SAMSUNG

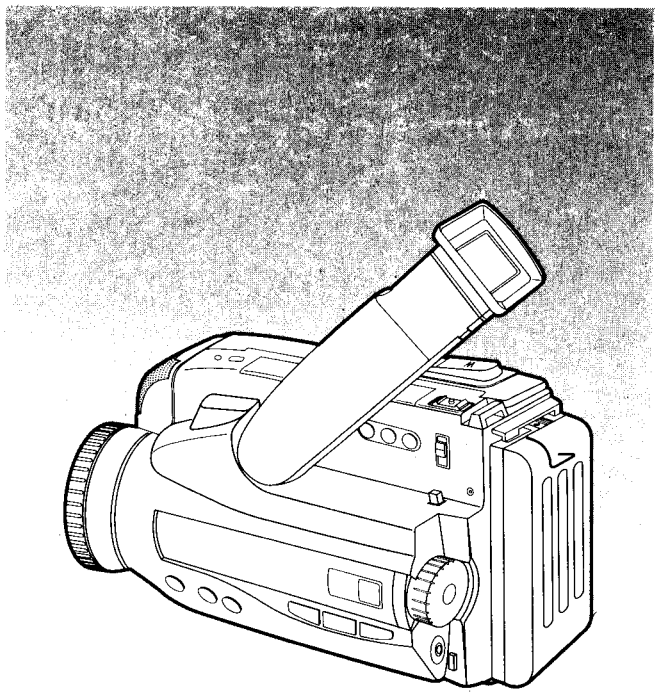
8mm CAMCORDER

VP-H68

Hi 8

SERVICE Manual

8mm CAMCORDER



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2. SPECIFICATIONS

Specifications are subject to change without notice.

Operation	Description
SYSTEM	
Recording systems	Video : 2 rotary heads, helical FM scanning Audio : FM system
Video signal	PAL colour, CCIR standard
Cassette format	8 mm/ Hi 8 mm
Tape speed	SP mode (Standard Play) : approx. 20.051 mm/sec. LP mode (Long Play) : approx. 10.026 mm/sec.
Playback time	SP mode (Standard Play) : 1 hour 30 minutes (P5-90) LP mode (Long Play) : 3 hours (P5-90)
Fast-forward/rewind time	Approx. 5 min. 40 secs (P5-60)
Image device	CCD (Charge Coupled Device)
Viewfinder	Colour electronic viewfinder
Lens	Combined 12x power zoom and 24x digital zoom lens, f=5.4 ~ 64.8mm, F1.8.; auto wide macro; filter diameter 46mm
Automatic focus system	Inner
Colour temperature	Auto/indoors : 3100° K; cutdoor : 5100° K
Lighting	> 300 lux (28 footcandles); minimum lighting : 3 lux
Aperture correction	Automatic with back light adjustment
INPUT/OUTPUT CONNECTORS	
Video output	Phono jack/S-VIDEO jack, 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio output	Phone jack, 7.5 dBs for an output impedance of less than 2.2 Kohms
RFU DC OUT	Special mini-jack, 5V DC
Earphone output	Minijack, 8 ohms
GENERAL	
Power requirement	AC power adaptor (7.5 V); battery pack (6.0 V)
Power consumption	7.8W (in Camera mode)
Tripod attachment thread	Attachment screw less than 9mm long
Microphone	Electric condensor microphone, omni-directional, stereo type
Temperature range	Operating : 0° C to 40° C (32° F to 104° F); storage : -20° C to 60° C (-4° F to 140° F)
Dimensions/weight	Approx. 101X109X198 mm(3.9X4.1X7.8 inches); approx. 780 g (1.65 lbs) Excluding battery pack and cassette

3. DISASSEMBLY

3-1. INSTRUMENT ASSEMBLY

3-1-1. Cover Housing Ass'y Removal

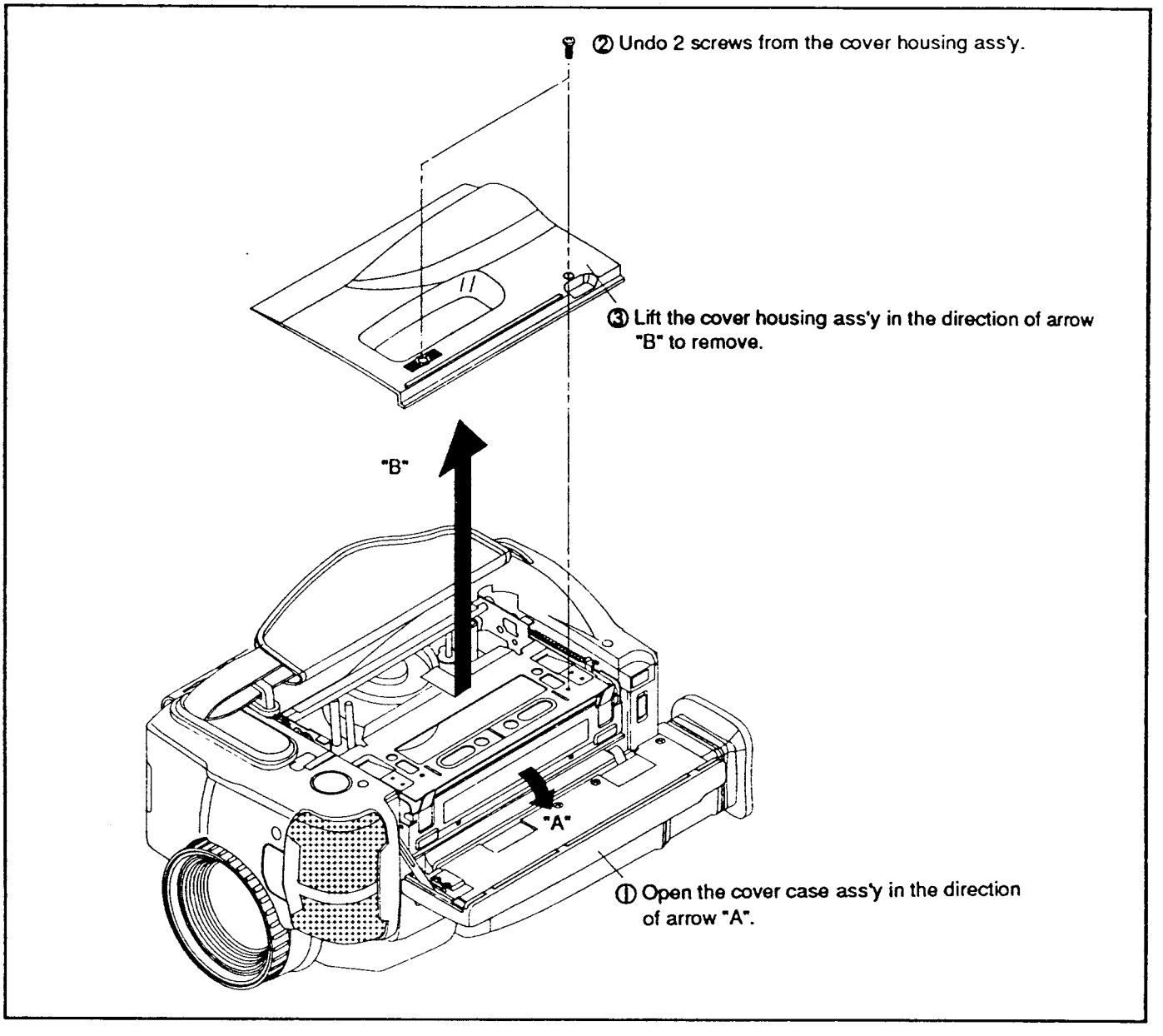


Fig. 1 Cover Housing Ass'y Removel

3-1-2. Case Front Ass'y Removal

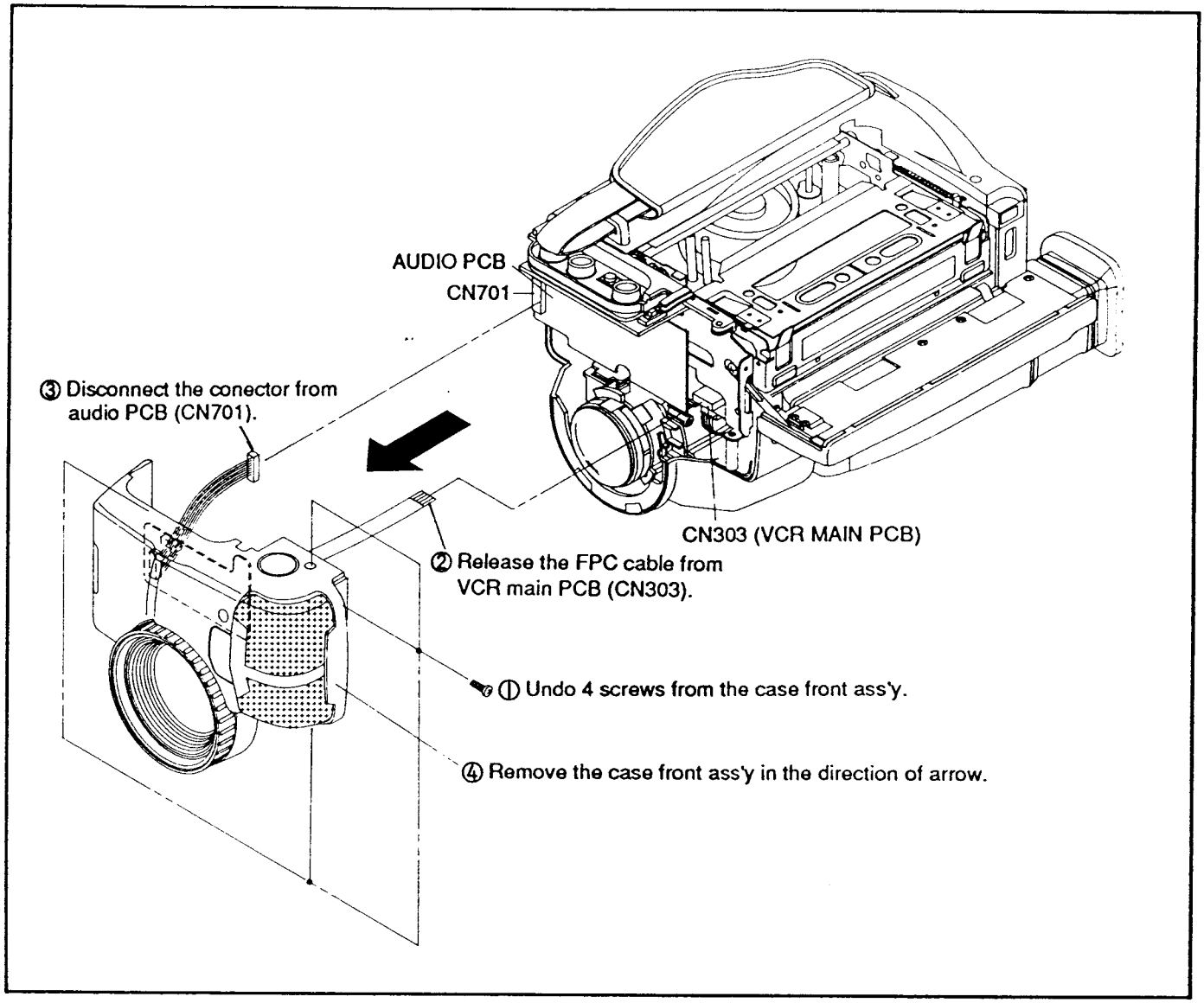


Fig. 2 Case Front Ass'y Removal

3-1-3. Case Right Ass'y Removal

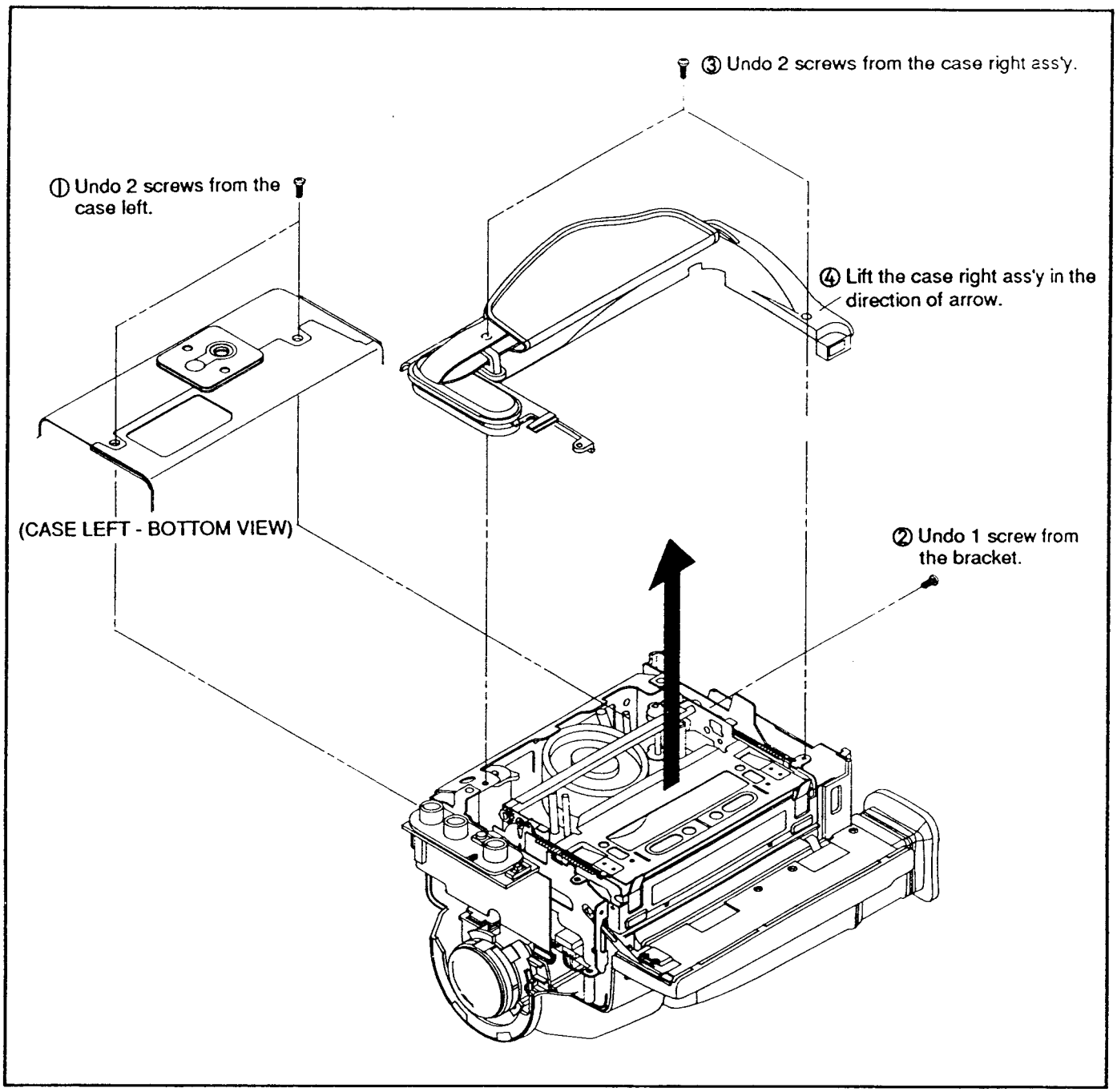


Fig. 3 Case Right Ass'y Removal

3-1-4. Case Left Ass'y Removal

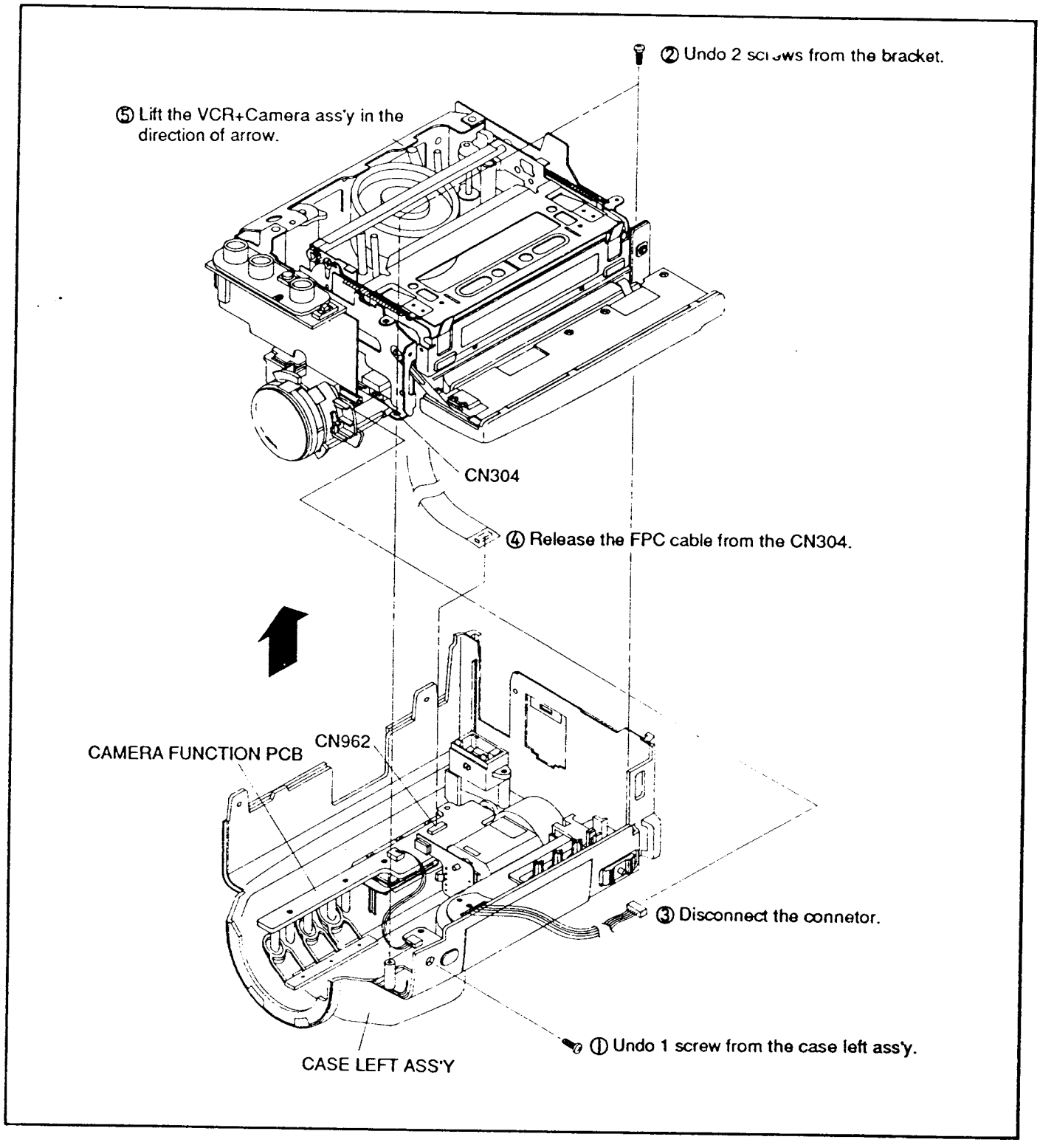


Fig. 4 Case Left Ass'y Removal

3-1-5. Camera Function PCB Removal

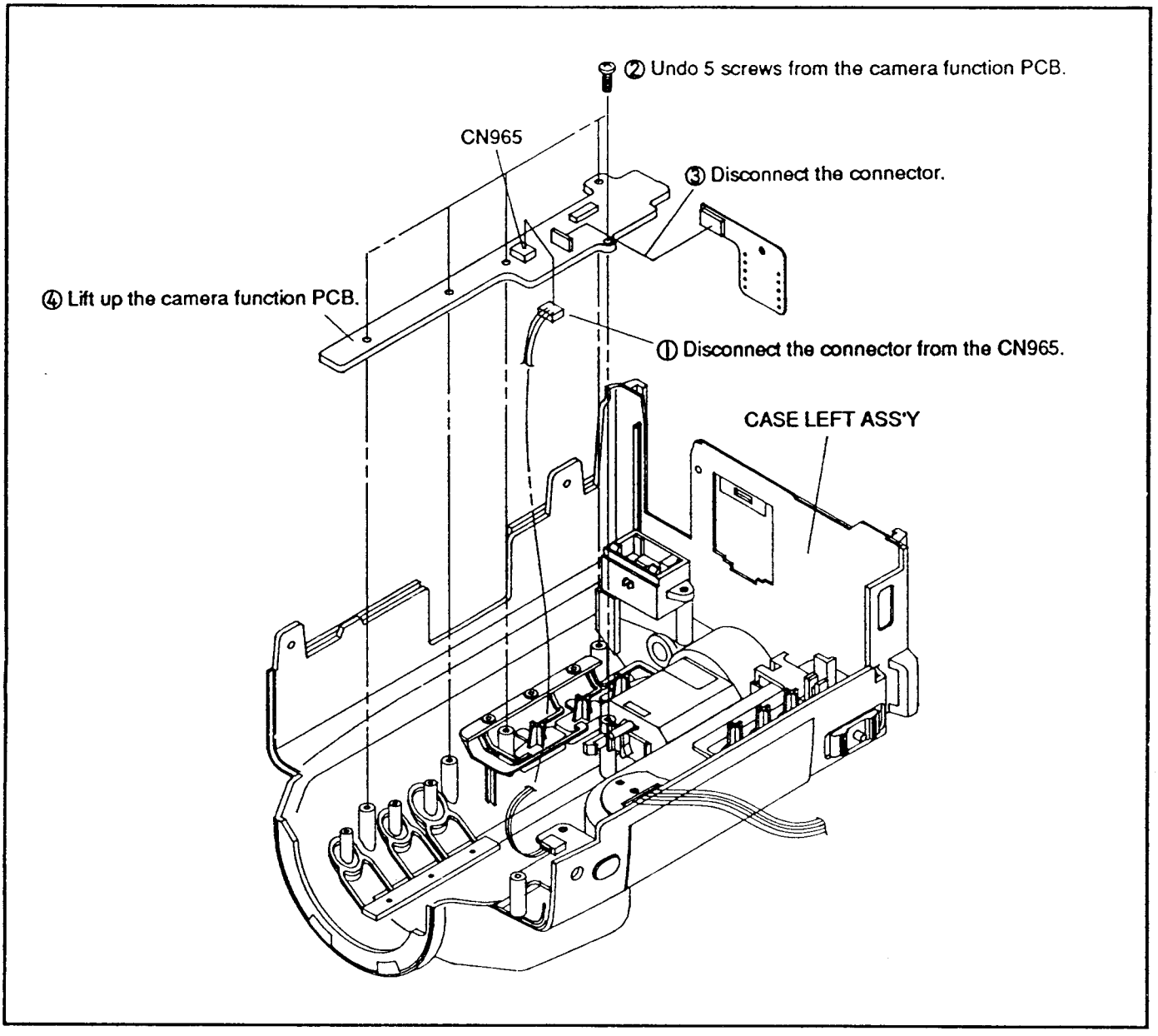


Fig. 5 Camera Function PCB Removal

3-1-6. Cover Case Ass'y Removal

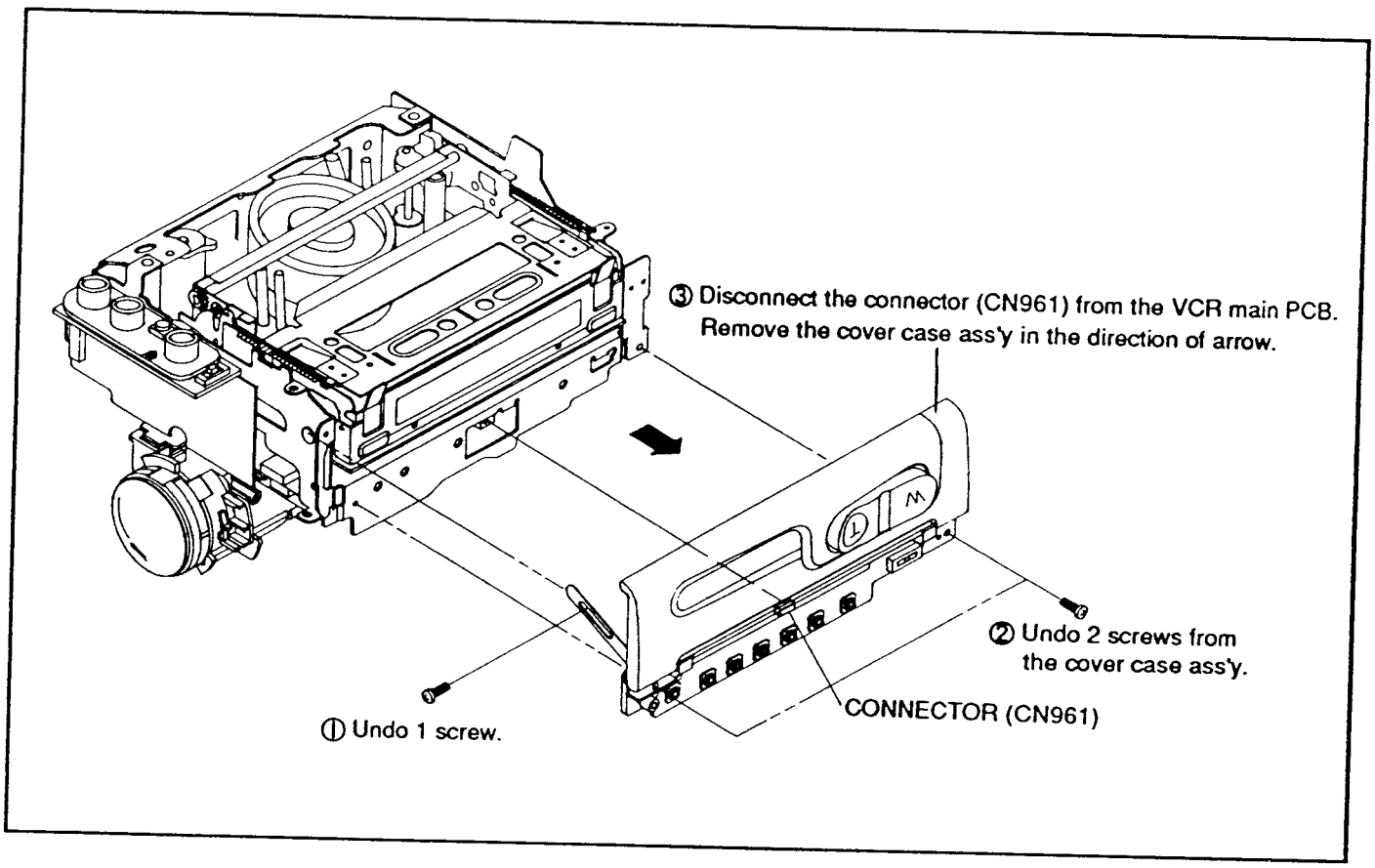


Fig. 6 Cover Case Ass'y Removal

3-1-7. DC/DC Converter PCB Removal

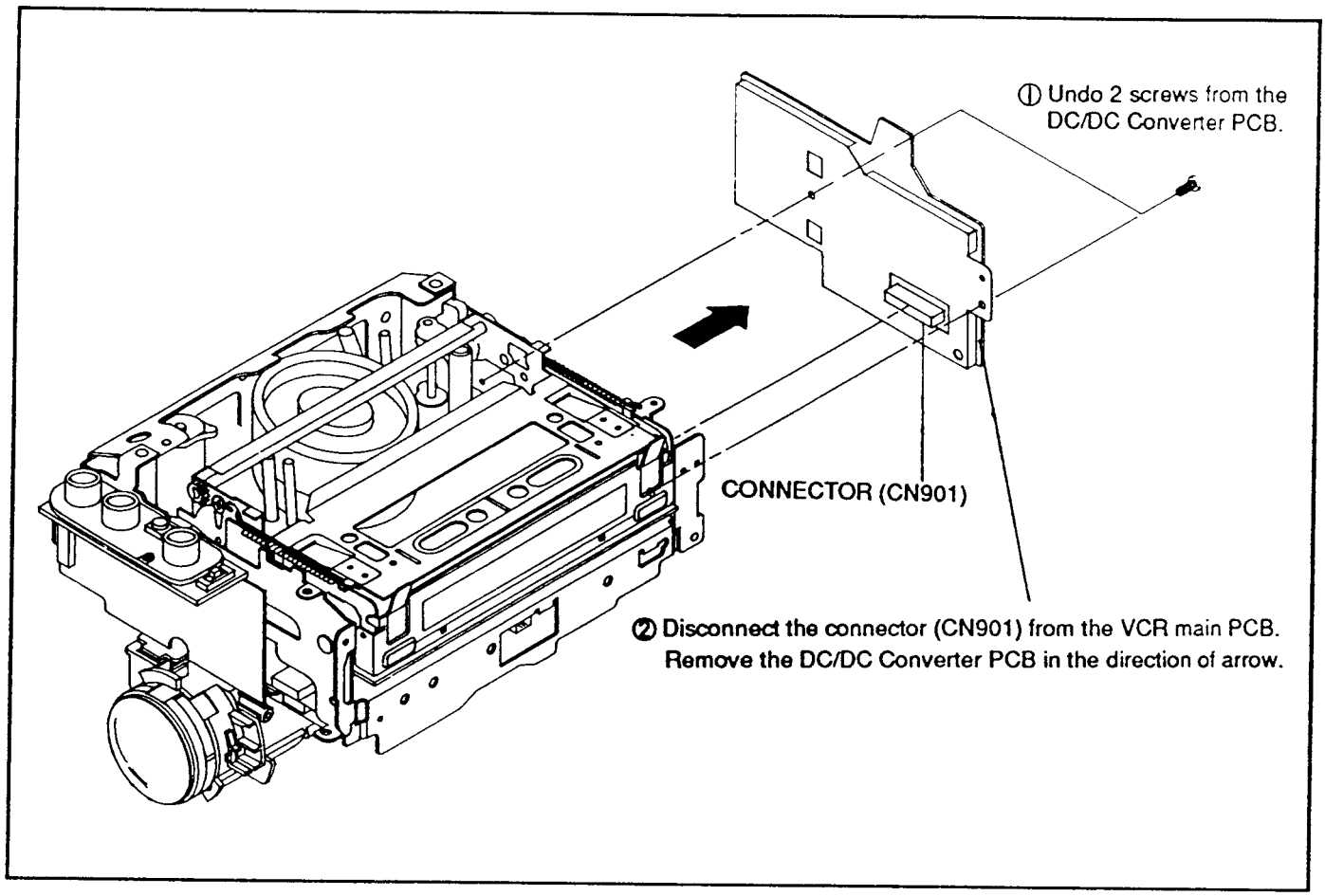


Fig. 7 DC/DC Converter PCB Removal

3-1-8. Camera Block Removal

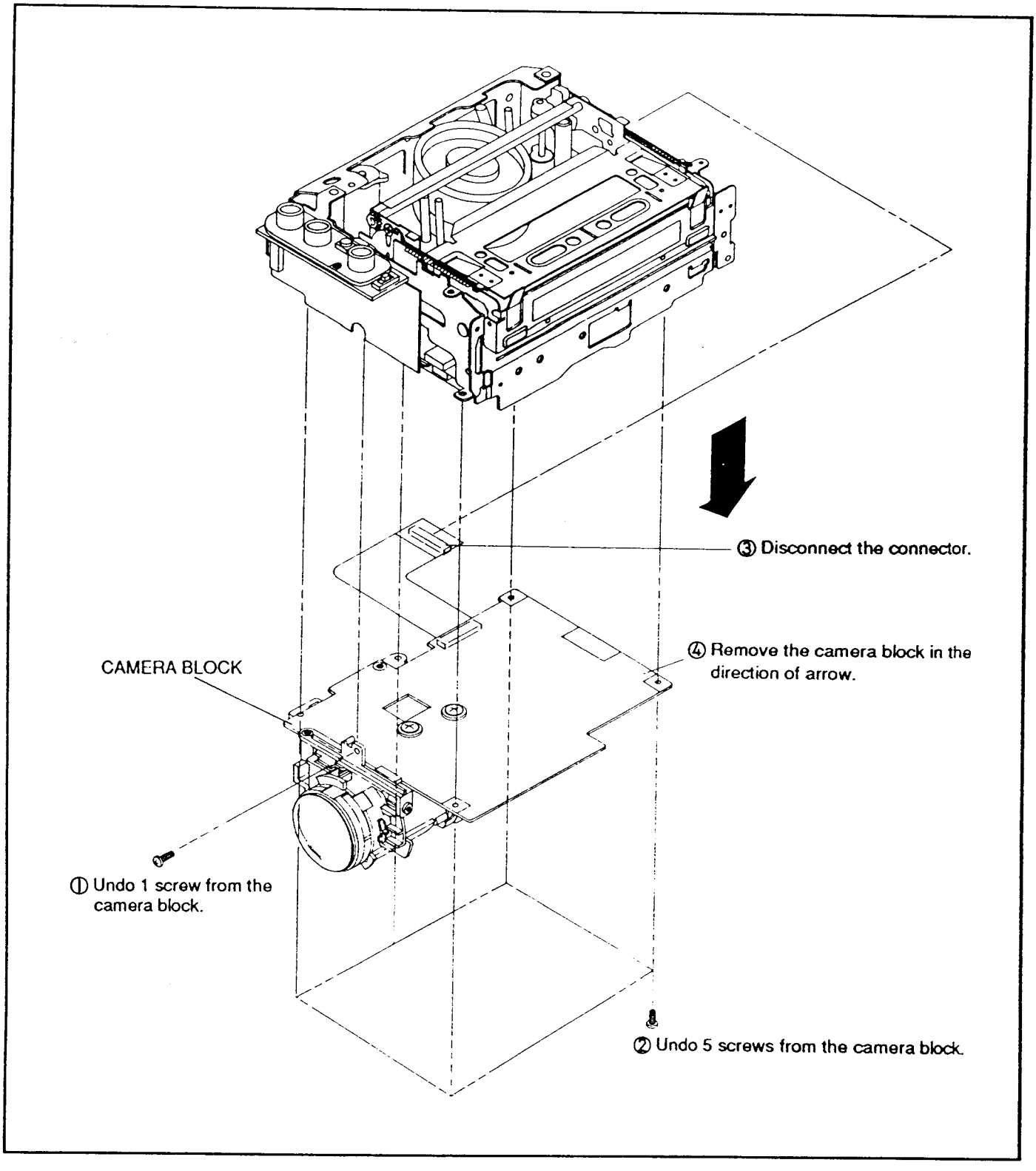


Fig. 8 Camera Block Removal

3-1-9. Lens Ass'y Removal

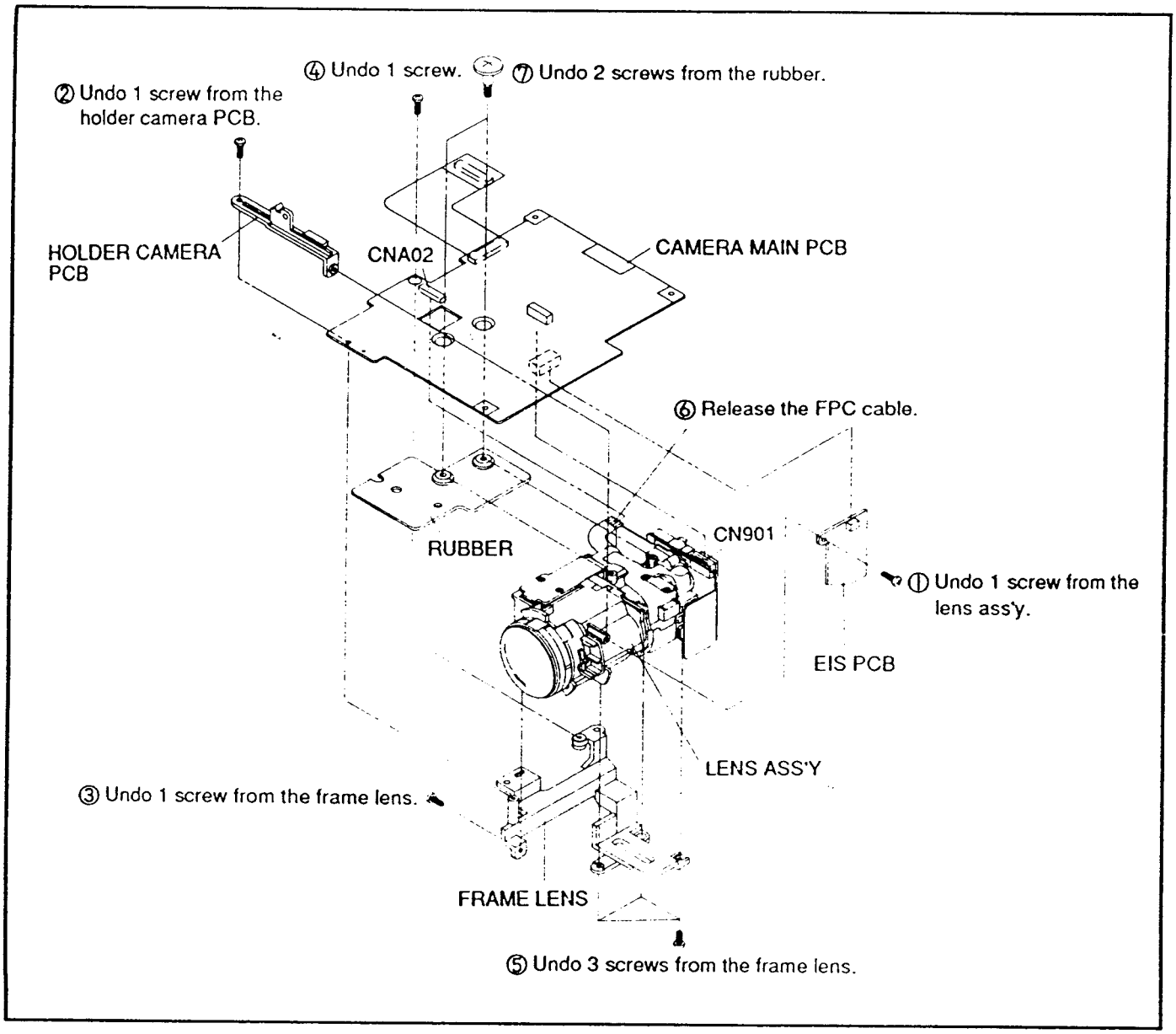


Fig. 9 Lens Ass'y Removal

3-1-10. Frame Removal from the VCR Block

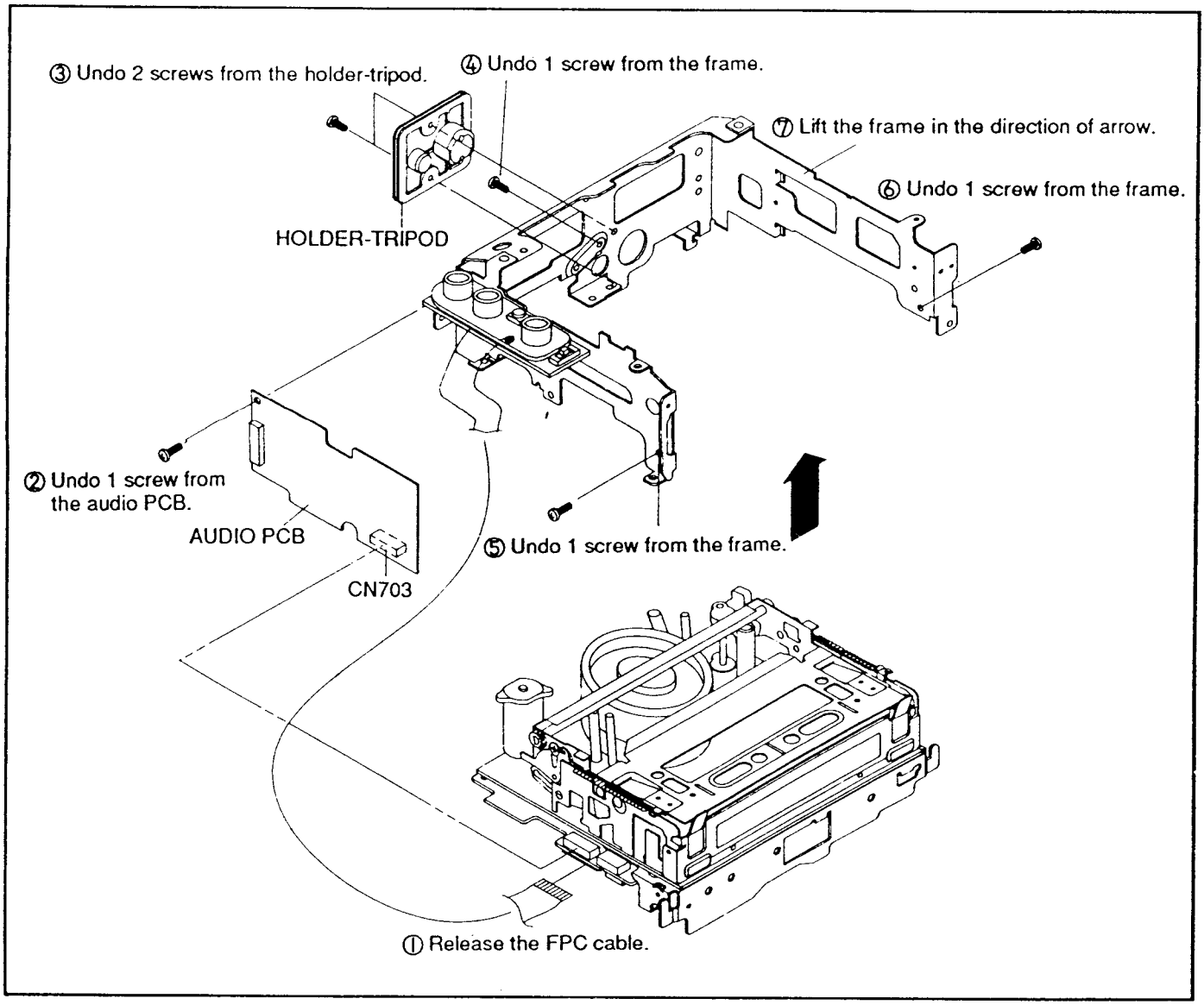


Fig. 10 Frame Removal from the VCR Block

3-1-11. VCR Main PCB Removal

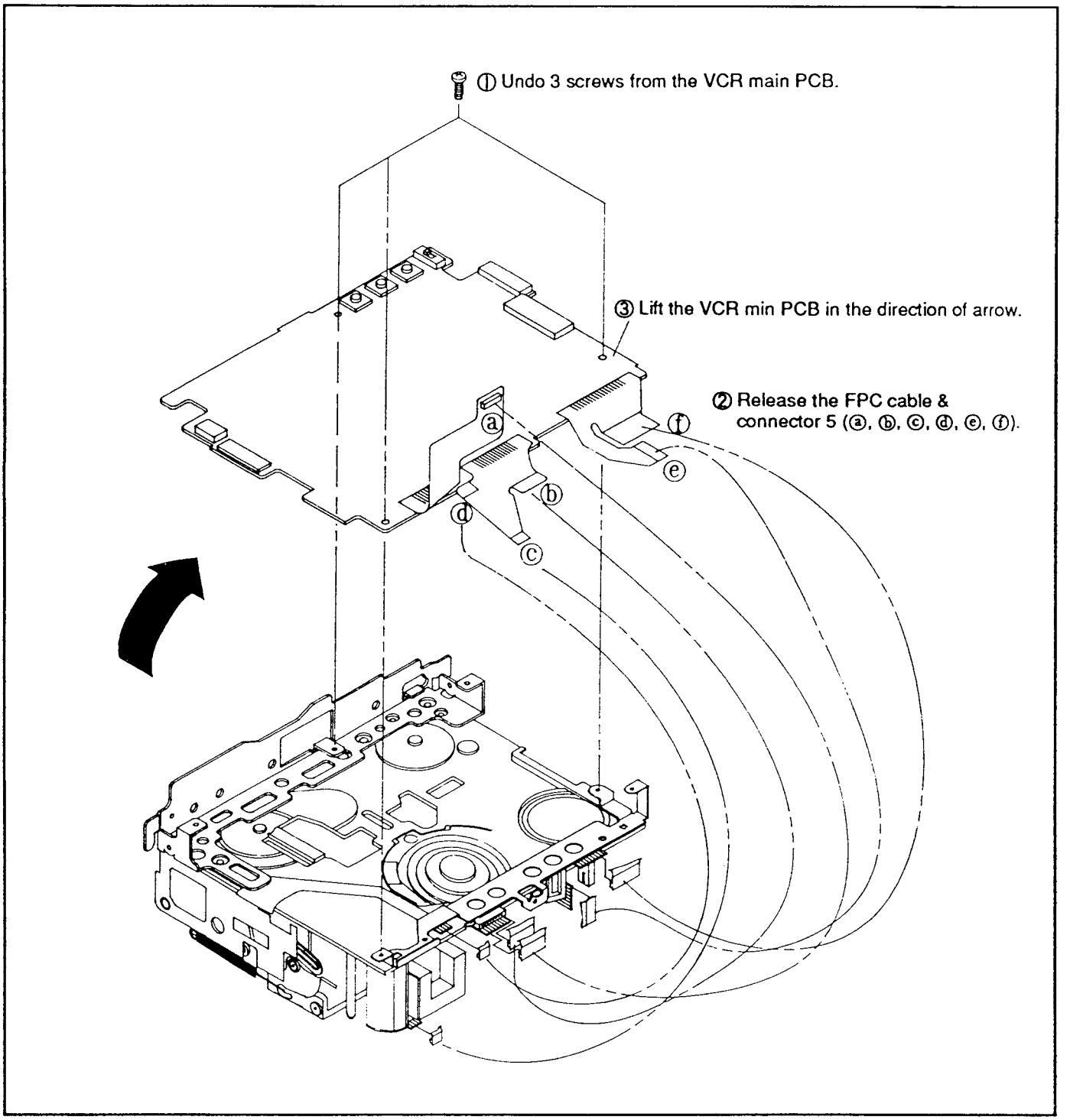


Fig. 11 VCR Main PCB Removal

3-1-12. CVF ASS'Y Removal

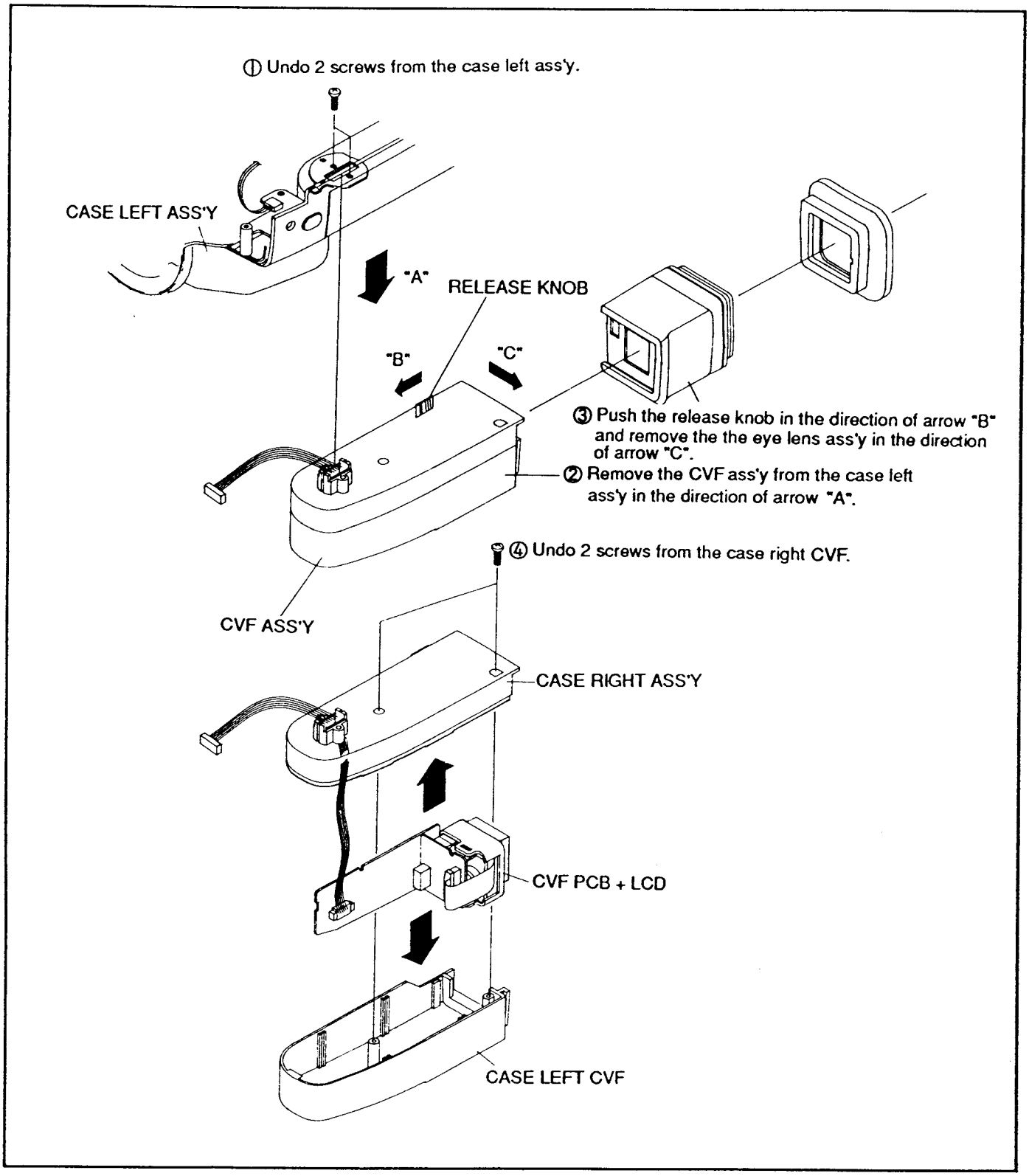


Fig. 12 CVF Ass'y Removal

3-1-13. PCB Locations

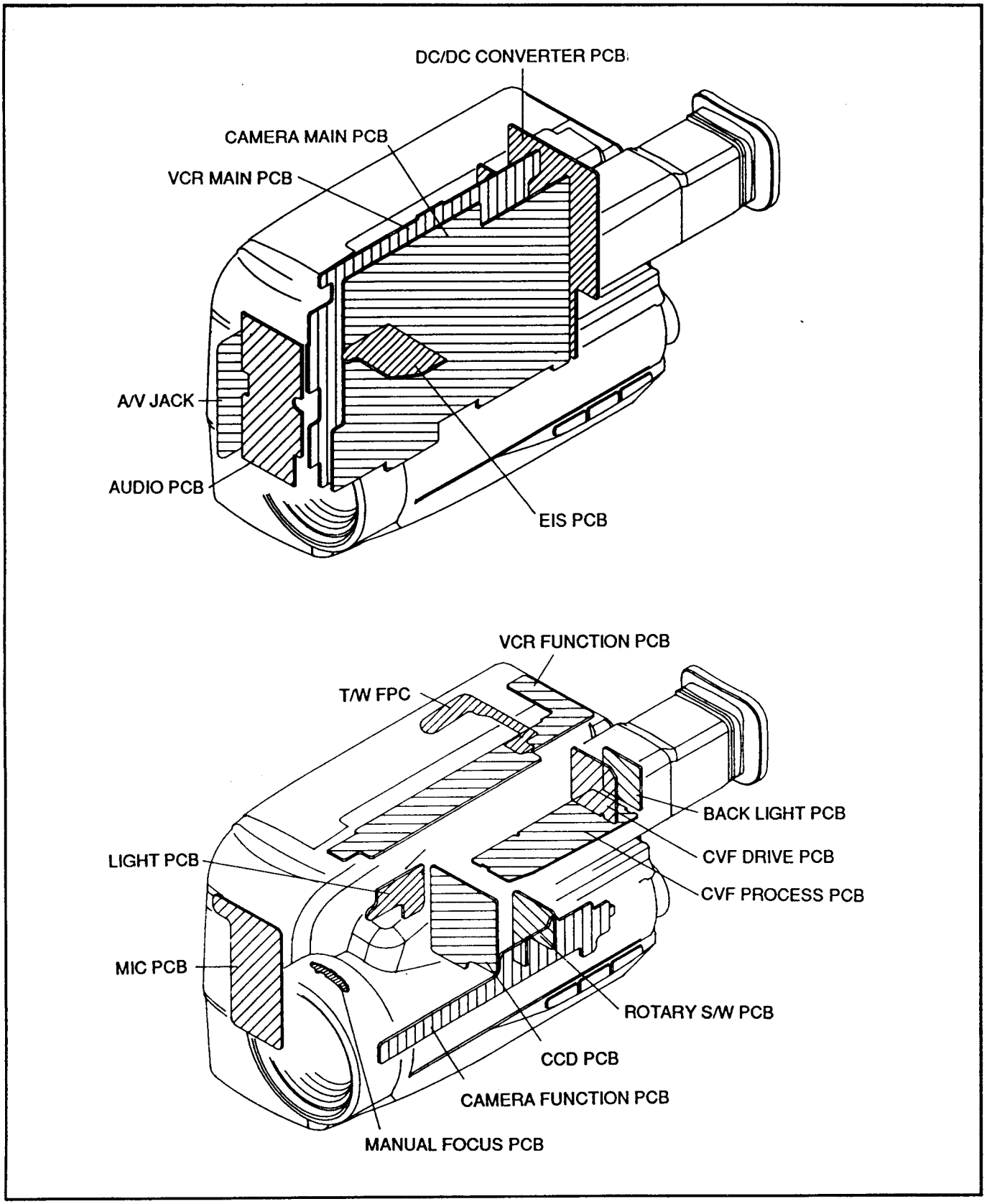


Fig. 13 PCB Locations

3-2. MECHANICAL DISASSEMBLY

3-2-1. Mechanical Parts Locations

1. Main Deck (Top View)

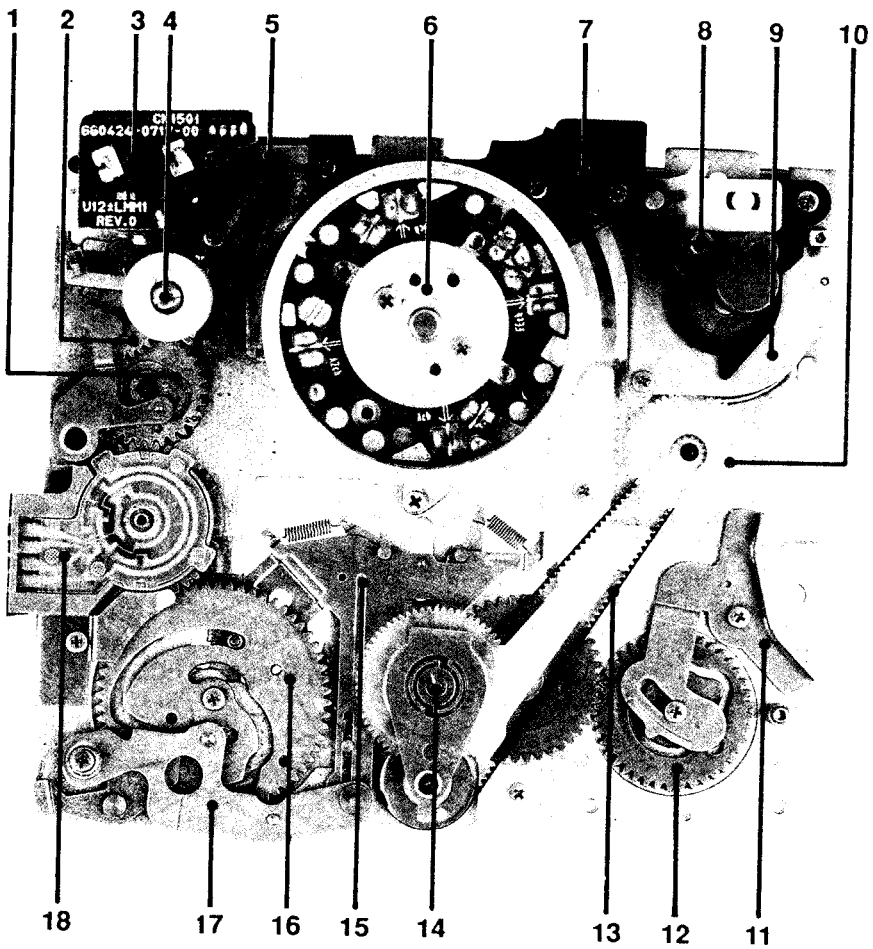


Fig. 14 Main Deck (Top View)

1. GEAR-CAM TENSION
2. GEAR-LOADING B
3. MOTOR-LOADING
4. POLE-BASE SUB ASS'Y
5. RAIL-STOPPER L
6. ASS'Y-SEMI DRUM
7. GUIDE-TAPE T
8. BASE-CAPSTAN ASS'Y
9. MOTOR CAPSTAN
10. GEAR-CAPSTAN ASS'Y
11. LEVER-CAM PINCH ASS'Y
12. GEAR-CAM PINCH
13. BELT-TIMING
14. IDLER ASS'Y
15. PLATE-SLIDER ASS'Y
16. GEAR-CAM MAIN
17. LEVER-CAM ASS'Y
18. SWITCH-MODE ASS'Y

2. Sub Deck (Top View)

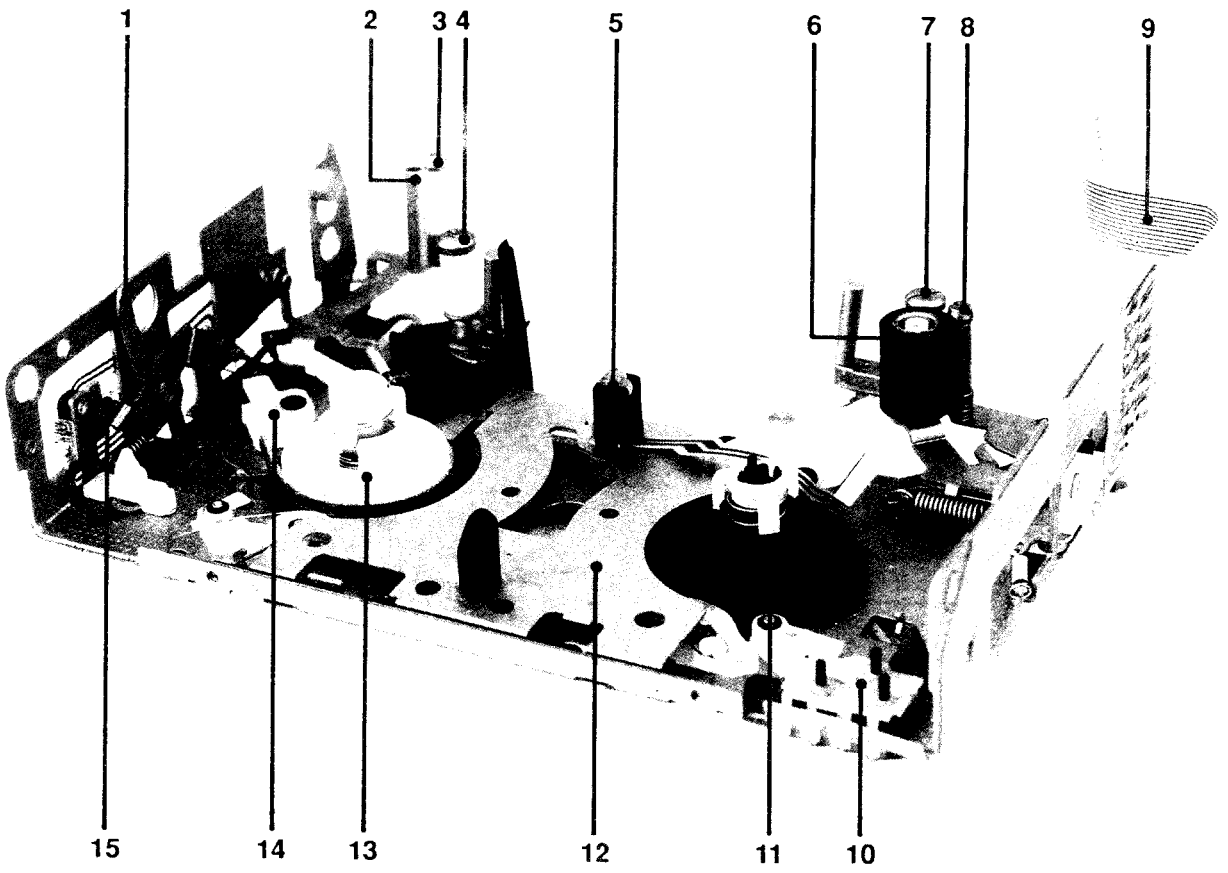


Fig. 15 Sub Deck (Top View)

1. SUB-CHASSIS
2. ARM-TENSION ASS'Y
3. LEVER-GUIDE ASS'Y
4. ARM-POLE BASE S ASS'Y
5. LED-IR
6. ARM-PINCH R ASS'Y
7. ARM-POLE BASE T ASS'Y
8. ARM-REVIEW ASS'Y
9. F.P.C CONNECTION
10. SW-DETECTOR
11. REEL-T ASS'Y
12. COVER-REEL ASS'Y
13. REEL-S ASS'Y
14. HOLDER-TENSION BAND ASS'Y
15. SW-LEAF

3. Housing Ass'y

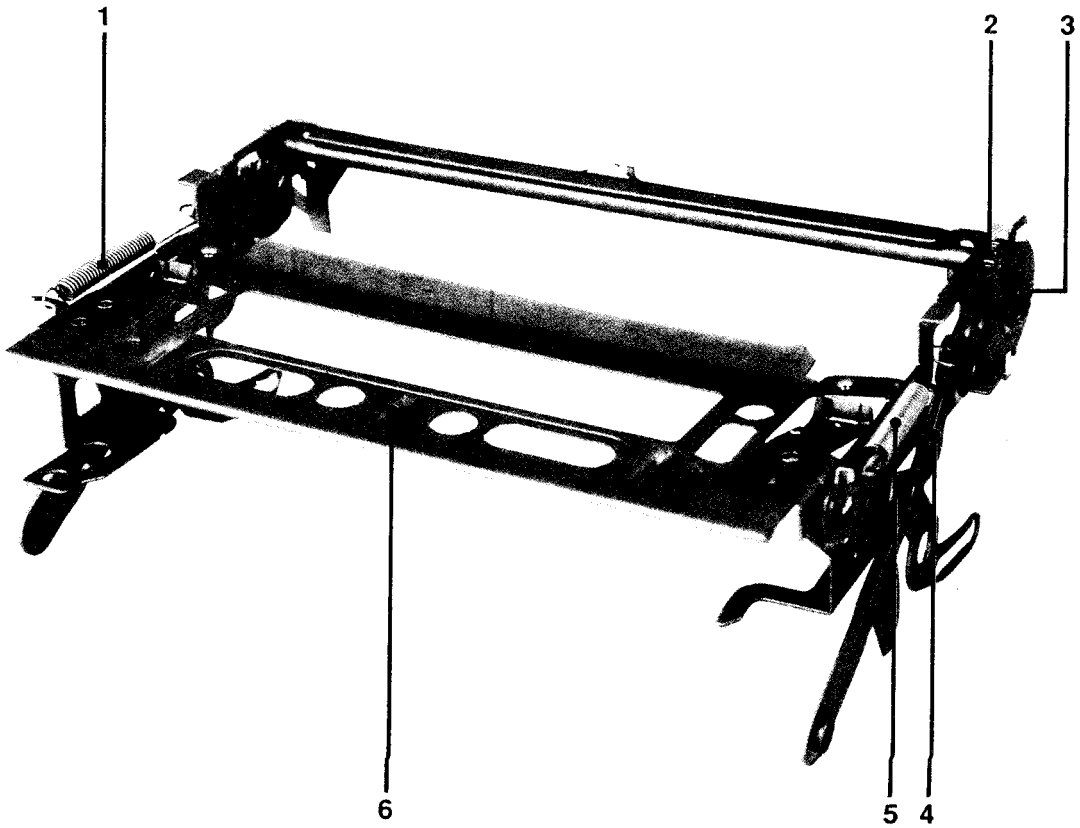


Fig. 16 Housing Ass'y

1. SPRING EJECT L
2. SHAFT-HOUSING ASS'Y
3. DAMPER-HOUSING
4. ARM-R ASS'Y
5. SPRING EJECT R
6. PLATE-HOUSING ASS'Y

3-2-2. Ready for Operation

1. Make sure Main Power S/W is turned off.
2. Connect lead connector and F.P.C to VCR Main Board.
3. Turn the Main Power S/W on.
4. Load a tape and make sure that Auto Loading is working.
5. Confirm the stop mode.
6. Check the Deck movement by pressing PLAY, FF and REW key.
7. Press the Eject (Stop) Key.

3-2-3. Deck Operation without Housing Ass'y & Tape (See Fig. 17)

1. Cover the LED assembly with ① ELECTRICAL TAPE.
2. Push the Lever Stopper ③ in the dirrection of arrow "A" in order to turn the S/W Leaf ② on. (Refer to Fig. A)
3. Turn on the test mode of the VCR Main board.
4. Follow the procedures for Ready for Operation.

Note : Push the Lever Locker ④ in the direction of arrow "A" in order to eject the tape compulsorily under the condition of Housing loaded.

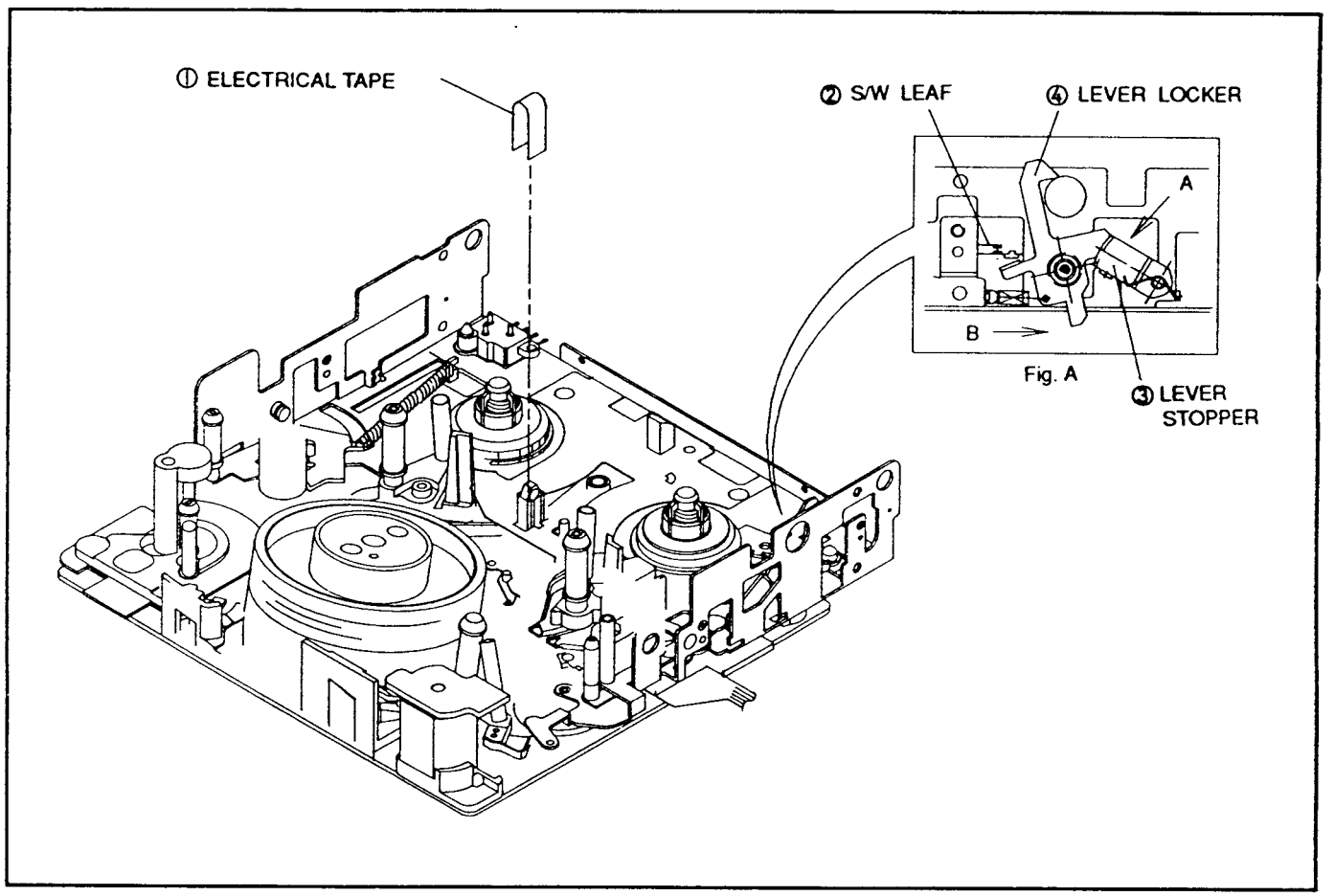


Fig. 17

3-2-4. Housing Ass'y

1. Removal

Note : Be sure to remove the Housing Ass'y when Housing is ejected.

1) Remove 4 screws ① then remove the Cover Back ②.
2) Remove 2 Pins Hinges ③ and then remove the Lever Slide ④ as described in Fig. A.

2. Reassembly

1) Mount the Lever Slide ④ to pin as described in Fig. A.
2) Mount the Pin Hinge ③ as described in Fig. B, to the groove by pushing the Housing ⑤ in the direction of arrow A.
3) Assemble the Cover Back ② then fasten 4 screws ①.

Note : After assembling, make sure Housing Ass'y is performing properly by installing Housing.

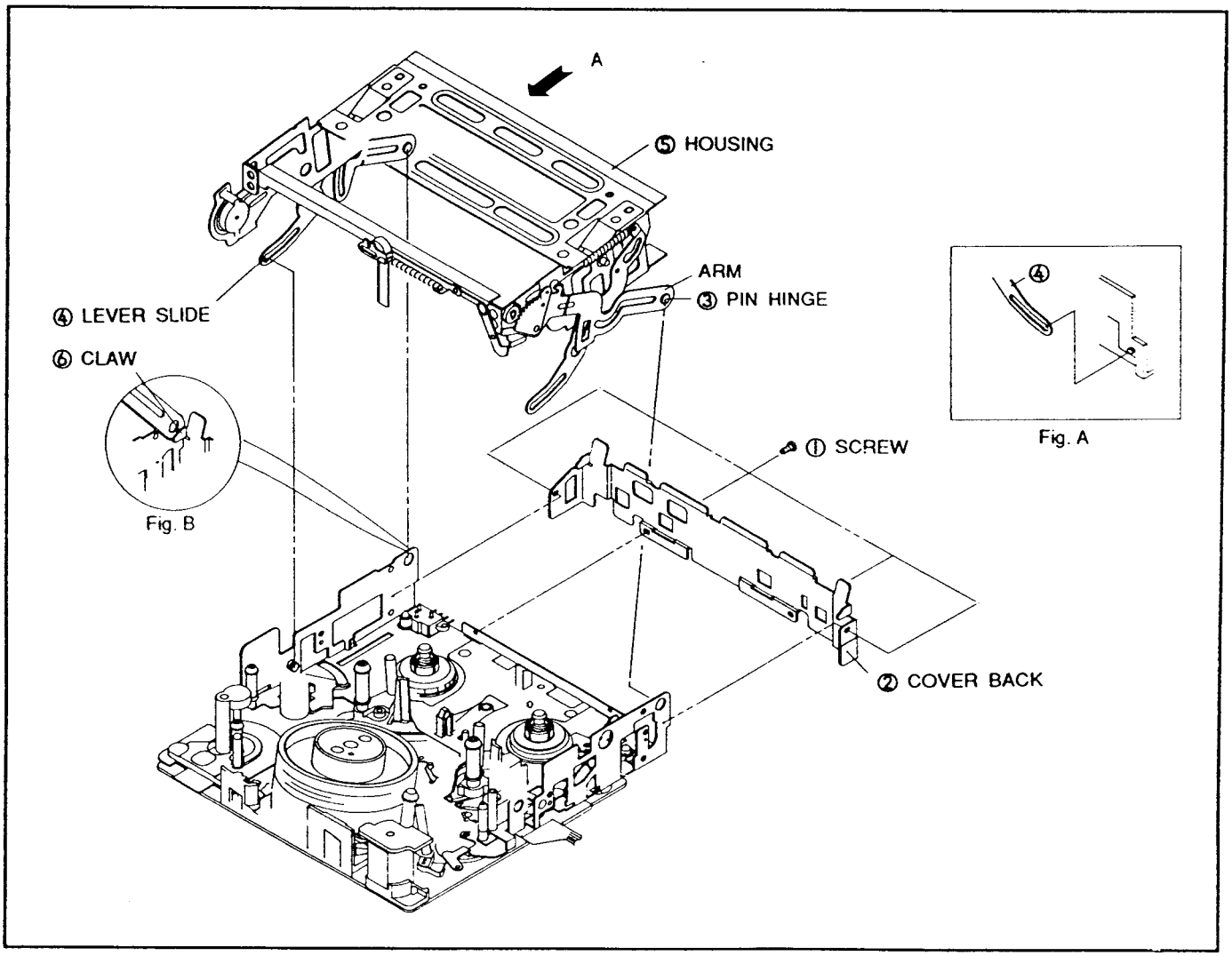


Fig. 18

3-2-5. Drum Ass'y

1. Removal

> **Note** : Take extreme care when removing the Drum Ass'y ⑩.
> Do not touch the Head Tip ⑪ during servicing.

1) Remove the Housing Ass'y. (Refer to section 3-2-4)
2) Remove 1 screw ①, then remove the Guide Tape T ②.
3) Remove 2 screws ④, ⑤, then remove the Base Drum ⑥.
4) Remove 1 screw ⑦, then remove the Earth Brush ⑧.
5) Remove 2 screws ⑨, then remove the Drum Ass'y ⑩.

2. Reassembly

1) Mount the Drum Ass'y ⑩ to the Boss ⑫ of Base Drum ⑥ and secure 2 screws ⑨.
2) Mount the Earth Brush ⑧ then secure 1 screw ⑦.
3) Mount the Base Drum ⑥ to the Main Deck and then secure 2 screws ④, ⑤.
4) Mount the Guide Tape T ② and then secure 1 screw ①.

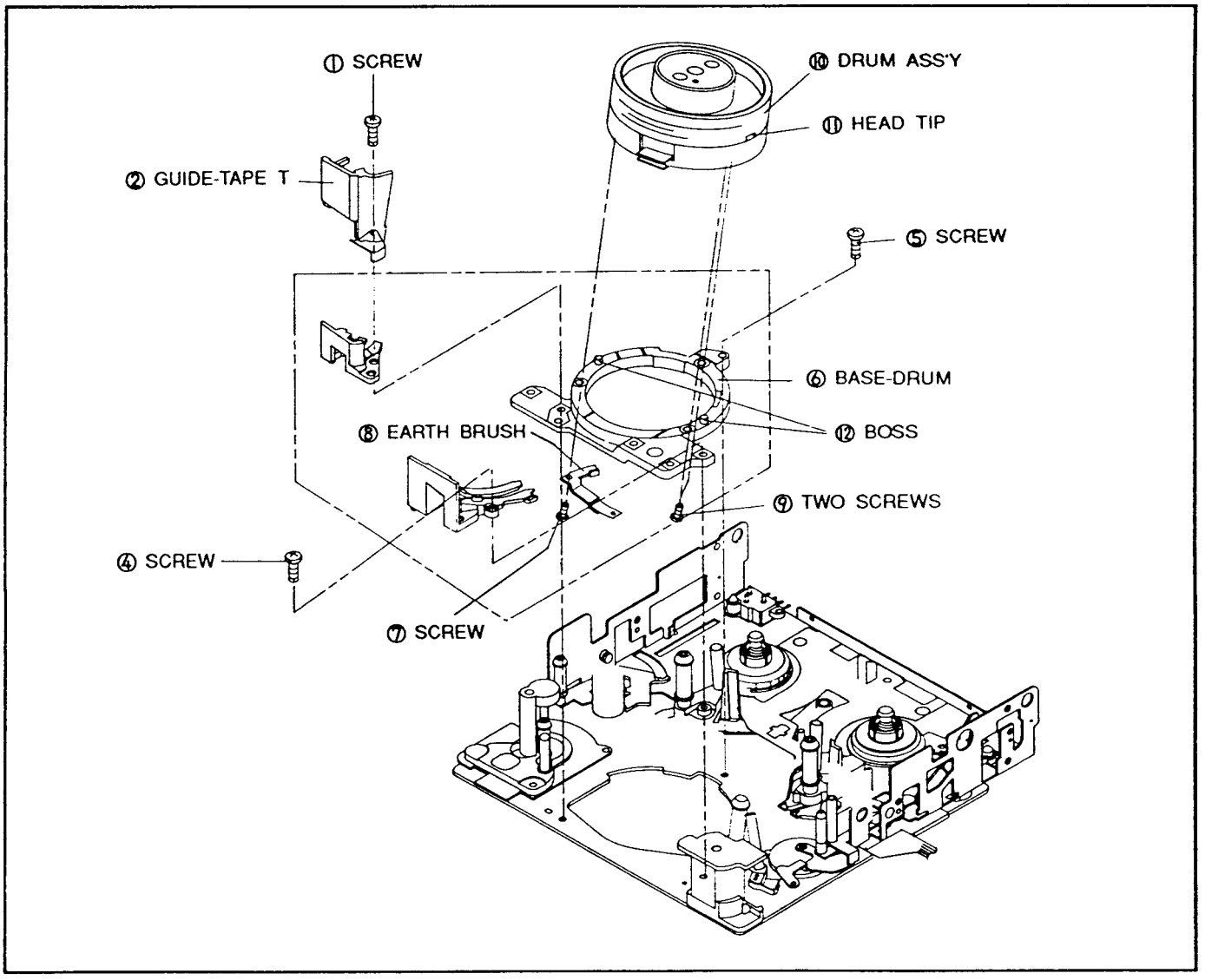


Fig.19

3-2-6. Idler Ass'y

1. Removal

1) Remove 2 screws ① and 1 screw ⑨ and then remove the Cover Reel ③ from the Deck.
2) Take out the Holder LED ② from the Cover Reel ③.
3) Remove the Washer Slit ④ from Idler Ass'y ⑤ and then remove the Idler Ass'y ⑤ from the Pin ⑥.

2. Reassembly

1) Fit the Idler Ass'y ⑤ into the Pin ⑥, and then install it with the Washer Slit ④.
2) Mount the Cover Reel ③ to the Deck Ass'y.
3) At that time, place the Pin Idler ⑦ into the Guide Home ⑧ of the Cover Reel ③.
4) Mount the Holder LED ② to the Cover Reel ③.
5) Fasten 2 screws ① and 1 screw ⑨.

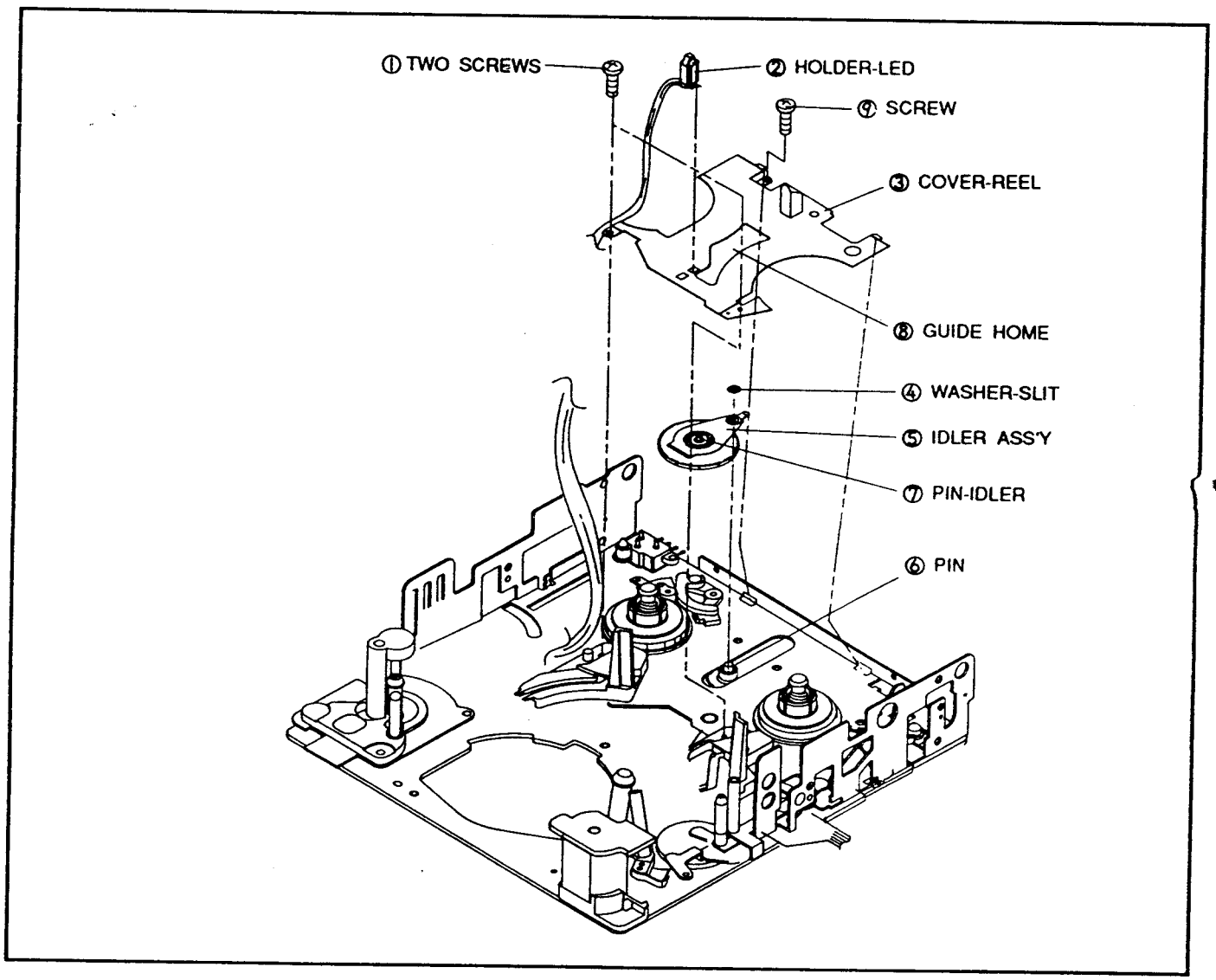


Fig. 20

3-2-7. Sub Deck Ass'y Removal from the Main Deck Ass'y

1. Removal

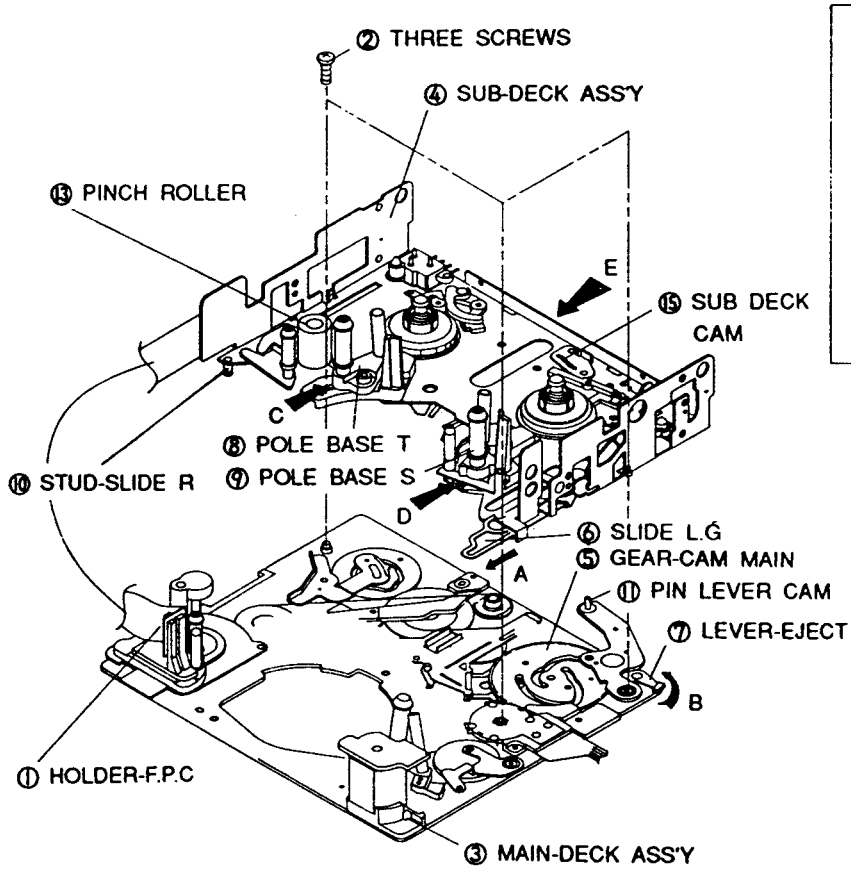
Note :
1) When disassembling, take care not to damage the other parts.
2) Always remove the Sub Deck Ass'y when Deck Ass'y is in eject mode.

1) To remove Sub Deck Ass'y, remove Idler Ass'y first. (Refer to 3-2-6)
2) Take out the Holder F.P.C ① from the Main Deck Ass'y ③.
3) Remove 3 screws ②.
4) Remove the Sub Deck Ass'y ④ from the Main Deck Ass'y ③.

2. Reassembly

1) Align main base hole with Gear-cam main holes as shown in the Fig. A. (Refer to install point)
2) Push the Pole Base T ⑧ and the Pole Base S ⑨ in the direction of arrows "C", "D".
3) Position out the Slider L.G ⑥ toward "A", and then push the Lever Eject ⑦ toward "B".
4) Put in the Stud Slide R ⑩ to the slider area of Main Base as described in Fig. B.
   Insert the pin Lever Cam ⑪ into the Sub Deck Cam ⑮.
5) Fit the Slider L.G ⑥ to the Bush screw of the Main Deck and then confirm whether the Plate Slide ⑭, and the Arm Loading are fixed correctly as shown in the Fig C.
6) Install the Sub Deck with 3 screws ②.
7) Install the Holder F.P.C ① to the Main Deck Ass'y ③.

Note : After assembling the Sub-Deck Ass'y, make sure that the Sub-Deck Ass'y is performing correctly with power supply 3V to loading Motor changing voltage direction.



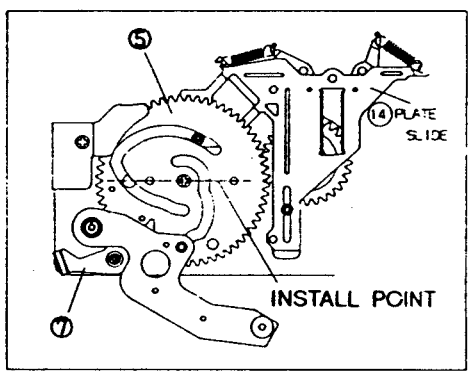


Fig. A

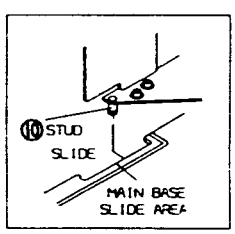


Fig. B

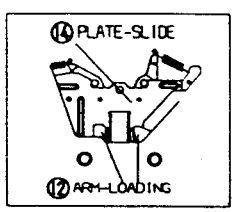


Fig. C

Fig. 21

3-2-8. Arm Pole Base S, Arm Pole Base T

1. Removal

1) Take out the Pole Base S ① from Rail S ③ in the direction of arrow "B", and remove the Arm Loading S ⑤ from Sub Deck as described in Fig. A.
2) Take out the Pole Base T ② from Rail T ④ in the direction of arrow "A", and remove the Arm Loading T ⑥ from Sub Deck as described in Fig. A.

2. Reassembly

1) Insert the Arm Loading S to the Sub Deck, and turn in the direction of arrow "C", and then put in the 2 pins of the Pole Base S ① to the Rail S ③ in the opposite direction of arrow "B".
2) Insert the Arm Loading T to the Sub Deck (Refer to Fig. A and turn in the direction of arrow "D", and then put in the 2 pins of the Pole Base T ② to the Rail T ④ in the opposite direction of arrow "A".

Note : When assembling, be careful not to stain the Roller and slant Pole of the Pole Base from the oil, grease, etc.

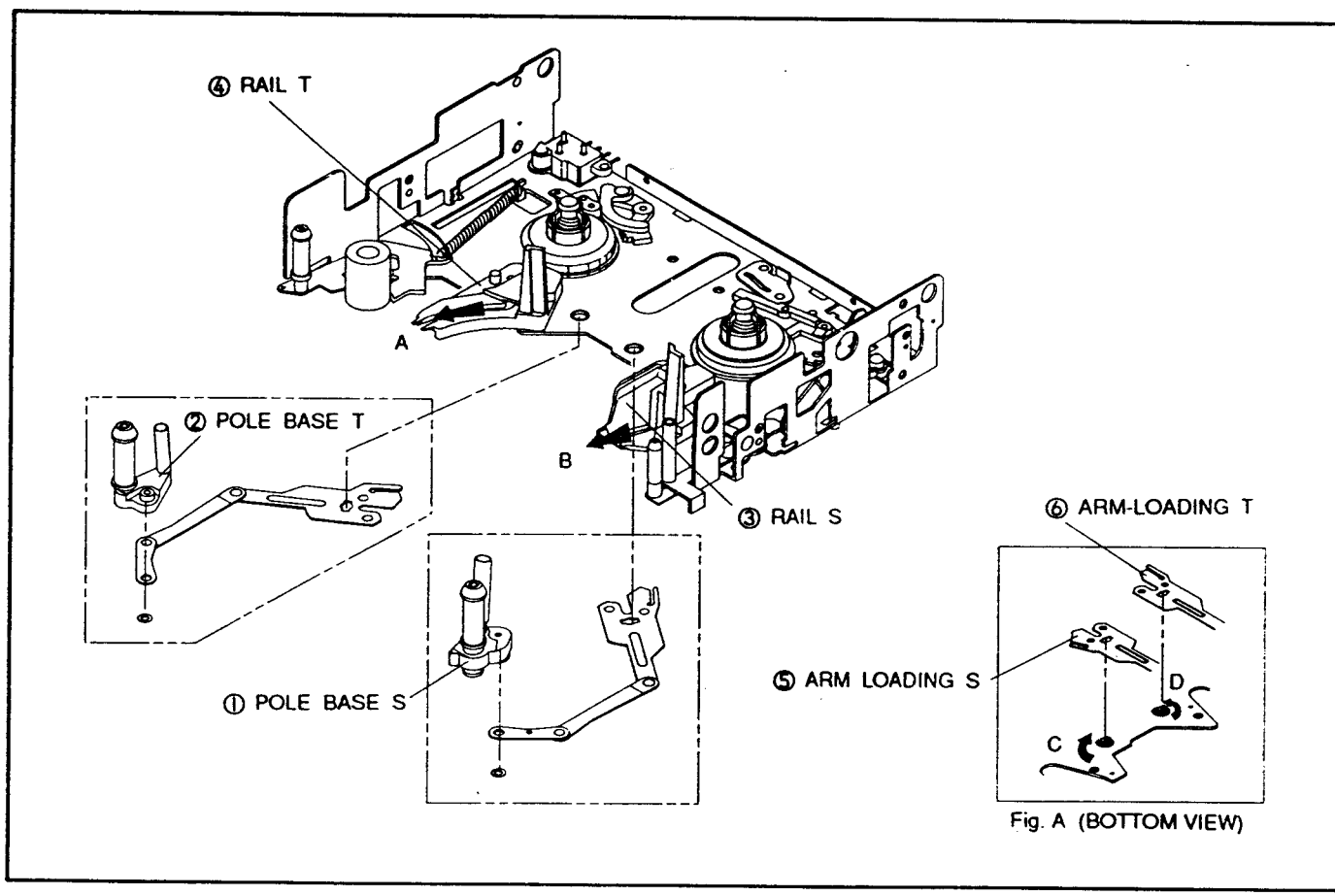


Fig. A (BOTTOM VIEW)

Fig. 22

3-2-9. Pinch Roller Ass'y & Arm Review Ass'y

1. Removal

1) Remove the 2 Washer Slit ①, and then remove the Arm Review Ass'y ② and Spring Review Arm ③.
2) Take out the Spring Lever Pinch ⑤ from Claw ④, then remove the Arm Pinch Roller Ass'y ⑥.

2. Reassembly

1) Put the Arm Pinch Roller Ass'y ⑥ on the bush, and attach the Spring Lever Pinch ⑤ on the Claw ④.
2) Install it with the Washer Slit ①.
3) Put the Spring Review Arm ③ in the bush, and then hook it to the Spring Hanger Area ⑧ of the Arm Review Ass'y ② and to the notch of Stud-Slide ⑦.
4) Install the Arm Review Ass'y ② with the Washer Slit ①.

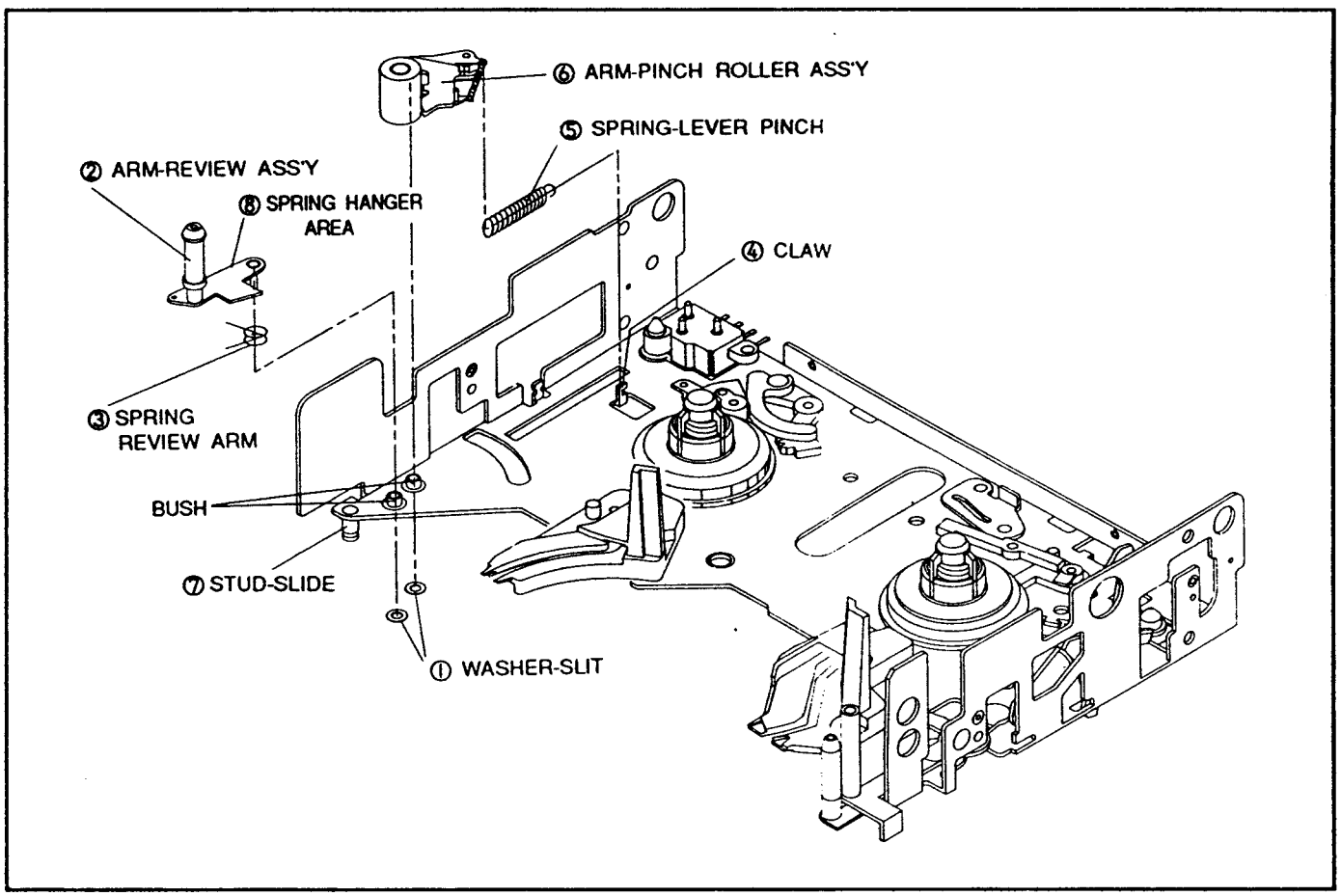


Fig. 23

3-2-10. Arm Tension Ass'y, Lever Guide Ass'y

1. Removal

1) Remove the Washer Slit ① and then remove the screw ③.
2) Remove the spring of the Arm Tension Ass'y from the Claw ⑧, and then remove the Arm Tension Ass'y ⑤ from the Bush ②.
3) Release the Hook ⑬ of the Arm Tension Ass'y from the Hole ⑫, and then remove the Ass'y Band Tension.
4) Remove the Lever Guide Ass'y ⑥, and then remove the Slide L.G ⑦ from the Sub Deck Ass'y.

Note : Be careful not to damage and stain the Arm Tension's Pole part and Lever Guide Assy's Roller part with oil.

2. Reassembly

1) Mount the Slide L.G ⑦ in order to position the Bush into the Slit ⑨ of the Slide L.G ⑦.
2) Mount the Lever Guide Ass'y ⑥ to Bush ②, at that time place the Pin Lever Guide ⑪ into the Slit ⑩.
3) Mount the Arm Tension Assy's ⑤ shaft to the Lever Guide Assy ⑥ bush, and then attach the spring of the Arm Tension Ass'y ⑤ on the Claw ⑧.
4) Put in the Hook ⑬ of the Ass'y Band Tension ④ to the Hole ⑫, and then Mount the Ass'y Band Tension ④ so that its Dowel ⑮ aligns with the Slit ⑯ of the Sub Deck.
5) Install the Ass'y Band Tension ④ with the screw ③.
6) Install the Arm Tension Ass'y ⑤ with the Washer Slit ①.

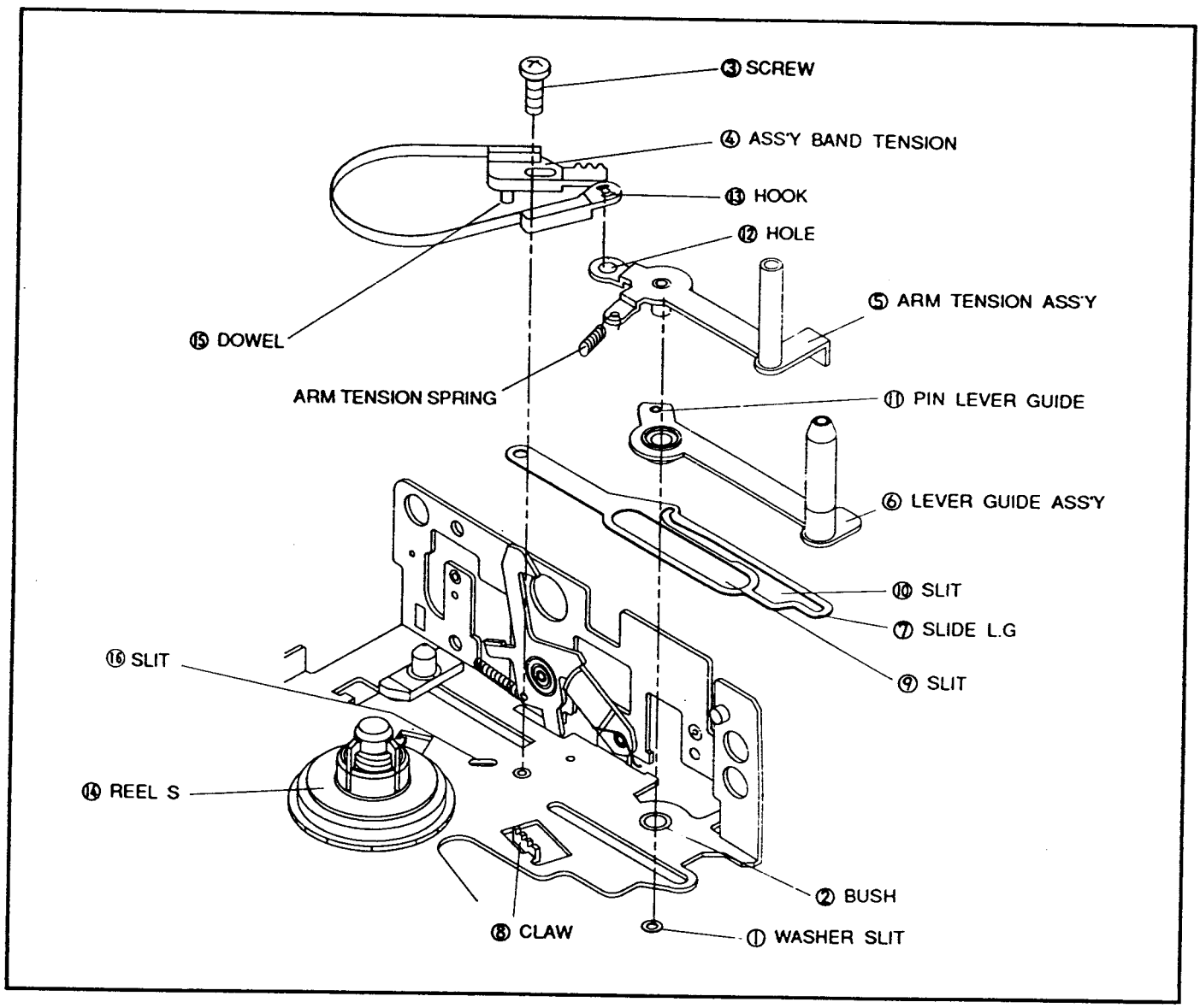


Fig. 24

3-2-11. Rail Guide S, Rail Guide T, Locker-Sub Chassis

1. Removal

1) Remove the Arm Pole Base S, Arm Pole Base T. (Refer to Fig. 22)
2) Remove the screw ①, then remove the Rail Guide T ②.
3) Remove the screw ③, then remove the Rail Guide S ④.
4) Remove the 2 screws ⑤, and then remove the Locker Sub Chassis ⑥.

2. Reassembly

1) Install in reverse order.

Note :
1) After installing the Rail Guide S ④ and the Rail Guide T ②, make sure that projection boss on the bottom side and the hole are aligned correctly.
2) Be sure to use the standard screws.

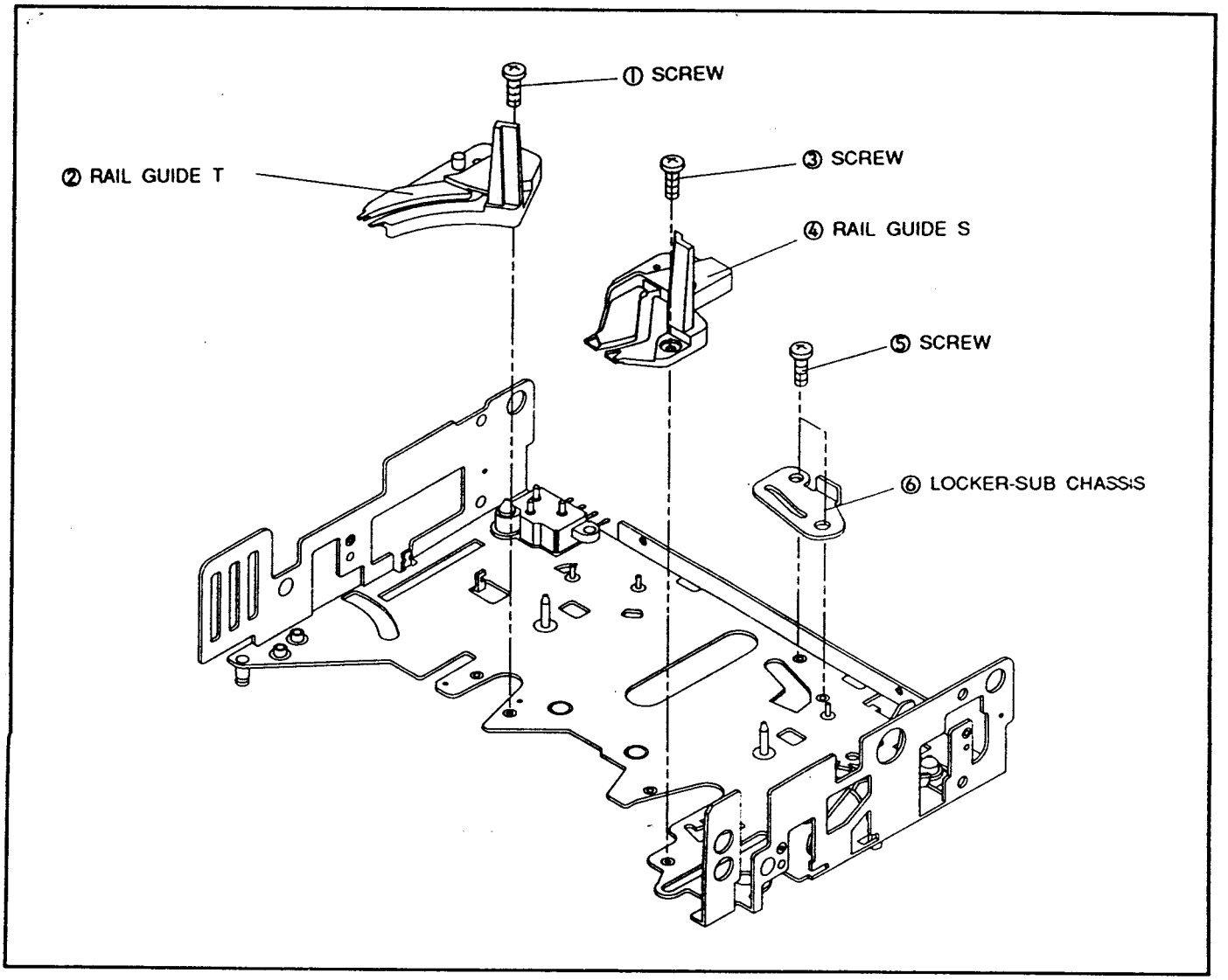


Fig. 25

3-2-12. Reel S, T Ass'y, Arm Clutch, Lever Brake S, T

1. Removal

1) Remove the Ass'y Tension Band. (Refer to Fig. 24)
2) Remove the Washer Slit ①, and then remove the Lever Brake S ② and Spring Lever Brake S ③.
3) Remove the Washer Slit ④, and Spring Arm Brake S ⑤, and then remove the Arm Brake S ⑥.
4) Lift up the Reel S ⑦, and then take out the Washer Plane ⑧.
5) Remove the Washer Slit ⑩, and then remove the Lever Brake T ⑪.
6) Remove the Washer Slit ⑫, and then remove the Ass'y Arm Clutch ⑬.
7) Lift up the Reel T ⑨.

2. Reassembly

1) Mount the Reel T ⑨.
2) Put the Ass'y Arm Clutch ⑬ into the slit Home ⑭ of the Sub Deck Ass'y, and then install it with the Washer Slit ⑫.
3) Put the Lever Brake T ⑪ into the Slit Home ⑮ of the Sub Deck Ass'y, and then install it with the Washer Slit ⑩.
4) Put in the Washer Plane ⑧ into shaft, and then mount the Reel S ⑦ to shaft.
5) Put in the Arm Brake S ⑥, and install the Spring Arm Brake S ⑤ (Refer to Fig. A), and then install it with the Washer Slit ④.
6) Put in the Spring Lever Brake S ③, and install the Lever Brake S ② (Refer to Fig. A), and then install the Washer Slit ①.

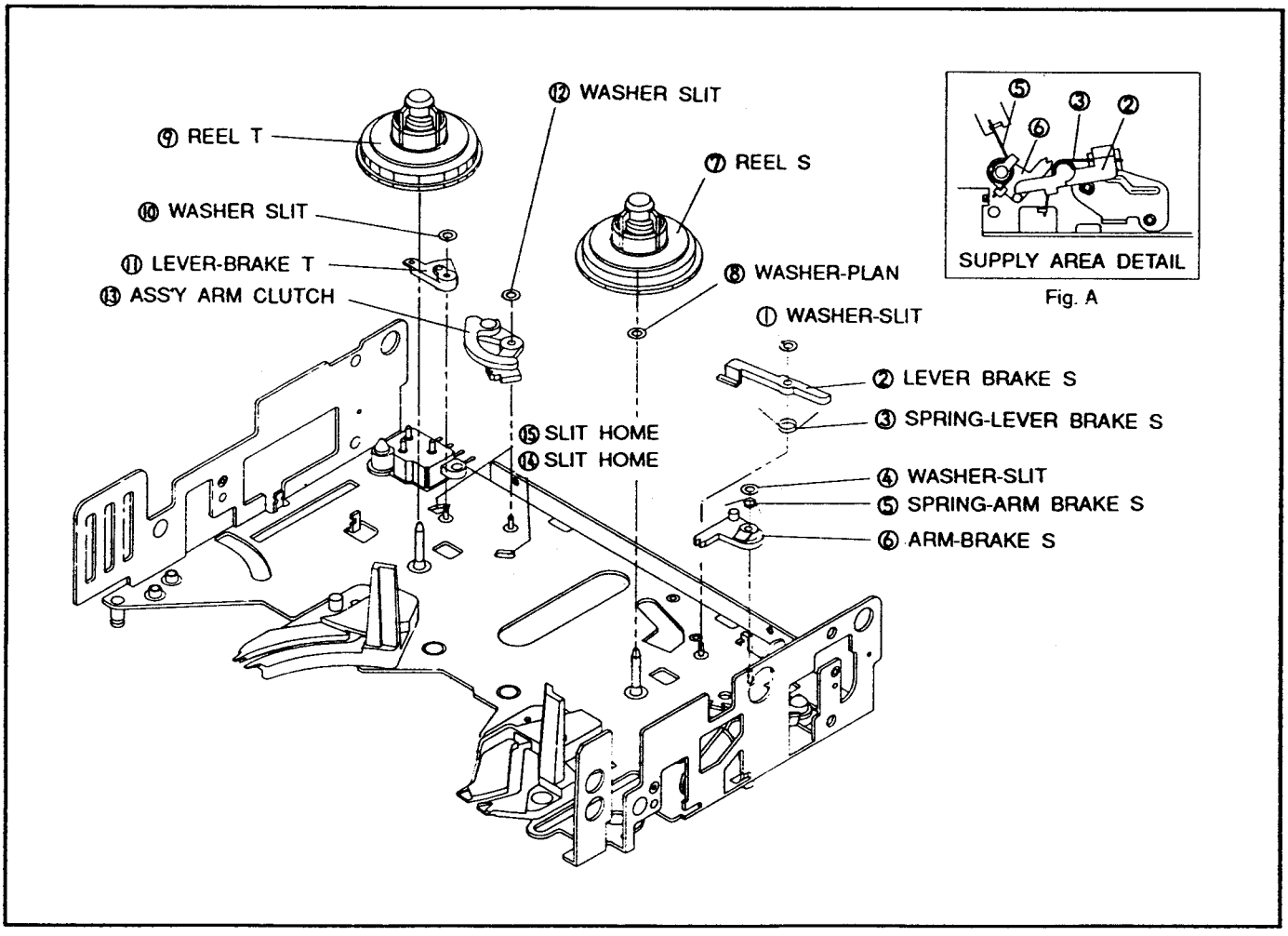


Fig. A

Fig. 26

3-2-13. Loading Motor

1. Removal

1) Remove 4 screws ①, ②, ③, then remove the Bracket Deck "A" and "B" ④, ⑤.
2) Remove the 1 screw ⑥, then remove the Loading Motor ⑦.
3) Remove the 2 screws ⑧, then remove the Bracket loading ⑨.

2. Reassembly : Install in reverse order.

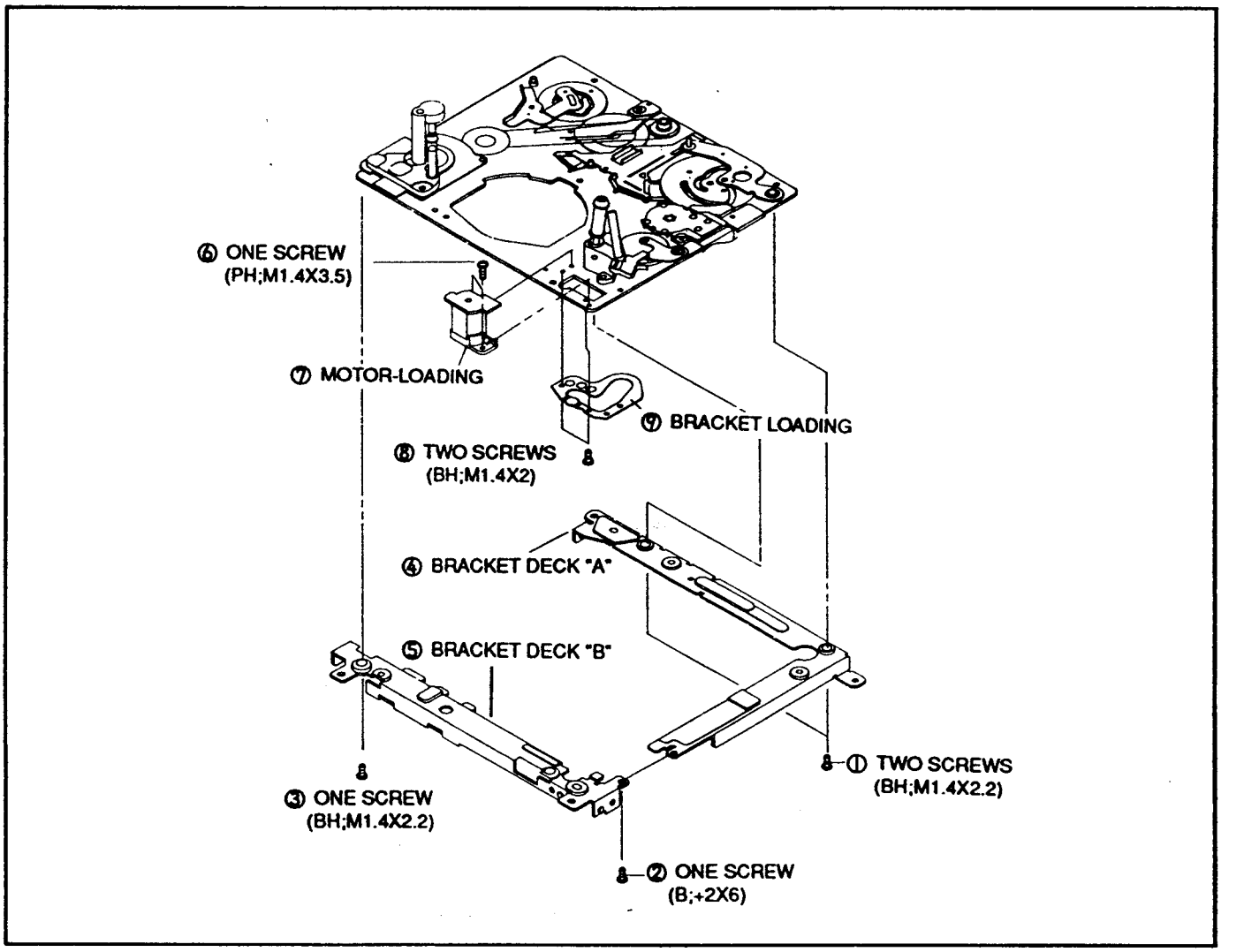


Fig. 27

3-2-14. Motor Capstan, Base Capstan Ass'y

1. Removal

1) Remove the 2 screws ① and the 1 screw ⑦.
2) Remove the Base Capstan Ass'y ② from 2 Bush ④., then remove Holder F.P.C ⑧ by releasing hook.
3) Remove the Motor Capstan ③ from the 3 Bush ④.

2. Reassembly : Install in reverse order.

Note : When assembling, make sure that the gears of Motor Capstan ③ and the gears of Gear Capstan Ass'y ⑥ are matched correctly.

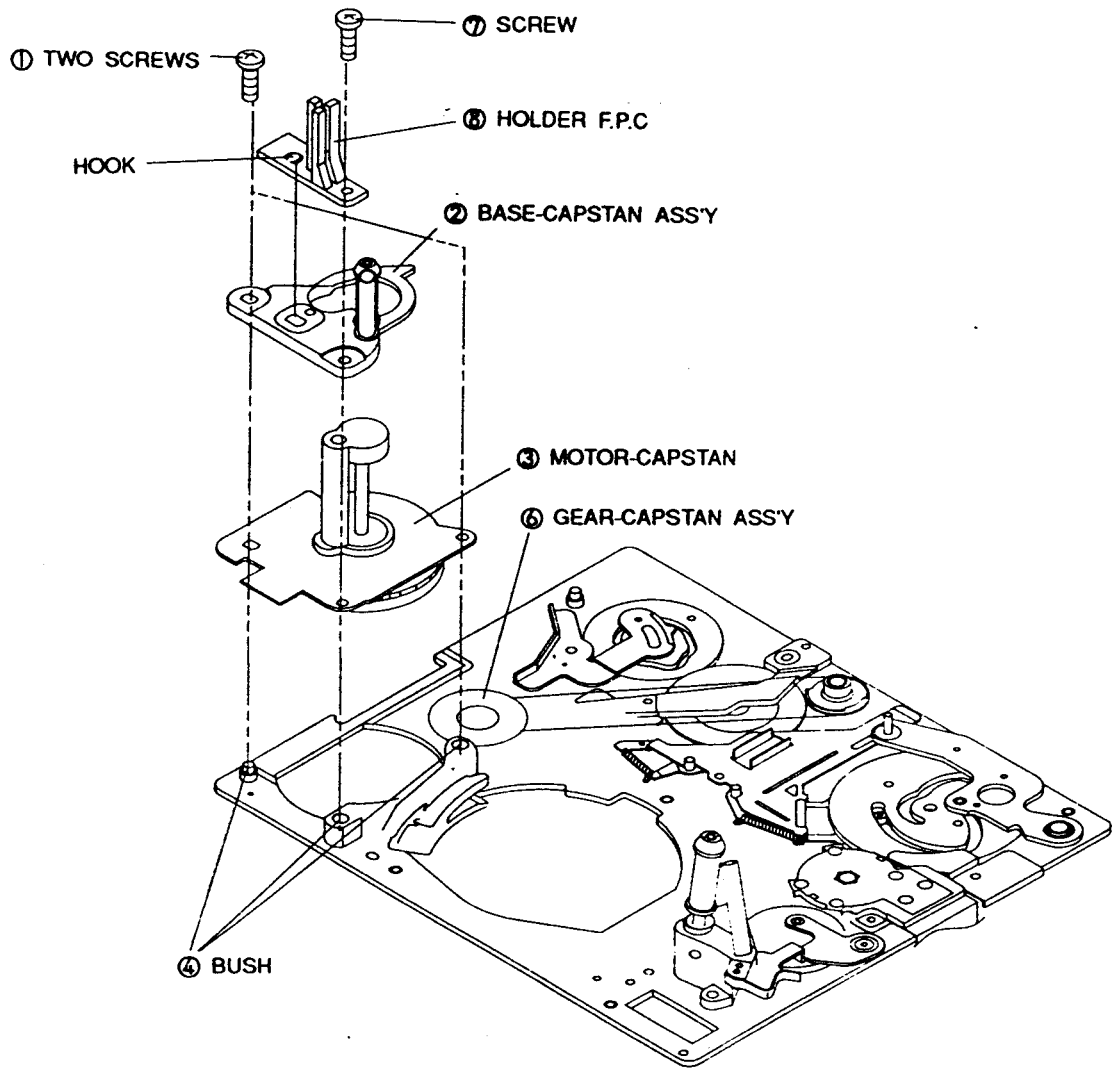


Fig. 28

3-2-15. Rail Middle R/L, Gear Capstan Ass'y, Gear Pully Ass'y, Cover Time Belt

1. Removal

1) Remove the Rail Middle R ①, then remove the screw ②, and then remove the Rail Middel L ③ from the Main Deck.
2) Remove the Gear Pully Ass'y ④ from the axle which is attached to the Belt Timing.
3) Remove the Washer Slit ⑥, then the Gear Capstan Ass'y ⑦ from the axle with the Timing Belt ⑤.
4) Remove the 2 screws ⑧, then remove the Cover Timing Belt ⑨.

2. Reassembly

1) Mount the Cover Timing Belt ⑨ on the Main Deck, then secure it with the 2 screws ⑧.
2) Fit the Gear Capstan Ass'y ⑦ to the axle, and then install the Washer Slit ⑥.
3) Attach up the Belt Timing ⑤ between the low Gears of the Gear Capstan Ass'y ⑦ and the low Gears of the Gear Pully Ass'y ④, and then fit the Gear Pully Ass'y ④ into the axle with the Belt Timing ⑤ attached. (See Fig. A)
4) Mount the Rail Middle L ③ on the Main Deck, then secure it with the 1 screw ②, and then Mount the Rail Middle R ① to the Bush.

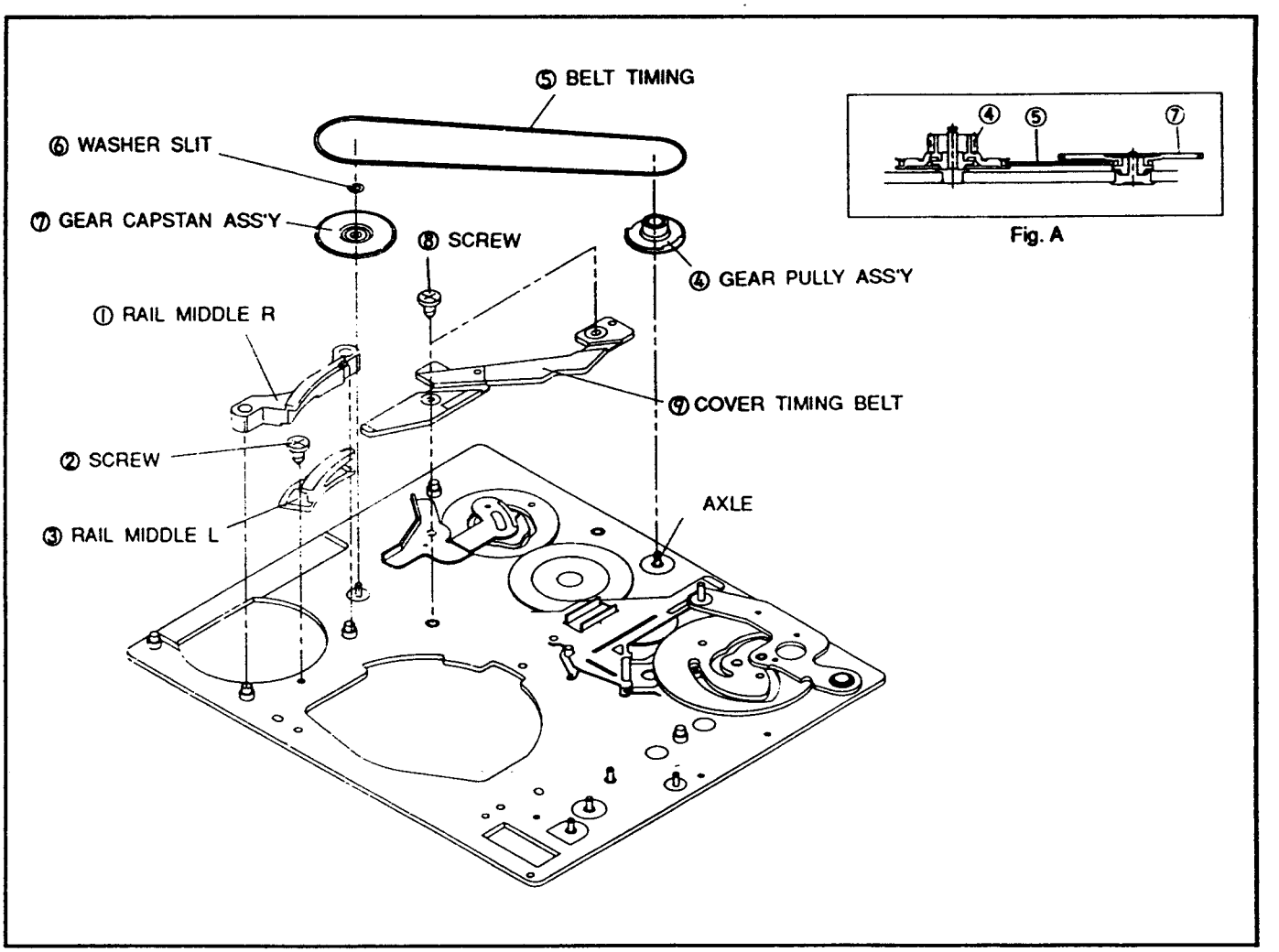


Fig. A

Fig. 29

3-2-16. Lever Cam Pinch Ass'y, Gear Cam Pinch

1. Removal

1) Remove the 2 screws ①, then remove the Lever Cam Pinch ② from the Main Deck.
2) Remove the Gear Cam Pinch ③ from the Main Deck.

2. Reassembly

1) Align the hole of Gear Cam Pinch ③ with the hole of Main Base. (Refer to Timing "A")
2) Insert the Lever Cam Pinch ② into the slit of Gear Cam Pinch ③ and secure it with 2 screws. (Refer to timing "B")

Note : When installing the Gears parts, refer to Fig. 33.

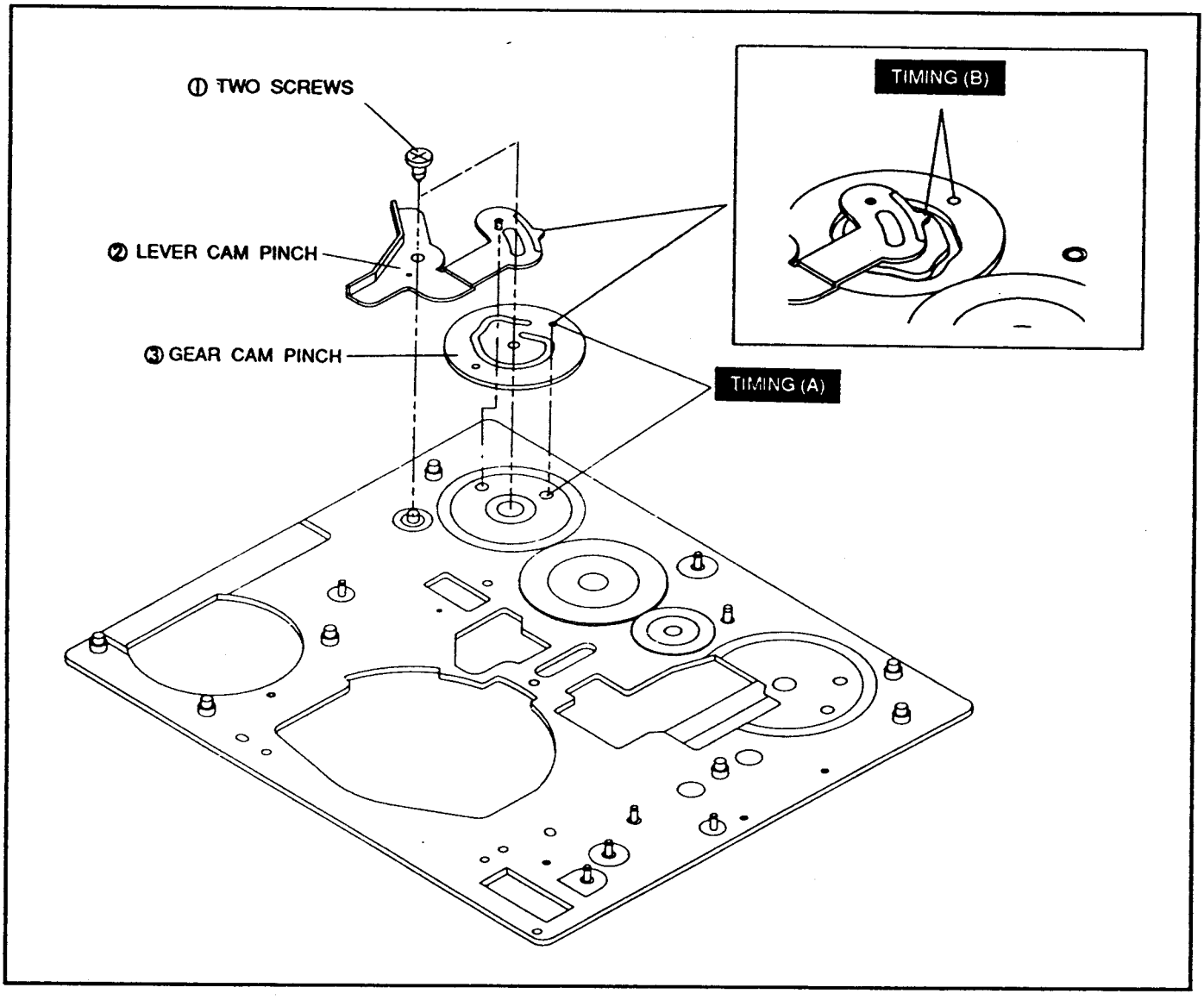


Fig. 30

3-2-17. Pole Base Sub Ass'y, Switch Mode Ass'y, Lever Cam Tension, Gear Loading A, Gear Loading B, Gear Cam Tension

1. Removal

1) Remove 1 screw ①, then remove the Pole Base Sub Ass'y ②.
2) Remove 1 screw ③, then remove the Guide Mode Switch ④.
3) Remove 1 screw ⑤, then remove the Switch Mode Ass'y ⑥.
4) Remove the Washer Slit ⑦, then remove the Lever Cam Tension ⑧.
5) Remove the Washer Slit ⑨, then remove the Gear Loading B ⑩.
6) Remove the Washer Slit ⑪, then remove the Gear Cam Tension ⑫.
7) Remove the Washer Slit ⑬, then remove the Gear Loading A ⑭ of the axle.

2. Reassembly

1) Mount the Switch Mode Ass'y ⑥ as described in Timing point (F) of Fig. 33, then secure it with 1 screw ⑤.
2) Mount the Guide Mode Switch ④, then secure it with 1 screw ③.
3) Fit the Gear Loading A ⑭ into the axle and then install it with the Washer Slit ⑬.
4) Mount the Gear Cam Tension ⑫ as described in Timing point (G) of Fig. 33, and then install it with the Washer Slit ⑪.
5) Fit the Gear Loading B ⑩ into the axle, then install it with the Washer Slit ⑨.
6) Mount the Lever Cam Tension ⑧ as described in Timing (H) of Fig. 33, then install it with the Washer Slit ⑦.
7) Align the dowel of the Pole Base Sub Ass'y ② with the Guide Hole ⑮, then mount the Pole Base Sub Ass'y ②, and secure it with the screw ①.

Note : Confirm the Timing point of the Switch Mode Ass'y (See Fig. 33).

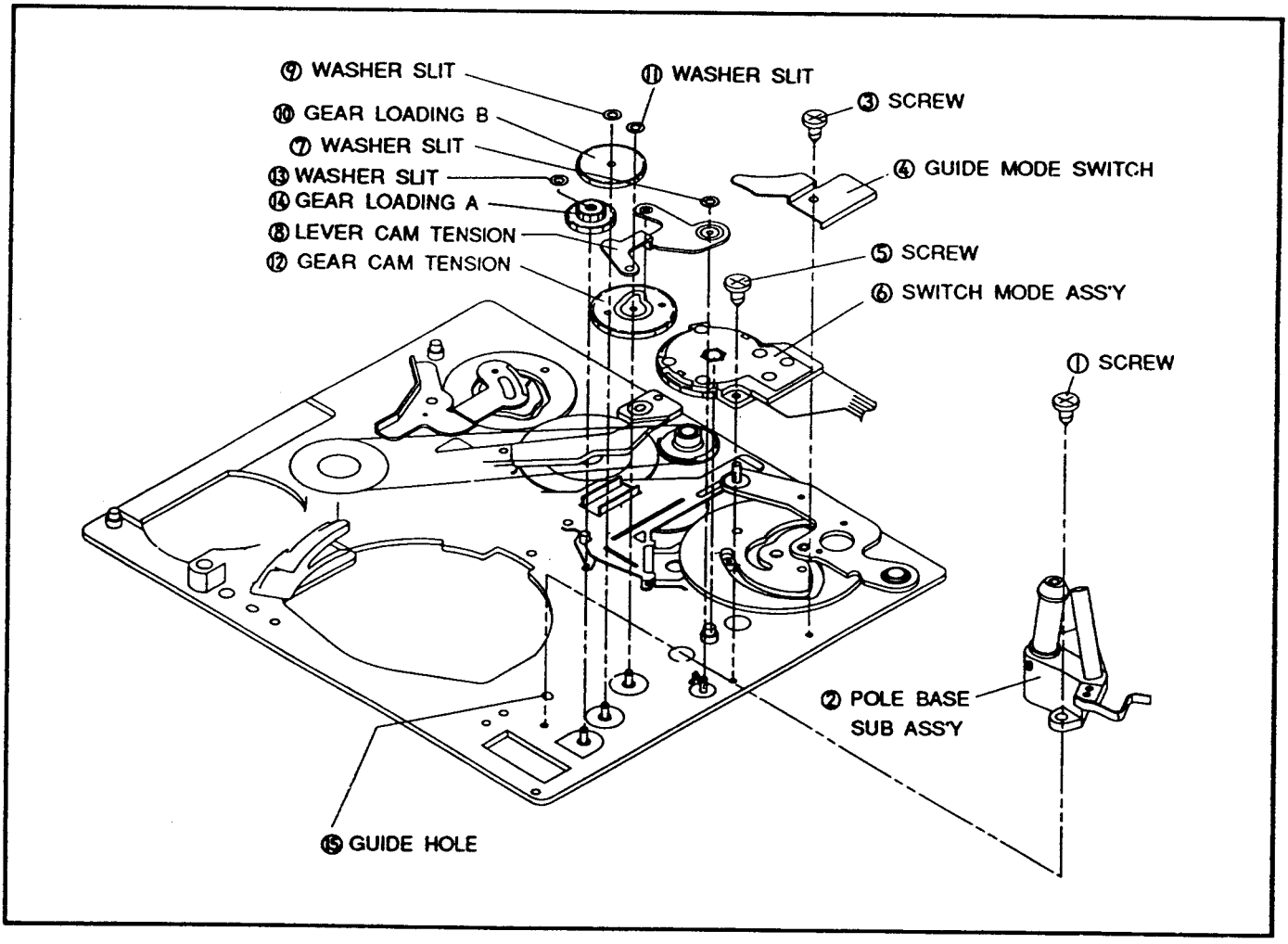


Fig. 31

3-2-18. Lever Cam, Lever Eject, Gear Cam Main, Plate Slider Ass'y

1. Removal

1) Remove the Lever Cam Ass'y ① and Roller Cam Main ②.
2) Remove the Lever Eject ③.
3) Remove 1 screw ④, then remove the Gear Cam Main ⑤.
4) Push the Plate Slide Ass'y ⑦ in the direction of arrow A and remove Plate Slide Ass'y ⑦ and the Roller Cam Main ⑥.

Note :
a) To remove the Gear Cam Main, remove the Guide Mode Switch first. (Refer to 3-2-17)
b) When removing the Gear Cam Main ⑤, and Lever Cam Main ① from the Main Deck, take care not to lose the Roller Cam Main ② ⑥. (Refer to Fig. A and Fig. B)

2. Reassembly

1) Insert the Roller Cam Main ⑥ to the Plate Slider Ass'y ⑦ as described in Fig. A, then Mount it to the Main Deck.
2) Pull the Plate Slider Ass'y ⑦ in the direction of arrow B.
3) Install the Gear Cam Main ⑤ so that the hole of Gear Cam Main ⑤ and the hole of Main Base are aligned as shown in the "Timing (D)", then secure it with 1 screw ④.
4) Install the Lever-Eject on the pin of the Main Base.
5) Insert the Lever Cam Ass'y ① into the groove of the Gear Cam Main ⑤ as shown in the Timing (E).

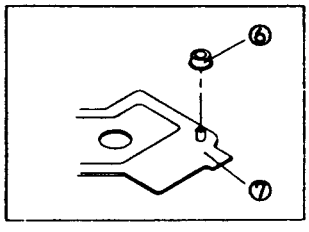


Fig. A

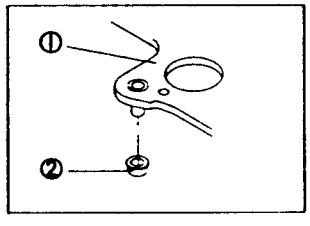


Fig. B

Fig. 32

3-2-19. Timing Point in Main Deck

1. Timing Point Explanation

TIMING A : Align install Hole of Gear Cam Pinch ⑦ with Hole on Main Base.
TIMING B : When installing Lever Cam Pinch to Gear Cam Pinch, Timing "B" point of Cam as described in Fig. 33.
TIMING C : After assembling Plate Slider Ass'y ⑥, when installing Gear Cam Main ④, pull the plate Slider Ass'y ⑥ toward arrow and then install the Gear Cam Main ④.
TIMING D : Align Hole of Gear Cam Main ④ with large Hole on Main Base.
TIMING E : When installing Lever Cam ⑤ to Gear Cam Main ④, Timing "E" point of Cam as described in Fig. 33.
TIMING F : When assembling the Gear Cam Main ④ and the Mode Switch Ass'y ③.
TIMING G : When assembling the Mode Switch Ass'y ③ and the Gear Cam Tension ①.
TIMING H : When installing Lever Cam Tension ② to Gear Cam Tension ①, Timing "H" point of Cam as described in Fig. 33.

Note : 1) Gear Train is installed A, B, C, D and E in order.
2) If install points (Timing Points) of Gear Trains are mismatched, malfunction and part damage may occur. Special precaution is required to prevent it.

2. Important timing to assemble Sub-Deck

After finishing assembly of Gear Train, rotate Gear Cam Main ④ to align 3 holes of install point, as desciebed in Fig. A, in order to assemble Sub Deck.

Note : If loading Motor is installed, Gear Train will not be working. But Loading Motor can be moved by Power Supply giving 3V to Loading Motor.

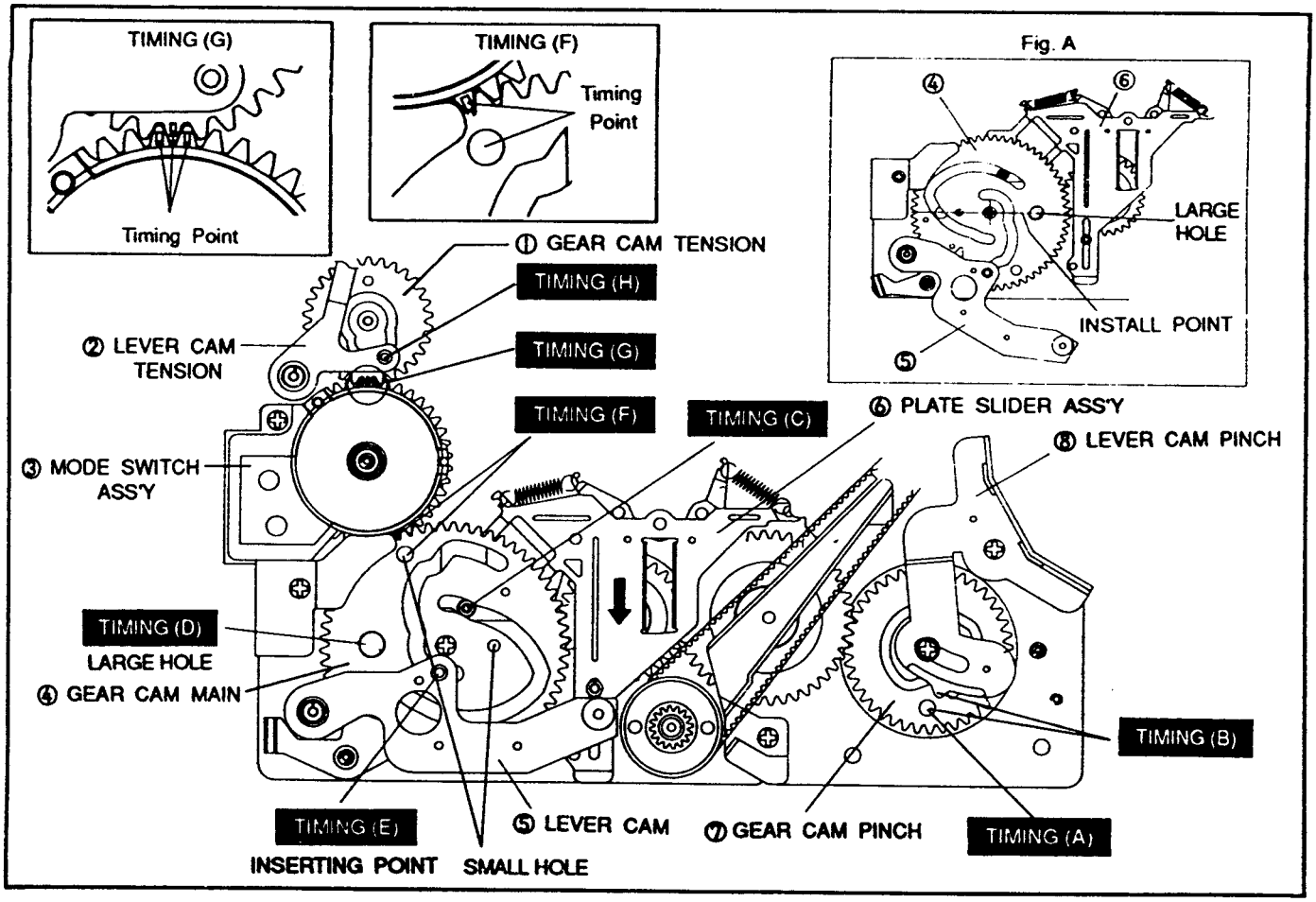


Fig. 33

4. ABBREVIATIONS

ABBREVIATION	EXPLANATION
ACC	Automatic Color Control
ACE	Audio Control Erase
ACK	Automatic Color Killer
ADJ	Adjustment
A/D	Analog/Digital
AE	Auto Exposure
AF	Auto Focus
AFC	Automatic Frequency Control
AFM	Audio Frequency Modulation
AGC	Automatic Gain Control
AMP	Amplifier
APC	Automatic Pedestal Control
ASS'Y	Assembly
ATF	Automatic Track Finding
ATT	Attenuator
AUTO	Automatic
AUX	Auxiliary
BATT	Battery
BF	Burst Flag
BFG	Burst Flag Gate
BLC	Back Light Compensation
BLK	Black
BPF	Band Pass Filter
BUFF	Buffer
B/W	Black/White
CAM	Camera
CAMCORDER	Camera Recorder
CAP	Capstan
CAR	Carrier
CASS	Cassette
CBA	Circuit Board Assembly
CCD	Charge Coupled Device
CH	Channel
CHROMA or C	Chrominance
CLK	Clock
CLP	Clamp
CM	Capstan Motor
CN	Connector
CNR	Chroma Noise Reduction
COM	Common
COMB	Comb Filter
COMP	Composite
CRT	Cathode Ray Tube
CS	Chip Selector
CTL	Control
D/A	Digital/Analog
dB	Decibel (Measurement Unit)
DC	Direct Current
DD	Direct Drive
DEMOD	Demodulator
DET	Detect

ABBREVIATION	EXPLANATION
DL	Delay Line
DOC	Drop Out Compensater
DY	Deflection Yoke
E-E	Electronic to Electronic
EMP	Emphasis
ENV	Envelope
EQ	Equalizer
EXT	External
EVF	Electronic View Finder
F/E	Flying Erase
FET	Field Effect Transistor
FF	Fast Forward, Flip-Flop
FG	Frequency Generator
FL	Filter
FM	Frequency Modulation
FPC	Flexible Pattern Circuit
FPS	Forward Picture Search
Freq.	Frequency
FSC	Frequency Sub Carrier
FWD	Forward
GC	Gain Control
GEN	Generator
GND	Ground
GRN	Green
GRY	Gray
HD	Head, Horizontal Drive
HG	Hall Generator
HPF	High Pass Filter
Hz	Hertz
IC	Integrated Circuit
IR	Infrared
INT	Interrupter
I/O	Input/Output
IRE	Institute of Radio Engineers
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LM	Loading Motor
LP	Long Play
LPF	Low Pass Filter
MAX	Maximum
M/F	Manual Focus
MIC	Microphone
MIN	Minimum

ABBREVIATION	EXPLANATION
MIX	Mixer
MODED	Modulator-Demodulator
MTX	Matrix
NC	Not Connected
NR	Noise Reduction
NOR	Normal
OFD	Overflow Drain
OP AMP	Operational Amplifier
OSC	Oscillator
PB	Play Back
PCM	Pulse Coded Modulation
PG	Pulse Generator
PLA	Programmable Logic Array
PLL	Phase Locked Loop
P-P	Peak to Peak
PRE-AMP	Pre-Amplifier
P/S	Pause/Still
PWM	Pulse Width Modulation
PWR	Power
RAM	Random Access Memory
REC	Recording
REF	Reference
REG	Regulator
REV	Reverse
REW	Rewind
RF	Radio Frequency
RG	Reset Gate
ROM	Read Only Memory
RST	Reset
RPS	Reverse Picture Search
SCK	Serial Clock
SFG	Supply FG
SHD	Sample Hold Data
SHP	Sample Hold Precharge
SHP	Sharpness
SI	Serial Data Input
SO	Serial Data Output
SP	Standard Play
SN	Signal to Noise Ratio
STB	Strobe
S/W	Switch
SYNC	Synchronization
SYSCON	System Control
TP	Test Point
TR	Transistor
TRK	Tracking

ABBREVIATION	EXPLANATION
UL	Unloading
UNREG	Unregulated
u-COM	Microprocessor
VCO	Voltage Control Oscillator
VCR	Video Cassette Recorder
VR	Variable Resistor
V-SYNC	Vertical-sync.
VXO	Variable Crystal Oscillator
W/B	White Balance
X-TAL	Crystal
Y/C	Luminance/Chrominance
4.43MHz	Color Sub Carrier