



MUSICAM USA[®]

Corporate Computer Systems, Inc. d/b/a MUSICAM USA

Technical Reference Manual For
*CDQ*Prima And PrimaLT
Series Codecs

MUSICAM USA

Technical Reference Manual for:
CDO Prima Software Revisions 34 and 6.34
Prima LT Software Revisions 1.02
Prima LT Plus Software Revisions 1.01

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First Printing, September 2000
MUSICAM USA Part Number 611283M



Introduction to the Technical Reference Manual

Throughout this manual, the term ‘codec’ refers to all models in the **CDQPrima** and **Prima LT** series of audio codecs. Any features or instructions that refer to particular models will be noted.

The Technical Reference Manual is a companion document to the Users Guide that comes with your MUSICAM USA audio codec. The Users Guide contains all information required to set up and use your codec for most basic applications, and should be reviewed before using your codec for the first time. This document is designed for the advanced user who wants to make the most out of the MUSICAM USA codec’s more advanced features.



Your codec contains a vast array of features, many of which are not available in competing models. This manual contains a summary of features that are current through the date of this manual. All MUSICAM USA codecs are designed to grow as technology improves, and MUSICAM USA may, from time to time, issue software or hardware upgrades to increase performance and provide additional features. If you believe a new feature would be helpful in your application, we encourage you to contact us with your ideas. One key feature of the codec is that it can easily be field upgraded, and we may be able to easily make your idea a reality.

Noting the software version as your codec boots can identify software and hardware versions. For example, a **CDQPrima** with hardware revision 6 running software revision 34 will be indicated by “6.34”

appearing on the display during system boot. Although we will do our best to contact you when new software releases are available, please feel free to check with us directly or on our Web page at www.musicamusa.com for the current software version number.

Please do not let the size of this manual scare you. The codecs covered in this manual are very powerful, and have many advanced features not found in any other codec. If you will not be using any of the powerful advanced features, you may not need to read any of this manual. If using these advanced features, you will need to read only those sections that reference the features you elect to use. In addition, this document contains detailed discussions on audio compression, line formats, digital transmission and other topics that may not be of interest to even the advanced user. You should think of this document as an encyclopedia. You do not have to read from cover to cover, but only those sections you need, and only when you need to.

The basic features and functions of your codec have all been described in the Users Guide that comes with your codec, and that document should be consulted for setting-up, configuring and using the basic functions. Configuration and set-up topics discussed in the Users Guide include:

- Command entry using the front panel keypad and display, remote control commands and the Windows Remote Control program
- Digital Interface Module, including Terminal Adapter setup, configuration storage and recall
- Encoder/Decoder configuration using Quick Configurations, including configuration table maintenance
- Manual encoder and decoder configuration
- Terminal Adapter dialing, including speed dial directory maintenance
- Remote control port configuration
- Headphones, displays, beeper and fan controls for codecs so equipped

In addition, the **Prima LT** and **Prima LT Plus** Users Guides contain additional information on:

- Factory and User defaults, function key programming, security, and display adjustment

- Prima Logic Language (as implemented in the **Prima LT**). For the **Prima LT Plus**, refer to this manual for Prima Logic Language programming.

Information and discussions of the following advanced topics can be found in this document, and are in no particular order:

- Chapter 1 — Digital transmission networks including Switched-56, ISDN and dedicated links.
- Chapter 2 — Compression algorithms, line formats, bit and sample rate selections and performance considerations.
- Chapter 3 — Advanced configuration for dual-algorithm, decoder independent, independent mono and broadcast applications.
- Chapter 4 — Advanced encoder and decoder configurations and features, including Digital audio I/O and timing, calibration, peak detection, quiet detection, status bits, error concealment, sine detection and simulated switches.
- Chapter 5 — Remote control, including, Windows Remote Control program, RS232/RS485 considerations and far end remote control.
- Chapter 6 — Ancillary data, including SMPTE time code, RS232, relay closures, optical inputs, extended control links and data port configurations.
- Chapter 7 — Prima Logic Language, including error and out-of-frame detection, silence and audio detection, timers, optical inputs and relay outputs, event definition, status and link events, action definition, virtual actions, event-to-action logic and several useful examples.
- Chapter 8 — Psychoacoustic parameter adjustment.
- Chapter 9 — Prima security, including passwords, port and command lockout, on line help for terminal and Windows remote control users, factory defaults and User Profiles, option installation and software maintenance and upgrading.
- Chapter 10 — Troubleshooting and error messages, including Loopback testing.
- Appendices — Cable diagrams, rear panel pin-outs, factory defaults, optical input and relay output pin-outs, full menu tree, ISDN ordering and provisioning, specifications and warrantee information.

Index

A

- Action word, 7-15
- ADPCM, 2-4
- AES/EBU, 4-7
- Ancillary data, 2-8, C-11, C-12
 - Baud rate, 6-4
 - Cables, A-2
 - DSP rate, 6-4
 - Error control, 6-5
 - Format, 6-3
 - Independent mono, 6-8
 - MUX mode, 6-1
 - MUX rate, 6-4
 - RS232, 2-8, 6-4, 6-5
 - Time code, 6-7
- Applications
 - Broadcast, 3-2, 3-4, 3-5
 - Dual algorithm, 3-7
 - Independent mono, 3-7
- Audio detector, 4-9, 4-11, 7-6, 7-20, 7-23, 7-25

B

- BER, 7-19
- BER counter, 7-2
 - rate, 7-3
 - Threshold, 7-3
- Bit errors, 1-3, 7-2
- Bit rates, 2-4, 2-7, 2-8
- Bootling, 10-1

C

- Cables, A-1
- Calibration
 - A/D, 4-13
 - D/A, 4-13
- CCSIMUX, 2-9
- CDQ1000, 2-9
- CDQ2000, 2-2, 2-9
- Clock, C-11
- Commands
 - CAN, 5-9, 6-1, 6-3
 - CAR, 7-10, 7-15
 - CBR, 10-3
 - CCT, 7-7

- CDF, 8-9, 9-6, 9-11, 10-2
- CDR, 6-4
- CEA, 7-14
- CEV, 7-14, 7-15
- CID, 5-2, 5-8
- CLA, 7-10, 7-15
- CLB, 10-3
- CMA, 6-4
- COB, 6-5
- COC, 6-5, 6-6
- CON, 6-5, 6-6
- COS, 6-5, 6-6
- COT, 6-5
- CPU, 9-6, 9-8
- CPW, 9-1
- CQQ, 9-4
- CRA, 7-10, 7-15
- CRB, 5-8
- CRI, 5-8
- CRM, 5-5, 5-8
- CSU, 9-1
- CSX, 9-11
- CTI, 6-6, 6-7
- CTL, 6-6, 6-7
- CTM, 7-7
- CTS, 6-6
- CTT, 6-6, 6-7
- CUP, 9-1
- CVA, 7-13
- CVN, 9-11
- DAF, 6-3
- DAH, 5-10, 6-3
- DAS, 6-8
- DDA, 4-13
- DDO, 4-1
- DES, 4-1
- DQQ, 9-4
- DRS, 4-12
- DSP, 4-11
- DTI, 4-1, 4-4
- EAD, 4-13
- EAF, 6-3
- EAH, 5-10, 6-3
- EAI, 4-1
- EAS, 6-8
- ECR, 4-12

- EED, 4-12
- ELU, 7-13
- EOR, 4-12
- EPB, 8-9
- EPD, 8-9
- EPI, 4-12
- EPL, 8-9
- EPP, 8-9
- EPR, 4-12
- EPS, 8-9
- EPT, 8-9
- EPY, 8-9
- EQQ, 9-4
- ESD, 4-12
- ESP, 4-11
- ESR, 4-3
- ESW, 6-8, 7-8
- ETI, 4-1, 4-4
- HELP, 9-4
- MBC, 7-2, 7-3
- MBD, 7-2, 7-3
- MBL, 7-2, 7-3
- MBP, 7-2, 7-3
- MBR, 7-2, 7-3
- MBU, 7-2, 7-3
- MLK, 9-1
- MOC, 7-5, 7-6
- MOD, 7-5
- MOL, 7-5
- MOP, 7-5, 7-6
- MOR, 7-5, 7-6
- MOU, 7-5
- MPC, 9-1
- MPD, 4-9
- MQC, 4-10, 7-6, 7-7
- MQD, 4-10, 7-6, 7-7
- MLQ, 4-10, 7-6
- MQQ, 9-4
- MQT, 4-10, 7-6
- MSU, 9-1
- MUP, 9-1
- MVN, 9-11
- Compressed Audio
 - Commentary grade, 2-5
 - Contribution grade, 2-5
 - Distribution grade, 2-5

- Emission grade, 2-5
- Connectors
 - AES/EBU, B-4, B-6
 - Ancillary data, B-4, B-6
 - Audio input, B-4, B-5, B-8
 - Audio output, B-4, B-5
 - Opto isolators, B-5, B-7
 - Relays, B-5, B-6, B-7
 - Remote control, B-4, B-6, B-7
 - RS232, B-4, B-6, B-7
 - RS485, B-4, B-6, B-7
 - Time code, B-8

- CSU/DSU, 1-1

D

- Decoder
 - Calibration
 - Independent, 3-2
 - Status bits, 4-12
- Dedicated Data Service, 1-3
- Dedicated network, 1-1
- Digital audio
 - AES/EBU, 4-2
 - Cables, A-2
 - I/O, 4-1
 - Rate adaption, 4-2, 4-5, 4-8
 - S/PDIF, 4-2
 - Sampling rates, 4-3, 4-7
 - Synchronization, 4-2, 4-3
 - Timing, 4-2, 4-3, 4-4
- Dual G.722, 3-9

E

- E1, 1-5
- Encoder
 - Calibration
 - Header bits, 4-12
- Error codes, 5-12
- Error concealment, 4-11

F

- Factory defaults, 9-6, 9-7, C-9
- Reset, 9-7, 10-2

H

- H.221, 2-4, 2-11
- Help, 9-4

I

- Independent mono, 3-8, 6-8
- ISDN, 1-4, 1-5

- ISDN Provisioning, F-23
- ISO/MPEG Layer II, 2-1, 2-2, 2-3, 2-7

- ISO/MPEG Layer III, 2-3, 2-7

J

- J.52, 2-9, 2-10

L

- Logon, 9-1
- Permission level, 9-2

M

- Masking, 2-2, 8-12, 8-14, 8-19
- Menus, E-15
- MPEG Decoder, 8-8
- MPEG Encoder, 8-5
- MUSICAM, 2-1, 2-2, 2-1

O

- OOF, C-9
- OOF counter, 7-2, 7-5, 7-19
 - Rate, 7-5
 - Threshold, 7-5
- Optical isolators, 6-8, 7-2, 7-8, D-14
- Options
 - Control inputs, 9-9
 - Digital audio, 9-9
 - Installation, 9-9
 - Optical I/O, 9-11
 - Relay outputs, 9-9
 - SMPTE Time code, 9-10

- Other RS232
 - Baud rate, 6-5
 - Messages, 6-6
 - Usage, 6-5

P

- Peak detector, 4-9
- Post production processing, 2-6
- Prima Logic Language, 7-1, D-14
 - Action word, 7-15
 - Actions, 7-1, 7-2, 7-11, 7-13, 7-14
 - Audio event, 7-7
 - BER event, 7-3
 - Boolean operators, 7-13, 7-15
 - Events, 7-1, 7-9, 7-14
 - Modifiers, 7-17

- OOF event, 7-5
- Simulated switch, 6-8, 7-8
- Status event, 7-9
- Summary alarm, 7-12
- Timers, 7-2, 7-7, 7-12
- Virtual actions, 7-11, 7-13
- Virtual links, 6-8

- Psychoacoustic parameters
 - 3 dB <.499> 6 dB, 8-19
 - Adjustment, 8-1, 8-9, 8-11
 - Adjustment subband, 8-20
 - Anticorrelation factor, 8-16
 - Demand minimum factor, 8-18
 - Dynamic bit allocation, 8-2, 8-4
 - Jnt..SKF.ISO, 8-17
 - Joint boundary adjustment, 8-18
 - Joint frames count, 8-18
 - Joint Minimum Subband, 8-16
 - Joint stereo used subbands, 8-21
 - Limit subbands, 8-16
 - Masking, 8-1, 8-4, 8-12
 - Mono used subbands, 8-20
 - Parameter tables, 8-10, 8-11
 - Peak <.49> RMS, 8-19
 - Safety margin, 8-17, 8-21
 - Scale factors, 8-3, 8-6
 - Scale factor adjustment, 8-20
 - Subband hang time, 8-20
 - Threshold of hearing, 8-17
 - tuning, 8-9
 - Used subbands, 8-18

Q

- Quick Configurations, 3-1, 3-9
- Quiet detector, 4-9, 7-2, 7-6

R

- RCUE, 7-12
- Relays, 6-8, 7-8, 7-11, D-14
- Remote control, 5-1, 5-12
 - Cables, A-3
 - Error codes, 5-12
 - Far end, 5-9, 5-10, 5-11, 5-12
 - Protocol, 5-2
 - RS232, 5-1, 5-4
 - RS485, 5-2, 5-4, 5-8
 - Windows, 5-8, 5-11, 5-12
- RS232

- Cables, A-2
- RS485
 - 2 Wire, 5-7
 - 4 Wire, 5-5
 - Terminations, 5-8

S

- Sampling Rates, 2-7, 2-8
- Satellite, 1-3, 1-6
- Scale factors, 4-11
- SCUE, 7-12
- Security, 9-1
 - Command lock, 9-3
 - Level, 9-2
 - Logon, 9-2
 - Port lock, 9-2
- Silence detector, 4-9, 4-10, 7-2,
7-6
- Sine detector, 4-12
- SMPTE Time code, 6-6

- Cables, A-2
- Software
 - Upgrade, 9-11
 - Version, 9-11
- Specifications, G-29
- Spread spectrum, 1-6
- Status bits, 4-12
- Summary alarm, 7-12, B-6
- Switched network, 1-1
- Switched-56, 1-3, 1-4
- T1, 1-5

T

- Terminal Adapter, 1-4
- Timing, 4-1
 - NORMAUTO, C-11
- Troubleshooting
 - "NO CARRIER", 10-9
 - Audio, 10-4
 - Bit errors, 10-10

- Continuous boot, 10-16
- Connections, 10-6
- Echo, 10-6
- Error messages, 10-19
- Line errors, 10-10
- No audio, 10-4
- Phase distortion, 10-6
- Terminal adapter, 10-11, 10-
13

U

- User defaults, 9-9
- User profile, 9-6, 9-8

V

- V.35
 - Cables, A-1

