VR722/02/05/08/13 VR723/02/05

VR7229/39 VR7225 VR727/05





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- Circuit description PCB layout Circuit diagrams Measurements Electrical adjustment instructions
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Survey of versions:

/02	PAL B/G, VPS
, • -	PAL I
/05	
/08	PAL B/G Italy
/13	PAL B/G Nordic
/39	SECAM L & PAL B/G

Survey of remote controls:

VR722	RT520/112	4822 218 30659
VR7229	RT522/441	4822 218 30661
VR723	RT521/112	4822 218 30662

Survey of tapedecks:

VR722, VR7229	LTD 4/2	4 video heads +
VR723, VR5229	LTD 4/2	2 FM audio heads

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

REMOVAL OF CASE COMPONENTS AND SERVICE POSITIONS OF PRINTED CIRCUIT BOARDS

1. The casing cover

Dismantling:

Unscrew the screws A, B, C, D, E, F and G (see fig. 1). Pull back the casing cover for appr. 1 cm, and when the side panels are being slightly pressed outward, the cover can be taken off.

Assembly:

Place the front groove tightly on the front panel. Then carry out the assembly in reverse order.

2. The bottom plate

Place the unit with the bottom side up.

The bottom plate can be lifted off by releasing the six snap hooks (see fig. 2).

3. The front panel

Remove the casing cover (see point 1).

Press the two snap hooks on the left and the two snap hooks on the right at the front outward. Press the front at the top slightly forward, release the 3 snap hooks at the bottom side of the front and pull forward (see fig. 3).

Note:

For assembly, the front panel has to be slipped on in parallel to the control print. For this purpose, the lever which serves to open the lift flap has to be pushed into the flap guide.

4. Exchanging the keyset

Remove the front panel (see point 3).

Detach the keyset from the front by releasing the 6 snap hooks (see fig. 4) and slip the flexprint out

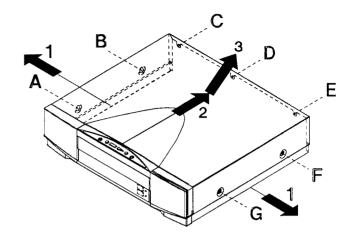


fig. 1

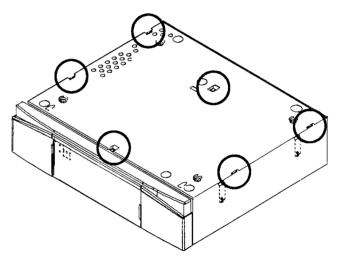
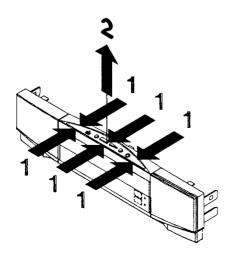
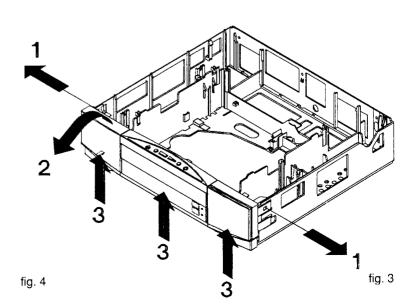


fig. 2





5. LFBU (Family board)

Unscrew the two screws H. Release the 6 snap hooks (see fig. 5).

Now lift the LFBU, turn it into the service position (see fig. 6) and place it into the slots provided.

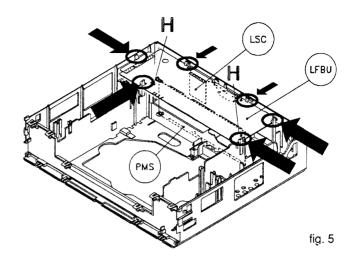
6. PMS (Signal electronics), LSC (Scartprint)

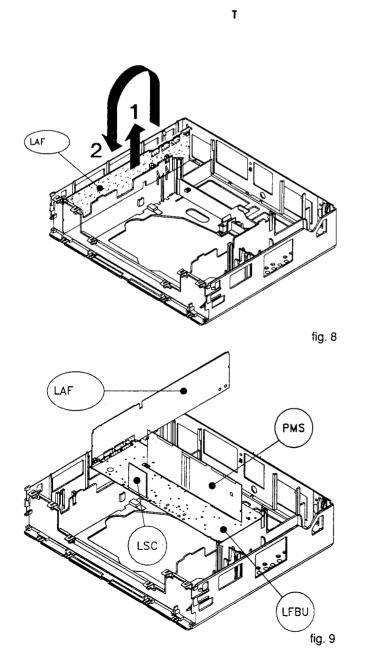
Disassemble the LFBU as in point 5 and place it to the front on the drive assembly (take care of the insulation) (see fig. 7).

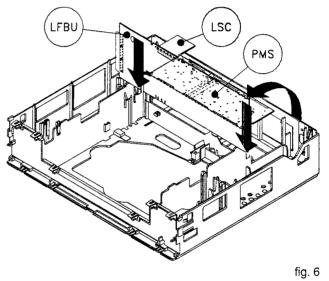
7. LAF (FM Audio)

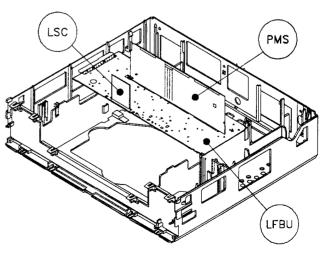
Remove the LFBU as in point 6. Pull out the LAF print upward (past the LFBU), turn it by 180 (see fig. 8) and slip it onto the LFBU (see fig. 9).

1









8. LCO (Control board)

The LCO can be pulled upward from the unit (see fig. 10).

9. LCS (Capstan switch)

The LCS can be pulled upward from the unit (see fig. 10).

10. LSM 45 (Power supply)

The LSM 45 can be removed from the unit by releasing the two snap hooks (see fig. 11).

11. LDC (Control print)

Remove the front panel see point 3.

The control print can be removed by releasing the snap hooks (see fig. 12).

12. Drive assembly

Remove the front panel see point 3.

Unscrew the 3 screws V, R, and S.

The complete drive assembly can now be removed from the frame (see fig. 13).

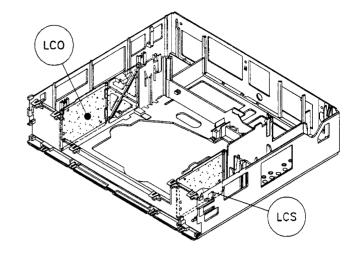


fig. 10

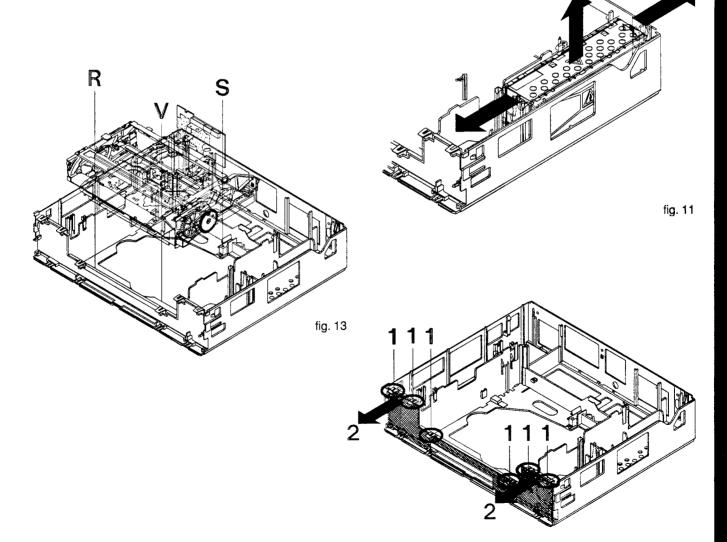


fig. 12

4. DRIVE ASSEMBLY

This tape deck has three motors; one providing precision drive for the scanner unit; the second providing direct drive for the capstan and belt drive for the reel tables; the third motor drives the lift and tape threading/dethreading operations.

By using appropriate scanner units the deck may be used in Mono, HI-FI and S-VHS sets.

Depending on the set requirements a lift for "front loading", "top loading" or "flush loading" can be built-in. Depending on the set-specification the tape deck is capable of all feature functions i.e. different playback speeds, VISS/VASS/GOTO etc.

Special features are:

Quick start
Short winding time

Automatic cleaning of video heads by cleaning roller

Because of service requirements we have developped a range of service kits which coveres the mechanical heart of our new videorecorders, the "turbo-drive". These kits contain all the related spare parts and repair information you need to ensure a good as new repair.

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4.1.10

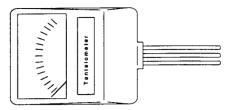
- 4.1 Deck parts replacement
 4.1.1 Deck layout diagrams
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- 4.1.4 A/C Head
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Sensor print assy

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- 4.2.2 Horizontal distance
- 4.2.3 Brake band
- 4.2.4 Tape tension adjustment4.2.5 Friction clutch control
- 4.2.6 Reverse brake control
- 4.3 Exploded view Cleaning and lubrication
- 4.4 Parts list

Auxiliary tools for deck adjustment:

Testcassette 4822 397 30103



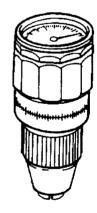
Tentelometer 4822 395 90584



Tool for tapetension adjustment 4822 395 50188



Handle 4822 256 90493



Torquemeter:

600 gf-cm 4822 395 90232 90 gf-cm 4822395 80196



Post adjustment screwdriver 4822 395 50275

Nylon gloves 5322 395 50275

4.1 Deck parts replacement

Before repairing a deck assembly the top and bottom covers should be removed.

The procedure for the removal and refitting of the following parts is described; only the lift, the scanner, the capstan motor and the A/C head are fixed by screws.

All the other deck assembly parts are held only by snap hooks.

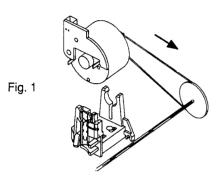
Manual extraction of cassette:

1

1

CS 36848 GB

If, after the Eject button has been pressed, the drive does not unthread and eject the cassette, the dethreading/eject operation can also be carried out manually by turning the wheel at the rear of the threading motor.



To avoid slack tape, alternate this action with the movement of the capstan motor (counter-clockwise), until the tape is completely taken into the cassette.

IMPORTANT:

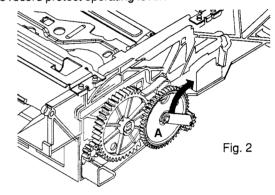
After each repair has been carried out in the drive assembly, the first operation after repairing must be to bring the cassette compartment into "eject" position by hand.

4.1.2 The Lift

The refitting of the lift has to be done with cassette compartment down and engaged (1st or 2nd catch of gear "A") Loader gear 1 and 2 (pos.103H and 105H) has to be just released by cassette loader trigger (movement of the tape deck without lift from "eject to halfloading"). Cassetteloader gear 1 (pos.103H) may not be twisted after release.

To remove the lift

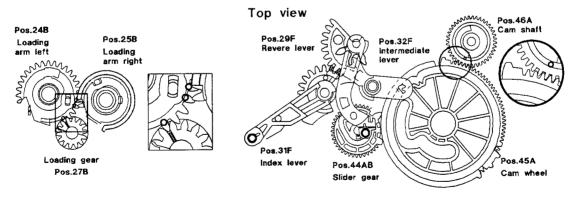
- Free the holding bracket (Fig. 2) by rotating it up and back from the upper end.
- Remove the left foot of the set.
- Unscrew the 4 screws on the underside of the deck.
- Carefully remove the lift vertically, noting the position of the record protect operating lever.



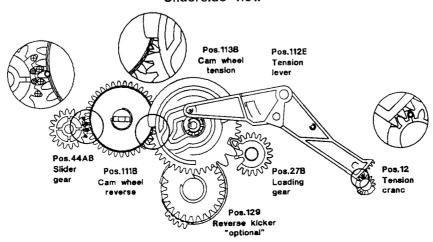
4.1.1 Deck lay out diagrams

(Deck in position "threaded out")

The following Gagrand indicate the relative positions of the gearwheels and levers when the deck is in the threaded out (cassette compartment down) position.

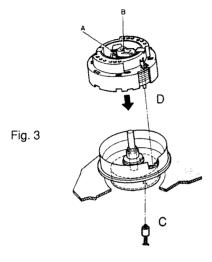


Underside view



4.1.3 Head disc replacement

- Nylon gloves should be worn when handling the head disc.
- Insert the reference pin C (included with each service head disc) through the hole in bottom of the scanner motor and turn the head disc until the pin snaps in the hole of the rotor (Fig. 3).
- Slacken the fixing screw A of the head disc and pull the head disc from the motor spindle.



Installation

- Before carrying out the installation of the the new head disc, make sure that the motor spindle is clean and undamaged (the spindle has to be free of grease and must not be touched with the bare hands).
- Position the head disc on the scanner spindle.

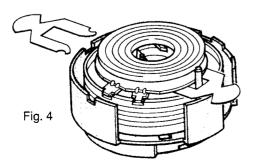
Attention:

The upper protection cover and the 2 Mylar films (0,15 mm thick) remain on the head disc during the fitting process (Fig. 4).

- Press the head disc down at the centre of the protective cover B (Fig. 3) with a force of 1 N.
- Tighten the fixing screw A with a torque of 20 Ncm.
- Remove the protecting cap from the head disc and withdraw the 2 Mylar films laterally from the air gap, and remove the reference pin at the bottom side of the drive assy.

After replacing the head disc, carry out the following adjustments and checks:

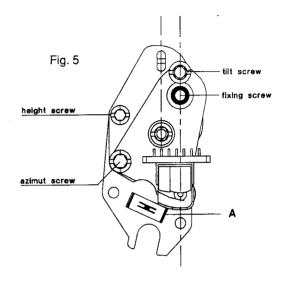
- Head switching pulse (gap position, chapter 3)
- Write current adjustments (chapter 3)
- Check tape path alignment (see paragraph 4.2.1)



4.1.4 A/C Head (Combi head) (Pos. 36)

- Remove fixing spring (A) (Fig. 5).
- Remove the fixing screw and replace the A/C head.
- Use a new fixing spring (included with new A/C head) for reassembly.

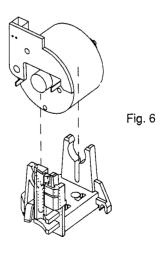
After the A/C head has been replaced, all adjustments described in paragraph 4.2.1.2 and paragraph 4.2.1.3 have to be carried out.



4.1.5 Threading motor (Pos. 38)

- Remove the belt and disconnect the connector plug.
- Remove the threading motor from the motor supports (Fig. 6).

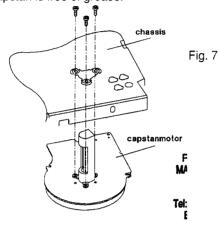
During reassembly ensure that the threading motor is correctly located in the front and rear supports.



4.1.6 Capstan motor (Pos. 127)

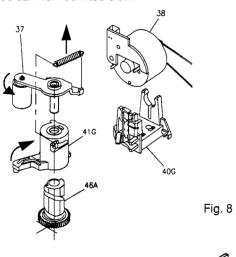
- Set the drive assy to "Eject" position.
- Remove the belt (pos.126) on the underside; then free the pin from the sensor print (see section 4.1.10). Lift sensor print part vertically (it is plug and socket connected to the capstan motor print). Move both sections of the sensor print clear of the capstan motor.
- Remove the three capstan motor fixing screws (Fig. 7) and withdraw the capstan motor downward from the drive assy.

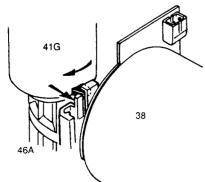
The reassembly is carried out in reverse order. Make sure that the capstan is free of grease.



4.1.7 Pressure roller (Pos. 37)

- Set the drive assy to "Eject" position.
- Unhook and remove the pressure roller tension spring.
- Release the pressure roller guide (pos. 41G) from the guide in the threading motor holder by pressing the top of the motor guide rearwards and rotating the pressure roller guide assembly clockwise by approximately a quarter of a turn. (See Fig. 8) The pressure roller and guide can now be lifted clear.





Ensure that no grease from the pressure roller guide gets to the capstan or pressure roller.

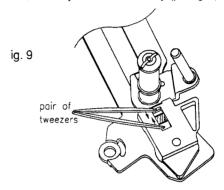
The reassembly is carried out in reverse order.

4.1.8 Roller unit right (Pos. 26)

- Set the drive assy to "Eject" position.
- Compress the two snap hooks by means of a pair of tweezers and remove the roller assy from the roller unit right (Fig. 9).
- Unhinge the loading arm right from the holding plate and push the latter towards the front of the deck to remove from the guide (right).

NOTE During reassembly ensure the link from 25B is engaged in the hole of the holder plate 26

After replacing the roller unit (right), the tape path has to be checked, and adjusted if necessary (paragraph 4.2.1).



4.1.9 Roller unit left (Pos.23)

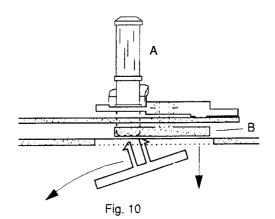
- Set the drive assy to "Eject" position.
- Unhook the tension arm spring (pos. 11), to avoid the tension arm spring being pre-loaded.
- At the bottom side of the drive assy, partially unhinge the sensor mounting print and remove the tension lever (pos.112).
- Compress the two snap hooks by means of a pair of tweezers (Fig. 9)and remove the roller assy (A) from the plate (B).
- Unhinge the loading arm (left) from the holding plate and remove the latter downward from the drive assy through the recess in the chassis (Fig. 10).

The reassembly is carried out in reverse order.

NOTE: During reassembly

- 1. Place the carriage holding plate in the assembly with the half-round cutout nearest the rear of the deck.
- 2. When the loading arm is refitted ensure the pin on the underside of 23 is through the link of 24B.

After replacing the roller unit (Left) the tape path has to be checked (paragraph 4.2.1.), and adjusted if necessary.



4.1.10 Sensor print assy (Pos. 118)

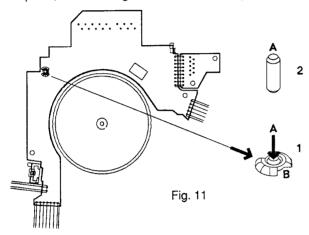
For circuit diagram and electrical data see deck electronics (chapter 3).

If a part of the sensor print is defective the whole sensorprint has to be replaced.

Proceed as follows:

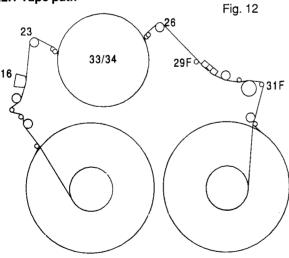
- Remove the deck assembly from the set.
- Press the stud A of rivet B right through rivet B. (It can be recovered from the lower support after the board is lifted.) (Fig. 11).
- Lift the sensor print vertically, it is plug and socket connected to the capstan motor print.
- All other parts are attached by means of snap hooks and are easily freed.

Reassembly is carried out by snapping the snap hooks into place, and inserting the rivet B followed by stud A.



4.2 Adjustments

4.2.1 Tape path



4.2.1.1 Roller left unit/roller unit right

Preparation:

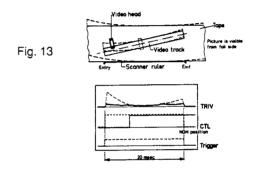
- Connect one input of a dual trace oscilloscope to observe the tape sync pulse CTL. The other input (DC coupled) to observe the tracking information TRIV.
- Trigger the oscilloscope externally on the head pulse HP1
- Playback the black and white section of the alignment test tape.

- Set the deck in the condition where the video heads are running along the upper edge of the tracks only by:
- 1. Pressing the auto tracking button and watch the tape sync pulse move to the left in relation to the TRIV signal.
- 2. Note the extreme left hand position reached by the sync pulse, repeat as necessary.
- 3. Stop the movement of the pulse when the TRIV signal reduces to 1/2 to 2/3 maximum amplitude by pressing the normal play button. A noisy picture (disturbances) is visible on the TV set and the CTL pulse should be to the left of the display.

The machine will retain this position in memory until an eject is carried out. This condition works only if X-distance is adjusted.

Adjustment:

Adjust the left and right roller units to make the tracking signal TRIV straight and flat as possible (Fig. 13).



4.2.1.2 A/C Combi head

Tilt angle adjustment

- Set the drive to feature mode (e.g. +7)
- By means of the tilt angle adjusting screw move the tape until the lower edge just touches the tape guide A1 (see Fig. 14) the tape must not be distorted at the lower edge (by pressing onto guide).

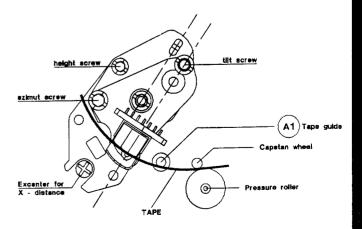


Fig. 14

Adjustment of the azimuth angle and the head height

- Connect an oscilloscope to the linear Audio output.
- Play the section of the test cassette with the audio signal 400 Hz.
- Adjust for maximum output voltage by means of the height adjustment screw
- Play the section of the test cassette with the audio signal 8 kHz.
- Adjust to maximum output voltage by means of the azimuth adjustment screw (Fig. 14).
- If necessary, repeat this procedure
- Check the tilt angle adjustment

If the tape path was completely out of adjustment or if several components in the tape path have been replaced, it is possible, that the adjustments described in paragraph 4.2.1.1 and paragraph 4.2.1.2 have to be repeated several times.

4.2.2 Adjustment of the horizontal distance (x distance)

- Before this adjustment is carried out, insert the test cassette (start from Eject position). Call the service test program (tracking value will take up its nominal position) and press the "play" button.
- Playback the black/white part of the test cassette.)
- Display the TRIV signal on an oscilloscope (DC-coupled) and adjust for maximum voltage by means of the eccentric screw (Fig. 14)

4.2.3 Brake band adjustment

- Set the drive to "Play"
- Adjust the brake band by means of adjusting tool (from the underside of the drive), until the edge of the elbow of the tape tension arm overlaps with the left inner edge of the left guide by 0.5mm (see Fig. 15)

4.2.4 Tape tension adjustment

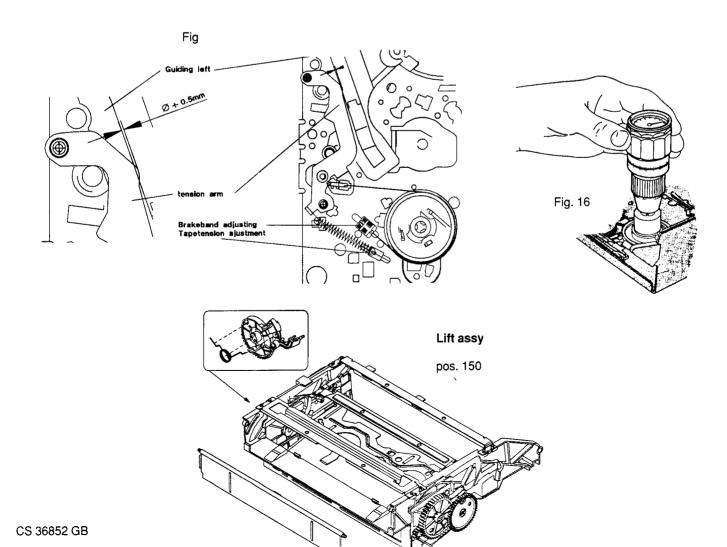
- Play a VCR cassette (E 180) starting from the beginning of the tape.
- Measure the tape tension before the roller unit left by means of a tentelometer.
- Adjust the tension arm spring (pos.11) to a tape tension of 0,24 N ± 0,02 N (24 g 2 g) by means of the adjustment tool (from the underside of the drive, Fig. 15).

4.2.5 Friction clutch control check

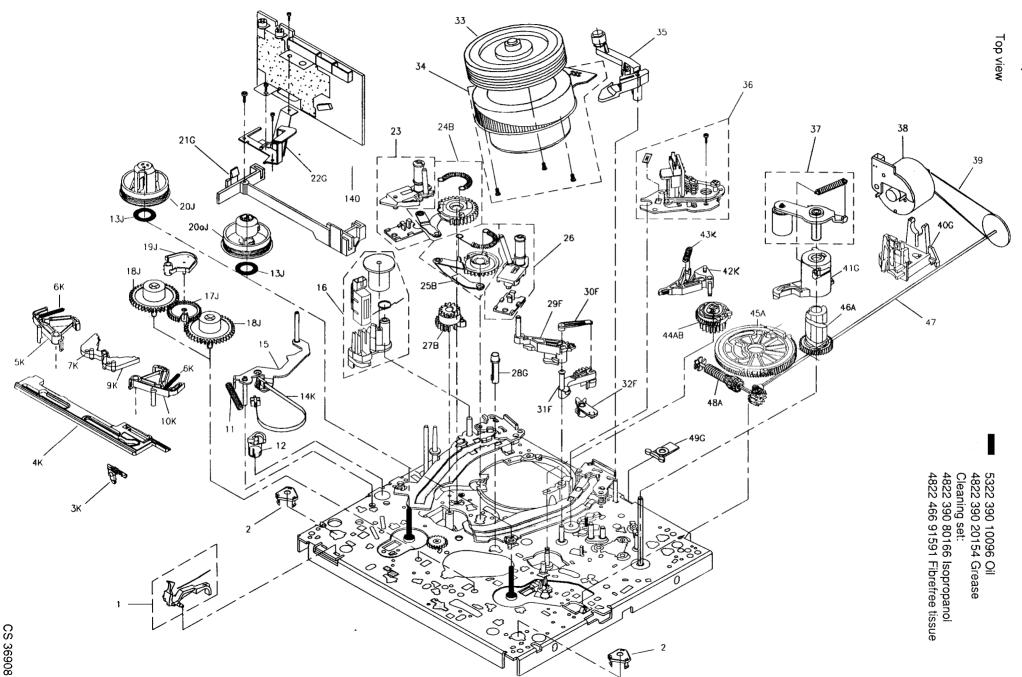
- Set the drive to "Play" position.
- Place the torquemeter on the right reel.
- Turn the capstan motor to move the right reel clockwise.
- Keep turning, until the indication at the torquemeter no longer changes (Fig. 16)
- The torque has to be 10,5 mNm \pm 25% (105 gFcm 25%)

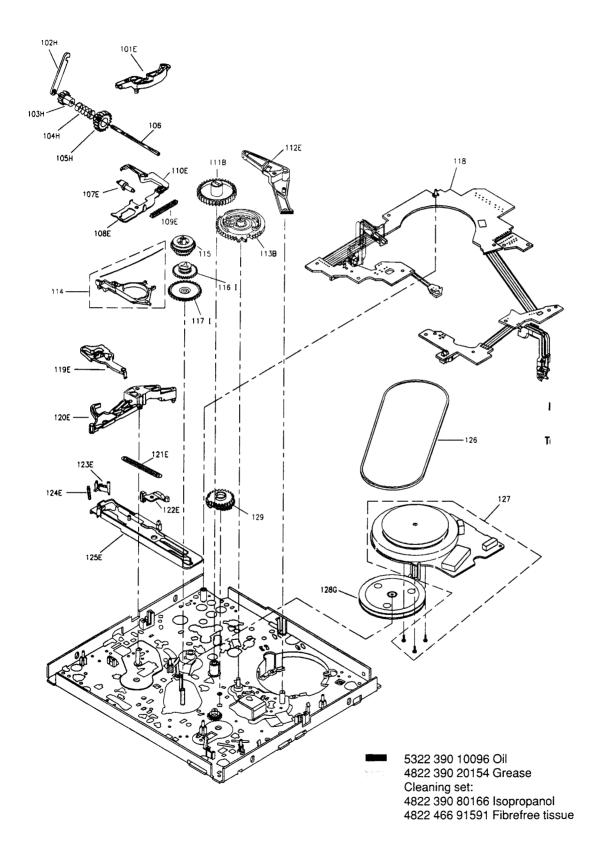
4.2.6 Reverse brake control

- Set the drive to "Reverse" position.
- Place a torquemeter on the right reel and turn the latter counterclockwise, until the reel just starts to flip.
- The value indicated at the torquemeter has to be 15mNm ± 25% (150 gFcm 25%) (Fig. 16).



4.3 Exploded view





4.4 Partslist

Pos.	Description	KIT's							Code number 4822		
		Α	В	E	F	G	Н	Π	J	K	
1	Rec.protection lever										403 70546
2	(with spring) Chassis mounting			<u> </u>							492 71022
	spring (2x)		L_	ļ	<u> </u>						
3	Trigger lever				L			L		K	
4	Trigger slider					_				K	
5	Main brake left		L	ļ		L			<u> </u>	K	
6	Main brake spring (2x)								ļ	K	
10	Main brake right									K	
11	Tension arm spring										492 33317
12	Tension crank							L			403 70551
13	Slip ring								J	L_	
14	Tension band									K	
15	Tension arm										403 70547
16	Erase head					Г				Γ	249 40293
17	Swivelling gear								J	Π	
18	Brake gear (2x)								J		
19	Swivelling plate			ļ —	-				J		
20	Reel table (S)	_	_						J		
	Reel table (T)	-	-			_			J		
21	Headamplifier holder	<u> </u>				G			-		
22	Bracket		-	 		G				<u> </u>	
23	Roller unit left	_		 		Ĭ		-	-	+-	528 70771
24			В					\vdash	1		02070777
25			В	 	-		-	-	╁		
	Loading arm right		В		-		-		\vdash	-	528 70772
26			В		-	<u> </u>		-	-	<u> </u>	320 10112
27	Loading gear		В	┝	-	G	-	-	┢		
28	Light prism				F	G		 	 	-	-
29	Index lever		H	-	F	-	-		\vdash	\vdash	1
30	Reverse clip		\vdash	-	F	├	-	-	-	-	
31	Reverse lever		<u> </u>	-	F			-	-	-	-
32	Intermediate lever		-	-	F	-	-	_	\vdash	-	004.00500
33	Head disc 4/2	-	<u> </u>	-		-	-		-	-	691 20528
34	Scanner motor 4/2										361 21547
	(with screws)		-	-	_	<u> </u>		-	-	-	500 7077
35	Cleaning roller		-	-	\vdash	_		\vdash	<u> </u>	ļ	528 70773
36	A/C Head (with clip										249 10468
	and screws)	_	<u> </u>	<u> </u>	-	<u> </u>		-	-	\vdash	F06 = 6 = 5
37	Pressure roller							1			528 70774
	(with spring)	_	-	<u> </u>	-	_	<u> </u>	 	-	├-	
38	Threading motor		_	↓_	_	<u> </u>		ļ	\vdash	_	361 21486
39	Threading belt	<u> </u>		<u> </u>	_	ļ	ļ		-	↓_	358 20421
40	Motor holder	$\bot \bot \bot$		_	_	G	ļ		<u> </u>	ļ	
41	Pressure roller guide			_	G		_	<u> </u>			
42	Reverse brake			L	ļ		L	_	K	ļ	
43	Reverse brake spring	<u> </u>				L	L	<u> </u>		K	ļ
44	Slider gear	Α	В	L		<u> </u>	<u> </u>	L	<u> </u>		
45	Cam wheel	Α		Ĺ			L	L			
46	Cam shaft	Α									
47	Pulley shaft				Г			Γ	Γ		528 81462

Pos.	Description KIT's					ī	Code number 4822				
		Α	В	E	F	G	Н	1	J	K	
48	Worm shaft	Α									
49	Chassis mounting clip					G		L			
101	Casette loader trigger	_		Е					_	<u> </u>	
102	Clip						Н	_			
103	Casette loader gear 1			<u></u>			Н	_			
104	Casette loader spring						Н		L		
105	Casette loader gear 2		<u>L</u>	L			Н				
106	Spindle								_	_	535 93277
107	Pulse roller			Ε		_					
108	Pulse slider			E							
109	Pulse slider spring			Ε	_						
110	Pulse lever	L		E							
111	Cam wheel reverse	<u> </u>	В							_	
112	Tension lever			Ε		L				L	
113	Cam wheel tension	_	В			_	<u> </u>				
114	Clutch lever										403 70549
	(with spring)										
115	Clutch						L			<u> </u>	528 20736
116	Changing gear						_	1	_		
117	Double gear							1		<u> </u>	
118	Sensor print					ŀ					214 33758
	(with stud and rivet)										
119	Main slider lever			Ε				_			
120	Cam wheel lever			Ε	_						
121	Slider spring			Ε		_	<u> </u>				
122	Clutch slider			Ε		_		L			
123	Slider lever trigger	_	<u> </u>	Ε						<u> </u>	
124	Slider lever spring			E	L		_		_	1	
125	Main slider			E					<u></u>	L	
126	Driving belt		ļ	<u> </u>	_	-	_	_		_	358 31166
127	Capstan motor					`					361 21484
	(with screws)				_	L.	L	_	L	ļ	
128	Gear pulley	ļ	ļ			G		_		_	
129	Reverse kicker (with			ļ							522 20451
	transmission gears) *)	-	├	-	_			-	-	-	200 40007
140	Flex cable	-	-	-		-	-			<u> </u>	320 40287
150	Lift		├-	-	\vdash	<u> </u>		ļ.—	-	-	443 63702
 	4 (000 7015)		_	 	-	-	-	<u> </u>	\vdash	-	210 21054
KIT	A (SBC 7010)	-		-	-	-	-		-	-	310 31954
KIT	B (SBC 7111)		-		-	-	<u> </u>	\vdash	-	\vdash	310 31955
KIT	E (SBC 7114)			-	310 31958						
KIT	F (SBC 7115)			-	310 31959						
KIT	G (SBC 7116)			+	310 31961						
KIT	H (SBC 7117)	ļ			+-	310 31962					
KIT	I (SBC 7118)	<u> </u>			+-	310 31963					
KIT	J (SBC 7119)	 	<u> </u>	-	-		-		_	+-	310 31996
KIT	K (SBC 7120)						310 31997				

^{*)} optional

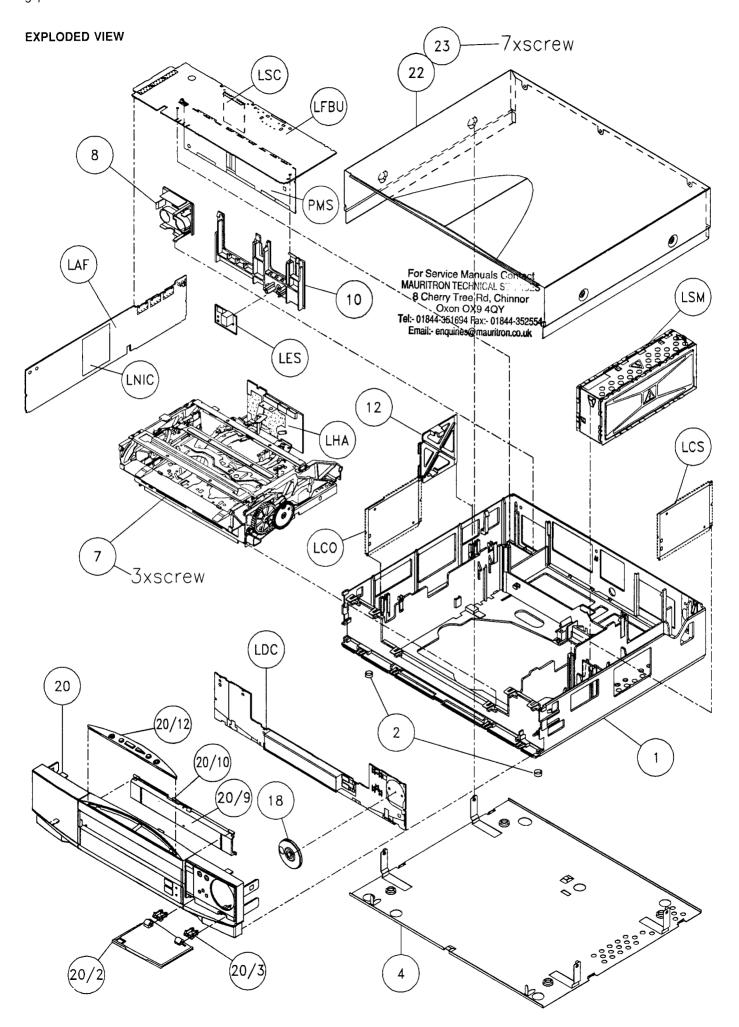
For getting a high repair standard all spare parts included in a kit have to be replaced with the exception of kit E and kit G.

What are the benefits of service kits:

A better quality of repair (not only the defect part is replaced but also the related affected parts).

A faster repair (all the parts are already collected and are focussed on the problem).

A cheaper repair (parts are manufactured with the same parrts used for production, giving a high quality for lowest price).



		CABINET PARTS	GEHÄUSETEILE	PIECES DE PRESENTATION
1	4822 464 50907	Frame	Rahmen	Boîtier
2	4822 462 41806	Foot	Fuss	Pied
4	4822 443 51235	Bottom	Boden	Fond
7	4822 502 13884	Screw	Schraube	Vis
8	4822 444 60842	Cover	Abdeckung	Couvercle
	4822 462 71876	Cover only for SECAM	Abdeckung nur für SECAM	Couvercle seul pour SECAM
10	4822 466 93136	I/O Block	I/O Block	I/O bloc
12	4822 256 91917	Support	Halterung	Support
18	4822 413 41721	Rotary knob	Drehknopf	Tourbouton
20	4822 443 41186	Control panel	Bedienpaneel	Panneau de commande
		(VR722/02/08)	(VR722/02/08)	(VR722/02/08)
	4822 444 30445	Control panel	Bedienpaneel	Panneau de commande
		(VR722/05/13) .	(VR722/05/13)	(VR722/05/13)
	4822 443 41188	Control panel (VR723/02)	Bedienpaneel (VR723/02)	Panneau de commandeVR723/02
	4822 443 41187	Control panel (VR723/05)	Bedienpaneel (VR723/05)	Panneau de commandeVR723/05
	4822 443 41186	Control panel (VR7229)	Bedienpaneel (VR7229)	Panneau de commandeVR7229
20/2	4822 443 63746	Key flap (VR722)	Tastenklappe (VR722)	Touche clapet (VR722)
	4822 443 63756	Key flap (VR723)	Tastenklappe (VR723)	Touche clapet (VR723)
	4822 443 63755	Key flap (VR7229)	Tastenklappe (VR7229)	Touche clapet (VR7229)
20/3	4822 417 11171	Hinge	Scharnier	Charnière
20/9	4822 443 63747	Lift flap	Liftklappe	Clapet (VR422,VR522)
20/10	4822 492 70896	Spring	Feder	Ressort
20/12	4822 466 93188	Switchplate	Tastenblock	Clavier
	4822 466 82927	Switchplate (only for VR7229)	Tastenblock (nur für VR7229)	Clavier (seul pour VR7229)
22	4822 443 63745	Cover	Deckel	Couvercle Vis c-torx M3x6
23	4822 502 13173	Screw c-torx M3x6	Schraube c-torx M3x6	Cordon secteur
	4822 321 10249	Mains cord	Netzkabel	Cordon secteur (seul pour /05)
	4822 321 10886	Mains cord (only for /05)	Netzkabel (nur für /05)	Cable d'antenne (PAL)
150/2	4822 321 23415	Antenna cable (PAL)	Antennenkabel (PAL)	Cable d'antenne (SECAM L)
150/11	4822 321 23516	Antenna cable (SECAM L)	Antennenkabel (SECAM L) Scart Kabel	Cable scart
150/14	4822 321 61282	Scart cable	Scart Nabel	Capic Scalt

		ONDERDELEN APPARAAT	COMPONENTES MUEBLA	PARTI DEL MOBILE
1	4822 464 50907	Frame	Bastidor	Carcassa
2	4822 462 41806	Voet	Pie	Piede
4	4822 443 51235	Bodem	Fondo	Fondo
7	4822 502 13884	Schroef	Tornillo	Vite
8	4822 444 60842	Deksel	Tapa	Coperchio
	4822 462 71876	Deksel aleen voor SECAM	Tapa sólo para SECAM	Coperchio solo per SECAM
10	4822 466 93136	I/O blok	Bloque I/O	Blocco I/O
12	4822 256 91917	Steun	Perno	Perno
18	4822 413 41721	Draaiknop	Botón giratorio	Bottone girare
20	4822 443 41186	Bedienpaneel (VR722/02/08)	Panel de mandos (VR722/02/08)	Pannello di comandi (VR722/02/08)
	4822 444 30445	Bedienpaneel (VR722/05/13)	Panel de mandos (VR722/05/13)	Pannello di comandi (VR722/05/13)
	4822 443 41188	Bedienpaneel (VR723/02)	Panel de mandos (VR723/02)	Pannello di comandi (VR723/02)
	4822 443 41187	Bedienpaneel (VR723/05)	Panel de mandos (VR723/05)	Pannello di comandi (VR723/05)
	4822 443 41186	Bedienpaneel (VR7229)	Panel de mandos (VR7229)	Pannello di comandi (VR7229)
20/2	4822 443 63746	Toetsklep (VR722)	Teclado ventana(VR722)	Tastiera sportello (VR722)
	4822 443 63756	Toetsklep (VR723)	Teclado ventana(VR723)	Tastiera sportello (VR723)
	4822 443 63755	Toetsklep (VR7229)	Teclado ventana (VR7229)	Tastiera sportello (VR7229)
20/3	4822 417 11171	Scharnier	Bisagra	Cerniera
20/9	4822 443 63747	Liftklep	Ventana	Valvola
20/10	4822 492 70896	Veer	Muelle	Molla
20/12	4822 466 93188	Toetsenpaneel	Teclado de mandos	Tastiera di comandi
	4822 466 82927	Toetsenpaneel (VR7229)	Teclado de mandos (VR7229)	Tastiera di comandi (VR7229)
22	4822 443 63745	Deksel	Tapa	Coperchio
23	4822 502 13173	Schroef c-torx M3x6	Tornillo c-torx M3x6	Vite c-torx M3x6
150/1 \$	4822 321 10249	Netkabel	Cable de red	Cavo di rete
\$	4822 321 10886	Netkabel (alleen voor /05)	Cable de red (sólo para /05)	Cavo di rete (solo per /05)
150/2	4822 321 23415	Antennekabel (PAL)	Cable de antena (PAL)	Cavo d'antenna (PAL)
	4822 321 23516	Antennekabel (SECAM L)	Cable de antena (SECAM L)	Cavo d'antenna (SECAM L)
150/14	4822 321 61282	Scartkabel	Cable de scart	Cavo di scart