











8760 S. Sandy Parkway, Sandy, Utah 84070, USA tel: +1 (801) 566-8800, Fax: +1 (801) 568-7662

and Distribution Equipment

by HARMAN

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# Full Line Catalog 2012

Installed Sound **Commercial Audio** Portable PA Tour Sound Cinema Sound

Page **226** 

Page **227** 

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**Crown installed Sound Product Line** 





ComTech DriveCore<sup>™</sup> Series



CTs 2-Channel Series



CTs Multi-Channel Series





CDi Series

Harman Pro Group | 2012

Section: 04

ComTech DriveCore Series: The New Standard CT475, CT875, CT4150, CT8150



# FLEXIBILITY

- ▶ FEATURES
- · High power density: Four/eight-channel models in a 1U chassis
- DriveCore technology
- Light weight design
- Convection (Fan-less) cooled ٠
- Life safety features
- · Cascading inputs for added flexibility

### ► SPECIFICATIONS Frequency Response (at 1 watt, 20 Hz - 20 kHz):

<0.5 dB

Signal to Noise Ratio below rated power (20 Hz to 20 kHz): 110 dB A-weighted

Total Harmonic Distortion (THD) at 1 watt. from 20 Hz to 20 kHz: < 0.05%

Intermodulation Distortion (IMD) < 0.05% (typical). Crosstalk (below rated power, 20 Hz to 1 kHz): > 70 dB.

Common Mode Rejection (CMR) (20 Hz to 1 kHz): >70 dB.

DC Output Offset (shorted input): < ±5 mV. Input Impedance (nominal): 20 kilohms balanced,

10 kilohms unbalanced. Maximum Input Level (before input compression): + 20 dBu

Voltage Gain (at maximum level setting), 1.4V sensitivity, 4/8 Ohm Operation: 20:1 (26 dB);

AC Line Voltage and Frequency Configurations Available (±10%): 120V/60 Hz. 220/230/240V/50 Hz.

Power Draw at Idle (120VAC mains, all channels in 4/8 ohm mode): 5W.

**Cooling:** Fanless convention cooled Dimensions: 19 in. (48.3 cm) W x 1.75 in. (4.4 cm) H x 14.25 in. (36.2 cm) D. (This applies to all models)

Weight (Net, Shipping): 10 lb (4.5 kg), 15 lb (6.8 kg). (This applies to all models)

#### Front Panel Controls and Indicators

Ready Indicator: Green LED, one per channel, illuminates when the channel is initialized and ready to produce audio output.

Signal Indicator: Green LED, one per channel, illuminates to indicate the presence of analog input signals above -40 dBu.

Clip Indicator: Red LED, one per channel, illuminates when the THD of the channel's output signal rises to a level typically considered as the onset of audible clipping. The Clip Indicator also will illuminate during Thermal Level Control (TLC) or input overload.

# operationg within non-fault condition. Options XFMR 4/8: This is a rack-mountable transformer

systems.

ciency at all times.

multiple outputs

every four channels.

Crown's CT DriveCore Series offers wide flexibility for a wide range of installed sound applications. These amplifiers offer independent selection of high- and low-impedance operation for each channel pair, making these amps ideal for multi-zone installations.

POWER	OUTP
	8-0
Models	(per
CT 475	
CT 875	
CT 4150	1
07 0450	

UT\* hm Dual channel) 75W 75W 25W 125W CT 8150 \*Average power in watts at rated THD, 20 Hz - 20 kHz.

Thermal Indicator: Red LED, one per channel, flashes when thermal stress.

Fault Indicator: Red LED, one per channel, flashes when a fault condition has occurred in the channel.

Power Indicator: Blue LED indicates amplifier has been turned on and AC power is available. Indicator also flashes if the amplifier shuts off due to an under-/over-voltage condition on the AC mains.

Power Switch: Amplifier is on when the switch is in the IN position. Indicator flashes if the amplifier shuts off due to an under/over voltage condition on the AC mains or if the amplifier is in DEEP SLEEP mode and the power button is pushed

#### **Back Panel Controls and Connectors**

AC Power Cord Connector: IEC inlet, type 320; 100/120VAC units: 15A

220/230/240VAC units: 10A Voltage is indicated above IEC inlet.

Output Connectors: 8-PIN Phoenix Connectors for

Input Connectors: Removable Phoenix-style barrier connectors for balanced input.

High-Pass Filter: A fixed 70-Hz high-pass filter settings. The high-pass filter can be set by using the DIP switch located on the back panel.

Auto-Standby: After 30 minutes of idle, amp will go into Standby. Amplifier will come out of Standby once signal is recieved.

Green Power: Crown's most efficient mode of operation. The power consumption of the amplifier will only match the input load. This means that the amplifier will operate at maximum effi-

Input/Output Switches: The ampliefier can be configured so that input signals can be routed to

LifeSafety: Amplifier will produce a 2Hz "heart beat" pulse on a 12VDC signal indicate amplifier is

that allows 100V/70V output from the amplifier, and allows other amplifiers without direct constant voltage output to be easily integrated into distributed

#### **Protection Systems**

Thermal Level Control (TLC): If an amplifier channel starts to overheat, the TLC circuit will engage that channel's input compressor. By compressing the input, the amplifier will not generate as much heat and will have a chance to cool down. The degree of compression is proportional to the amount of overheating. If the channel becomes too hot for safe operation even after full TLC limiting. the channel will shut off and the Thermal Indicator for that channel will flash brightly to alert the user that a state of thermal stress or overload has cause the channel to shut down.

FIT (Fault Isolation Topology): Isolates faults within affected channels.

Fault: If an amplifier channel requires service, the corresponding Fault indicator will illuminate to alert the user of this condition. If this occurs, return the amplifier to the Crown factory or to an authorized Crown service center

AC Under-/Over-Voltage Protection: If the AC line voltage varies out of an acceptable range, the amplifier's power supply turns off and the blue Power LED flashes. The amplifier will turn back on when the AC line voltage returns to safe operating levels.

Models	Under-Voltage Limit	Over-Voltage Limit
100VAC	90VAC	110VAC
120 VAC units	108VAC	132VAC
220V/230V/240V units	198VAC	264VAC

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2012

Section

04

Power Fuse: A fuse protects the amplifier from excessive AC current draw

Inrush Limiting: A soft-start circuit in the power supply minimizes the amplifier's current draw during power-on.

#### **Regulatory Certifications**



# INSTALL EQUID

CTs Series: The Standard CTs 600, CTs 1200, CTs 2000, CTs 3000



# FOUNDATION

#### ► FEATURES

- High power density. All two channel models in a 2U chassis
- Crown Switching Power Supply for lighter weight
- "Constant-Voltage" or low-impedance operation per channel
- Fully PIP2-compatible

#### **POWER OUTPUT\*** 2-ohm Dual 4-ohm Dual 8-ohm Dual 16-ohm Dual 70V Dual 100V Dual 4-ohm 100V 140V 200V 8-ohm 16-ohm Models (per channel) (per channel) (per channel) (per channel) (per channel) Bridae Bridae Bridae Bridge Bridae Bridge (per channel) CTs 600 150W 300W 300W 300W 300W 300W± 300W 600W 600W 600W‡ 600W 600W‡ 250W 600W 300W 500W 1,200W 1,200W 1,200W 1,200W 1,200W 1 CTs 1200 600W 600W 600W± CTs 2000 1.000W 1.000W 1.000W 625W 1.000W 1.000W 2.000W 2.000W 2.000W 2.000W 2.000W 2.000W 625W 1,500W 1,500W 3,000W 3,000W 2,500W 3,000W 3,000W 3,000W CTs 3000 1,500W 1,500W 1,250W \*Maximum average power in watts at rated THD, 20 Hz - 20 kHz. ±With T-170V or TP-170V

#### ▶ SPECIFICATIONS

Frequency Response (at 1 watt, 20 Hz - 20 kHz):  $\pm 0.25$  dB.

Signal to Noise Ratio below rated power (20 Hz to 20 kHz): 105 dB A-weighted. Total Harmonic Distortion (THD) at full rated

power, from 20 Hz to 20 kHz: CTs 600/1200: < 0.1%. CTs 2000/3000 < 0.35%.

Damping Factor: 10 Hz to 100 Hz: > 3000. Crosstalk (below rated power, 20 Hz to 1 kHz): > 80 dB.

Common Mode Rejection (CMR) (20 Hz to 1 kHz): 50 dB.

DC Output Offset: < ±2 mV. Input Impedance (nominal): 10 kilohms balanced, 5 kilohms unbalanced.

**Maximum Input Level:** +20 dBu before input compression, +32 dBu absolute maximum.

Load Impedance: (Note: Safe with all types of loads)

CTs 600/1200 Stereo: 2/4/8/16 ohms, 70V, 100V Bridge Mono: 4/8/16 ohms, 140V. CTs 2000/3000

Stereo: 2/4/8/16 ohms, 70V, 100V Bridge Mono: 4/8/16 ohms, 140V, 200V.

Voltage Gain (at maximum level setting):

8/4 ohm operation, 1.4V sensitivity CTs 600 35:1 (31 dB) CTs 1200 50:1 (34 dB)

CTs 2000 63.9:1 (36 dB) CTs 3000 71.4:1 (37 dB). 26 dB: 20:1 (26 dB).

70V operation, 1.4V sensitivity or 100V operation, 2.0V sensitivity: 50:1 (34 dB).

AC Line Voltage and Frequency Configurations Available (±10%): 120VAC/60Hz, 230VAC/50 Hz.

Power Draw at Idle (120VAC mains): CTs 600/1200: 24W (standby mode) CTs 2000/3000: 35W (standby mode).

**Cooling:** Continuously variable speed forced air, front-to-back airflow.

**Dimensions:** 19 in. (48.3 cm) W x 3.5 in. (8.9 cm) H x 14.25 in. (36.2 cm) D.

Weight: Net, Shipping

CTs 600: 22.8 lb (10.3 kg), 27.7 lb (12.6 kg) CTs 1200: 23.4 lb (10.6 kg), 28.3 lb (12.8 kg) CTs 2000: 27.0 lb (12.2 kg), 32.0 lb (14.5 kg) CTs 3000: 27.7 lb (12.6 kg), 32.7 lb (14.8 kg).

Front Panel Controls and Indicators

**Bridge Mode Indicator:** Yellow LED illuminates when the rear-panel Mode Switch is set to the "Bridge" position.

from minus infinity (–70 dB) to 0 dB gain. **Mode Switch:** Two-position switch is used to select the amplifier's mode of operation: Dual or Bridge-Mono.

Crown's CTs Series amplifiers provide exceptional performance, flexibility and value for installed sound applications. CTs Series amplifiers feature independent selection of high and low impedance operation for a specific channel, plus power levels and features that were carefully chosen to match the requirements of fixed install design. Easy integration with HiQnet<sup>™</sup> and CobraNet<sup>™</sup> allows CTs amplifiers to deliver a comprehensive lineup of monitoring and control features along with digital audio transport for an award-winning digital audio solution.

04

**Ready Indicator:** Green LED, one per channel, illuminates when the channel is initialized and ready to produce audio output. Indicator is off when PIP puts the amplifier in standby mode via

**Signal Indicators:** Three green LEDs per channel indicate the amplifier's input and output

the control system.

from input overload.

stress or overload.

stopped operating.

system)

value

forks

PIP2-BBY module

signal levels.

Signal: input signal is above –40 dBu. –20 dB: amplifier output is 20 dB below clipping. –10 dB: amplifier output is 10 dB below clipping.

**Clip Indicator:** Red LED, one per channel, illuminates when the channel's output signal reaches the onset of audible clipping. The Clip Indicator also will illuminate during Thermal Level Control (TLC) limiting or when the input compressor/limiter is protecting the amplifier

**Thermal Indicator:** Red LED, one per channel, illuminates when the channel has shut down, or is very near shutting down, due to thermal

**Fault Indicator:** Red LED, one per channel, flashes when the amplifier output channel has

**Data Indicator:** Yellow LED indicates control data activity (if the amplifier is equipped with HiQnet control, and connected to a control

**Power Indicator:** Blue LED indicates amplifier has been turned on and AC power is available. The LED will flash when the AC line voltage is 15% above or 25% below the nominal rated

**Cooling Vents:** Front-to-rear forced airflow. **Power Switch:** Push-on / push-off switch.

#### **Back Panel Controls and Connectors**

**Power Cord Connector:** Standard 15 amp IEC inlet. Voltage is indicated above IEC inlet.

**Reset Switch:** Resets the circuit breaker that protects the power supply.

**Speaker Connectors:** One four-pole touch-proof terminal strip. Accepts up to 10 AWG terminal

Input Connectors: Balanced 3-pin terminal block connector, one per channel, on the standard

**Channel Level Control:** One 21-position detented rotary attenuator per channel, ranging from minus infinity (-70 dB) to 0 dB gain.

**Highpass Filter:** One 3-position switch per channel selects between OFF, 35Hz and 70Hz 3rd-order filters.

**"Y" Input Switch (Located on the PIP-BBY Module):** When set to ON, this switch parallels the input signals of the two channels for use when the input signal is mono. Also can be used to daisy-chain the signal to another amplifier.

Ventilation Grille: Front-to-rear forced airflow.

#### Options

PIP2 modules, including the PIP-Lite, PIP-USP3/ CN, and PIP-USP4/CN.

#### **Protection Systems**

Thermal Level Control (TLC): If an amplifier channel starts to overheat, the TLC circuit will engage the input compressor. By compressing the input, the amplifier will not generate as much heat and will have a chance to cool down.

Junction Temperature Simulation (JTS): In the CTs 600/1200, if excess power is demanded, JTS circuitry limits the drive level of the output devices to a safe range, preventing damage.

**Fault:** The amplifier will light the Fault LED if the amplifier output stage stops operating.

**AC Under-/Over-Voltage Protection:** If the AC line voltage drops below 25% or rises above 15% of the nominal operating voltage of the amplifier, the amplifier's power supply turns off and the blue Power LED flashes. The amplifier will turn back on when the AC line voltage returns to safe operating levels.

**Circuit Breaker:** This breaker protects the amplifier from excessive AC current draw.

**DC Output Servo:** The output servo circuit protects your drivers by eliminating DC offset, even in the presence of very large asymmetrical signals.

**In-rush Limiting:** A soft-start circuit in the power supply minimizes the amplifier's current draw during power-on.

Variable-speed Fan: Two continuously variable speed fans direct the airflow through the amplifier for cooling.

### **Regulatory Certifications**





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Section

04

Other Applications Cinema

CTs Multi-Channel Series: The Standard CTs 4200 CTs 8200



# FLEXIBILITY

#### ▶ FEATURES

- · High power density: Four-channel model in a 2U chassis, eight-channel model in a 3U chassis
- Crown Switching Power Supply for lighter weight
- Selectable "Constant-Voltage" or low-impedance (4/8 ohm) operation per channel-pair.
- "FIT" (Fault Isolation Topology) circuitry isolates fault conditions without affecting neighboring channels

#### **POWER OUTPUT\***

	All channels driven		1 channel driven		All channel pairs driven			1 channel pair driven				
Models	4-ohm Dual	8-ohm Dual	70V Dual	4-ohm Dual	8-ohm Dual	70V Dual	8-ohm Bridge	16-ohm Bridge	100V Bridge	8-ohm Bridge	16-ohm Bridge	100V Bridg
CTs 4200 CTs 8200	260W 200W	180W 160W	220W <sup>†</sup> 200W <sup>†</sup>	270W 270W	220W 220W	250W <sup>†</sup> 250W <sup>†</sup>	520W 400W	400W 320W	220W <sup>†</sup> 200W <sup>†</sup>	560W 540W	440W 440W	250W <sup>†</sup> 250W <sup>†</sup>
Maximum average power in watts at 1kHz at 0.1% THD.												

+Constant Voltage full-bandwidth power ratings support 100 Hz to 20 kHz due to automatic high-pass filters.

#### ► SPECIFICATIONS

Frequency Response (at 1 watt, 20 Hz - 20 kHz): ±0.5 dB

Phase Response (at 1 watt, 10 Hz - 20 kHz): ±35°. Signal to Noise Ratio below rated power (20 Hz to 20 kHz): 100 dB unweighted.

Total Harmonic Distortion (THD) at 1 watt. from 20 Hz to 20 kHz: < 0.05%

Intermodulation Distortion (IMD) 60 Hz and 7 kHz at 4:1, from 163 milliwatts to full bandwidth **power:** < 0.05% (typical)

Damping Factor: 10 Hz to 400 Hz: >180. Crosstalk (below rated power, 20 Hz to 1 kHz): > 80 dB

Common Mode Rejection (CMR) (20 Hz to 1 kHz): > 50 dB

DC Output Offset (shorted input): < +5 mV

Input Impedance (nominal): 20 kilohms balanced, 10 kilohms unbalanced

Maximum Input Level (before input compression): + 20 dBu.

Load Impedance: (Note: Safe with all types of loads) Stereo: 4/8 and 25 ohms (70V)

Bridge Mono: 8/16 and 50 ohms (100V) Voltage Gain (at maximum level setting), 1.4V

#### sensitivity.

4/8 Ohm Operation: 20:1 (26 dB); 70V Operation: 50:1 (34 dB) 100V Operation: 71.4:1 (37 dB)

#### **AC Line Voltage and Frequency Configurations**

Available (±10%): 120V/60 Hz, 220/230/240V/50 Hz. Power Draw at Idle (120VAC mains, all channels in 4/8 ohm mode): 58W.

Power Draw at Idle (120VAC mains, all channels in 70V mode): 77W

Cooling: Continuously variable speed forced air, front-to-back airflow

#### Dimensions (Width, Height, Depth):

CTs 4200: 19 in. (48.3 cm) W x 3.5 in. (8.9 cm) H x 16.25 in. (41.3 cm) D. CTs 8200: 19 in. (48.3 cm) W x 5.25 in. (13.3 cm) H x 16.25 in. (41.3 cm) D.

#### Weight (Net, Shipping):

CTs 4200: 27 lb 8 oz (12.5 kg), 32 lb (14.5 kg) CTs 8200: 36 lb 6 oz (16.5 kg), 47 lb (21.3 kg).

#### Ontions Front Panel Controls and Indicators

Bridge Mode Indicator: Yellow LED, one per channel pair, illuminates when the channel pair's Mode Switch is set to the "Bridge" position. If Mode switch is changed while amplifier is powered up. Bridge LED will flash, indicating that the amplifier must be nowered off and on to reset the Mode

Ready Indicator: Green LED, one per channel, illuminates when the channel is initialized and ready to produce audio output.

> Crown's CTs Multi-Channel Series offers wide flexibility for a wide range of installed sound applications. CTs Multi-Channel Series amplifiers offer independent selection of high- and low-impedance operation for each channel pair, making these amps ideal for multi-zone installations.

Signal Indicator: Green LED, one per channel, illuminates to indicate the presence of analog input signals above -40 dBu.

Clip Indicator: Red LED, one per channel, illuminates when the THD of the channel's output signal rises to a level typically considered as the onset of audible clipping. The Clip Indicator also will illuminate during Thermal Level Control (TLC) or input

overload

the IN position

VCA-MC8 module.

Mono 100V

Thermal Indicator: Red LED, one per channel, flashes when a state of thermal stress or overload has caused the channel to shut down. If the power supply goes into thermal overload, all channel LEDs

Fault Indicator: Red LED, one per channel, flashes when a fault condition has occurred in the channel.

Ventilation Grille: Front-to-rear forced airflow.

Data Indicator: Yellow LED indicates HiQnet data activity (if the amplifier is equipped with an USPCN Module and connected to a control network).

Power Indicator: Blue LED indicates amplifier has been turned on and AC power is available. Indicator also flashes if the amplifier shuts off due to an under-/over-voltage condition on the AC mains.

Power Switch: Amplifier is on when the switch is in

#### **Back Panel Controls and Connectors**

AC Power Cord Connector: IEC inlet, type 320; 100/120VAC units: 15A: 220/230/240VAC units: 10A

Voltage is indicated above IEC inlet

Output Connectors: One four-pole terminal strip for every two channels with touch-proof cover. Accepts up to 10 AWG terminal forks.

Accessory Panel: CTs 4200 accepts an optional VCA-MC4A module. CTs 8200 accepts an optional

Channel Level Controls: One 21-position detented rotarv potentiometer per channel, ranging from infinity (-70 dB) to 0 dB attenuation.

Input Connectors: Removable Phoenix-style barrier connectors for balanced input. When the USPCN module is installed, these can also can be used as a CobraNet input or a backup for CobraNet.

Mode Switch: Used on each consecutive pair of channels this four-position switch is used to select the amplifier's mode of operation: Dual 8/4 ohms. Dual 70V, Bridge-Mono 16/8 ohms, and Bridge-

Cooling Vents: Front-to-rear forced airflow.

Control Modules: USPCN HiQnet and CobraNet Module VCA-MC4A: VCA module for CTs 4200A. VCA-MC8: VCA module for CTs 8200.

Wall-mount level control panels for use with VCA module: 1-VCAP: Single-gang panel with 1 VCA channel volume control. 4-VCAP: Two-gang panel with 4 VCA channel volume controls

T-170V: This is an autoformer that allows 100V output from the amplifier, and allows other amplifiers without direct constant voltage output to be easily integrated into distributed systems

**TP-170V**. This is a rack-mountable papel with four autoformers as described above.

#### **Protection Systems**

Thermal Level Control (TLC): If an amplifier channel starts to overheat, the TLC circuit will engage that channel's input compressor. By compressing the input, the amplifier will not generate as much heat and will have a chance to cool down. The degree of compression is proportional to the amount of overheating. If the channel becomes too hot for safe operation even after full TLC limiting, the channel will shut off, and the Thermal Indicator for that channel will flash brightly to alert the user that a state of thermal stress or overload has cause the channel to shut down.

FIT (Fault Isolation Topology): Isolates faults within affected channels

Fault: If an amplifier channel requires service, the corresponding Fault indicator will illuminate to alert the user of this condition. If this occurs, return the amplifier to the Crown factory or to an authorized Crown service center.

High-Pass Filter: A fixed 35-Hz (70-Hz in CTs 4200) high-pass filter per channel pair is automatically inserted when the mode switch is set to either of the constant-voltage settings. The high-pass filter corner frequency in the CTs 8200 can be set to 70 Hz, or bypassed, with a service option.

AC Under-/Over-Voltage Protection: If the AC line voltage varies out of an acceptable range, the amplifier's power supply turns off and the blue Power LED flashes. The amplifier will turn back on when the AC line voltage returns to safe operating levels

Models	Under-Voltage Limit	Over-Voltage Limit
100VAC (CTs 8200 only)	90VAC	110VAC
120 VAC units	108VAC	132VAC
220V/230V/240V units	198VAC	264VAC

**Power Fuse:** A fuse protects the amplifier from excessive AC current draw.

Inrush Limiting: A soft-start circuit in the power supply minimizes the amplifier's current draw during power-on.

Variable-speed Fan: Continuously variable speed fan directs the airflow through the amplifier for coolina.

**Regulatory Certifications** 





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2012

Section

04

**Other Applications** Cinema

CTs Multi-Channel Series: With CobraNet CTs 4200USP/CN. CTs 8200USP/CN



# **COBRANET** <sup>m</sup>**CAPABLE**

- FEATURES (with USPCN module)
- 100 Mbps Ethernet single-plug solution for CobraNet audio, and HiQnet<sup>™</sup> control and monitoring
- Analog audio inputs allow CobraNet network audio input, CobraNet audio backup, or a hardwire emergency override of CobraNet audio
- 24 bit digital to analog conversion with 32 bit, floating point DSP processing
- Firmware upgrades via the network
- 10 user selectable presets
- Reliable FLASH memory backup of all parameters

## ► SPECIFICATIONS

## **USP/CN CobraNet Module Specifications**

(for amplifier specifications, see the CTs Multi-Channel Series pages)

#### **Connectors:** AUX Connector

Configurable for AUX input, AUX output and Listen Bus. Listen Bus is also supported through CobraNet.

#### **Network Connector**

The dual RJ45 CobraNet connectors allow a Primary & Secondary connection to the 100Mb Ethernet network. Should the Primary connection lose link activity with the network. the input module will automatically switch to the Secondary connection to ensure uninterrupted audio and control. The indicators on the RJ45 connectors display network information concerning the Ethernet and CobraNet connections.

#### Indicators:

Preset Indicator Signals the number of the current preset, if active, by flashing a series of flashes equal to the current preset number.

sets, and program storage. Communications: 100Mb Fast Ethernet conforming to IEEE 802.3.

**Overall Audio Performance:** DSP Processing: Two processors, 32 bit, Floating Point, 724 µs latency.



CTs 8200USP/CN Back Panel (note USP/CN CobraNet<sup>™</sup> module at top left)

### POWFR OUTPUT\*

	All channels driven			1 channel driven			All channel pairs driven			1 channel pair driven		
Models	4-ohm Dual	8-ohm Dual	70V Dual	4-ohm Dual	8-ohm Dual	70V Dual	8-ohm Bridge	16-ohm Bridge	100V Bridge	8-ohm Bridge	16-ohm Bridge	100V Bridge
CTs 4200USP/CN	260W	180W	$220W_{\downarrow}^{\dagger}$	270W	220W	$250W_{\downarrow}^{\dagger}$	520W	400W	$220W_{\downarrow}^{\dagger}$	560W	440W	250W
CTs 8200USP/CN	200W	160W	200W'	270W	220W	250W'	400W	320W	200W'	540W	440W	250W
*Maximum average power in watts at 1kHz at 0.1% THD. #Constant Voltage full-bandwidth power ratings support 100 Hz to 20 kHz due to automatic biob-pass filters												

The Crown® CTs 4200USP/CN and CTs 8200USP/CN power amplifiers have an integrated 3rd generation, DSP-based input module. It connects the amplifier to a 100 Mbps Ethernet network allowing it to be remotely controlled and monitored via System Architect™ software. In addition, the input module allows the transport of real-time digital audio via CobraNet™ over the same Ethernet network. The amplifiers connect to a HiQnet<sup>™</sup> audio control/monitor network using standard 100 Mbps Ethernet hardware (switches, Network Interface Cards, and cables). CobraNet<sup>™</sup> audio is available over the same 100 Mbps Ethernet network, providing a simple-to-install, single-plug solution for audio distribution, control, and monitoring.

04

Flashes when the module receives a valid command that is addressed to the CTs 4200 USP/CN and CTs 8200USP/CN.

#### **Reset/Preset Switch**

Data Indicator

Switches:

General:

Used to change presets, restore settings to factory default or restore all the presets to the factory defaults. During operation of the switch, the Data indicator flashes as an aid to the user. Accessible with a straightened paper clip through the rear panel, the switch selects the next user preset if pressed for less than 2 seconds, resets the module to preset "0" if pressed for more than 2 seconds.

Memory Backup: Non-volatile FLASH memories for backup of run-time parameters, pre-

## D/A and A/D Conversion: 24 bit.

#### Latency:

DSP processing: 1 ms or 1000 µs. Digital-to-analog conversion: 250 us. Analog-to-digital conversion: 250 µs. Amplifier: 100 µs. Total: 1.6 ms or 1000 μs.

Dynamic Range: 103 dB typical (A-weighted. 20Hz–20kHz, audio sourced from muted CobraNet channel).

Distortion: < 0.1% THD+N. 20Hz–20kHz.

Frequency Response: ± 0.5 dB, 20Hz–20kHz.

Input/Output Monitor Accuracy: Typically ±1dB. Maximum Input Level: + 20 dBu.

**Regulatory Certifications** 





Harman Pro

Group — 2012

Section:

04

Other Applications Cinema

# INSTALL EQUID

CDi Series: 2/4/8 Ohm, 70V/100V per channel CDi 1000, CDi 2000, CDi 4000, CDi 6000



# VERSATILITY

- ▶ FEATURES
- Onboard digital signal processing includes crossovers, EQ filters, delay, and output limiting
- Computer connectivity via USB allows fast setup and configuration with HiQnet™
- · Barrier strip outputs, removable Phoenix-style input
- · Extremely versatile, handling a wide range of speaker impedances and outputs
- · Switch-mode universal power supply
- · Speaker presets for crossover frequencies, EQ, limiting, compression, delay

#### **POWER OUTPUT\***

Models	2-ohm Dual (per channel)	4-ohm Dual (per channel)	8-ohm Dual (per channel)	70V Dual (per channel)	4-ohm Bridge	100V‡ Dual (per channel)	140V Bridge	
CDi 1000	700W**	500W	275W	500W	1,400W**	500W	1,000W	
CDi 2000	1,000W**	800W	475W	800W	2,000W**	800W	1,600W	
CDi 4000	1,600W**	1,200W	650W	1,000W	3,200W**	1,000W	2,000W	
CDi 6000	3,000W**	2,100W	1,200W	2,500W	6,000W**	2,500W	5,000W	

\*Maximum average power in watts at 1 kHz at 0.5% THD. \*\*With 1% THD. ‡100Vp

## SPECIFICATIONS

#### Performance

Output Power: See power charts. Voltage Gain at 1kHz:

CDi 1000: 30.5 dB CDi 2000: 32.9 dB CDi 4000: 34.2 dB CDi 6000: 37.1 dB

Frequency Response: +0/-1 dB from 20 Hz to 20 kHz at 1 watt into 4 ohms.

**Load Impedance:** Safe with all types of loads. Rated for 2 to 8 ohms in Stereo mode, 4 to 16 ohms in Bridge-Mono mode.

Sensitivity: 1.4V.

Signal to Noise Ratio (below rated 8-ohm power at 1 kHz): 100 dB (A weighted).

**Damping Factor:** Better than 500 from 20 Hz to 400 Hz.

Crosstalk: > 70 dB below rated power, 20 Hz to 1 kHz

**Input Stage:** Input is electronically balanced and employs precision 1% resistors.

**Input Impedance (nominal):** 20 k ohms, balanced; 10 k ohms, unbalanced.

Maximum Input Signal: +22 dBu typical.

AC Line Voltage and Frequency Configurations Available: 100V, 120V, 220-240V, 50/60 Hz

#### AC Line Current:

CDi 1000: 6.8A CDi 2000: 8.3A CDi 4000: 10.5A

At Idle: Draws no more than 38 watts. CDi 6000: 15.3A

At Idle: Draws no more than 180 watts.

**Operating Temperature:** 0° C to 40° C at 95% relative humidity (non-condensing).

#### DSP Section

Input EQ: 6 parametric filters per channel with adjustable Q, ±15 dB boost/cut. Also adjustable high and low shelving filters. This 8-filter EQ section can be bypassed.

**Crossover Filters:** Highpass and lowpass per channel. Butterworth 6/12/18/24 dB per octave and Linkwitz-Riley 24/48 dB per octave. Also includes ±15 dB bandpass gain and polarity control.

CDi 6000: NEMA 6-10P (20A) IEC C20 (20A). Input Connector: Two 3-pin removable Phoenix-type connectors each accept a balanced line-level input signal.

The CDi Series of Crown<sup>®</sup> amplifiers are professional tools designed and built for installed sound applications. The series includes four models which are identical except for output power: CDi 1000, CDi 2000, CDi 4000 and CDi 6000. All are rugged and lightweight, and offer unmatched value in their class. CDi-Series amplifiers feature an LCD screen with DSP speaker presets. Other features include a switch-mode universal power supply, useful function indicators, proportional-speed fan-assisted cooling, removable Phoenix-style inputs, barrier strip outputs for low-Z or 70V/140V loads, short-circuit protection and more.



#### Output Limiter: Prever loudspeakers. Choice threshold per channel.

individually

channel

to the amplifier.

ent at input.

duce audio.

conditions

AC Line Connector:

front panel lockout.

**Output EQ:** 8 parametric filters per channel with adjustable Q,  $\pm$ 15 dB boost/cut. This 8-filter EQ section can NOT be bypassed. Filters are enabled

**Delay:** Up to 50 msec total delay per channel. **Output Limiter:** Prevents clipping and protects loudspeakers. Choice of –3, –6, or –12 dB

Presets: 20 presets. 19 are user-definable

#### **Front Panel Controls and Indicators**

Level: Detented rotary level control, one per

Power Switch: On/off switch applies AC power

Sel/Prev/Next Buttons: Three buttons near the LCD screen are used to access menu items and

**LCD Screen:** Backlit liquid crystal display shows speaker presets and signal processing.

**Signal Indicator:** Green LED, one per channel, illuminates when a very low-level signal is pres-

-10 Indicator: Green LED flashes when output signal exceeds -10 dB below clip.

-20 Indicator: Green LED flashes when output signal level exceeds -20 dB below clip.

**Ready Indicator:** Green LED, one per channel, illuminates when the amplifier is ready to pro-

**Clip Indicator:** Red LED, one per channel, turns on at the threshold of audible distortion.

**Temp Indicator:** Red LED, one per channel, illuminates under excessive temperature

**Power Indicator:** Blue LED illuminates when the amplifier has been turned on and has power.

#### **Rear Panel Controls and Connectors**

CDi 1000, 2000, 4000: NEMA 5-15P (15A). CDi 6000: NEMA 6-10P (20A) **Output Connectors:** 4-position barrier strip with connectors for dual louspeakers or bridge-mono loudspeaker. Dual connectors work with 2-8 ohm or 70V/100V loads. Bridge-mono connectors work with 4-8 ohm or 140V loads.

**HiQnet USB Connector:** Type B, connects to a USB port on a PC.

#### Protection

CDi Series amplifiers are protected against shorted, open or mismatched loads; overloaded power supplies; excessive temperature; chain destruction phenomena; excessive output current, and input overload damage. They also protect loudspeakers from input/ output DC, large or dangerous DC offsets and turn-on/turn-off transients.

#### **Included Accessories**

Non-touch cover Locking level-control knobs.

## Construction

**Chassis:** Steel. **Cooling:** Proportional speed fan with front-torear airflow. Harman

Pro

Group

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2012

Section:

04

**Dimensions:** EIA Standard 19-in. rack mount width (EIA RS-310-B), 3.5 in. (8.9 cm) high and 12.25 in. (31.11 cm) deep behind mounting surface. CDi 6000 is 16.2 in. (41.15 cm) deep.

#### Net Weight:

CDi 1000, 2000, 4000: 19 lb (8.6 kg). CDi 6000: 24 lb (10.9 kg).

Shipping Weight:

CDi 1000, 2000, 4000: 22 lb (10.0 kg). CDi 6000: 30 lb (13.6 kg).

## **Regulatory Certifications**



Note: All measurements apply to all models of CDi Series amplifiers in stereo mode with 8-ohm loads and an input sensitivity of 1.4V, 1 kHz at rated power unless other otherwise specified. Specifications for units supplied outside the U.S.A. may vary slightly at different AC voltages and frequencies.