

# Hi-Fi Products Service Bulletin

**CSA-13**

Sony Service Company - Technical Services  
A Division of Sony Electronics Inc.  
Sony Drive, Park Ridge, New Jersey 07656

**Model:** DTC-57ES/59ES/60ES/670/690/750

**No.** 411

**Subject:** Test Modes

**Date:** September 28, 1994

**Symptom:**

(\*\*) How to enter test modes using a remote commander.

**Solution:** Use the following procedure:

**1. MECHANICAL OPERATION SERVICE MODE (DTC-57ES and DTC-670 only!)**

Mechanism operation without a cassette inserted.

- Set the TIMER switch to PLAY.
- While you press and hold the SKIP ID WRITE and START ID WRITE buttons, press POWER ON.

**2. TEST MODE 1**

Use a Modified RM-D55 (DTC-75ES/700 remote commander) P/N 1-465-312-11. Press the test button once (refer to : HOW TO MODIFY THE REMOTE FOR TESTING section).

Value	Display	BIT3 (2 <sup>3</sup> )	BIT2 (2 <sup>2</sup> )	BIT1 (2 <sup>1</sup> )	BIT0 (2 <sup>0</sup> )
0	0	0	0	0	0
1	1	0	0	0	1
2	2	0	0	1	0
3	3	0	0	1	1
4	4	0	1	0	0
5	5	0	1	0	1
6	6	0	1	1	0
7	7	0	1	1	1
8	8	1	0	0	0
9	9	1	0	0	1
10	A	1	0	1	0
11	B	1	0	1	1
12	C	1	1	0	0
13	D	1	1	0	1
14	E	1	1	1	0
15	F	1	1	1	1

(Continued)



Segment	BIT	Function
10 h *		Position of encoder switches SW1 (stop detection) and SW2 (FWD detection).
	BIT2	SW2 closed.
	BIT1	SW1 closed.
	BIT0	Cassette compartment open (S12 closed).
1 h	BIT3	Cassette compartment closed (S11 closed).
	BIT1	Record enable (REC enable S01-2 closed).
	BIT0	Cassette inserted (CAS IN SWITCH S01-1 closed)
10 m	BIT3	Mechanical operation abnormal.
	BIT2	END sensor abnormal (PH03 & PH04).
	BIT1	Threading abnormal (incorrect sequences of switches SW1 & SW2).
	BIT0	Cassette compartment abnormal (incorrect sequence of switches S11 & S12).
1 m	BIT3	Supply Reel abnormal (sensor PH02).
	BIT2	Take-up Reel abnormal (sensor PH01).
	BIT1	Capstan motor abnormal.
	BIT0	Drum Motor abnormal.
10 s		Data error monitor, gives an indication of the data errors in the signal read from tape.
1 s		Normally shows FF (no or few errors), in worst case it shows 00 (many uncorrectable errors) and the set will be muting.
PGM NO		DPG (Digital Pulse Generator) adjustment data.
AMS		Mechanical Operation mode, similar to DTC-75ES (refer to table).

(Continued)

### 3. TEST MODE 2

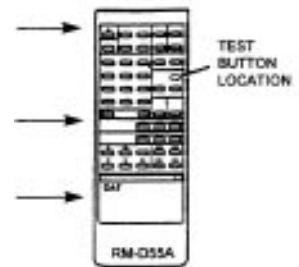
With a cassette inserted, Press '8' + '0...9' + TEST button on the modified remote commander.

80	Back up set, resets music scan to 8 s and Fade in/Fade out time to 5 s.
81	Digital Optical input.
82	Digital Coaxial input.
83	Analog input.
84	Keyboard test, similar to DTC-75ES.
85	LP recording mode (Analog in or Digital in 32 kHz), set must be in REC.
86	SP recording mode, set must be in REC.
87	Total drum rotation time in hours and minutes (fixed).
88	Drum rotation time (DPG adjustment resets this time).
89	All segments in FL, display lit.

\*NOTE DTC-690 does not have the 10 H segment, therefore it is not possible to see the position of encoder switches SW1 and SW2. Also, the drum rotation time indication is limited to 999 H 59M Instead of 9999 H 59 M.

#### HOW TO MODIFY THE REMOTE FOR TESTING

- Remove the battery cover and batteries.
- On the back cover, pry the claws at the arrows outward and up.
- Remove the board and keypad.
- Drill a hole in the front panel between the RESET and A-B buttons to access the TEST button
- Reassemble the remote.



#### DISPLAY OF MECHANICAL OPERATION MODE

Display ⑧   ⑨	Mode	Display ⑧   ⑨	Mode
*   *	FWD (SP)	*   8	STOP (SP)
4   0	FWD (LP)	4   8	STOP (LP)
*   6	FF	1   8	LOAD
*   4	FF	1   C	UNLOAD
1   5	REW	*   9	FWD (SP) PAUSE
1   4	REW	4   9	FWD (LP) PAUSE
*   -	REC (SP)	*   b	REC (SP) PAUSE
4   -	REC (LP)	4   b	REC (LP) PAUSE

\*= no display

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