

Source Units



Source Units Sales Concepts

Source Units:

- **10 New Models**
- All products have high power (50W x 4)
- Most have Rotary Volume Controls
- All have detachable faceplates (except, DB125, XA311)
- All have multi-colored displays
- All have RCA line level outputs (except XA311)
- All Pro Audio source units have an AUX input
- All Pro Audio units have a built-in Beat EQ 3 band parametric EQ (except DXZ525)
- All Pro Audio Source units are Sirius Satellite Radio ready
- Steering Wheel Mount IR Remote Control RCB147

CD Players:

- All CD players/changers (except BD225) play CD-R/RW discs
- **New** CD/MP3 Player
- **New** Dolby Pro Logic II circuitry in the DXZ925

New Cosmetic Design:

- **New** Aluminum Escutcheon face plates on **ALL** CD units
- **New** High Contrast Multi-Color LCD Displays on new Pro Audio units
- **NEW** Retractable Rotary Volume Control on selected Pro Audio

units

- Selected Pro Audio source units have Double Key (green/red) Illumination

New Changers

- New CeNet and C-bus 6 disc changers
- **NEW** improved 6 disc magazine
- Fast disc to disc access time

Sirius Satellite Radio

- Hide Away receiver controlled by all Pro Audio Source Units
- Optional controller available to allow use with all other source units, including OEM w/FM200 FM Modulator
- Line level outputs can interface with 2001 CeNet source units AUX inputs

Easily add external audio products:

- All Pro Audio Source Units have an auxiliary audio input

Sirius Satellite Radio Information

WHAT IS SIRIUS SATELLITE RADIO?

Digital Satellite Service is the newest technology available in the mobile electronics industry, and Sirius Radio is at the forefront of this technology. This technology consists of a satellite based system that transmits digital audio quality signals from a ground based transmitter to an orbiting satellite. The signal is then sent from the satellite to a mobile receiver in your vehicle.

Digital Satellite radio technology gives the consumer a subscription digital radio service with:

- 60 channels of music
- commercial-free music
- coast-to-coast coverage
- digital sound quality
- low cost (\$12.95/month)

Future application will include Telematics (communications with your vehicle) and In-Vehicle Electronic Commerce (ability to purchase product from your vehicle).

The Sirius System is composed of three orbiting satellites and supported by 105 ground based repeaters. There are two satellites in view of the mobile receiver at all times, and the satellites orbit at a very high elevation angle. This orbit has less signal blockage from tall buildings, and high signal strength through objects such as trees and foliage. This orbit also gives better performance in multi-path areas (lots of tall buildings in a downtown area) and from severe weather conditions.

The ground based repeaters provide a seamless national coverage of the satellite broadcasts. The repeaters help satellite coverage in dense urban centers (approximately 56 cities nationwide). The repeaters also broadcast studio programming in areas where satellites are obstructed for extended lengths of time.

Programming will initially consist of 50 commercial free music channels, and 50 non-music informational channels with few commercial interruptions. The music channels will be produced by Sirius staff in their New York City studio. The 50 commercial free channels will consist of:

ROCK

Specials, Classic Rock I, Classic Rock II, Alternative I, Alternative II, Hard Rock/Metal, Album Rock, AAA/Eclectic

HITS

Top of the Charts, 90's Hits, 80's Hits, 70's Hits, 60's Hits, 50's Hits, Soft Rock, Love Songs

SPECIALTY

New Age, Kids, Christian Hits, World Music, Reggae, Dance, Blues, Specials

COUNTRY

Alternative Country, Country Hits, Country Mix, Classic Country, Bluegrass

LATIN

Latin Top 40, Latin Love Songs, Rock En Espanol, Mexicana, Tejano

JAZZ

Classic Jazz, Contemporary Jazz, Smooth Jazz

R&B

R&B Oldies, Classic Soul Hits, Hip Hop, Rap, Soul Ballads, Gospel

CLASSICAL

Symphonic, Chamber Works, Classical Voices

POPULAR

Singers and Songs, Big Band/Swing, Broadway's Best Broadcast information which will be displayed consists of Channel Name ("Classic Rock", "Alternative", etc.), Category Name ("Rock", "Hits", "Jazz"), Song Title ("Stairway to Heaven", etc.) and Artist Name ("Led Zeppelin", etc.)

The audio content is produced in Sirius' broadcast center in New York City, in the largest, most sophisticated broadcast facility in the world. There are multiple recording studios, and live performance studios for live digital music broadcasts. It also has the largest digital library at three million titles.

WHO WILL BE YOUR CUSTOMERS?

Some of the key customer segment groups are:

- Commuters
- Specialty music buyers (non-mainstream music listeners)
- Areas with few local FM or AM stations
- Long distance truckers
- Boaters

Satellite Radio systems will be the fastest selling product in the autosound arena. There is a huge awareness of the product and its benefits, which will make it an easy sale. There is also a broader interest in Satellite Radio than in traditional mobile electronics products.

Sirius Satellite Radio Information

WHAT CAN YOU SELL?

This product will also be an excellent add-on sale to existing car audio owners. All of Clarion's 2002 Pro Audio source units are Sirius Satellite ready. Using an optional controller and FM modulator, Clarion's Sirius receiver is compatible with any other radios including all OEM factory source units. Clarion's 2002 Pro Audio source units (DXZ925, DXZ825, DXZ725, DXZ525, and the VRX925VD multimedia unit are Sirius Satellite Radio ready, and will directly control the Sirius Satellite Receiver. 2001 CeNet source units can use their AUX inputs and the optional controller for CD quality sound without the need for an FM modulator.

HOW IS THE SERVICE SOLD?

Activations will be initiated by a retail dealer, or customers can sign up for service at the Sirius website, or by calling Sirius direct. There will be an activation bonus for the dealer, and a recurring revenue from subscriptions that are sold by the dealer.

All customer care billing and service related issues will be directly handled by Sirius Satellite Radio. The sign-up process is simple, with no long paperwork required.

KEY RETAIL POINTS:

- **Great upselling opportunities for new source units, amplifiers and speakers for digital quality audio supported by Sirius Satellite Radio**
- **Media advertising will drive traffic to your store with a broader customer demographic than the traditional mobile electronics buyers**
- **A broadcast service with an extensive music library for even your most "niche" music lovers**
- **Simple service sign-up, no long paperwork**

KEY CUSTOMER SELLING POINTS:

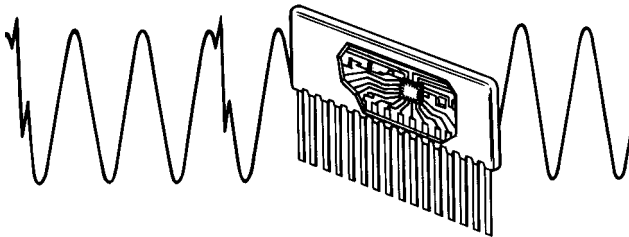
- **Specific music channels - almost every type of music being sold will have it's own channel**
- **No more endless commercial breaks**
- **No more static...all digital network**
- **Celebrity hosted shows and frequent entertainer guest appearances**
- **Name brand content sports, news, and entertainment channels (CNN, ESPN, etc.)**

Source Unit Tuner Technologies

MAGI-TUNE® TECHNOLOGY:

Magi-Tune® contains the latest Clarion advances in tuner technology. It includes a dual-gate FET balanced-mixer FM front end, a two-stage intermediate frequency (IF) amplifier, a S-SASC (Super-Signal Actuated Stereo Control) circuit, Clean Z1™, electronic quartz-locked PLL (phase-locked loop) tuning, and auto DX/LO (distant/local) reception.

FM radio waves are transmitted at very high frequencies (VHF) that radiate in straight lines, much like light waves. Along the way, a station's signals will encounter any number of large solid objects, such as tall buildings and hills, as a transmission ultimately reaches a tuner. Such obstacles can cause reception "shadows," resulting in a momentary loss of signal. In addition, FM signals can be reflected by obstructions. When this happens, direct and reflected signals from the same station can arrive at the car's antenna at different times, causing a noise known as multipath distortion.



Clean Z1™ eliminates noise spikes from the FM signal.

In order for a tuner to deliver the best possible FM performance and resistance to changing signal strength and multipath distortion, each circuit must have a synergistic design in which the sum is greater than the parts.

The Magi-Tune® tuner is equipped with a high-performance dual-gate FET front end, a two-stage IF amplifier, S-SASC, and Clean Z1™ circuits, all working together to provide excellent sensitivity and selectivity for extremely clean and quiet FM stereo reproduction.

- Clarion's dual-gate FET balanced-mixer FM front end maximizes signal output with less signal fade
- The two-stage IF frequency amplifier

allows the tuner to attain excellent FM selectivity and sensitivity

- Clean Z1™ removes impulse noise from the FM signal and provides an RFI-free signal to subsequent audio stages
- The S-SASC circuit helps reduce FM multipath distortion and "fluttering"

MAGI-TUNE+® TECHNOLOGY:

Clarion has developed several new advances to our Magi-Tune® tuners, which we aptly named Magi-Tune+®. Building on the same Magi-Tune® technology core, we added an improved triple-stage intermediate frequency (IF) amplifier, a new six-diode AM detector, and combined all the circuits into a single AM/FM tuner pack. As a result, Magi-Tune+® provides the best FM and AM reception available, and it is standard in all Pro Audio source units. Also, selected units provide access to European tuning frequencies, so they can be used worldwide.

Radio transmissions fluctuate constantly, due to a number of factors. This makes reception very difficult, especially for a tuner that is constantly changing its location. All Magi-Tune+® features combine to deliver unparalleled FM and AM reception.

- Increased AM/FM reception of weak stations or in mountainous or heavy city terrain
- No distant/local or stereo/mono switch to bother with; functions are performed automatically
- Combined AM/FM tuner pack with all electronics shielded
- Switchable frequency spacing allows reception of European FM stations

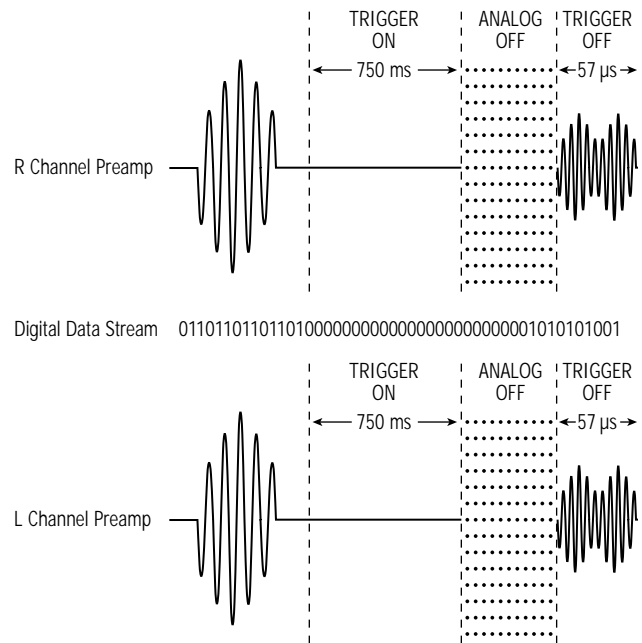
Source Unit CD Technologies

ZERO-BIT DETECTOR MUTE CIRCUIT:

This exclusive Clarion digital circuit monitors the data stream and mutes the final analog output any time a series of consecutive zero bits is detected.

The zero-bit detector mute circuit is a digitally-triggered analog muting circuit. This is an important key point in understanding the basic concept responsible for the outstanding sonic capabilities of all Clarion CD players.

All analog noise gates require initial (and often frequent) adjustments to optimize the overall threshold level and the duration period of the gating circuitry. These adjustments are based on an averaged and assumed recording level. This presents a serious problem, due to the fact that there is no established reference level for audio-only recordings. Therefore, any type of analog-based noise gate has the potential of being prematurely triggered due to an incorrectly-set adjustment. This will produce audible and annoying "pumping" effects, which can severely clip off the audio signal during its gating process. Clarion's zero-bit detector mute circuitry requires absolutely no adjustments and boasts a dynamic signal-to-noise (S/N) ratio well above 100 dB.



The zero-bit detector mutes the preamplifier analog outputs after a series of zero bits exceeds 750 ms. Audio is restored after a period of one and zero bits is longer than 57 μ

- **Excellent signal-to-noise ratio of over 100 dB**
- **Absolute silence between musical selections on a compact disc**
- **Recommended for competition use; has none of the inherent drawbacks of an analog-based noise gate**

Source Unit CD Technologies

CLARION'S LOW-VIBRATION SUSPENSION SYSTEM:

Each Clarion CD mechanism features a low-vibration suspension system of springs and dampers to prevent skipping and mistracking.

Clarion also employs a three-beam laser assembly on all CD players and changers. The central beam is used to pick up the digital information to send to the D/A converter, while the two outer beams guide the laser lens assembly to precisely track the digital information on the CD.

With the low vibration suspension system, Clarion CD players can play without skipping or mistracking. The laser assembly can stay focused on the CD surface with lower correctional information from the focusing servo. As a result, the music contained on the CD will be reproduced flawlessly.

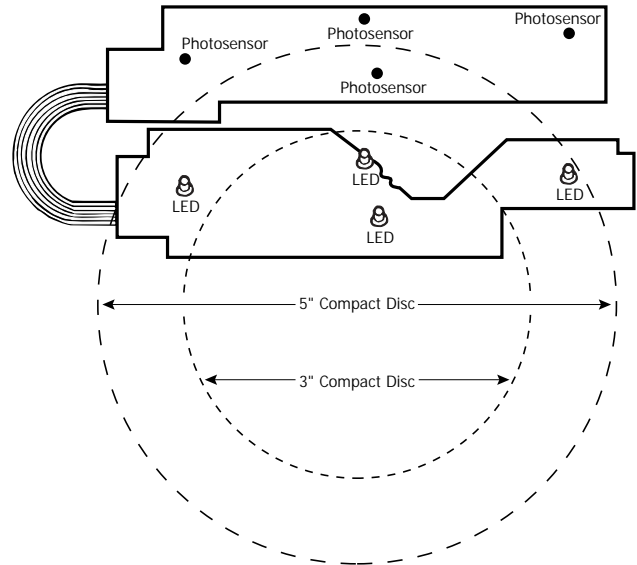
- Clarion CD players have superior shock resistance
- Clarion CD mechanisms will play back "drop-outs" without mistracking
- Clarion CD players have flawless play-back abilities

CLARION'S CD OPERATIONAL SAFEGUARDS:

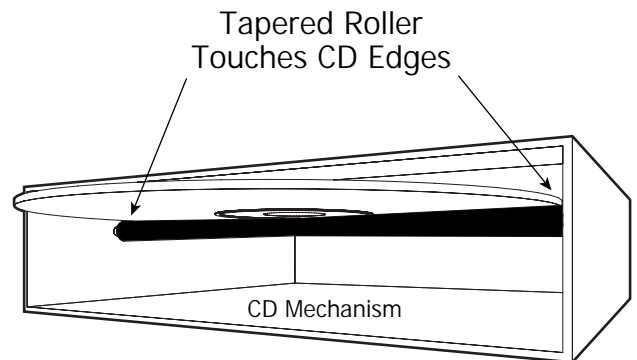
Clarion's CD operational safeguards allow the CD mechanism to detect disc size, prior disc-in-drive detection, foreign object detection, and auto reload.

A special tapered loading roller precisely centers the CD onto the drive spindle. Since the roller mechanism is tapered, only the edges of the CD are touched, thereby eliminating the possibility of scratches. A sensor prevents disc loading when one is already in the player by automatically closing a loading gate.

These operational safeguards allow safer CD disc handling, prevent jams from accidental loading of two CDs, and help to reduce service problems by detecting foreign objects in the drive mechanism.



Clarion's CD mechanism uses photosensors and LEDs to identify 3" or 5" compact discs.



Clarion's CD mechanism uses a tapered roller to precisely center the CD onto the drive spindle.

- Provides safer CD handling and the ability to auto-load any CD size
- Prevents CD jams and protects the CD mechanism
- Reduces service problems

Source Unit CD Technologies

1-BIT AND 24-BIT DIGITAL-TO-ANALOG (D/A) CONVERTER:

A 1-bit (bit stream) D/A converter uses a single-bit pulse-code modulation (PCM) decoder, rather than a multi-bit PCM decoder, to convert the digital signals on a compact disc to an analog waveform.

Some conventional CD players employ multi-bit PCM D/A converters and oversampling digital filters to reconstruct an analog signal from the 16-bit digital information on the disc. This type of 16-bit technology can create several signal defects (e.g., linearity errors and notch distortion) that affect sound quality. Moreover, a 16-bit D/A converter produces over 65,500 discrete amplitude levels (resulting from 256 sampling bits per cycle times 16 bits of decoding per cycle times 16 "one" or "zero" bit possibilities per cycle) with as many chances for error.

In contrast, Clarion's 1-bit D/A converter produces signal levels that are either "one" or "zero." Because of this, the conversion process is not prone to the types of errors found in the multi-bit D/A conversion. The result of 1-bit D/A conversion is excellent linearity and a virtual absence of distortion.

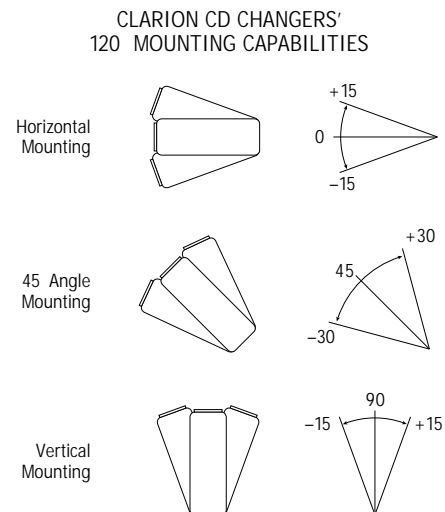
Clarion's new 24-bit D/A converter eliminates the signal defects of older 16 bit decoding by actually "oversampling" the digital signal. This greatly improves overall sound quality of the D/A converter creating a more natural sound, and better imaging. A 24-bit D/A converter greatly reduces linearity errors and notch distortion, which results in superior sound and high signal to noise ratios for less reproduced noise.

- Excellent linearity in the D/A converters
- Low distortion
- Reduces crossover notch distortion
- 24-Bit D/A converters result in more natural sound reproduction and better imaging

CLARION'S ADVANCED CHANGER FEATURES:

Clarion's changer mechanisms include smart sensing circuits, a new loading system, last-position memory, and offer excellent mounting flexibility.

Each Clarion changer has a much faster disc-to-disc access time. Our changers also quickly skip over empty trays in the magazine, which speeds up loading and play time between discs. Last position memory allows the CD to continue where it left off, instead of starting over each time the CD function is turned off. Moreover, each changer can play at any angle between vertical and horizontal to enable greater mounting flexibility.



Clarion CD Changers can be mounted across a total 120-degree range.

- Clarion changers have a faster disc access time than other manufacturers changers
- Clarion changers can skip over unused trays in the magazine
- Last-Position Memory
- Clarion changers have 120-degree mounting capabilities
- New magazines for 2002

Source Unit Cassette/MP3 Technologies

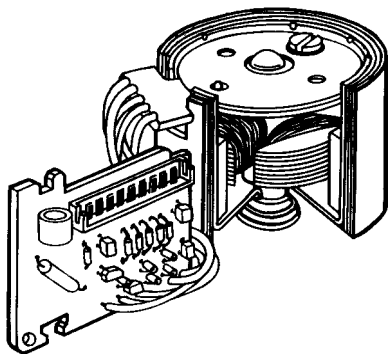
CLARION'S TAPE TECHNOLOGIES:

Clarion's tape technologies include a DC Servo Motor Control system for accurate speed control, Dual Azimuth to maintain even frequency response on both sides of tape play, and a GFC-2 full logic tape mechanism for safe and efficient tape transport.

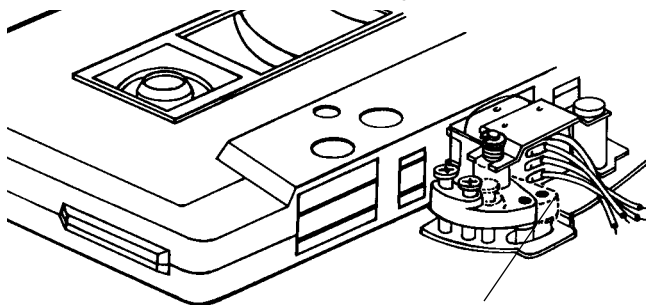
Clarion's tape technologies allow the most accurate tape speed regulation for excellent playback response, especially important when listening to jazz or classical music.

Dual-azimuth tape head alignment system provides all the performance benefits of two separately-aligned playback heads, for the most accurate high-frequency response in both directions of tape play in an auto reverse mechanism.

The GFC mechanism maintains accurate tape handling with user-friendly features such as true function in FF/RW modes, along with motorized tape loading/ejection, tape slack removal to prevent tape jams, and intro scan and repeat modes to enhance playback options.



Clarion's dc servo motor assembly.



dual-azimuth set screws

Clarion's dual-azimuth adjustment system.

- DC servo motor maintains accurate motor speed, regardless of voltage fluctuations
- Dual azimuth allows excellent high frequency response in an auto reverse tape mechanism
- Dual azimuth does not average azimuth of both directions to compromise high frequency response
- With GFC true function, you never have to determine which button to push for fast forward or rewind
- GFC mechanism provides tape protection during load/eject and playback

MP3 TECHNOLOGY:

MP3 technology is a new way of compressing music into a smaller storage space. A standard audio CD up to 700 megabytes (mb) of storage, enough for a standard music playback time of about 80 minutes. MP3 is a compression format that stores digital audio information in about 1/10 the space of a standard audio CD. In other words, a 700mb CD can store up to *TEN HOURS* of music!

MP3 discs can be made from standard digital audio files in a conversion process called "ripping". A standard digital audio file is compressed and converted into an MP3 file. A special program is needed to play back these MP3 files on any computer. These MP3 files can be "burned" (recorded) onto a CD-R (recordable) disc for playback on an MP3 enabled device. If the files are recorded at a high enough conversion rate (128mb or higher), they can sound almost as good as a standard audio CD.

Our new DB625MP has a built-in MP3 decoder, which will allow playback of CD-R discs encoded with MP3 songs.

- Up to 10 hours of music per CD
- Lets you record your own choices of music on a CD-R, and play it back in your car

Source Unit Preamp Technologies

PREAMPLIFIER TECHNOLOGIES:

Our Rotary Volume Control Knob has excellent tactile feel, and allows instant access and control of volume, bass, treble, balance, and fader functions of the source unit. It uses digital rotary encoding technology, and directly controls the analog audio functions of the micro-processor. A Retractable Rotary Control is available on selected Pro Audio models.

The Z-Enhancer acts as a super loudness compensation EQ. You can choose one of three different EQ curves. The first boosts the low frequencies, the second boosts the high frequencies, and the third boosts both the low and high frequencies.

For 2002, Clarion's Pro Audio Source units have a Beat EQ Selector. This feature has three preset EQ curves, and a User position which allows a three band parametric EQ to be used. Each band (Low, Mid and High) has selectable frequencies and adjustable gain and Q (width of frequency adjustment).

With these features, users will find it easier to access and adjust source unit functions, operate Multimedia products, select preset EQ curves, and control subwoofer level from the Rotary Volume Control.

- **Simple method of accessing and adjusting most-commonly used source unit functions**
- **Select and adjust preset or user EQ curves in all 2002 source units with either the Z Enhancer or the Beat EQ parametric EQ (Pro Audio)**
- **On all source units (except DB625MP), the Rotary Volume Control Knob adjusts the volume of the non-fade line outputs to a subwoofer amplifier. A New Pop up Volume Control is available on selected Pro Audio models.**

PREAMPLIFIER CIRCUITS:

The preamplifier has a combination of circuits that provide 2 volt line-level output, fader, tone control bypass, audio control bypass, and extended bass control.

Our Pro Audio source units use a true 4-channel preamplifier, with true line-level outputs, rather than line-level outputs tapped from speaker levels (as found in other manufacturers' source units). The preamplifier delivers 4 volts before clipping, at less than 300 ohms impedance.

Our dual 50-watt/channel high-power chips in all our source units give a true 50 watts (18 watts RMS/channel) at the speakers, providing more dynamic headroom and a higher SPL before clipping. With Clarion's preamplifier circuits and dual 2-channel power chips, the source unit provides greater flexibility in adding internal equalization for lower distortion and more control. This extra output power allows Clarion's power output sections to drive less-efficient speakers (such as separates) without clipping. The single 2-channel chip cannot deliver as much power to the speakers, and therefore cannot drive less-efficient speakers as well as our dual 2-channel chips can without clipping.

Clarion's preamplifier circuits deliver a high line-level output voltage at low output impedance, for better signal transfer to amplifiers and processors. This results in higher signal-to-noise ratios, along with true line-level output, rather than a reduced speaker level output acting as a line-level output.

- **Flexible preamplifier controls with the ability to turn off tone and volume control circuits**
- **4-channel preamplifier with true preamplifier level output and high output voltage**
- **High-Power 4 channel output chip delivers more power at the speaker input**

Source Unit/Processor Technologies

4 VOLT PREAMPLIFIER OUTPUT:

A high-output preamplifier voltage provides reduced signal clipping, less chance of vehicle electrical noises altering signals between source unit and amplifier, and a lower amplifier input gain setting to reduce system noise levels.

A 4-volt low impedance (less than 300 ohms) output in our Pro Audio source units and processors minimizes the possibility of a clipped and distorted output signal. This results in a much cleaner musical signal sent to the power amplifier, so the amplifier reproduces a cleaner high-level signal. The end result is musical reproduction with extended dynamic range and more headroom.

- **High-output low impedance voltage preamplifier circuits prevent clipping of the musical signal, increasing headroom and dynamic range**
- **High-output voltage source units reduce amplifier input gains, thereby lowering system noise**
- **High-output voltage source units allow a longer RCA cable run without the worry of vehicle-generated noise entering the audio path**

PROCESSOR MODULE:

In 1995, Clarion introduced processor module technology for signal processing on our Pro Audio line. Using a hideaway processor module, a source unit controls all functions, rather than relying on a separate processor control panel or DIN dash-sized unit. This results in more flexible installations, especially in cars with only one radio position, and provides the ability to use a processor without adding an external amplifier.

The DPH910 processor module is controlled by front-panel controls on the DXZ825 and DXZ725 Pro Audio source units and the VRX610, VRX815 and VRX925VD multimedia units. All functions, from equalization, crossover points, subwoofer volume, to DSP settings can be accessed from the front panel, making adjustment much easier than with two separate units or control panels. A CeNet Cable connects the source unit to the module, and includes power, audio and control signals. The module includes RCA line-level outputs to feed external amplifiers

- **Source unit controls processor module, replacing two separate control panels**
- **Module runs on the CeNet bus, utilizing advantages of the new bus system**

CeNet Technology

CENET BUS SYSTEM:

Clarion's CeNet bus system, consists of a hardware network and software control. Not only can a CeNet controller talk to multiple changers, but add-on products, such as our new TV tuner module and DSP/EQ/Crossover module.

The CeNet bus is found on all Pro Audio and Multimedia "Z" Series source units. This bus system is NOT compatible with the current C-Bus system, but looking at the advantages of CeNet, it will be easy to explain to your customers the advantages of this bus system. All product that is CeNet enhanced has a "z" in the prefix of the model number, i.e. DXZ925.

The CeNet bus has the ability to transfer information at high speed from the changer to the connected source unit. This enables our changers to be CD Text capable. The source unit can automatically display song and disc titles from CD's that are enabled with CD Text format.

The CeNet bus system has balanced line audio. The result is dynamic noise cancelling, making the CeNet system virtually noise free, even when ran next to power cables in the car.

Another advantage of CeNet is the ability to run multiple changers in a system. Up to two changers can be connected at once. The CAA519 Y-connector allows multi-changer functions.

When using the DPH910 EQ/DSP/Crossover digital processor module or the DVH920 5.1 channel surround sound processor, the CeNet bus supplies not only the control signals for the processor, but also the analog audio signal. Therefore, you no longer have to run separate RCA cables from the source unit to the processor. The Processor uses a loop-through system; CeNet enables a complete tie-in of all multimedia and processor components with a single control cable, making system upgrading simple.

Finally, CeNet is a "Plug-n-Play" system. Each time a new module, TV Tuner, or changer is added to the system, it is automatically recognized by the source unit. This makes system expansion easy, with a single control cable between each added component.

- **CeNet allows multiple changer control, and balanced line audio for noise free audio transmission**
- **CeNet can control more than changers (e.g., our TV tuner or processor module), for easy control of multiple sources**
- **CeNet has CD Text capability, and is "Plug-n-Play ready"**

Common Features

COMMON FEATURES:

DCP

Single DIN source units feature a Detachable Control Panel (DCP) for added security.

Rotary Volume Control

A digital rotary knob allows access to several unit functions from a single control. A Retractable Rotary Control is available on selected Pro Audio source units.

Z Enhancer (non CeNet source units)

A special circuit that uses the source units tone controls for preset EQ curves. There are 3 settings that will allow boost or cut of the low frequencies, high frequencies, and both low and high frequencies. To prevent overdriving amplifiers and speakers, the tone controls are inactive when the Z Enhancer is on.

RCA Outputs

Most units offer line-level RCA outputs allowing easy system upgrades, such as an equalizer and amplifiers.

High-Power On-Board Amplifier

Four speakers can be connected directly to the source unit which can deliver 50 watts per channel.

CeNet Bus (unless stated as C-bus)

Bi-directional bus allows "plug-n-play" system upgrades such as multiple changers, signal processors and multimedia devices. The bus cable features balance line audio for superior noise rejection.

Night Illumination

Backlit buttons and tape door/CD loading slot are illuminated when the vehicle's lights are on for easy night time operation. The intensity of the display is also reduced to prevent eye fatigue.

TUNER FEATURES:

Magi-Tune +

A modular, compact tuner package with the finest specifications in the industry.

Super Signal Activated Stereo Control (S-SASC)

Automatically blends left and right stereo chan-

nels to a mono signal and reduces high frequency response to mask noise due to weak broadcast signals.

Clean Z1

Removes RFI noise induced by the vehicle's electrical system giving clear radio reception across all tunable frequencies.

Two Stage IF Section

Allows for excellent FM selectivity and sensitivity.

CD PLAYER/CHANGER FUNCTIONS:

Tapered Loading Rollers

The loading rollers are tapered to safely handle the CD by its edges and precisely center the disc onto the drive spindle.

Foreign Object Detector

Four LEDs and photosensors can determine the size and shape of the object being inserted into the loading slot. If it's not a CD it will eject the object to prevent damage to the spindle and mechanism.

24-Bit D/A Converter

24 bit resolution of the digital signal for more precise CD music reproduction and better signal-to-noise ratios.

Dual 1-Bit "Bit-stream" D/A Converter

Virtually removes crossover distortion for higher fidelity.

8-Times Oversampling

Oversamples the digital bit-stream at 352.8 kHz per second, or 8 times the CD sampling rate of 44.1 kHz, reducing digital noise and providing a more accurate analog signal.

Zero-Bit Detector

A digital noise gate that senses when there is no music (zero bits) and mutes the analog outputs for improved signal-to-noise ratios and eliminating any digital tracking noise.

3-Beam Laser Tracking

The laser is divided into three separate beams for better tracking and focusing on the disc.

Low-Vibration Suspension

Silicone-filled dampers and springs keep the transport stable during playback to minimize skipping.

Common Features

Last Position Memory

Automatically starts playback from the last played position on the disc.

Key-Off Eject

For added convenience, the unit allows the removal of a CD with the ignition off.

120 Degree Mounting

The changer can be mounted from 15 degrees below horizontal to 15 degrees past vertical offering maximum installation flexibility.

CASSETTE FEATURES:

GFC Tape Mechanism

Two separate motors are used; one to load and eject the tape and the other dedicated for playback. The superior shielding and location of the tape preamp reduce the possibility of induced noise from external sources.

Full Logic Tape Transport

The tape transport, operated with soft touch buttons, also offers automatic slack removal. This prevents tape damage and costly repairs. Its true function characteristic allows fast forward and rewind to be correct regardless of tape direction.

Auto Reverse with Dual-Azimuth Adjust (Pro Audio)

An automatic mechanical adjustment to realign the playback tape head to the tape each time the direction is reversed. This ensures consistent high frequency response regardless of tape direction.

Electronic DC Servo Motor

Unlike the mechanical brake used in cheaper units, a specially designed comparator circuit automatically adjusts the motor speed, reducing wow and flutter and extending motor life.

Key-Off Pinch Roller Release

The tape head and pinch roller are released from contact with the tape when the ignition is turned off, reducing tape wear and potential repairs.

Key-Off Eject

For added convenience, the unit allows the removal of a cassette with the ignition off.

Automatic Program Control (APC)

Searches for the beginning of the previous or next song and resumes play at that point.

2002 SOURCE UNIT FEATURES:

Beat EQ Selector

All Pro Audio source units have a BEQ Selector, which has three preset parametric EQ settings, and one User setting. The User setting has a three band parametric EQ (Low, Mid, and High), with selectable frequencies and adjustable gain and Q adjustments. (except DXZ525)

MP3 Player:

The DB625MP has a built-in MP3 decoder that enables the unit to play CD-R audio discs recorded with MP3 format music.

Aluminum Escutcheon Face

All source units have a brushed aluminum faceplate for a precision look and feel.

High Contrast Multi-Color LCD Displays

The brightest displays ever offered by Clarion, they have CD Titling and Tuner Titling capabilities. The DXZ925/825 have adjustable contrast.

High Brightness LCD with Electric Blue Display

A high-luminescence clear blue LCD is used for the display panel. The high contrast display minimizes eye strain and lets you visually confirm the status of the system at a glance.

Double Key Illumination

On the DXZ925 and DXZ825, the button illumination can be switched from green to red.

Retractable Rotary Control

Selected Pro Audio source units use a retractable volume control that allows easy system adjustment, and can be retracted into the faceplate to maintain the sleek new unit cosmetics.

DVD Video Control

All 2002 Pro Audio source units control the new VCZ625 6 disc DVD video/audio changer, for system expansion from pure audio to an advanced A/V system.

BD125/BD225 Information



DB125 AM/FM CD Player DIN Chassis

COMMON FEATURES:

- 2 Channel RCA Line Level Output
- 200 W (50W x 4ch)
- Z-Enhancer
- Random Play, Track Repeat, Intro Scan
- Play's CD-R & CD-RW's
- Rotary Volume Control
- Self-Demonstration Mode
- Electric Blue LCD Display
- Magi-Tune Tuner with 18FM/6AM Presets
- Screen Saver
- Magna-Bass
- Aluminum Faceplate

SYSTEM UPGRADES

Amplifier

REPLACEMENT PARTS

Wire Harness 854-634-950

TARGET CUSTOMER

Looking for an entry level CD player with possible amplifier upgrade.



DB225 AM/FM CD Player DIN Chassis w/Detachable Faceplate

FEATURE UPGRADES:

- Detachable Faceplate

SYSTEM UPGRADES

Amplifier

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-389

TARGET CUSTOMER

Looking for an upgraded entry level CD player with detachable faceplate and possible amplifier upgrade.

FM Useable Sensitivity:.....11dBf
 FM 50 dB Quieting Sensitivity:.....17dBf
 FM Alternate Channel Selectivity:.....75dB
 FM Stereo Separation @ 1kHz:.....35dB
 FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
 AM Useable Sensitivity:.....25uV
 CD Channel Separation @ 1 kHz:.....55dB
 CD Signal to Noise Ratio:.....100dB
 CD Frequency Response (Hz-kHz):.....10/20
 CD Dynamic Range:.....95dB
 Maximum Power Output (Watts/Ch):.....50/4
 Continuous Power Output (Watts/Ch)
 4 Ohms, 1%THD:.....18/4
 Line Level Output Voltage:.....1.8V

FM Useable Sensitivity:.....11dBf
 FM 50 dB Quieting Sensitivity:.....17dBf
 FM Alternate Channel Selectivity:.....75dB
 FM Stereo Separation @ 1kHz:.....35dB
 FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
 AM Useable Sensitivity:.....25uV
 CD Channel Separation @ 1 kHz:.....55dB
 CD Signal to Noise Ratio:.....100dB
 CD Frequency Response (Hz-kHz):.....10/20
 CD Dynamic Range:.....95dB
 Maximum Power Output (Watts/Ch):.....50/4
 Continuous Power Output (Watts/Ch)
 4 Ohms, 1%THD:.....18/4
 Line Level Output Voltage:.....1.8V

DB325/DX425 Information



DB325 AM/FM CD Player w/Detachable Faceplate DIN Chassis

FEATURE UPGRADES

- IR Remote Control
- Self Demonstration Mode
- Plays CD-R/RW's

SYSTEM UPGRADES

Amplifier

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-406

Remote Control RCB-130

TARGET CUSTOMER

Looking for a CD player with a larger display and IR Remote Control, and possible amplifier upgrade.



DX425 AM/FM CD Player/Changer Controller w/Detachable Faceplate DIN Chassis

FEATURE UPGRADES

- C-Bus Changer Controller
- 4 Channel Line level Output

SYSTEM UPGRADES

4 Channel Amplifier

OPTIONAL CHANGER

DC625

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-397

Remote Control RCB-130

TARGET CUSTOMER

Looking for a CD player with changer capability, remote control and possible 4 channel amplifier upgrade.

| | |
|--|-------|
| FM Useable Sensitivity:..... | 11dBf |
| FM 50 dB Quieting Sensitivity:..... | 17dBf |
| FM Alternate Channel Selectivity:..... | 75dB |
| FM Stereo Separation @ 1kHz:..... | 35dB |
| FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):..... | 30/15 |
| AM Useable Sensitivity:..... | 25uV |
| CD Channel Separation @ 1 kHz:..... | 55dB |
| CD Signal to Noise Ratio:..... | 100dB |
| CD Frequency Response (Hz-kHz):..... | 10/20 |
| CD Dynamic Range:..... | 95dB |
| Maximum Power Output (Watts/Ch):..... | 50/4 |
| Continuous Power Output (Watts/Ch) | |
| 4 Ohms, 1% THD:..... | 18/4 |
| Line Level Output Voltage:..... | 1.8V |

| | |
|--|-------|
| FM Useable Sensitivity:..... | 11dBf |
| FM 50 dB Quieting Sensitivity:..... | 17dBf |
| FM Alternate Channel Selectivity:..... | 75dB |
| FM Stereo Separation @ 1kHz:..... | 35dB |
| FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):..... | 30/15 |
| AM Useable Sensitivity:..... | 25uV |
| CD Channel Separation @ 1 kHz:..... | 55dB |
| CD Signal to Noise Ratio:..... | 100dB |
| CD Frequency Response (Hz-kHz):..... | 10/20 |
| CD Dynamic Range:..... | 95dB |
| Maximum Power Output (Watts/Ch):..... | 50/4 |
| Continuous Power Output (Watts/Ch) | |
| 4 Ohms, 1% THD:..... | 18/4 |
| Line Level Output Voltage:..... | 1.8V |

DB625MP/DXZ525 Pro Audio Information



DB625MP AM/FM CD/MP3 Player w/Flip Down Detachable Faceplate

FEATURE UPGRADES

- MP3 Playback Capability
- High Contrast Multi Color Dot Matrix Display
- 3 Band Tone Control
- Electronic Volume Control
- Adjustable Display Contrast
- Aluminum Escutcheon Face

SYSTEM UPGRADES

Amplifier

REPLACEMENT PARTS

Wire Harness

DCP DCP-

TARGET CUSTOMER

Looking for a CD player with remote control and MP3 playback capability, with the option to upgrade to a 4 channel amplifier.



DXZ525 AM/FM CD Player w/Detachable Faceplate and Remote Control, CeNet, DIN Chassis, Sirius Satellite Radio Ready

FEATURE UPGRADES

- Sirius satellite Ready
- CeNet Control of DVD Changer, TV Tuner, 6 Disc CD Changer, Sirius Satellite Radio Receiver
- 2 Channel Aux Input
- Illuminated Blue Accent Panels
- Multi-Color Electric Blue LCD Display

SYSTEM UPGRADES

Amplifier, CD/DVD Changers, TV Tuner, Sirius Satellite Receiver

OPTIONAL CD/DVD CHANGERS

DCZ625, VCZ625

OPTIONAL TV TUNER

TTX7501z

OPTIONAL SIRIUS SATELLITE RADIO RECEIVER

DSH920S

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-392

Remote Control RCB-130

TARGET CUSTOMER

Looking for a CD player with remote control, CeNet DVD/CD changer and TV tuner capability. 4 channel amplifier upgrade.

FM Useable Sensitivity:.....9dBf
 FM 50 dB Quieting Sensitivity:.....15dBf
 FM Alternate Channel Selectivity:.....70dB
 FM Stereo Separation @ 1kHz:.....35dB
 FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
 AM Useable Sensitivity:.....25uV
 CD Channel Separation @ 1 kHz:.....85dB
 CD Signal to Noise Ratio:.....100dB
 CD Frequency Response (Hz-kHz):.....5/20
 CD Dynamic Range:.....95dB
 Maximum Power Output (Watts/Ch):.....50/4
 Continuous Power Output (Watts/Ch)
 4 Ohms, 1% THD:.....18/4
 Line Level Output Voltage:.....4.0V

FM Useable Sensitivity:.....9dBf
 FM 50 dB Quieting Sensitivity:.....15dBf
 FM Alternate Channel Selectivity:.....70dB
 FM Stereo Separation @ 1kHz:.....35dB
 FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
 AM Useable Sensitivity:.....25uV
 CD Channel Separation @ 1 kHz:.....85dB
 CD Signal to Noise Ratio:.....100dB
 CD Frequency Response (Hz-kHz):.....5/20
 CD Dynamic Range:.....95dB
 Maximum Power Output (Watts/Ch):.....50/4
 Continuous Power Output (Watts/Ch)
 4 Ohms, 1% THD:.....18/4
 Line Level Output Voltage:.....2.0V

DXZ725 Pro Audio Information



**AM/FM CD Player w/CD Changer Controller DIN Chassis
w/Detachable Motorized Sloping Face Plate, Sirius Satellite Radio Ready**

FEATURE UPGRADES

- Motorized Detachable Face
- Play's CD-R & CD-RW's
- Sirius Satellite Radio Ready
- CeNet Control of Optional DSP/EQ Processor,
- 3 Band Parametric EQ (Beat EQ)
- 6 Channel RCA Line Level Output with 4 Volt Front & Non-Fade Subwoofer Outputs
- Non-Fade Subwoofer Volume Control
- 200W (50W x 4ch)
- Multi-Color Display
- Retractable Rotary Volume Control
- Self-Demonstration Mode
- Screen Saver
- Aluminum Faceplate

SYSTEM UPGRADES

Amplifiers, CD/DVD Changers, TV Tuner, Sirius satellite Receiver

OPTIONAL CD/DVD CHANGERS

DCZ625, VCZ625

OPTIONAL TV TUNER/PROCESSOR

TTX7501z/DPH910

OPTIONAL SIRIUS SATELLITE RADIO RECEIVER

DSH920S

REPLACEMENT PARTS

Wire Harness 85-632-082

DCP DCP-395

Remote Control RCB-130

TARGET CUSTOMER

Looking for a sound quality CD player with multi-color display and motorized face with remote control, changer, and TV tuner/CD/DVD Changer capability for a high end audio system or upgrading to a multimedia system



FM Useable Sensitivity:.....9dBf
FM 50 dB Quieting Sensitivity:.....15dBf
FM Alternate Channel Selectivity:.....70dB
FM Stereo Separation @ 1kHz:.....35dB
FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
AM Useable Sensitivity:.....25uV
CD Channel Separation @ 1 kHz:.....85dB
CD Signal to Noise Ratio:.....100dB
CD Frequency Response (Hz-kHz):.....5/20
CD Dynamic Range:.....95dB
Maximum Power Output (Watts/Ch):.....50/4
Continuous Power Output (Watts/Ch)
4 Ohms, 1% THD:.....18/4

Line Level Output Voltage:.....4.0V
(Front and Subwoofer channels)

DXZ825 Information



**AM/FM CD Player w/ CD Changer Controller DIN Chassis
w/Motorized Sloping Detachable Face Plate, Sirius Satellite Radio Ready**

FEATURE UPGRADES

- Dual 24 Bit DAC's
- 4 Volt/6 Channel RCA Line Level Output with Non-Fade Volume Control
- Adjustable Display Contrast
- Dual Illumination on Controls
- Full Dot (65x7) Matrix Display

TARGET CUSTOMER

Looking for a source unit that can play both CD's and control a DVD changer, as well as being the main control unit for a top of the line audio or audio/video multimedia system.

SYSTEM UPGRADES

Amplifiers, CD/DVD, TV Tuner, Sirius Satellite Receiver

OPTIONAL CD/DVD CHANGERS

DCZ625, VCZ625

OPTIONAL TV TUNER/PROCESSOR

TTX7501z/DPH910

OPTIONAL SIRIUS SATELLITE RADIO RECEIVER

DSH920S

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-398

Remote Control RCB-130

| | | | |
|--|-------|---------------------------------|------|
| FM Useable Sensitivity:..... | 9dBf | Line Level Output Voltage:..... | 4.0V |
| FM 50 dB Quieting Sensitivity:..... | 15dBf | | |
| FM Alternate Channel Selectivity:..... | 70dB | | |
| FM Stereo Separation @ 1kHz:..... | 35dB | | |
| FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):..... | 30/15 | | |
| AM Useable Sensitivity:..... | 25uV | | |
| CD Channel Separation @ 1 kHz:..... | 85dB | | |
| CD Signal to Noise Ratio:..... | 100dB | | |
| CD Frequency Response (Hz-kHz):..... | 5/20 | | |
| CD Dynamic Range:..... | 95dB | | |
| Maximum Power Output (Watts/Ch):..... | 50/4 | | |
| Continuous Power Output (Watts/Ch) | | | |
| 4 Ohms, 1% THD:..... | 18/4 | | |

DXZ925 Information



AM/FM CD Player w/ CD Changer Controller DIN Chassis w/Detachable Dual Action Motorized Sloping Face Plate, Sirius Satellite Radio Ready

FEATURE UPGRADES

- Motorized Dual Action Detachable Face
- Dolby Pro Logic II
- CeNet Control of Optional Dolby Digital/dts 5.1 Processor
- Steering Wheel IR Remote Control
- Built-in DSP for Time Alignment, Seat Position, Virtual Space Enhancer
- Built-in adjustable High-Pass Crossovers for Front/Rear/Center Channels
- Built-in adjustable Low-Pass Crossover with Subwoofer Volume Control

SYSTEM UPGRADES

Amplifiers, CD/DVD, TV Tuner and 5.1 Surround Processor, Sirius Satellite Receiver

OPTIONAL CD/DVD CHANGERS

DCZ625, VCZ625 DVD Changer

OPTIONAL TV TUNER/5.1 PROCESSOR

TTX7501z/DVH920

OPTIONAL SIRIUS SATELLITE RADIO RECEIVER

DSH920S

REPLACEMENT PARTS

Wire Harness 854-634-950

DCP DCP-394

Remote Control RCB-147

TARGET CUSTOMER

Looking for an audiophile CD player that can be the heart of a high end sound reproduction system, or the control unit for an ultra high end multimedia system.



FM Useable Sensitivity:.....9dBf
FM 50 dB Quieting Sensitivity:.....15dBf
FM Alternate Channel Selectivity:.....70dB
FM Stereo Separation @ 1kHz:.....35dB
FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):.....30/15
AM Useable Sensitivity:.....25uV
CD Channel Separation @ 1kHz:.....85dB
CD Signal to Noise Ratio:.....100dB
CD Frequency Response (Hz-kHz):.....5/20
CD Dynamic Range:.....96dB
Maximum Power Output (Watts/Ch):.....50/4
Continuous Power Output (Watts/Ch)
4 Ohms, 1% THD:.....18/4

Line Level Output Voltage:.....4.0V

ADZ625/XA311 Information



ADZ625 AM/FM/CD/Cassette Player w/Changer Control and Remote Control 2 DIN Chassis

FEATURE UPGRADES

- Full Logic Cassette w/ Auto Reverse
- Dolby B
- Rotary Preset Tuning

SYSTEM UPGRADES

TV Tuner, Changer

OPTIONAL CD CHANGERS

DCZ625

OPTIONAL TV TUNER

TTX7501z

REPLACEMENT PARTS

Wire Harness 854-634-950

Remote Control RCB-130

TARGET CUSTOMER

Looking for a 2 DIN combination unit with changer and TV capability, remote control, and possible 4 channel amplifier upgrade.



XA311 AM/FM Cassette Player w/CD Changer Controller

FEATURES

- Rotary Volume Control
- Z-Enhancer EQ Selector
- Green LCD Display
- C-Bus Changer Control
- 160 Watt (40 x 4)
- Auto Reverse

SYSTEM UPGRADES

Changers

OPTIONAL CHANGERS

CDC635, CDC1235

REPLACEMENT PARTS

Wire Harness 854-634-950

TARGET CUSTOMER

Looking for a basic cassette player with a possible changer upgrade.

| | |
|--|-------|
| FM Useable Sensitivity:..... | 11dBf |
| FM 50 dB Quieting Sensitivity:..... | 17dBf |
| FM Alternate Channel Selectivity:..... | 75dB |
| FM Stereo Separation @ 1kHz:..... | 35dB |
| FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):..... | 30/15 |
| AM Useable Sensitivity:..... | 25uV |
| Tape Wow and Flutter:..... | .06% |
| Tape Channel Separation @1kHz:..... | 45dB |
| Tape Metal Tape, Dolby B NR:..... | 67dB |
| Tape Freq. Response @ +3dB Hz/kHz: | |
| Metal Tape, 70ms..... | 30/20 |
| CD Channel Separation @ 1 kHz:..... | 85dB |
| CD Signal to Noise Ratio:..... | 100dB |
| CD Frequency Response (Hz/kHz):..... | 10/20 |
| CD Dynamic Range:..... | 95dB |
| Maximum Power Output (Watts/Ch):..... | 50/4 |
| Continuous Power Output (Watts/Ch) | |
| 4 Ohms, 1% THD:..... | 16/4 |
| Line Level Output Voltage:..... | 1.8V |

| | |
|--|-------|
| FM Useable Sensitivity:..... | 11dBf |
| FM 50 dB Quieting Sensitivity:..... | 17dBf |
| FM Alternate Channel Selectivity:..... | 75dB |
| FM Stereo Separation @ 1kHz:..... | 35dB |
| FM Stereo Freq. Resp. @ + 3dB (Hz/kHz):..... | 30/15 |
| AM Useable Sensitivity:..... | 25uV |
| Tape Wow and Flutter:..... | .08% |
| Tape Channel Separation @1kHz:..... | 45dB |
| Tape Metal Tape, No NR:..... | 58dB |
| Tape Freq. Response @ +3dB Hz/kHz: | |
| Metal Tape, 70ms..... | 30/20 |
| Maximum Power Output (Watts/Ch):..... | 40/4 |
| Continuous Power Output (Watts/Ch) | |
| 4 Ohms, 1% THD:..... | 14/4 |

Sirius Satellite Radio



DSH920H Sirius Satellite Receiver

FEATURES:

- CeNet Controlled
- Band Selector
- Seek Tuning
- Preset Memory Mode
- Category Scan
- Preset Scan
- Category Selection



DSC920S Sirius Satellite Receiver Controller

FEATURES:

- Complete Control of the DSH920S Sirius Satellite Receiver
- Allows DSH920S to be used with 2001 CeNet Source Units w/AUX Inputs
- Scrolling Text Display
- Screen Saver
- Adjustable Contrast
- 2/3 DIN sized unit

DCZ625/DC625 Information



**DCZ625 Pro Audio CeNet
6 Disc CD Changer**

FEATURES:

- New 6 Disc Magazine
- Plays CD-R/RW Discs
- CeNet Control
- Zero-Bit Detector Mute
- Horizontal or Vertical Mounting Capability
- Fiber Optic Digital Output
- CD Text and CD Titling
- Magazine: CAA397



**DC625 C-Bus
6 Disc CD Changer**

FEATURES:

- New 6 Disc Magazine
- Plays CD-R/RW Discs
- C-Bus Control
- Zero-Bit Detector Mute
- Horizontal or Vertical Mounting Capability
- Magazine: CAA397

CD Wow & Flutter:.....Unmeasurable
CD Channel Separation:.....85 dB
CD Signal-to-Noise :.....100 dB
CD Frequency Response:.....5 Hz ~ 20 kHz
CD Dynamic Range:.....94 dB
CD Changer Dimensions : 2 1/2" H x 9" L x 6 5/8" D

CD Wow & Flutter:.....Unmeasurable
CD Channel Separation:.....85 dB
CD Signal-to-Noise :.....100 dB
CD Frequency Response:.....5 Hz ~ 20 kHz
CD Dynamic Range:.....94 dB
CD Changer Dimensions : 2 1/2" H x 9" L x 6 5/8" D

FMC250 Information



FMC250
FM Modulator/CD Changer Control

FEATURES:

- 12 FM Frequencies (switchable)
- C-Bus Control
- Output Level Control
- IR Remote Control

WORKS WITH:

DC625

CeNet Cables

CAA519:
CeNet Y-Adapter for multi-changer connection

CCA520:
8' CeNet CD Changer (extension) cable, male-to-female

CCA521:
20.5" CeNet CD Changer (extension) cable, male-to-female

CAA561:
16' CeNet CD Changer (replacement) cable, male-to-male

C-Bus Cables

CAA308:
16' C-Bus CD Changer (extension) cable, male-to-female

CAA329:
16' C-Bus CD Changer (replacement) cable, male-to-male

CAA350:
5' C-Bus CD Changer cable, angle male-to-angle male

Digital Cables

DCA001:
16' Fiber Optic cable (Old Clarion connectors)

DCA002:
5' Fiber Optic cable (Old Clarion connectors)

DCA005:
16' Fiber Optic Connector with New Clarion connectors on both sides

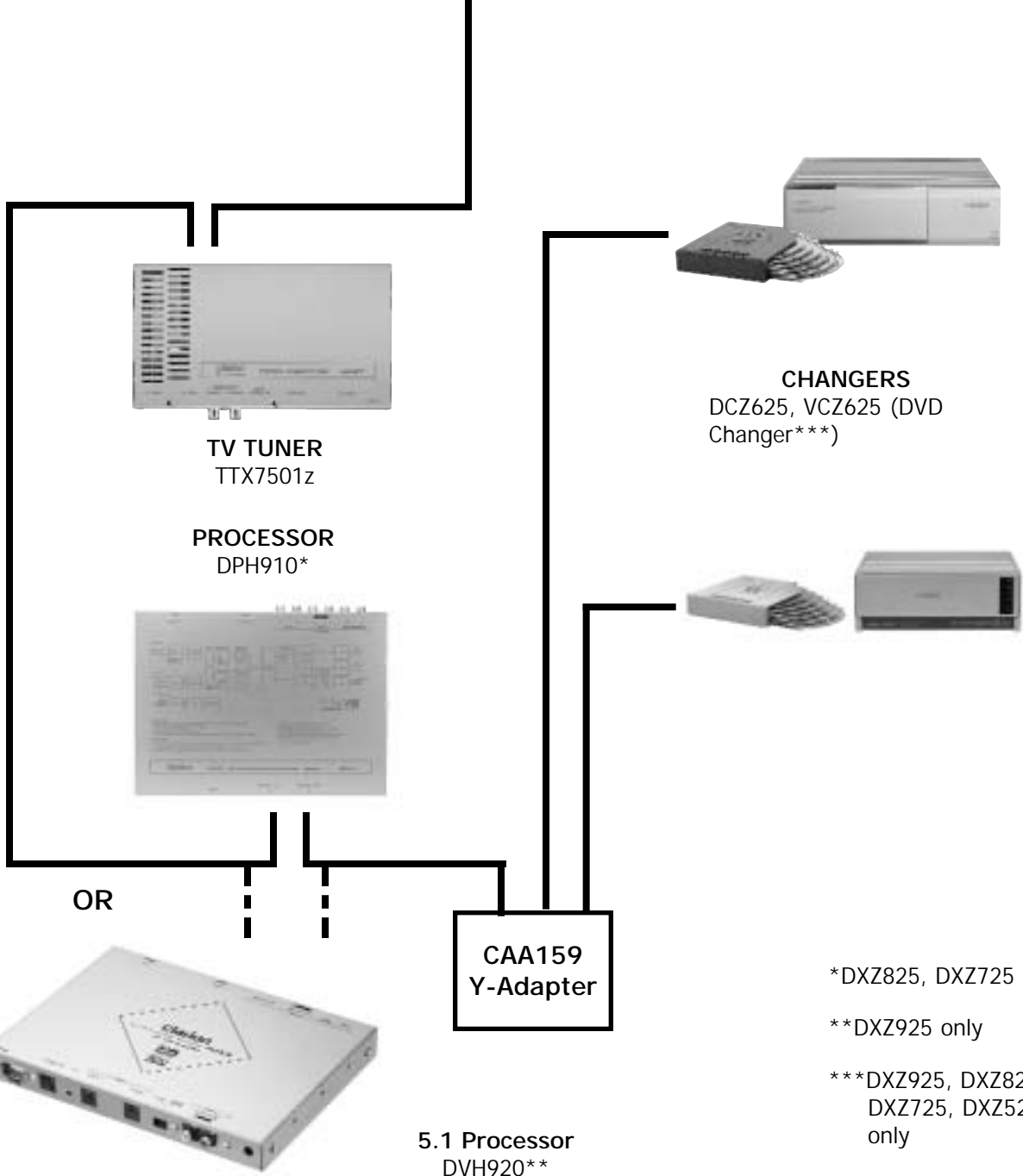
DCA006:
16' Fiber Optic Connector with Old Clarion connectors on source unit side and New Clarion connector on processor side (For DCZ625 and VCZ625 changers to connect to DVH920 processor)

DCA007:
16' Fiber Optic Connector with New Clarion connectors on source unit side and Old Clarion connector on processor side (for VRX925VD to connect to DPH910 or DVS9755z DVD player)

DCA008:
5' Fiber Optic Connector with New Clarion connectors on both sides

CeNet System Application

SOURCE UNITS
 DXZ925, DXZ825, DXZ725,
 DXZ525, ADZ625



*DXZ825, DXZ725 only

**DXZ925 only

***DXZ925, DXZ825,
 DXZ725, DXZ525
 only

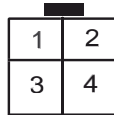
Clarion's 2002 CeNet connection diagram.

Source Unit Harness Applications

Clarion Wiring Molex

(View is from the Wire Side)

4 Pin



Part #
993-502-230

| Pin | Color | Description |
|-----|------------|---------------|
| 1 | Blue/White | Amp Control |
| 2 | Blue/White | Remote In |
| 3 | Yellow | 12vt Constant |
| 4 | Black | Ground |

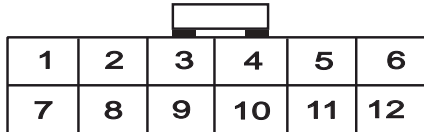
8 Pin



Part #
854-632-082

| Pin | Color | Description |
|-----|------------|----------------|
| 1 | Blue/White | Remote Turn-on |
| 2 | Red | 12vt Accessory |
| 3 | Pink/White | Digital Switch |
| 4 | N/A | |
| 5 | Black | Chassis Ground |
| 6 | Yellow | 12vt Constant |
| 7 | N/A | |
| 8 | Brown | Phone Mute (-) |

12 Pin



Part #
993-502-360

| Pin | Color | Description |
|-----|--------------|----------------|
| 1 | Green | LR + |
| 2 | White | LF+ |
| 3 | Violet | RR+ |
| 4 | Grey | RF+ |
| 5 | Blue/White | Remote Turn on |
| 6 | Red | 12vt Accessory |
| 7 | Green/Black | LR- |
| 8 | White/Black | LF- |
| 9 | Violet/Black | RR- |
| 10 | Grey/Black | RF- |
| 11 | Black | Chassis Ground |
| 12 | Yellow | 12vt Constant |

16 Pin

Part #
854-3232-01

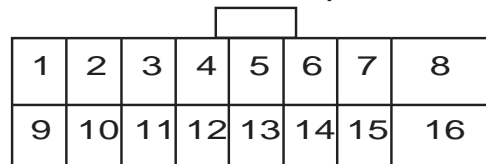


| Pin | Color | Description |
|-----|--------------|----------------|
| 1 | Grey/Black | RF- |
| 2 | Grey | RF+ |
| 3 | Violet/Black | RR- |
| 4 | Violet | RR+ |
| 5 | Blue/White | Remote Turn On |
| 6 | Red | 12vt Accessory |
| 7 | N/A | |
| 8 | N/A | |
| 9 | White/Black | LF- |
| 10 | White | LF+ |
| 11 | Green/Black | LR- |
| 12 | Green | LR+ |
| 13 | Black | Chassis Ground |
| 14 | Yellow | 12vt Constant |
| 15 | N/A | |
| 16 | Brown | Phone Mute (-) |

16 Pin

Part #
854-634-950

For 1999 and up units



| Pin | Color | Description |
|-----|--------------|-----------------|
| 1 | Green | LR+ |
| 2 | White/Black | LF- |
| 3 | White | LF+ |
| 4 | Grey | RF+ |
| 5 | Grey/Black | RF- |
| 6 | Violet | RR+ |
| 7 | Violet/Black | RR- |
| 8 | Yellow | 12vt Constant |
| 9 | Green/Black | LR- |
| 10 | Brown | Phone Mute (-) |
| 11 | Red | 12vt Accessory |
| 12 | Blue | Remote Turn On |
| 13 | Blue/White | Antenna Turn-on |
| 14 | | |
| 15 | Yellow | 12vt Constant |
| 16 | Black | Chassis Ground |

Model Numbering/2002 Product Compatibility Charts

Source Units/Multimedia Product/Processors

A=Analog
 B=Basic
 C=Changer
 D=Digital
 H=Processor
 MP=MP3
 P=Processor
 R=Receiver
 T=TV Tuner
 V=Video
 X=Changer Controller/Controlled
 Z=CeNet Bus

first number 0-9= Feature set
 Second Number=Generation
 Third Number=Series

SO:

DXZ925 is a CD receiver, changer controller, with CeNet, highest feature set, second generation of fifth series unit

VCZ625 is a video changer (DVD), CeNet bus, high feature set, second generation of fifth series unit

VRX925VD is a video receiver changer controller with DVD player, highest feature set, second generation of fifth series unit

DVH920 is a digital video processor, highest feature set, second generation of first series unit

2002 Product Compatibility

| | CHANGERS | DCZ625 | DC625 | VCZ625 | PROCESSORS | DVH920 | DPH910 | TVTUNER | TTX7501Z | SIRIUSSATELLITE | DSH920H |
|-----------------------|----------|--------|-------|--------|------------|--------|--------|---------|----------|-----------------|---------|
| CURRENT MODELS | | | | | | | | | | | |
| MULTIMEDIA | | | | | | | | | | | |
| VRX925VD | | • | | • | | • | • | | • | | • |
| VRX815 | | • | | | | | • | | • | | |
| VRX610 | | • | | | | | • | | • | | |
| TVX5653 | | | • | | | | | | | | |
| CD | | | | | | | | | | | |
| DXZ925 | | • | | • | | • | | | • | | • |
| DXZ825 | | • | | • | | | • | | • | | • |
| DXZ725 | | • | | • | | | • | | • | | • |
| DXZ525 | | • | | • | | | | | • | | • |
| DB625MP | | | | | | | | | | | |
| DX425 | | | • | | | | | | | | |
| DB325 | | | | | | | | | | | |
| DB225 | | | | | | | | | | | |
| DB125 | | | | | | | | | | | |
| CASSETTE | | | | | | | | | | | |
| ADZ625 | | • | | | | | | | • | | |
| XA311 | | | • | | | | | | | | |

Compatibility Chart

| | CHANGERS | MDC655z | CDC655z | RDC655Tz | CDC655Tz | CDC1255z | RDC634 | CDC605/635 | CDC1205/1235 | REMOTES | RCB-059 | RCB-061 | RCB-111 | RCB-114 | RCB-115 | RCB-130A | RCB-130B | RCB-9300 | TVTUNER | TTX7101 | TTX7501Z | DSPPROCESSOR | DPH7500Z/DPH910 | DPH9300/7300/5100 |
|--|----------|---------|---------|----------|----------|----------|--------|------------|--------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|---------|----------|--------------|-----------------|-------------------|
| PREVIOUS MODELS | | 1 | 1 | 2 | 1 | 1 | | 1 | 1 | | | | | | | | | | | | | | | |
| MULTIMEDIA | | | | | | | | | | | | | | | | | | | | | | | | |
| VRX8271 | | | | | | | • | • | • | | | • | | | | | | • | | | 3 | | | • |
| VRX6671z | | • | • | • | • | | | | | | | | | | | | • | | | | | | | |
| VDH9300/9600 | | | | | | | | | | | | | | | | | | • | | | | | | |
| CASSETTE | | | | | | | | | | | | | | | | | | | | | | | | |
| ARX9270/9170 | | | | | | | • | • | • | | | | | • | | • | | | | | • | | • | • |
| ARX7470/7370 | | | | | | | • | • | • | | | | | • | | • | | | | | • | | • | • |
| ARX6570z/6670z/7670z/8670z | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | | |
| ARX6470/6360 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| ARX4570 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| ARX3470 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| RAX531D/530D | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| RAX331D/330F | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| CD | | | | | | | | | | | | | | | | | | | | | | | | |
| DRX9375R | | | | | | | • | • | • | | | | | • | | • | | | | | • | | • | • |
| DRX9255 | | | | | | | • | • | • | | | | | • | | • | | | | | • | | • | • |
| DRX9275/9175 | | | | | | | • | • | • | | • | | | • | | • | | | | | • | | • | • |
| DRX8575z | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | • | • |
| DRX7575z/6575z/6675z/7675z/8675z/9575z | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | • | • |
| HX-D10/DXZ815MP/DXZ715/615 | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | • | • |
| DRX9675z | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | • | • |
| DRX7475/7375 | | | | | | | • | • | • | | | | | • | | • | | | | | • | | • | • |
| DRX6475/6375 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| DRX5575 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| DRX5375 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| DRX4575 | | | | | | | • | • | • | | | | | • | | • | | | | | | | | |
| COMBI | | | | | | | | | | | | | | | | | | | | | | | | |
| ADX8255 | | | | | | | • | • | • | | • | | | • | | • | | | | | | | | |
| ADX5555z | | • | • | • | • | • | | | | | | | | • | | • | | | | | • | | | |
| RF MOD | | | | | | | | | | | | | | | | | | | | | | | | |
| FMC100 | | | | | | | • | • | • | | | | | | | | | | | | | | | |
| FMC150 | | | | | | | • | • | • | | | | | | | | | | | | | | | |

- 1 Changer has fiber optic output
- 2 Changer supports CD Text
- 3 Requires CCA357 and CCA389

2002 Feature Matrix

| | VRX815 | VRX610 | TV16653 | DYZ925 | DYZ825 | DXZ725 | DYZ5255 | DB925MP | DX425 | DB325 | DB225 | DB125 | ADZ625 | XA311 | DSH20S | DCZ625 | DC625 | FMC250 | XMD1-RET | XMA1-RET | M5675-RET |
|--|--------|--------|---------|--------|--------|--------|---------|---------|-------|-------|-------|-------|--------|-------|--------|--------|-------|--------|----------|----------|-----------|
| TUNER | | | | | | | | | | | | | | | | | | | | | |
| Electronic Quartz-Locked PPL Tuning | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | • | • | • |
| Touchbutton Memory (AM/FM) | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | • | • | • |
| Seek Up/Down Tuning | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | • | • | • |
| Preset Scan/Auto Store | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | • | • | • |
| Magi-Tune FM Reception System | | | | | | | | • | • | • | • | • | • | • | | | | | • | • | |
| Magi-Tune + FM Reception System | • | • | | • | • | • | • | | | | | | • | | | | | | | | • |
| Station Title Memory | • | • | | • | • | • | • | | | | | | • | | | | | | | | |
| Switchable Frequency Spacing | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | • | • | • |
| COMPACT DISC | | | | | | | | | | | | | | | | | | | | | |
| Disc Title Memory | • | | | • | • | • | • | | | | | | • | | | | | | | | |
| CD Text | | | | | | | | | | | | | | | | • | | | | | |
| Plays MP3 Audio | | | | | | | | • | | | | | | | | | | | | | |
| Plays CD-R/RW | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | |
| 8-Times Oversampling Digital Filter | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | |
| Dual 1-Bit D/A Converters | • | | | | | • | • | • | • | • | • | • | • | | | • | • | | | | • |
| Dual 24-Bit D/A Converters | | | | • | • | | | | | | | | | | | | | | | | • |
| Zero-Bit Detector™ Mute Circuit | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | • |
| Low Vibration Suspension System | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | • |
| 3-Beam Laser Tracking System | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | • |
| Random Play/Intro Scan/Repeat | • | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | • |
| Track Music Search FF/FB | • | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | • |
| Audible FF/FB | • | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | • |
| Last Position Memory | • | | | • | • | • | • | • | • | • | • | • | • | | | • | • | | | | • |
| Eject Capability with Key Off | • | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | • |
| Auto Reload After 15 Seconds | • | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | • |
| Fiber Optic Digital Output | | | | | | | | | | | | | | | | • | | | | | |
| 120 Degree Mounting Capability | | | | | | | | | | | | | | | | • | • | | | | |
| CeNet Bus | • | | | • | • | • | • | | | | | | • | | | • | • | | | | • |
| C-Bus | | | | | | | | • | | | | | | • | | | | | | • | • |
| SIRIUS SATELLITE RADIO | | | | | | | | | | | | | | | | | | | | | |
| CeNet Controlled | | | | | | | | | | | | | | | • | | | | | | |
| Band Selector | | | | | | | | | | | | | | | • | | | | | | |
| Seek Tuning | | | | | | | | | | | | | | | • | | | | | | |
| Preset Memory Mode | | | | | | | | | | | | | | | • | | | | | | |
| Category Scan | | | | | | | | | | | | | | | • | | | | | | |
| Preset Scan | | | | | | | | | | | | | | | • | | | | | | |
| Category Selection | | | | | | | | | | | | | | | • | | | | | | |
| 2-Channel RCA Line Level Output | | | | | | | | | | | | | | | • | | | | | | |
| Stand Alone Use w/DCS920S Controller | | | | | | | | | | | | | | | • | | | | | | |
| TAPE | | | | | | | | | | | | | | | | | | | | | |
| Ato Reverse | | | | | | | | | | | | | • | • | | | | | | | • |
| Locking FF/REW | | | | | | | | | | | | | • | • | | | | | | | • |
| Full Logic Tape Transport | | | | | | | | | | | | | • | • | | | | | | | • |
| Blank Skip/Intro Scan/Repeat | | | | | | | | | | | | | • | • | | | | | | | • |
| Motorized Load/Eject | | | | | | | | | | | | | • | | | | | | | | • |
| Eject Capability with Key Off | | | | | | | | | | | | | • | | | | | | | | • |
| Electronic DC Servo Motor | | | | | | | | | | | | | • | • | | | | | | | • |
| Tape EQ Selector (MTL) | | | | | | | | | | | | | auto | | | | | | | | auto |
| Key-Off Pinch Roller Release | | | | | | | | | | | | | | | | | | | | | • |
| Automatic Program Control (APC) | | | | | | | | | | | | | • | | | | | | | | • |
| Dolby B Noise Reduction | | | | | | | | | | | | | • | | | | | | | | • |
| Hard Permalloy Head | | | | | | | | | | | | | • | • | | | | | | | • |
| Hard Permalloy Dual Gutter Head | | | | | | | | | | | | | • | | | | | | | | • |
| CD CHANGER CONTROL | | | | | | | | | | | | | | | | | | | | | |
| 6 Disc Changer Control Capability | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Multi-Changer Control Capable | • | • | | • | • | • | • | | | | | | • | • | | | | • | • | • | • |
| C-Bus Controller | | | | | | | | • | | | | | | • | | | | • | • | • | • |
| CeNet Controller | • | • | | • | • | • | • | | | | | | • | | | | | • | • | • | • |
| Disc/Title Memory | • | • | | • | • | • | • | | | | | | • | | | | | | | | |
| CD Text | | | | • | • | • | • | | | | | | • | | | | | | | | |
| Direct Disc Select (By Magazine) | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Play/Pause Selector | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Random Play (Disc/Magazine) | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Intro Music Scan (Disc/Magazine) | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Music Selection Repeat (Disc/Magazine) | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Track Music Search FF/FB | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |
| Audible FF/FB | • | • | | • | • | • | • | • | | | | | • | • | | | | • | • | • | • |

2002 Feature Matrix

| | VRX815 | VRX610 | TVX6653 | DXZ925 | DXZ825 | DXZ725 | DXZ5255 | DB825MP | DX425 | DB325 | DB225 | DB125 | ADZ625 | XA311 | DSH920S | DCZ625 | DC625 | FMC250 | XMD1-RET | XMA1-RET | M5675-RET | |
|--|--------|--------|---------|--------|--------|--------|---------|---------|-------|-------|-------|-------|--------|-------|---------|--------|-------|--------|----------|----------|-----------|-------|
| MULTIMEDIA | | | | | | | | | | | | | | | | | | | | | | |
| Display Size | 7" | 6.4" | 6.4" | | | | | | | | | | | | | | | | | | | |
| Video Inputs | 3 | 2 | 3 | | | | | | | | | | | | | | | | | | | |
| Video Outputs | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Touch Screen Controls | • | | | | | | | | | | | | | | | | | | | | | |
| Motorized Display Screen | • | • | | | | | | | | | | | | | | | | | | | | |
| Fully Motorized Display Screen | • | | | • | | | | | | | | | | | | | | | | | | |
| Controls TTX7501z TV Tuner | • | • | | • | | • | • | | | | | | • | | | | | | | | | |
| Built-in TV Tuner | | | • | | | | | | | | | | | | | | | | | | | |
| MARINE | | | | | | | | | | | | | | | | | | | | | | |
| Waterproof Front Panel | | | | | | | | | | | | | | | | | | | | • | • | |
| Water Resistant | | | | | | | | | | | | | | | | | | | | | | |
| Coated Microprocessor | | | | | | | | | | | | | | | | | | | | • | • | |
| Input for Wired Marine Remote Control | | | | | | | | | | | | | | | | | | | | • | • | |
| AUDIO | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Power Output | 50 x4 | 40x4 | | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 50x4 | 40x4 | | | | | | 45x4 | 45x4 | 45x4 |
| Rotary Volume Control | | | | • | • | • | • | | • | • | • | • | • | • | | | | | | | • | |
| Electronic Audio Control | • | • | | | | | | • | | | | | | | | | | | | | • | |
| Z-Enhancer Control | • | • | | | | | | | • | • | • | • | | | | | | | | | • | |
| Bass & Treble Tone Controls | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | | • | |
| 3 Band Parametric EQ/Beat EQ | | | | • | • | • | | | | | | | | | | | | | | | | |
| Built-in Digital DSP/EQ | | | | • | | | | | | | | | | | | | | | | | | |
| Built-in Dolby Pro Logic II Decoder | | | | • | | | | | | | | | | | | | | | | | | |
| Built-in High Pass Crossover | | | | • | | | | | | | | | | | | | | | | | | |
| Built-in Low Pass Crossover | | | | • | | | | | | | | | | | | | | | | | | |
| AUX input | • | • | | • | • | • | • | | | | | | | | | | | | | | | |
| Tone Control Bypass | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| Loudness Contour | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| 4-Way Balance Controls | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| Audio Muting | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| 2-Channel RCA Output w/Fader | | | | • | • | • | • | | | • | • | • | | | | | | | | | | |
| 4-Channel RCA Output w/Fader | • | • | | • | • | • | • | • | • | | | | • | | | | | | | • | • | |
| 2-Channel RCA Non-Fade Output | • | | | • | • | • | • | | | | | | | | | | | | | | | |
| Non-Fade Line Level Volume Control | • | | | • | • | • | • | | | | | | | | | | | | | | | |
| 4-Volt Line Level Output | • | • | | • | • | • | • | | | | | | | | | | | | | | | |
| 24 Bit Burr-Brown D/A Converter | | | | • | • | | | | | | | | | | | | | | | | | |
| GENERAL | | | | | | | | | | | | | | | | | | | | | | |
| Motorized Dual Action Face | | | | • | | | | | | | | | | | | | | | | | | |
| Fully Motorized Fold Down Face | | | | | • | • | | | | | | | | | | | | | | | | |
| Flip Down Face | | | | | | | • | • | | | | | | | | | | | | | | |
| Aluminum Escutcheon Face | | | | • | • | • | • | • | • | • | • | • | | | | | | | | | | |
| Pop-Up Rotary Volume Control | | | | • | • | • | • | | | | | | | | | | | | | | | |
| Detachable Control Panel (DCP) | • | • | | • | • | • | • | • | • | • | • | | | | | | | | | | • | |
| DCP Carrying Case Included | | | | • | • | • | • | • | • | • | • | | | | | | | | | | • | |
| Instant Station Recall (ISR) | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| Digital Quartz Clock (Selectable Freq/Clock) | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | • | • | |
| Monitor Mode | | | | | | | | | | | | | | | | | | | | | • | |
| Cellular Phone Interrupt | • | • | | • | • | • | • | • | • | • | • | • | • | • | | | | | | | | |
| Screen Saver | • | | | • | • | • | • | • | • | • | • | • | • | • | | | | | | | | |
| Multi-Color Display | | | | • | • | • | • | • | • | • | • | • | • | | | | | | | • | • | |
| Full Dot Matrix Display | | | | • | • | • | • | • | • | • | • | • | • | | | | | | | | | |
| Adjustable Contrast | | | | • | • | | | • | | | | | | | | | | | | | | |
| Electric Blue LCD Display | | | | | | | • | | • | • | • | • | | | | | | | | | | |
| Infrared Remote Control | | | | | | | | | | | | | • | | | | | | | | | |
| Chassis Type | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 1 DIN | 2 DIN | | | | | | | 2 DIN | 2 DIN | 1 DIN |
| Capability to Control: | | | | | | | | | | | | | | | | | | | | | | |
| EQ/DSP Module (DPH910) | • | • | | | • | • | | | | | | | | | | | | | | | | |
| TV Tuner Module (TTX7501z) | • | • | | | • | • | • | | | | | | • | | | | | | | | | |
| 5.1 Channel Processor (DVH920) | | | | • | | | | | | | | | | | | | | | | | | |
| Sirius Satellite Radio Receiver (DSH920S) | | | | • | • | • | • | | | | | | | | | | | | | | | |
| DVD Changer (VDZ625) | | | | • | • | • | • | | | | | | | | | | | | | | | |