

TASCAM

TEAC Professional Division

IF-88SD

Digital Audio Interface Unit



OWNER'S MANUAL

IF-88SD

5700145200



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.
Model number _____
Serial number _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE FOR U.K. CUSTOMERS

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW : EARTH
BLUE : NEUTRAL
BROWN : LIVE

WARNING: This apparatus must be earthed.

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \equiv or coloured GREEN or GREEN-and-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

IF IN DOUBT — CONSULT A COMPETENT ELECTRICIAN.

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

IF-88SD Schnittstelle

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der

AMTSBLATT 163/1984, VFG 1045/1984, VFG 1046/1984

(Amtsblattverfügung)

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

TEAC CORPORATION

Name des Herstellers/Importeurs

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE RADIO INTERFERENCE REGULATIONS OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

LE PRESENT APPAREIL NUMERIQUE N'EMET PAS DE BRUITS RADIOELECTRIQUES DEPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE B PRESCRITES DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE EDICTE PAR LE MINISTRE DES COMMUNICATIONS DU CANADA.

THE APPLIANCE CONFORMS WITH EEC DIRECTIVE 87/308/EEC REGARDING INTERFERENCE SUPPRESSION

CONFORME AL D.M. 13 APRILE 1989
DIRETTIVA CEE/87/308

The IF-88SD is . . .

The IF-88SD is an interface unit which allows data communication between the TASCAM DA-88 Digital Multitrack Recorder and any units with SDIF-2 balanced multichannel interface (such as DASH recorders).

In the following, the SDIF-2 balanced multichannel interface is referred to as the SDIF-2 interface for simplicity.

The package contains the following (1 per item) :

- IF-88SD Unit
- AC Power Cord
- PW-88D Dubbing Cable
- Rack Mount Screw Kit
- Owner's Manual
- Warranty Card

To transfer audio data from your unit with SDIF-2 interface to multiple DA-88s, you need as many the IF-88SDs as the DA-88s cascaded (see diagram on page 6).

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Specifications

Inputs/Outputs

TDIF-1 I/O (25-pin D-sub)

SDIF-2 INPUTS/OUTPUTS (25-pin D-sub): RS422 level

WORD SYNC IN/OUT (BNC) : TTL level, 75 ohms

Power Source

USA/Canada : 120 V AC, 60 Hz

Europe : 230 V AC, 50 Hz

U.K./Australia : 240 V AC, 50 Hz

Power Consumption: 7 Watts

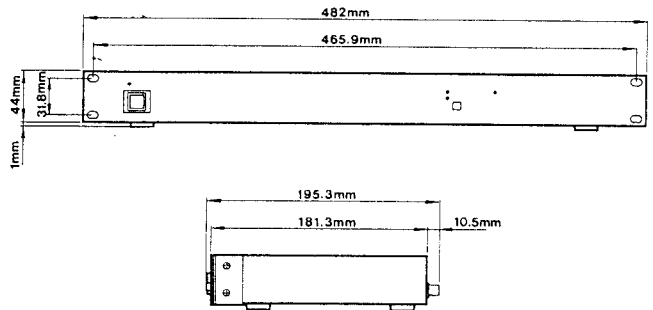
Dimensions (WxHxD): 19" x 1-3/4" x 7-13/16"

(482 mm x 45 mm x 195.3 mm) (See also drawings below)

Weight: 5-8/16 lbs. (2.5 kg)

- Changes in specifications and features may be made without notice or obligation.

Dimensional Drawings



SDIF-2 Digital I/O Pin Assignment

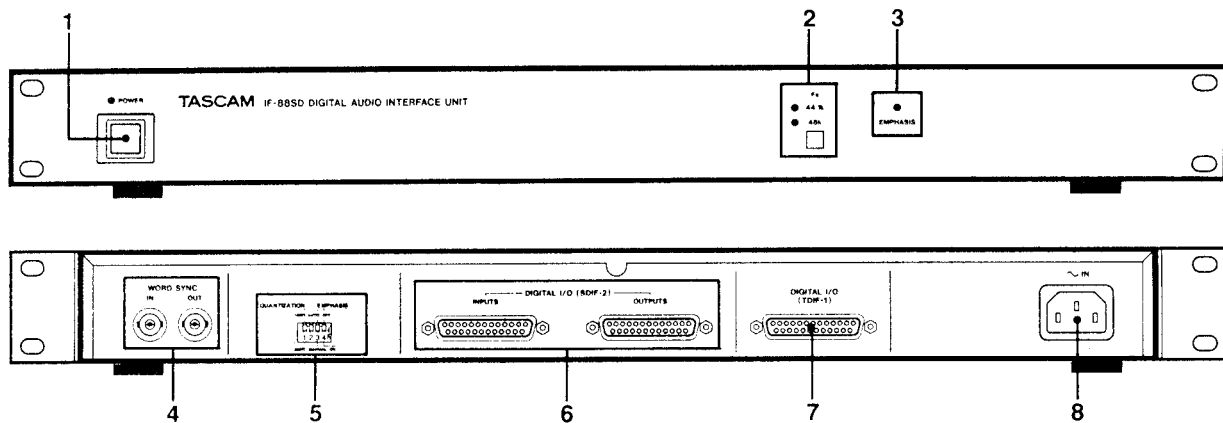
INPUTS (Balanced, D-sub, 25 Pins)

PIN NO.	SIGNAL	PIN NO.	SIGNAL
1	CH8 IN +	14	CH8 IN -
2	GND	15	CH7 IN +
3	CH7 IN -	16	GND
4	CH6 IN +	17	CH6 IN -
5	GND	18	CH5 IN +
6	CH5 IN -	20	GND
7	CH4 IN +	20	CH4 IN -
8	GND	21	CH3 IN +
9	CH3 IN -	22	GND
10	CH2 IN +	23	CH2 IN -
11	GND	24	CH1 IN +
12	CH1 IN -	25	GND
13	N.C.		

OUTPUTS (Balanced, D-sub, 25 Pins)

PIN NO.	SIGNAL	PIN NO.	SIGNAL
1	CH8 OUT +	14	CH8 OUT -
2	GND	15	CH7 OUT +
3	CH7 OUT -	16	GND
4	CH6 OUT +	17	CH6 OUT -
5	GND	18	CH5 OUT +
6	CH5 OUT -	20	GND
7	CH4 OUT +	20	CH4 OUT -
8	GND	21	CH3 OUT +
9	CH3 OUT -	22	GND
10	CH2 OUT +	23	CH2 OUT -
11	GND	24	CH1 OUT +
12	CH1 OUT -	25	GND
13	N.C.		

Features and Controls



1. POWER switch

Turns on/off power to the unit.

2. Fs switch

Switches the unit either to 44.1k or 48k depending on the sampling frequency (rate) your master machine operates at. A lit LED indicates that the Fs switch is set to match the master's sampling rate. A flashing LED indicates that the switch is set in variance with the master's sampling rate.

3. EMPHASIS indicator

Lights to indicate signal from DA-88 tracks is high-emphasized.

4. WORD SYNC jacks

These jacks are not used if your unit with TDIF interface has Word Sync In/Out like TASCAM DA-88 ; the word sync connection (between a unit with TDIF interface and a unit with SDIF-2 interface) is then established directly, not through the IF-88SD, as in step 2 on page 6.

IN : To transfer audio data from units with SDIF-2 interface to units which have TDIF I/O but no Word Sync connector, the word sync output from the unit with SDIF-2 interface in use is connected here.

When transferring data from units with SDIF-2 interface to units with AES/EBU interface, too, the Word Sync Out from the source unit in use is connected to this WORD SYNC IN jack, as shown on page 8.

OUT : This output is connected to the word sync input of your unit with SDIF-2 interface when recording audio data to that unit from units which have TDIF I/O but no Word Sync connector.

5. Dip-switches

They are all factory-preset to their Up/Off positions.

☞ Switch #2 is for use by qualified service personnel only. Leave it alone at Off/Up position.

1. QUANTIZATION 16 BIT/20 BIT select switch

16 BIT (Up) : The IF-88SD transfers 16-bit data.

20 BIT (Down) : For transferring 20-bit data.

3. EMPHASIS AUTO/MANUAL select switch

AUTO (Up) : Automatically activates the DA-88's emphasis circuit when the IF-88SD transmits high-emphasized audio data to the DA-88 over all eight channels. In all other cases, the DA-88's emphasis circuit remains switched off.

MANUAL (Down) : Allows you to use the #4 dip-switch either to shut off the DA-88's emphasis circuit all the time or to let it be activated only under specific conditions, as specified in the next paragraph.

4. EMPHASIS OFF/ON select switch

This switch can operate only when the #3 dip-switch is at its MANUAL/Down position.

OFF (Up) : Holds the DA-88's emphasis circuit shut off all the time.

ON (Down) : When (and only when) you let the DA-88 simultaneously record in digital input mode and format the tape in use, the DA-88's emphasis circuit is automatically activated on all (1 to 8) channels at once.

6. DIGITAL I/O (SDIF-2) connectors

INPUTS : To this 25 pin D-Sub connector is connected outputs from units with SDIF-2 interface such as DASH machines.

OUTPUTS : For connecting to the SDIF-2 inputs of your DASH machine or others.

7. DIGITAL I/O (TDIF-1) connector

For connecting the TDIF-1 connector on the back of the DA-88.

8. ~ IN connector

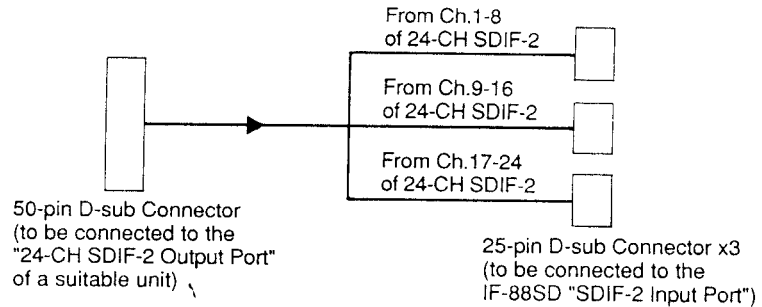
For connecting the provided power cord.

Operation

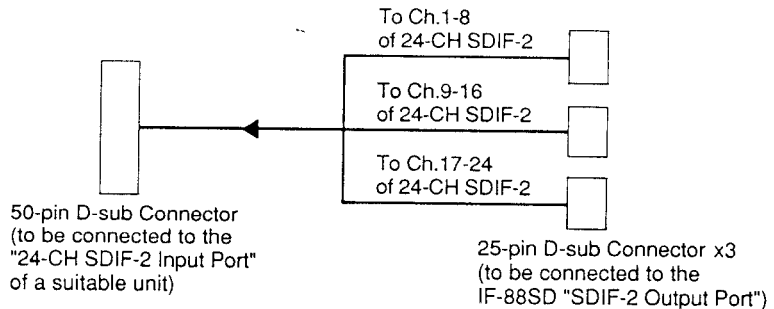
Optional PW-SD1 & SD2 Cables

These cables are specially configured for data transfer between a unit with SDIF-2 and DA-88(s).

PW-SD1 : Used for data transfer from a unit with SDIF-2 to the DA-88(s). 15 meters in length.



PW-SD2 : Used for data transfer from the DA-88(s) to a unit with SDIF-2. 15 meters in length.



For U.S.A.

TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential area. This device generates and uses radio frequency energy and if not installed and used in accordance with the instructions, it may cause interference to radio or TV reception. If this unit does cause interference with TV or radio reception you can try to correct the interference by one or more of the following measures :

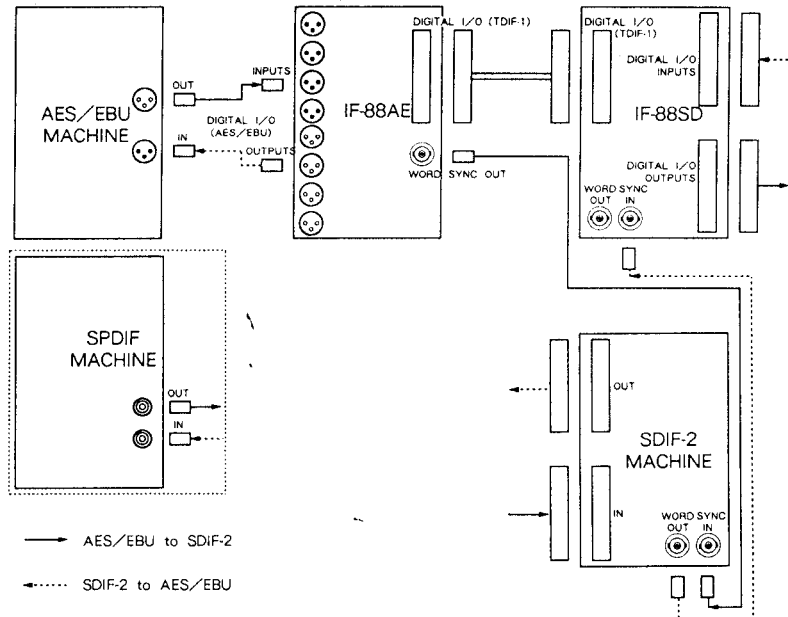
- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and the receiver.
 - Plug the equipment into a different outlet so that it is not on the same circuit as the receiver.
- If necessary, consult the dealer or an experienced radio/TV technician for additional suggestions.

CAUTION

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

TRANSFERRING DATA BETWEEN "SDIF-2" AND "AES/EBU" UNITS

By using the IF-88SD with the IF-88AE AES/EBU interface unit, you can convert SDIF-2 digital signals into AES/EBU signals, and vice versa.



⚠ Before attempting any connections, make sure all the units involved are turned off.

□ AES/EBU Outputs to SDIF-2 Inputs

1. Refer to diagram, and achieve all the necessary connections.
 - ⚠ In addition to connecting the IF-88AE word sync output to the word sync input of your unit with SDIF-2 interface, the word sync output from this unit must be connected to the IF-88SD word sync input.
2. Switch on power to the IF-88SD, and set its Fs switch in accordance with the source sampling rate.
3. Switch on power to your unit with AES/EBU interface, and put it into its Internal Clock mode.
4. Switch on power to your unit with SDIF-2 interface, put it into its Digital Input mode.
5. To start transferring data, put the unit with AES/EBU interface into Play mode, and the unit with SDIF-2 interface into Record mode.

□ SDIF-2 Outputs to AES/EBU Inputs

1. Refer to diagram, and achieve all the necessary connections.
2. Switch on power to your unit with SDIF-2 interface, and put it into its Internal Clock mode.
3. Switch on power to the IF-88SD, and set its Fs switch in accordance with the source sampling rate.
4. Switch on power to your unit with AES/EBU interface, put it into its Digital Input mode.
5. To start transferring signal, put the unit with SDIF-2 interface into Play mode, and the unit with AES/EBU interface into Record mode.

○ In a similar way, you can also transfer data between SPDIF and SDIF-2 units.

3. Using the optional PW-SD1 cable, connect the SDIF-2 outputs from the source unit to the SDIF-2 INPUTS on the back of the IF-88SD.
4. Use the provided PW-88D cable to establish connection between the first DA-88's TDIF-1 connector and the first IF-88SD's TDIF-1 connector. Do the same for the remaining pairs of DA-88 and IF-88SD.

It is imperative that you follow the following steps in order or correct functions are not ensured.

5. Switch on power to each DA-88.
6. Switch on power to each IF-88SD.
7. Switch on power to your unit with SDIF-2 interface, and switch it to its Internal Clock.
8. On the first DA-88, press the **CLOCK** switch until the WORD LED lights, and set the **Fs** switch in accordance with the source sampling rate.
9. Press the **DIGITAL IN** switch on each of the DA-88s involved to put them all into Digital Input mode.
10. Put your unit with SDIF-2 interface into play mode, and put the first DA-88 into record mode.

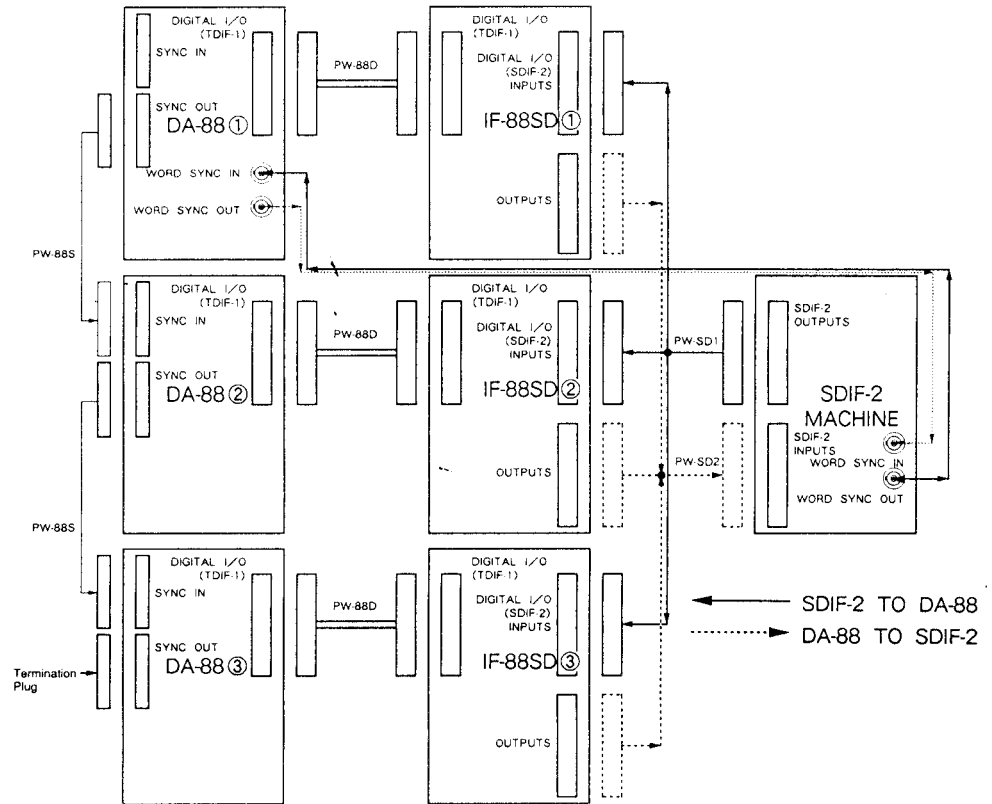
□ DA-88 to SDIF-2 Inputs

In a similar way, you can transfer DA-88 tracks to any units with SDIF-2 interface.

- Connect the IF-88SD's outputs to your destination machine's SDIF-2 inputs by means of the optional PW-SD2 cable.
- Reference the DA-88 to Internal clock.
- Reference the SDIF-2 machine to External clock.
- Put the SDIF-2 machine into Digital input mode.

TRANSFERRING DATA BETWEEN A UNIT WITH SDIF-2 AND DA-88(S)

To insure against problems, check to make sure all units involved in your system are turned off before attempting any cable connections.



SDIF-2 Outputs to DA-88

- Using as many the optional PW-88S cables as necessary, connect the SYNC OUT from the first DA-88 to the SYNC IN of the second DA-88, and the SYNC OUT from the second to the SYNC IN of the third, and so on.

Connect the termination plug coming with the PW-88S cable to the last DA-88's SYNC OUT.

CAUTION

Use only the PW-88S cables. Any other cables may seriously damage the DA-88 circuitry.

- Connect the WORD SYNC OUT from your source unit with SDIF-2 interface to the WORD SYNC IN of the first DA-88 (to which the remaining DA-88s are slaved). The IF-88SD's WORD SYNC IN/OUT jacks are NOT used.

NOTE

To record to units which have TDIF-1 interface but no Word Sync Input, you have to connect the Word Sync Out from the source unit to the WORD SYNC IN on the back of the IF-88SD. The word sync signal is then sent on to your recording machines over the TDIF-1 interface channels.