for demanding power levels. The power supply itself has two extra-large 70mm diameter high-efficiency toroidal transformers to provide extraordinary power, while four specially tuned capacitors ensure unmatched, consistently stable power. The copper-plated chassis greatly reduces electromagnetic interference, eliminates noise, and contributes to pure, clean amplification.



• Perfectly symmetrical design



• Three-stage Darlington circuit & bipolar power supply • High-efficiency 70mm toroidal transformer

Formulating the final stage in the ultimate sound. Ring radiator tweeter / Cross-cut wood fiber cone / High-precision passive network (SPX-Z18T/Z15M)



• Ring radiator tweeter • Cross-cut wood fiber cone

Just as we've done with every other component in the system, we've cut no corners in the final stage. The ring radiator type tweeter realizes exceptionally precise low-distortion sound and ultra-high frequency response thanks to its linear diaphragm movement. The center phase plug focuses the waveforms for accurate sound imaging and staging. The painstakingly crafted cross-cut wood fiber cone for the mid-low speaker is made from a careful blend of five different kinds of wood fibers. In order to reduce unnecessary resonance vibration, the cone has cross-cut grooves to trap resonant frequencies. This results in minimal dividing resonance vibrations and peaks in the sound. In addition, the ultra-high-precision passive network lets you correct for phase difference and make meticulous time difference corrections to compensate for speaker position. With over 1,000 different tuning combinations, the system can be customized and optimized for absolutely any vehicle. The crossover also provides bi-amp/tri-amp capability for even greater system flexibility and sound tuning.



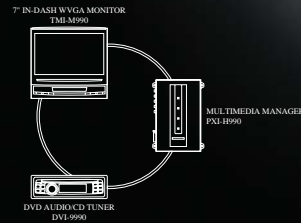
• High-precision passive network

Concept 2

Enjoy all the latest multimedia sources

The evolution—and revolution—of mobile media in the 21st century continues. AlpineF#1Status makes the experience seamless, effectively bringing together all different media types and formats, with state-of-the-art hardware for maximum enjoyment.

Start with a no-compromise digital transport head unit for the ultimate sound and compatibility with the new, dynamic DVD-Audio sources. Continue with DVD-Video capability, a monitor featuring the highest resolution in the industry, and build the most realistic, powerful and exciting sound system you can have in a car. Add support for all CD, MP3 and WMA music, and expand your entertainment choices even further. It's all about getting the most out of your music and movies—and turning your vehicle into a truly awesome multi-channel music sound stage.



Micro Dynamics™

Playback of DVD-Audio, DVD-Video, music CD, MP3/WMA—all reproduced with the highest sound quality. The ultimate multimedia player (DVI-9990)

So many formats, so much entertainment—and AlpineF#1Status does it all. It starts with conventional CD audio, the industry standard for digital music which has matured over the last 20 years and is the most popular music format. Compressed media formats such as MP3 and WMA are also rapidly growing in popularity for downloadable music over the Internet. While the use of conventional music sources continues to spread, the appearance of DVD—a versatile new digital media format that features more than ten times the capacity of CD—brings yet another new entertainment option to mobile media. DVD-Video, the high-quality, high-definition format for movies and music videos, introduces the new pleasures of surround audio to the

car cabin. Its widespread popularity is largely due to the beautiful, clear picture and the expanded sonic dimensions of the surround format. DVD is more than just movies, however. It also delivers the best, highest quality audio format for music fans now—with DVD-Audio. Our new DVD/CD digital transport head unit is compatible with this ultra-advanced media, and opens up a whole new world of multimedia and multi-formats. Thanks to the Multimedia Manager, the system is also capable of direct playback of the latest 6.1-channel surround sources, giving you an exceptionally rich and vivid sonic experience. Naturally, it is also compatible with DVD-R, for more in-car audio and video entertainment options. Even your conventional music CDs and MP3 tracks sound better than ever—with the Multimedia Manager's

high-precision sound corrections, high-resolution sound processing, and the unique power of Road EQ. For optimum viewing of DVD-Video, our top-grade high-resolution monitor continues in the AlpineF#1Status tradition, evoking a multi-dimensional theater experience unlike any you've ever had. Start off the system with our DVI-9990 DVD/CD digital transport head unit and the PXI-H990 Multimedia Manager. Add the high-definition TMI-M990 in-dash monitor for maximum multimedia enjoyment. No matter what your entertainment format or your system configuration settings, AlpineF#1Status delivers the ultimate quality and high-resolution in both sound and video.

DVD-Audio
DVD-Audio is the next-generation high-quality audio format, bringing a quantum improvement in audio performance in both stereo and multi-channel surround. The standard supports up to six discrete channels. Resolution depth is adaptive in 16, 20 or 24 bits, with sampling frequencies of 44.1, 48, 88.2, 96, 176.4 and 192 kHz. The format finally brings 24-bit music fidelity to the consumer with 192kHz in stereo and 96kHz in six channels, and an unprecedented dynamic range of 144 dB.



DVI-9990

DVD-Video
This is the DVD format for movies and video, including audio data. Movies are encoded using MPEG-2 compression and can store a maximum of 133 minutes of recorded video and audio (one sided disc), on a CD-size disc.



CD-DA
Introduced in 1982, this is the most popular and most stable format for music recordings. The DA (Digital Audio) suffix is used to distinguish this format from CD-R, CD-ROM, etc. The specifications are fixed: two-channel audio, 16-bit resolution, 44.1 kHz sampling frequency, with a playback frequency response from 5-20 kHz, 96 dB of dynamic range, and a maximum recording time of 74 minutes.

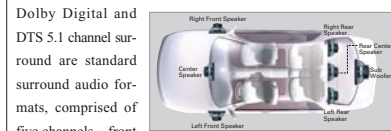


MP3
MP3 (or, more precisely, MPEG-1 Audio Layer 3) is a high-quality audio compressing technology; the name also refers to songs recorded in the format. The data can be compressed by as much as 1/10, making it ideal for storing large amounts of songs in limited media space.



WMA
Windows Media Audio (WMA) is a proprietary compressed audio file format, used with the Windows Media Player and having a file extension of ".wma." Files created and saved with this software are stored in this format, and can easily be played on computers running Windows.

A new surround experience. Dynamic sound made possible with built-in 32/64-bit floating point DSP. The latest DVD 6.1-channel surround playback and full multi-format DVD compatibility (PXI-H990)



Dolby Digital and DTS 5.1 channel surround are standard surround audio formats, comprised of five channels—front left/right, rear left/right, center and one channel for subwoofer. Playback of content in these formats lets you enjoy virtually the same sound and presence you would get in a movie theater. Formats beyond these continue the evolution in the quest of more realistic and dynamic reproduction, and among the newest ones are extended formats such as Dolby Digital Surround EX and DTS-ES. Dolby ProLogic II and DTSNeo:6 have been newly added to enable conversion of two-channel sources to playback with the surround effect. Most of the formats include additional surround channels, such as back surrounds or a rear center surround—aiming at increased natural presence and realistic positioning, for an even more dramatic surround experience.



Aureus 32/64-bit floating-point arithmetic DSP



* The name "Aureus" and the Aureus logo are trademarks of Texas Instruments, Inc.

The crucial keys to obtaining high-quality surround playback are decoding support and decoder accuracy. All signal processing for the digital surround system in the PXI-H990 Multimedia Manager is handled by a 32/64-bit floating-point DSP, the industry-leading Aureus made by Texas Instruments. This is one of the world's fastest, large-capacity 64-bit processors—operating at 1,800 MIPS fixed-point arithmetic and 1,350 MFLOPS floating-point arithmetic—and has previously only been used in high-end home theater applications. In comparison to conventional processors, the Aureus is far more advanced in both speed and performance, making it ideal for the super-precise decoding of surround and compressed audio data needed to create the most dynamic, multi-dimensional surround experience.

Advantages of the new formats

- **Dolby Digital Surround EX**
This format brings an additional channel—rear center—to movie soundtracks in Dolby Digital. This 6.1-channel system adds a new dimension to the Dolby Digital 5.1 cinematic experience, creating a fuller, more realistic sound with greater presence and dramatic effect, no matter what the listening position.
- **DTS-ES/DTS Neo:6**
DTS-ES (Extended Surround) adds a rear center channel to the 5.1-channel DTS digital surround. The system comes in two "flavors":

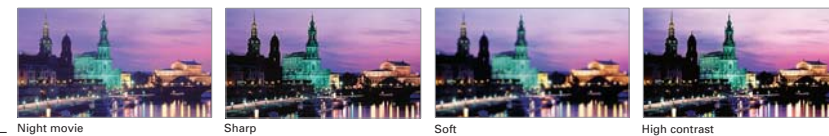


Visual EQ control, independent S-Video input terminal. Achieving the highest image quality. Low-temperature polysilicon WVGA display (TMI-M990)

The image quality and definition of DVD-Video is far better than that of other conventional video formats and media, such as S-VHS. A high-definition video output circuit was built into the DVI-9990 to make sure that not only audio but also video data could be extracted with maximum quality. Our new super-high-definition TMI-M990 monitor is the perfect companion, and a worthy addition to the prestigious AlpineF#1Status line. By the use of an independent S-Video input, the monitor accepts separate color and luminance signals, delivering brighter, more vivid colors and higher picture resolution. The status display of the DVI-9990 head unit is also optimized. The TMI-M990 in-dash monitor features a 7-inch Wide VGA display, utilizing a low-temperature polysilicon LCD panel and boasting a resolution of 1,150,000 million pixels. The high-



VISUAL EQ
Night movie: For dark, hard-to-see scenes. Sharp: For sharp, complex and vivid images. Soft: Soft-focus, smooth look that limits image roughness. High contrast: Enhanced contrast for greater detail and sharper edges.



speed LCD ensures remarkably smooth motion, even for fast-moving action films. For low-resolution sources like video games, the special scaler IC chip optimizes screen resolution. The carefully laminated screen, manufactured to ultra-precise specifications, delivers increased light transmission, higher contrast, wider viewing angle, and a resolution that is a full 400% greater than conventional monitors. The screen has a low-reflection optimal AG coating for achieving maximum picture quality in every aspect. Moreover, the TMI-M990 has a convenient Visual EQ feature that allows you to instantly adjust the monitor to compensate for different video sources or for changing in-car lighting conditions, and give the best quality. Two user presets are available for memorizing your own custom display settings.



• Independent S-Video input

Low-temperature polysilicon Wide VGA display
The LCD, formed at low temperature with multi-crystal silicon (polysilicon), makes it possible to create liquid crystal of very high density and high-speed response. Moreover, the display is manufactured with dense processing technology for a much brighter display, a wide viewing angle and exceptionally high contrast.



Total System Integration at the highest level. DVD-Audio Link / IONBUS

No matter how advanced and superior each component is, substandard data transmission can bring down the quality of an entire system. Also, if the user interface is convoluted and awkward or many settings have to be changed with every operation, your in-car entertainment ceases to be enjoyable. With AlpineF#1Status, we focused on creating a system that would not only be the most advanced, it would maintain the highest resolution throughout the data flow and provide its owners with the greatest pleasure and enjoyment. Just a single cable provides full-spec signal transmission of DVD-Audio data. Moreover, the multi-data IONBUS connection—in our ultra-high-definition monitor TMI-M990, for example—vastly enhances the system configuration. This link makes it possible to see more setup details and information, such as for the head unit, onscreen control of processor settings, operation of other connected changers and monitors—all with intuitive, at-a-glance, central control.



• DVD-Audio Link (connector) • IONBUS (connector)

Concept 3

Comprehensive, fully digital sound processing for the car interior

The interior of an automobile is far different from that of an ordinary listening room. Various noises and a variety of materials of different acoustic properties obstruct the sound and degrade the quality of the music. Speaker placement is far from ideal and each is a different distance from the listener. Quite simply, acoustic tactics and technologies employed to get good sound in a room do not apply to the car.

These are the challenges facing AlpineF#1Status—and we responded by developing advanced equalization technologies based on extensive analysis and by creating a sophisticated Road EQ feature that effectively cancels road and engine noise in real time. As the world's leading mobile media specialist, Alpine has engineered a quantum leap and taken mobile entertainment to heights never before seen or heard.



Micro Dynamics™

Real-time processing and truly natural noise compensation technology—to preserve the beauty of the music. Road EQ (PXI-H990)



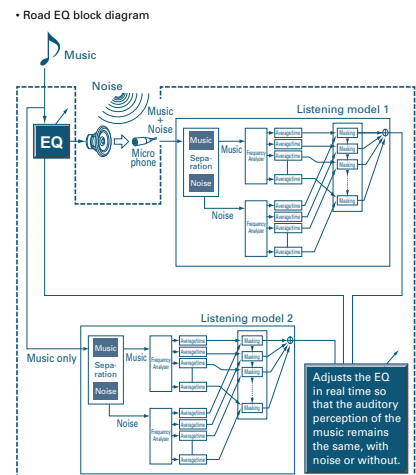
Inside the car, noise is inescapable—particularly road and engine noise. Not only is the noise itself jarring and disruptive to music playback, it also masks specific frequency bands in the sound, and can break down the musical balance. Moreover, both the level and frequency of the noise changes dynamically every moment you drive, making any attempts to compensate with static, one-setting processing completely useless. Some compensation technologies, such as auto loudness/volume controls, raise the level of the music as noise increases; however, these are unnatural sounding stopgap measures and not fundamental solutions to the problem. The core technology behind this newly developed Road EQ feature is the super-fast, high-precision 24-bit DSP—used originally for Dolby processing, and now specially adapted for automatic noise compensation. The ultra-high speed of the processor makes it possible for the first time to adjust to changes in noise in near real time—at a lightning-fast 48,000 times every second! The frequency monitoring range for noise detection has been expanded to a bandwidth of 10 Hz - 10 kHz, and the detection

speed has been improved 1,000-fold to a nearly instantaneous 20ms (compared to 20 seconds on conventional systems). One major problem with previous systems is that electronic circuitry cannot distinguish which signals are noise and which are music. The crucial task here then is to precisely isolate the noise elements from the signal containing music mixed with noise. Any inaccuracies in separating the noise from this mix makes the compensation less effective or even completely ineffective, leading to unnatural and unbalanced sound reproduction. To develop this system, Alpine has brought the full might of its technological expertise, as well as the voluminous amount of relevant data and know-how accumulated over many years. We have conducted repeated and extensive acoustic tests, and created an original algorithm that carries out exceptionally precise noise compensation. Based on this acoustic model, the system closely monitors the noise every moment, then compensates accurately and correctly. All sound and noise in the car are captured with a special microphone. The system compares the music playback with the combined noise-and-music

signal at individual frequencies throughout the spectrum, evaluates the isolated signals with the original, and applies frequency-specific adjustments to the music signal. This means that finally, natural-sounding, real-time equalization—at 48,000 times/second—can be employed to combat noise. The process is smooth, the effect is seamless. Now, music playback can be heard with the highest fidelity, whatever the driving conditions. Now, despite being in a moving vehicle, you can enjoy—for the first time—a level of reproduction quality previously obtainable only in a stationary, quiet room.

• Noise compensation of Road EQ
This compares the in-car sound characteristics and compensation frequency response of Road EQ with conventional processing by another manufacturer. Noise detection and extraction are inadequate, and the frequency response (upper right) is not flat.

• High-speed processing of Road EQ
Conventional processing is slow and the compensation is delayed by several seconds, producing musically unnatural results. Real-time processing and the compensation algorithm of Road EQ solved this problem for the first time.



All sound-shaping bases have been covered. Unprecedented degrees of sound control and compensation come to the car. Fully comprehensive, advanced equalization features (PXI-H990)

The car cabin has no shortage of elements that fight against getting good sound. Smooth surfaces such as glass windows randomly reflect high frequency sounds and distort the original sonic characteristics, while soft furnishings such as the seats and carpet absorb sound energy. As a result, a maddening amount of frequency peaks and dips exist within the narrow confines of the car interior. Is there anything that can be done to remedy this? Yes. The PXI-H990 Multimedia Manager employs the following state-of-the-art signal processing and enhancement tools to achieve the absolute best sound possible.

- 175-band 1/3-octave digital EQ
- 31-band graphic EQ
- Independent 10-band parametric EQ
- Road EQ
- MediaXpander processing

For overall equalization, both the parametric EQ and graphic EQ divide the bandwidth with ten times the precision of conventional EQs. For example, the parametric EQ frequency range is finely divided into 60 different adjustment points. The extremely high-Q slope characteristics accurately isolate and eliminate just those peaks and dips that occur in the sound inside the car. Moreover, the 31-band graphic EQ can be used to fine-tune the overall sound, and adjust the sound balance for your particular listening position. Now, you can finally create the ideal sound space in your vehicle—without excuses, without compromise.

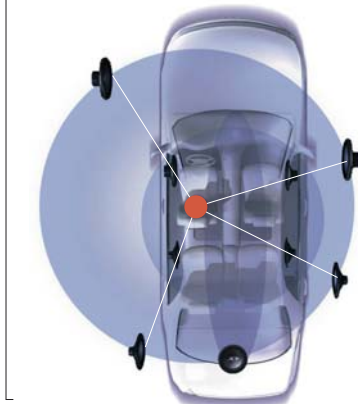


• Parametric EQ

Automatic adjustment of time alignment for each speaker. Ultra-precise manual settings for every system component. Digital time correction (PXI-H990)

Ideally, the listening position should be equidistant from each speaker. However, the interior of the car poses many restrictions and obstacles, preventing the listener from occupying this ideal "sweet spot." In order then to enjoy authentic sound reproduction, highly precise time correction is needed to adjust the time lag of the sound from each speaker and ensure that all sounds arrive at the same time.

• The effects of time correction
In this three-way speaker system example, each of the speakers occupies a different position in the installation and the radiation points for each are out of alignment. Thanks to digital time correction, precise compensation is possible for the arrival-time lag and phase mismatches that occur among the separate speaker components.



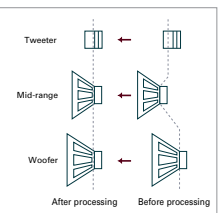
The digital time correction features of the PXI-H990 measure the interior sound with an attached microphone, and adjust the sound field with exceptionally high precision—automatically and in real time—letting you easily get the best sound possible.

Manual adjustment is also possible for this digital time correction. For example, each speaker component in a full-scale multi-channel system—tweeter, mid-range, woofer and subwoofer—can be adjusted manually with the eight-channel variable digital crossover function. Each speaker's output can be delayed by just the right amount to create the ideal sound field and ensure precise phase correction.* What you get is virtually perfect performance, with smooth, natural sound and outstanding presence, with exact timing of all components and accurate reproduction over the entire frequency spectrum.

* Manual correction requires a relatively high level of knowledge and experience for proper compensation.

• Time correction for separate speakers

As shown here, delaying each signal by a specific amount compensates for the difference in speaker distance, and effectively restores the proper position of each speaker, front left/right and rear left/right. This precise adjustment is indispensable for creating the optimum sound position and ensuring the best possible presence and sonic imaging.



The phase relationships of the three-way system are the same after processing.

Ultra-high-speed system data communication, with full digital transmission. IONBUS



• IONBUS (connector)

In designing the AlpineF#1Status system, we paid particularly close attention to creating an ideal signal transmission interface, one that would allow comprehensive control from a central, convenient location—that is, the driver's seat. With its signal purity and accuracy, the newly developed IONBUS data bus transmits digital signals a blazing speed of 40 kbps—more than 1,300 times faster than the conventional Ai-NET interface. Various system functions and the operating environment itself have been greatly enhanced by the ultra-high speed and completely noiseless signal transmission. The main features are:

Digital audio transmission
By keeping all signals in the digital realm, IONBUS effectively eliminates any possible degradation in sound quality, especially in comparison to the analog transmission of the conventional Ai-NET interface. Instead of optical fiber, the system uses copper cable which not only optimizes transmission accuracy but allows all data (audio, control, etc.) to be carried on the same high-speed line—for

ease and convenience in system connection. **Directionless connectors**
All connectors are identical regardless of input or output, since data routing is handled by the interior circuitry. This directionless capacity makes it easy to expand your system and add new components to the chain at any time. **Forward compatibility**
The high-capacity, multiple-signal, broadband connection ensures compatibility even with media that is yet to be developed and functions/features that are coming in the future. With the head unit increasingly taking on the role of system command, the use of IONBUS provides an unprecedented degree of central control. Moreover, the benefits of the ultra-high-speed digital bus include not only better sound quality but total insulation from electrical noise in the car.



Beauty and elegance that reflects the true quality within. Real metal face / BioLite display / three-color illumination (DVI-9990)

Here is the command center for the AlpineF#1Status system—the DVI-9990 DVD digital transport head unit. The sleek, elegant design of the panel lends a luxurious, high-class feel to the dashboard, and exudes an atmosphere of true excellence. The solid aluminum knob and the all-aluminum front panel reflect the superior quality, technological sophistication and expert craftsmanship that are hallmarks of Alpine and the AlpineF#1Status line. The unit features a bright, high-resolution BioLite display that uses biochemical luminescence technology to provide outstandingly clear visibility and high contrast—whatever the lighting conditions in the vehicle, from direct sunlight to total darkness. The color of the panel button illumination can even be selected (green, amber or blue) to match the vehicle dashboard lighting—or match your mood. All in all, the elegant appearance of the DVI-9990 lets you and your passengers know how special the AlpineF#1Status system truly is.



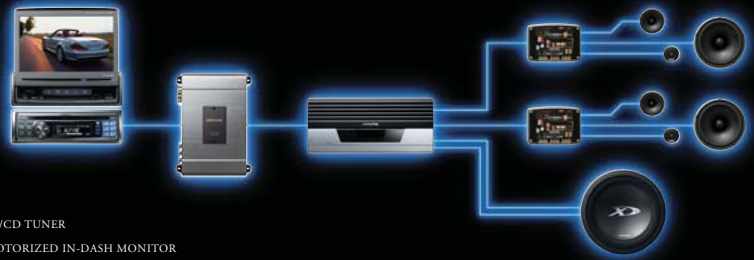
Pure Audio System

The ultimate goal: Ultra-high-quality sound

The means: Advanced DVD/CD transport head unit and independent D/A converter

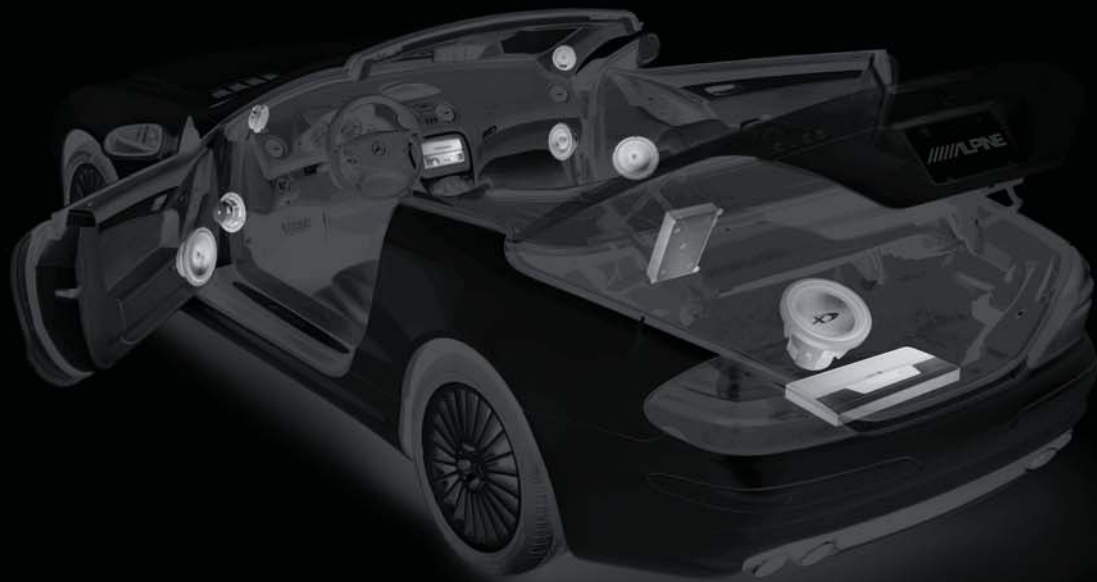
This sophisticated system plays high-density, high-resolution audio data with unprecedented purity—
from the exceptionally high-quality DVD-Audio sources to the naturally balanced two-channel CD sound.

For audio lovers who want to enjoy excellent sound and ultimate performance in their car forever—introducing the new AlpineF#1Status system.



SYSTEM PROFILE

DVI-9990	DVD AUDIO/CD TUNER
TMI-M990	7" WVGA MOTORIZED IN-DASH MONITOR
DAI-C990	HIGH RESOLUTION D/A CONVERTER
MRV-F900	4/3/2 CHANNEL POWER AMPLIFIER
SPX-Z18T	3-WAY COMPONENT SPEAKER SET (7" Woofer x 2, 4" Mid x 2, 1-1/4" Tweeter x 2)
SWX-1042D	10" SUBWOOFER(4Ω + 4Ω)



*The subwoofers shown in this system are from a different series and are not part of the AlpineF#1Status line.



Pure and simple—a cruise through the world of digital sound

Ultra-sophisticated yet basic—a state-of-the-art two-channel audio system for the ultimate in-car sound

Your leisure time is special. So is your audio system. If you have a two-seat convertible like that of the sample system shown here, you'll undoubtedly agree—simple is best. This pure audio system offers simplicity with the ultimate in sound quality. At the center is the DVD/CD player, the DVI-9990 digital transport head unit. The boldly styled, elegant hair-line finish real-metal panel beautifully reflects the light, and when you insert a disc, the finely constructed disk loading mechanism gently takes it in. The high-contrast high-resolution BioLite display puts all system information in clear view. The polished and sturdy panel knob lets you turn up the volume as smoothly as you put your foot on the accelerator. The elegant texture of its surface and the ever-so-slight resistance of its operation are just more external indications of the power, quality and excitement contained inside this amazing component.



Perfect separation for the purest sound—**independent digital transport and D/A converter**

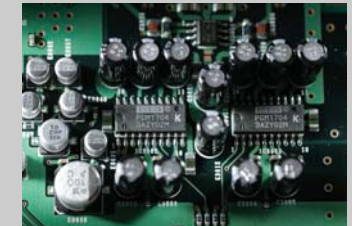
The new DVD-Audio format provides audio data of unprecedented quality and purity. The full-spec, ultra-high-resolution of 24-bit/192kHz delivers enormous dynamic range and a super-wide frequency response that stretches far beyond the human hearing range to 100 kHz. That capacity is not merely an empty, impractical technical feat—it is truly reflected in the actual sound, resulting in a sonic purity and extraordinarily natural-sounding resolution. It is not just an achievement in dry specifications—it is an audio performance of the highest level, finely nuanced, and rich in harmonics. It is quality you will marvel at the first time you hear it.

The digital transport system is specially created to extract the full potential of digital audio data thanks to the separate, independent system design—not only the amplifier, but the D/A converter as well as separate components—to eliminate conversion noise and provide the purest possible digital sound. The DVI-9990 has a built-in state-of-the-art DVD-Audio Link circuit for transferring the full-spec digital signal without any degradation, and to faithfully reproduce the amazing sound of DVD Audio.



The ultimate high-speed, high-resolution D/A converter ensures absolutely pure digital sound

When you rev up the engine, your car's electrical system generates a significant amount of signal noise under the hood and inside your car. The special copper-plated chassis protects the internal circuitry from external noise, while the black-finish mechanisms eliminate jitter distortion caused by scattered reflections of the laser. Serving as the heart of the digital-analog audio process, the D/A converters are critical in taking the high-quality digital signal and maintaining its full integrity as it is converted to analog. Our state-of-the-art D/A converter, the DAI-C990, is comprised of top-quality Burr-Brown K-grade DACs for the absolute best sound. The top-of-the-line D/A converter makes sure that you hear perfect silence after a dynamic drum roll, that you hear rich and thickly textured sound, that you hear the explosion of pure sound in its full power. The sound is converted instantaneously with ultra-precision, and without distortion or delay, delivering the highest speed for the system and allowing precise time correction.



Greater paths to explore,
further adventures in sonic excellence

As you enjoy your sonic journey, winding down the road and shifting gears as you go uphill and down, you may want to try out your favorite CDs from your music collection, once you've explored the wonders of DVD-Audio. This is a seamlessly integrated system that delivers high-quality sound and processing straight from the initial reading of the data to the final amplification and speaker output. It provides an exceptionally precise and natural sound field, one of unparalleled quality. If road and engine noise or any other extraneous sound disturbs your listening pleasure, we recommend installing the PXI-H990 Multimedia Manager (in place of the DAI-C990 D/A converter) and take advantage its incredible new Road EQ feature, which monitors the noise in your car and automatically adjusts music playback in separate frequency bands to compensate for and virtually eliminate the effect of road noise on your music.



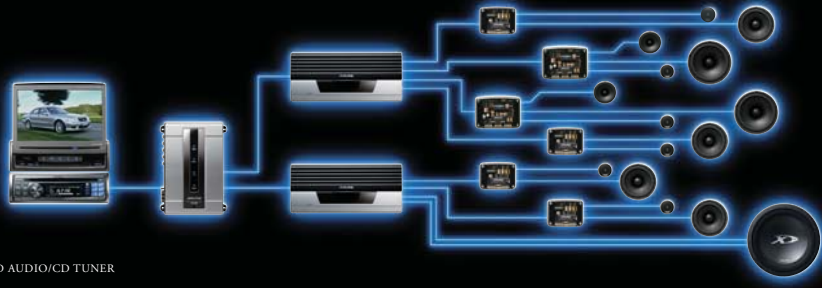
Multi-channel System

Powerful presence. Sensuous surround.

Harnessing the latest, most advanced processing technology for the best sound possible.

True surround playback with high-precision signal processing of the multi-channel sources of your favorite DVD-Audio titles.

For automobile owners who want to move beyond car stereo and bask in the sonic atmosphere of a state-of-the-art surround sound system—AlpineF#1Status is here.



- SYSTEM PROFILE
- DVI-9990 DVD AUDIO/CD TUNER
 - TMI-M990 7" WVGA MOTORIZED IN-DASH MONITOR
 - PXI-H990 MULTIMEDIA MANAGER™
 - MRV-F900 X 2 4/3/2 CHANNEL POWER AMPLIFIER
 - SPX-Z18T X 2 3-WAY COMPONENT SPEAKER SET (7" Woofer X 2, 4" Mid X 2, & 1-1/4" Tweeter X 2)
 - SPX-Z15M X 4 2-WAY SINGLE CHANNEL COMPONENT SPEAKER SET (6" Woofer X 4, & 1-1/4" Tweeter X 4)
 - SWX-1242D 12" SUBWOOFER (4Ω + 4Ω)



* The subwoofers shown in this system are from a different series and are not part of the AlpineF#1Status line.



Your personal sound paradise

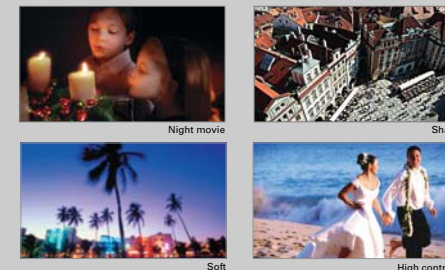
Superior quality sound that completely transforms all entertainment—making it infinitely more exciting

In every masterpiece, there are high points and low points, ebb and flow, light and dark, sunshine and shadow. Just as in a great movie, there is abundant drama in driving while surrounded by a multi-channel audio system, and there is excitement in the richly textured, dynamic sound. And as you watch the dramatic views and landscapes that unfold across your windshield, you can bathe in the high-fidelity sounds of your favorite DVDs or CDs. The surround experience becomes even more vivid and impressive with the ultra-high-resolution color monitor, bringing the breathtaking sights of theater and concert right inside your car. AlpineF#1Status brings the absolute best in audio technology to your car, delivering the purest, highest quality playback of all your entertainment, and full support for the latest media formats and 6.1-channel sound. With a mobile entertainment system of this stature, the thrill and excitement of your movies and music will never fade.



All-digital signal transfer and system link—perfectly synchronizing the audio/visual entertainment experience

The components: The DVI-9990 DVD/CD digital transport head unit, with its sleek all-metal panel. The TMI-M990 high-resolution WVGA 7-inch in-dash color monitor, with comprehensive image quality controls. The PXI-H990 Multimedia Manager, which serves as the heart of the system, providing the ultimate in sound quality and high performance for processing the all-digital data. All are seamlessly linked with the high-capacity, ultra-fast digital interface, IONBUS. When the opening scene of the movie begins, with the dynamic sound filling the interior, you'll feel the true power of the eight-channel system, the bright colors and smoothly detailed motion of the monitor—and a profoundly powerful theater experience that you've never before felt in a car.



VISUAL EQ
 Night movie: For dark, hard-to-see scenes.
 Sharp: For sharp, complex and vivid images.
 Soft: Soft-focus, smooth look that limits image roughness.
 High contrast: Enhanced contrast for greater detail and sharper edges.
 * Sample images are for illustration purposes only.



Building excitement, maintaining perspective—absolutely precise time control of multi-channel sound

Put in one of your favorite DVD-Audio discs—the latest media that takes music far beyond stereo. As each instrument makes its entrance in its own position in the sonic landscape, the multi-channel sound pulses throughout the interior, processed and reproduced with uncanny accuracy thanks to the large-capacity DSP. The superior quality of all the components is reflected in all you hear and feel. The music takes hold of your imagination with its amazing presence—especially when listening to the latest 6.1-channel surround releases, as the sound literally envelops you and transports you to another world. The waves of sound reach your ears with impeccable timing and unprecedented accuracy, each of 6.1 channels being precisely adjustable—through the sonic magic of automatic time correction.



The finest digital technology available—for the highest level music reproduction possible

Driving along the coastline, with the sea breeze coming through the windows—your body moves with the beats pumping out of the speakers, and the music fills the air. If you want, change the look of the illuminated panel buttons on the head unit to suit your mood—blue, green or amber. Enjoy exceptionally high-quality sound from all your entertainment sources, from DVD-Video to CD. Treat yourself to the high performance only possible through the all-digital system provided by the dedicated digital transport head unit and the Multimedia Manager processor, which utilizes the finest Burr-Brown K-Grade D/A converters and delivers completely noiseless reproduction. And when noise does come—from the road, from your engine, from the wind—rest assured that you can still enjoy your music. The uniquely effective Road EQ feature works automatically and in real time to suppress any noise and keep it from disturbing your listening pleasure. It's all part of the sophisticated processing power of the Multimedia Manager, and the remarkably textured eight-channel experience that defines the latest AlpineF#1Status system.



Maximum Multi-channel System

Multi-channel surround sound on an unprecedented scale—
with dual Multimedia Manager processing

An absolutely awesome multi-amplifier, multi-speaker system of transcendent power—capable of unleashing a raging sonic storm. Comprehensive multi-channel processing—for taming that storm and precisely creating the most vivid, richly textured sound. Introducing a mobile entertainment system of which dreams are made—and fulfilled. For AlpineF#1Status owners only.



- SYSTEM PROFILE
- DVI-9990 DVD AUDIO/CD TUNER
 - TMI-M990 7" WGA MOTORIZED IN-DASH MONITOR
 - PXI-H990 x 2 MULTIMEDIA MANAGER™
 - MRV-F900 x 4 4/3/2 CHANNEL POWER AMPLIFIER
 - SPX-Z18T x 2 3-WAY COMPONENT SPEAKER SET (7" Woofer x 2, 4" Mid x 2, & 1-1/4" Tweeter x 2)
 - SPX-Z15M x 4 2-WAY SINGLE CHANNEL COMPONENT SPEAKER SET (6" Woofer x 4, & 1-1/4" Tweeter x 4)
 - SWX-1242D x 2 12" SUBWOOFER (4Ω + 4Ω)



*The subwoofers shown in this system are from a different series and are not part of the AlpineF#1Status line.



The ultimate multi-channel dream

Superior quality sound that completely transforms all entertainment—making it infinitely more exciting

After a long day of hard work in the urban jungle, it's nice to have a place to escape. Another world awaits—right within your car—a calm, yet exhilarating place of refuge for both body and soul. The sonic wellspring that refreshes you comes from a sumptuous 16-channel surround system, providing a musical rush of emotion and energy, and stirring your senses with a profoundly deep rhythm and bass. Here, is the final destination of all who live for the pleasure of music, and for those who want to equip their cars for the ultimate entertainment experience.

Play it all—with comprehensive multimedia compatibility and full entertainment satisfaction

We've got all of your entertainment options covered. If you've got home movies and family videos recorded to DVD-R discs, or have expanded your DVD-Video collection with the latest titles—even those with the new 6.1-channel surround format—this system can play them all. Bring your favorite CDs along for the ride, too—including CD-R discs that have your MP3 collections. For the music lover, movie fan and concert video collector, this new DVD/CD digital transport head unit is irreplaceable; there is no more comprehensive system available. Combine that extensive multimedia compatibility with the sophisticated multi-channel surround



playback, and you've got a system of unbelievable visual and sonic impact. The fact that it's also on wheels is merely icing on the cake.

placement. Since the two PXI-H990 units of this system are linked, full time-line compensation is realized for every frequency range. The degree of control that this processing affords and the amazingly tight and accurate sound it creates let you enjoy your music as you've never enjoyed it before. You truly have the best seat in the house. And it couldn't get any better—it's as if each musician was playing directly to you and for your own personal benefit.

Another advanced feature is the extensive and highly detailed parametric EQ. Inside the close confines of the car are a host of acoustic traps and obstacles waiting to ambush the sound. The slick, smooth glass surfaces of the windshield and windows, the soft leather seats, the cloth ceiling, the wood-grain finish instrument panel, the hard, curved surfaces of the dashboard—all have varying and highly complex effects on the different frequencies of sound propagated throughout the car. The sophisticated precision equalization functions of the Multimedia Manager are the only way to tame these acoustic beasts.

The third processing feature in this ultimate processing device is our new Road EQ. It is the world's first real-time road noise reduction feature—an innovative technology that automatically applies frequency-specific compensation to effectively eliminate the effects of road, engine and wind noise. Conventional systems can take up to 20 seconds to kick in; Road EQ is instantaneous. So your music sounds the same whether you're driving or standing still.



Power to shape the sound, flexibility to orchestrate the 16 channels in your own personal symphony

Multi-channel sound systems for the automobile are not particularly unusual. Except one. This powerhouse 16-channel AlpineF#1Status system guarantees a completely new mobile entertainment experience right from the start. The secret weapon is our unique Multimedia Manager signal processor—two of them actually, seamlessly synchronized to work as one monster 16-channel sound-shaping device. No other system comes close. The four separate high-performance amplifiers are crucial in delivering exceptional power and ultra-high dynamic range, but what truly sets this system apart from any other are the dual Multimedia Managers.

One of the most revolutionary aspects of the PXI-H990 is its sophisticated digital time correction. This feature automatically delays the sound of each channel to compensate for asymmetrical speaker placement, ensuring



that the sound of each channel reaches the listener's ears at the exact same time. Each and every speaker in the 16-channel system can also be manually fine-tuned for optimum speaker/listener

The absolute best in-car sound is within grasp

All the system flexibility, all the sonic control, all the surround sound pleasure—all would be lost without proper power. This monster setup utilizes four power amplifiers in parallel connection to derive the maximum benefits of 16-channel sound. Together, these amps generate a whopping 1,600 watts of power—more than enough to fully handle the super-high 144-dB dynamic range of DVD-Audio. This 16-channel system is truly unprecedented, but if there is any point of comparison, it would only be with the latest specially crafted demo cars or extreme competition custom installations. Now, you can enjoy a level of power, control and luxurious surround pleasure known only to a select few. The absolute best in-car sound is within grasp. Treat yourself to the ultimate in mobile entertainment enjoyment—AlpineF#1Status.



DVD AUDIO/CD TUNER



DVI-9990

- Real metal face
- BioLite display
- Three-color illumination
- IONBUS interface
- DVD-Audio Link
- Black finish mechanism & copper-plated chassis
- Four-layer PCB with S.T.A.R. circuit
- Series regulator
- S-video output

Tuner section

Tuning range: AM: 530 - 1.710kHz ; FM: 87.7 - 107.9MHz
 Usable sensitivity: AM: 22.5µV/27dB ; FM: 9.3dBf (0.8µV/75ohms)
 Stereo separation: FM: 45dB or greater
 S/N ratio: FM: 80dB or greater

CD/DVD section

System: optical (compact disc)
 Number of quantum bits: 1 bit
 Number of channels: 2 channels (stereo)
 Dynamic range: 95dB (1kHz) or greater
 High frequency distortion ratio: 0.008 % (1kHz) or less
 Channel separation: 90dB (1kHz) or greater
 Wow & flutter: below measurable limits
 Signal system: NTSC
 Horizontal resolution: 500 or greater
 Image output level: 1Vp - p (75Ω)
 Image S/N ratio: DVD: 75dB
 Audio S/N ratio: 115dB or greater
 Frequency characteristics: CDDVD video: 5Hz - 20 kHz; DVD audio: 5Hz - 40kHz

Remote control

Power source: DC 1.5V x 2 (UM - 4)
 Dimensions (W x H x D): 56 x 142.5 x 37 mm
 Weight: 72 g (excluding batteries)

Main unit

Power source: DC 14.4V (operational range: 11 - 16V)
 Dimensions (W x H x D): 178 x 50 x 155 mm
 Weight: 1.6 kg

Power supply unit

Dimensions (W x H x D): 160 x 40 x 120 mm
 Weight: 0.65 kg

* The DVI-9990 is designed exclusively for reading the media and transmitting data. Therefore, it can only be used in combination with the PXI-H990 or DAI-C990. Also, keep in mind that the processor unit and DAC require the DVI-9990 for operation.

MULTIMEDIA MANAGER™



PXI-H990

- Compatible with DTS-ES, Dolby Digital EX, Dolby Pro Logic II, DTS Neo:6
- Burr-Brown K-grade sine-magnitude 96kHz/24-bit DACs
- 24-bit/8fs digital filter
- GIC low-pass filter
- 32/64-bit floating point Aureus DSP
- 31-band graphic EQ (subwoofer: 10-band) / 10-band parametric EQ (subwoofer : 2-band) / 8-channel variable digital cross over / Digital Time Correction / Road EQ / MediaXpander
- 175-band 1/3-oct. digital EQ
- Road EQ
- Four-layer PCB with S.T.A.R. circuit
- Maximum 16-channel system
- DVD-Audio Link
- IONBUS interface

Graphic EQ bands: Front (L/R): 31 bands; Rear (L/R): 31 bands; Center: 31 bands; Subwoofer: 10 bands
 Graphic EQ boost/cut range: ±9dB
 Parametric EQ bands: Front/Rear Center: 10 bands; Subwoofer: 2 bands
 Parametric EQ frequencies: Front/Rear/Center/
 Band 1: 20/22/25/28/31.5/36/40/45/50/56/63/71/80/90/100/110/125/140/160/180/200/220/250/280/315 (Hz)
 Band 2: 31.5/36/40/45/50/56/63/71/80/90/100/110/125/140/160/180/200/220/250/280/315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k (Hz)
 Band 3: 50/58/63/71/80/90/100/110/125/140/160/180/200/220/250/280/315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k (Hz)
 Band 4: 80/90/100/110/125/140/160/180/200/220/250/280/315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k (Hz)
 Band 5: 125/140/160/180/200/220/250/280/315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k/1.4k/1.6k/1.8k/2k (Hz)
 Band 6: 200/220/250/280/315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k/1.4k/1.6k/1.8k/2k/2.2k/2.5k/2.8k/3.2k (Hz)
 Band 7: 315/360/400/450/500/560/630/710/800/900/1k/1.1k/1.2k/1.4k/1.6k/1.8k/2k/2.2k/2.5k/2.8k/3.2k/3.6k/4k/4.5k/5k (Hz)
 Band 8: 500/560/630/710/800/900/1k/1.1k/1.2k/1.4k/1.6k/1.8k/2k/2.2k/2.5k/2.8k/3.2k/3.6k/4k/4.5k/5k/5.6k/6.3k/7.1k/8k (Hz)
 Band 9: 800/900/1k/1.1k/1.2k/1.4k/1.6k/1.8k/2k/2.2k/2.5k/2.8k/3.2k/3.6k/4k/4.5k/5k/5.6k/6.3k/7.1k/8k/9k/10k/11k/12.5k (Hz)
 Band 10: 1.2k/1.4k/1.6k/1.8k/2k/2.2k/2.5k/2.8k/3.2k/3.6k/4k/4.5k/5k/5.6k/6.3k/7.1k/8k/9k/10k/11k/12.5k/14k/16k/18k/20k (Hz)
 Parametric EQ frequencies: Subwoofer
 Band 1: 20/22/25/28/31.5/36/40/45/50/56/63/71/80/90/100/110/125 (Hz)
 Band 2: 31.5/36/40/45/50/56/63/71/80/90/100/110/125/140/160/180/200 (Hz)
 Parametric EQ boost/cut range: ±9dB
 Time adjustment control range: 0 - 20ms (0.05ms steps)
 Frequency characteristics: 20Hz - 20kHz; 20Hz - 40kHz (for DVD audio playback)
 S/N ratio: 110dB (IHF - A)
 Channel separation: 90dB
 Input sensitivity: 1.2V (analog)
 Subwoofer crossover: 20 - 180Hz (1/6 oct/step)
 Pre output: 4V (load 10kΩ at IONBUS and DVD audio link); 2V (load 10kΩ,AUX input)
 Distortion ratio: 0.01 %
 Input impedance: 10kΩ or greater
 Output impedance: 10kΩ or less
 Sound output level: preout: 4V/10kΩ (maximum; front/rear); preout 4V/10kΩ (maximum; subwoofer/center); AUX IN: 1.2V/10kΩ
 Dimensions (W x H x D): 260 x 68 x 161 mm
 Weight: 2.3 kg

7" WVGA MOTORIZED IN-DASH MONITOR



TMI-M990

- Low-temperature polysilicon wide VGA display
- Independent S-Video input terminal
- IONBUS interface
- Visual EQ control
- Three-system AV input
- Exclusive input
- Rear camera input

Monitor

Screen size: 7.0 inches
 LCD type: transparent TN LCD
 Drive system: TFT Active Matrix low-temperature polysilicon
 Pixels: 1,152,000 (2,400 x 480)
 Effective pixels: 99.99 % or greater *1
 Light source: cold cathode fluorescent tube
 Size (W x H x D): 178 x 165 x 50 mm (when installed)
 Weight: 1.7 kg

AV Interface Unit section

S/N Ratio: 40dB (video); 50dB (audio)
 Input level: video 1Vp-p (75Ω, unbalanced); audio 1200mV (RMS)
 Output level: video 1Vp-p (75Ω, unbalanced); audio 425mV (RMS) (AUX1 when system switch STANDALONE is set (VOL MAX))*1200mV (RMS) (AUX1, AUX2 when system switch SYSTEM is set) *2
 Size (W x H x D): 160 x 40 x 120 mm
 Weight: 530 g
Remote Control
 Power supply: DC 1.5V x 2 (UM - 4)
 Size (W x H x D): 42 x 121 x 23 mm
 Weight: 50 g (excluding batteries)
General section
 Power voltage: DC 12V car battery (minus earth)
 Operational temperature range: 0°C - 45°C

HIGH RESOLUTION D/A CONVERTER



DAI-C990

- High-quality D/A converter
- Large-capacity DC-DC converter
- Six-channel output (RCA terminals)
- DVD-Audio Link
- IONBUS interface

Frequency characteristics: 20Hz - 20kHz; 20Hz - 96kHz (for DVD audio playback)
 S/N Ratio: 110dB (IHF - A)
 Channel separation: 90dB
 Subwoofer crossover: 30 - 400Hz (ANALOG-VR), slope, 12dB/oct, fixed
 Pre output: 4V (load 10kΩ)
 Output impedance: 1kΩ or less
 Dimensions (W x H x D): 260 x 67 x 160 mm
 Weight: 2.1 kg

4/3/2 CHANNEL POWER AMPLIFIER



MRV-F900

- Full symmetric layout
- Triple Darlington devices in parallel push-pull configuration
- LAPT device
- Six-layer circuit board
- 70mm high efficiency toroidal transformer
- Copper-plated chassis
- High-grade chemical condenser

Power band width: 400W + 400W (0.3%THD, 20Hz - 20kHz, 14.4V, at bridge connection into 4Ω) / 200W x 4 (0.3%THD, 20Hz - 20kHz, 14.4V, at 2Ω) / 100W x 4 (0.08%THD, 20Hz - 20kHz, 14.4V, at 4Ω)
 Frequency characteristics: 20Hz - 50kHz (+0, -1 dB)
 S/N Ratio: 105dBA
 Input sensitivity: 500mV - 8.5V / 10kΩ, [Center] 1.0V / 10kΩ
 Crossover frequency: 50 - 200Hz, slope: 12dB/oct
 Dimensions (W x H x D): 650 x 86 x 247/300 mm
 Weight: 15 kg



CEA 2006 Power Ratings
 100WRMS x 4(4Ω)@14.4V ±1%THD+N
 S/N 85dB (Ref: 1W into4Ω)

3-WAY COMPONENT SPEAKER SET



SPX-Z18T

- Cross-cut wood fiber cone
- High-linearity special damper
- Brass block terminal
- Long-stroke low-resonance edge
- Three-piece copper short ring
- Aluminum-machined phase plug
- Aluminum face plate
- High-rigidity voice coil
- Ring diaphragm
- Aluminum tuned air chamber
- High-precision passive crossover network

Type: 3-way separate

Speaker Unit: 3.9 cm tweeter with ring radiator, 10 cm mid-range woofer with cross-cut wood fiber cone, 18 cm woofer with cross-cut wood fiber cone / 3-way crossover network unit
 Frequency band width: 35Hz - 60 kHz
 Peak power input: 200W
 RMS input: 50W
 Impedance: 4Ω
 Weight: 2 kg (woofer) / 0.55 kg (mid-range woofer) / 0.4 kg (tweeter)

2-WAY SINGLE CHANNEL COMPONENT SPEAKER SET



SPX-Z15M

- Cross-cut wood fiber cone
- High-linearity special damper
- Brass block terminal
- Long-stroke low-resonance edge
- Three-piece copper short ring
- Aluminum-machined phase plug
- Aluminum face plate
- High-rigidity voice coil
- Ring diaphragm
- Aluminum tuned air chamber
- High-precision passive crossover network

Type: 2-way separate

Speaker Unit: 3.9 cm tweeter with ring radiator, 15 cm woofer with cross-cut wood fiber cone / 2-way crossover network unit
 Frequency band width: 45Hz - 60 kHz
 Peak power input: 200W
 RMS input: 50W
 Impedance: 4Ω
 Weight: 1.3 kg (woofer) / 0.4 kg (tweeter)

ACCESSORIES



KCI-500B

Ai-NET / IONBUS converter
 Device for converting Ai-NET signals to IONBUS.
 It is controllable from CD changers that support Ai-NET, such as the DVI-9990, etc.



KWI-204B

IONBUS cable (2 m)
 Also used for connecting two PXI-H990s in parallel linkage.



KWE-205B

DVD-Audio Link cable (2 m)
 For connection between the DVI-9990 and the PXI-H990 or DAI-C990

• Alpine, Discover The Future of Mobile Multimedia, Mobile Multimedia Excellence, AlpineF#1Status, Multimedia Manager, Micro Dynamics, are trademarks of Alpine Electronics, Inc. dts is a trademark of Digital Theater System Corporation. "Dolby", "Pro Logic", "MLP Lossless", and the double-D symbol are trademarks of Dolby Laboratories. Aureus is a registered trademark of Texas Instruments, Inc. Windows Media and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.
 • Product descriptions are based upon current information at the time of printing, but cannot be guaranteed. All designs, features, and specifications are subject to change without notice.
 For updated product information, please visit www.alpine-usa.com.