

5-5 DBX SYSTEM

Note: Continue with this section's checks and adjustments only after you are sure that "5-6 DBX PCB ADJUSTMENT" has been correctly performed.

Signal input points: LINE IN terminals

Measuring points: (ex.) TP11/TP21 indicates the following content. Refer to Fig. 5-18.

Left DBX PCB: TP11 ... Ch-1, TP21 ... Ch-2

Right DBX PCB: TP11 ... Ch-3, TP21 ... Ch-4

ITEM	STEP	SETTINGS	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
23. Encoding level	23-1	Connections: Fig. 5-9 Settings: Table 3 NR: IN Mode: REC/PAUSE	Ea. Ch.: 400 Hz/-10 dB (0.316 V) (ref. input)	Check	TP11/TP21: -10 dB (0.316 V)	
	23-2	"	"	Check	TP12/TP22: -10 dB \pm 1 dB (282mV \sim 355 mV) (ref. level (1))	Give actually-measured level as ref. level (1) for items 24 and 25
24. Encoding signal frequency response	24-1	Same as above	Ea. Ch.: 400 Hz/-10 dB (0.316 V)	Check	TP12/TP22: Difference against ref. level (1): +0.2 dB \pm 1 dB	
	24-2	"	Ea. Ch.: 10 kHz/-10 dB (0.316 V)	Check	TP12/TP22: Difference against ref. level (1): -3.3 dB \pm 1 dB	
25. Encoding operation level	25-1	Same as above	Ea. Ch.: 400 Hz/-70 dB ^{*11} (316 μ V)	Check	TP12/TP22: Difference against ref. level (1): -30 dB \pm 1 dB	^{*11} -60 dB against ref. input (-10 dB)
	25-2	"	Ea. Ch.: 400 Hz/+10 dB ^{*12} (3.16 V)	Check	TP12/TP22: Difference against ref. level (1): +10 dB \pm 1 dB	^{*12} +20 dB against ref. input (-10 dB)
26. Decoding level	26-1	Same as above Connections: Fig. 5-1 NR: OUT Mode: REC/PLAY	Ea. Ch.: 400 Hz/-10 dB (0.316 V)	Check	OUTPUT (Ea. Ch.): Give record-playback output as ref. level (2) for next step	ref. level (2)
	26-2	NR: IN	"	Check	OUTPUT (Ea. Ch.): Difference against ref. level (2): within \pm 2 dB	
27. Distortion	27-1	Same as above	Same as above	Check	OUTPUT (Ea. Ch.): 1.5% or less	
28. S/N ratio	28-1	Same as above	Ea. Ch.: After making "no signal" recording, play its portion back	Check	OUTPUT (Ea. Ch.): Difference between no signal record-playback output and ref. output (-10 dB): 80 dB min.	

5-6 DBX PCB ADJUSTMENT

Notes:

- Since the DBX PCB assembly has been precisely adjusted at the factory, this adjustment is not usually needed unless the trimmers have been changed, or certain PCB components have sustained damage.
- Disconnect connectors J102/P102 on each DBX PCB. Turn the deck OFF to prevent accidental damage when disconnecting (or reconnecting). After disconnecting, set POWER switch to ON

to supply power via the connectors J101/P101 to the PCB.

- TP11/TP21 in the tables below indicate the following contents (example). Refer to Fig. 5-18.

Left DBX PCB	{ TP11 ... Ch-1
	{ TP21 ... Ch-2
Right DBX PCB	{ TP11 ... Ch-3
	{ TP21 ... Ch-4

5-6-1 ENCODING ADJUSTMENT

Mode: REC/PAUSE

ITEM	STEP	SETTINGS	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
1. RMS SYM	1-1	Connections: Fig. 5-13	TP11/TP21: 100 Hz/300 mV	R145/R245	TP13/TP23: Adjust for clean 200 Hz sine-wave	Refer to Fig's 5-15 and 5-16
2. Encoding level	2-1	Same as above	TP11/TP21: 400 Hz/300 mV	R144/R244	TP12/TP22: 300 mV	
3. VCA SYM	3-1	Connections: Fig. 5-14 Short TP11/TP21 to GND.	TP13/TP23: Symmetry adj. waveform	R143/R243	TP12/TP22: A relatively straight horizontal line on the scope (Level variation: 5 mV or less)	
4. Encoding single frequency response	4-1	Connections: Fig. 5-13 Remove TP11/TP21 short- circuit.	TP11/TP21: 100 Hz/300 mV	Check	TP12/TP22: 290 mV ~ 325 mV	
	4-2	"	TP11/TP21: 10 kHz/300 mV	Check	TP12/TP22: 194 mV ~ 217 mV	
5. Encoding opera- tion level	5-1	Same as above	TP11/TP21: 400 Hz/300 μ V	Check	TP12/TP22: 8.96 mV ~ 10.1 mV	
	5-2	"	TP11/TP21: 400 Hz/3.0 V	Check	TP12/TP22: 0.896 V ~ 1.01 V Distortion: 0.3% or less	

5-6-2 DECODING ADJUSTMENT

Mode: STOP

ITEM	STEP	SETTINGS	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
6. RMS SYM	6-1	Connections: Fig. 5-13	TP11/TP21: 100 Hz/300 mV	Check	TP13/TP23: Adjust for clean 200 Hz sine-wave	Refer to Fig's 5-15 and 5-16
7. Decoding level	7-1	Same as above	TP11/TP21: 400 Hz/300 mV	Check	TP12/TP22: 260 mV ~ 337 mV	
8. VCA SYM	8-1	Connections: Fig. 5-14 Short TP11/TP21 to GND	TP13/TP23: Symmetry adj. waveform	Check	TP12/TP22: A relatively straight horizontal line on the scope (Level variation: 5 mV or less)	
9. Decoding single frequency response	9-1	Connections: Fig. 5-13 Remove TP11/TP21 short- circuit	TP11/TP21: 100 Hz/300 mV	Check	TP12/TP22: 261 mV ~ 329 mV	
	9-2	"	TP/TP21: 10 kHz/300 mV	Check	TP12/TP22: 504 mV ~ 634 mV	
10. Decoding opera- tion level	10-1	Same as above	TP11/TP21: 400 Hz/9.49 mV	Check	TP12/TP22: 267 μ V ~ 337 μ V	
	10-2	"	TP11/TP21: 400 Hz/0.949 V	Check	TP12/TP22: 2.67 V ~ 3.37 V	