

Introduction

Thank you very much for purchasing the TASCAM IF-CB/DM CobraNet™ Interface Card for TASCAM DM-3200 and DM-4800 mixers.

This Interface Card allows a TASCAM DM-3200/DM-4800 to be connected to a CobraNet digital audio network and to send and receive up to 32 channels (16 inputs/16 outputs) of uncompressed digital audio signals with a sampling frequency of 48 kHz.

Before using the unit, please take time to read this manual thoroughly to ensure you understand how to properly set up and connect the unit, as well as the operation of its many useful and convenient functions. After you have finished reading this manual, please keep it in a safe place for future reference.

You can also download the Owner's Manual from the TASCAM web site (<http://www.tascam.com>).

After reading this manual, we recommend that you visit the CobraNet website below before using this card. This site provides valuable information, including an overview of CobraNet, explanations of technologies, application methods, examples of use, and tool downloads.

<http://www.cobranet.info/>

Features

- Transmission of up to 32 channels (16 inputs/16 outputs) of audio
- Compatible with 24 bit quantization and 48 kHz sampling frequency

Trademarks

- TASCAM is a trademark of TEAC Corporation, registered in the U.S. and other countries.
- Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- CobraNet is a trademark of Cirrus Logic, Inc.
- Other company names, product names and logos in this document are the trademarks or registered trademarks of their respective owners.

Product components

The included items are listed below.

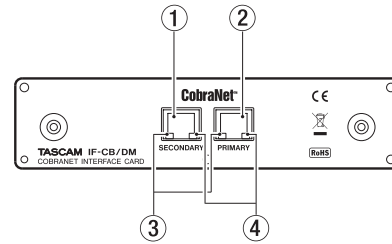
Take care when opening the package not to damage the items. Keep the package materials for transportation in the future.

Please contact the store where you purchased this unit if any of these items are missing or have been damaged during transportation.

- Main unit 1
- Attachment screws 5
- Owner's Manual (this document)..... 1

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Names and functions of parts



- ① **SECONDARY (RJ-45 connector):** connector for the secondary cable
- ② **PRIMARY (RJ-45 connector):** connector for the primary cable
- ③ **Green indicator**
 - Light or blink slowly when a network cable is connected correctly.
 - Blink rapidly when data is being transmitted properly over the network.
- ④ **Orange indicator**
 - Blink when functioning as the conductor (clock master).
 - Light when power is properly supplied.
 - Primary and Secondary both blink when an irregularity occurs on the network.

DM-3200/DM-4800 software version

In order to use the IF-CB/DM card, the DM-4800/DM-3200 must use software version 1.70 or later. The mixer cannot recognize the IF-CB/DM card when using earlier versions. Check the TASCAM website (<http://www.tascam.com/>) for the latest DM-4800/DM-3200 software and download the TFI update file.

Install TMCompanion, which is included on the CD-ROM included with the DM-4800/DM-3200, on the computer that you are using. Launch TMCompanion and use the TFI update file to upgrade the software version used by the DM-4800/DM-3200.

Installing the IF-CB/DM

NOTE

- *DM-3200: Install the IF-CB/DM in mixer slot 1. It will not function in slot 2.*
 - *DM-4800: Install the IF-CB/DM in mixer slot 1 or 3. It will not function in slot 2 or 4.*
 - *Turn the mixer power OFF before beginning installation.*
- 1 **Remove the five screws from the cover panel of the slot where you want to install the IF-CB/DM card (slot 1 on a DM-3200, slot 1 or 3 on a DM-4800), and then remove the panel. (If that slot already contains a card, remove the card.)**

- 2 Insert the IF-CB/DM card into the slot. Insert the card completely, aligning its edges with the white guidelines on the inside of the slot. Push the card in until it clicks into place and its backplate is even with the back of the mixer. Do not, however, push the card too hard. If you are having difficulty inserting it properly, pull it out once and try again.
- 3 Use the five screws that you removed earlier or the five screws included with this card to fix the card in place.
- 4 Turn the mixer's power ON, and open the DIGITAL screen (with the ALT key indicator lit, press screen mode selection key 2). Select the SLOT tab (SLOT 1-2 or SLOT 3-4 for the DM-4800), and confirm that the unit recognizes the installed card. If a "No Card" message appears, the card might not have been inserted properly or the screws might not be tight enough.

Connecting with other CobraNet devices

After installing the IF-CB/DM card into a DM-4800/DM-3200 mixer, connect it to other CobraNet devices through a switching hub.

For the LAN cables, use straight, shielded, twisted pair cables that are category 5 or higher.

For the switching hub, use a device recommended on the CobraNet web site.

Set up the CobraNet network so that it is completely independent from other networks.

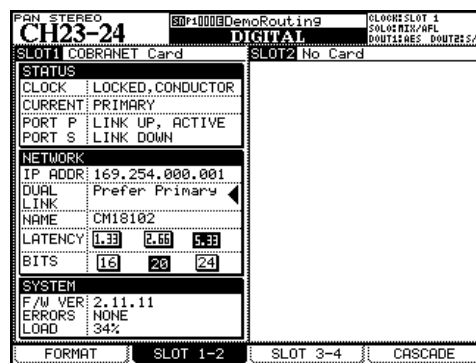
Transmission distance

The length of cables that can be used depends on the quality of the cables and the various other devices located between the transmitting and receiving devices.

The maximum length that can be used with category 5 cables is 100 m. If transmission over a greater distance is necessary, multimode optical fiber cables can be used (maximum distance of 2 km).

Mixer control screen

The IF-CB/DM setting screen shown below appears the same for both DM-3200 and DM-4800 mixers. Press the ALT key and screen mode selection key 2 to open the DIGITAL screen, and select the SLOT tab (SLOT 1-2 or SLOT 3-4 for the DM-4800).



■ STATUS

This section shows information about the IF-CB/DM card status.

CLOCK:

This shows whether or not the clock is synchronized and whether the unit (including the mixer) is a performer or the conductor.

- **UNLOCKED:**
This unit is not synchronized with the clock.
- **LOCKED, PERFORMER:**
This unit is a performer and is synchronized with the clock.
- **LOCKED, CONDUCTOR:**
This unit is the conductor and is synchronized with the clock.

NOTE

- When this unit is a performer set the clock source for the mixer to the slot where the IF-CB/DM is installed.
- When this unit is the conductor, other devices connected to the same Cobranet as this unit are synchronized to its clock. We recommend that you set the clock source for the mixer to the slot where the IF-CB/DM is installed, but if you select a different one, use CobraNet Discovery to set it to a device with high priority as a conductor.
- Use CobraNet Discovery, which is a separate application, to set whether this unit is a performer or the conductor.

CURRENT:

That shows whether the installed IF-CB/DM card is currently operating on the PRIMARY or SECONDARY network connection.

PORT P:

This shows the status of the PRIMARY PORT.

PORT S:

This shows the status of the SECONDARY PORT.

■ NETWORK

This section shows information about the status of the network.

IP ADDR:

This shows the IP address of the installed IF-CB/DM card.

DUAL LINK:

This shows the network connection method.

- **Prefer Primary (default setting):**
The Primary network has priority. If the Primary network connection is lost, the mixer automatically switches to the Secondary network, and reconnects to the Primary network when it recovers.
- **Always Primary:**
Only uses the Primary network.
- **Always Secondary:**
Only uses the Secondary network.
- **Auto Switch:**
Uses the Primary network at start-up. If the Primary network connection is lost, it switches to the Secondary network, and continues using the Secondary network even if the Primary network recovers. If the Secondary network connection is lost, it switches back to the Primary network.

NAME:

This shows the name of the installed IF-CB/DM card.

LATENCY:

This shows the current latency setting.

BITS:

This shows the current bit-rate setting.

SYSTEM

This section shows information about the system.

F/W VER:

This shows the IF-CB/DM firmware version.

ERRORS:

This shows the number of errors that have occurred.

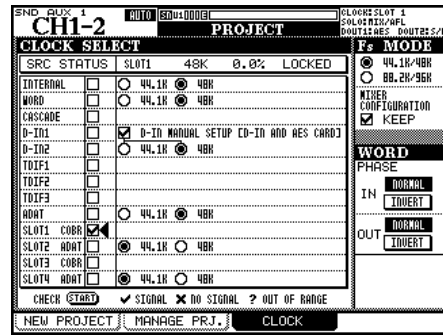
LOAD:

This shows the network load.

DM-3200/4800 settings

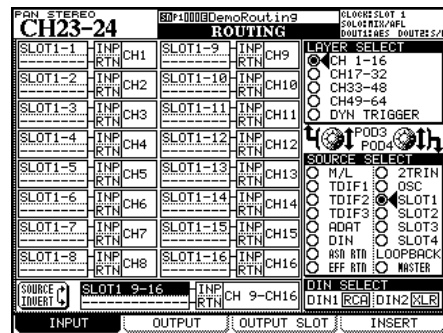
Setting the clock

- 1 Press the **PROJECT** key to open the **CLOCK** screen where you can set the clock source. (See the “Clock setting” section of chapter 3 of the DM-3200/DM-4800 User’s Manual.)
- 2 Set the **Fs MODE** to 48k, and in the **CLOCK SELECT** area, select the **SLOT** where the IF-CB/DM card is installed. This enables stable operation even when switching between conductor and performer.



Input settings (input routing)

Make input settings on the **INPUT** page of the DM-3200/DM-4800 **ROUTING** screen.

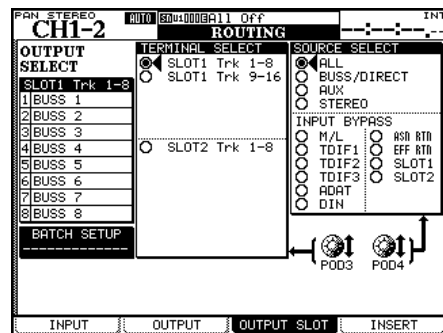


DM-3200 INPUT page

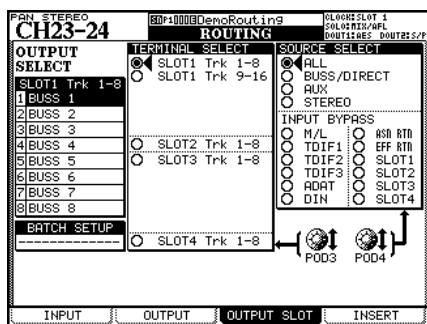
- 1 Use the **POD 4** knob to select the input source group. Input source groups are shown in the **SOURCE SELECT** list at the lower right of the screen.
- 2 Use the **POD 3** knob to select the input source routing destination layer. Routing destination groups are shown in the **LAYER SELECT** list at the upper right of the screen.
- 3 Use the cursor keys to select the source field, and use the **JOG/DATA** dial to select the input source.
- 4 After making the selection, press the **ENTER** key to confirm it.

Output settings (output routing)

Make output settings using the **OUTPUT SLOT** page of the DM-3200/DM-4800 **ROUTING** screen.



DM-3200 OUTPUT SLOT page



DM-4800 OUTPUT SLOT page

- 1 Use the POD 4 knob to select the output source group from the SOURCE SELECT at the right of the screen. Options for each of the outputs in the output source group selected here are shown the OUTPUT SELECT section on the left of the screen.
- 2 Use the POD 3 knob to select an IF-CB/DM output channel group (8 channels) to set in the TERMINAL SELECT section in the center of the screen.
- 3 Use the cursor keys to select an output channel in the OUTPUT SELECT section, and turn the JOG/DATA dial to select its output source. Press the ENTER key to confirm the selection.

CobraCAD and CobraNet Discovery

CobraCAD is a tool used to design and diagnose network systems. Using a graphic user interface, you can select CobraNet-compatible devices and network devices (such as switching hubs), make connections between devices, set the sampling frequency, latency, bit-rate and other settings, as well as simulate network setups in advance.

CobraNet Discovery can be used to list the equipment on the network, view sampling frequency, latency and bit-rate settings, as well as routing information, including transmitter and receiver designations and bundle number settings.

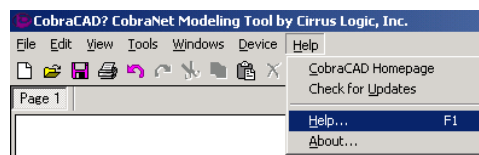
A computer running a Windows OS with the CobraNet Discovery software installed on it must be a part of a network in order to create a CobraNet on that network.

Installing CobraCAD

- 1 The latest version of CobraCAD can be downloaded at the following site.
<http://www.cobranet.info/downloads/cobracad>
- 2 Double-click the downloaded file and follow the instructions shown onscreen to install the software.

Using CobraCAD

Select Help from the CobraCAD Help menu to open the Help screen. Refer to this for information about how to operate the software.



Installing CobraNet Discovery

- 1 The latest version of CobraNet Discovery Utility can be downloaded at the following site.
<http://www.cobranet.info/downloads/disco>
- 2 Double-click the downloaded file and follow the instructions shown onscreen to install the software.
- 3 If the .NET Framework has not been installed on the computer that you are using, during the installation of the CobraNet Discovery Utility, a screen recommending the installation of the .NET Framework should appear. Click “Yes” to install the .NET Framework. After installing the .NET Framework, restart the computer and run the installer for the CobraNet Discovery Utility again.

Using CobraNet Discovery

To access the CobraNet Discovery User Guide, which explains how to operate the software, follow these instructions.

From the Start menu, choose “All Programs” and follow the “CobraNet Discovery” arrow to the following menu. Select “User Guide” to open the CobraNet Discovery User Guide PDF file.



Specifications

DM-4800/DM-3200 requirements

Firmware

DM-3200: Version 1.70 or later

DM-4800: Version 1.70 or later

Note: Use the TMC Companion software to update the firmware of the DM-3200/DM-4800.

Mixer slot

DM-3200: Use slot 1

DM-4800: Use slot 1 or 3

General

Audio inputs: 16

Audio outputs: 16

Quantization bit rate: 16-bit, 20-bit, 24-bit

Sampling frequency: 48 kHz

PRIMARY and SECONDARY connectors: RJ-45

Compatible cables: Category 5 or higher (straight, shielded, twisted pair)

Maximum cable length: 100 m (when using a Category 5 cable)

External dimensions: 164 (w) x 40 (h) x 221 (d) mm

Weight: 0.3 kg