

# TC-W170

## SERVICE MANUAL

AEP Model

- TC-W170 is a model which has been designed based on the TCW310.
- The electrical specifications of this model are almost identical to those of TC-W310.  
This manual contains only the points which differ from TC-W310.
- Refer to the TC-W310 SUPPLEMENT-1 Service Manual for mechanism section.
- Refer to the TC-W310 Service Manual for related information not contained in this manual.

Model Name Using Similar Mechanism	TC-W310
Tape Transport Mechanism Type	TCM-180VA-H3 TCM-180VB-H3

### SPECIFICATIONS

#### Recording system

4-track 2-channel stereo  
Fast-forward and rewind time  
Approx. 120 sec. (with C-60 cassette)  
Bias AC bias  
Signal-to-noise ratio (NAB, at peak level)

Dolby NR switch Cassette	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)	58 dB	65 dB	71 dB
TYPE II (Sony UX-S)	56 dB	63 dB	69 dB
TYPE I (Sony HF-S)	54 dB	61 dB	67 dB

#### Total harmonic distortion

1.0% (with Sony METAL-ES cassette)

#### Frequency response (DOLBY NR OFF)

TYPE IV cassette (Sony METAL-ES)	30 – 15,000 Hz ( $\pm 3$ dB) 30 – 13,000 Hz (0VU recording)
TYPE II cassette (Sony UX-S)	30 – 14,000 Hz ( $\pm 3$ dB)
TYPE I cassette (Sony HF-S)	30 – 13,000 Hz ( $\pm 3$ dB)

Wow and flutter 0.12% WRMS (NAB)

#### Input

Connector	Type	Sensitivity	Impedance
LINE IN	phono	77.5 mV ( $-20$ dB)	50 k ohms

#### Output

Connector	Type	Rated output level	Load impedance
LINE OUT	phono	0.44 V ( $-5$ dB) at load impedance 47 k ohms	over 10 k ohms

#### General

##### Power requirements

120 V AC, 60 Hz (US Model)  
120 V, 220 V or 240 V AC, adjustable 50/60 Hz (E Model)

##### Power consumption

18 W

##### Dimensions

Approx. 430 × 123 × 280 mm (w/h/d)  
(17 × 4 $\frac{7}{8}$  × 11 $\frac{1}{4}$  inches)

including projecting parts and controls

##### Weight

Approx. 3.4 kg (7 lbs 8 oz)

##### Supplied accessories

Connecting cords (2)

Design and specifications subject to change without notice.

STEREO CASSETTE DECK  
**SONY**®

1. ELECTRICAL PARTS LIST (The difference between TC-W310 and TC-W170.)

PAGE	TC-W310			TC-W170			
	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>		
18	902	*A-2006-114-A	MOUNTED PCB, AUDIO	*A-2006-619-A	MOUNTED PCB, AUDIO		
	C503	1-124-903-11	ELECT 1MF 50V	1-124-925-11	ELECT 2.2MF 20% 50V		
19	D101-104	8-719-304-37	SEL4414E-C	8-719-312-65	LED SEL4814A-CD		
	D105-107	8-719-304-32	SEL4214S	8-719-312-65	LED SEL4814A-CD		
	D201-204	8-719-304-37	SEL4414E-C	8-719-312-65	LED SEL4814A-CD		
	D205-207	8-719-304-32	SEL4214S	8-719-312-65	LED SEL4814A-CD		
	Q305	8-729-194-57	2SC945-P	8-729-119-78	TRANSISTOR 2SC2785-HFE		
20	R153	1-249-425-11	4.7k	1-247-840-00	CARBON 2.4k 5% 1/4w		
	R154	1-249-425-11	4.7k				
	R253	1-249-425-11	4.7k	1-247-840-00	CARBON 2.4k 5% 1/4w		
	R254	1-249-425-11	4.7k				
	R314	1-249-441-11	100k	1-249-440-11	CARBON 82k 5% 1/4W		
	R320	1-249-440-11	82k	1-247-881-00	CARBON 120k 5% 1/4w		
	R332, 344	1-249-434-11	27k	1-249-432-11	CARBON 18k 5% 1/4W		
	R355	1-249-393-11	10	△1-219-153-11	FUSIBLE 10 5% 1/4W		
	21	R361	1-249-404-00	82	1-249-407-11	CARBON 150 5% 1/4W	

2. ACCESSORY & PACKING MATERIALS

- 1-559-533-11 CORD, CONNECTION
- \*3-364-604-21 INDIVIDUAL CARTON
- \*3-364-606-01 CUSHION
- 3-751-753-51 MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN)
- 3-751-753-61 MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE)
- 3-751-753-71 MANUAL, INSTRUCTION (NORTH EUROPE)

### 3. EXPLODED VIEW

NOTE:

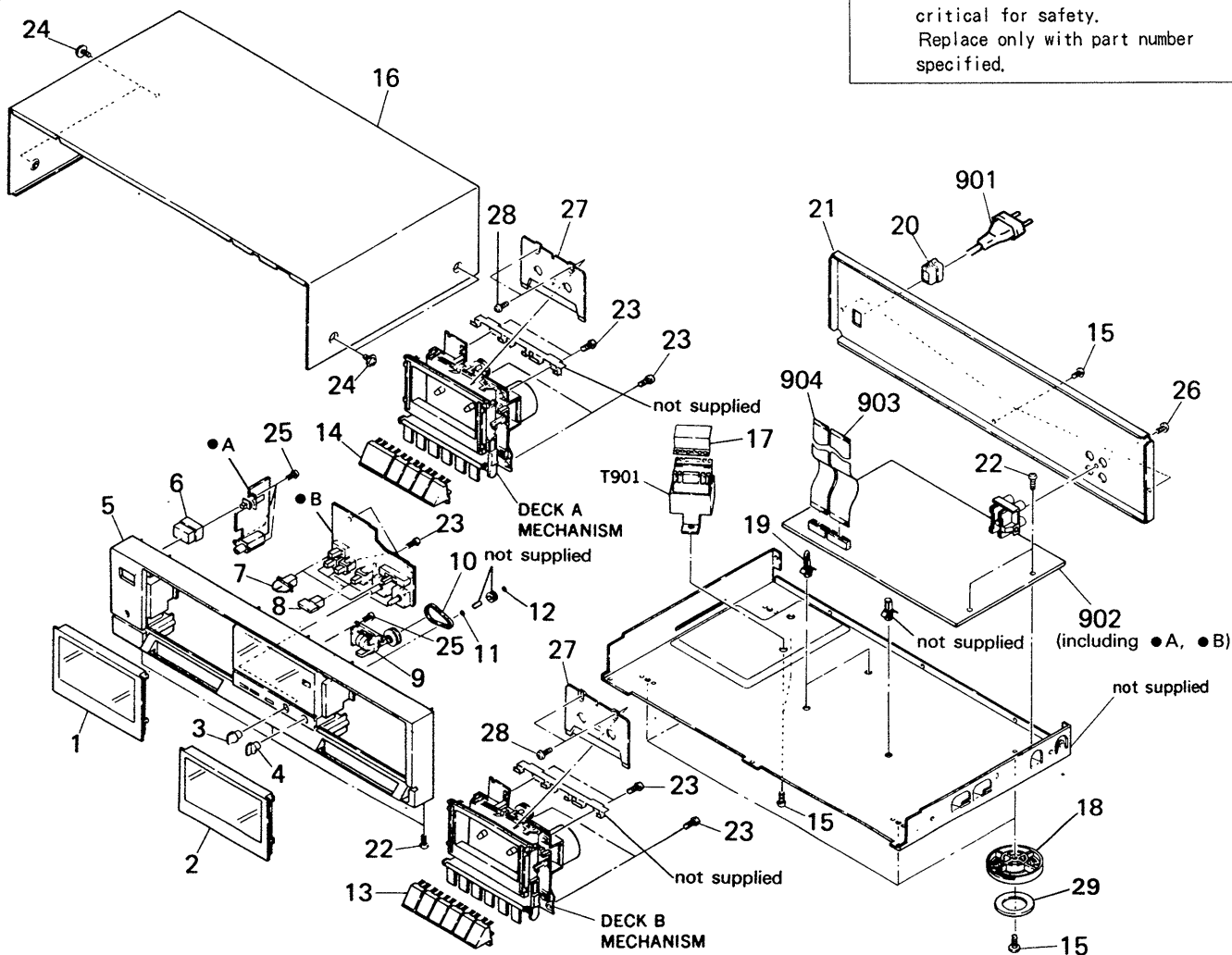
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE(WHITE)...(RED)  
↑                    ↑  
Part's Color      Cabinet's Color

Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

#### 3-1. GENERAL



No.	Part No.	Description	Remark
1	X-3346-303-1	LID (A) ASSY, CASSETTE	
2	X-3346-304-1	LID (B) ASSY, CASSETTE	
3	3-346-380-01	KNOB (VOL.) (BALANCE)	
4	3-346-380-21	KNOB (VOL.) (REC LEVEL)	
5	A-2003-850-A	PANEL ASSY, FRONT	9, 11, 12, 25
6	4-917-460-01	KNOB, POWER	
7	3-346-379-01	KNOB (SLIDE) (TAPE SELECT)	
8	3-346-381-01	BUTTON (DOLBY/DUBBING SPEED)	
9	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)	
10	3-499-042-XX	BELT, COUNTER	
11	3-701-437-11	WASHER	
12	3-558-708-11	WASHER, STOPPER	
13	3-349-043-11	BUTTON (BLOCK B)	
14	3-349-042-11	BUTTON (BLOCK A)	
15	7-682-548-09	SCREW +BVTT 3×8 (S)	
16	*4-943-088-31	CASE	
17	*3-327-855-01	COVER (TRANSFORMER)	

No.	Part No.	Description	Remark
18	3-318-688-31	FOOT (F58175S)	
19	*3-346-265-11	HOLDER, PC BOARD	
20	$\Delta$ *3-703-571-11	BUSHING (S) (4516), CORD	
21	*3-359-903-51	PANEL, BACK	
22	7-682-548-04	SCREW +BVTT 3×8 (S)	
23	4-928-635-21	SCREW, +BV (2.6×10) TAPPING	
24	3-704-366-01	SCREW (CASE) (M3×8)	
25	4-928-635-01	SCREW, +BV (2.6×8) TAPPING	
26	7-621-849-00	SCREW, TAPPING	
27	X-3358-214-1	PLATE ASSY, ORNAMENTAL	
28	7-685-133-19	SCREW +BTP 2.6×6 TYPE2 N-S	
29	4-923-836-11	CUSHION	
901	$\Delta$ 1-555-750-00	CORD, POWER	
902	*A-2006-619-A	AUDIO BOARD, COMPLETE	
903	*1-574-725-11	WIRE, FLAT TYPE (17 CORE)	
904	*1-574-727-11	WIRE, FLAT TYPE (9 CORE)	
T901	$\Delta$ 1-450-610-11	TRANSFORMER, POWER	

