SHARP SERVICE MANUAL

TVSM383455VCR

VHS VIDEO CASSETTE RECORDER

MODELS VC-381H,W/VC-383H

For Service Manuals Contact
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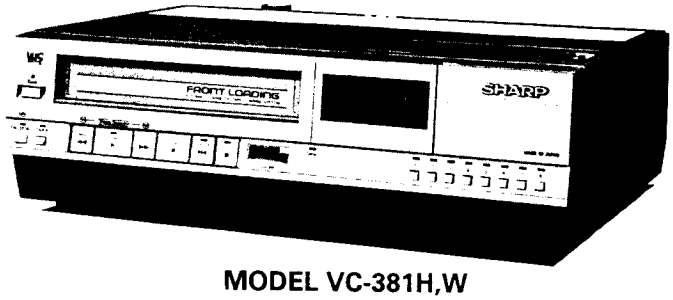
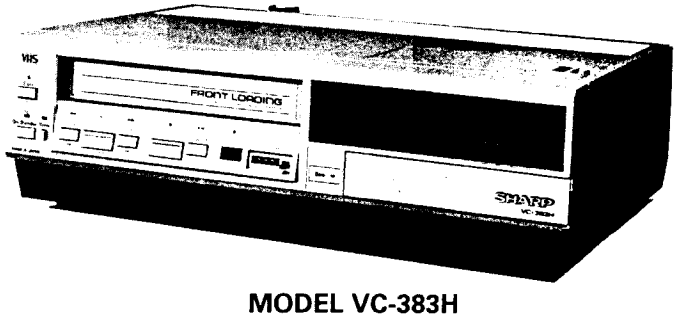


MODEL VC-381H,W



MODEL VC-383H

CONTENTS

SPECIFICATIONS

Format:	VHS PAL standard
Video recording system:	Two rotary head helical scan system
Video signal:	PAL colour and B/W signals, 625 lines
Recording/playing time:	4 hours max. with SHARP E-240 tape
Tape width:	12.7mm
Tape speed:	23.39mm/sec
Antenna:	75 ohm unbalanced
Receiving channel:	UHF channel 21 – 69
RF converter output signal:	UHF channel 30 – 39 (adjustable)
Power requirement:	AC 240V, 50Hz (VC-381H/VC-383H), AC 200V, 50z (VC-381W)
Power consumption:	Approx. 32W (with anti dew heater)
Operating temperature:	5°C to 40°C
Storage temperature:	−20°C to 55°C
Weight:	9.2kg
Dimensions:	430mm(W) × 362mm(D) × 133mm(H)
Video	
Input:	1.0Vp-p, 75 ohm
Output:	1.0Vp-p, 75 ohm
Audio	0 dB = 0.775V rms
Input:	Line: −20 dB, more than 50k ohm
Output:	Line: −5 dB, less than 1k ohm
ACCESSORIES INCLUDED	Antenna 75 ohm coaxial connector cable (plug provided) Owner's manual Pause/Still Video Search (Forward and Reverse), FF, Rew, Play, Stop, Wired Remote Control Unit. (VC-381W ... Only)
*	Design and Specifications subject to change without notice.
Note:	The antenna must correspond to the new standard DIN 45325 (IEC 169-2) for combined UHF antenna with 75 ohm connector.

REMOVAL OF MAIN PARTS

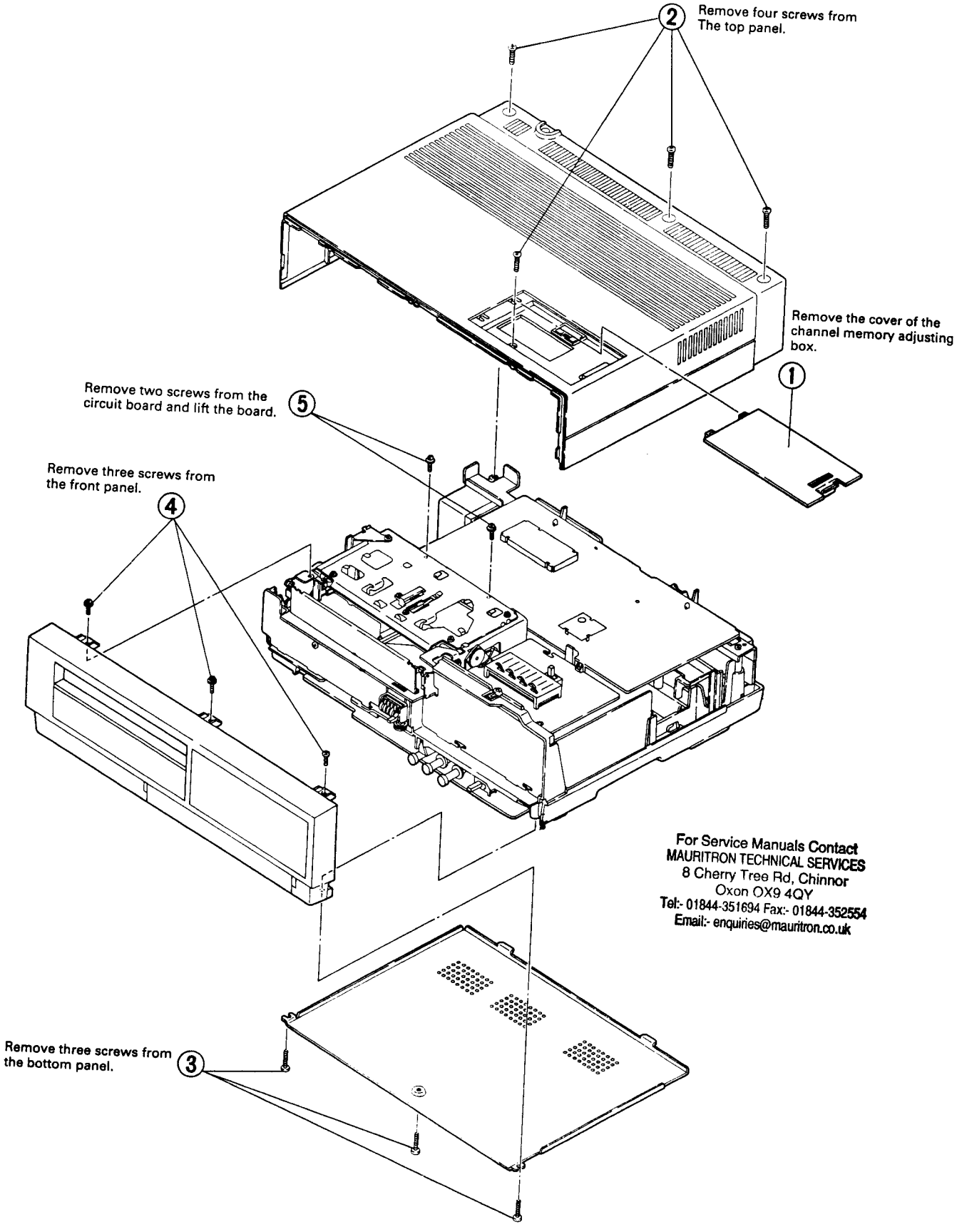


Figure 1.

MECHANICAL PARTS – LIST AND LAYOUT

- **Top view**

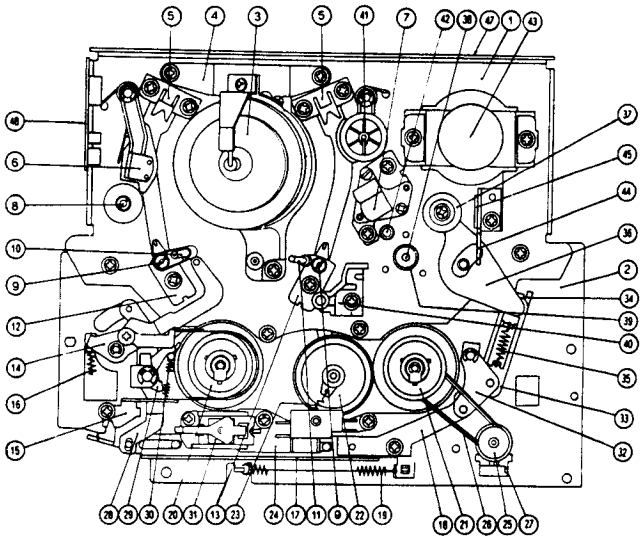


Figure 2.

- **Bottom view**

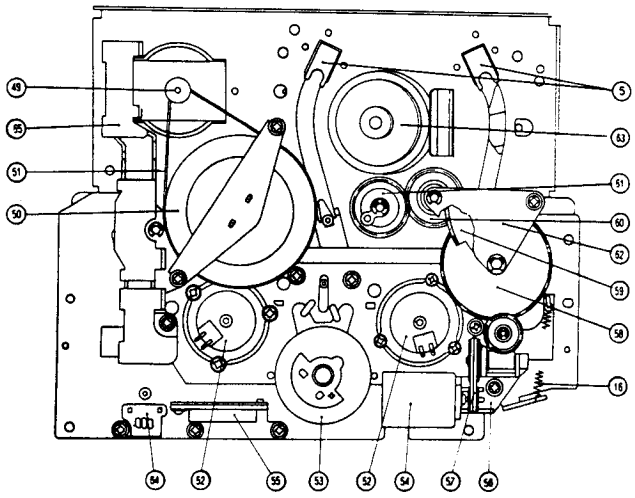


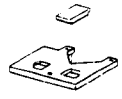
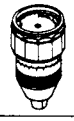
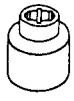
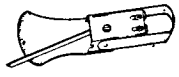
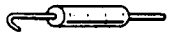
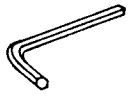
Figure 3.

No.	Description	No.	Description	No.	Description
1	A-chassis	23	Reel idler spring	45	DEW-sensor
2	B-chassis	24	Cassette down SW holder	46	Anti-jam angle
3	Drum	25	Reel pulser	47	Mechanism platform
4	V-base	26	Counter belt B8010	48	DPG plate
5	V-block (T/S)	27	Reel sensor	49	Capstan pulley
6	FE head	28	Shifter arm	50	Capstan flywheel
7	AC head	29	Auxiliary brake	51	Capstan belt
8	SI roller	30	Auxiliary brake spring	52	Reel brake unit
9	Guide roller (T/S)	31	Cassette down switch	53	Reel motor
10	S-slant pole	32	Pinch roller drive lever	54	L motor
11	T-slant pole	33	Pinch roller double-action lever U	55	Slide switch
12	Pole base A	34	Pinch roller double-action lever L	56	L-block
13	Pole base B	35	Pinch roller pressure spring	57	Loading belt
14	Tension arm	36	Pinch roller lever	58	Master cam
15	Tension band assembly	37	Pinch roller	59	Segment gear
16	Tension arm spring	38	Capstan shaft	60	Loading gear A
17	Shifter A	39	Capstan holder	61	Loading gear B
18	Shifter B	40	Cassette lamp	62	Loading gear plate
19	Shifter spring	41	TI roller	63	Drum DD motor
20	Supply reel disk	42	Fixed guide	64	Reel sensor base
21	Take-up reel disk	43	Capstan motor	65	Wire holder
22	Reel idler	44	Open angle		

ADJUSTMENT, REPLACEMENT, ASSEMBLING, CLEANING OF THE MECHANICAL UNITS

We will here describe a relatively easier service work (at the field) not referring to the more complicated work which requires a high technique (maybe with the assistance by special equipment and tools)-leave only a qualified man to the drum assembly or replacement, for example. Of course, various easy-to-handle tools are needed for a periodical maintenance to keep the machine best in its original efficiency.

- **TOOLS NECESSARY FOR ADJUSTING THE MECHANICAL UNITS**
  The following tools are recomended for proper service and satisfactorily repair.

	Jig Item.	Parts No.	Configuration.	Remarks
1	Master Plane and Reel Disk Height Adjusting Jig.	JiGMA0001		This jig is used for checking and adjusting of relative mechanical heights between Real Disk and Stay.
2	Guide Pole Height Adjusting Jig.	JiGGH0110		This jig is used for height adjustment of the running tape to Video Head
3	X-Position Adjustment Jig.	JiGXP0004		This jig is used for adjusting A/C, AE Head, and has a special configuration.
4	Torque Gauge	JiGTG1200		These jigs are used for checking and adjusting the torque of Take up/Supply Reel.
	Torque Gauge	JiGTG0090		
5	Gauge Head	JiGTH0006		
6	Tension Gauge (300g)	JiGSG0300		There are several Gauges used for the tension measurements, and required 300g and 5.0kg.
	Tension Gauge (5.0kg)	JiGSG5000		
7	Hex Wrench (0.9mm)	JiGHW0009		These jigs are used for locking or tightening special Hexagon type screws.
	Hex Wrench (1.2mm)	JiGHW0012		
	Hex Wrench (1.5mm)	JiGHW0015		
8	Alignment Tape (PAL)	VROAMSV		This tape is especially used for electrical fine adjustment.
9	Drum Replacement Jig	JiGDT-0001		These jigs are used for the replacement of VCR's upper drum.
10	DD Roter Ass'y Setting Jig	JiGGAST110		This jig is used for the replacement of D.D. Motor

MECHANICAL PARTS REQUIRING PERIODICAL INSPECTION

Use the following table as a guide to maintain the mechanical parts in good operating condition all the time.

Component \ Hours	500 hrs.	1,000 hrs.	1,500 hrs.	2,000 hrs.	3,000 hrs.	Remarks
Guide roller assembly	□	□	□	□	□	Replace one if it runs improperly or sways.
SI roller	□	□	□	□	□	
SI roller inner		□		□	□	Clean with industrial methyl alcohol.
SI roller flange A	□	□	□	□	□	Clean the tape passages. Use the designated cleaning liquid.
SI roller flange B	□	□	□	□	□	
TI roller	□	□	□	□	□	
Fixed guide	□	□	□	□	□	
Guide flange B	□	□	□	□	□	
Slant pole	□	□	□	□	□	
Video head	□	○ □	□	○ □	○ □	Clean the tape passages. Use the designated cleaning liquid.
FE head	□	□	□	□	□	
AC head	□	□	□	□	□	
Loading belt		□		○		Clean rubber parts and where coming into contact with rubber. Use the designated cleaning liquid.
Capstan belt		□		○		
Counter belt				○		
Pinch roller	□	□	□	□	○ □	
Reel idler	□	□	□	□	○ □	
Reel motor pulley	□	□	□	□	□	Clean parts which come into contact with rubber.
Reel motor				○		
Capstan motor				○		
Loading motor				○		
Supply & take-up reel disks		□ △		□ △		Clean with industrial methyl alcohol.
Tension band assembly					○	
Brake unit					○	

○: Replace □: Clean △: Oil

CASSETTE HOUSING REMOVAL AND REASSEMBLY

- **How to remove**
  1) Keeping a cassette tape down in the operating position, remove two screws fastening the down guide then the down guide itself.
  2) Depress the eject button and remove the cassette tape.
  3) Disconnect the connector at the left side of the cassette housing. (Be careful not to break off leads.)
  4) Remove four screws fastening the cassette housing. Then pull out the cassette controller assembly right upward.

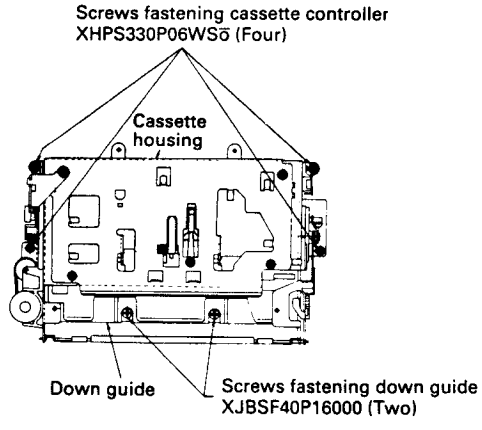


Figure 4.

- **Precautions for removal and reassembly**
  1) When removing or replacing the cassette housing, move it straight upward or downward from or to its position. Do not let it contact nearby guide pins.
  2) The down guide is positioned by the fixed guides located on both sides at the inside of the cassette housing. Align the down guide accurately with the positioning guides.
  3) When unscrewing or screwing the cassette housing, be sure to disconnect the connector at the left side of the cassette housing.

- **Reassembly**
  1) Place the cassette housing at its position and fasten it with four screws (XHPS330P06WSō).
  2) Connect the connector at the left side of the cassette housing.
  3) Place the down guide at its position and fasten it with two screws (XJBSF40P16000).

WHEN RUNNING TAPE WITHOUT CASSETTE HOUSING PLACED

1) Open the lid of the video cassette tape and fasten it with PVC tape.
2) Load the video cassette tape to its position in the transport. Pace a weight (of some 500g) on it to prevent it from moving up away.
   Note: Do not use a weight heavier than 500g.

REEL DISK REPLACEMENT AND HEIGHT CHECK

- **Removal**

(Supply reel disk)
  1) Remove the tension band.
  2) Remove E-ring (1).
  3) Remove clearance-adjusting washer (2).
  4) Remove supply reel disk (3) upward.

(Take-up reel disk)
  1) Remove counter belt (6).
  2) Remove E-ring (1).
  3) Remove clearance-adjusting washer (2).
  4) Remove take-up reel disk (4) upward.
     - Remove height-adjusting washer (5) at the same time and clean it.

Precaution:
1. Be sure to adjust reel disk height when replacing it to its position.
2. Be careful not to deform the tension hand during removal and reassembly.
3. Use care not to deform the auxiliary brake lever.
4. Check and adjust the position of the tension pole.
5. The supply reel disk is to engage with the pawl of the slip plate of the reel unit. Turn the reel disk lightly by hand to assemble them.

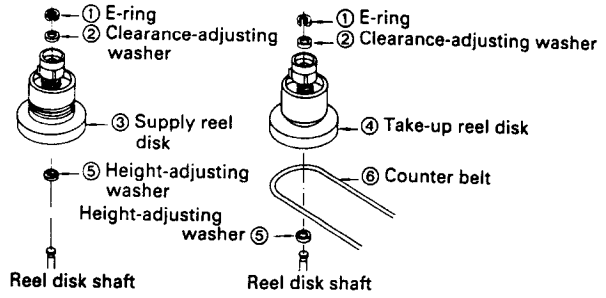


Figure 5.

- **Reassembly**

(Supply reel disk)
  1) Clean the reel disk shaft and place height-adjusting washer (5).
  2) Place a new supply reel disk.
  3) Adjust reel disk height with the master plane and reel height adjusting jig.
  4) Remove the new supply reel disk and, after applying oil to the reel disk shaft, replace the supply reel disk back.
  5) Place clearance-adjusting washer (2). (Play of the reel disk should be 0.1 – 0.5mm in the direction of the shaft.)
  6) Place E-ring (1).
  7) Place the tension band.

(Take-up reel disk)
  1) Clean the reel disk shaft and place height-adjusting washer (5).
  2) Place a new take-up reel disk.
  3) Adjust reel disk height with the master plane and reel height adjusting jig.
  4) Remove the new take-up reel disk and, after applying oil to the reel disk shaft, replace the take-up reel disk back.
  5) Place clearance-adjusting washer (2). (Play of the reel disk should be 0.1 – 0.5mm in the direction of the shaft.)
  6) Place E-ring (1).
  7) Place counter belt (6).

Precaution:
1. Use care not to scratch the reel disk shaft with the E-ring and tools during removal and reassembly.
2. Check V/S back tension according to 9 page after reassembly.
3. The take-up reel disk is to engage with the pawl of the slip plate of the reel unit. Turn the reel disk lightly by hand to assemble them.

HEIGHT CHECK AND ADJUSTMENT

1) Remove the cassette housing. Set the master plane in the mechanism as shown in Figure 6(a). Use care so that the master plane should not contact the drum.
2) Using the reel disk height adjusting jib, check if the top of the reel disk is lower than A and higher than B (see Figure 6(b)). If the height is wrong, make adjustment with height-adjusting washer(s).
   Vertical play should be 0.1 – 0.5mm finally.
   Caution: After reel disk replacement, be sure to check and adjust its height.

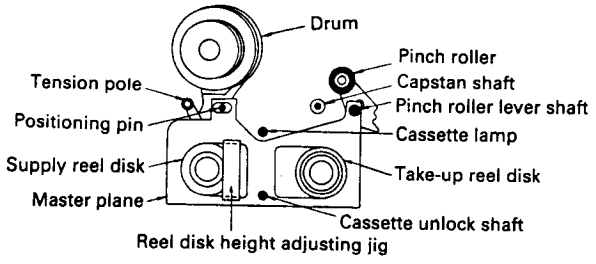


Figure 6(a).

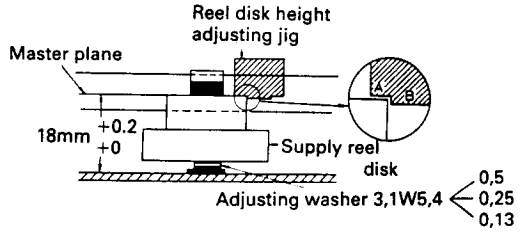


Figure 6(b).

FAST-FORWARDING/WINDING TORQUE CHECK AND ADJUSTMENT

Precautions:

1. Use care so that the torque gauge mounted on the reel disk should not be driven away when the reel disk starts to run with the fast-forward button depressed.
2. Do not load any video cassette tape in this case.

- **Checking Procedure**
  1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
  2) Mount a torque gauge on the take-up reel disk. Depress the fast-forward button.
  3) Turn the torque gauge slowly (once for every 2-3 seconds) by hand for tighter torque. With a torque of more that 800g-cm, check that there is no slip between the reel idler and the reel motor pulley or take-up reel disk.

- **Adjustment**
  If fast-forwarding torque is not as high as specified, clean the reel motor pulley, reel idler, and take-up reel disk with the cleaning liquid then check torque again.

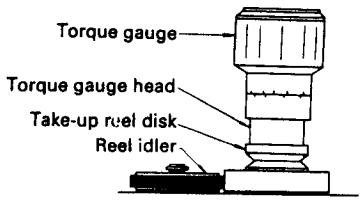


Figure 7(a).

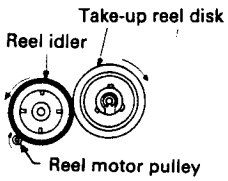


Figure 7(b).

REWINDING/WINDING TORQUE CHECK AND ADJUSTMENT

Precautions:

1. Use care so that the torque gauge mounted on the reel disk should not be driven away when the reel disk starts to run with the rewind button depressed.
2. Do not load any video cassette tape in this case.

- **Checking Procedure**
  1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
  2) Mount a torque gauge on the supply reel disk. Then depress the rewind button.
  3) Turn the torque gauge slowly (once for every 2-3 seconds) by hand for tighter torque. With a torque of more than 800g-cm, check that there is no slip between the reel idler and the reel motor pulley or supply reel disk.

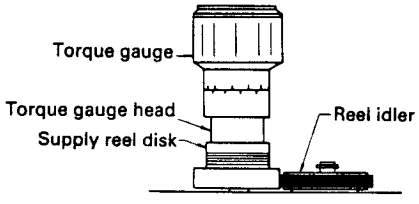


Figure 8(a).

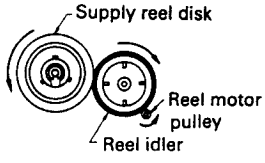


Figure 8(b).

- **Adjustment**
  If rewinding/winding torque is not as high as specified, clean the reel motor pulley, reel idler, and supply reel disk with the cleaning liquid then check torque again.

WIDING TORQUE CHECK AND ADJUSTMENT

- **Checking Procedure**
  1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
  2) Mount a torque gauge on the take-up reel disk. Turn the torque gauge in normal speed to confirm that the torque is in the range of (175 ±20)g-cm.

- **Adjustment (See Figure 9.)**
  1) If winding torque during play mode is not as specified, make adjustment with a variable resistor.

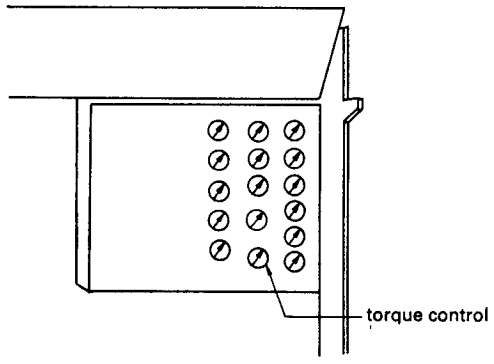


Figure 9.

CHECK OF FAST-FORWARD-TIME BACK TENSION

Precaution:

1. Mount the torque gauge properly on the reel disk. If it is not installed firmly, results of measurement might not be correct.
2. Fast-forward-time back tension is equal to loading back tension of the supply side. So, this step may not be performed if loading back tension has been checked.

- **Checking Procedure**
  1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
  2) Depress the fast-forward button.
  3) Mount a torque gauge on the supply reel disk. Turning it counterclockwise slowly (at a speed of a turn for every 2-3 seconds), check if the reading is in the range of 10 ~ 20g-cm.

CHECK OF REWIND-TIME BACK TENSION

Precaution:

1. Mount the torque gauge properly on the reel disk. If it is not installed firmly, results of measurement might not be correct.
2. Rewind-time back tension is equal to back tension of V/S-REW. So, this step may not be performed if back tension of V/S-REW has been checked.

- **Checking Procedure**
  1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
  2) Depress the rewind button.
  3) Mount a torque gauge on the take-up reel disk. Turning it counterclockwise slowly (at a speed of a turn for every 2-3 seconds), check if the reading is below 15g-cm.

CHECK OF VIDEO SEARCH FORWARD TIME BACK TENSION

Precaution:

1. Check and adjust back tension of V/S FWD time after adjustment of tension arm position.
2. Mount the torque gauge properly on the reel disk. If it is not installed firmly, results of measurement might not be correct.
3. If back tension of V/S FWD time is not in the range of 10 ~ 20g-cm adjust the auxiliary brake spring. Then check back tension again.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Hold the cassette down switch with PVC tape.
  3) Depress the play button.
  4) Selecting V/S FWD mode by depressing the V/S FWD button, check that auxiliary brake is acting on the supply reel disk.
  5) Mount a torque gauge on the supply reel disk. Turning it slowly (at a speed of a turn for every 2-3 seconds), check if the reading is in the range of 10 ~ 20g-cm.

CHECK OF VIDEO SEARCH REVERSE TIME BACK TENSION

Precaution:

1. Mount the torque gauge properly on the reel disk. If it is not installed firmly, results of measurement might not be correct.
2. Back tension of V/S REV time is equal to that of rewind time. So, this step may not be performed if back tension of rewind time has been checked.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Hold the cassette down switch with PVC tape.
  3) Depress the play button.
  4) Select V/S REV mode by depressing the rewind play button.
  5) Mount a torque gauge on the take-up reel disk. Turning it slowly (at a speed of a turn for every 2-3 seconds), check if the reading is smaller than 15g-cm.

CHECKING PROCEDURE OF PINCH ROLLER PRESSURE

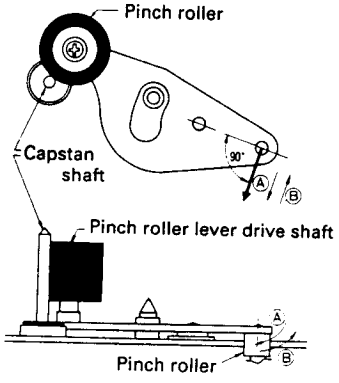


Figure 10.

1) Remove the cassette housing. Hold the cassette down switch with PVC tape.
2) Depress the play button.
3) Bring the pinch roller apart from the capstan shaft by pulling it in the direction of (A).
4) Permitting the pinch roller to return (move in the direction of (B)), measure force which the pinch roller exerts when it just contacts the capstan shaft. (Pull the pinch roller lever drive shaft with a spring balance to measure the force.)
5) Check that the reading is in the range of 1900 ~ 2740g-cm.

CHECKING PROCEDURE AND ADJUSTMENT OF CAPSTAN SHAFT-PINCH ROLLER CLEARANCE DURING PAUSE IN RECORD MODE

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Hold the cassette down switch with PVC tape.
  3) Depress the record button.
  4) Depress the pause button.
  5) In this condition, check by inspection that the clearance between the pinch roller and capstan shaft is 0.7 ~ 1.2mm.

- **Adjustment**
  1) If the pinch roller-capstan shaft clearance is not as specified, loosen the screw (XBPSD30P06JSō) which fastens shifters A and B and make adjustment.
  2) After adjustment, apply lock paint to the screw (XBPSD30P06JSō).

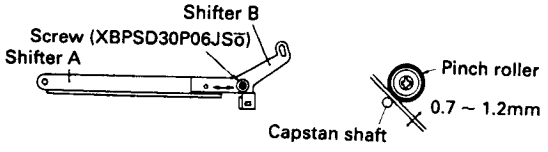


Figure 11.

CHECKING PROCEDURE OF REEL IDLER PRESSURE

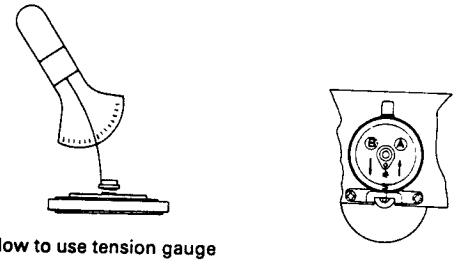


Figure 12.

1) Remove the cassette housing.
2) Move the reel idler toward the center (see Figure 12).
3) Separate the reel idler from the reel motor pulley by pushing the reel idler with a tension gauge in the direction of (A) (see Figure 12).
4) Permitting the reel idler to return in the direction of (B) slowly, check that the tension gauge reads 120 ~ 170g when the reel idler just comes into contact with the reel motor.

CHECKING PROCEDURE AND ADJUSTMENT OF TENSION POLE POSITION

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Load a video cassette tape and depress the play button.
  3) Loading starts when pole bases A and B draw tape out of the cassette and the tension pole moves to the left simultaneously. Check the position of the tension pole in this condition.
  4) Check by inspection that the center of the tension pole is 0.5 – 1.0mm on the left of the SI roller's center at around the end of tape (E-180).
  5) Check that the video tape is neither curled at the flange of the SI roller nor runs over the flange.
  6) Check that the tension band is released from the reel disk during video search.

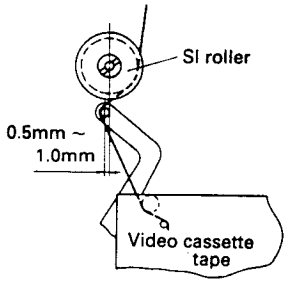


Figure 13.

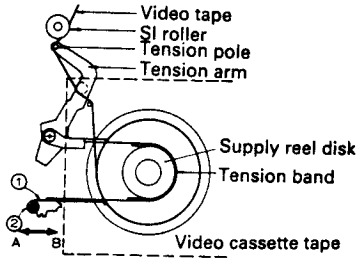


Figure 14.

- **Adjustment**
  1) If the distance between the tension pole and SI roller, measured at their centers, is smaller than 0.5mm, move tension band adjusting angle (1) in the direction of B (See Figure 14) then tighten screw (2).
  2) If the distance between the tension pole and SI roller, measured at their centers, is greater than 1.0mm, move tension band adjusting angle (1) in the direction of A (see Figure 14) then tighten screw (2).

Precaution:

1. Be sure to apply locking paint to the screw after adjustment.
2. Do not tighten the screw excessively: otherwise threads cut in the chassis would break.

CHECK AND ADJUSTMENT OF TENSION POLE VERTICALITY

- **Checking Procedure**
  1) Remove the cassette housing and hold the cassette down switch PVC tape.
  2) Install the fixed guide height adjusting jib as shown in Figure 15.
  3) Check veticality of the tension pole is perpendicular (90°) to the main chasis.

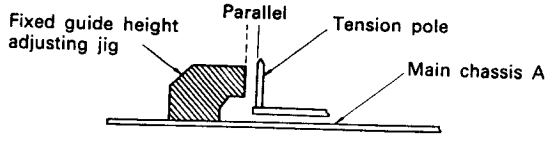


Figure 15.

CHECK AND ADJUSTMENT OF BACK TENSION DURING RECORD AND PLAYBACK

- **Checking Procedure**
  With the back tension test cassette
  1) Remove the cassette housing and hold the cassette down switch with PVC tape.
  2) Load the back tension test cassette tape.
  3) Depress the play button. Check that back tension is 50 – 57g-cm in play mode (look at the needle of the back tension test tape).
  4) Check that the video tape is running around the fixed guide.
  5) Check that the tape is tight and edges are not damaged at the beginning and end of tape.

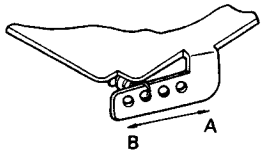


Figure 16.

- **Adjustment**
  1) If the tape tension is weak (smaller than 50 – 57g-cm), move the hook of the spring toward A (see Figure 16) and check tape tension again.
  2) If the tape tension is strong (smaller than 50 – 57g-cm), move the hook of the spring toward B (see Figure 16) and check tape tension again.
  3) When the hook of the spring has been moved, fasten it with bonding agent.

CHECKING PROCEDURE OF REEL BRAKE TORQUE

1. Checking prodedure of supply side medium brake
Precaution:

1. Check medium brake earlier than strong brake.
2. Make measurement within 10 seconds after plugging the power cord and remove the shorting.
3. Check supply side medium brake torque with rotation of both clockwise and counterclockwise directions.
4. Supply side medium brake torque should be more than 100g-cm which is less than half of take-up side strong brake.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Unplug the power cord and short the R803 side of R801 mounted on the system control board to the ground.
  3) Separate the reel idler from the supply reel disk and install a torque gauge.
  4) Plug the power cord.
  5) Turning the torque gauge slowly (at a speed of a turn for every 2-3 seconds), check that supply side medium brake torque is more than 100g-cm.

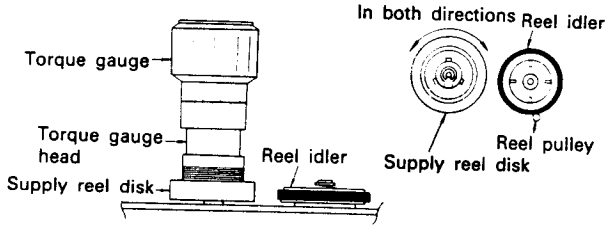


Figure 17.

2. Checking procedure of take-up side medium brake
Precaution:

1. Check medium brake earlier than strong brake.
2. Make measurement within 10 seconds after plugging the power cord and remove the shorting.
3. Check take-up side medium brake torque with rotation of both clockwise and counterclockwise directions.
4. Supply side medium brake torque should be more than 100g-cm which is less than half of supply side strong brake.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Unplug the power cord and short the R804 side of R802 mounted on the system control board to the ground.
  3) Separate the reel idler from the take-up reel disk and install a torque gauge.
  4) Plug the power cord.
  5) Turning the torque gauge slowly (at a speed of a turn for every 2-3 seconds), check that take-up side medium brake torque is more than 300g-cm.

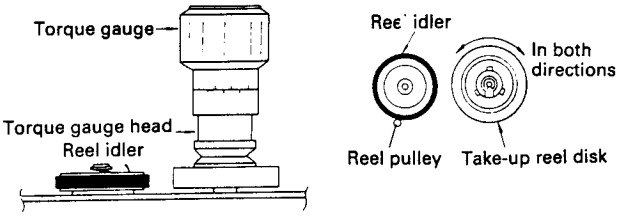


Figure 18.

3. Checking procedure of supply side strong brake
Caution:
1. Make measurement within 10 seconds after plugging the power cord and remove the shorting.
2. Check strong brake later than medium brake.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Unplug the power cord and short pin ⑤ of AA of the system control board to the ground.
  3) Separate the reel idler from the supply reel disk and install a torque gauge.
  4) Plug the power cord.
  5) Turning the torque gauge clockwise slowly (at a speed of a turn for every 2-3 seconds), check that supply side strong brake torque is more than 300g-cm and more than twice as large as take-up side medium brake torque.

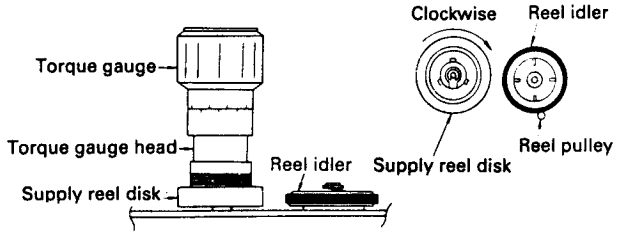


Figure 19.

4. Checking procedure of take-up side strong brake
Caution:
1. Make measurement within 10 seconds after plugging the power cord and remove the shorting.
2. Check strong brake later than medium brake.

- **Checking Procedure**
  1) Remove the cassette housing.
  2) Unplug the power cord and short pin ⑥ of AA of the system control board to the ground.
  3) Separate the reel idler from the take-up reel disk and install a torque gauge.
  4) Plug the power cord.
  5) Turning the torque gauge counterclockwise slowly (at a speed of a turn for every 2-3 seconds), check that take-up side strong brake torque is more than 300g-cm and more than twice as large as supply side medium brake torque.

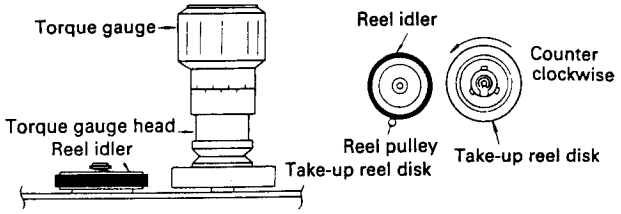


Figure 20.

CHECKING PROCEDURE AND ADJUSTMENT OF SI ROLLER FIXED GUIDE

- **Checking Procedure**
  1) When a video tape is running, check that the tape is neither crumpled nor folded at its edges (see Figure 21).

- **Adjustment**
  Perform the following only when the SI roller fixed guide is really out of position.

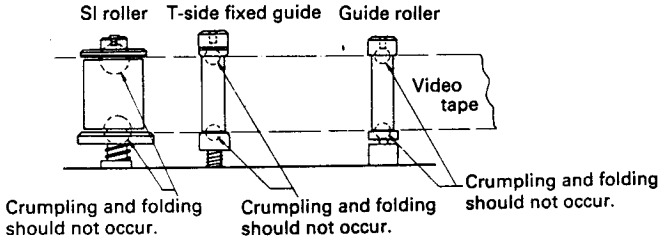


Figure 21.

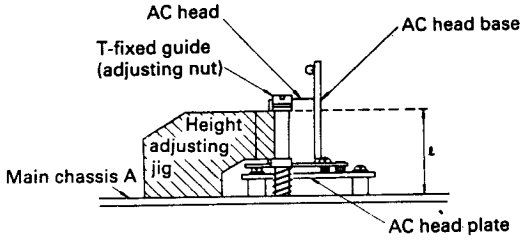


Figure 22.

Requirement
$\ell = 26.35 \pm^{0.1}_{0}$ mm

1) Install the guide height adjusting jig on main chassis A (see Figure 22).
2) Turn the adjusting nut at the top of the fixed guide and SI roller slowly to meet the requirement ($\ell = 26.35 \pm^{0.1}_{0}$mm).

Precaution:

1. After adjustment, check again when the tape is running.
2. After adjustment, be sure to adjust tape travel and the guide rollers (T and S). Then check the height of the SI roller fixed guide as shown in Figure 21.
   - Never mode the nut after completion of adjustment.

A/C HEAD REPLACEMENT

Precaution:

After replacement, be sure to adjust tape travel.
During replacement, never touch the head surface by hand (where indicated with in Figure 24).

- **Replacement**
  1) Unsolder the leads of the A/C head base and remove them.
  2) Loosen two set screws (2) with a hex wrench.
  3) Remove screw (3) (3P + 8S) with a screwdriver.
  4) Remove A/C head screw (4) with a screwdriver.
     Note: The A/C head screw is screwed with a spring installed together.
  5) Remove the A/C head base fitted to the A/C head assembly.
  6) Replace A/C head assembly (5) all together.

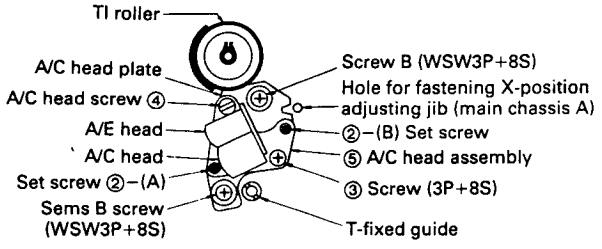


Figure 23.

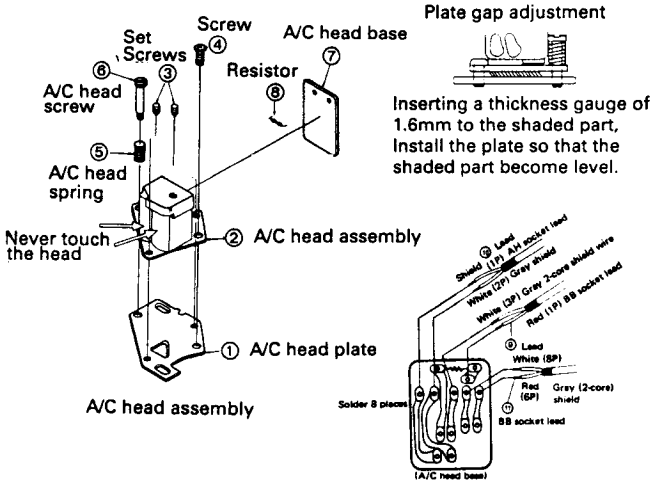


Figure 24.

CHECKING PROCEDURE AND ADJUSTMENT OF A/C HEAD HEIGHT AND TILT

- **Checking Procedure**
  1) Load a 180-minute-long tape and select play mode.
  2) Check that the tape is not curled at the flange of the T-fixed guide.
  3) Check that the height and tilt of the A/C head are just as shown in Figure 25 in relation to the tape.

- **Adjustment**
  - If the tape does not travel properly, perform the following (see Figure 23 and 25).
  1) Load a 180-minute-long tape and check tape travel in play mode.
  2) Check that the tape travels smoothly with its surface kept level between the guide roller and T-impedance roller, between the T-impedance roller and T-fixed guide, and between the T-fixed guide and capstan shaft.
  3) If the tape skews between the A/C head and T-fixed guide, it is impossible to obtain proper pictures. So, check that the tape does not run over the flange of the T-fixed guide and even fine wrinkles do not develop.
  4) If the above requirements are not met, make adjustment with screw (2)-A and (2)-B. Turn them little by little.
     Note: Do not move the T-fixed guide.
  5) Check that the height of the A/C head is as shown in Figure 25 in relation to the tape.

  - When the tape travels smoothly around the A/C head and coarse adjustment of its height is complete, adjust head height and azimuth next.
  1) Playing back AUDIO (1kHz) (picture is colour bars) of the alignment tape, observe waveform with an oscilloscope at TP-602 (GND is TP-603) of the audio board.
  2) Turn set screws(2)-A and (2)-B and screw (3) so that the level become maximum first, then level variation becomes minimum while level is maximum.
  3) Playing back AUDIO (7kHz) (picture is stepped wave) of the alignment tape, observe waveform at TP-602 (GND is TP-603) of the audio board.
  4) Maximize AUDIO output level with azimuth adjusting screw (3) (3P + 8S).
  5) Check tape travel again.

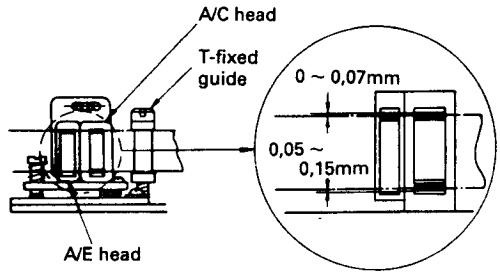


Figure 25.

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554

TAPE TRAVEL ADJUSTMENT

1) Check and adjust reel disk height with the master plane and reel disk height adjusting jig.
2) Check and adjust the height of the SI roller and fixed guide using the fixed guide height adjusting jig (refer to 12 page).
3) Check and adjust the position and verticality of the tension pole using the tension pole position adjusting jib (refer to 10 page).
4) Playing back the tape of coarse adjustment (refer to 14 page), perform coarse adjustment of guide roller height using a screwdriver provided for the purpose so that the tape bottom edge be in line with the drum lead.
   Then check that the tape is not curled at the flanges of the T-and S-guide rollers.
5) Playing back the test tape (refer to 14 page), adjust the height of the guide roller so that envelope become level and levelness do not deteriorate so much even when the tracking control is turned. Also adjust SW point to 6.5 ± 0.5H.
6) Adjust the height, tilt, and azimuth of the AC head (refer to 13 page).
7) Set the tracking control at its preset position. Loosen two sems B screws (WSW3P + 8S) (see Figure 23)

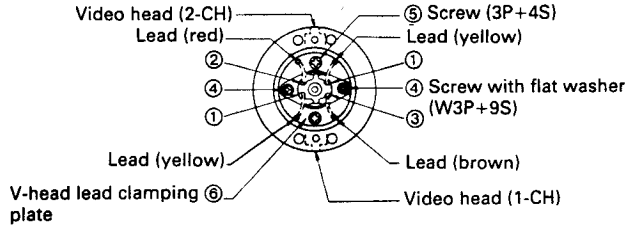


Figure 26.

slightly and install the X-position adjusting jig at its hole. Then adjust the position of the AC head so that envelope become maximum.
8) Check levelness of envelope and sounds by self recording.
9) After completion of adjustments, apply locking paint to the adjusting screws and nuts.

UPPER DRUM REPLACEMENT

- **Replacement**
  1) Remove two fastening screws (5) (3P + 4S) with a screwdriver.
  2) Remove V-head lead retaining plate (6).
  3) Unsolder two leads (1) (yellow) and remove them.
  4) Unsolder lead (2) (red) and remove it.
  5) Unsolder lead (3) (brown) and remove it.
  6) Remove two fastening screws with flat washer (4) (W3P + 9S) with a screwdriver.
  7) Remove the upper drum upward and replace it.

  Precaution:
  Do not touch the drum surface directly by hand.

- **Reassembly**
  1) Install the replacing drum as shown in Figure 26 and direct it so that the leads of specific colors come just as illustrated.

  Precaution:
  Connect the yellow and brown leads to CH-1 and the red and yellow leads to CH-2.
  2) Fix the upper drum with two screws (4).
  3) Solder leads (1), (2), and (3) to the proper locations.

  Precaution:
  Solder leads in a short time. Check that there are no scratches on the round and end surfaces of the disk and the inside and end surfaces of the upper drum. Do not admit dust into the drum.
  4) Fasten VH lead retaining plate (6) with screw (5).
  5) After replacement is complete, be sure to perform check and adjustment of tape travel and electrical adjustment of the following items.
     (1) Adjustment of playback switching point
     (2) Adjustment of record switching point
     (3) Check of tracking preset
     (4) Check of tracking control
     (5) Check of head resonance and Q
     (6) Check of FM channel balance

GUIDE ROLLER ADJUSTMENT

- **Video tape setting**
  1) Remove the upper enclosure.
  2) Load the alignment tape in the cassette housing.
  3) Plug the power cord, monitor output cord, and video input cord to the proper locations.
  4) Connect CH-1 of an oscilloscope to RF envelop output TP308 and CH-2 to switching pulse TP309.
  5) Depress the play button.

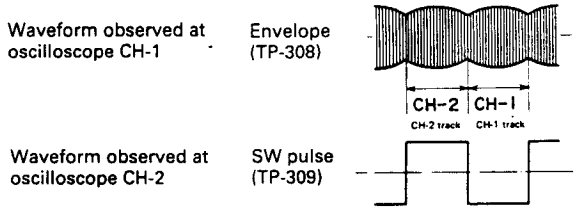


Figure 27.

- **Adjustment**
  1) Screw the guide roller set screw for maximum tightness but that it can be turned with the guide roller adjusting screwdriver with a moderate force.
  2) Observe envelope by triggering with SW pulse (see Figure 27).
  3) Looking at the envelope adjust guide roller height so that the tape runs along the drum lead. The envelope waveform will appear as shown in Figures 28 or 29 if the video tape runs above or below the helical lead position.

a. Envelope waveform when the video tape runs above the helical lead position.

Tape-helical lead distance	Small	Medium	Large
Supply side (drum inlet)			
Take-up side (drum outlet)			

Figure 28.

b. Envelope waveform when the video tape runs below the helical lead postion.

Tape-helical lead distance	Small	Medium	Large
Supply side (drum inlet)			
Take-up side (drum outlet)			

Figure 29.

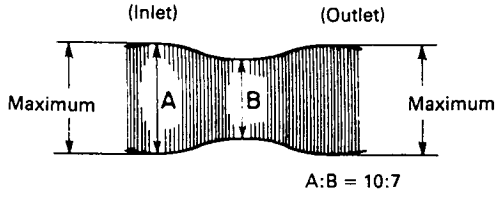


Figure 30.

4) Looking at the envelope waveform, fine-adjust guide roller height to make envelope flat. Make adjustment so that levelness do not deteriorate even when the tracking control is turned.
5) Make adjustment in such a manner that, in Figure 30, the ratio of B to A is greater than 7/10 even when the tracking control is moved and width A of the RF waveform begins to decrease.
6) Adjust playback SW point (refer to the relevant section in Electrical Adjustment).
7) Record colour bars and play them back. Check that envelope is flat.
8) After adjustment, tighten the guide roller firmly.
9) Check RF envelope again.

REEL UNIT REPLACEMENT

1. Reel motor replacement

- **Removal**

1) Remove the cassette housing.
2) Unsolder the leads from the reel motor terminals.
3) Remove the two screws (XHPSD30P10WSō) which fasten the cassette down SW holder and move the holder slightly. (Be careful not to cut off the leads of the cassette down SW.) (See Figure 31.)
4) Remove the two screws (6) (XBPSD30P05J00) fastening the reel motor and, holding the reel motor from the underside of the chassis, remove the reel motor. At this time, keep reel idler (4) moved to the right.

Precaution:

1. Do not mistake the leads of the reel motor when soldering them.
2. Use the right screws to fasten the reel motor: otherwise the motor might be broken.
3. Because of soldered leads, the cassette down SW holder cannot be removed only by removing two screws. Be careful not to break the leads by applying excessive force.

- **Installation**

1) Check that reel idler (4) is engaged with reel chassis (1) and reel idler spring (5) with the reel idler.
2) With care not to scratch the reel motor pulley 7, set the reel motor for exchange with two screws (XBPSD30P06J00) (Longer screw than this will damage the motor.) so that the reel motor terminal and the spring hook angle 9 align in the direction as shown in Fig. 32.
3) Solder the leads to the reel motor terminals.
4) Clean the reel motor pulley, reel idler, supply and take-up reel disk with the designated cleaning liquid.
5) Move the cassette down SW holder to its right position and fasten it with two screws (XHPSD30P10WSō).
6) Check torque during fast-forward and rewind modes (refer to 8, 9 page). Check and adjust torque during play mode (refer to 9 pages).

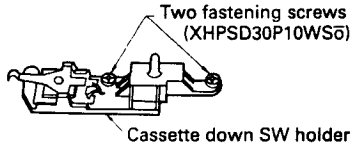


Figure 31.

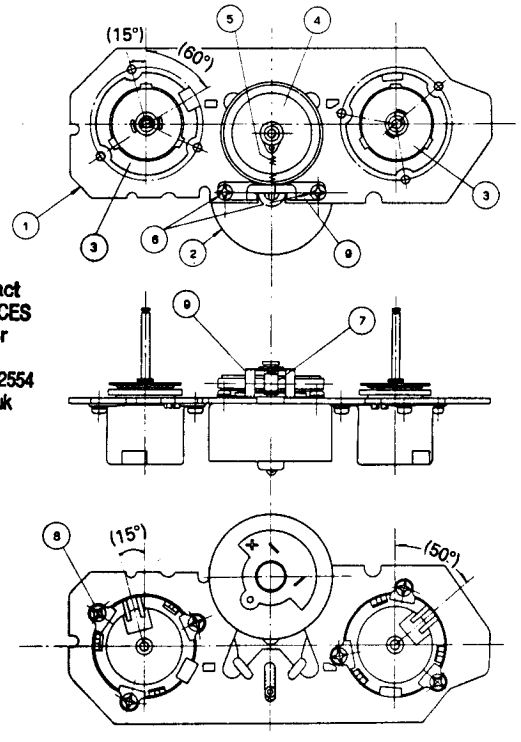


Figure 32.

2. Reel idler replacement

Precaution:

1. The reel idler may be replaced without unsoldering the reel motor leads. At this time, use good care to neither break reel motor leads nor damage the reel motor, reel motor pulley, and other parts by permitting the reel motor or reel motor pulley to hit other parts.

- **Removal**
  1) Remove the reel motor by removal procedure 1.
  2) Move the reel idler to the center of the reel chassis as shown in Figure 32 and pull it toward the reel motor slightly. Then the reel idler comes off.

Precaution

1. Be careful not to deform the reel idler spring.
2. If the reel motor leads are not removed, step 3 of procedure 1 need not be performed.
3. If only the reel idler has been replaced, check torque in every mode like in step 6 of procedure 1.

- **Installation**
  1) Hook the reel idler spring rightly to the idler. Assemble the reel chassis and reel idler.
  2) Move the reel idler to he left or right.
  3) Install the reel motor by installation procedure 1.

3. Brake unit replacement

Precaution:

1. After brake unit replacement, be sure to check reel disk height and back tension during V/S and fastforward modes.
2. For removal and reinstallation of a reel disk, take note of Caution given in 8 page.
3. Be sure to use the designated screws to fasten the brake unit.

- **Removal (Following the procedure below on both the take-up and supply sides.)**
  1) Remove the reel disk (refer to 8 page).
  2) Unsolder the leads of the brake unit at the back of the chassis.
  3) Remove the three screws (8) (XBPSD30P04J00) fastening the brake unit then the brake unit itself.

- **Reassembly (Follow the procedure below on both the take-up and supply sides.)**
  1) Fasten the replacing brake unit with three screws (XBPSD30P04J00) in the direction show in Figure 32.
  2) Unsolder the leads of the brake unit.
  3) Install the reel disk (refer to 8 page).
  4) Check each item specified in 8 page and fast-forward-time back tension referring to 9 page (only after supply side brake unit replacement).

CAPSTAN MOTOR REPLACEMENT

- **Removal**
  1) Remove the capstan belt.
  2) Unsolder the four motor leads from the mechanism platform.
  3) Remove two screws (XHPSD30P08WS0) then the capstan motor from chassis A.
  4) Remove the capstan motor to which the capstan pulley is attached. (The capstan pulley is fixed to be unable to remove.)
  5) Remove three screws (XBPSD20P04J00), then remove the capstan motor from the capstan motor base plate.

- **Installation**
  1) Fasten the capstan motor to the capstan motor base plate with three sets of screw (XBPSD20P04J00).
  2) Fasten the capstan pulley to the capstan motor base plate with set screw (LX-XZ3016GEFP) in such a manner that the gap between the capstan pulley and the capstan motor base plate be 1.8mm.
  3) Check that the motor angle insulator is installed, then fasten the assembly to chassis A with two screws (XHPSD30P08WS0).
  4) Solder the motor leads to the mechanism platform.
  5) Clean the capstan belt, capstan pulley, and capstan flywheel, then install be capstan belt.

Precaution:

1. After the capstan belt is installed, be sure to run the capstan motor and check that there is nothing wrong with the coordination of the belt, motor, and pulley.
2. Check and adjust the servo circuit at the same time.
3. Adjust the gap between the capstan pulley and capstan motor base plate to 1.8 ± 0.1mm.
4. Use the fixed screws to fasten the motor: otherwise the motor might be broken.

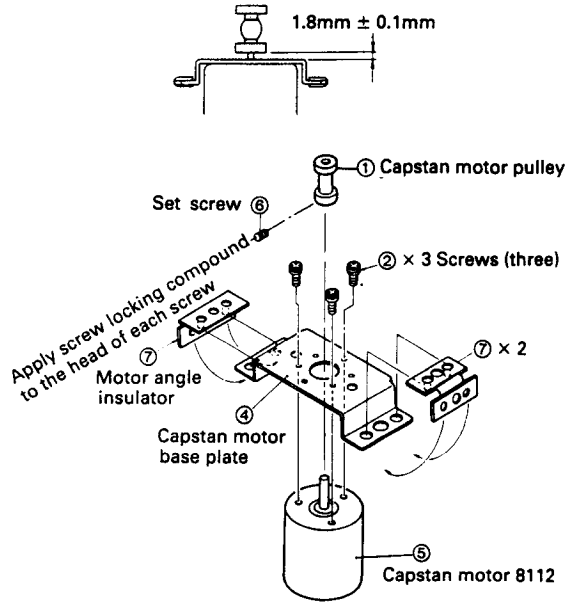


Figure 33.

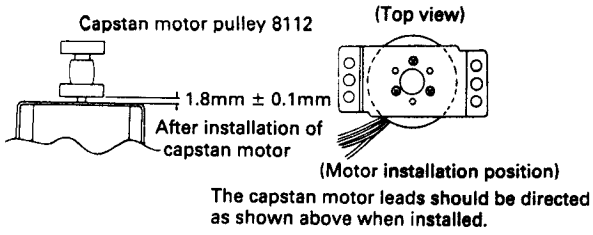


Figure 34.

LOADING MOTOR REPLACEMENT

- **Replacement**
  1) Remove the loading belt.
  2) Unsolder the leads.
  3) Remove two screws (XBPSD30P05JS0) then the loading motor.
  4) Replace the loading motor together with the pulley.

Precaution:

1. Check that the gap between the loading motor and the loading motor pulley is 6.2 ± 0.2mm.
2. After the loading motor is installed, be sure to run it and check that the belt runs properly.

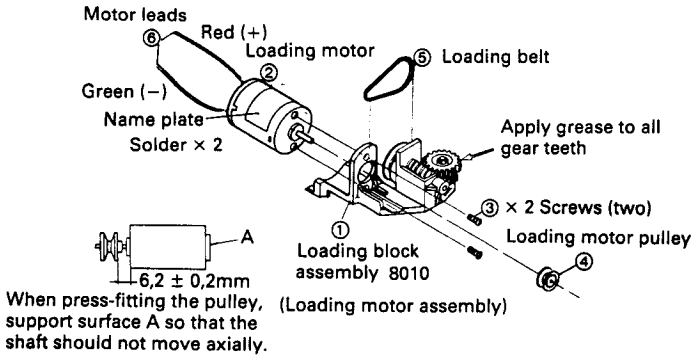


Figure 35.

DD MOTOR REPLACEMENT

- **Jig:** Jig for installation of DD rotor assembly.

- **Removal**
  1) Loosen two set screws of the DD rotor assembly using a torque wrench.
  2) Remove the DD rotor assembly.
  3) Remove three screws fastening the DD stator assembly then the DD stator assembly itself.

- **Installation**
  1) Place the DD stator assembly on the bearing holder. (Take care of the direction of the DD stator assembly's connector.)
  2) Holding the DD stator assembly with fingers, fasten it with screws. (Use care so that the screw heads should not interfere with the stator coil.)
  3) Place the DD rotor assembly installation jig on the base of the DD rotor assembly.
  4) Fit the DD rotor assembly to shaft D.
  5) Bring the DD rotor assembly in contact with the jig.
  6) Holding the DD rotor assembly with fingers, fasten it with set screws (two) at a torque of 8kg.
  7) Remove the DD rotor assembly installation jig.
  8) Apply locking paint to the set screws.

Precaution:

1. Use care not to damage the upper drum and video head.
2. Neither force the jig when installing nor pry it when removing.
3. Do not permit the Hall devices to hit the jig or DD motor rotor assembly, etc. Protect them from any shocks.

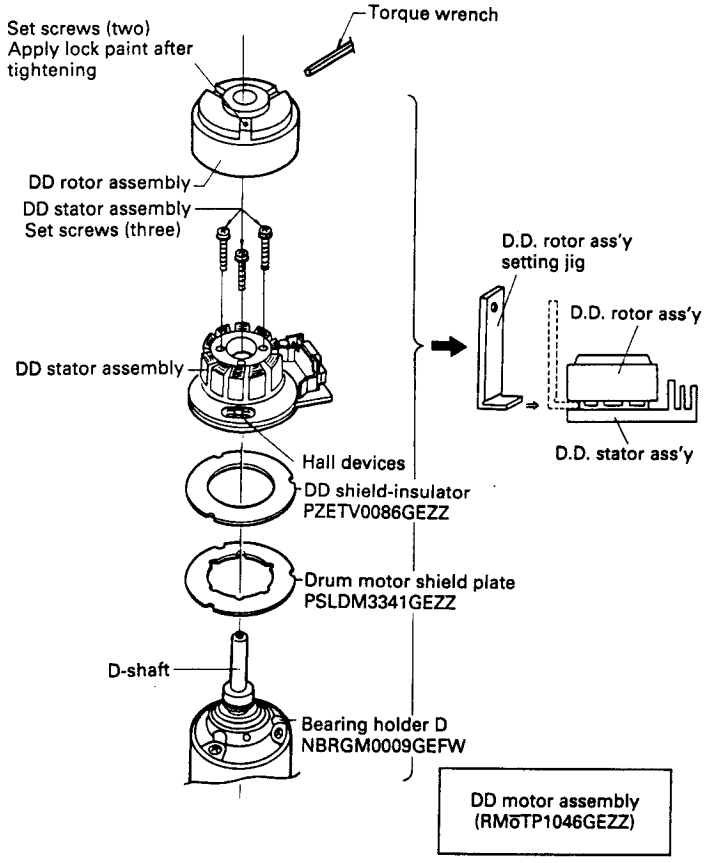


Figure 36.

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

ADJUSTMENT OF ELECTRICAL CIRCUITS

In most cases, necessity for adjusting electrical circuits will arise from replacement of mechanical parts including the video head. Before starting adjustment of electrical circuits, check that mechanical operation of the equipment is complete (the mechanisms are adjusted completely). If the equipment fails electrically, locate a defect or defects first of all using instruments. Then repair or replace parts and make adjustment by the procedures described below. When required instruments are not available, do not move controls indiscriminately.

- **Instruments**

  • Colour monitor TV • Oscilloscope • Colour bar generator • Frequency counter • DC regulated power supply • Audio generator • Alignment tape • Blank video tape (VHS) • VTVM

SERVO CIRCUIT ADJUSTMENTS

- **Locations of test points**

System control board

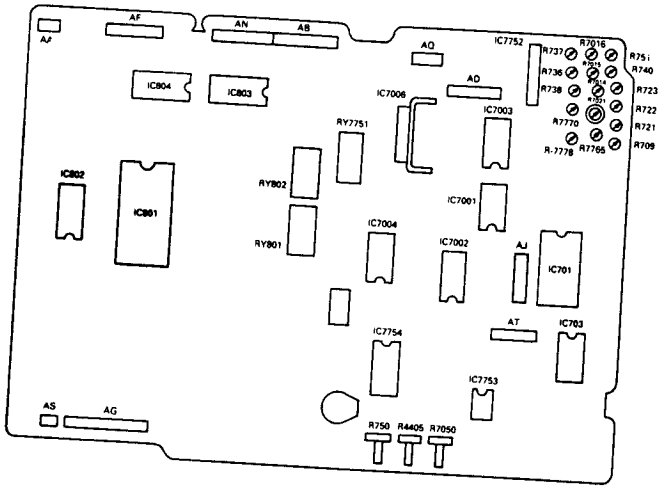


Figure 37.

1) Checking procedure of 12V
   1. Select record mode.
   2. Connect a VTVM to connector A$\overline{o}$2 pin and check that it reads 12 ± 0.2V.

2) MM adjustment
   1. Select record mode.
   2. Monitoring TP4 with an oscilloscope (internal trigger), adjust R709 so that the requirement given in Figure 38 be met. (Apply no video signal at this time.)

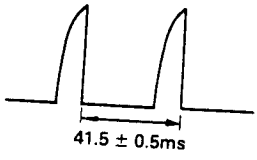


Figure 38.

3) Checking procedure of reference signal
   1. Select record mode.
   2. Applying any video signal, check that MM out at TP4 is 40ms.

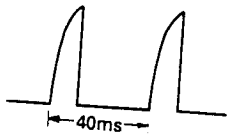


Figure 39.

4) Drum lock adjustment

Caution: After this adjustment, be sure to check an adjust switching point of recording an playback.

   1. Select record mode.
   2. Monitoring TP1 with an oscilloscope (interna trigger), adjust R738 (DRUM LOCK) so that th requirement given in Figure 40 be met.

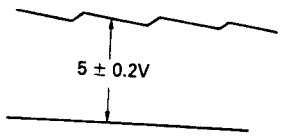


Figure 40.

5) Checking procedure of recording control signal
   1. Select record mode.
   2. Monitoring IC701 pin ⑥ with an oscilloscope (internal trigger), check that the requirements given in Figure 41 are met.

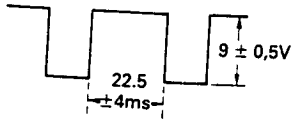


Figure 41.

6) Drum FG adjustment
   1. Select record mode.
   2. Monitoring AJ in 5 with an oscilloscope (internal trigger), check that the requirements given in Figure 42 are met.

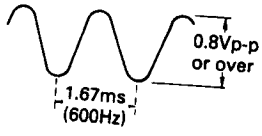


Figure 42.

7) Drum PG adjustment
   1. Select record mode.
   2. Monitoring AJ pin ③ with an oscilloscope (internal trigger), check that the requirements given in Figure 43 are met.

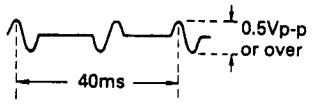


Figure 43.

8) Checking procedure of head switching pulse
   1. Select record mode.
   2. Monitoring TP5 with an oscilloscope (internal trigger), check that the requirements given in Figure 44 are met.

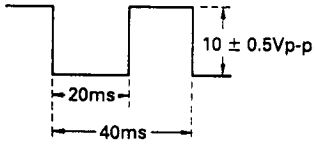


Figure 44.

9) Capstan lock adjustment
   1. Select record mode.
   2. Monitoring TP3 with an oscilloscope (internal trigger), adjust R740 so that the requirement given in Figure 45 be met.

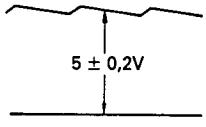


Figure 45.

10) Checking procedure of capstan voltage
   1. Select record mode.
   2. Monitoring AN pin ③ with an oscilloscope (internal trigger), check that the requirements given in Figure 46 are met.

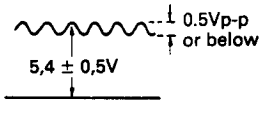


Figure 46.

11) Checking procedure of capstan FG
   1. Select record mode.
   2. Monitoring AB pin ⑫ with an oscilloscope (internal trigger), check that the requirements given in Figure 47 are met.

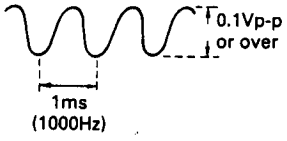


Figure 47.

12) Checking procedure of capstan PG
   1. Select record mode.
   2. Monitoring AN pin ④ with an oscilloscope (internal trigger), check that the requirements given in Figure 48 are met.

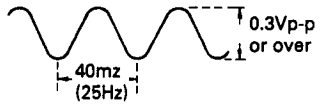


Figure 48.

13) Checking procedure of PB reference signal
   1. Select play mode.
   2. Monitoring AK pin ⑦ with an oscilloscope (internal trigger), check that T = 20 msec and V = 5.5 ± 0.5V (see Figure 49).

Figure 49.

14) Checking procedure of playback control signal
   1. Select play mode and play back the alignment tape.
   2. Monitoring TP6 with an oscilloscope (internal trigger), check that the requirements given in Figure 50 are met.

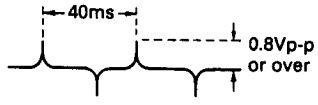


Figure 50.

15) Tracking preset adjustment
   1. Select play mode.
   2. Set the tracking control at the clickstop.
   3. Monitoring TP2 with an oscilloscope (internal trigger), adjust R751 so that the requirement given in Figure 51 be met.

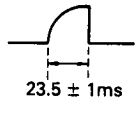


Figure 51.

16) Checking procedure of playback switching point
   Caution: Be sure to check recording switching point after this adjustment.
   1. Select play mode and load the alignment tape.
   2. Set the tracking control at the clickstop.
   3. Monitor TP401 with an oscilloscope (with external trigger at TP5).

4. Selecting (+) sync slope with the oscilloscope, adjust R722 to meet the requirements given in Figure 52.
5. Selecting (−) sync slope with the oscilloscope, adjust R721 to meet the requirements given in Figure 53.

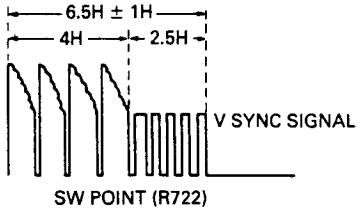


Figure 52.

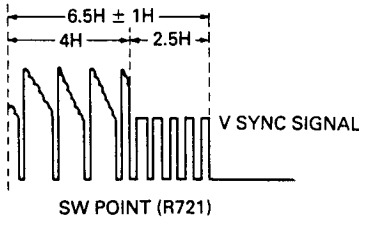


Figure 53.

17) Checking procedure and adjustment of record switching point

Precaution: Do not perform this adjustment before checking playback switching point.

1. Select record mode.
2. Monitor TP401 with an oscilloscope (with external trigger at TP5).
3. Selecting (+) sync slope with the oscilloscope, adjust R723 to meet the requirements given in Figure 54.

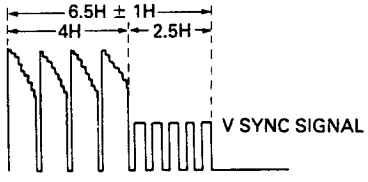


Figure 54.

18) Take-up torque adjustment
1. Select ordinary record mode.
2. Adjust R7765 so that take-up torque read 175 ± 15g-cm with the torque gauge.
3. After adjustment, adjust also capstan lock voltage according to procedure (11).

19) VS-FWD reel speed adjustment
1. Select VS-FWD mode.
2. Monitor TP6 with an oscilloscope (internal trigger), adjust R7778 to obtain T1 = 4.4ms as shown in Figure 55.

Figure 55.

20) VS-REV speed adjustment
1. Select VS-REV mode.
2. Monitoring TP6 with an oscilloscope (internal trigger), adjust R7770 to obtain T1 = 4.6ms as shown in Figure 55.

21) VS-FF shift adjustment
1. Select VS-FF mode.
2. Monitoring PT401 with an oscilloscope (internal trigger), adjust R737 to obtain T2 = 64 ± 3μs as shown in Figure 56.

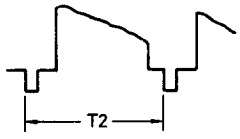


Figure 56.

22) VS-REV shift adjustment
1. Select VS-REV mode.
2. Monitoring TP401 with an oscilloscope (internal trigger, adjust R736 to obtain T2 = 64 ± 3μs as shown in Figure 56.

23) VS-FWD reel speed adjustment
1. Select VS-FWD mode.
2. Adjust R7778 so that 4 noise bars appear on the monitor TV noise bars should be mealy stationaly.

24) VS-REV reel speed adjustment
1. Select VS-REV mode.
2. Adjust R7770 so that 4 noise bars appear on the monitor TV noise bars should be mealy stationaly.

STILL CIRCUIT ADJUSTMENTS

1) FV adjustment
1. Select still play mode.
2. Monitor TP9 with an oscilloscope (external trigger at TP5).
3. Selecting (−) sync slope with the oscilloscope, adjust R7016 to meet the requirement given in Figure 57.

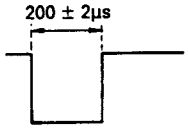


Figure 57.

2) Still FV adjustment
1. Select still play mode.
2. Monitor TP9 with an oscilloscope (external trigger at TP5).

3. Selecting (+) sync slope with the oscilloscope, adjust R7015 to meet the requirement given in Figure 58.

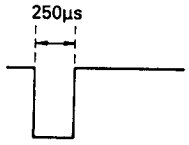


Figure 58.

3) VS-FV adjustment
1. Select VS-FWD mode.
2. Monitor TP9 with an oscilloscope (external trigger at TP5).
3. Selecting (+) sync slope with the oscilloscope, adjust R2014 to meet the requirement given in Figure 59.

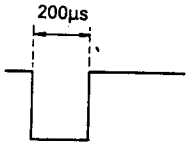


Figure 59.

4) Still preset adjustment
1. Playback a self-recorded tape. Set the still tracking control at the clickstop.
2. Monitoring TP10 with an oscilloscope (internal trigger single) and repeating still playback several times adjust R7021 to meet the requirement given in Figure 60.
3. If noise bars are not drawn in the blanking time, make fine-adjustment while looking at the picture.

Figure 60.

Y/C PLAYBACK CIRCUIT ADJUSTMENTS

- **Locations of test points**

Y/C board

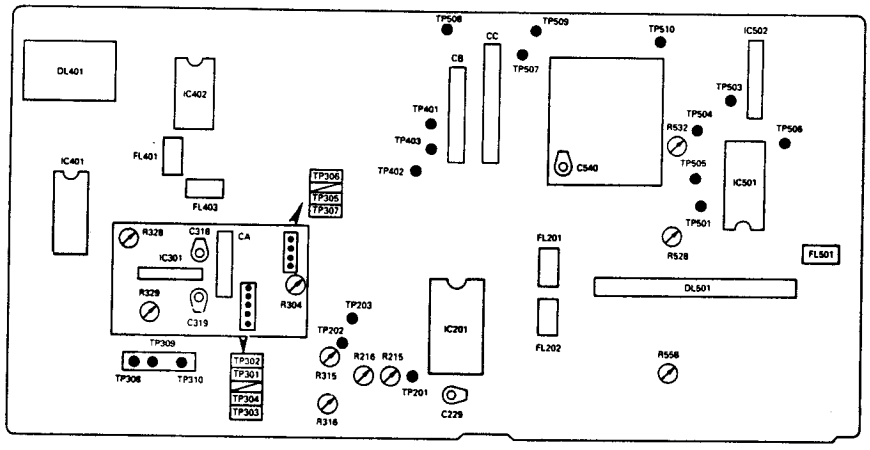


Figure 61.

1) Playback preamplifier adjustment
1. Playback sweep tape
2. Observe TP309 with the oscilloscope (external trigger TP308)
3. Adjust C318, C319, R328 and R329 to make the waveform as shown in Figure 62(a).

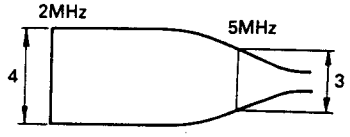


Figure 62(a).

Make adjustment with Video sweeper, when the sweep tape is not on hand.

Precautions: Do not perform this adjustment unless it is specified to do like after replacement of the upper drum or IC301.

1. Select play mode. (Do not load any tape).
2. Connect a video sweeper to TP305 and TP306 (see Figure 62(b)).

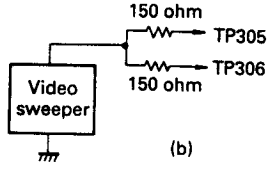


Figure 62(b).

3. Monitor TP309 with an oscilloscope (external trigger; sweep).
4. Make adjustment as follows (Figure 62).
   (1) Adjust sweep speed of the oscilloscope to see channels 1 and 2 simultaneously.
   (2) Adjust R329 (channel 1 – DUMP) and R328 (channel 2 – DUMP) so that the peak become the highest and the waveform extend to high frequencies.
   (3) Adjust C319 (channel 1 trimmer) and C318 (channel 2 trimmer) to bring the peak to approximately 5MHz.
   (4) Adjust R328 and R329 to make the waveform as shown in Figure 62(c).

Precautions: If a video sweeper is not available, play back the alignment tape (step wave) and make adjustment with C319, C318, R328 and R329 so that the quality of the reproduced picture become the best with no flickering and noises. Record something and play it back and confirm that there is nothing wrong.

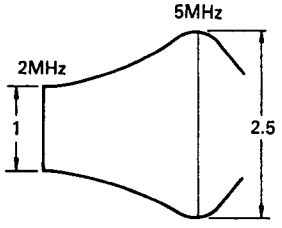


Figure 62(c).

1) APC adjustment
   1. Select play mode and play back the alignment tape (step wave).
   2. Connect a frequency counter to TP503 and adjust R532 so that counter reads 4.433619MHz.

2) 4.44MHz adjustment
   1. Select record mode the alignment tape (step wave).
   2. Connect a frequency counter to TP504 and adjust C540 so that counter reads 4.435572MHz.

3) Playback video signal level adjustment
   Precaution: Leave VIDEO OUT open.
   1. Select play mode and playback the alignment tape (step wave).
   2. Monitoring TP401 with an oscilloscope (external trigger at TP508), adjust R426 (PB LEV) to make to 2.0Vp-p (see Figure 63).

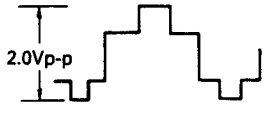


Figure 63.

4) CARRIER LEAK adjustment
   1. Select play mode and playback the alignment tape (step wave).
   2. Observe the output of TP502 on oscilloscope (external trigger TP508) and adjust R541 so that the carrier leak will be minimum.

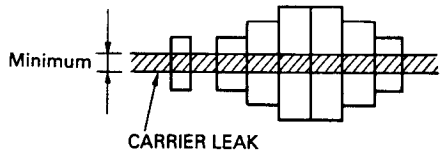


Figure 64.

5) Playback chroma level adjustment
   Precaution: Leave VIDEO OUT open
   1. Select play mode and playback the alignment tape (step wave).
   2. Obseve the output of TP401 (internal trigger) and adjust R558 so that the burst level will be 0.5Vp-p.

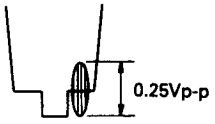


Figure 65.

Y/C RECORDING CIRCUIT ADJUSTMENTS

1) EE LEVEL adjustment
   Precaution: Leave VIDEO OUT open.
   1. Select record mode.
   2. Apply colour bars (step wave) to the input terminal.
      Monitoring TP402 with an oscilloscope (external trigger at TP508) adjust R207 (EE LEV) to meet the requirement given in Figure 66.

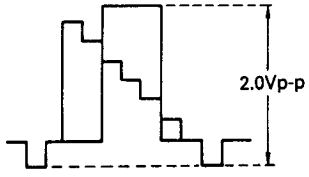


Figure 66.

2) FM 3.8MHz/4.8MHz adjustment
   Precaution: Do not perform this adjustment except after replacement of IC201 or unless carrier set (3.8MHz) or deviation (4.8MHz) is out of adjustment.
   1. Select record mode and short input signal.
   2. Release clipping with R216 (DARK CLIP) and R215 (WHITE CLIP).
   3. Connect a frequency counter to TP202.
   4. Adjust C229 (3.8MHz control) so that the frequency counter read 3.8MHz.
   5. Connect regulated power and an oscilloscope to IC 201 pin 16 and measure DC voltage.
   6. Adjust the supply voltage (regulated) and write down the DC voltage when the frequency counter reads 4.8MHz.
   7. Applying step wave to the input adjust R220 (DEV) so that the white peak come close to the DC voltage read in step 6.

3) White/dark clip adjustment
   1. Select record mode.
   2. Receive colour bars (step wave).
   3. Monitoring TP201 with an oscilloscope, adjust R216 (DARK CLIP) and R215 (WHITE CLIP) to attain the rigures given in Figure 67.

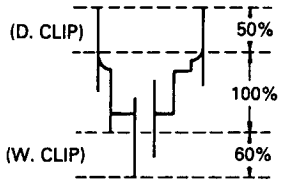


Figure 67.

4) AFC adjustment
   1. Select record mode and receive colour bars.
   2. Connect a resistor of 680 ohms (1/2W) between TP504 and TP506 (+B LINE).
   3. Connect a frequency counter to TP505 and adjust R528 so that the counter reads 625kHz.

5) FM recording balance/recording current adjustment
   1. Select record mode and receive colour bars.
   2. Using a dual-trace oscilloscope (external trigger at TP508) make adjustment as follows.
      (1) Connect TP302 (GND) and SIG of oscilloscope's channel 1 to TP301 and TP304 (GND) and SIG of osciloscope's channel 2 to TP303. Adjust at a time both channels.
      (2) Minimize with R315 (REC Y).
      (3) Adjust R304 (REC BAL) so that channels 1 and 2 become the same.
      (4) Adjust R316 (REC C) so that the Voltage become 25 ± 2.5mVp-p.
      (5) Adjust R315 (REC Y) so that sync tip become 110 ± 10mVp-p.

AUDIO CIRCUIT ADJUSTMENTS

- **Locations of test points**

Audio board

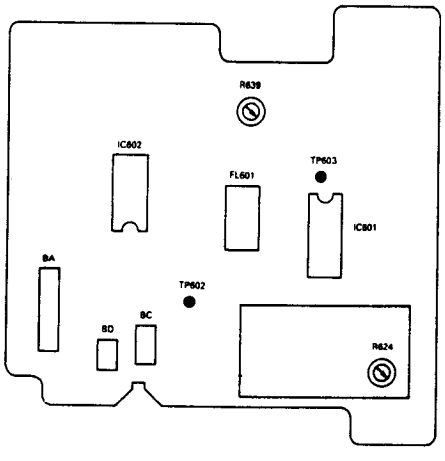


Figure 68.

1) Playback level adjustment
   1. Play back the alignment tape (1-kHz calibration signal).
   2. Connect VTVM to TP602.
   3. Adjust R639 (PB LEVEL) so that the output level become −7.5 dBm.

2) Bias current adjustment
   1. Connect a VTVM across R8008.
   2. Select record mode.
   3. Adjust R624 (BIAS CURR) so that the bias current become 400 ± 5μA. (The Voltage across R8008 is 4mV.)
3) Checking procedure of bias leakage
   1. Select record mode (receive no signal).
   2. Connect a VTVM to TP602.
   3. Check that bias leakage is less than −20 dBm.
4) Checking procedure of erase voltage and frequency
   1. Select record mode.
   2. Connect an oscilloscope to AE head.
   3. Check that the erase voltage is higher than 60Vp-p.
   4. Check that the frequency is 70 ~ 85kHz.

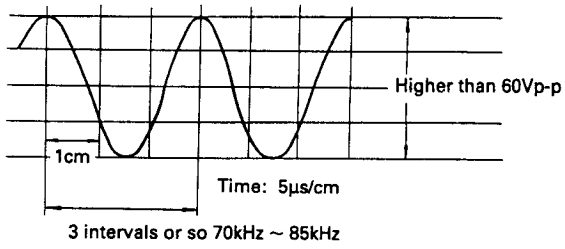


Figure 69.

5) Checking procedure of recording level
   1. Applying 1kHz/0.22V (−20 dBm) to the audio input terminal, record the signal then play it back.
   2. Check that level is −5 dBm at TP602 during playback.
   3. Perform procedures (1) and (2) if the requirement is not met.

BLOCK DIAGRAM TUNER, MODURATOR (BOOSTER, CONVERTER; IF CIRCUIT)

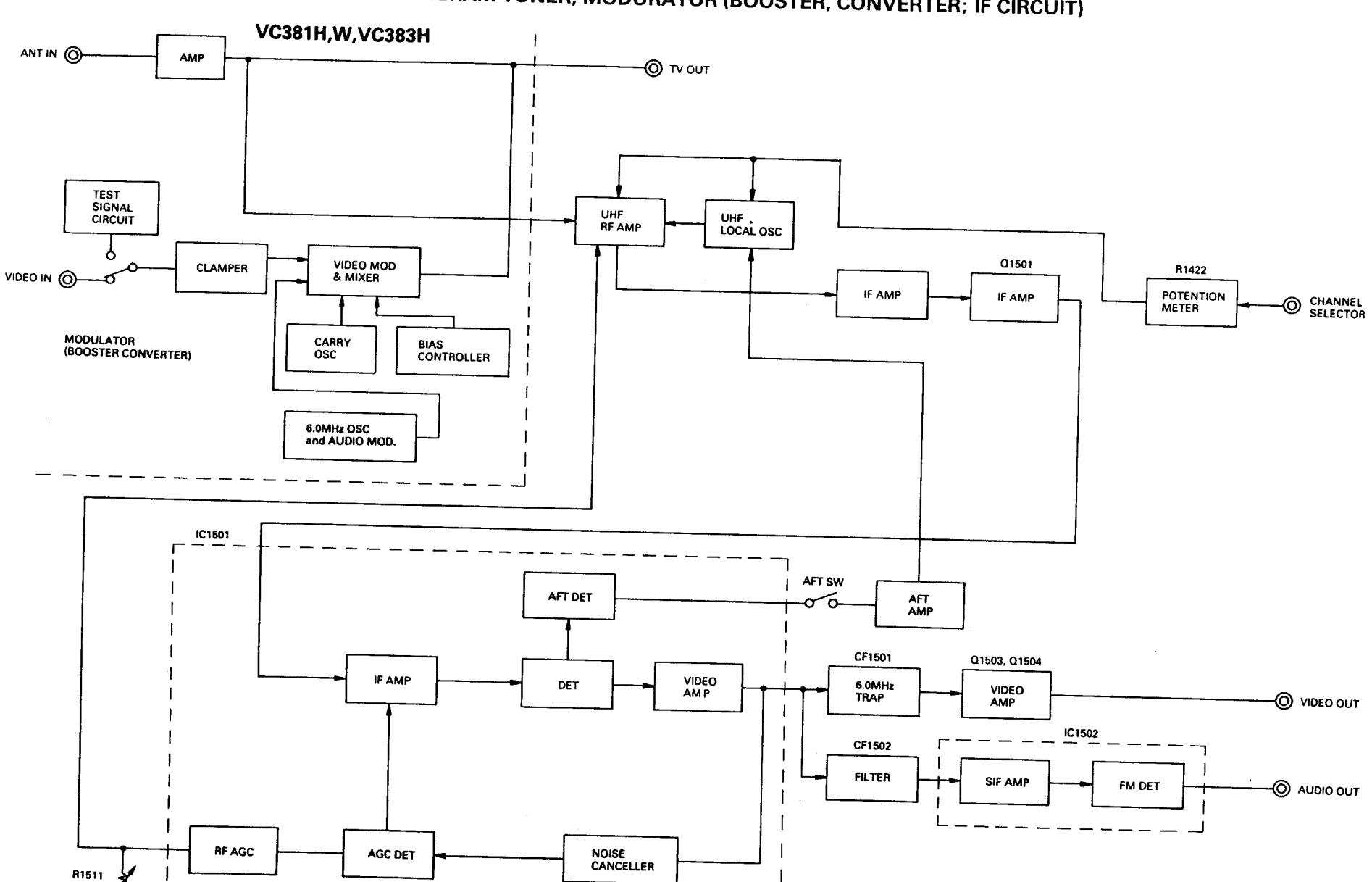
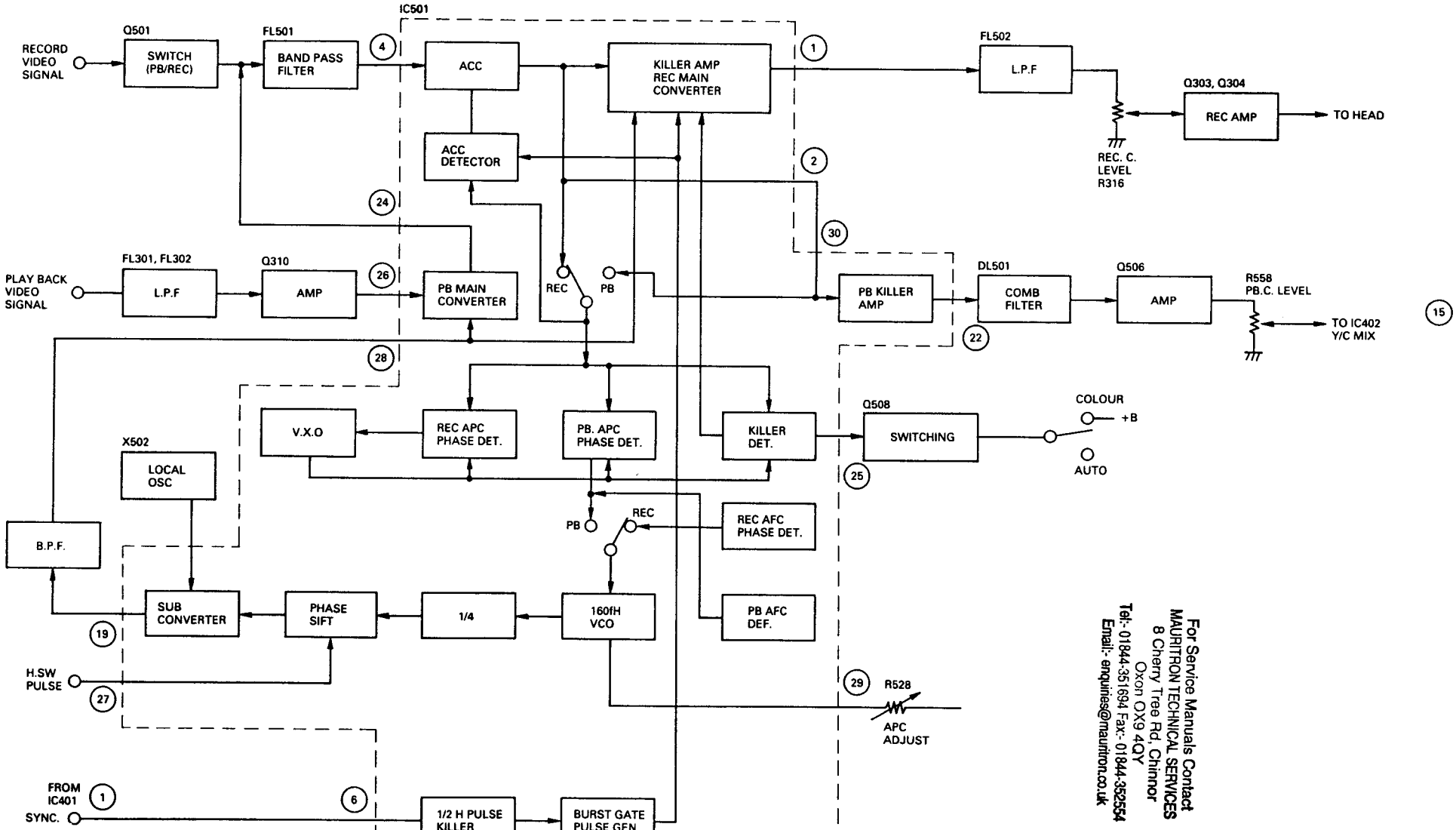


Figure 70.

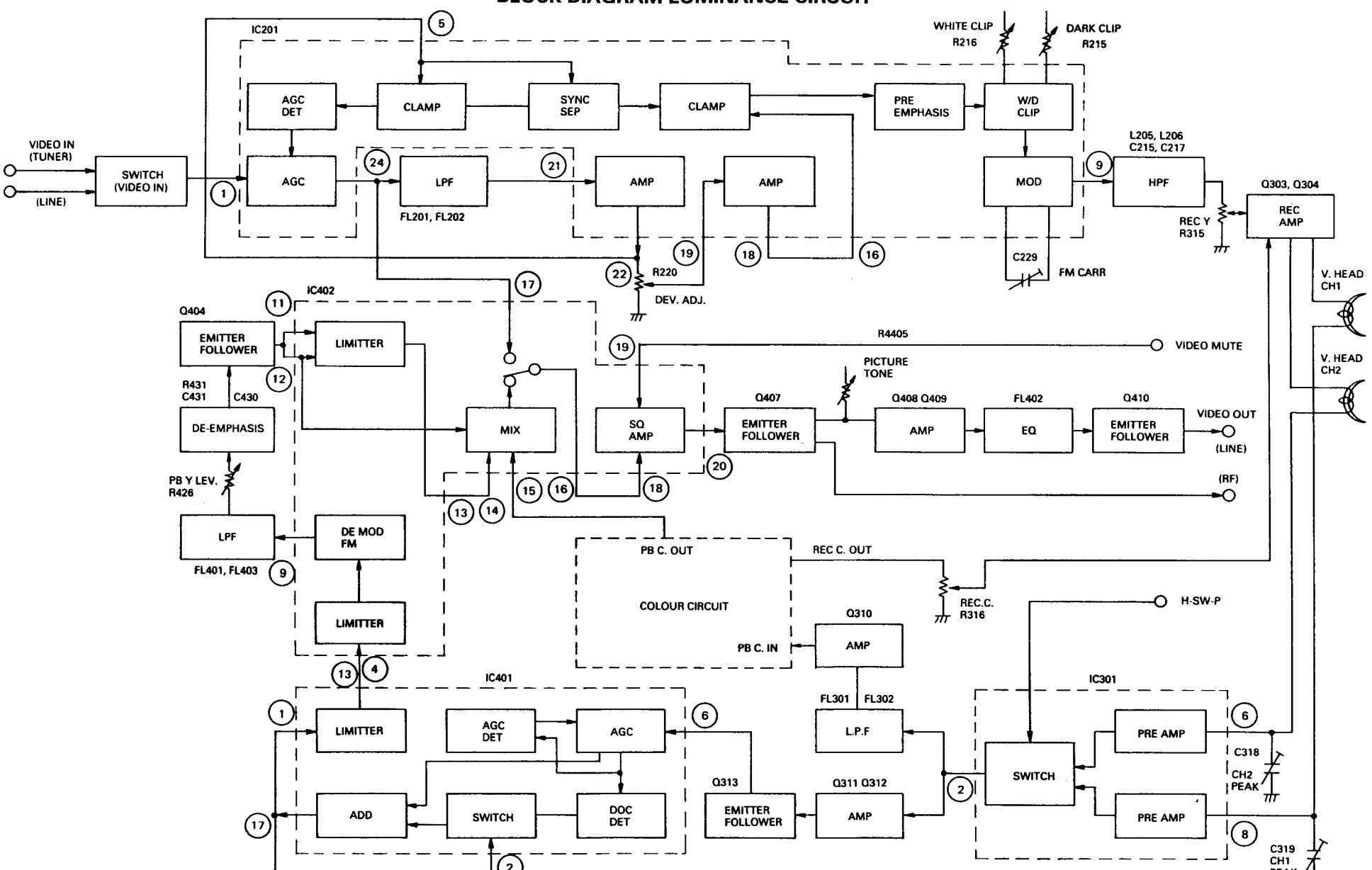
BLOCK DIAGRAM CHOROMA CIRCUIT



For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

Figure 71.

BLOCK DIAGRAM LUMINANCE CIRCUIT



BLANK PAGES.

IMPORTANT SAFETY NOTICE:

BE SURE TO USE GENUINE PARTS FOR SECURING THE SAFETY AND RELIABILITY OF THE SET.

PARTS MARKED WITH "Δ" AND PARTS SHADED (IN BLACK) ARE ESPECIALLY IMPORTANT FOR MAINTAINING THE SAFETY AND PROTECTING ABILITY OF THE SET.

BE SURE TO REPLACE THEM WITH PARTS OF SPECIFIED PART NUMBER.

SAFETY NOTE:

1. *DISCONNECT THE AC PLUG FORM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

NOTE:

1. *The unit of resistance "ohm" is omitted (k = ohm, M = 1 Meg ohm).*
2. *All resistors are 1/4 watt, unless otherwise noted.*
3. *The unit of capacitance "F" is omitted (μ = μF, P = μμF).*

VOLTAGE MEASUREMENT CONDITIONS:

1. *DC voltages are measured between points indicated and chassis ground by VTVM, with 220V AC 50Hz supplied to unit and all controls are set to normal viewing picture unless otherwise noted.*
2. *Voltages are measured with 10000μV B & W or colour signal.*

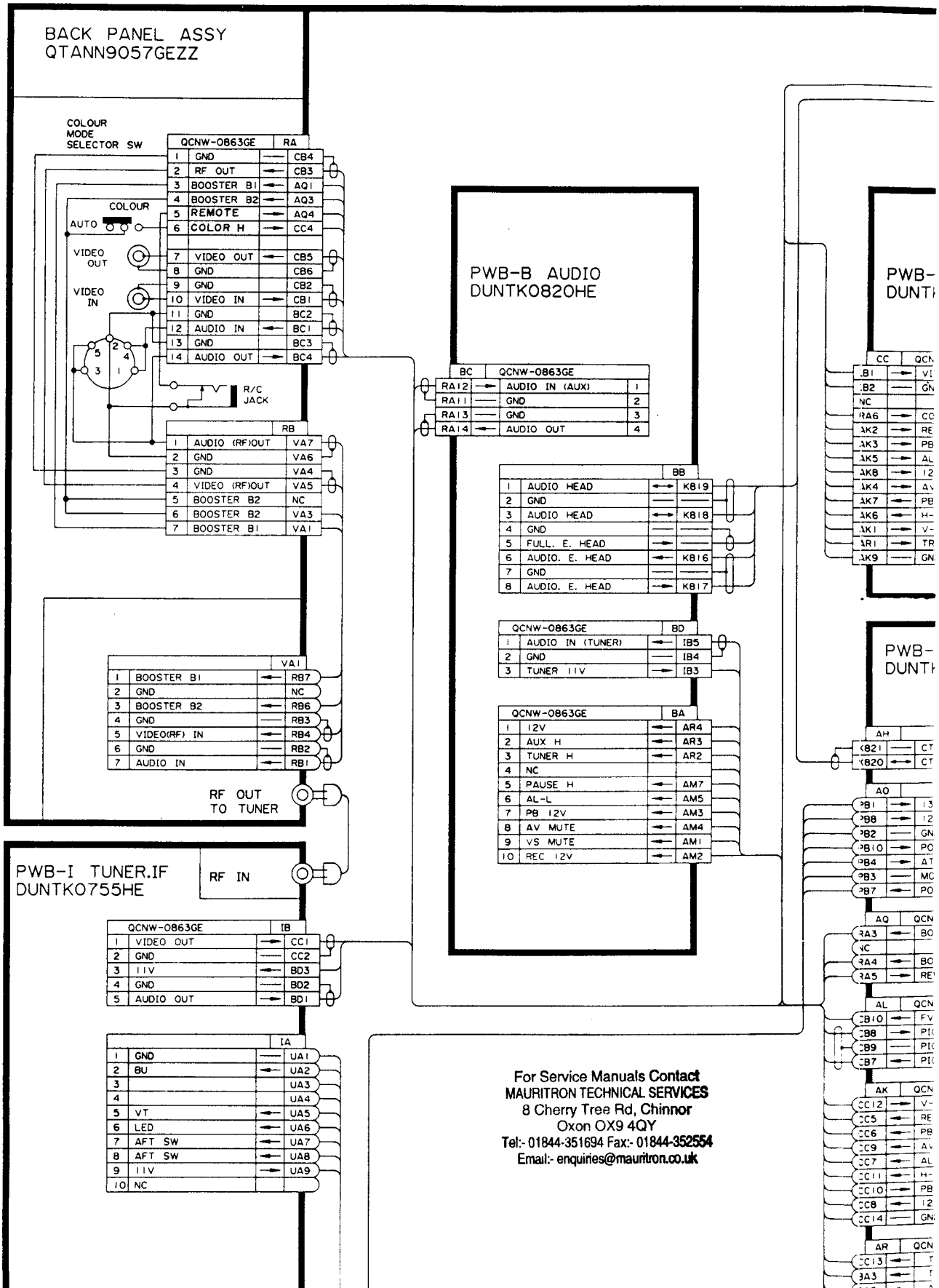
WAVEFORM MEASUREMENT CONDITIONS:

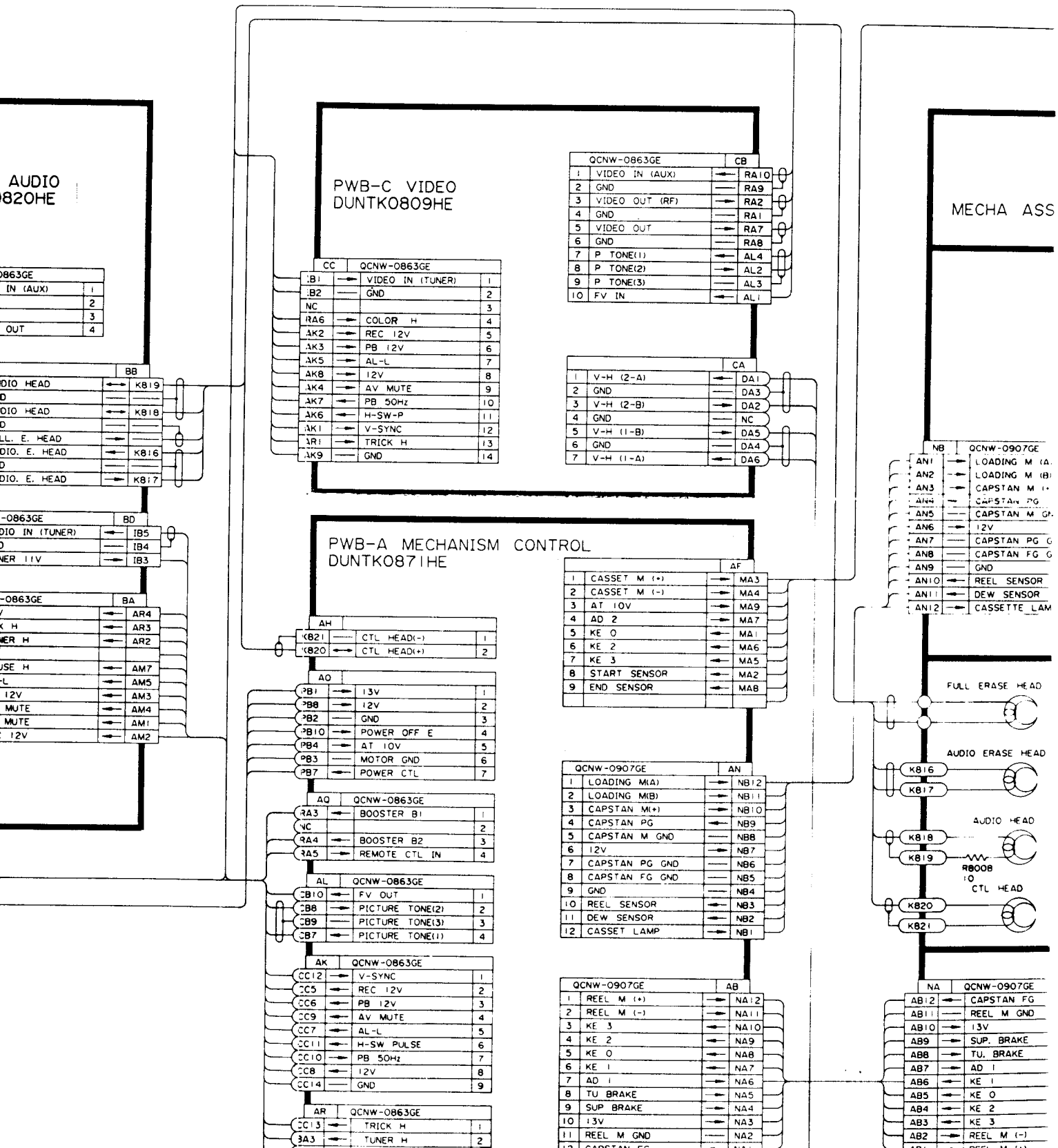
10000μV 87.5 percent modulated colour bar signal is fed into tuner:

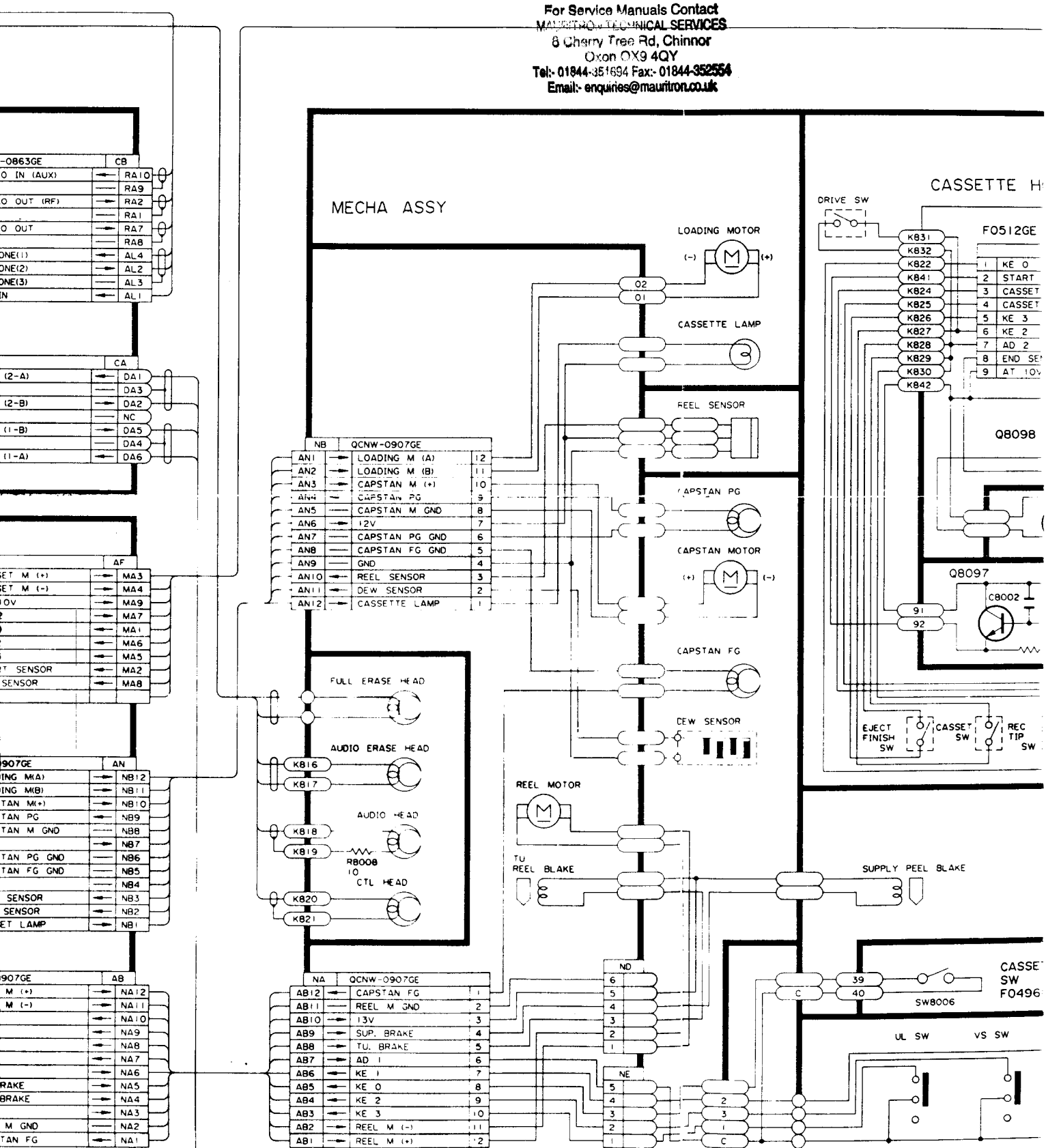
CAUTION:

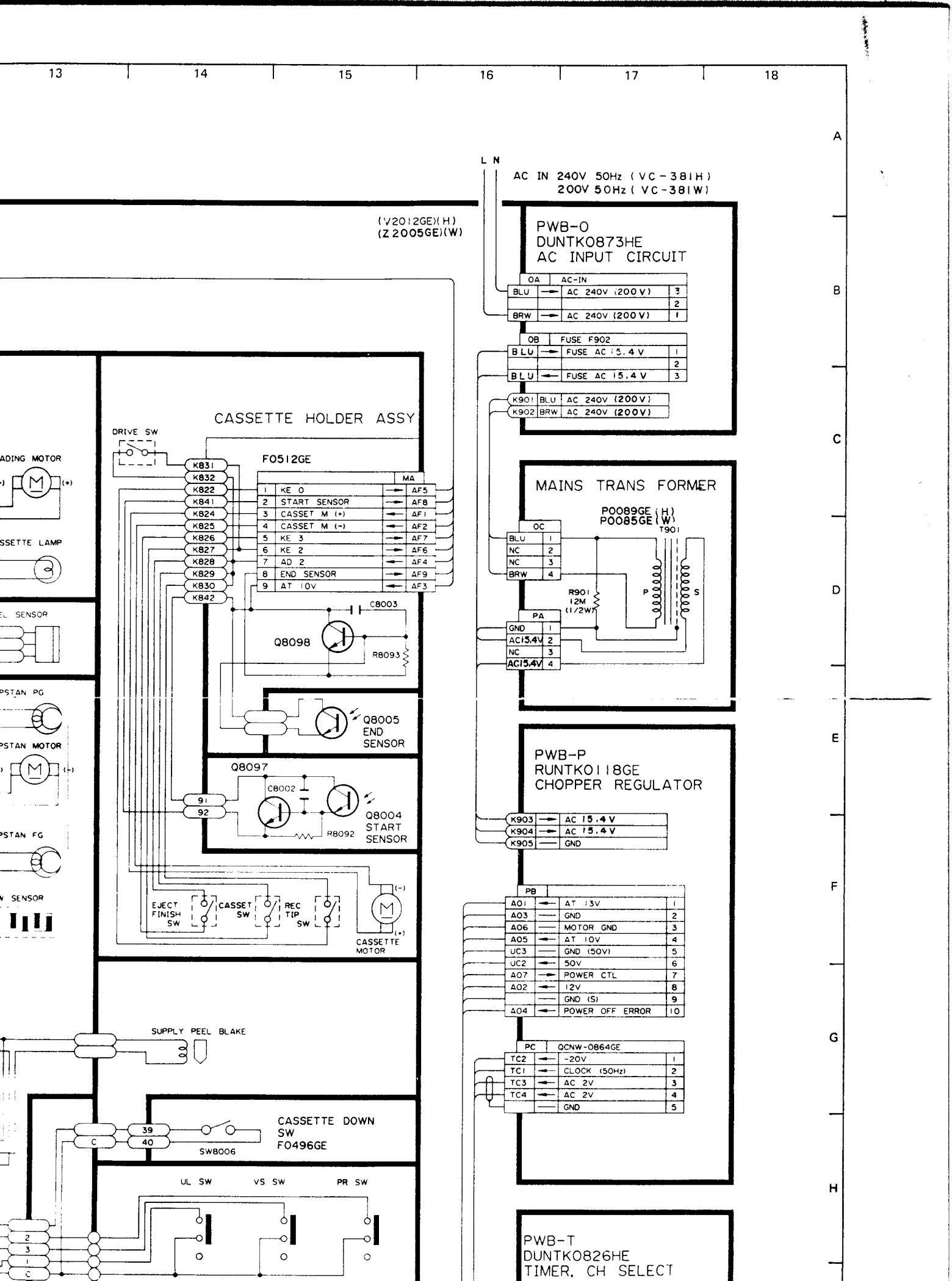
This circuit diagram is original one. Therefore there may be a slight difference from yours.

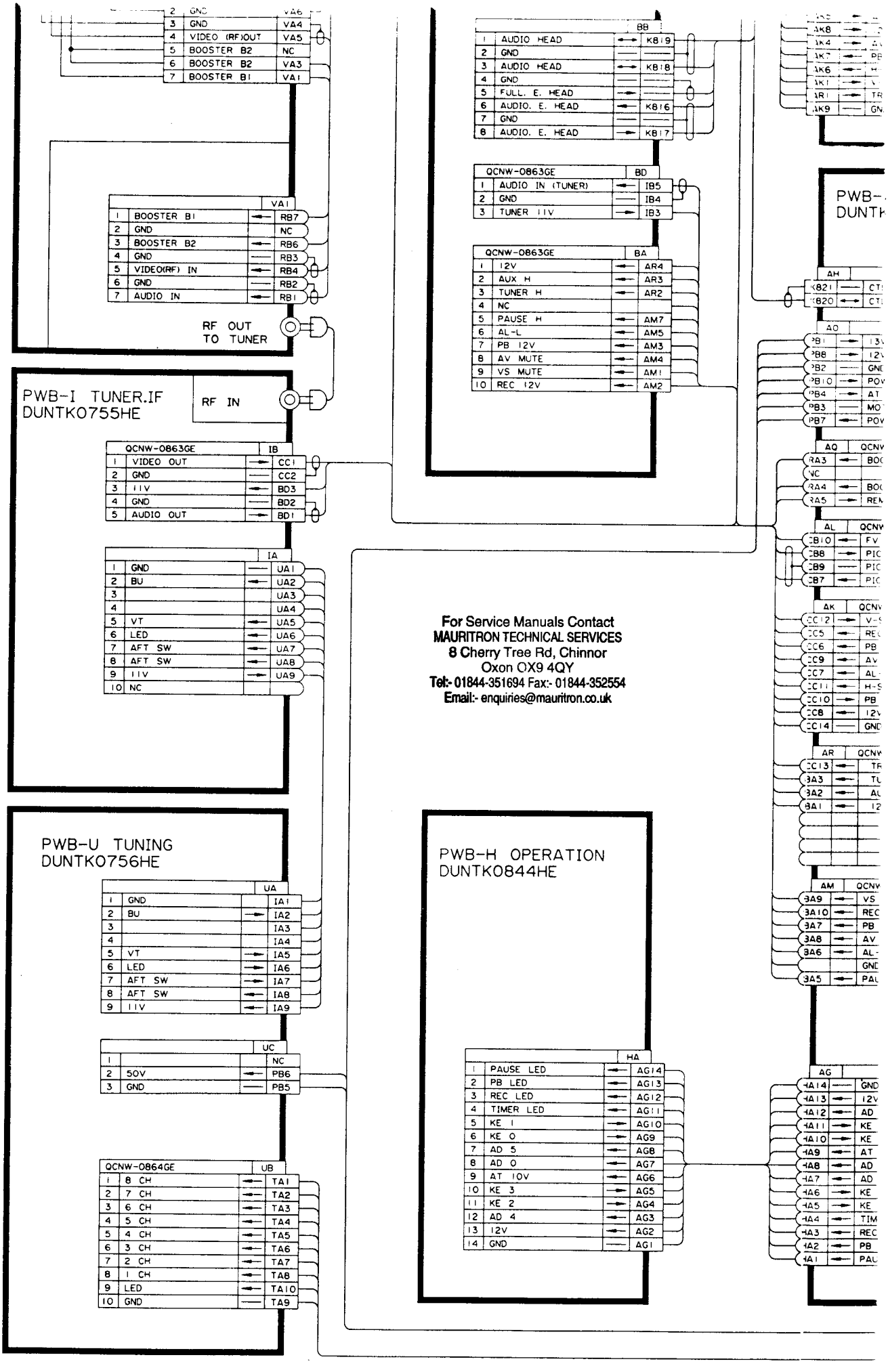
OVERALL SCHEMATIC DIAGRAM (VC-381H,W)

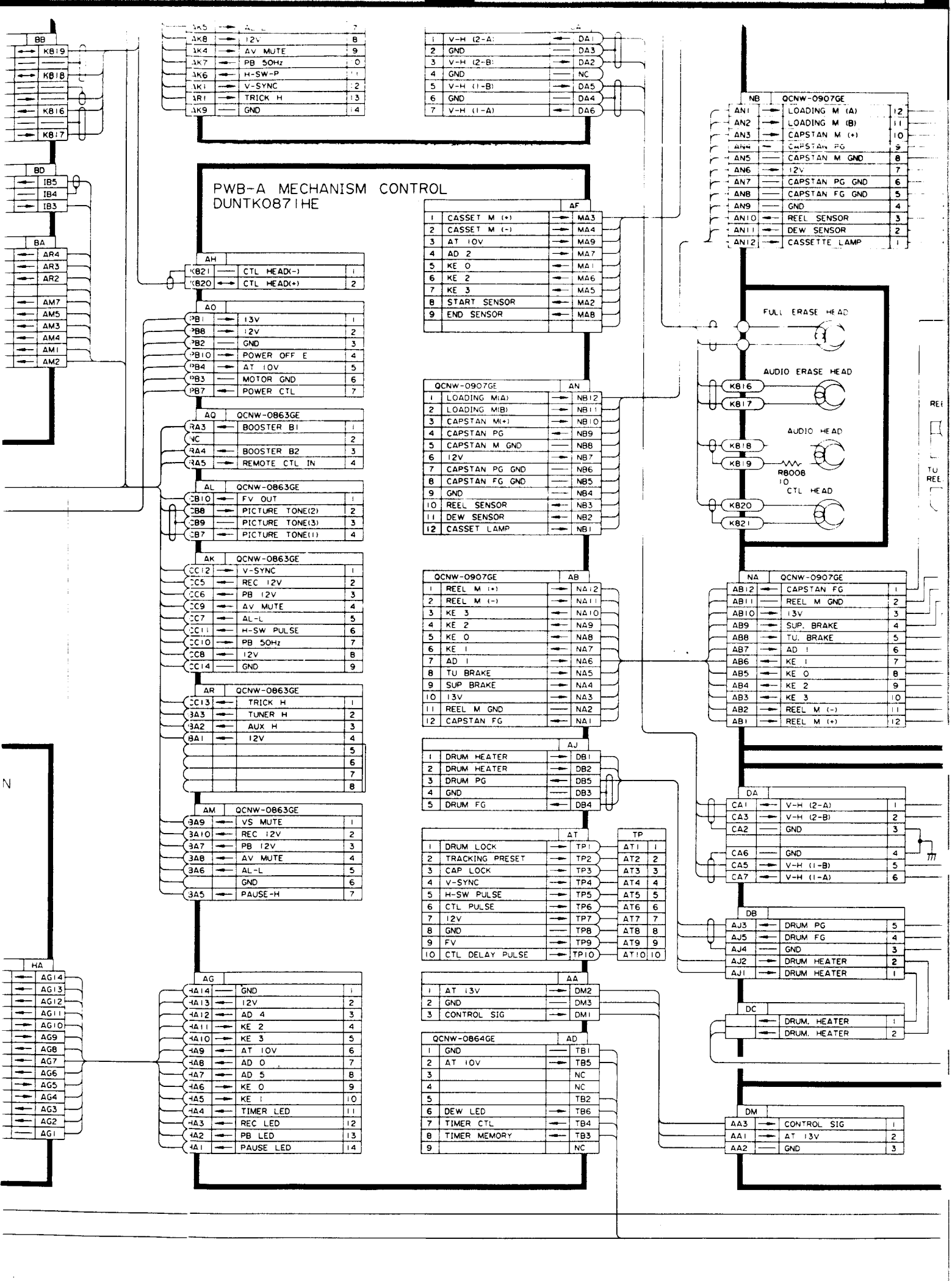


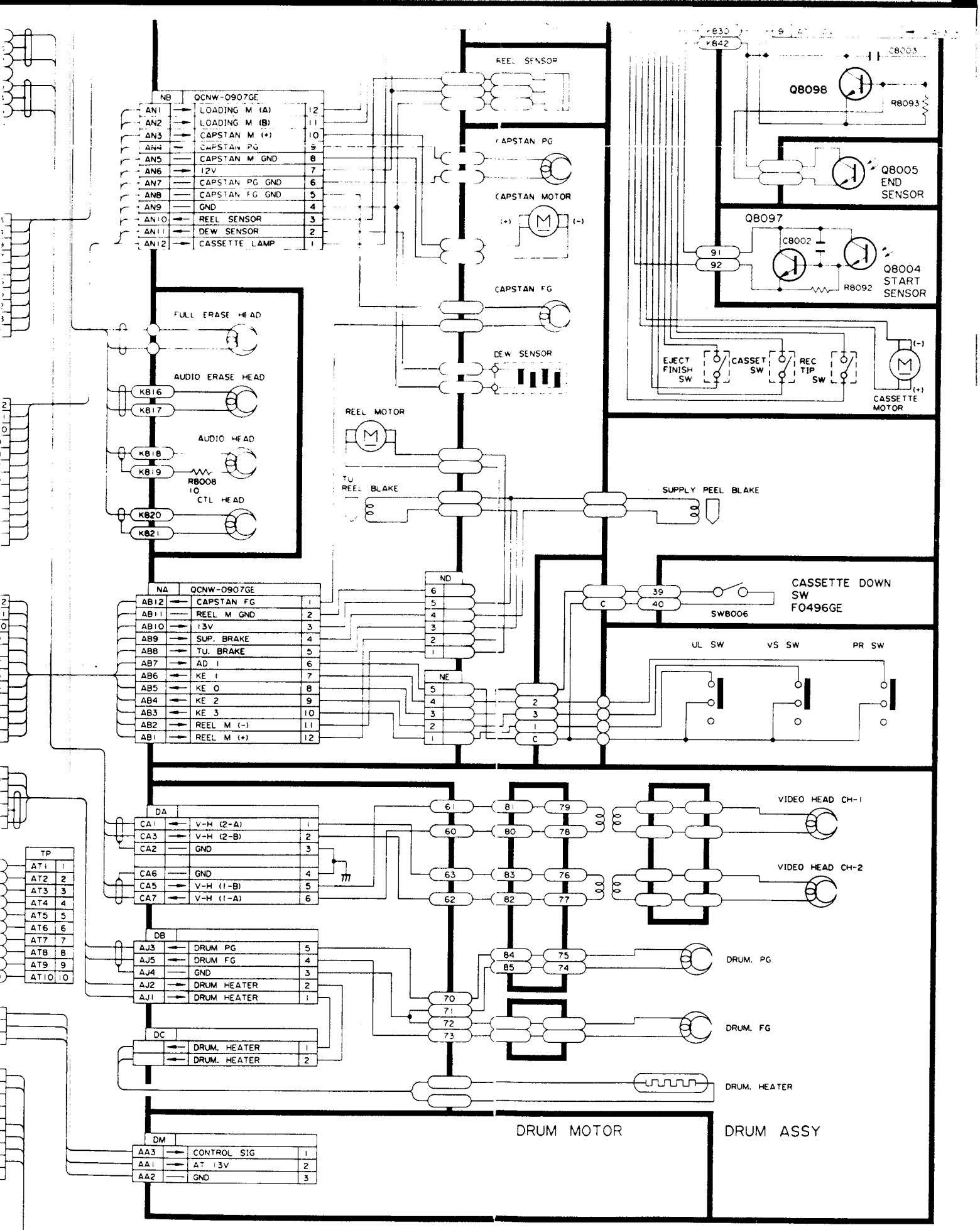

AUDIO
0820HE
PWB-C VIDEO
DUNTK0809HE
PWB-A MECHANISM CONTROL
DUNTK0871HE
MECHA ASS
QCNW-0863GE
CB
1 VIDEO IN (AUX) RA10
2 GND RA9
3 VIDEO OUT (RF) RA2
4 GND RA1
5 VIDEO OUT RA7
6 GND RA8
7 P TONE(1) AL4
8 P TONE(2) AL2
9 P TONE(3) AL3
10 FV IN AL1
CC QCNW-0863GE
CB1 VIDEO IN (TUNER) 1
CB2 GND 2
NC 3
RA6 COLOR H 4
AK2 REC 12V 5
AK3 PB 12V 6
AK5 AL-L 7
AK8 12V 8
AK4 AV MUTE 9
AK7 PB 50Hz 10
AK6 H-SW-P 11
AK1 V-SYNC 12
AR1 TRICK H 13
AK9 GND 14
CA
1 V-H (2-A) DA1
2 GND DA3
3 V-H (2-B) DA2
4 GND NC
5 V-H (1-B) DA5
6 GND DA4
7 V-H (1-A) DA6
BB
DIO HEAD K819
D
DIO HEAD K818
D
LL. E. HEAD
DIO. E. HEAD K816
D
DIO. E. HEAD K817
BD
DIO IN (TUNER) IB5
D IB4
NER 11V IB3
BA
AR4
K H AR3
NER H AR2
USE H AM7
-L AM5
12V AM3
MUTE AM4
MUTE AM1
12V AM2
AF
1 CASSET M (+) MA3
2 CASSET M (-) MA4
3 AT 10V MA9
4 AD 2 MA7
5 KE 0 MA1
6 KE 2 MA6
7 KE 3 MA5
8 START SENSOR MA2
9 END SENSOR MA8
AH
K821 CTL HEAD(-) 1
K820 CTL HEAD(+) 2
AO
PB1 13V 1
PB8 12V 2
PB2 GND 3
PB10 POWER OFF E 4
PB4 AT 10V 5
PB3 MOTOR GND 6
PB7 POWER CTL 7
AQ QCNW-0863GE
RA3 BOOSTER B1 1
NC 2
RA4 BOOSTER B2 3
RA5 REMOTE CTL IN 4
AL QCNW-0863GE
CB10 FV OUT 1
CB8 PICTURE TONE(2) 2
CB9 PICTURE TONE(3) 3
CB7 PICTURE TONE(1) 4
AK QCNW-0863GE
CC12 V-SYNC 1
CC5 REC 12V 2
CC6 PB 12V 3
CC9 AV MUTE 4
CC7 AL-L 5
CC11 H-SW PULSE 6
CC10 PB 50Hz 7
CC8 12V 8
CC14 GND 9
AR QCNW-0863GE
CC13 TRICK H 1
3A3 TUNER H 2
QCNW-0907GE AN
1 LOADING M(A) NB12
2 LOADING M(B) NB11
3 CAPSTAN M(+) NB10
4 CAPSTAN PG NB9
5 CAPSTAN M GND NB8
6 12V NB7
7 CAPSTAN PG GND NB6
8 CAPSTAN FG GND NB5
9 GND NB4
10 REEL SENSOR NB3
11 DEW SENSOR NB2
12 CASSET LAMP NB1
QCNW-0907GE AB
1 REEL M (+) NA12
2 REEL M (-) NA11
3 KE 3 NA10
4 KE 2 NA9
5 KE 0 NA8
6 KE 1 NA7
7 AD 1 NA6
8 TU BRAKE NA5
9 SUP BRAKE NA4
10 13V NA3
11 REEL M GND NA2
NB QCNW-0907GE
AN1 LOADING M (A
AN2 LOADING M (B)
AN3 CAPSTAN M (+
AN4 CAPSTAN PG
AN5 CAPSTAN M GN
AN6 12V
AN7 CAPSTAN PG G
AN8 CAPSTAN FG G
AN9 GND
AN10 REEL SENSOR
AN11 DEW SENSOR
AN12 CASSETTE LAM
FULL ERASE HEAD
AUDIO ERASE HEAD
K816
K817
AUDIO HEAD
K818
K819
R8008
TO
CTL HEAD
K820
K821
NA QCNW-0907GE
AB12 CAPSTAN FG
AB11 REEL M GND
AB10 13V
AB9 SUP. BRAKE
AB8 TU. BRAKE
AB7 AD 1
AB6 KE 1
AB5 KE 0
AB4 KE 2
AB3 KE 3
AB2 REEL M (-)

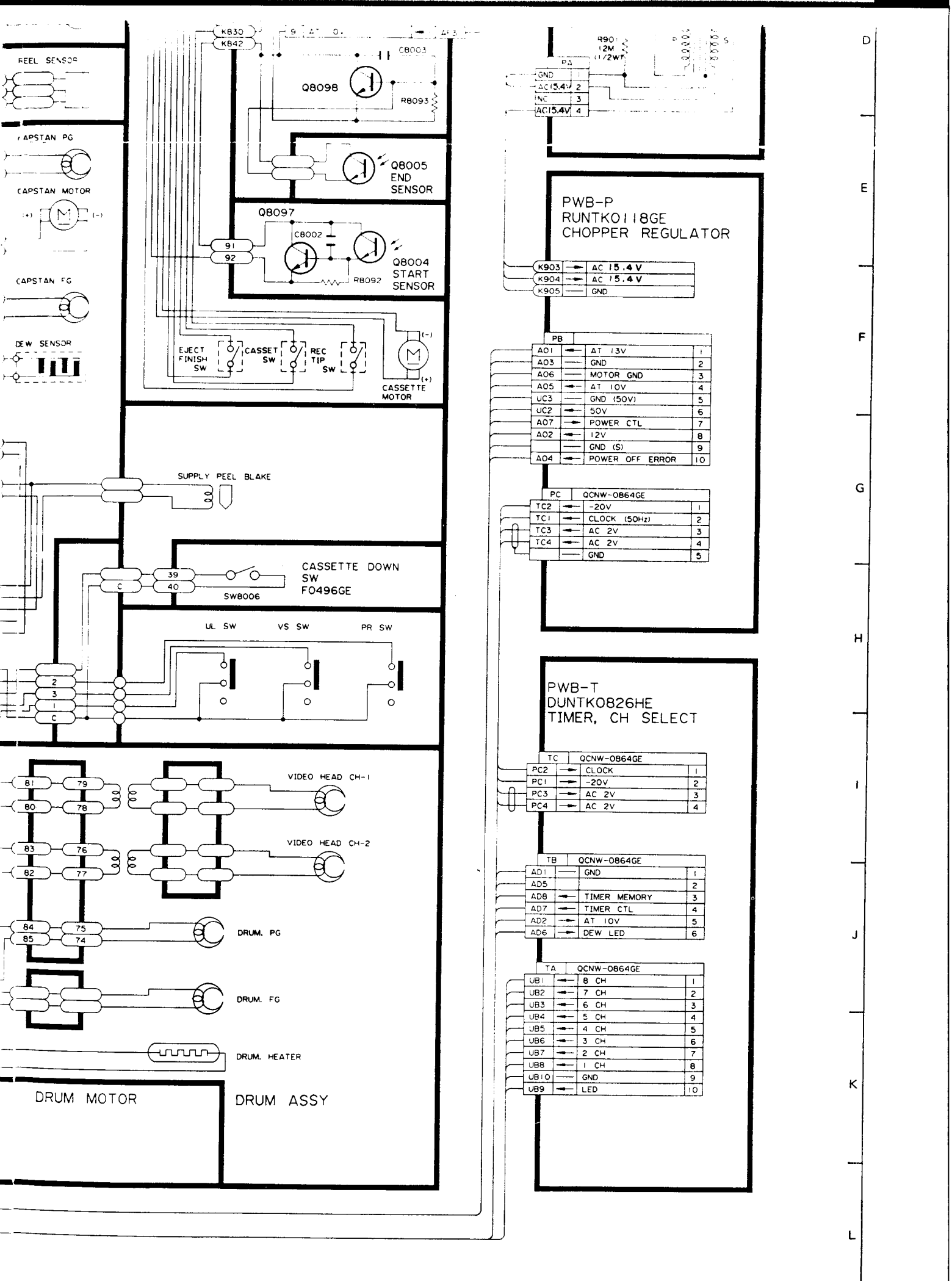



13
14
15
16
17
18
A
B
C
D
E
F
G
H
L N
AC IN 240V 50Hz (VC-381H)
200V 50Hz (VC-381W)
(V2012GE)(H)
(Z2005GE)(W)
PWB-O
DUNTK0873HE
AC INPUT CIRCUIT
OA AC-IN
BLU AC 240V (200V) 3
2
BRW AC 240V (200V) 1
OB FUSE F902
BLU FUSE AC 15.4V 1
2
BLU FUSE AC 15.4V 3
K901 BLU AC 240V (200V)
K902 BRW AC 240V (200V)
MAINS TRANS FORMER
P0089GE (H)
P0085GE (W)
T901
OC
BLU 1
NC 2
NC 3
BRW 4
R901
12M
(1/2W)
P
S
PA
GND 1
AC15.4V 2
NC 3
AC15.4V 4
CASSETTE HOLDER ASSY
DRIVE SW
F0512GE
K831
K832
K822
K841
K824
K825
K826
K827
K828
K829
K830
K842
MA
1 KE 0 AF5
2 START SENSOR AF8
3 CASSET M (+) AF1
4 CASSET M (-) AF2
5 KE 3 AF7
6 KE 2 AF6
7 AD 2 AF4
8 END SENSOR AF9
9 AT 10V AF3
C8003
Q8098
R8093
Q8005
END
SENSOR
Q8097
C8002
91
92
Q8004
START
SENSOR
R8092
EJECT
FINISH
SW
CASSET
SW
REC
TIP
SW
CASSETTE
MOTOR
ADING MOTOR
SSETTE LAMP
EL SENSOR
PSTAN PG
PSTAN MOTOR
PSTAN FG
V SENSOR
SUPPLY PEEL BLAKE
CASSETTE DOWN
SW
F0496GE
39
40
C
SW8006
UL SW
VS SW
PR SW
2
3
1
C
PWB-P
RUNTK0118GE
CHOPPER REGULATOR
K903 AC 15.4V
K904 AC 15.4V
K905 GND
PB
A01 AT 13V 1
A03 GND 2
A06 MOTOR GND 3
A05 AT 10V 4
UC3 GND (50V) 5
UC2 50V 6
A07 POWER CTL 7
A02 12V 8
GND (S) 9
A04 POWER OFF ERROR 10
PC QCNW-0864GE
TC2 -20V 1
TC1 CLOCK (50Hz) 2
TC3 AC 2V 3
TC4 AC 2V 4
GND 5
PWB-T
DUNTK0826HE
TIMER, CH SELECT

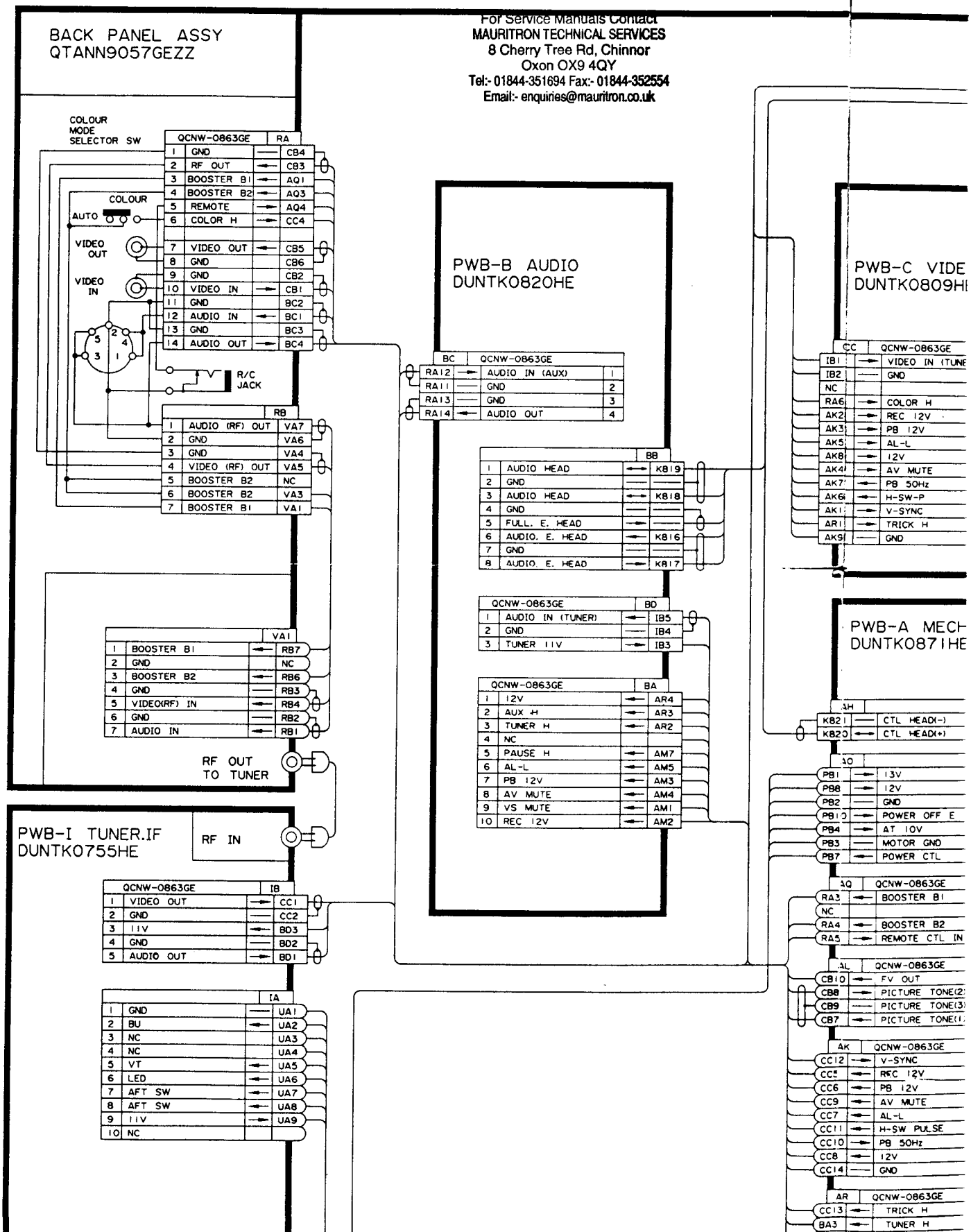


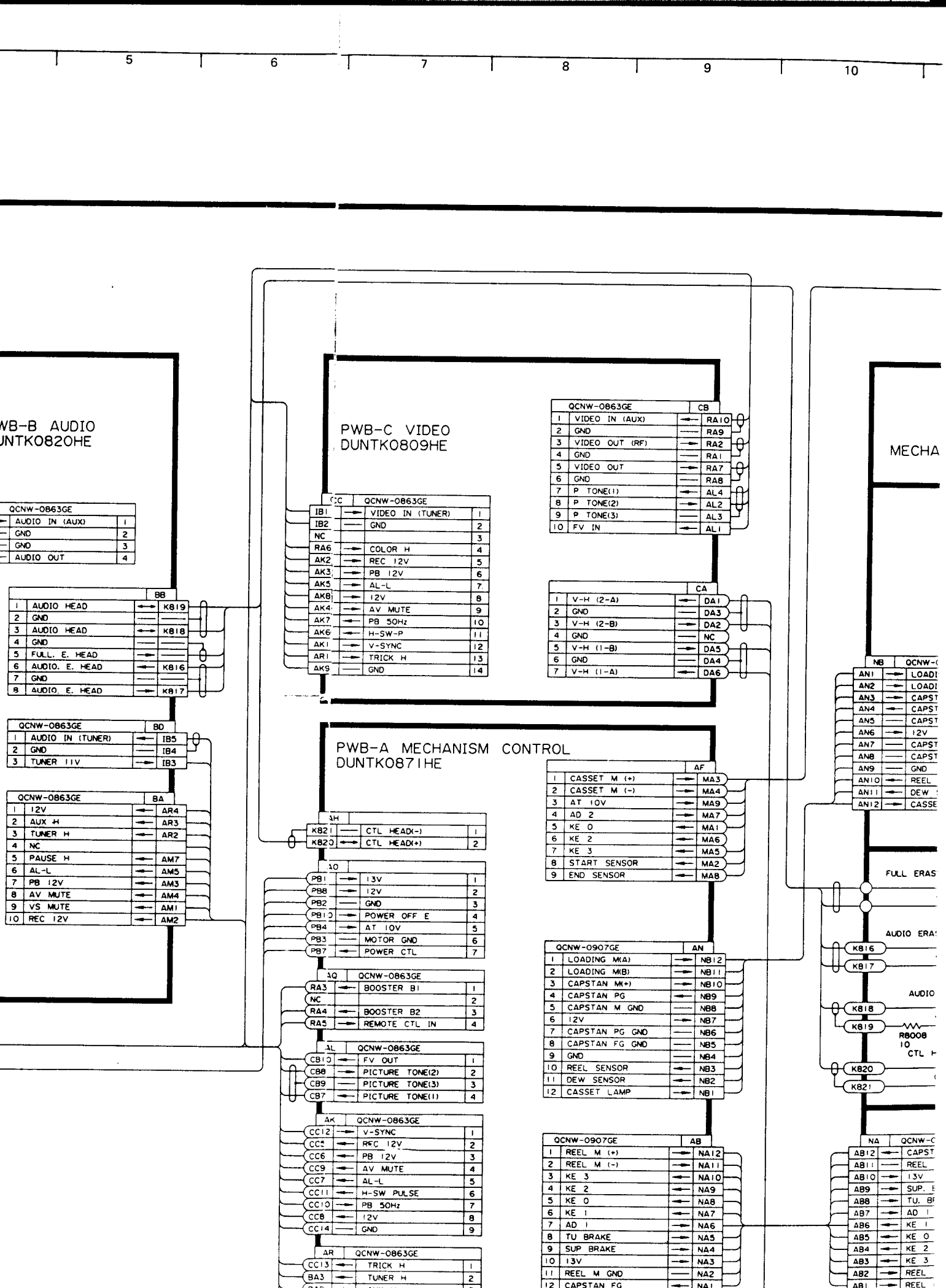

PWB-A MECHANISM CONTROL
DUNTK0871HE
BB
K819
K818
K816
K817
BD
IB5
IB4
IB3
BA
AR4
AR3
AR2
AM7
AM5
AM3
AM4
AM1
AM2
AK8 12V 8
AK4 AV MUTE 9
AK7 PB 50Hz 10
AK6 H-SW-P 11
AK1 V-SYNC 12
AR1 TRICK H 13
AK9 GND 14
1 V-H (2-A) DA1
2 GND DA3
3 V-H (2-B) DA2
4 GND NC
5 V-H (1-B) DA5
6 GND DA4
7 V-H (1-A) DA6
NB QCNW-0907GE
AN1 LOADING M (A) 12
AN2 LOADING M (B) 11
AN3 CAPSTAN M (+) 10
AN4 CAPSTAN FG 9
AN5 CAPSTAN M GND 8
AN6 12V 7
AN7 CAPSTAN PG GND 6
AN8 CAPSTAN FG GND 5
AN9 GND 4
AN10 REEL SENSOR 3
AN11 DEW SENSOR 2
AN12 CASSETTE LAMP 1
AF
1 CASSET M (+) MA3
2 CASSET M (-) MA4
3 AT 10V MA9
4 AD 2 MA7
5 KE 0 MA1
6 KE 2 MA6
7 KE 3 MA5
8 START SENSOR MA2
9 END SENSOR MA8
AH
K821 CTL HEAD(-) 1
K820 CTL HEAD(+) 2
AO
PB1 13V 1
PB8 12V 2
PB2 GND 3
PB10 POWER OFF E 4
PB4 AT 10V 5
PB3 MOTOR GND 6
PB7 POWER CTL 7
AQ QCNW-0863GE
RA3 BOOSTER B1 1
NC 2
RA4 BOOSTER B2 3
RA5 REMOTE CTL IN 4
AL QCNW-0863GE
CB10 FV OUT 1
CB8 PICTURE TONE(2) 2
CB9 PICTURE TONE(3) 3
CB7 PICTURE TONE(1) 4
AK QCNW-0863GE
CC12 V-SYNC 1
CC5 REC 12V 2
CC6 PB 12V 3
CC9 AV MUTE 4
CC7 AL-L 5
CC11 H-SW PULSE 6
CC10 PB 50Hz 7
CC8 12V 8
CC14 GND 9
AR QCNW-0863GE
CC13 TRICK H 1
BA3 TUNER H 2
BA2 AUX H 3
BA1 12V 4
5
6
7
8
AM QCNW-0863GE
BA9 VS MUTE 1
BA10 REC 12V 2
BA7 PB 12V 3
BA8 AV MUTE 4
BA6 AL-L 5
GND 6
BA5 PAUSE-H 7
QCNW-0907GE AN
1 LOADING M(A) NB12
2 LOADING M(B) NB11
3 CAPSTAN M(+) NB10
4 CAPSTAN PG NB9
5 CAPSTAN M GND NB8
6 12V NB7
7 CAPSTAN PG GND NB6
8 CAPSTAN FG GND NB5
9 GND NB4
10 REEL SENSOR NB3
11 DEW SENSOR NB2
12 CASSET LAMP NB1
QCNW-0907GE AB
1 REEL M (+) NA12
2 REEL M (-) NA11
3 KE 3 NA10
4 KE 2 NA9
5 KE 0 NA8
6 KE 1 NA7
7 AD 1 NA6
8 TU BRAKE NA5
9 SUP BRAKE NA4
10 13V NA3
11 REEL M GND NA2
12 CAPSTAN FG NA1
AJ
1 DRUM HEATER DB1
2 DRUM HEATER DB2
3 DRUM PG DB5
4 GND DB3
5 DRUM FG DB4
AT TP
1 DRUM LOCK TP1 AT1 1
2 TRACKING PRESET TP2 AT2 2
3 CAP LOCK TP3 AT3 3
4 V-SYNC TP4 AT4 4
5 H-SW PULSE TP5 AT5 5
6 CTL PULSE TP6 AT6 6
7 12V TP7 AT7 7
8 GND TP8 AT8 8
9 FV TP9 AT9 9
10 CTL DELAY PULSE TP10 AT10 10
AA
1 AT 13V DM2
2 GND DM3
3 CONTROL SIG DM1
QCNW-0864GE AD
1 GND TB1
2 AT 10V TB5
3 NC
4 NC
5 TB2
6 DEW LED TB6
7 TIMER CTL TB4
8 TIMER MEMORY TB3
9 NC
HA
AG14
AG13
AG12
AG11
AG10
AG9
AG8
AG7
AG6
AG5
AG4
AG3
AG2
AG1
AG
HA14 GND 1
HA13 12V 2
HA12 AD 4 3
HA11 KE 2 4
HA10 KE 3 5
HA9 AT 10V 6
HA8 AD 0 7
HA7 AD 5 8
HA6 KE 0 9
HA5 KE 1 10
HA4 TIMER LED 11
HA3 REC LED 12
HA2 PB LED 13
HA1 PAUSE LED 14
FULL ERASE HEAD
AUDIO ERASE HEAD
K816
K817
AUDIO HEAD
K818
K819
RB008
10
CTL HEAD
K820
K821
NA QCNW-0907GE
AB12 CAPSTAN FG 1
AB11 REEL M GND 2
AB10 13V 3
AB9 SUP. BRAKE 4
AB8 TU. BRAKE 5
AB7 AD 1 6
AB6 KE 1 7
AB5 KE 0 8
AB4 KE 2 9
AB3 KE 3 10
AB2 REEL M (-) 11
AB1 REEL M (+) 12
DA
CA1 V-H (2-A) 1
CA3 V-H (2-B) 2
CA2 GND 3
CA6 GND 4
CA5 V-H (1-B) 5
CA7 V-H (1-A) 6
DB
AJ3 DRUM PG 5
AJ5 DRUM FG 4
AJ4 GND 3
AJ2 DRUM HEATER 2
AJ1 DRUM HEATER 1
DC
DRUM. HEATER 1
DRUM. HEATER 2
DM
AA3 CONTROL SIG 1
AA1 AT 13V 2
AA2 GND 3

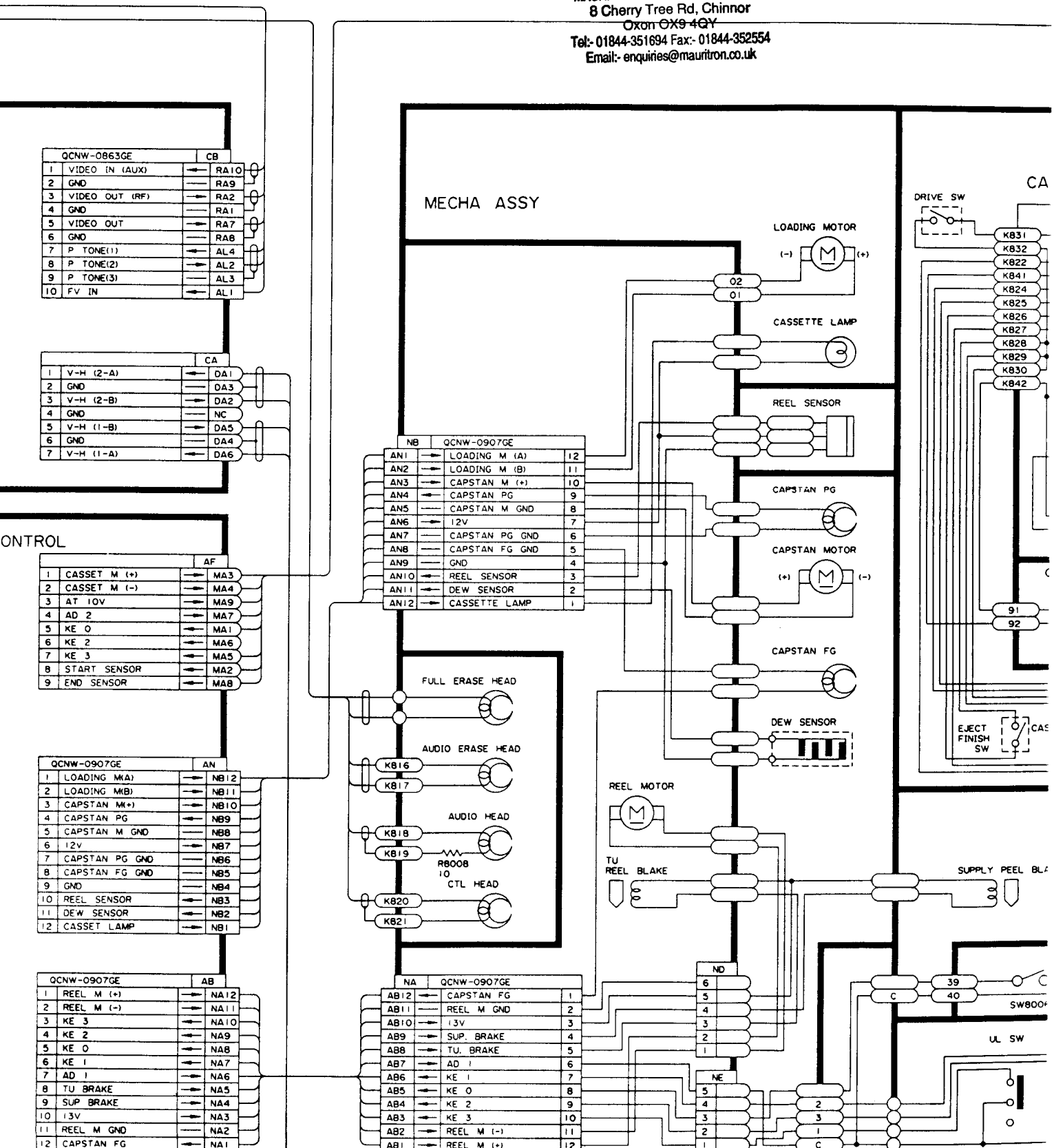


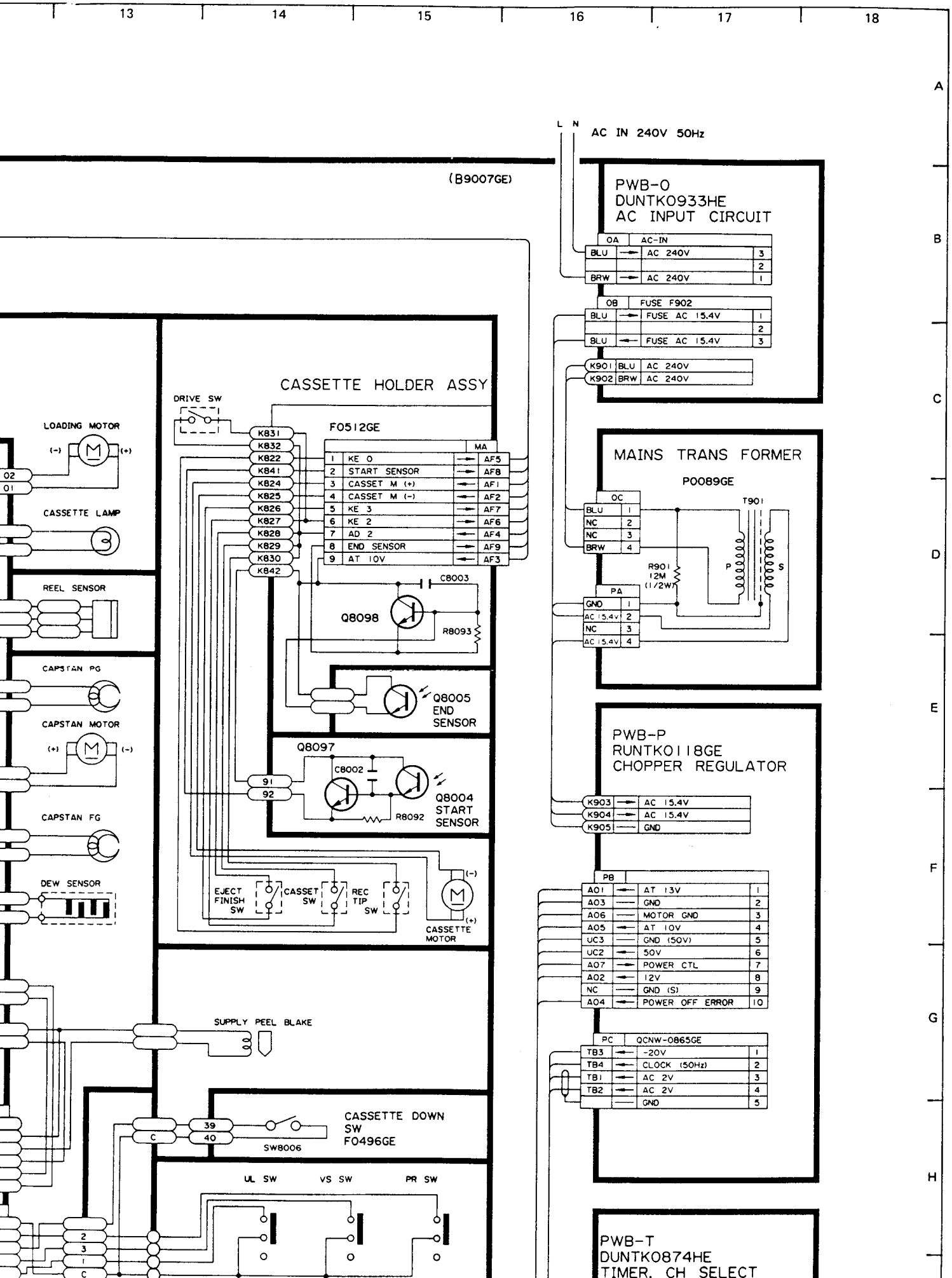

REEL SENSOR
CAPSTAN PG
CAPSTAN MOTOR
CAPSTAN FG
DEW SENSOR
K830
K842
C8003
Q8098
R8093
Q8005
END
SENSOR
Q8097
C8002
91
92
R8092
Q8004
START
SENSOR
EJECT
FINISH
SW
CASSET
SW
REC
TIP
SW
CASSETTE
MOTOR
SUPPLY PEEL BLAKE
39
40
C
SW8006
CASSETTE DOWN
SW
F0496GE
UL SW
VS SW
PR SW
2
3
1
C
81
79
80
78
VIDEO HEAD CH-1
83
76
82
77
VIDEO HEAD CH-2
84
75
85
74
DRUM. PG
DRUM. FG
DRUM. HEATER
DRUM MOTOR
DRUM ASSY
R90
12M
(1/2WT)
PA
GND 1
AC15.4V 2
NC 3
AC15.4V 4
PWB-P
RUNTK0118GE
CHOPPER REGULATOR
K903 AC 15.4V
K904 AC 15.4V
K905 GND
PB
A01 AT 13V 1
A03 GND 2
A06 MOTOR GND 3
A05 AT 10V 4
UC3 GND (50V) 5
UC2 50V 6
A07 POWER CTL 7
A02 12V 8
GND (S) 9
A04 POWER OFF ERROR 10
PC QCNW-0864GE
TC2 -20V 1
TC1 CLOCK (50Hz) 2
TC3 AC 2V 3
TC4 AC 2V 4
GND 5
PWB-T
DUNTK0826HE
TIMER, CH SELECT
TC QCNW-0864GE
PC2 CLOCK 1
PC1 -20V 2
PC3 AC 2V 3
PC4 AC 2V 4
TB QCNW-0864GE
AD1 GND 1
AD5 2
AD8 TIMER MEMORY 3
AD7 TIMER CTL 4
AD2 AT 10V 5
AD6 DEW LED 6
TA QCNW-0864GE
UB1 8 CH 1
UB2 7 CH 2
UB3 6 CH 3
UB4 5 CH 4
UB5 4 CH 5
UB6 3 CH 6
UB7 2 CH 7
UB8 1 CH 8
UB10 GND 9
UB9 LED 10
D
E
F
G
H
I
J
K
L

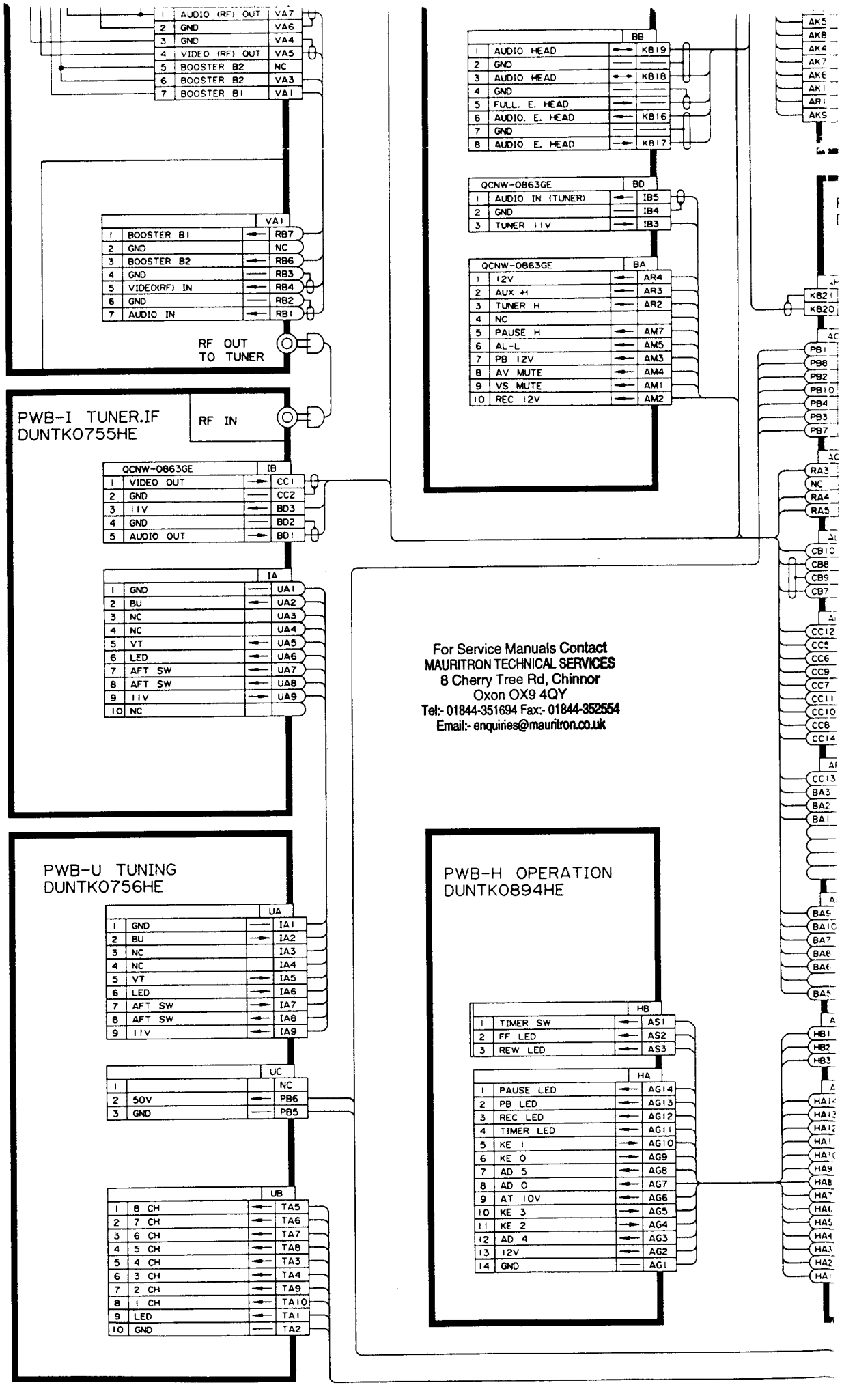
VERALL SCHEMATIC DIAGRAM (VC-383H)

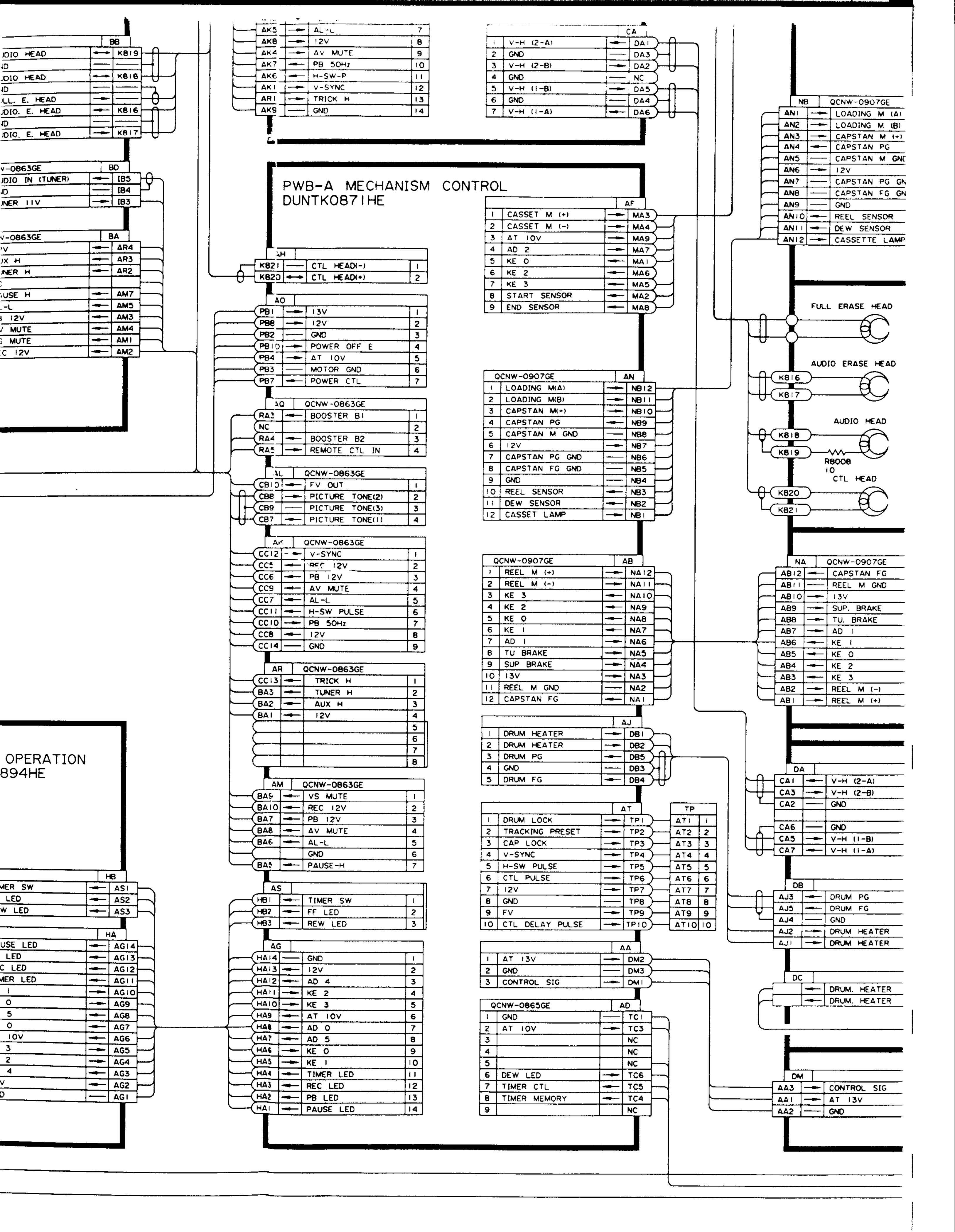


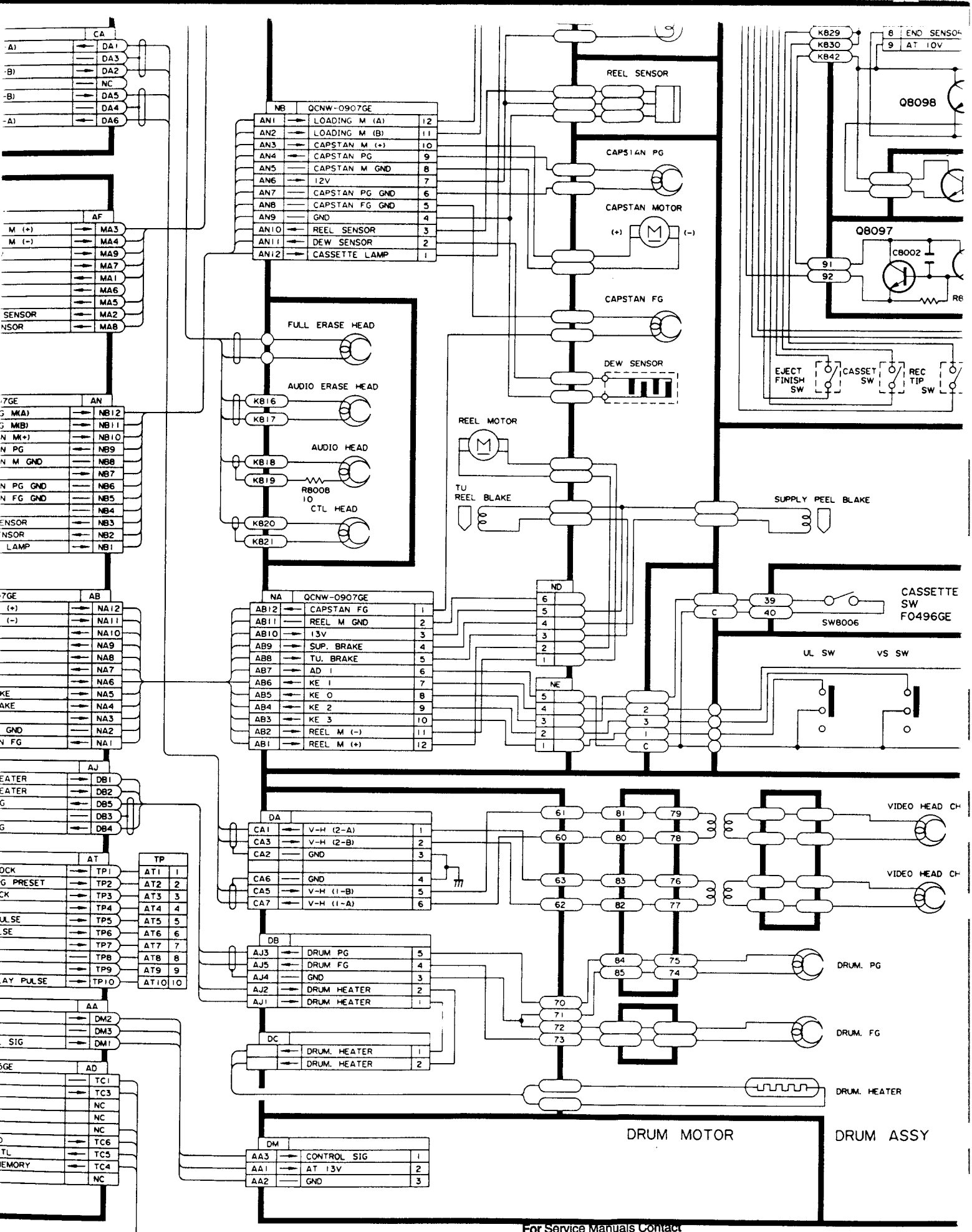

5
6
7
8
9
10
PWB-B AUDIO
UNTK0820HE
PWB-C VIDEO
DUNTK0809HE
MECHA
PWB-A MECHANISM CONTROL
DUNTK0871HE
QCNW-0863GE
AUDIO IN (AUX)
GND
GND
AUDIO OUT
AUDIO HEAD
GND
AUDIO HEAD
GND
FULL. E. HEAD
AUDIO. E. HEAD
GND
AUDIO. E. HEAD
AUDIO IN (TUNER)
GND
TUNER 11V
12V
AUX H
TUNER H
NC
PAUSE H
AL-L
PB 12V
AV MUTE
VS MUTE
REC 12V
VIDEO IN (TUNER)
GND
NC
COLOR H
REC 12V
PB 12V
AL-L
12V
AV MUTE
PB 50Hz
H-SW-P
V-SYNC
TRICK H
GND
VIDEO IN (AUX)
GND
VIDEO OUT (RF)
GND
VIDEO OUT
GND
P TONE(1)
P TONE(2)
P TONE(3)
FV IN
V-H (2-A)
GND
V-H (2-B)
GND
V-H (1-B)
GND
V-H (1-A)
CASSET M (+)
CASSET M (-)
AT 10V
AD 2
KE 0
KE 2
KE 3
START SENSOR
END SENSOR
CTL HEAD(-)
CTL HEAD(+)
13V
12V
GND
POWER OFF E
AT 10V
MOTOR GND
POWER CTL
BOOSTER B1
BOOSTER B2
REMOTE CTL IN
FV OUT
PICTURE TONE(2)
PICTURE TONE(3)
PICTURE TONE(1)
V-SYNC
REC 12V
PB 12V
AV MUTE
AL-L
H-SW PULSE
PB 50Hz
12V
GND
TRICK H
TUNER H
LOADING M(A)
LOADING M(B)
CAPSTAN M(+)
CAPSTAN PG
CAPSTAN M GND
12V
CAPSTAN PG GND
CAPSTAN FG GND
GND
REEL SENSOR
DEW SENSOR
CASSET LAMP
REEL M (+)
REEL M (-)
KE 3
KE 2
KE 0
KE 1
AD 1
TU BRAKE
SUP BRAKE
13V
REEL M GND
CAPSTAN FG
FULL ERAS
AUDIO ERA
AUDIO
R6008
10
CTL H

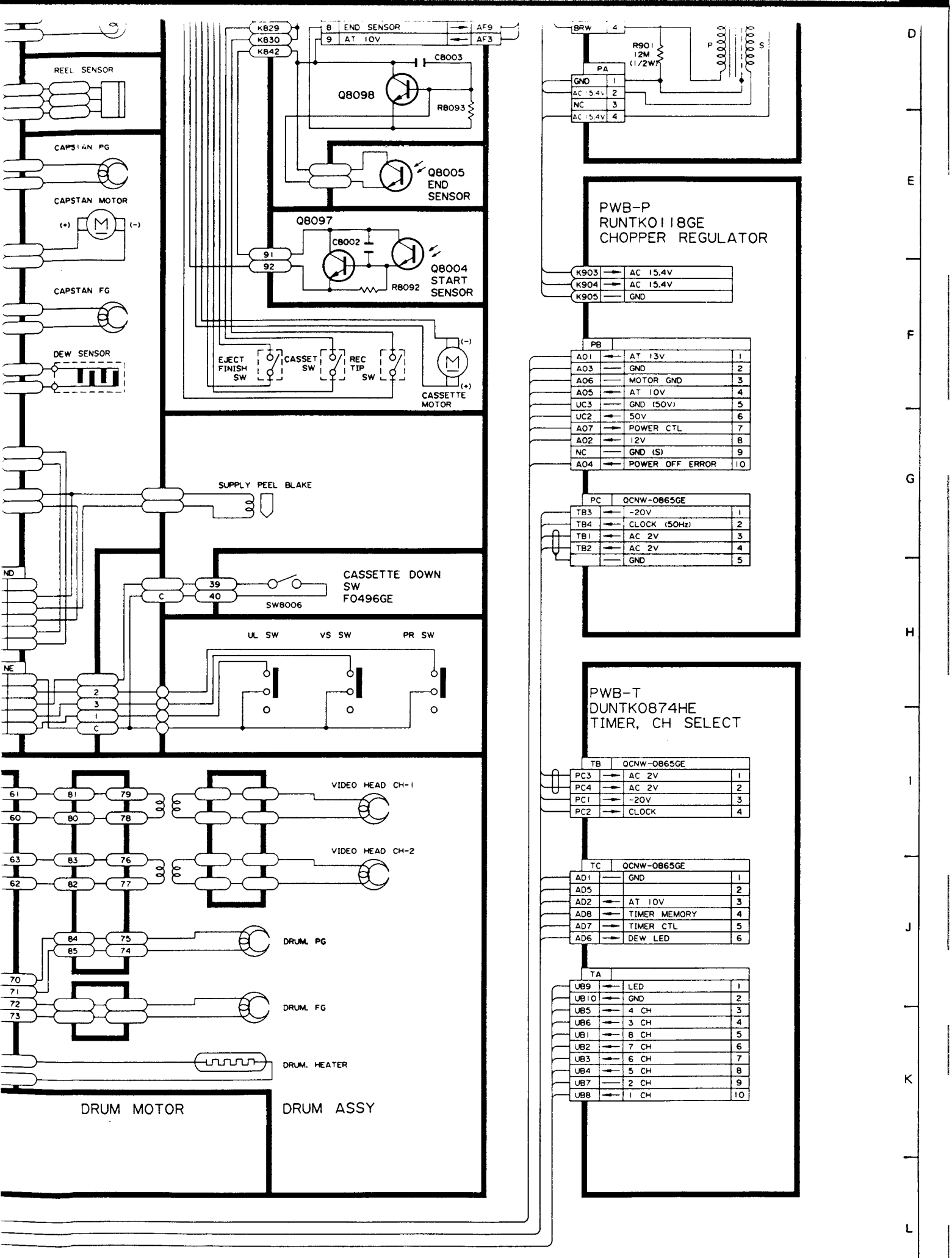



13
14
15
16
17
18
A
B
C
D
E
F
G
H
L N
AC IN 240V 50Hz
(B9007GE)
PWB-O
DUNTK0933HE
AC INPUT CIRCUIT
OA AC-IN
BLU AC 240V 3
2
BRW AC 240V 1
OB FUSE F902
BLU FUSE AC 15.4V 1
2
BLU FUSE AC 15.4V 3
K901 BLU AC 240V
K902 BRW AC 240V
MAINS TRANS FORMER
P0089GE
T901
OC
BLU 1
NC 2
NC 3
BRW 4
R901
12M
(1/2W)
P
S
PA
GND 1
AC 15.4V 2
NC 3
AC 15.4V 4
CASSETTE HOLDER ASSY
DRIVE SW
F0512GE
K831
K832
K822
K841
K824
K825
K826
K827
K828
K829
K830
K842
MA
1 KE 0 AF5
2 START SENSOR AF8
3 CASSET M (+) AF1
4 CASSET M (-) AF2
5 KE 3 AF7
6 KE 2 AF6
7 AD 2 AF4
8 END SENSOR AF9
9 AT 10V AF3
C8003
Q8098
R8093
Q8005
END
SENSOR
Q8097
C8002
91
92
R8092
Q8004
START
SENSOR
EJECT
FINISH
SW
CASSET
SW
REC
TIP
SW
CASSETTE
MOTOR
LOADING MOTOR
CASSETTE LAMP
REEL SENSOR
CAPSTAN PG
CAPSTAN MOTOR
CAPSTAN FG
DEW SENSOR
SUPPLY PEEL BLAKE
CASSETTE DOWN
SW
F0496GE
SW8006
39
40
C
UL SW
VS SW
PR SW
2
3
1
C
PWB-P
RUNTK0118GE
CHOPPER REGULATOR
K903 AC 15.4V
K904 AC 15.4V
K905 GND
PB
A01 AT 13V 1
A03 GND 2
A06 MOTOR GND 3
A05 AT 10V 4
UC3 GND (50V) 5
UC2 50V 6
A07 POWER CTL 7
A02 12V 8
NC GND (S) 9
A04 POWER OFF ERROR 10
PC QCNW-0865GE
TB3 -20V 1
TB4 CLOCK (50Hz) 2
TB1 AC 2V 3
TB2 AC 2V 4
GND 5
PWB-T
DUNTK0874HE
TIMER, CH SELECT

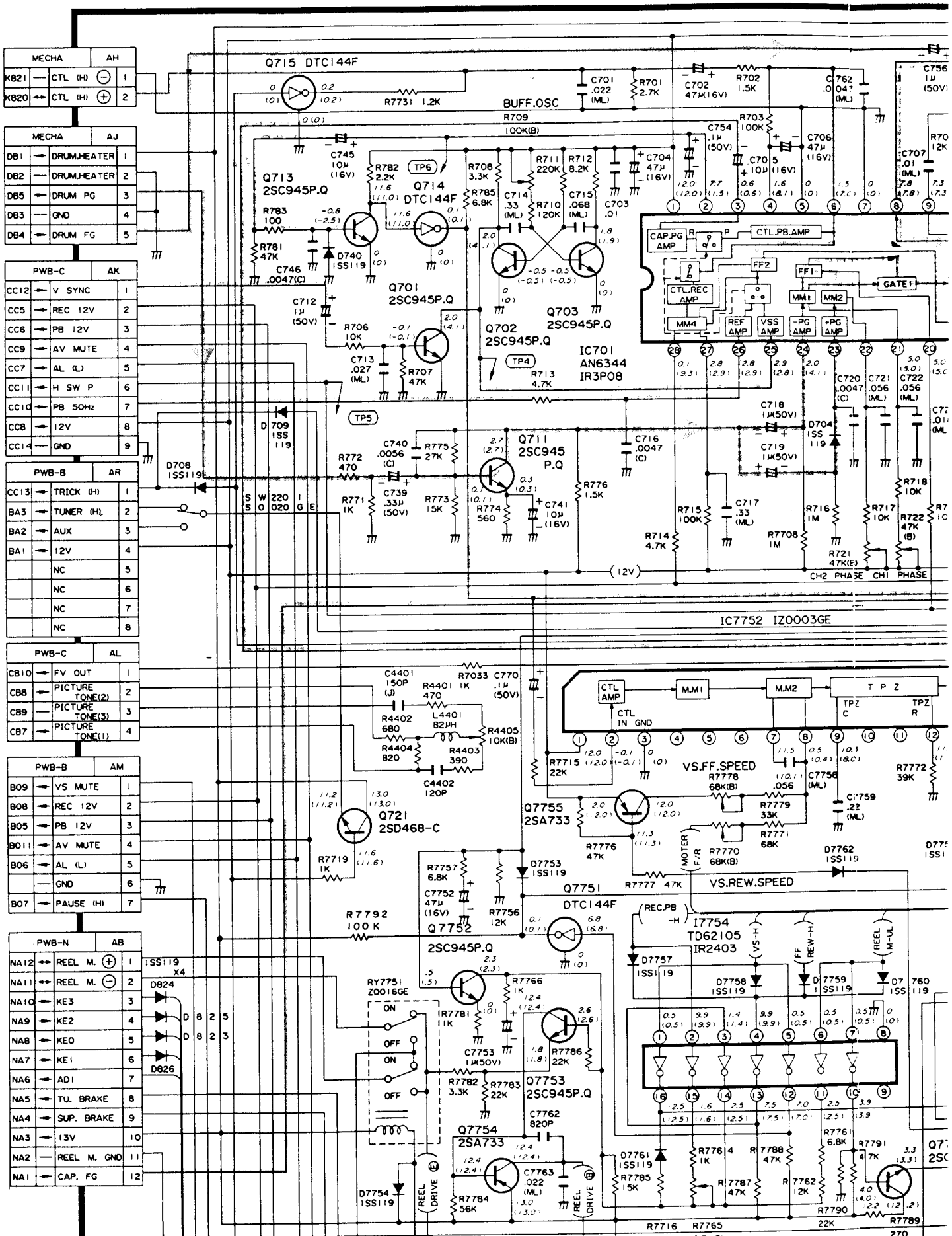

1 AUDIO (RF) OUT VA7
2 GND VA6
3 GND VA4
4 VIDEO (RF) OUT VA5
5 BOOSTER B2 NC
6 BOOSTER B2 VA3
7 BOOSTER B1 VA1
VA1
1 BOOSTER B1 RB7
2 GND NC
3 BOOSTER B2 RB6
4 GND RB3
5 VIDEO(RF) IN RB4
6 GND RB2
7 AUDIO IN RB1
RF OUT TO TUNER
PWB-I TUNER.IF DUNTK0755HE
RF IN
QCNW-0863GE IB
1 VIDEO OUT CC1
2 GND CC2
3 11V BD3
4 GND BD2
5 AUDIO OUT BD1
IA
1 GND UA1
2 BU UA2
3 NC UA3
4 NC UA4
5 VT UA5
6 LED UA6
7 AFT SW UA7
8 AFT SW UA8
9 11V UA9
10 NC
PWB-U TUNING DUNTK0756HE
UA
1 GND IA1
2 BU IA2
3 NC IA3
4 NC IA4
5 VT IA5
6 LED IA6
7 AFT SW IA7
8 AFT SW IA8
9 11V IA9
UC
1 NC
2 50V PB6
3 GND PB5
UB
1 8 CH TA5
2 7 CH TA6
3 6 CH TA7
4 5 CH TA8
5 4 CH TA3
6 3 CH TA4
7 2 CH TA9
8 1 CH TA10
9 LED TA1
10 GND TA2
BB
1 AUDIO HEAD K819
2 GND
3 AUDIO HEAD K818
4 GND
5 FULL. E. HEAD
6 AUDIO. E. HEAD K816
7 GND
8 AUDIO. E. HEAD K817
QCNW-0863GE BD
1 AUDIO IN (TUNER) IB5
2 GND IB4
3 TUNER 11V IB3
QCNW-0863GE BA
1 12V AR4
2 AUX H AR3
3 TUNER H AR2
4 NC
5 PAUSE H AM7
6 AL-L AM5
7 PB 12V AM3
8 AV MUTE AM4
9 VS MUTE AM1
10 REC 12V AM2
PWB-H OPERATION DUNTK0894HE
HB
1 TIMER SW AS1
2 FF LED AS2
3 REW LED AS3
HA
1 PAUSE LED AG14
2 PB LED AG13
3 REC LED AG12
4 TIMER LED AG11
5 KE 1 AG10
6 KE 0 AG9
7 AD 5 AG8
8 AD 0 AG7
9 AT 10V AG6
10 KE 3 AG5
11 KE 2 AG4
12 AD 4 AG3
13 12V AG2
14 GND AG1
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

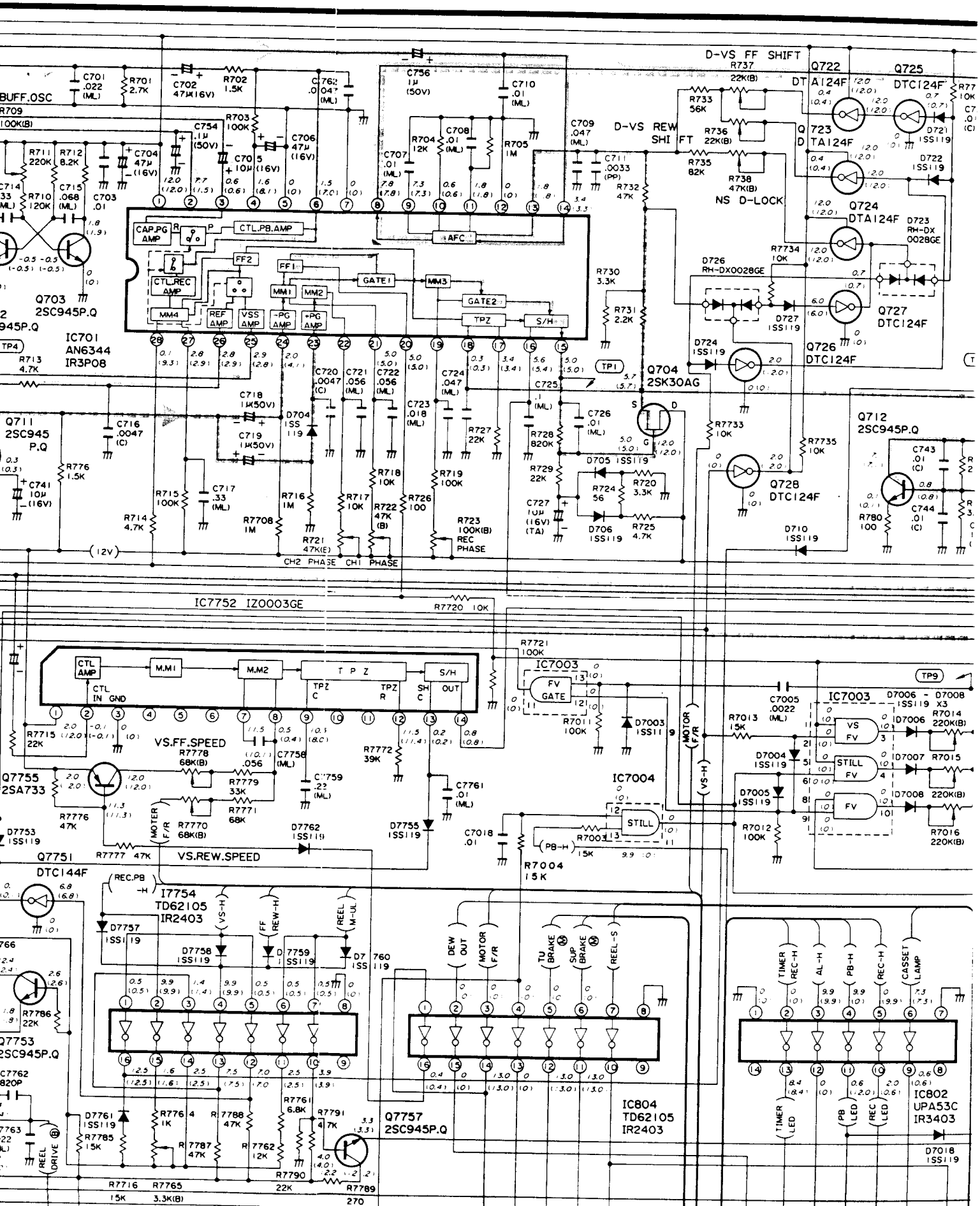

PWB-A MECHANISM CONTROL
DUNTK0871HE
OPERATION
894HE
FULL ERASE HEAD
AUDIO ERASE HEAD
AUDIO HEAD
CTL HEAD
R8008
10
BB
K819 K818 K816 K817
BD
IB5 IB4 IB3
BA
AR4 AR3 AR2 AM7 AM5 AM3 AM4 AM1 AM2
AK5 AL-L 7
AK8 12V 8
AK4 AV MUTE 9
AK7 PB 50Hz 10
AK6 H-SW-P 11
AK1 V-SYNC 12
AR1 TRICK H 13
AK9 GND 14
CA
1 V-H (2-A) DA1
2 GND DA3
3 V-H (2-B) DA2
4 GND NC
5 V-H (1-B) DA5
6 GND DA4
7 V-H (1-A) DA6
NB QCNW-0907GE
AN1 LOADING M (A)
AN2 LOADING M (B)
AN3 CAPSTAN M (+)
AN4 CAPSTAN PG
AN5 CAPSTAN M GND
AN6 12V
AN7 CAPSTAN PG GND
AN8 CAPSTAN FG GND
AN9 GND
AN10 REEL SENSOR
AN11 DEW SENSOR
AN12 CASSETTE LAMP
AF
1 CASSET M (+) MA3
2 CASSET M (-) MA4
3 AT 10V MA9
4 AD 2 MA7
5 KE 0 MA1
6 KE 2 MA6
7 KE 3 MA5
8 START SENSOR MA2
9 END SENSOR MA8
AH
K821 CTL HEAD(-) 1
K820 CTL HEAD(+) 2
AO
PB1 13V 1
PB8 12V 2
PB2 GND 3
PB10 POWER OFF E 4
PB4 AT 10V 5
PB3 MOTOR GND 6
PB7 POWER CTL 7
AQ QCNW-0863GE
RA3 BOOSTER B1 1
NC 2
RA4 BOOSTER B2 3
RA5 REMOTE CTL IN 4
AL QCNW-0863GE
CB10 FV OUT 1
CB8 PICTURE TONE(2) 2
CB9 PICTURE TONE(3) 3
CB7 PICTURE TONE(1) 4
AK QCNW-0863GE
CC12 V-SYNC 1
CC5 REC 12V 2
CC6 PB 12V 3
CC9 AV MUTE 4
CC7 AL-L 5
CC11 H-SW PULSE 6
CC10 PB 50Hz 7
CC8 12V 8
CC14 GND 9
AR QCNW-0863GE
CC13 TRICK H 1
BA3 TUNER H 2
BA2 AUX H 3
BA1 12V 4
5
6
7
8
AM QCNW-0863GE
BA9 VS MUTE 1
BA10 REC 12V 2
BA7 PB 12V 3
BA8 AV MUTE 4
BA6 AL-L 5
GND 6
BA5 PAUSE-H 7
AS
HB1 TIMER SW 1
HB2 FF LED 2
HB3 REW LED 3
AG
HA14 GND 1
HA13 12V 2
HA12 AD 4 3
HA11 KE 2 4
HA10 KE 3 5
HA9 AT 10V 6
HA8 AD 0 7
HA7 AD 5 8
HA6 KE 0 9
HA5 KE 1 10
HA4 TIMER LED 11
HA3 REC LED 12
HA2 PB LED 13
HA1 PAUSE LED 14
HB
AS1 AS2 AS3
HA
AG14 AG13 AG12 AG11 AG10 AG9 AG8 AG7 AG6 AG5 AG4 AG3 AG2 AG1
AN QCNW-0907GE
1 LOADING M(A) NB12
2 LOADING M(B) NB11
3 CAPSTAN M(+) NB10
4 CAPSTAN PG NB9
5 CAPSTAN M GND NB8
6 12V NB7
7 CAPSTAN PG GND NB6
8 CAPSTAN FG GND NB5
9 GND NB4
10 REEL SENSOR NB3
11 DEW SENSOR NB2
12 CASSET LAMP NB1
AB QCNW-0907GE
1 REEL M (+) NA12
2 REEL M (-) NA11
3 KE 3 NA10
4 KE 2 NA9
5 KE 0 NA8
6 KE 1 NA7
7 AD 1 NA6
8 TU BRAKE NA5
9 SUP BRAKE NA4
10 13V NA3
11 REEL M GND NA2
12 CAPSTAN FG NA1
NA QCNW-0907GE
AB12 CAPSTAN FG
AB11 REEL M GND
AB10 13V
AB9 SUP. BRAKE
AB8 TU. BRAKE
AB7 AD 1
AB6 KE 1
AB5 KE 0
AB4 KE 2
AB3 KE 3
AB2 REEL M (-)
AB1 REEL M (+)
AJ
1 DRUM HEATER DB1
2 DRUM HEATER DB2
3 DRUM PG DB5
4 GND DB3
5 DRUM FG DB4
DA
CA1 V-H (2-A)
CA3 V-H (2-B)
CA2 GND
CA6 GND
CA5 V-H (1-B)
CA7 V-H (1-A)
AT
1 DRUM LOCK TP1
2 TRACKING PRESET TP2
3 CAP LOCK TP3
4 V-SYNC TP4
5 H-SW PULSE TP5
6 CTL PULSE TP6
7 12V TP7
8 GND TP8
9 FV TP9
10 CTL DELAY PULSE TP10
TP
AT1 1
AT2 2
AT3 3
AT4 4
AT5 5
AT6 6
AT7 7
AT8 8
AT9 9
AT10 10
DB
AJ3 DRUM PG
AJ5 DRUM FG
AJ4 GND
AJ2 DRUM HEATER
AJ1 DRUM HEATER
AA
1 AT 13V DM2
2 GND DM3
3 CONTROL SIG DM1
DC
DRUM. HEATER
DRUM. HEATER
AD QCNW-0865GE
1 GND TC1
2 AT 10V TC3
3 NC
4 NC
5 NC
6 DEW LED TC6
7 TIMER CTL TC5
8 TIMER MEMORY TC4
9 NC
DM
AA3 CONTROL SIG
AA1 AT 13V
AA2 GND




REEL SENSOR
CAPSTAN PG
CAPSTAN MOTOR
(+)
(-)
CAPSTAN FG
DEW SENSOR
K829
K830
K842
8 END SENSOR
9 AT 10V
AF9
AF3
C8003
Q8098
R8093
Q8005
END
SENSOR
Q8097
C8002
91
92
Q8004
START
SENSOR
R8092
EJECT
FINISH
SW
CASSET
SW
REC
TIP
SW
CASSETTE
MOTOR
SUPPLY PEEL BLAKE
39
C
40
SW8006
CASSETTE DOWN
SW
F0496GE
UL SW
VS SW
PR SW
2
3
1
C
VIDEO HEAD CH-1
VIDEO HEAD CH-2
DRUM. PG
DRUM. FG
DRUM. HEATER
DRUM MOTOR
DRUM ASSY
BRW 4
R901
12M
(1/2W)
P
S
PA
GND 1
AC 15.4V 2
NC 3
AC 15.4V 4
PWB-P
RUNTK0118GE
CHOPPER REGULATOR
K903 AC 15.4V
K904 AC 15.4V
K905 GND
PB
A01 AT 13V 1
A03 GND 2
A06 MOTOR GND 3
A05 AT 10V 4
UC3 GND (50V) 5
UC2 50V 6
A07 POWER CTL 7
A02 12V 8
NC GND (S) 9
A04 POWER OFF ERROR 10
PC QCNW-0865GE
TB3 -20V 1
TB4 CLOCK (50Hz) 2
TB1 AC 2V 3
TB2 AC 2V 4
GND 5
PWB-T
DUNTK0874HE
TIMER, CH SELECT
TB QCNW-0865GE
PC3 AC 2V 1
PC4 AC 2V 2
PC1 -20V 3
PC2 CLOCK 4
TC QCNW-0865GE
AD1 GND 1
AD5 2
AD2 AT 10V 3
AD8 TIMER MEMORY 4
AD7 TIMER CTL 5
AD6 DEW LED 6
TA
UB9 LED 1
UB10 GND 2
UB5 4 CH 3
UB6 3 CH 4
UB1 8 CH 5
UB2 7 CH 6
UB3 6 CH 7
UB4 5 CH 8
UB7 2 CH 9
UB8 1 CH 10

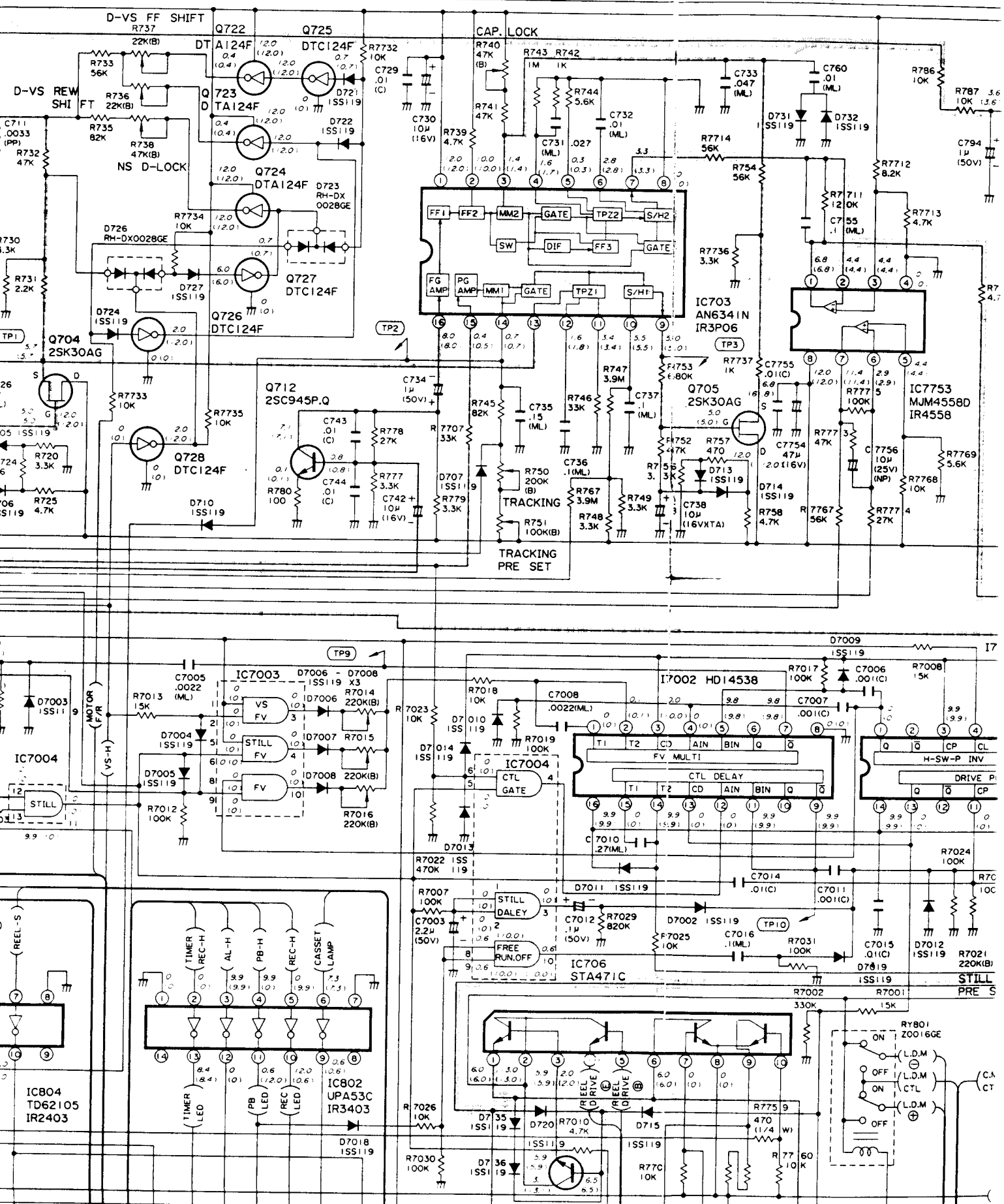
PWB-A, MECHANICAL CONTROL CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)





9 | 10 | 11 | 12 | 13 | 14

Capstan servo frequency control comparison signal
Capstan servo phase control comparison signal
Capstan servo phase c
reference signal



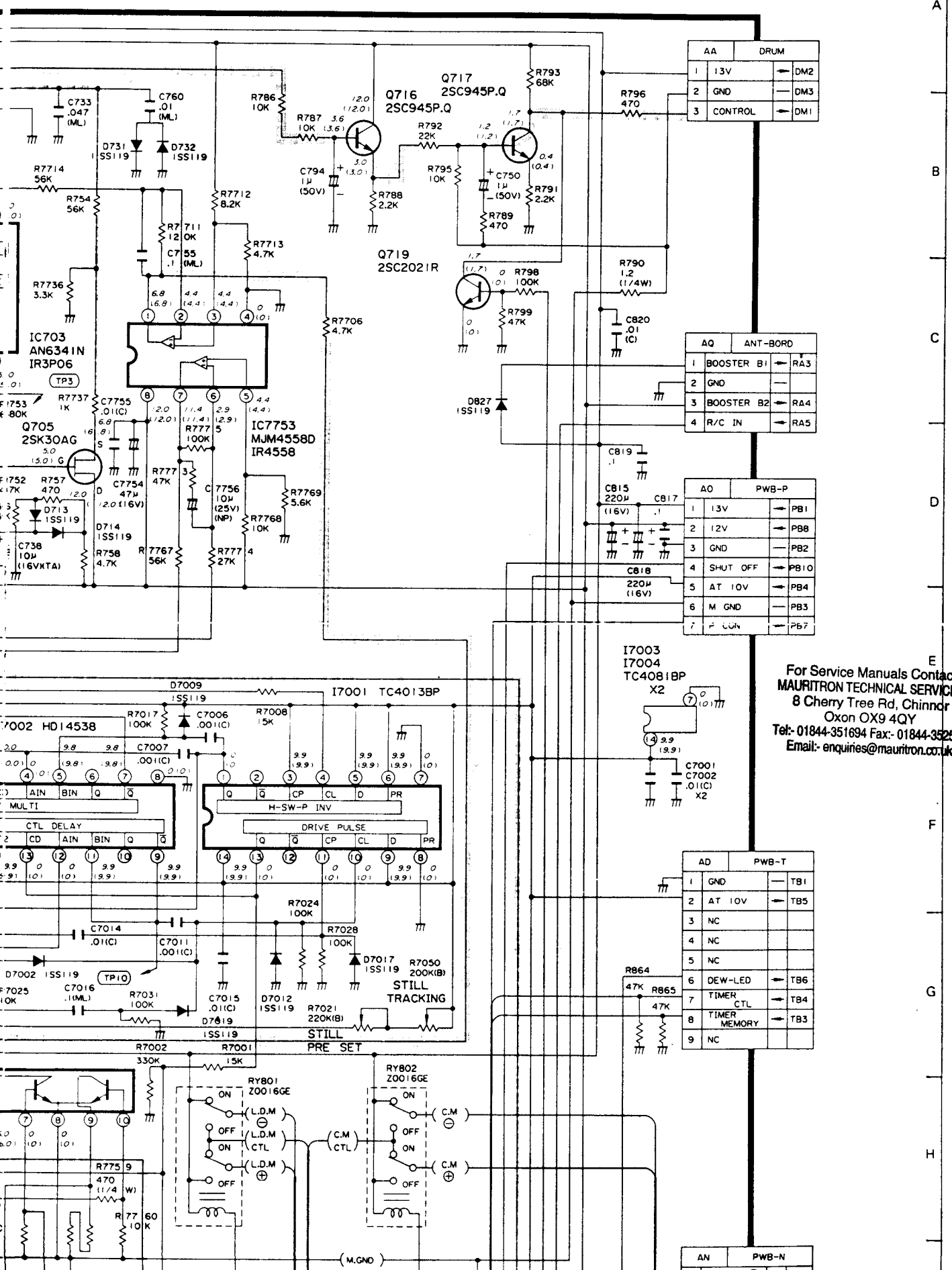
13 | 14 | 15 | 16 | 17 | 18

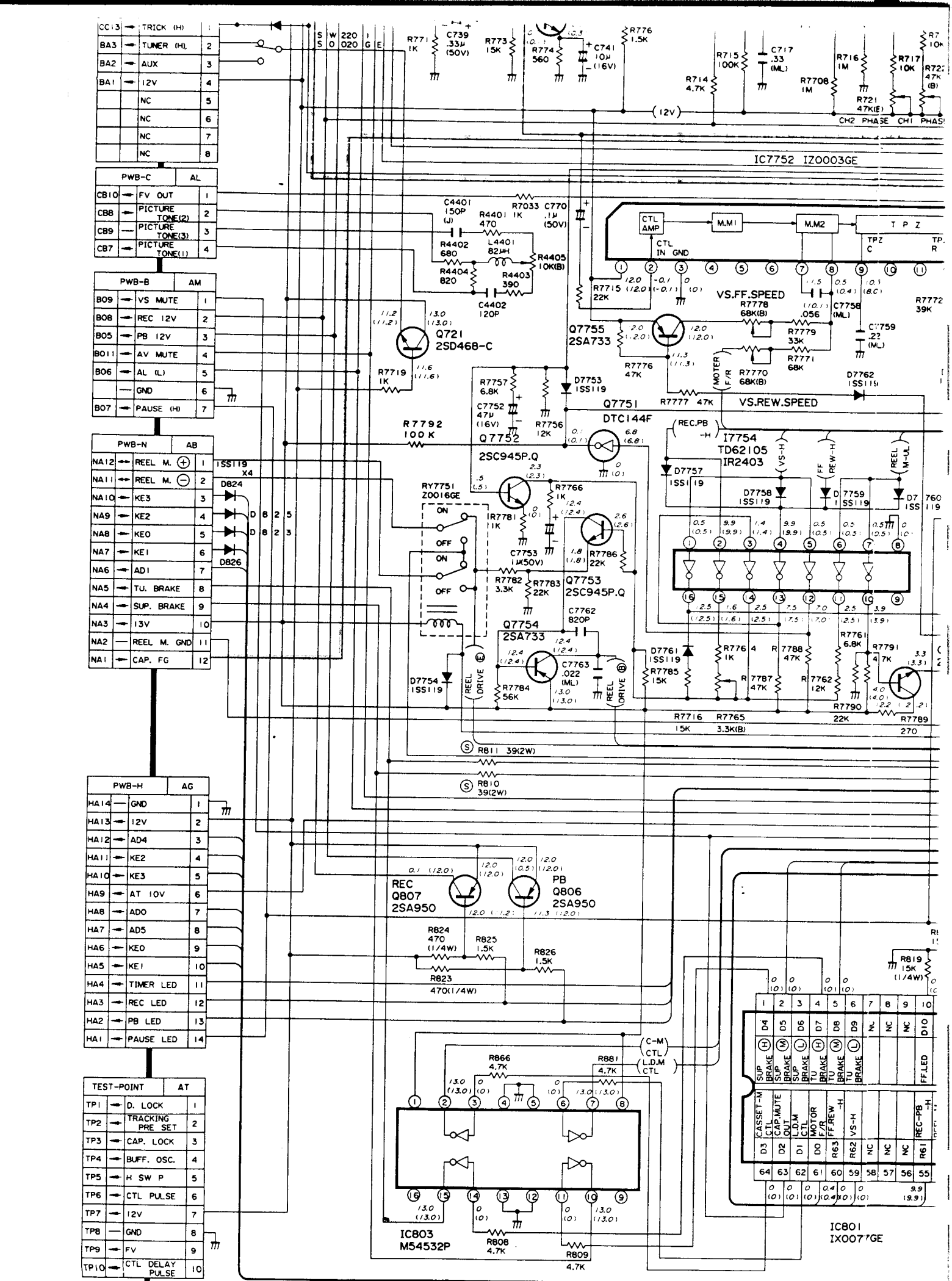
ison signal
signal

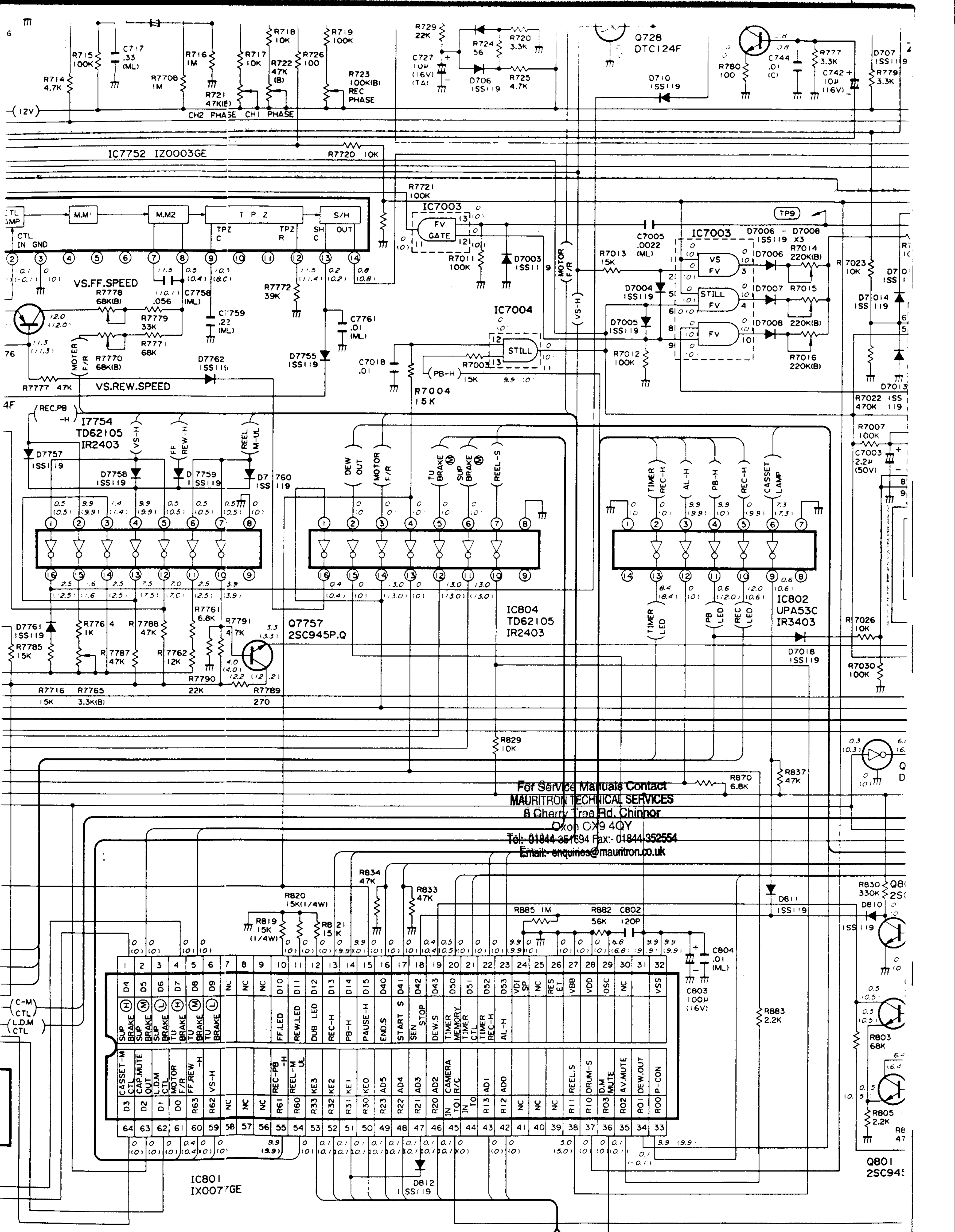
Capstan servo phase control reference signal

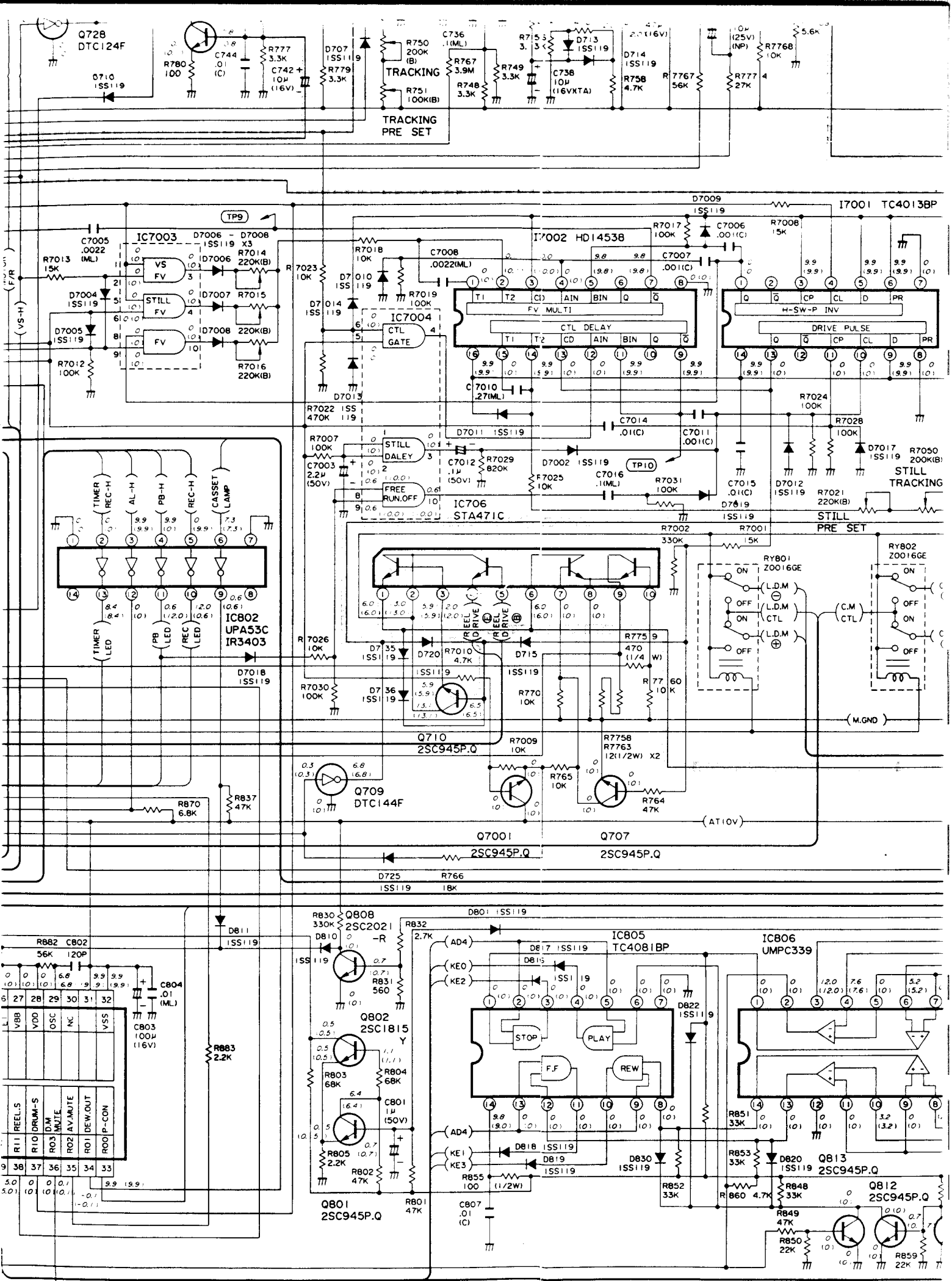
Drum servo frequency control comparison signal

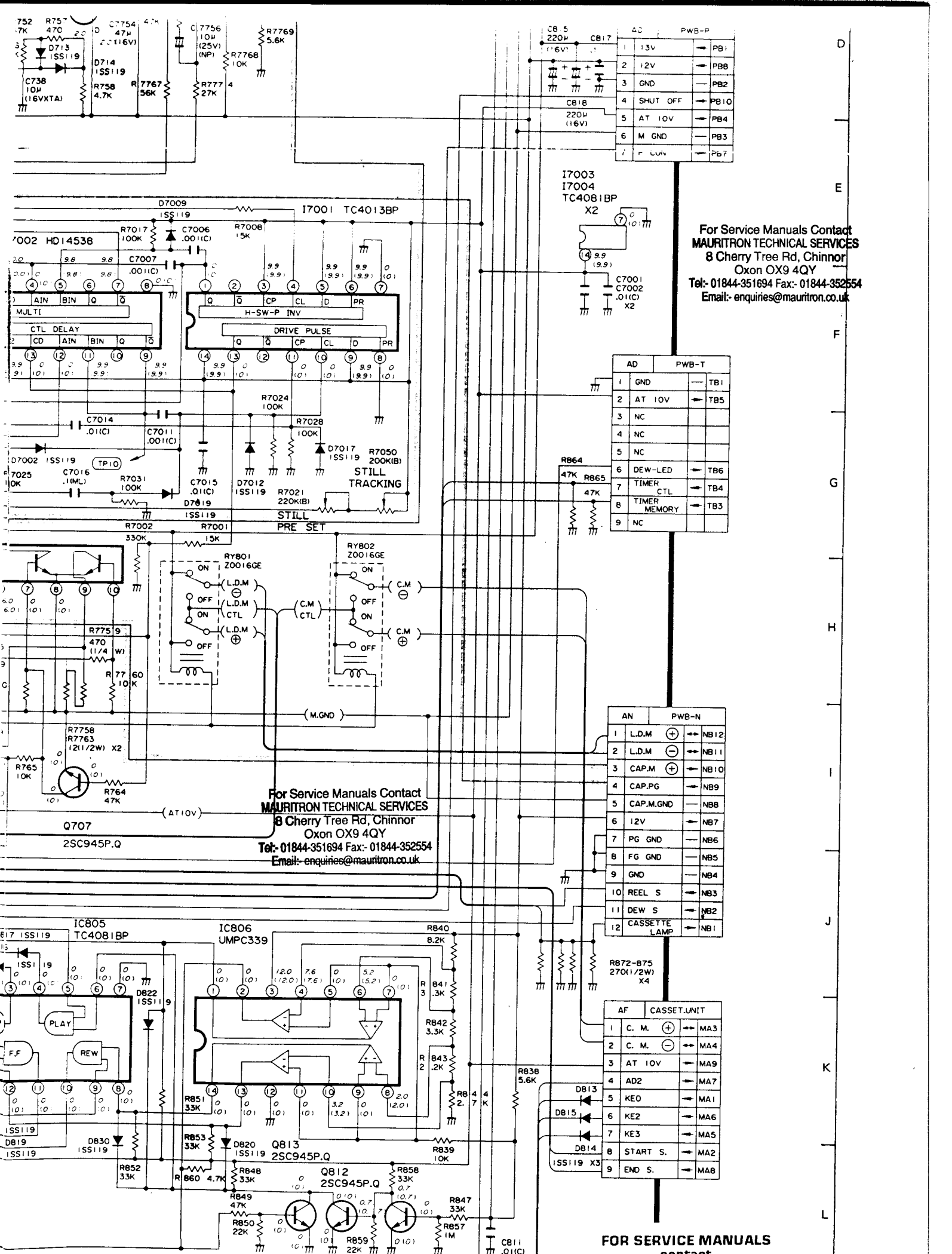
Drum servo phase control comparison signal



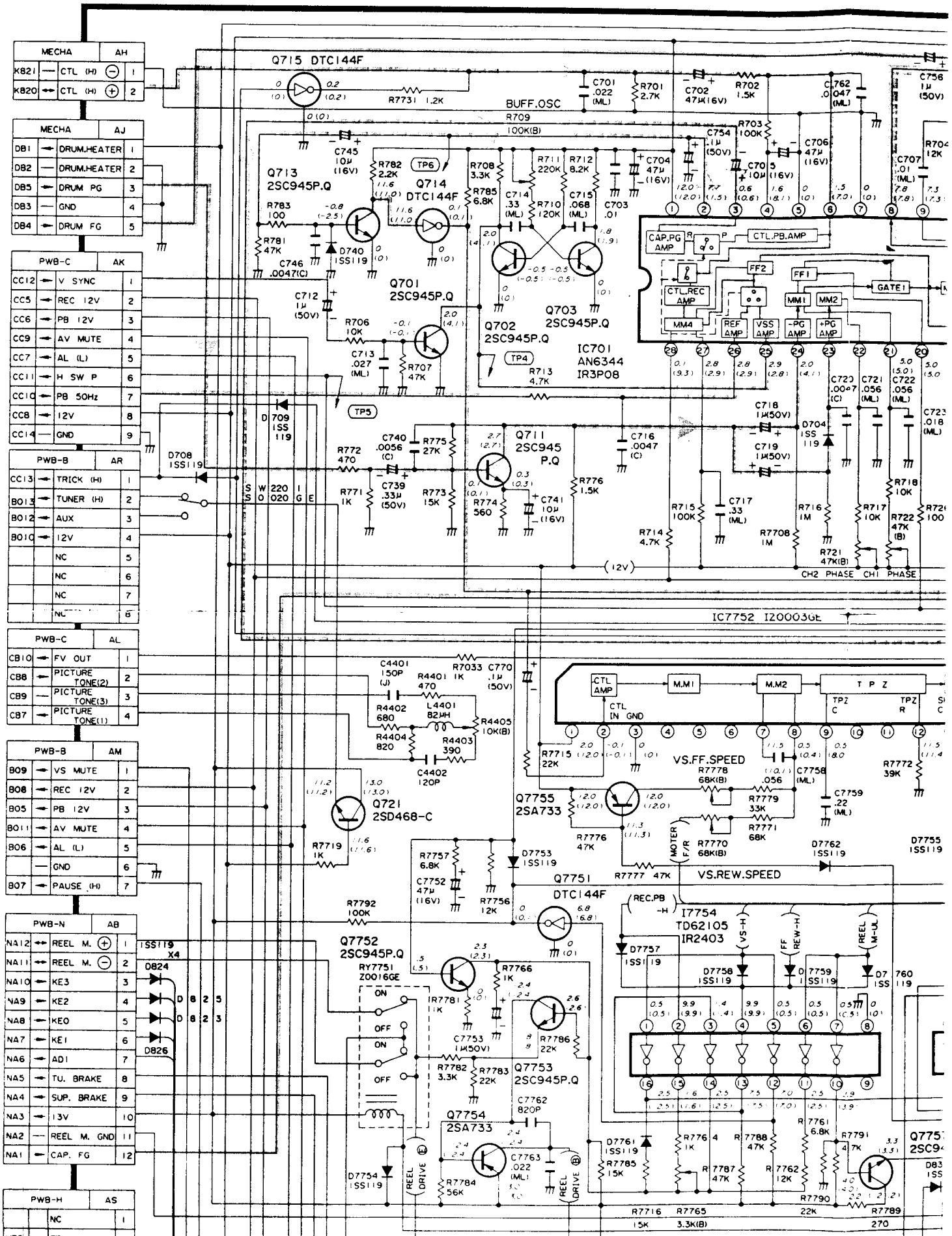

CC13 TRICK (H) 1
BA3 TUNER (H) 2
BA2 AUX 3
BA1 12V 4
NC 5
NC 6
NC 7
NC 8
PWB-C AL
CB10 FV OUT 1
CB8 PICTURE TONE(2) 2
CB9 PICTURE TONE(3) 3
CB7 PICTURE TONE(1) 4
PWB-B AM
B09 VS MUTE 1
B08 REC 12V 2
B05 PB 12V 3
B011 AV MUTE 4
B06 AL (L) 5
GND 6
B07 PAUSE (H) 7
PWB-N AB
NA12 REEL M. ⊕ 1
NA11 REEL M. ⊖ 2
NA10 KE3 3
NA9 KE2 4
NA8 KE0 5
NA7 KE1 6
NA6 AD1 7
NA5 TU. BRAKE 8
NA4 SUP. BRAKE 9
NA3 13V 10
NA2 REEL M. GND 11
NA1 CAP. FG 12
PWB-H AG
HA14 GND 1
HA13 12V 2
HA12 AD4 3
HA11 KE2 4
HA10 KE3 5
HA9 AT 10V 6
HA8 AD0 7
HA7 AD5 8
HA6 KE0 9
HA5 KE1 10
HA4 TIMER LED 11
HA3 REC LED 12
HA2 PB LED 13
HA1 PAUSE LED 14
TEST-POINT AT
TP1 D. LOCK 1
TP2 TRACKING PRE SET 2
TP3 CAP. LOCK 3
TP4 BUFF. OSC. 4
TP5 H SW P 5
TP6 CTL PULSE 6
TP7 12V 7
TP8 GND 8
TP9 FV 9
TP10 CTL DELAY PULSE 10
SW 220 IGE
R771 1K
C739 .33μ (50V)
R773 15K
R774 560
C741 10μ (16V)
R776 1.5K
R715 100K
C717 .33 (ML)
R714 4.7K
R7708 1M
R716 1M
R721 47K(E)
R717 10K
R722 47K (B)
CH2 PHASE
CH1 PHASE
(12V)
IC7752 IZ0003GE
C4401 150P (J)
R4401 470
R7033 1K
C770 .1μ (50V)
R4402 680
L4401 82μH
R4405 10K(B)
R4404 820
R4403 390
C4402 120P
CTL AMP
M.M1
M.M2
T P Z
CTL IN GND
R7715 22K
VS.FF.SPEED
R7778 68K(B)
C7758 (ML)
R7772 39K
R7779 33K
C7759 .22 (ML)
R7771 68K
R7770 68K(B)
MOTER F/R
R7777 47K
VS.REW.SPEED
D7762 1SS119
Q7755 2SA733
R7776 47K
Q7751 DTC144F
Q7752 2SC945P.Q
R7792 100K
R7757 6.8K
C7752 47μ (16V)
R7756 12K
D7753 1SS119
Q721 2SD468-C
R7719 1K
REC.PB -H
I7754 TD62105 IR2403
D7757 1SS119
D7758 1SS119
D7759 1SS119
D7760 1SS119
VS-H
FF REW-H
REEL M-UL
1SS119 X4
D824
D825
D826
RY7751 Z0016GE
ON
OFF
ON
OFF
R7781 1K
R7766 1K
R7786 22K
C7753 1μ(50V)
R7782 3.3K
R7783 22K
Q7753 2SC945P.Q
C7762 820P
Q7754 2SA733
C7763 .022 (ML)
R7784 56K
D7754 1SS119
REEL DRIVE
D7761 1SS119
R7785 15K
R7764 1K
R7787 47K
R7788 47K
R7762 12K
R7761 6.8K
R7791 4.7K
R7790 22K
R7789 270
R7716 15K
R7765 3.3K(B)
R811 39(2W)
R810 39(2W)
REC Q807 2SA950
PB Q806 2SA950
R824 470 (1/4W)
R825 1.5K
R826 1.5K
R823 470(1/4W)
R819 15K (1/4W)
C-M CTL
L.D.M CTL
R866 4.7K
R881 4.7K
IC803 M54532P
R808 4.7K
R809 4.7K
IC801 IX0077GE
D4 D5 D6 D7 D8 D9 NC NC NC D10
SUP BRAKE (H) SUP BRAKE (M) SUP BRAKE (L) TU BRAKE (H) TU BRAKE (M) TU BRAKE (L) FF.LED
D3 D2 D1 D0 R63 R62 NC NC NC R61
CASSET-M CTL CAP.MUTE OUT L.D.M CTL MOTOR F/R FF.REW -H VS-H REC-PB -H
64 63 62 61 60 59 58 57 56 55


IC7752 IZ0003GE
M.M1
M.M2
T P Z
S/H
CTL IN GND
TPZ C
TPZ R
SH C
OUT
R715 100K
C717 .33 (ML)
R714 4.7K
R716 1M
R7708 1M
R717 10K
R718 10K
R722 47K (B)
R721 47K(E)
R719 100K
R726 100
R723 100K(B) REC PHASE
CH2 PHASE
CH1 PHASE
(12V)
R7720 10K
R729 22K
R724 56
R720 3.3K
R725 4.7K
C727 10µ (16V) (TA)
D706 1SS119
Q728 DTC124F
D710 1SS119
R780 100
C744 .01 (C)
R777 3.3K
C742 10µ (16V)
D707 1SS119
R779 3.3K
R7721 100K
IC7003
FV GATE
R7011 100K
D7003 1SS119
MOTOR F/R
VS-H
C7005 .0022 (ML)
R7013 15K
D7004 1SS119
D7005 1SS119
R7012 100K
VS FV
STILL FV
FV
D7006 - D7008 1SS119 X3
R7014 220K(B)
R7015
R7016 220K(B)
TP9
R7023 10K
IC7004
STILL
R7003
PB-H
R7004 15K
C7018 .01
VS.FF.SPEED
R7778 68K(B)
R7779 33K
R7771 68K
R7770 68K(B)
C7758 .056 (ML)
C7759 .22 (ML)
R7772 39K
C7761 .01 (ML)
D7755 1SS119
D7762 1SS119
R7777 47K
VS.REW.SPEED
MOTER F/R
REC.PB -H
I7754 TD62105 IR2403
VS-H
FF REW-H
REEL M-UL
D7757 1SS119
D7758 1SS119
D7759 1SS119
D7760 1SS119
DEW OUT
MOTOR F/R
TU BRAKE
SUP BRAKE
REEL-S
TIMER REC-H
AL-H
PB-H
REC-H
CASSET LAMP
R7022 470K
R7007 100K
C7003 2.2µ (50V)
IC804 TD62105 IR2403
IC802 UPA53C IR3403
TIMER LED
PB LED
REC LED
D7018 1SS119
R7026 10K
R7030 100K
D7761 1SS119
R7785 15K
R7764 1K
R7788 47K
R7787 47K
R7762 12K
R7761 6.8K
R7791 47K
R7790 22K
R7789 270
Q7757 2SC945P.Q
R7716 15K
R7765 3.3K(B)
R829 10K
R870 6.8K
R837 47K
R834 47K
R833 47K
R820 15K(1/4W)
R819 15K (1/4W)
R821 15K
R885 1M
R882 56K
C802 120P
C804 .01 (ML)
C803 100µ (16V)
R883 2.2K
D811 1SS119
D810 1SS119
R830 330K
R803 68K
R805 2.2K
Q801 2SC945
D812 1SS119
IC801 IX0077GE
(C-M CTL)
(L.D.M CTL)
D4 D5 D6 D7 D8 D9 NC NC NC D10 D11 D12 D13 D14 D15 D40 D41 D42 D43 D50 D51 D52 D53 VDI SP NC RES ET VBB VDD OSC NC VSS
SUP BRAKE
SUP BRAKE
SUP BRAKE
TU BRAKE
TU BRAKE
TU BRAKE
FF.LED
REW.LED
DUB LED
REC-H
PB-H
PAUSE-H
END.S
START S
SEN STOP
DEW.S
TIMER MEMORY
TIMER CTL
TIMER REC-H
AL-H
CASSET-M CTL
CAP.MUTE OUT
L.D.M CTL
MOTOR F/R
FF.REW -H
VS-H
REC-PB -H
REEL-M UL
KE3 KE2 KE1 KE0 AD5 AD4 AD3 AD2
CAMERA R/C
AD1 AD0
REEL.S
DRUM-S
D.M MUTE
AV.MUTE
DEW.OUT
P-CON
D3 D2 D1 D0 R63 R62 NC NC NC R61 R60 R33 R32 R31 R30 R23 R22 R21 R20 IN TO1 IN TO R13 R12 NC NC NC R11 R10 R03 R02 R01 R00


Q728
DTC124F
D710
1SS119
R780
100
C744
.01
(C)
R777
3.3K
C742
10μ
(16V)
D707
1SS119
R779
3.3K
R750
200K
(B)
TRACKING
R751
100K(B)
TRACKING
PRE SET
C736
.1(ML)
R767
3.9M
R748
3.3K
R749
3.3K
C738
10μ
(16VXTA)
D713
1SS119
D714
1SS119
R758
4.7K
R7767
56K
R7774
27K
(25V)
(NP)
R7768
10K
5.6K
TP9
IC7003
D7006 - D7008
1SS119 X3
VS
FV
STILL
FV
FV
D7006
D7007
D7008
R7014
220K(B)
R7015
220K(B)
R7016
220K(B)
C7005
.0022
(ML)
R7013
15K
D7004
1SS119
D7005
1SS119
R7012
100K
(VS-H)
F/R
R7018
10K
R7023
10K
D7010
1SS119
R7019
100K
D7014
1SS119
IC7004
CTL
GATE
D7013
R7022
470K
1SS119
I7002 HD14538
T1
T2
(CI)
AIN
BIN
Q
Q̄
FV MULTI
CTL DELAY
T1
T2
CD
AIN
BIN
Q
Q̄
C7008
.0022(ML)
C7007
.001(C)
R7017
100K
C7006
.001(C)
R7008
15K
D7009
1SS119
I7001 TC4013BP
Q
Q̄
CP
CL
D
PR
H-SW-P INV
DRIVE PULSE
Q
Q̄
CP
CL
D
PR
C7010
.27(ML)
R7024
100K
C7014
.01(C)
C7011
.001(C)
R7028
100K
D7017
1SS119
R7050
200K(B)
STILL
TRACKING
R7021
220K(B)
D7019
1SS119
STILL
PRE SET
D7012
1SS119
C7015
.01(C)
R7007
100K
STILL
DALEY
C7003
2.2μ
(50V)
FREE
RUN.OFF
C7012
.1μ
(50V)
R7029
820K
D7011 1SS119
D7002 1SS119
TP10
R7025
10K
C7016
.1(ML)
R7031
100K
IC706
STA471C
TIMER
REC-H
AL-H
PB-H
REC-H
CASSET
LAMP
IC802
UPA53C
IR3403
TIMER
LED
PB
LED
REC
LED
D7018
1SS119
R7002
330K
R7001
15K
RY801
Z0016GE
RY802
Z0016GE
ON
OFF
L.D.M
C.M
CTL
M.GND
REEL
DRIVE
REEL
DRIVE
R7026
10K
D735
1SS119
D720
R7010
4.7K
D715
R7759
470
(1/4 W)
D736
1SS119
R7030
100K
R770
10K
R7760
10K
Q710
2SC945P.Q
R7009
10K
R7758
R7763
12(1/2W) X2
Q709
DTC144F
R765
10K
R764
47K
R870
6.8K
R837
47K
AT10V
Q7001
2SC945P.Q
Q707
2SC945P.Q
D725
1SS119
R766
18K
D811
1SS119
R882
56K
C802
120P
C804
.01
(ML)
C803
100μ
(16V)
R883
2.2K
VBB
VDD
OSC
NC
VSS
REEL.S
DRUM-S
D.M MUTE
AV.MUTE
DEW.OUT
P-CON
R11
R10
R03
R02
R01
R00
R830
330K
Q808
2SC2021
-R
D810
1SS119
R831
560
Q802
2SC1815
Y
R803
68K
R804
68K
C801
1μ
(50V)
R805
2.2K
R802
47K
R801
47K
Q801
2SC945P.Q
D801 1SS119
R832
2.7K
IC805
TC4081BP
AD4
KE0
KE2
KE1
KE3
D817 1SS119
D815
1SS119
D818 1SS119
D819
1SS119
STOP
PLAY
F.F
REW
D822
1SS119
D830
1SS119
R855
100
(1/2W)
C807
.01
(C)
IC806
UMPC339
R851
33K
R853
33K
D820
1SS119
Q813
2SC945P.Q
R852
33K
R860 4.7K
R848
33K
Q812
2SC945P.Q
R849
47K
R850
22K
R859
22K


D7009 1SS119
I7001 TC4013BP
HD14538
R7017 100K
C7006 .001(C)
R7008 15K
C7007 .001(C)
MULTI
CTL DELAY
H-SW-P INV
DRIVE PULSE
R7024 100K
C7014 .01(C)
C7011 .001(C)
R7028 100K
D7002 1SS119
TP10
C7016 .1(ML)
R7031 100K
C7015 .01(C)
D7012 1SS119
R7021 220K(B)
D7017 1SS119
R7050 200K(B)
STILL TRACKING
D7019 1SS119
STILL PRE SET
R7002 330K
R7001 15K
RY801 Z0016GE
RY802 Z0016GE
L.D.M
C.M
CTL
M.GND
R7759 470 (1/4 W)
R7760 10K
R7758 R7763 12(1/2W) X2
R765 10K
R764 47K
AT 10V
Q707 2SC945P.Q
C8 5 220μ (16V)
CB17
C818 220μ (16V)
AC PWB-P
1 13V PB1
2 12V PB8
3 GND PB2
4 SHUT OFF PB10
5 AT 10V PB4
6 M GND PB3
7 F CON PB7
I7003 I7004 TC4081BP X2
C7001 C7002 .01(C) X2
AD PWB-T
1 GND TB1
2 AT 10V TB5
3 NC
4 NC
5 NC
6 DEW-LED TB6
7 TIMER CTL TB4
8 TIMER MEMORY TB3
9 NC
R864 47K
R865 47K
AN PWB-N
1 L.D.M ⊕ NB12
2 L.D.M ⊖ NB11
3 CAP.M ⊕ NB10
4 CAP.PG NB9
5 CAP.M.GND NB8
6 12V NB7
7 PG GND NB6
8 FG GND NB5
9 GND NB4
10 REEL S NB3
11 DEW S NB2
12 CASSETTE LAMP NB1
R872-875 270(1/2W) X4
AF CASSET.UNIT
1 C. M. ⊕ MA3
2 C. M. ⊖ MA4
3 AT 10V MA9
4 AD2 MA7
5 KE0 MA1
6 KE2 MA6
7 KE3 MA5
8 START S. MA2
9 END S. MA8
D813
D815
D814
1SS119 X3
IC805 TC4081BP
IC806 UMPC339
R840 8.2K
R841 3.3K
R842 3.3K
R843 2.2K
R844 2.7K
R838 5.6K
R851 33K
R853 33K
R852 33K
R860 4.7K
R848 33K
R849 47K
R850 22K
R858 33K
R859 22K
R857 1M
R847 33K
R839 10K
D822 1SS119
D830 1SS119
D820 1SS119
Q813 2SC945P.Q
Q812 2SC945P.Q
C811 .01(C)
PLAY
F.F
REW
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk
FOR SERVICE MANUALS
contact

PWB-A, MECHANICAL CONTROL CIRCUIT SCHEMATIC DIAGRAM (VC-383H)



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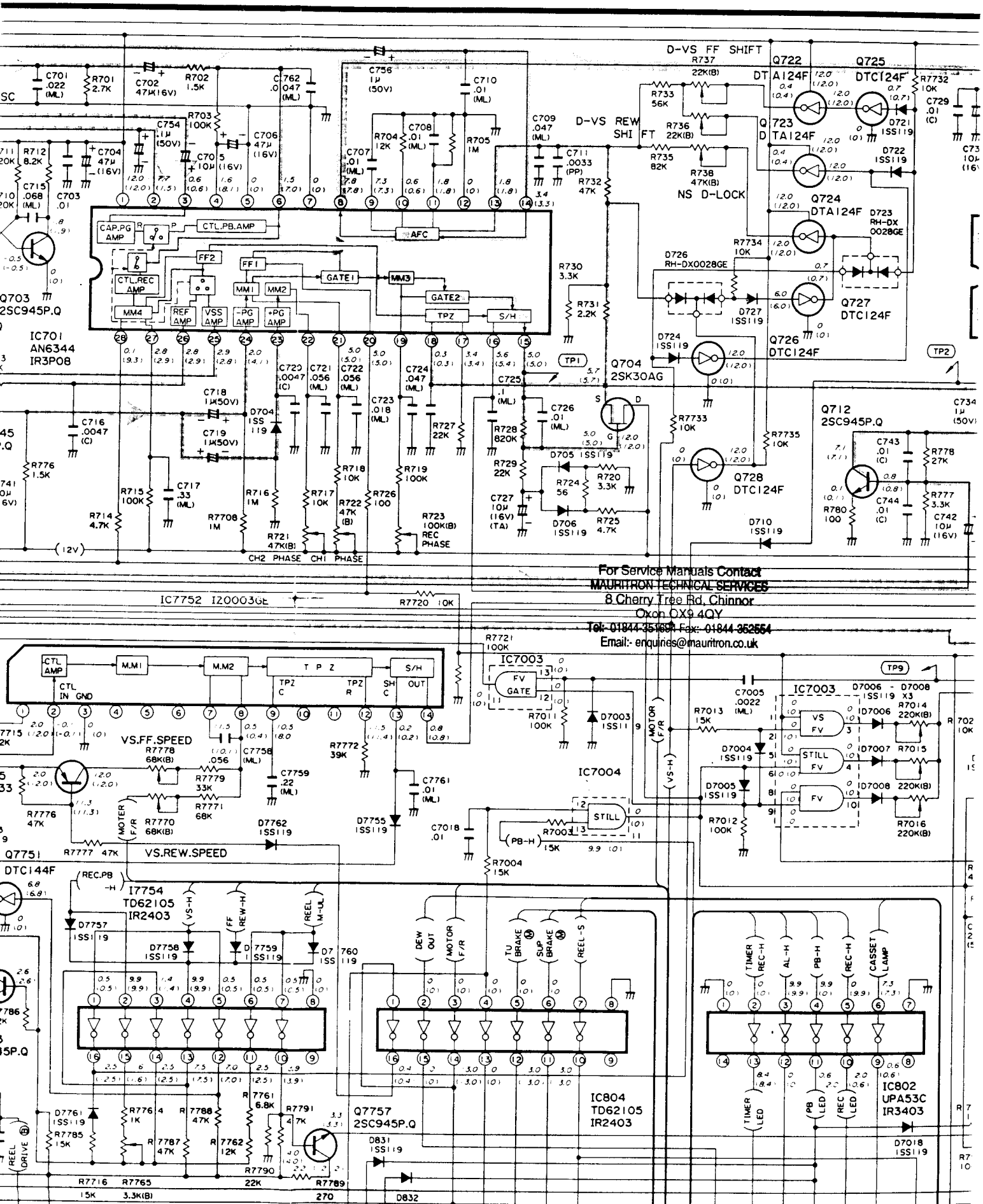
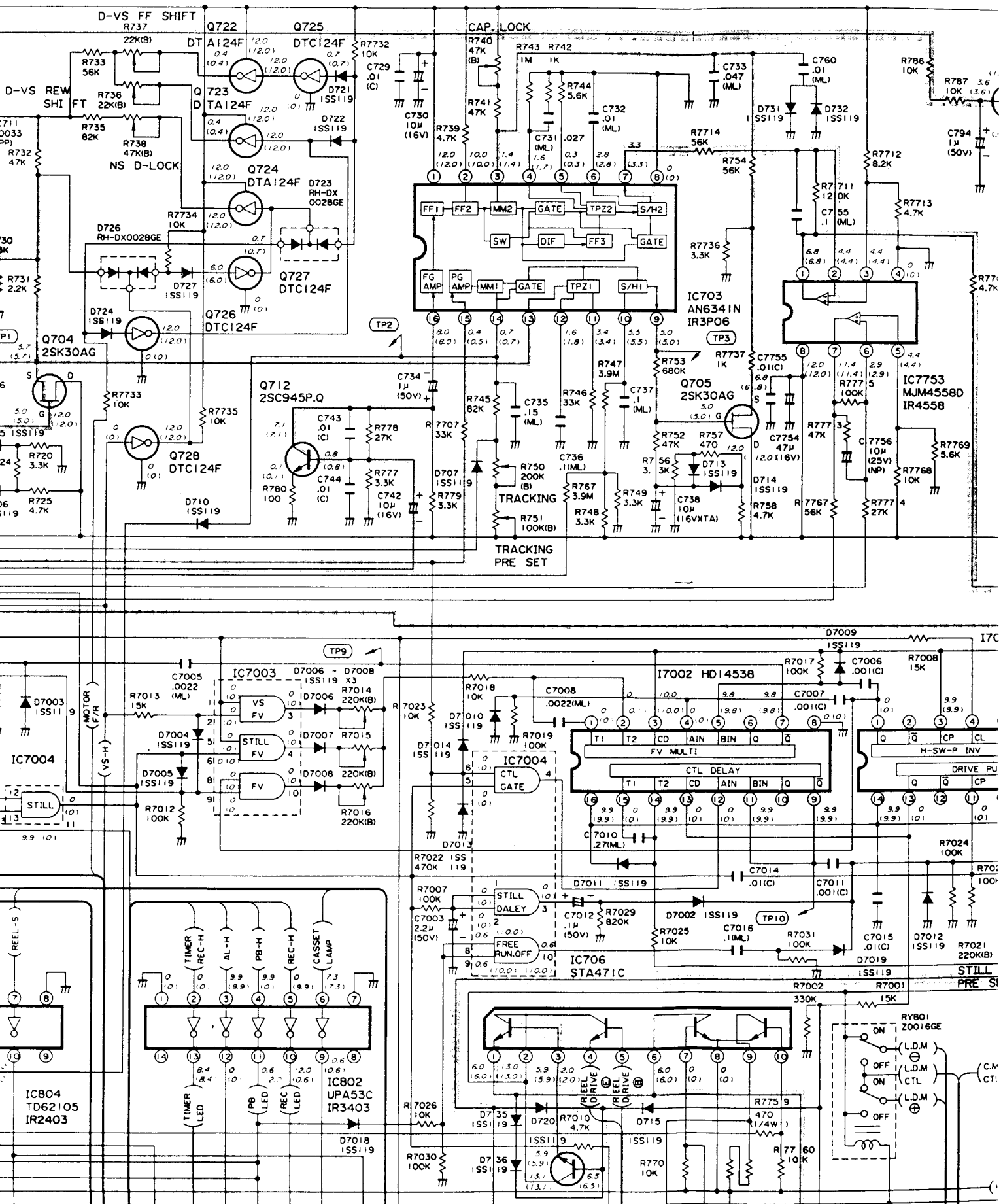

D-VS FF SHIFT
D-VS REW SHIFT
NS D-LOCK
IC701 AN6344 IR3P08
IC7752 IZ00036E
IC7003
IC7004
IC804 TD62105 IR2403
IC802 UPA53C IR3403
Q704 2SK30AG
Q712 2SC945P.Q
Q703 2SC945P.Q
Q7751 DTC144F
Q7757 2SC945P.Q
CAP.PG AMP
CTL.PB.AMP
CTL.REC AMP
AFC
GATE1
GATE2
TPZ
S/H
VS.FF.SPEED
VS.REW.SPEED
CH2 PHASE
CH1 PHASE
REC PHASE
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel: 01844 351694 Fax: 01844 352554
Email:- enquiries@maurtron.co.uk

Capstan servo frequency control comparis signal
Capstan servo phase control comparison signal

Capstan servo phase c
reference signal



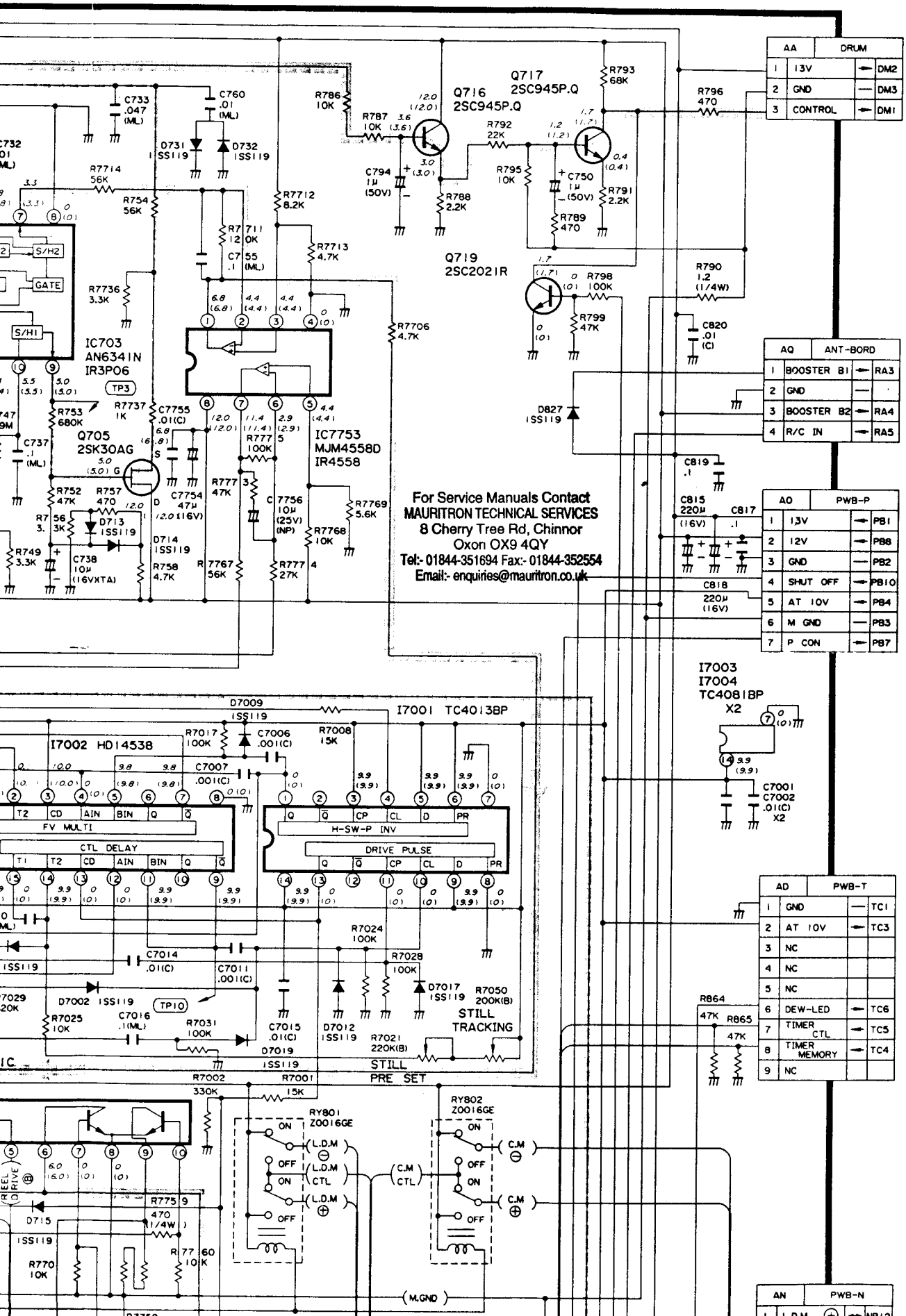
13 | 14 | 15 | 16 | 17 | 18

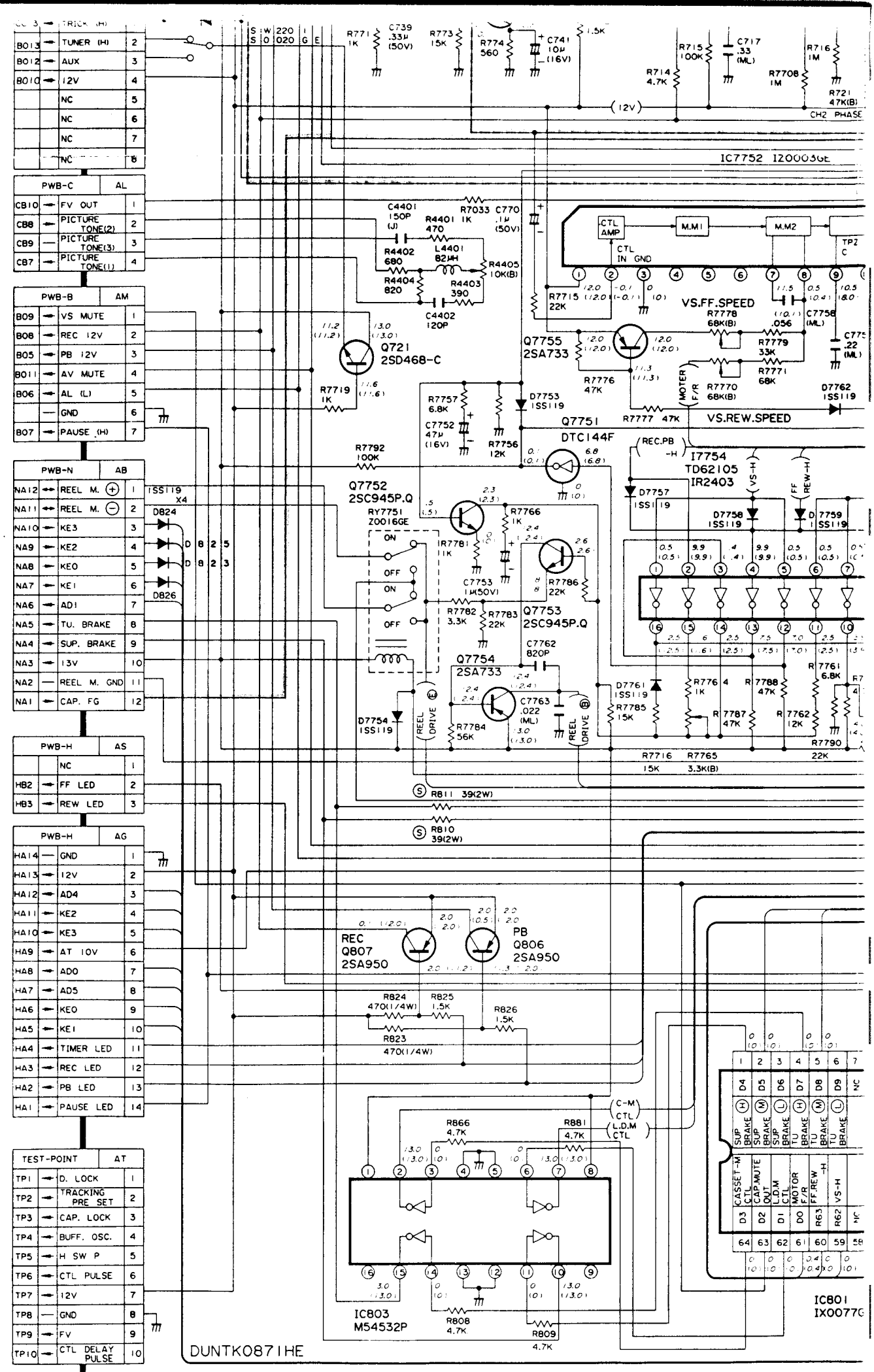
ntrol comparisc · signal
comparison s· nal

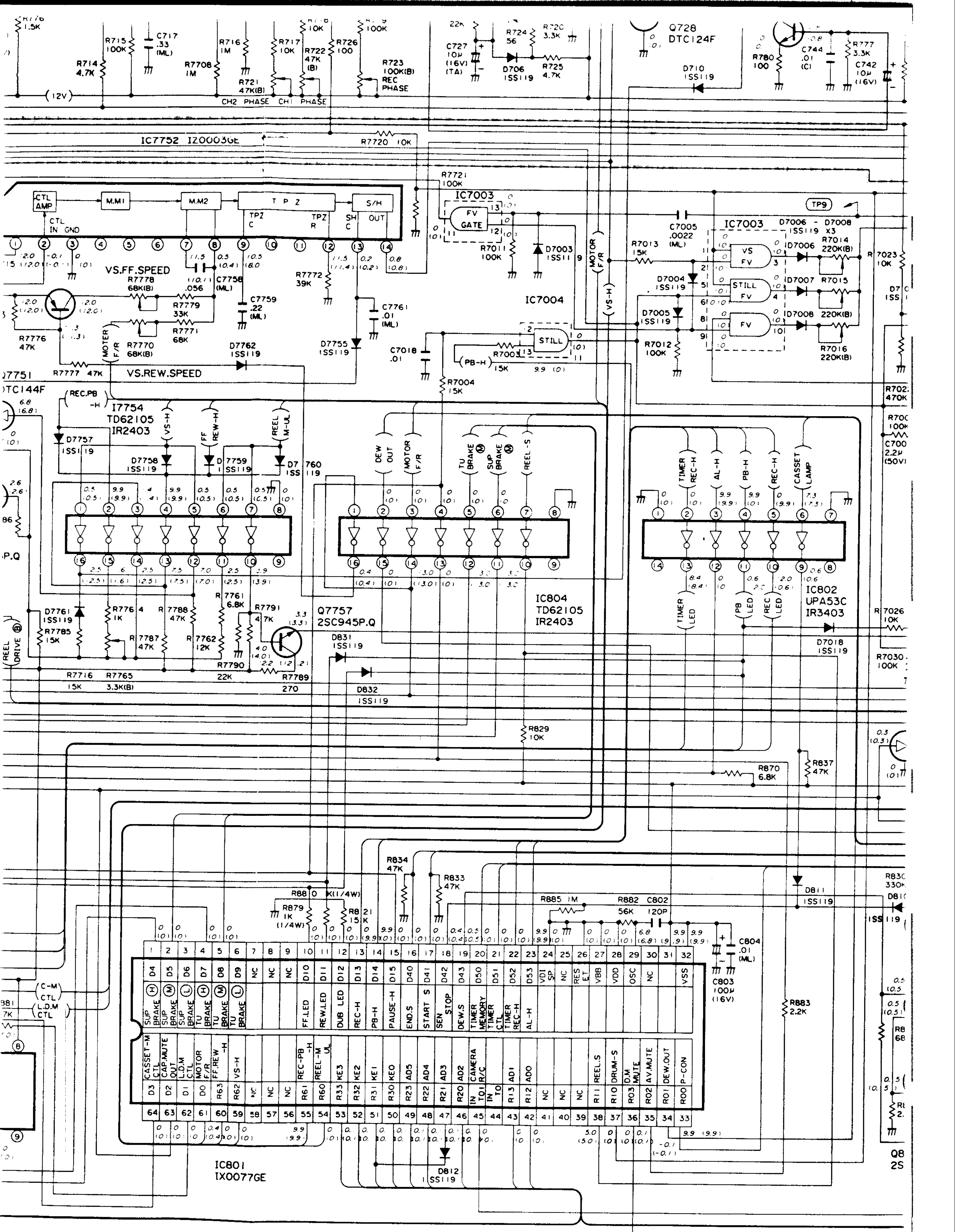
Capstan servo phase control reference signal

Drum servo frequency control comparison signal

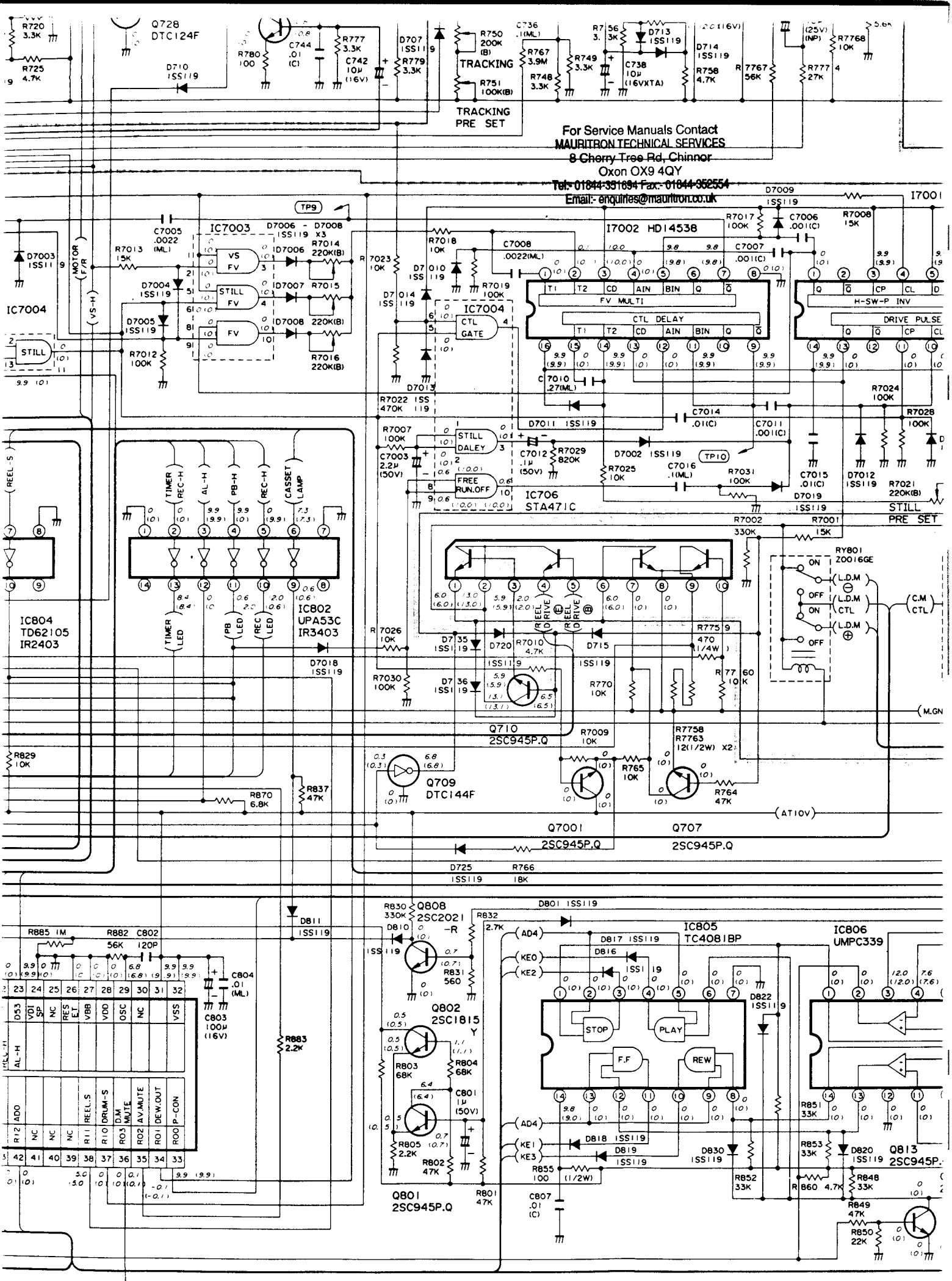
Drum servo phase control comparison signal

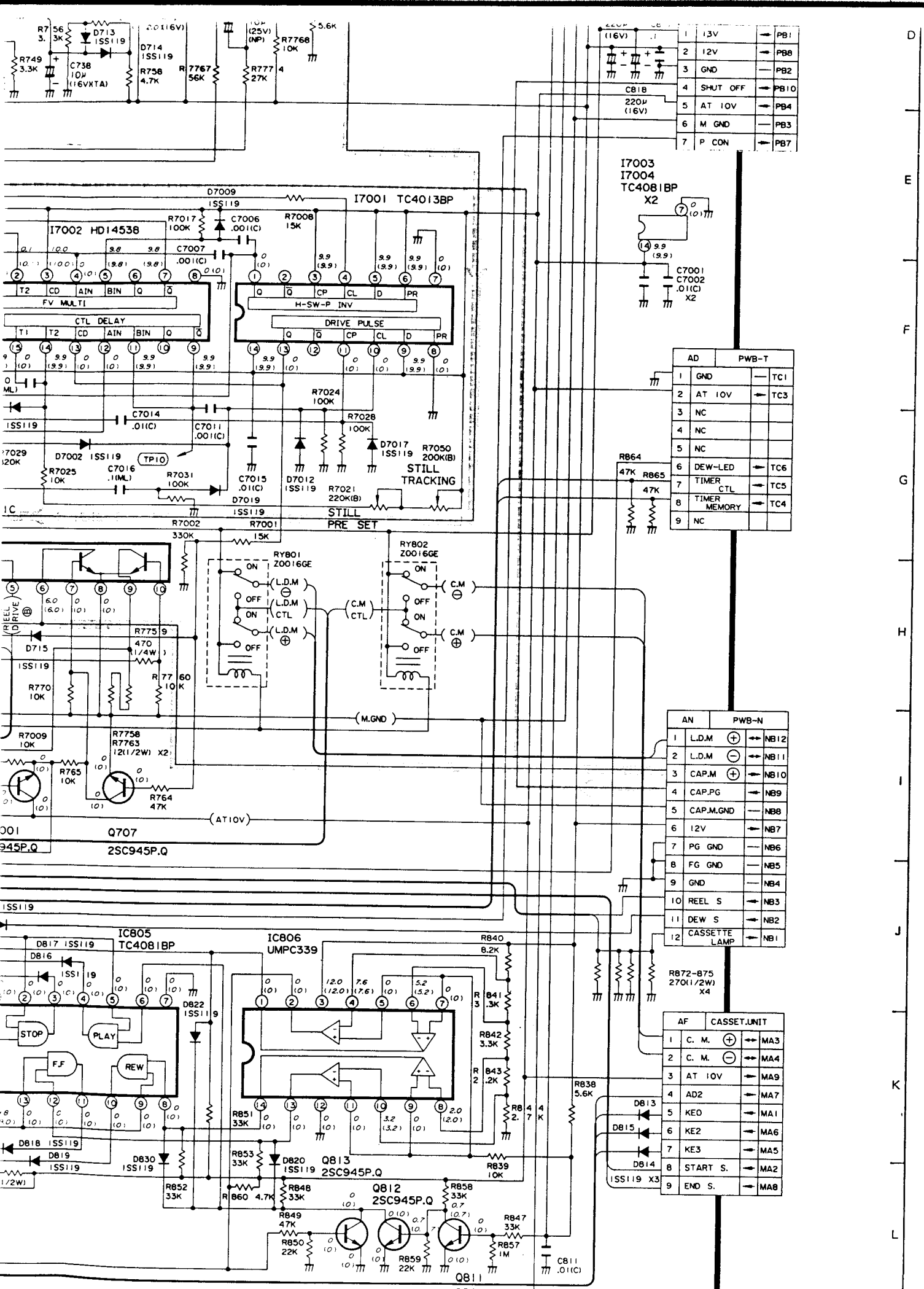



PWB-C AL
CB10 FV OUT 1
CB8 PICTURE TONE(2) 2
CB9 PICTURE TONE(3) 3
CB7 PICTURE TONE(1) 4
PWB-B AM
BO9 VS MUTE 1
BO8 REC 12V 2
BO5 PB 12V 3
BO11 AV MUTE 4
BO6 AL (L) 5
GND 6
BO7 PAUSE (H) 7
PWB-N AB
NA12 REEL M. ⊕ 1
NA11 REEL M. ⊖ 2
NA10 KE3 3
NA9 KE2 4
NA8 KEO 5
NA7 KE1 6
NA6 AD1 7
NA5 TU. BRAKE 8
NA4 SUP. BRAKE 9
NA3 13V 10
NA2 REEL M. GND 11
NA1 CAP. FG 12
PWB-H AS
NC 1
HB2 FF LED 2
HB3 REW LED 3
PWB-H AG
HA14 GND 1
HA13 12V 2
HA12 AD4 3
HA11 KE2 4
HA10 KE3 5
HA9 AT 10V 6
HA8 AD0 7
HA7 AD5 8
HA6 KEO 9
HA5 KE1 10
HA4 TIMER LED 11
HA3 REC LED 12
HA2 PB LED 13
HA1 PAUSE LED 14
TEST-POINT AT
TP1 D. LOCK 1
TP2 TRACKING PRE SET 2
TP3 CAP. LOCK 3
TP4 BUFF. OSC. 4
TP5 H SW P 5
TP6 CTL PULSE 6
TP7 12V 7
TP8 GND 8
TP9 FV 9
TP10 CTL DELAY PULSE 10
IC7752 1200036
Q721 2SD468-C
Q7751 DTC144F
Q7752 2SC945P.Q
Q7753 2SC945P.Q
Q7754 2SA733
Q7755 2SA733
RY7751 Z0016GE
REC Q807 2SA950
PB Q806 2SA950
IC803 M54532P
IC801 IX0077G
I7754 TD62105 IR2403
VS.FF.SPEED
VS.REW.SPEED
CTL AMP
M.M1
M.M2
CTL IN GND
CH2 PHASE
DUNTK0871HE

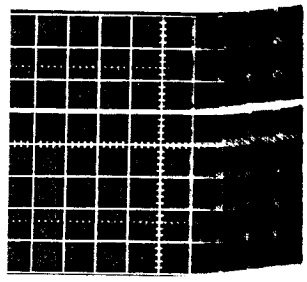


IC7752 IZ0003GE
CTL AMP
M.M1
M.M2
T P Z
S/H
CTL IN GND
TPZ C
TPZ R
SH C
OUT
CH2 PHASE
CH1 PHASE
REC PHASE
R7720 10K
R7721 100K
IC7003
FV GATE
IC7004
STILL
VS FV
STILL FV
FV
D7006 - D7008 1SS119 X3
TP9
C7005 .0022 (ML)
R7013 15K
R7011 100K
D7003 1SS119
D7004 1SS119
D7005 1SS119
R7012 100K
R7014 220K(B)
R7015 220K(B)
R7016 220K(B)
R7023 10K
Q728 DTC124F
D710 1SS119
D706 1SS119
R725 4.7K
R724 56
C727 10µ (16V) (TA)
R780 100
C744 .01 (C)
R777 3.3K
C742 10µ (16V)
R714 4.7K
R715 100K
C717 .33 (ML)
R716 1M
R7708 1M
R717 10K
R721 47K(B)
R722 47K (B)
R726 100
R723 100K(B)
(12V)
VS.FF.SPEED
R7778 68K(B)
R7779 33K
R7771 68K
R7770 68K(B)
R7776 47K
R7777 47K
VS.REW.SPEED
C7758 .056 (ML)
C7759 .22 (ML)
C7761 .01 (ML)
R7772 39K
D7762 1SS119
D7755 1SS119
C7018 .01
R7003 15K
R7004 15K
(PB-H)
MOTOR F/R
VS-H
Q7751 DTC144F
I7754 TD62105 IR2403
REC.PB -H
FF REW-H
REEL M-UL
D7757 1SS119
D7758 1SS119
D7759 1SS119
D7760 1SS119
D7761 1SS119
R7785 15K
R7764 1K
R7788 47K
R7787 47K
R7761 6.8K
R7762 12K
R7791 4.7K
R7790 22K
R7789 270
Q7757 2SC945P.Q
R7716 15K
R7765 3.3K(B)
REEL DRIVE
DEW OUT
TU BRAKE
SUP BRAKE
REEL-S
IC804 TD62105 IR2403
D831 1SS119
D832 1SS119
R829 10K
TIMER REC-H
AL-H
PB-H
REC-H
CASSET LAMP
TIMER LED
PB LED
REC LED
IC802 UPA53C IR3403
D7018 1SS119
R7026 10K
R7030 100K
R702 470K
C700 2.2µ (50V)
R870 6.8K
R837 47K
R834 47K
R833 47K
R880 K(1/4W)
R879 1K (1/4W)
R821 15K
R885 1M
R882 56K
C802 120P
C804 .01 (ML)
C803 100µ (16V)
D811 1SS119
R830 330K
D810 1SS119
R883 2.2K
D812 1SS119
IC801 IX0077GE
D4 D5 D6 D7 D8 D9 NC NC NC D10 D11 D12 D13 D14 D15 D40 D41 D42 D43 D50 D51 D52 D53 VDI SP NC RES ET VBB VDD OSC NC VSS
SUP BRAKE (H)
SUP BRAKE (M)
SUP BRAKE (L)
TU BRAKE (H)
TU BRAKE (M)
TU BRAKE (L)
FF.LED
REW.LED
DUB LED
REC-H
PB-H
PAUSE-H
END.S
START S
SEN STOP
DEW.S
TIMER MEMORY
TIMER CTL
TIMER REC-H
AL-H
CASSET-M CTL
CAP.MUTE OUT
L.D.M CTL
MOTOR F/R
FF.REW -H
VS-H
REC-PB -H
REEL-M UL
KE3 KE2 KE1 KE0
AD5 AD4 AD3 AD2
CAMERA R/C
AD1 AD0
REEL.S
DRUM-S
D.M MUTE
AV.MUTE
DEW.OUT
P-CON
D3 D2 D1 D0 R63 R62 NC NC NC R61 R60 R33 R32 R31 R30 R23 R22 R21 R20 IN TO1 IN TO R13 R12 NC NC NC R11 R10 R03 R02 R01 R00
(C-M CTL)
(L.D.M CTL)
Q8 2S

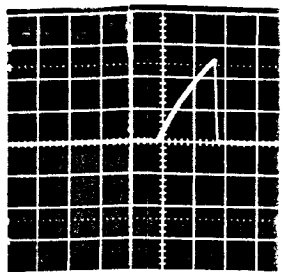

Q728
DTC124F
D710
ISS119
R720
3.3K
R725
4.7K
R780
100
C744
.01
(C)
R777
3.3K
C742
10μ
(16V)
D707
ISS119
R779
3.3K
R750
200K
(B)
TRACKING
R751
100K(B)
TRACKING
PRE SET
C736
.1(ML)
R767
3.9M
R748
3.3K
R749
3.3K
C738
10μ
(16VXTA)
D713
ISS119
D714
ISS119
R758
4.7K
R7767
56K
R7768
10K
R7774
27K
(25V)
(NP)
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844 351694 Fax:- 01844 352554
Email:- enquiries@mauritron.co.uk
TP9
IC7003
D7006 - D7008
ISS119 x3
VS
FV
STILL
FV
FV
D7006
D7007
D7008
R7014
220K(B)
R7015
220K(B)
R7016
220K(B)
C7005
.0022
(ML)
R7013
15K
R7012
100K
D7003
ISS119
D7004
ISS119
D7005
ISS119
MOTOR
F/R
VS-H
IC7004
STILL
R7023
10K
R7018
10K
D7010
ISS119
D7014
ISS119
D7013
R7019
100K
C7008
.0022(ML)
IC7004
CTL
GATE
I7002 HD14538
T1 T2 CD AIN BIN Q Q̄
FV MULTI
CTL DELAY
T1 T2 CD AIN BIN Q Q̄
H-SW-P INV
Q Q̄ CP CL D
DRIVE PULSE
Q Q̄ CP CL
D7009
ISS119
I7001
R7017
100K
C7006
.001(C)
R7008
15K
C7007
.001(C)
C7010
.27(ML)
R7024
100K
R7028
100K
C7014
.01(C)
C7011
.001(C)
D7011 ISS119
R7022 ISS
470K 119
R7007
100K
C7003
2.2μ
(50V)
STILL
DALEY
FREE
RUN.OFF
C7012
.1μ
(50V)
R7029
820K
D7002 ISS119
TP10
R7025
10K
C7016
.1(ML)
R7031
100K
C7015
.01(C)
D7012
ISS119
R7021
220K(B)
STILL
PRE SET
D7019
ISS119
IC706
STA471C
R7002
330K
R7001
15K
RY801
Z0016GE
ON
L.D.M
OFF
L.D.M
CTL
ON
L.D.M
OFF
C.M
CTL
REEL-S
TIMER
REC-H
AL-H
PB-H
REC-H
CASSET
LAMP
IC804
TD62105
IR2403
IC802
UPA53C
IR3403
TIMER
LED
PB
LED
REC
LED
D7018
ISS119
R7026
10K
D7035
ISS119
D720
R7010
4.7K
REEL
DRIVE
REEL
DRIVE
D715
R7759
470
(1/4W)
R7030
100K
D7036
ISS119
R770
10K
R7760
10K
M.GN
Q710
2SC945P.Q
R829
10K
R870
6.8K
R837
47K
Q709
DTC144F
R7009
10K
R765
10K
R7758
R7763
12(1/2W) X2
R764
47K
AT10V
Q7001
2SC945P.Q
Q707
2SC945P.Q
D725
ISS119
R766
18K
D811
ISS119
R885 1M
R882
56K
C802
120P
C804
.01
(ML)
C803
100μ
(16V)
R883
2.2K
D53
VDISP
NC
RESET
VBB
VDD
OSC
NC
VSS
AL-H
R12 ADO
NC
NC
NC
R11 REEL-S
R10 DRUM-S
R03 D.M MUTE
R02 AV.MUTE
R01 DEW.OUT
R00 P-CON
R830
330K
Q808
2SC2021
-R
D810
ISS119
R831
560
Q802
2SC1815
Y
R803
68K
R804
68K
C801
1μ
(50V)
R805
2.2K
R802
47K
Q801
2SC945P.Q
R801
47K
R832
2.7K
D801 ISS119
IC805
TC4081BP
AD4
KE0
KE2
D817 ISS119
D816
ISS119
STOP
PLAY
F.F
REW
D822
ISS119
AD4
KE1
KE3
D818 ISS119
D819
ISS119
D830
ISS119
R855
100
(1/2W)
C807
.01
(C)
IC806
UMPC339
R851
33K
R853
33K
D820
ISS119
Q813
2SC945P
R852
33K
R860 4.7K
R848
33K
R849
47K
R850
22K


I7001 TC4013BP
I7002 HD14538
I7003
I7004
TC4081BP
X2
IC805
TC4081BP
IC806
UMPC339
RY801
Z0016GE
RY802
Z0016GE
Q707
2SC945P.Q
Q812
2SC945P.Q
Q813
2SC945P.Q
Q811
STILL
TRACKING
STILL
PRE SET
AD PWB-T
1 GND — TC1
2 AT 10V → TC3
3 NC
4 NC
5 NC
6 DEW-LED → TC6
7 TIMER CTL → TC5
8 TIMER MEMORY → TC4
9 NC
AN PWB-N
1 L.D.M ⊕ ↔ NB12
2 L.D.M ⊖ ↔ NB11
3 CAP.M ⊕ → NB10
4 CAP.PG → NB9
5 CAP.M.GND — NB8
6 12V → NB7
7 PG GND — NB6
8 FG GND — NB5
9 GND — NB4
10 REEL S → NB3
11 DEW S → NB2
12 CASSETTE LAMP → NB1
AF CASSET.UNIT
1 C. M. ⊕ ↔ MA3
2 C. M. ⊖ ↔ MA4
3 AT 10V → MA9
4 AD2 → MA7
5 KE0 → MA1
6 KE2 → MA6
7 KE3 → MA5
8 START S. → MA2
9 END S. → MA8
1 13V → PB1
2 12V → PB8
3 GND — PB2
4 SHUT OFF → PB10
5 AT 10V → PB4
6 M GND — PB3
7 P CON → PB7
STOP
PLAY
F.F
REW

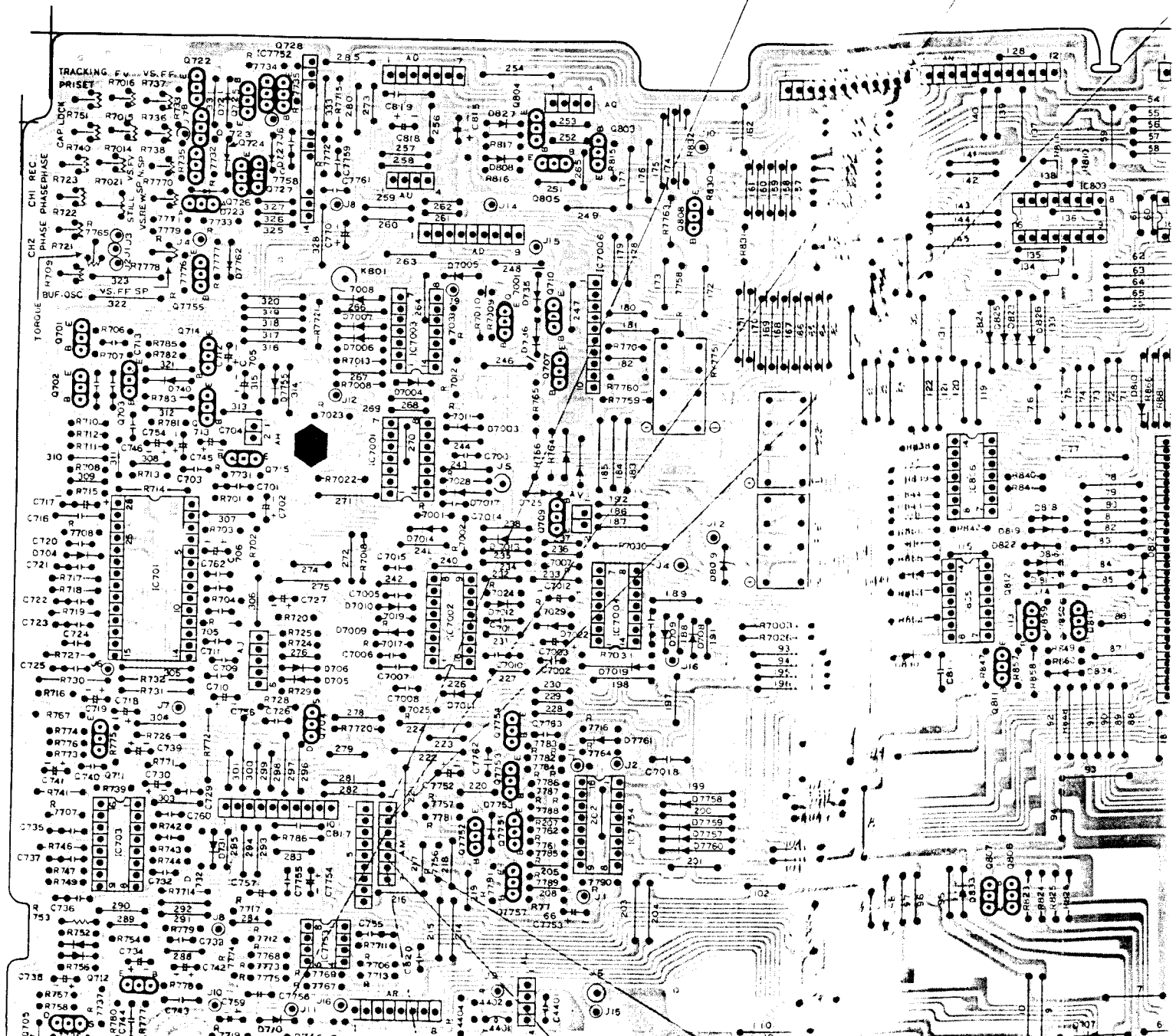
PWB-A, MECHANICAL CONTROL CIRCUIT WIRING SIDE PWB (VC-381H,W/383



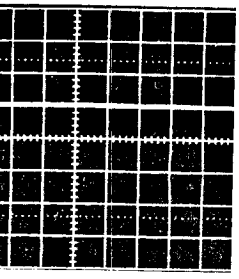
TP1 (REC)
1V/DiV., 10ms/DiV



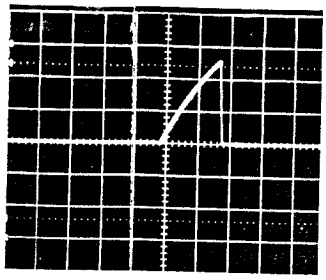
TP2 (REC)
2V/DiV., 5ms/DiV



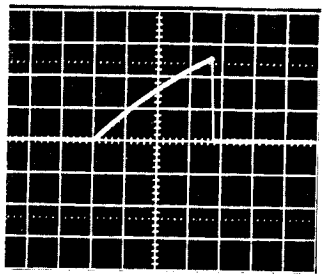
H,W/383H)



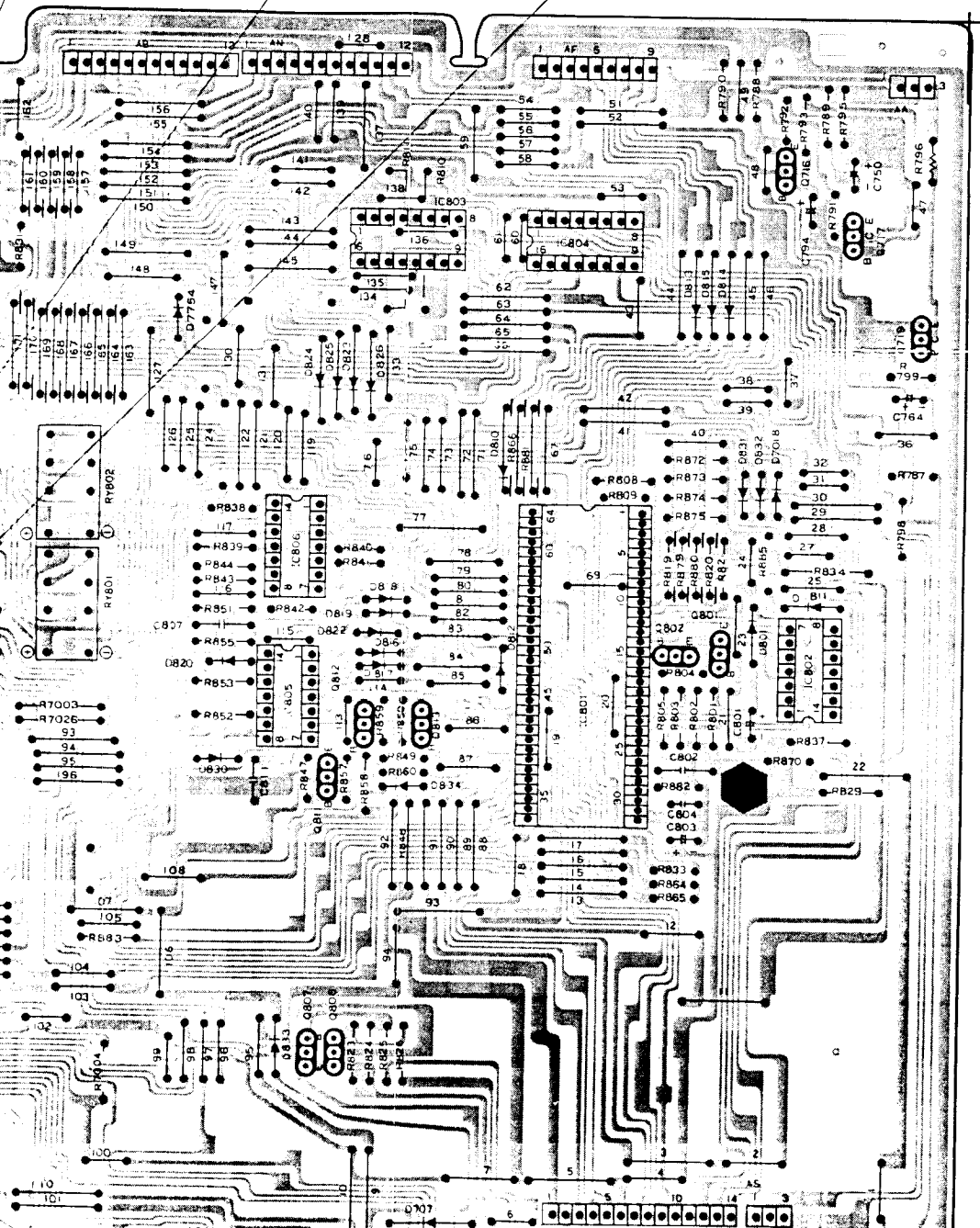
0ms/DiV

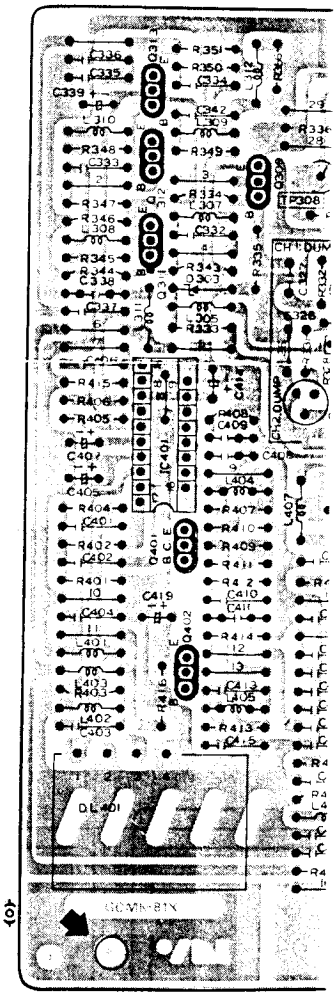


TP2 (REC)
2V/DiV., 5ms/DiV

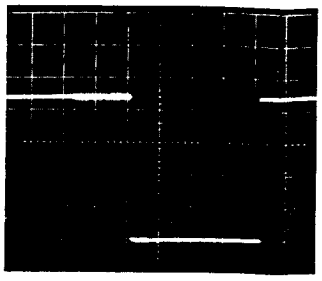


TP (P8)
2V/DiV., 5ms/DiV

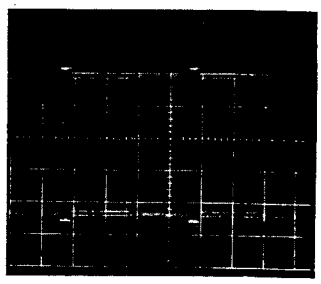




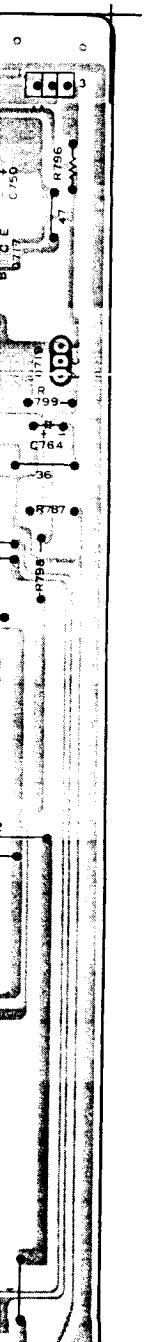
PWB-C, VIDEO, CHROMA HEAD AMP. CIRCUIT WIRING S

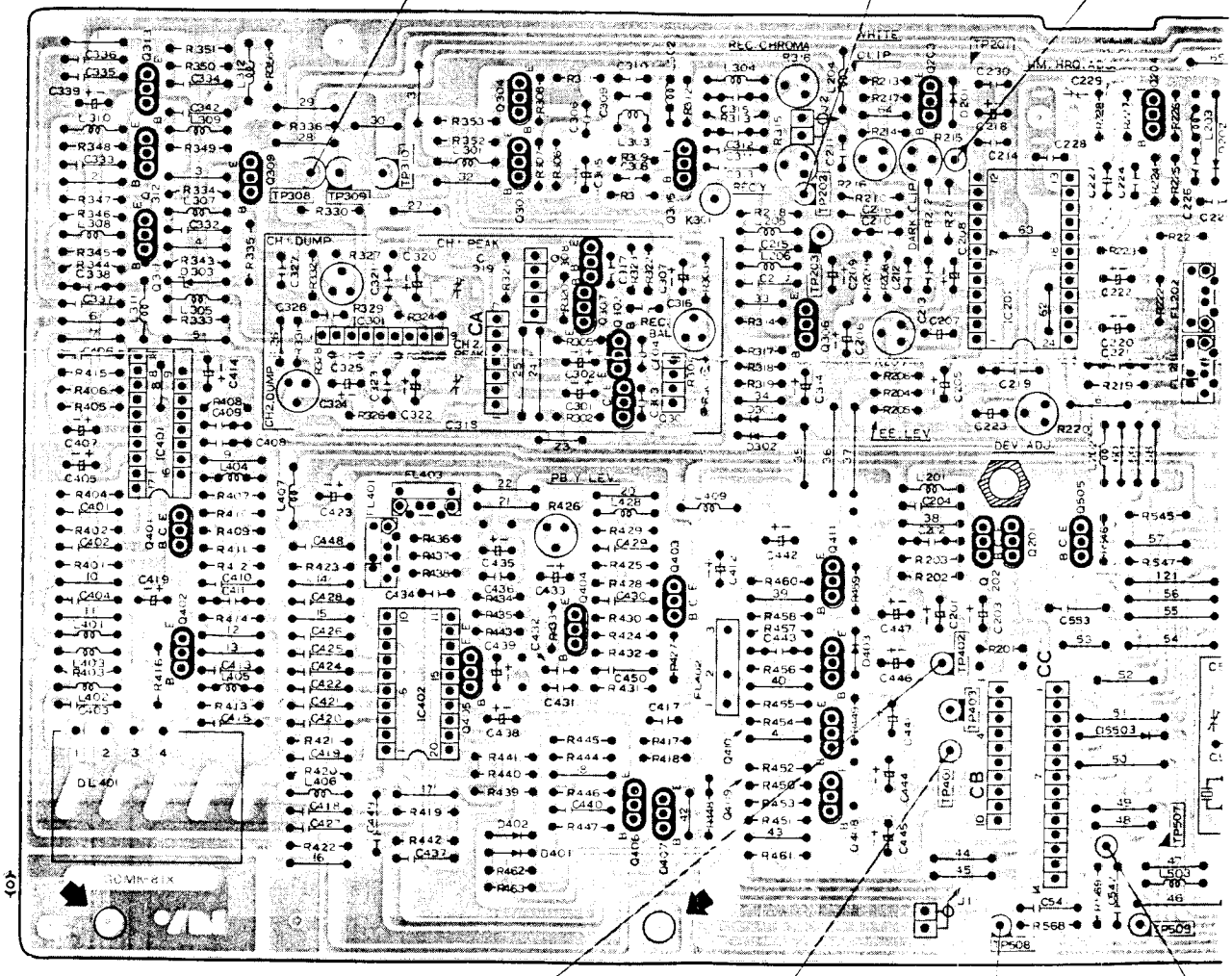


TP308
2V/DiV., 5ms/DiV

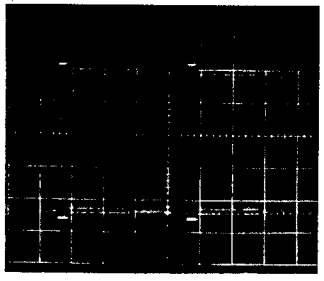


TP202 (REC)
0.2V/DiV., 5ms/DiV

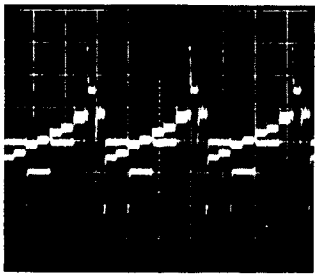




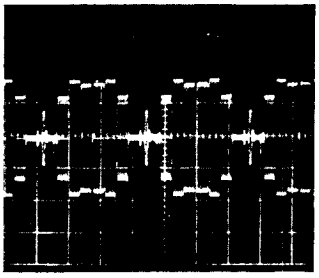
D, CHROMA HEAD AMP. CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)



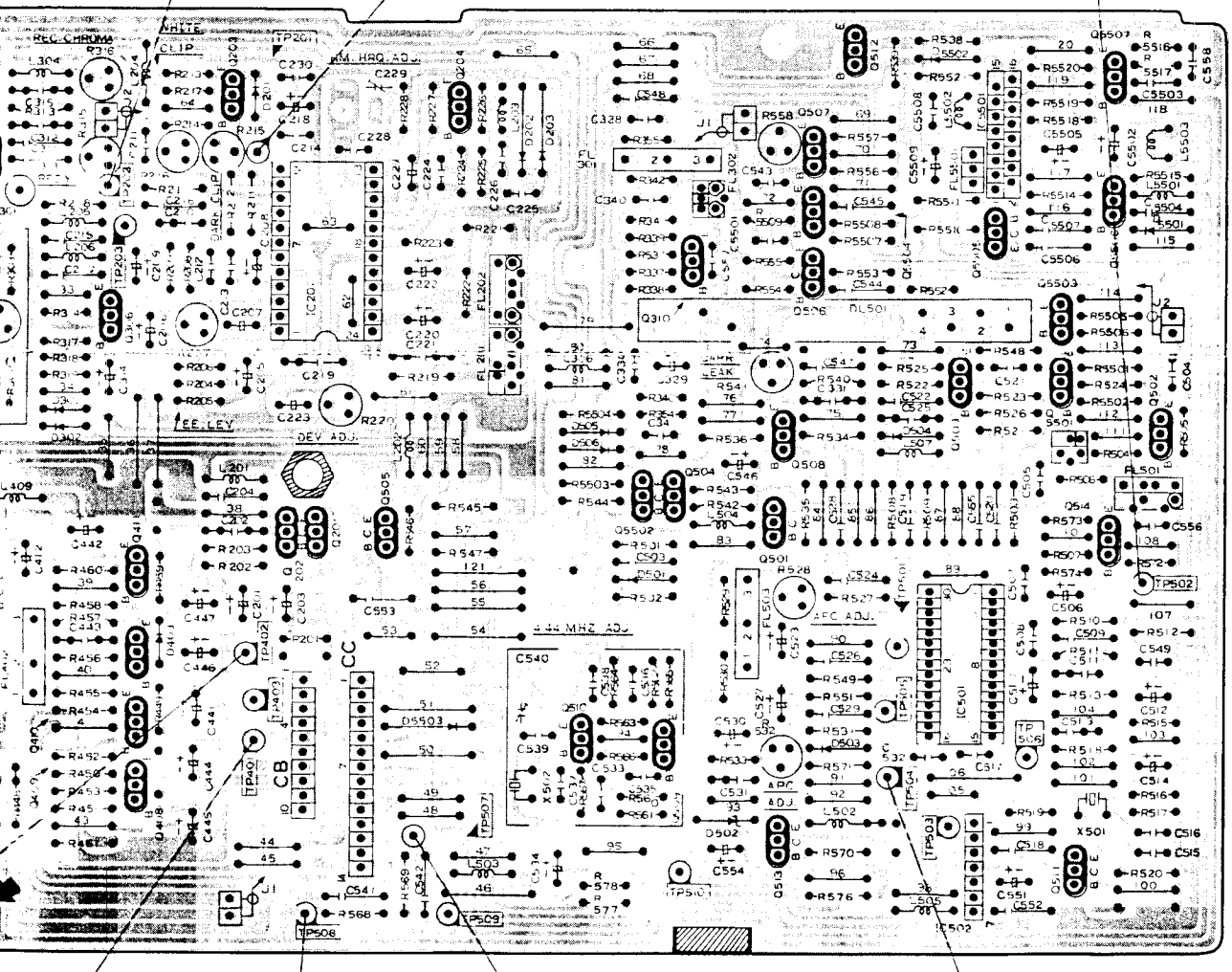
TP202 (REC)
0.2V/DiV., 5ms/DiV



TP201 (REC)
0.2V/DiV., 20ms/DiV



TP502 (REC)
0.1V/DiV., 20ms/DiV



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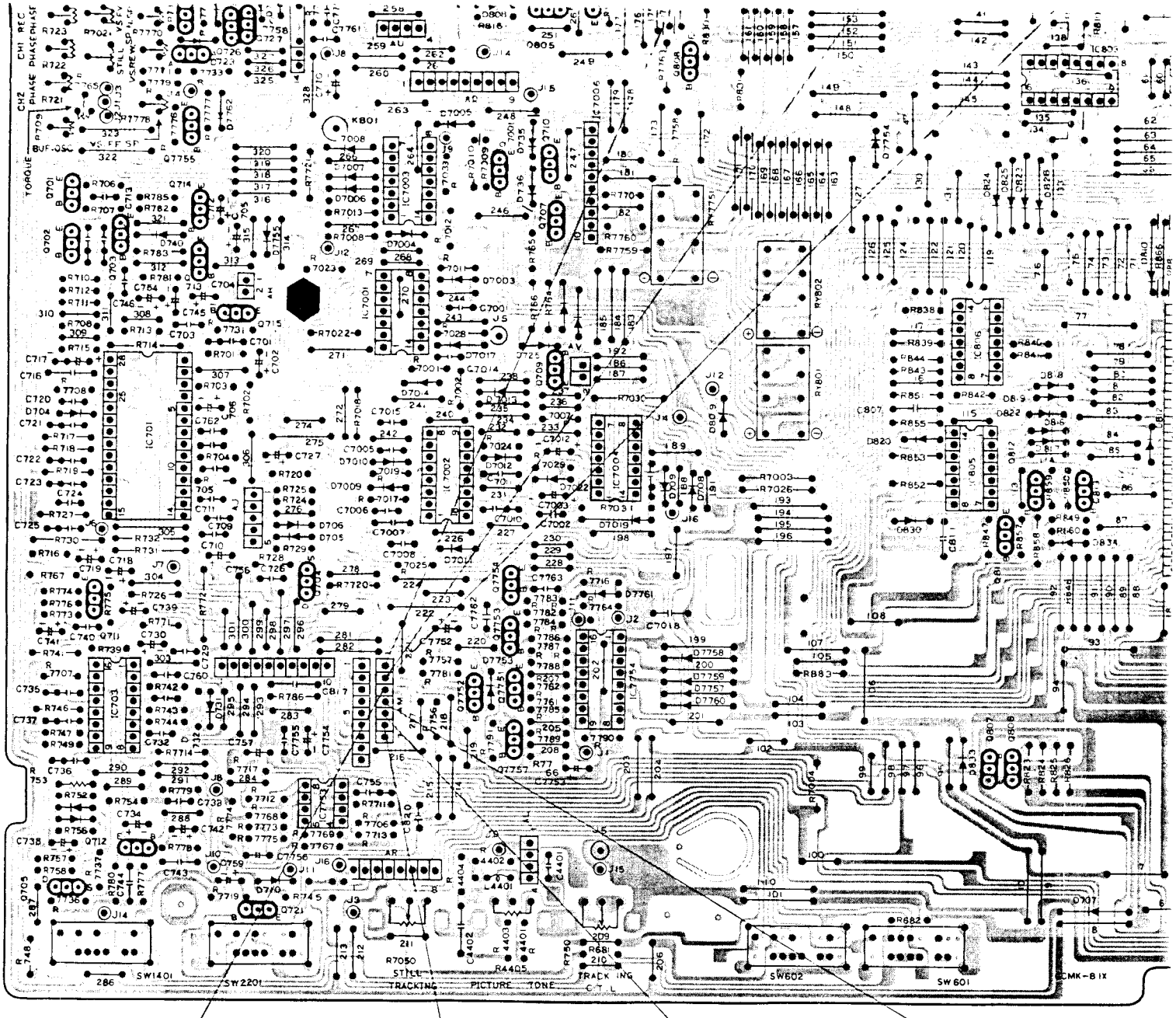
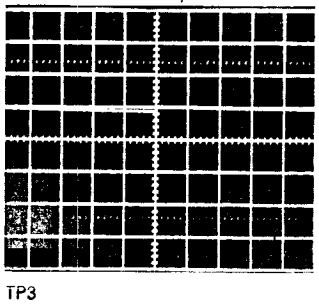
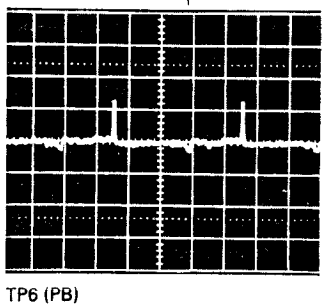
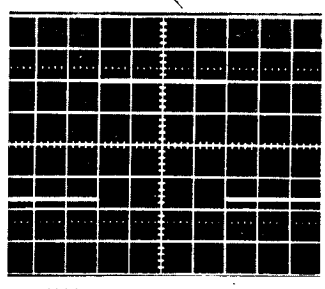




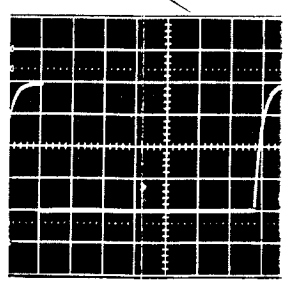
TP3
1V/DiV., 5ms/DiV



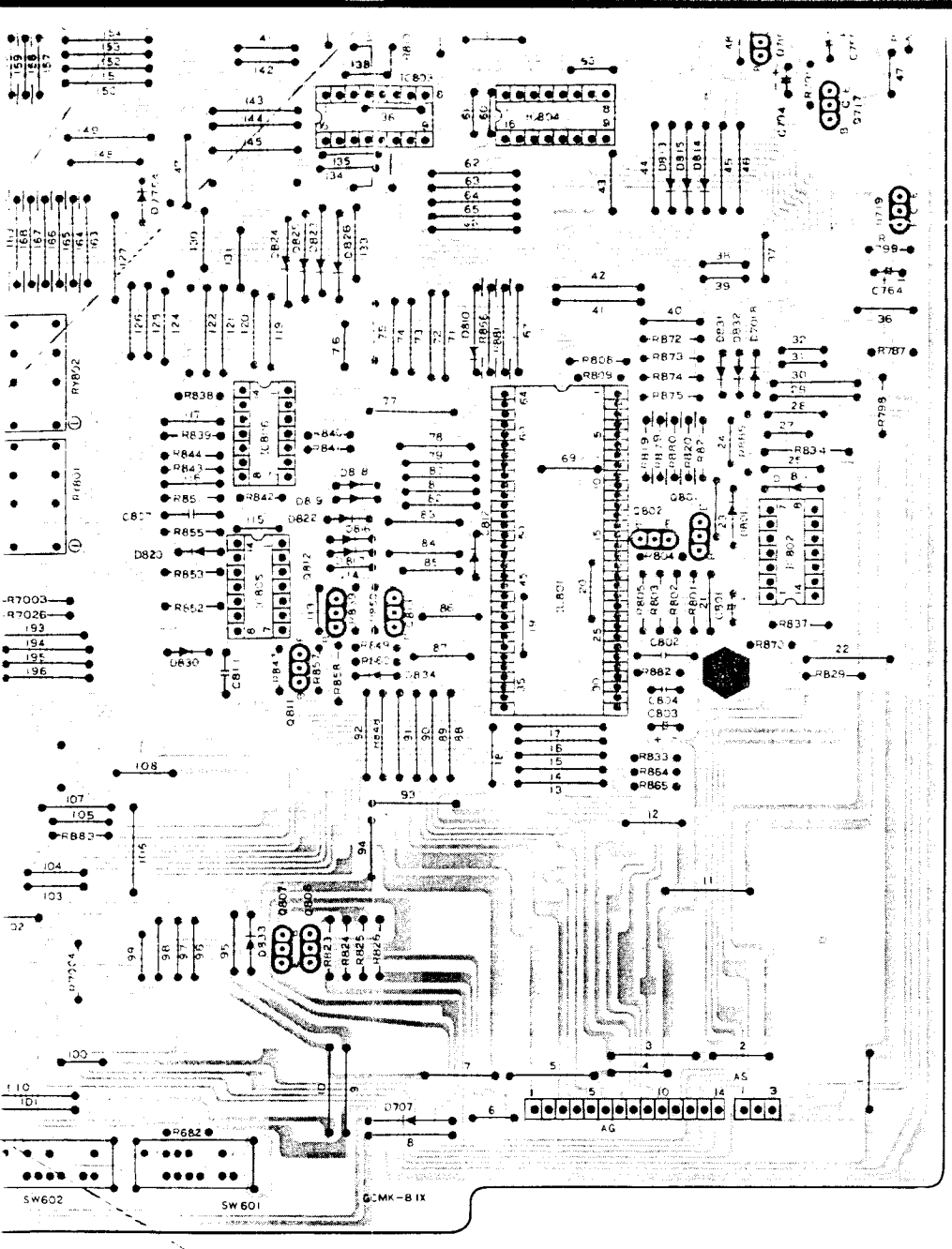
TP6 (PB)
1V/DiV., 10ms/DiV

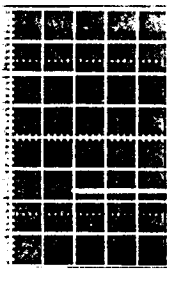


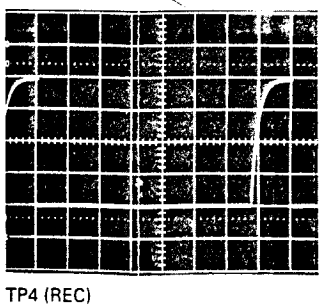
TP5 (PB)
2V/DiV., 5ms/DiV



TP4 (REC)
2V/DiV., 5ms/DiV







TP4 (REC)
2V/DiV., 5ms/DiV

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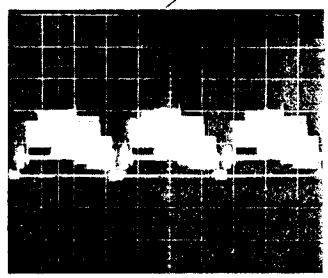
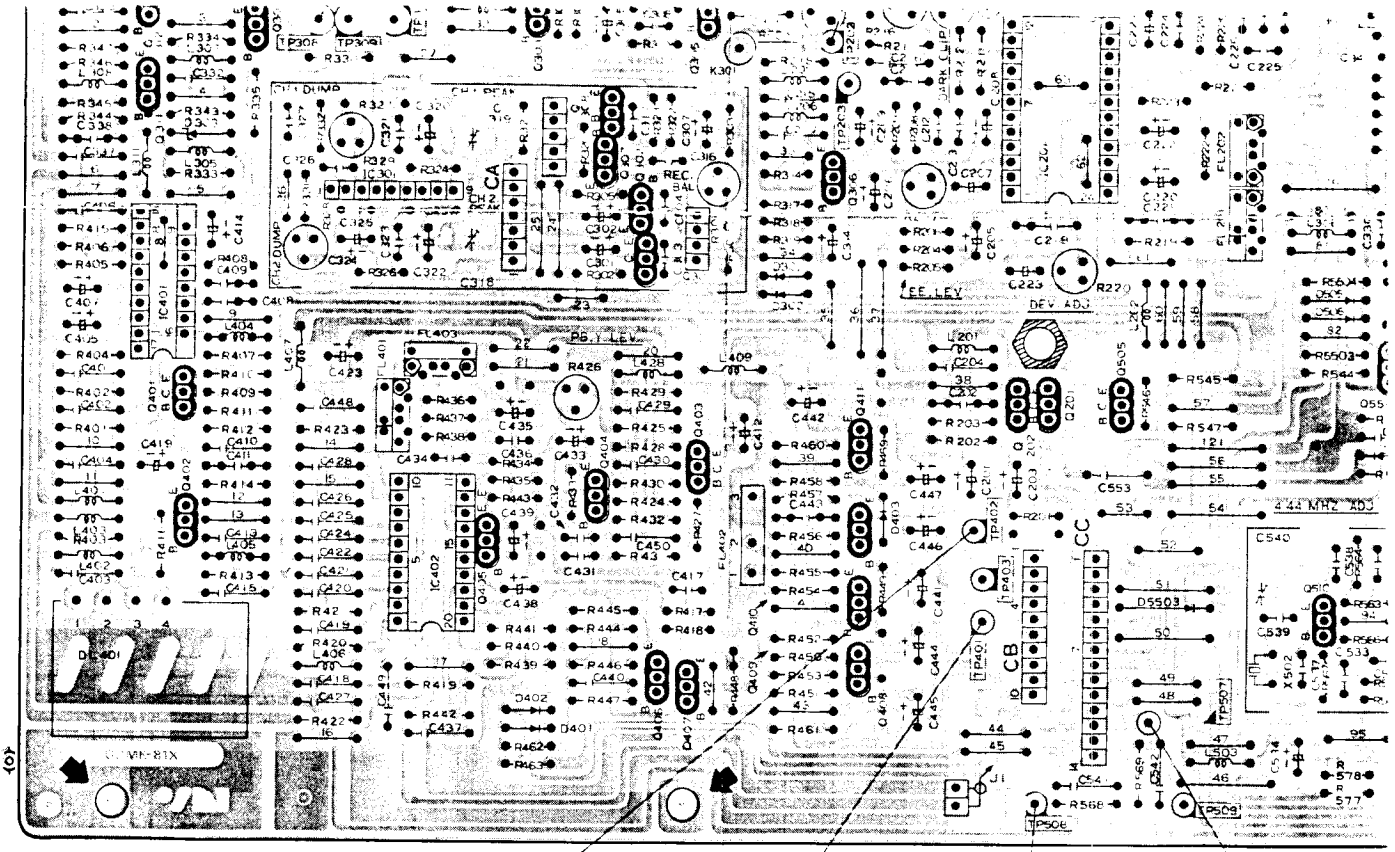
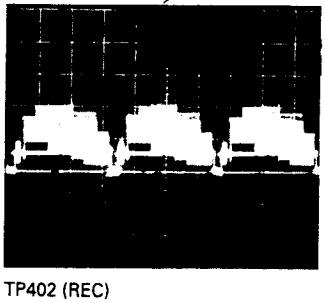
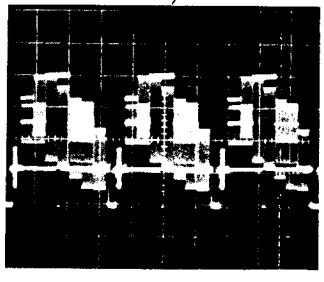


TP402 (REC)
0.5V/DiV., 20µs/DiV

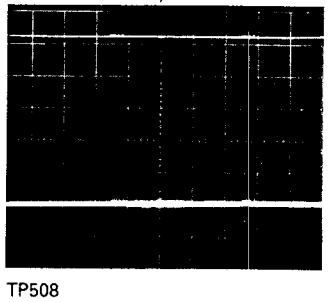




TP402 (REC)
0.5V/DiV., 20µs/DiV

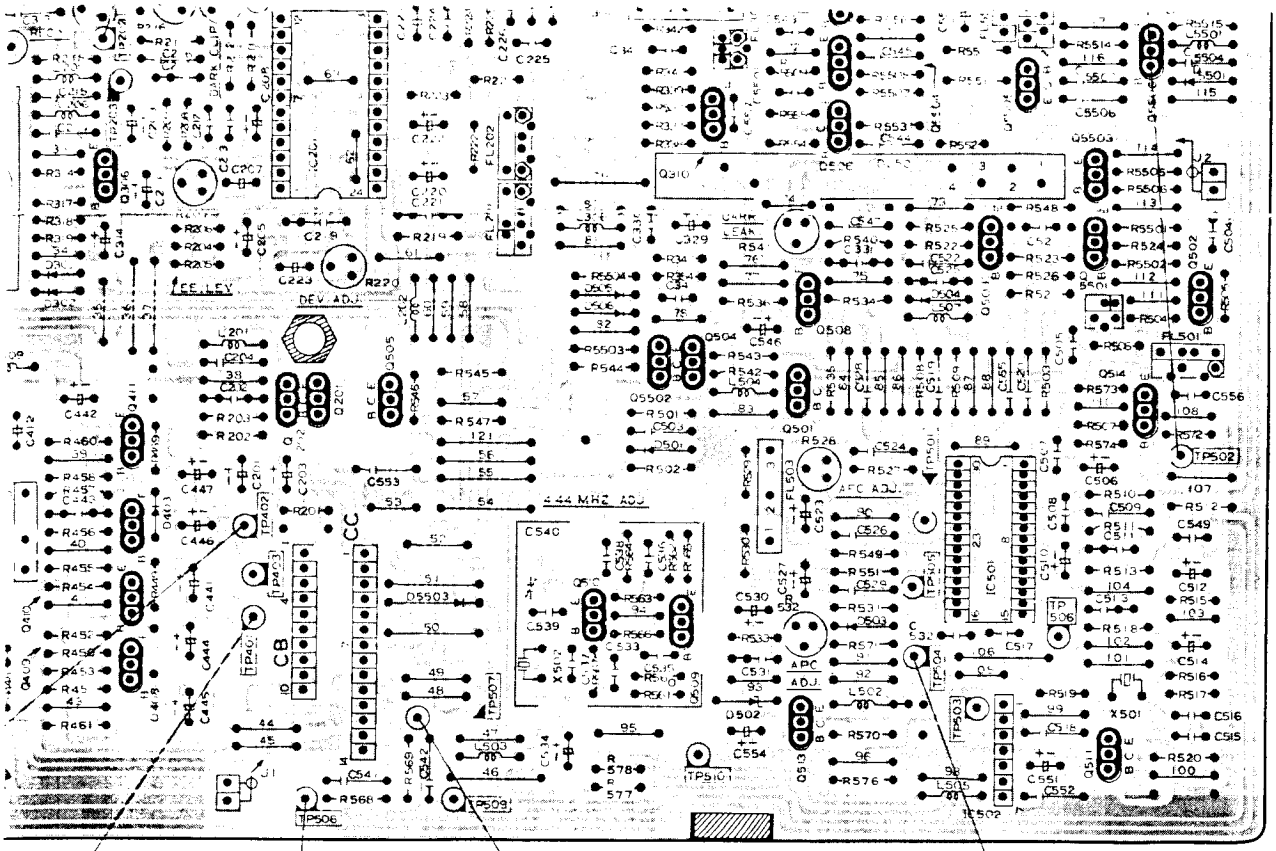


TP401 (REC)
0.5V/DiV., 20µs/DiV



TP508
2V/DiV., 5ms/DiV

TP507
2V/DiV., 5ms/D



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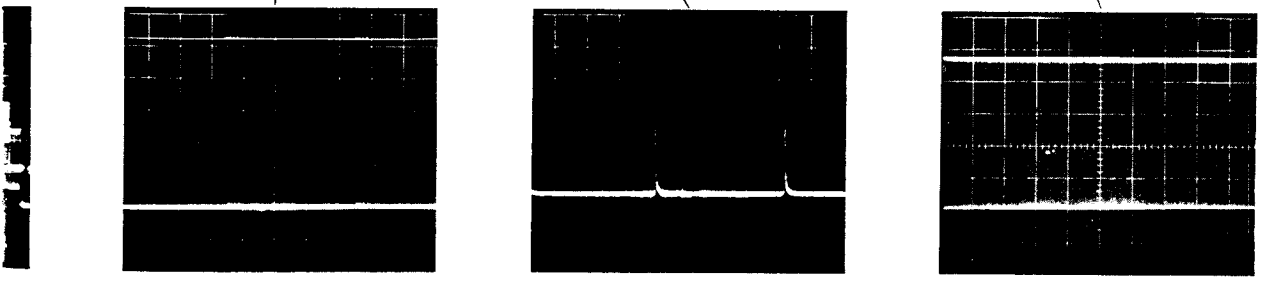

TP508
2V/DiV., 5ms/DiV

TP507
2V/DiV., 5ms/DiV

TP504 (REC)
0.2V/DiV., 5ms/DiV

PWB-C, VIDEO, CHROMA HEAD AMP. CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)

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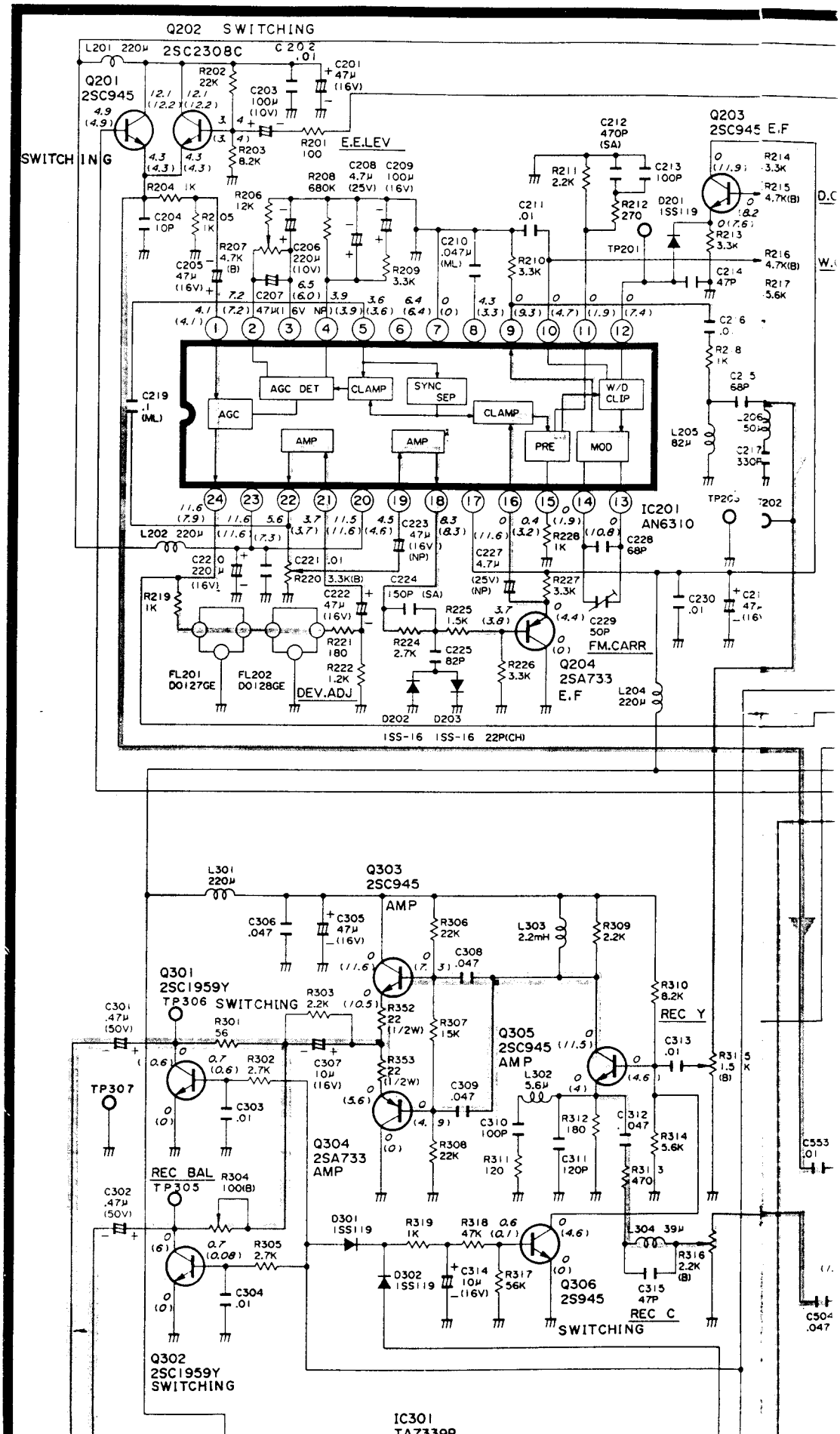
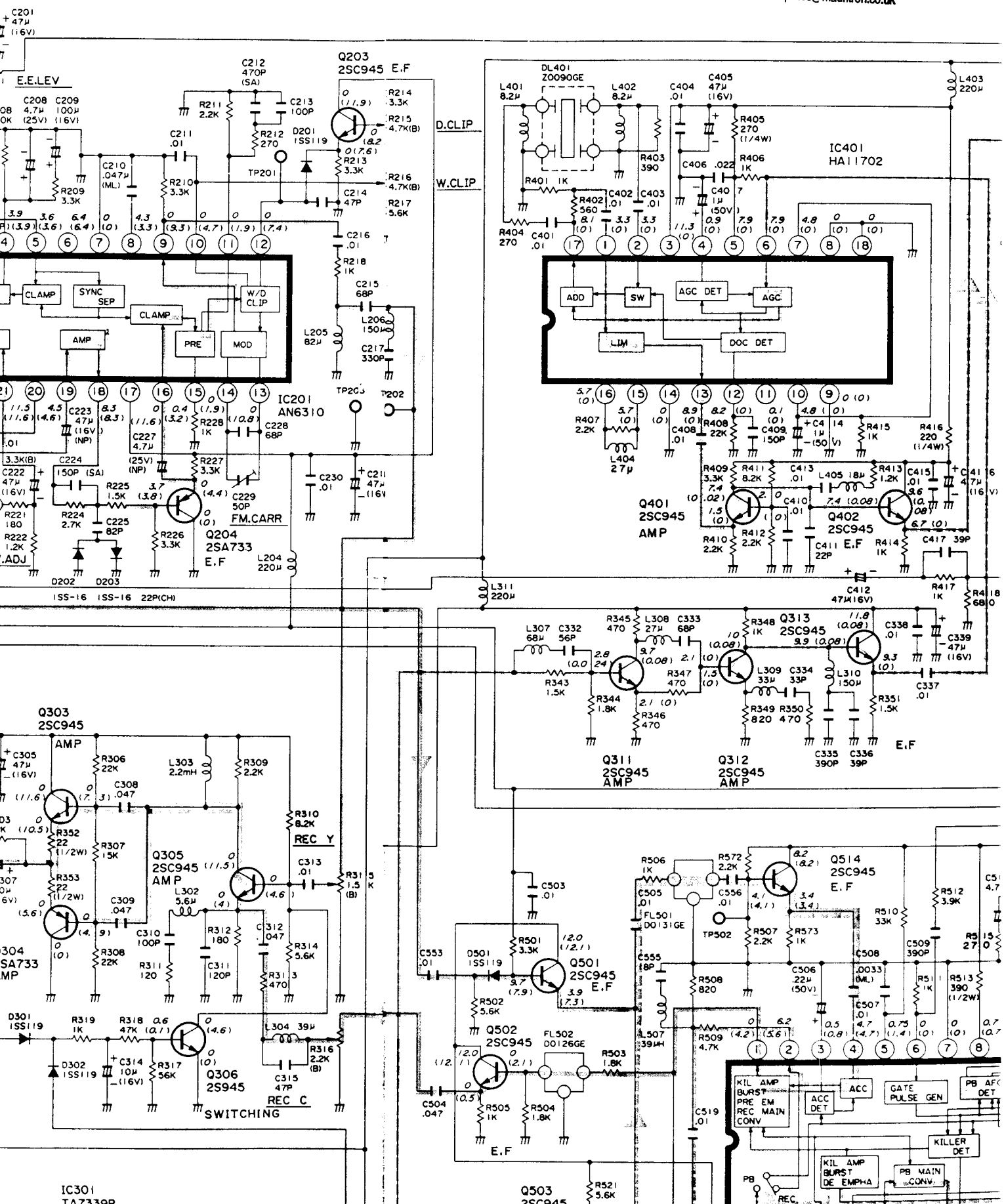
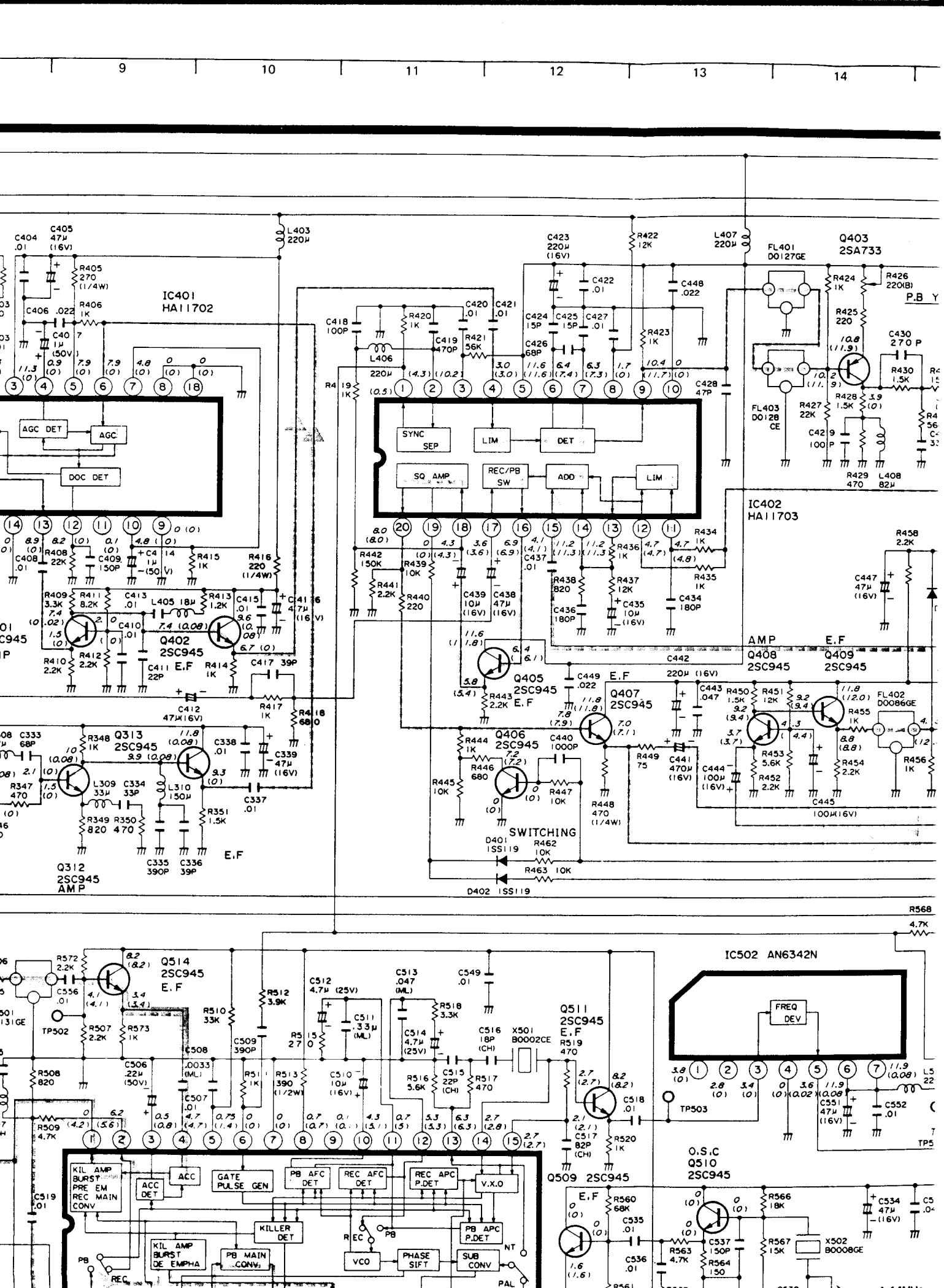
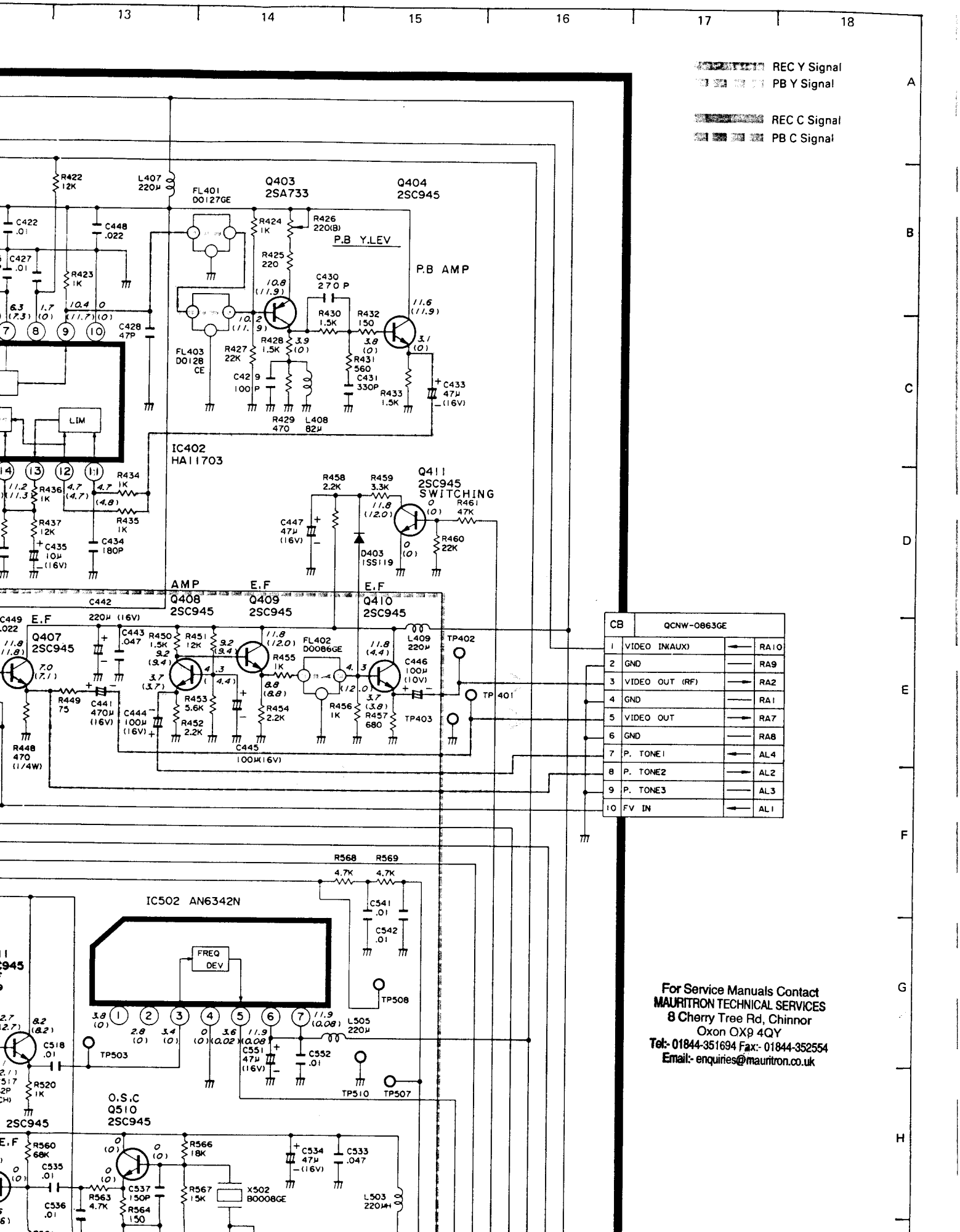


DIAGRAM (VC-381H,W/383H)




IC401
HA11702
AGC DET
AGC
DOC DET
Q402
2SC945
E.F
AMP
Q312
2SC945
Q313
2SC945
IC402
HA11703
SYNC SEP
LIM
DET
SQ AMP
REC/PB SW
ADD
LIM
Q403
2SA733
FL401
D0127GE
FL403
D0128 CE
FL402
D0086GE
Q405
2SC945
Q406
2SC945
Q407
2SC945
Q408
2SC945
Q409
2SC945
SWITCHING
D401 1SS119
D402 1SS119
Q514
2SC945
E.F
Q511
2SC945
E.F
Q509 2SC945
E.F
O.S.C
Q510
2SC945
IC502 AN6342N
FREQ DEV
X501
B0002CE
X502
B0008GE
TP502
TP503
KIL AMP
BURST
PRE EM
REC MAIN
CONV
ACC
ACC DET
GATE
PULSE GEN
PB AFC
DET
REC AFC
DET
REC APC
P.DET
V.X.O
KILLER
DET
KIL AMP
BURST
DE EMPHA
PB MAIN
CONV
VCO
PHASE
SIFT
SUB
CONV
PB APC
P.DET
REC
PB
NT
PAL



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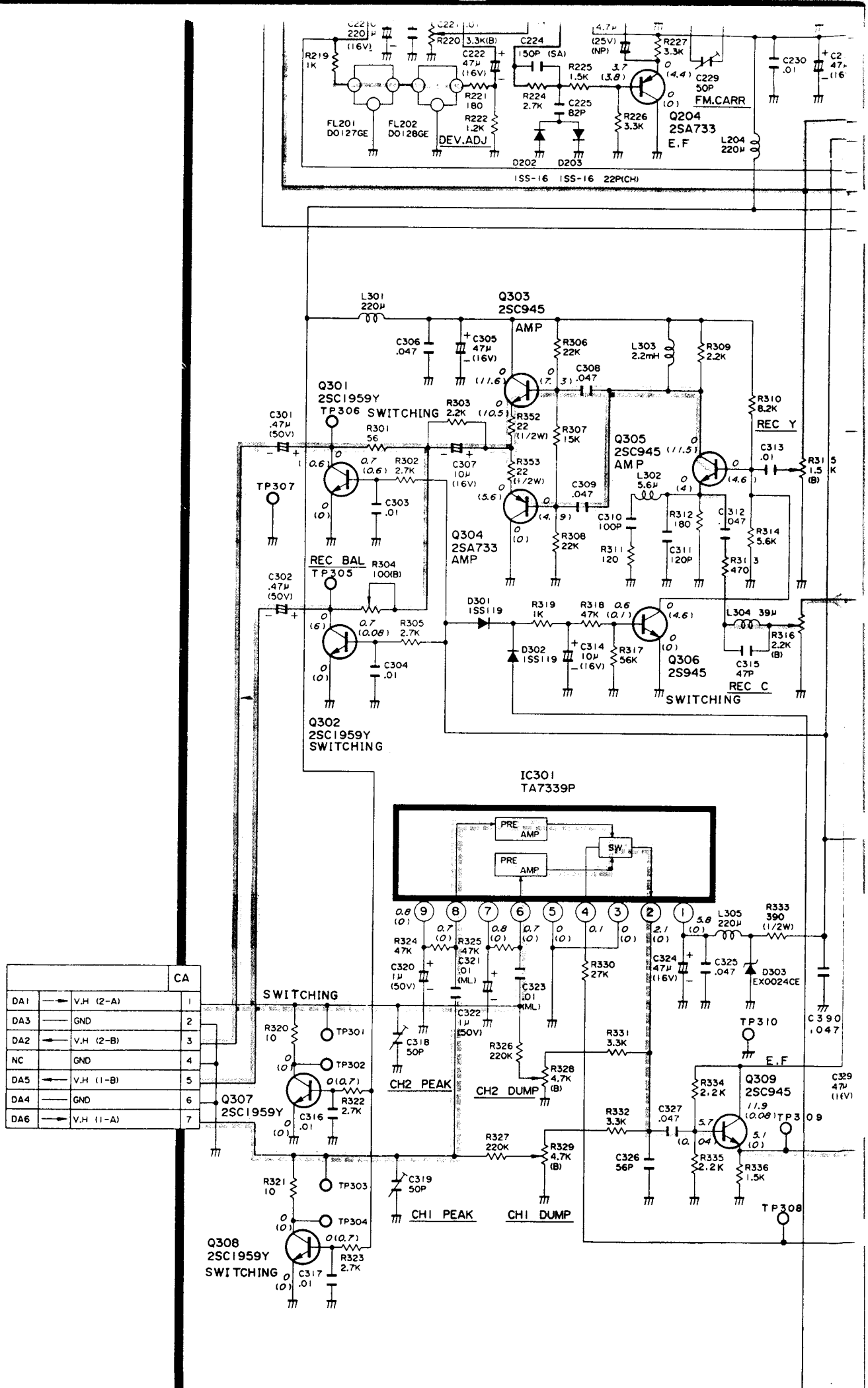
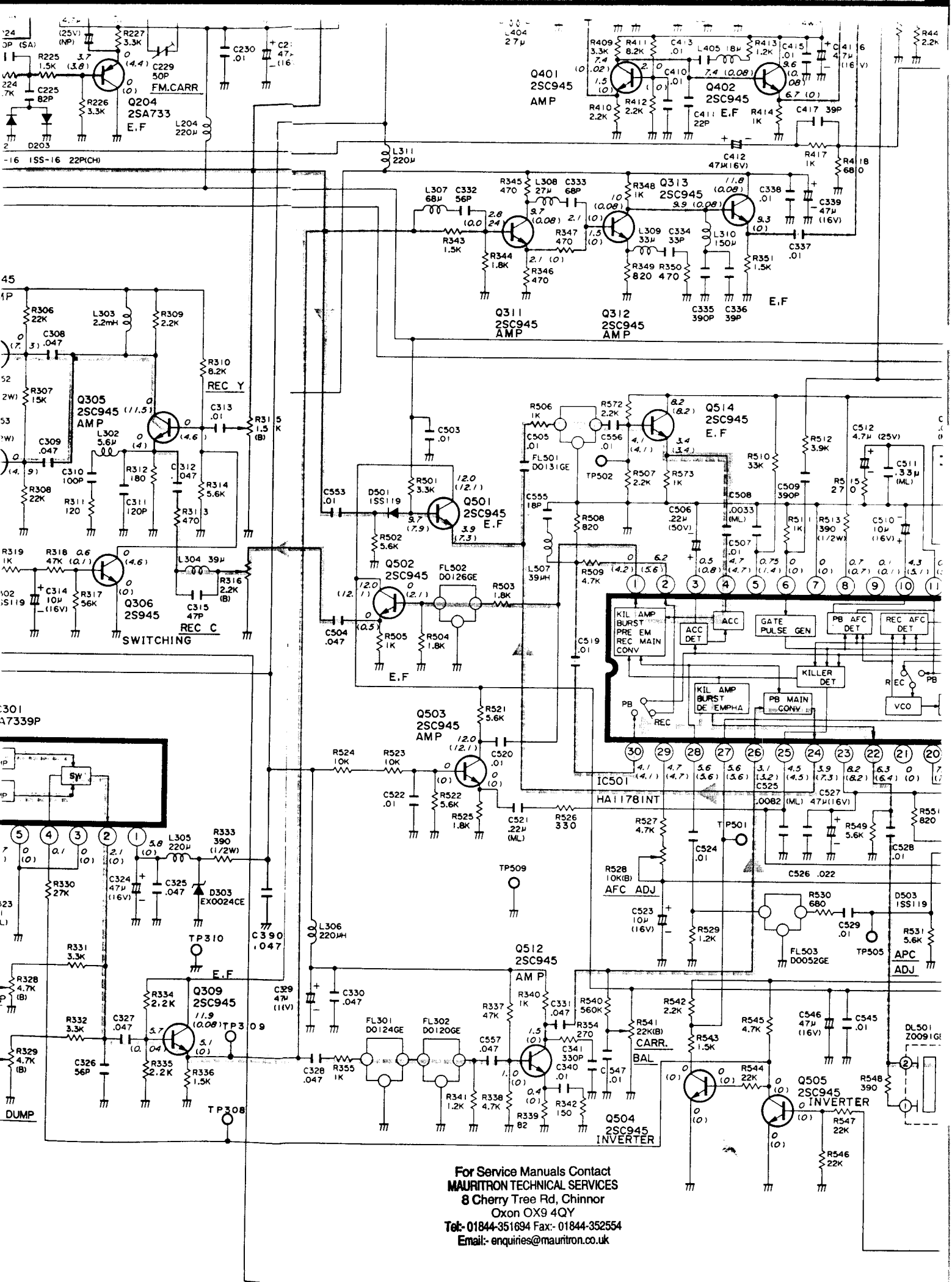
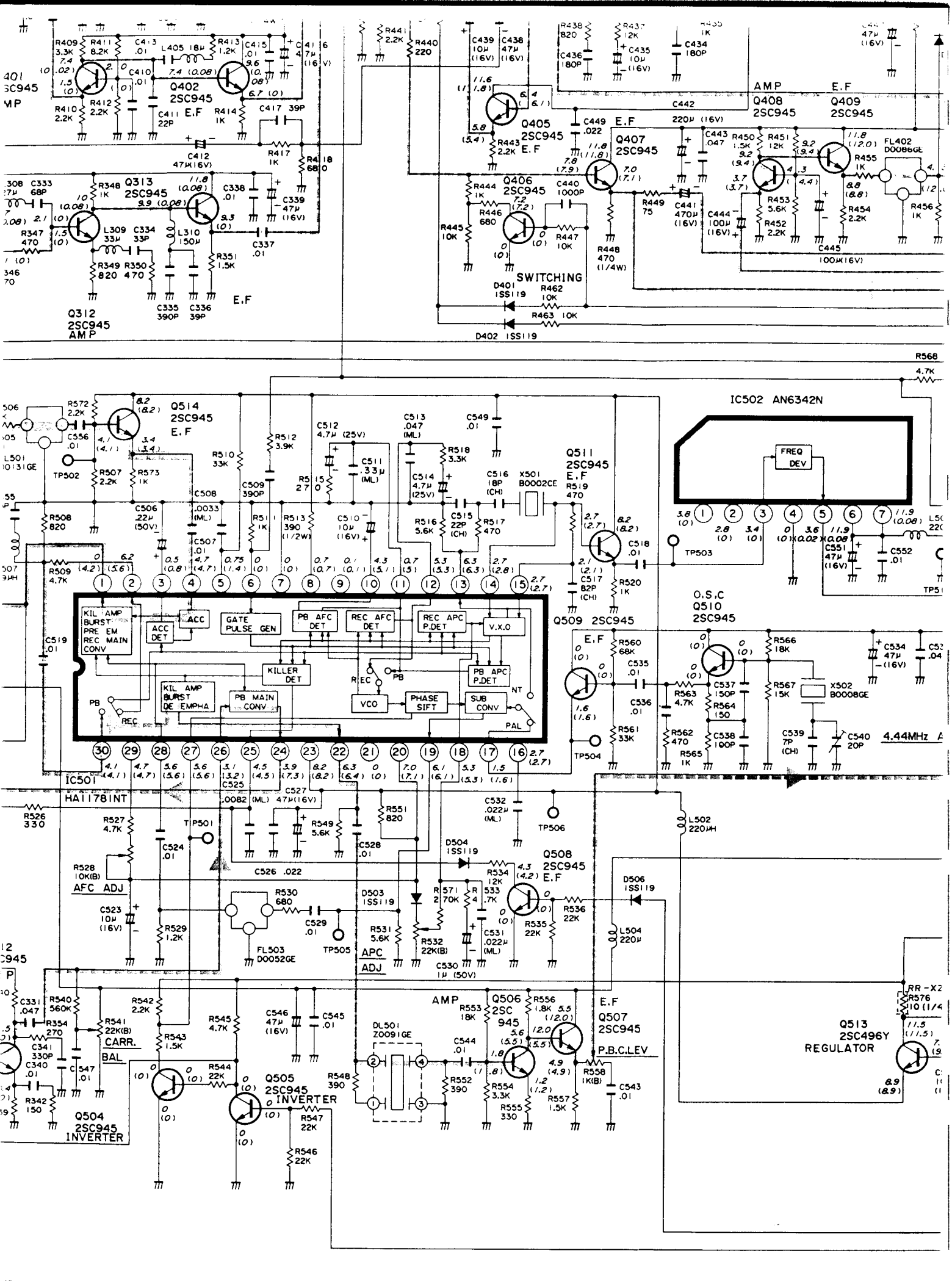
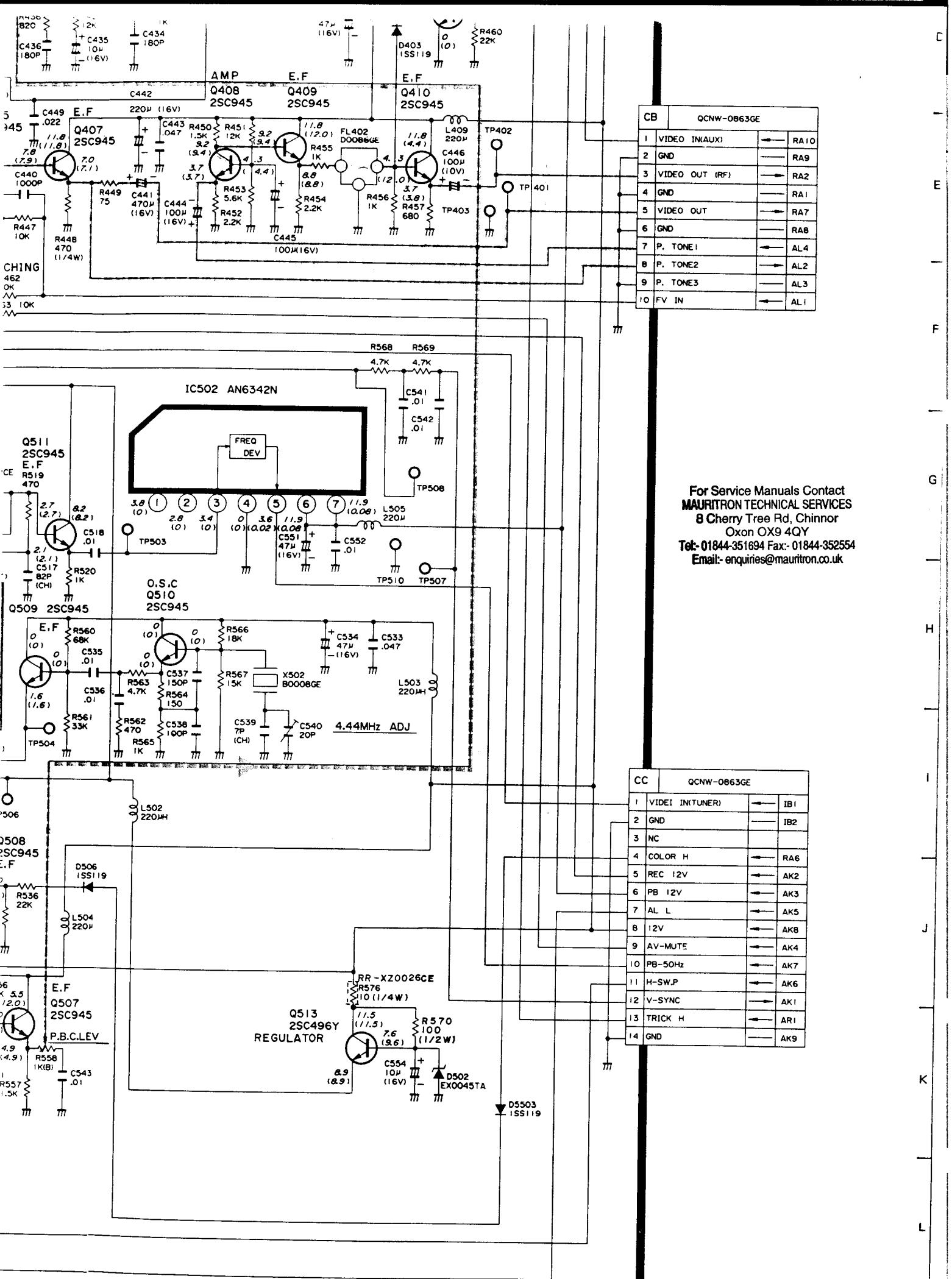
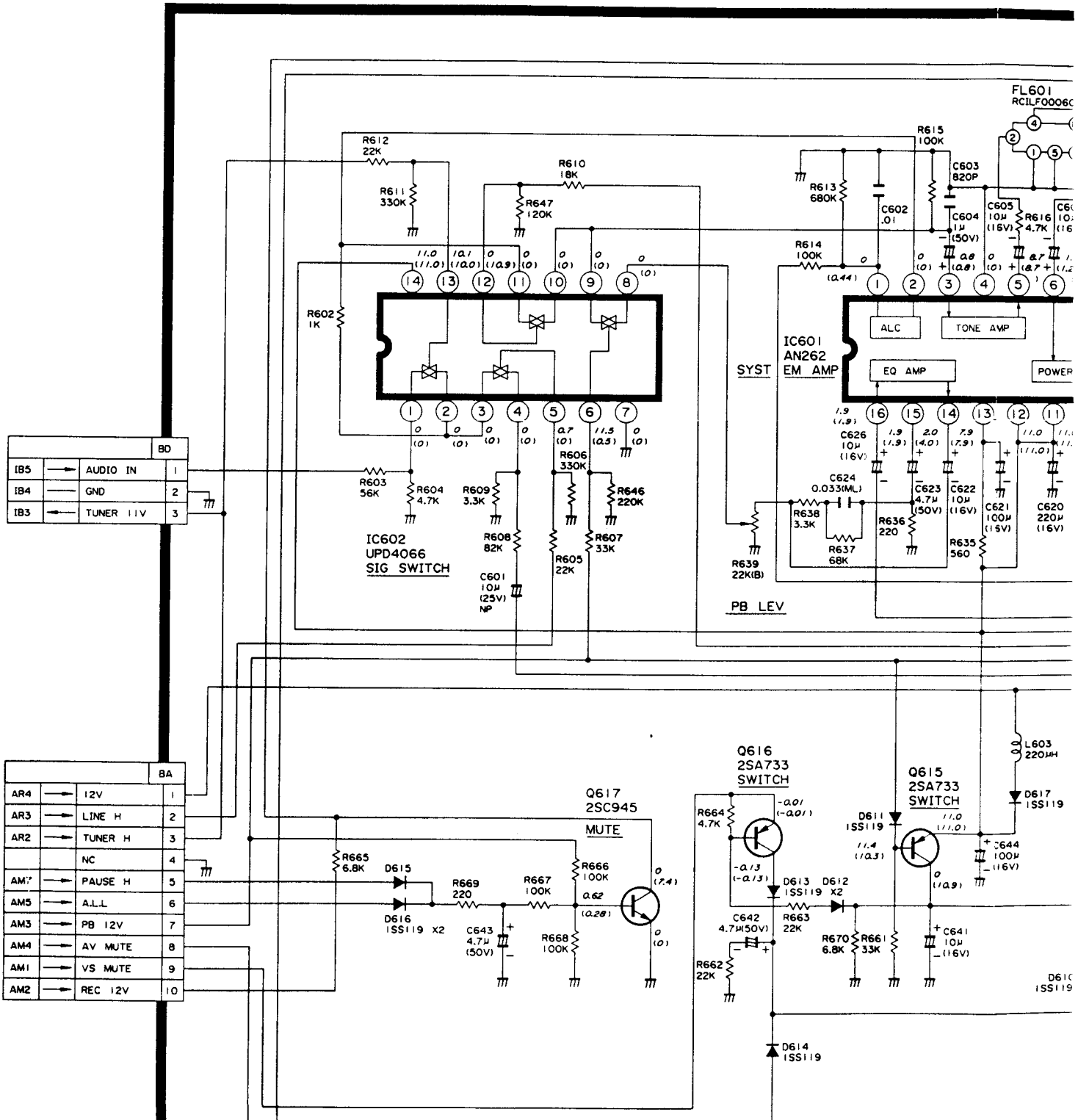

C222 220 (16V)
R220 3.3K(B)
C224 150P (SA)
R219 1K
C222 47μ (16V)
R221 180
R222 1.2K
DEV.ADJ
FL201 D0127GE
FL202 D0128GE
R225 1.5K
R224 2.7K
C225 82P
D202
D203
3.7 (3.8)
(4.4)
(0)
R227 3.3K
C229 50P FM.CARR
R226 3.3K
Q204 2SA733 E.F
L204 220μ
C230 .01
ISS-16 ISS-16 22P(CH)
L301 220μ
Q303 2SC945 AMP
C306 .047
C305 47μ (16V)
R306 22K
L303 2.2mH
R309 2.2K
C308 .047
(11.6)
(7.3)
Q301 2SC1959Y TP306 SWITCHING
R303 2.2K (10.5)
R352 22 (1/2W)
R307 15K
R310 8.2K
REC Y
C301 .47μ (50V)
R301 56
C307 10μ (16V)
R353 22 (1/2W)
Q305 2SC945 AMP
(11.5)
C313 .01
R315 1.5K (B)
(0.6)
0.7 (0.6)
R302 2.7K
TP307
C303 .01
(5.6)
(4.9)
C309 .047
L302 5.6μ
(4)
(4.6)
C310 100P
R312 180
C312 .047
R314 5.6K
R308 22K
R311 120
C311 120P
R313 470
Q304 2SA733 AMP
REC BAL
TP305
R304 100(B)
C302 .47μ (50V)
D301 1SS119
R319 1K
R318 47K
0.6 (0.1)
(4.6)
L304 39μ
R316 2.2K (B)
C315 47P
0.7 (0.08)
R305 2.7K
C304 .01
D302 1SS119
C314 10μ (16V)
R317 56K
Q306 2S945
REC C
SWITCHING
Q302 2SC1959Y SWITCHING
IC301 TA7339P
PRE AMP
SW
PRE AMP
R324 47K
R325 47K
C321 .01 (ML)
C320 1μ (50V)
C323 .01 (ML)
C322 1μ (50V)
R330 27K
C324 47μ (16V)
C325 .047
D303 EX0024CE
R333 390 (1/2W)
C390 .047
TP310
E.F
R331 3.3K
R326 220K
R328 4.7K (B)
CH2 PEAK
CH2 DUMP
R334 2.2K
Q309 2SC945
C329 47μ (16V)
R332 3.3K
C327 .047
TP309
R327 220K
R329 4.7K (B)
C326 56P
R335 2.2K
R336 1.5K
C318 50P
C319 50P
CH1 PEAK
CH1 DUMP
TP308
SWITCHING
R320 10
TP301
TP302
Q307 2SC1959Y
C316 .01
R322 2.7K
R321 10
TP303
TP304
Q308 2SC1959Y SWITCHING
C317 .01
R323 2.7K
CA
DA1 V.H (2-A) 1
DA3 GND 2
DA2 V.H (2-B) 3
NC GND 4
DA5 V.H (1-B) 5
DA4 GND 6
DA6 V.H (1-A) 7

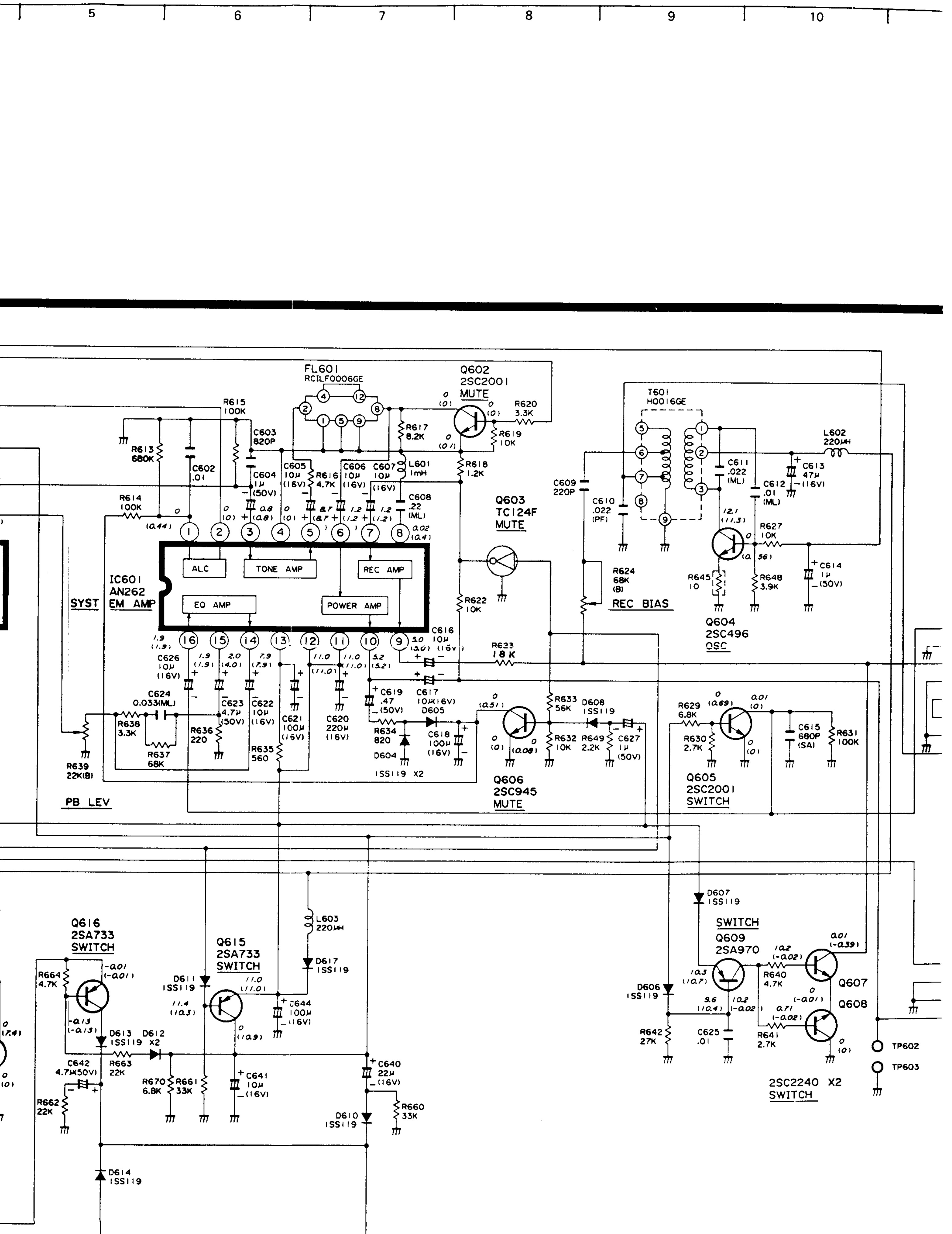



IC502 AN6342N
FREQ DEV
IC501 HA11781NT
KIL AMP BURST PRE EM REC MAIN CONV
ACC DET
ACC
GATE PULSE GEN
PB AFC DET
REC AFC DET
REC APC P.DET
V.X.O
KILLER DET
REC
PB
PB APC P.DET
KIL AMP BURST DE EMPHA
PB MAIN CONV
VCO
PHASE SIFT
SUB CONV
NT
PAL
Q514 2SC945 E.F
Q511 2SC945 E.F
Q509 2SC945
O.S.C Q510 2SC945
Q513 2SC496Y REGULATOR
Q506 2SC945 AMP
Q507 2SC945 E.F
P.B.C.LEV
Q505 2SC945 INVERTER
Q504 2SC945 INVERTER
CARR. BAL
AFC ADJ
APC ADJ
Q508 2SC945 E.F
D504 1SS119
D506 1SS119
D503 1SS119
L502 220μH
L504 220μ
FL503 D0052GE
DL501 Z0091GE
X501 B0002CE
X502 B0008GE
4.44MHz
Q401 2SC945 AMP
Q402 2SC945
Q405 2SC945 E.F
Q406 2SC945
Q407 2SC945
Q408 2SC945
Q409 2SC945
FL402 D0086GE
SWITCHING
D401 1SS119
D402 1SS119
Q313 2SC945
Q312 2SC945 AMP
E.F
AMP



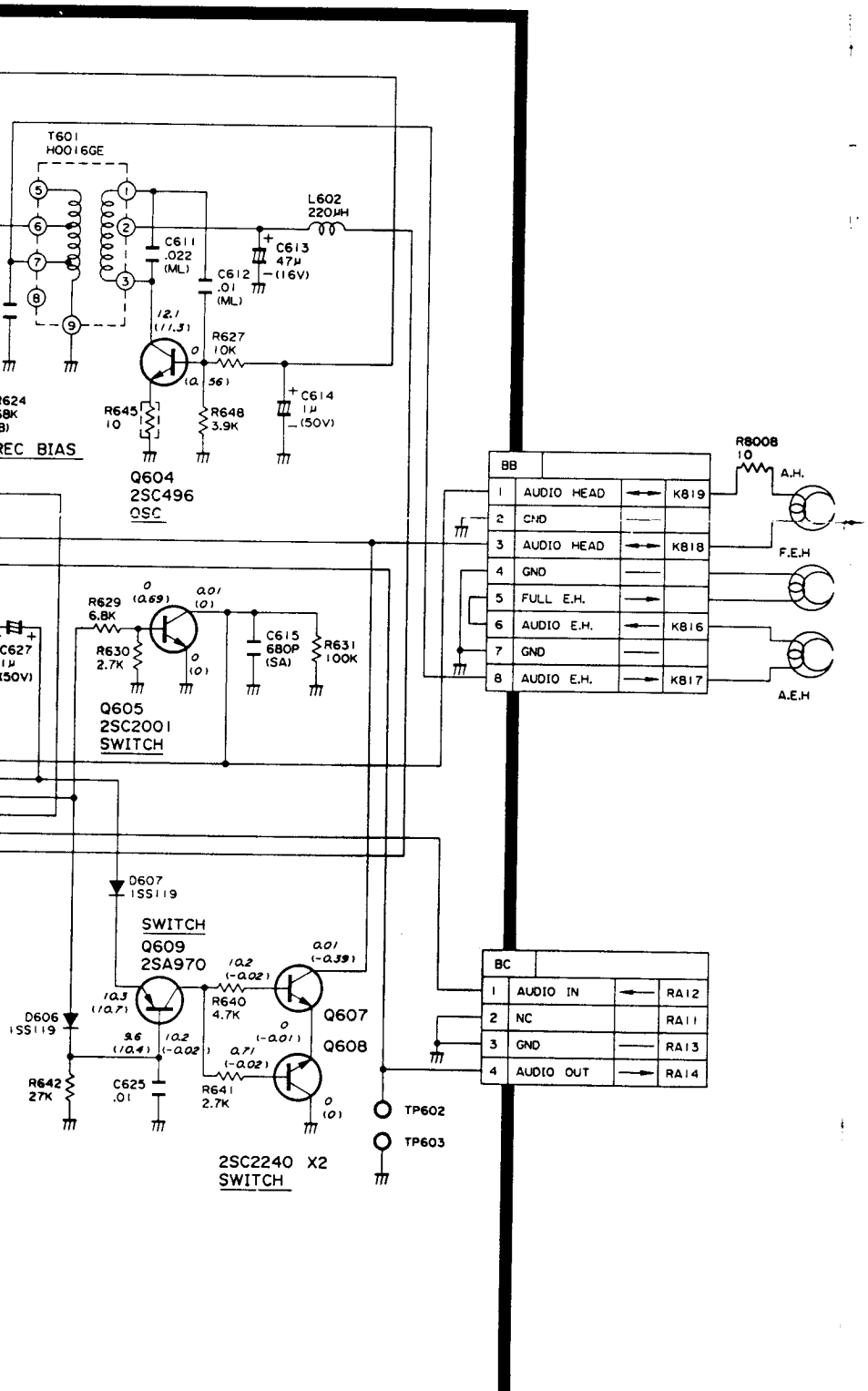
PWB-B, AUDIO CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)

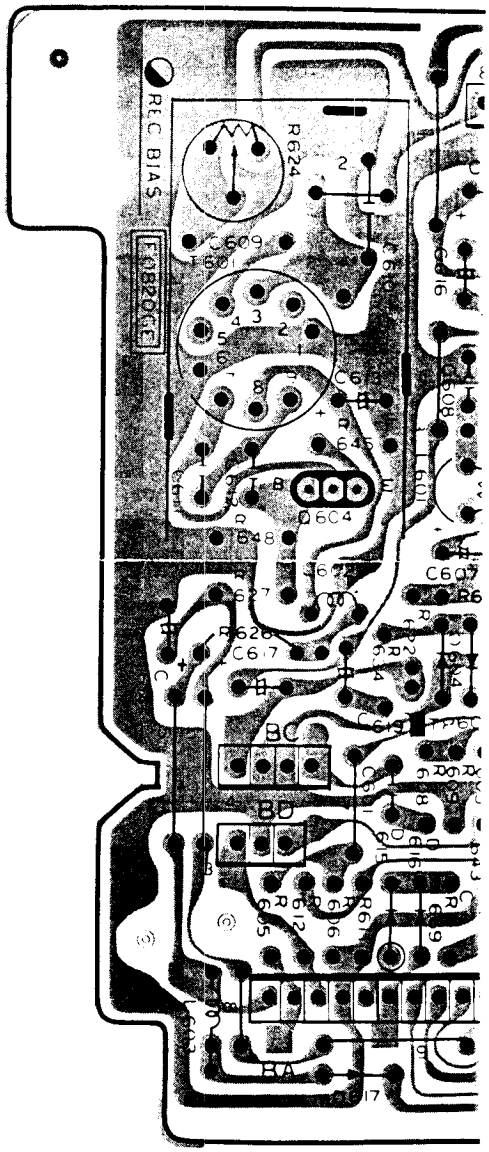




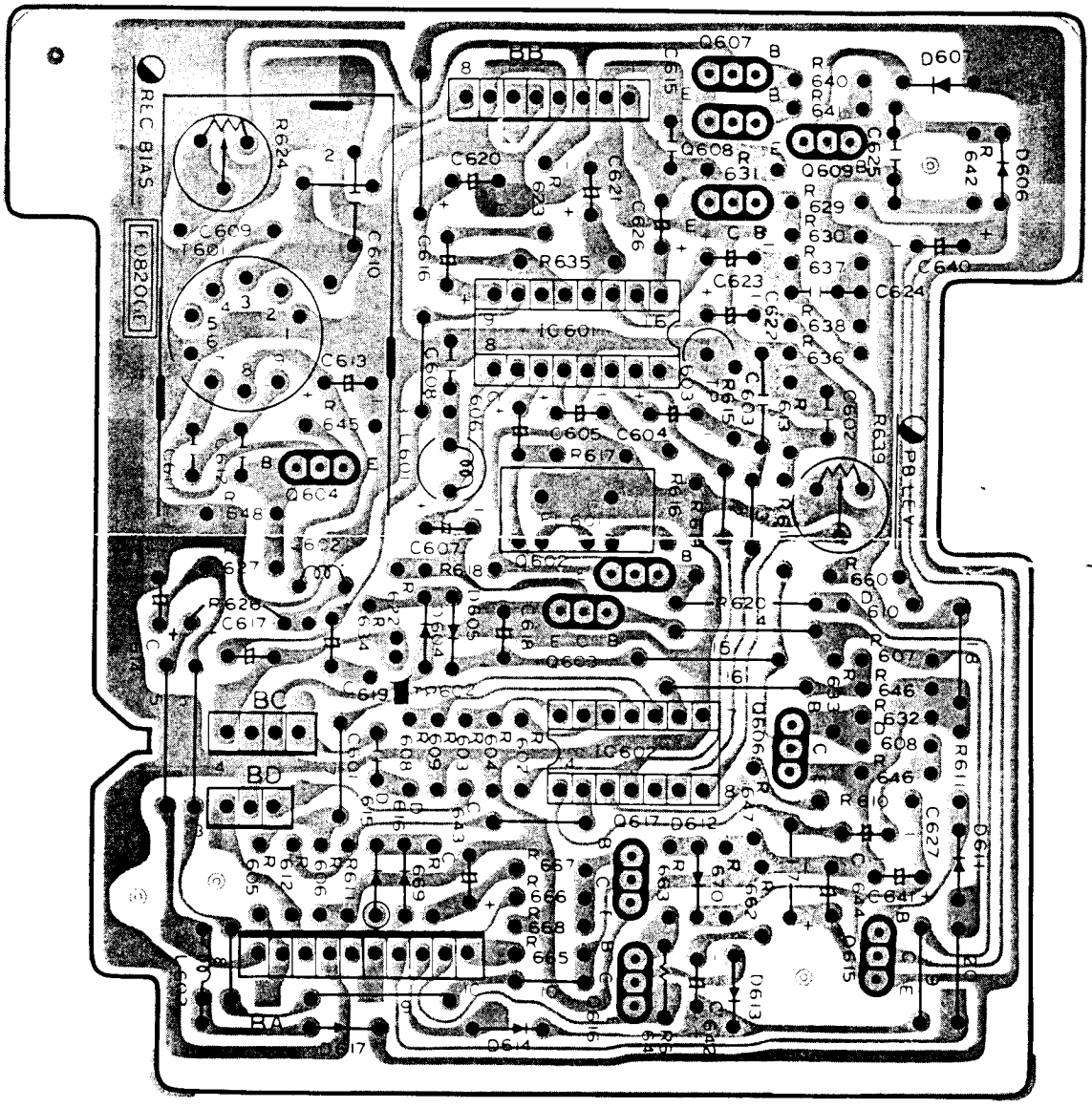
5
6
7
8
9
10
FL601
RCILF0006GE
Q602
2SC2001
MUTE
R615
100K
R620
3.3K
R617
8.2K
R619
10K
R613
680K
C603
820P
C602
.01
C604
1μ
(50V)
C605
10μ
(16V)
R616
4.7K
C606
10μ
(16V)
C607
10μ
(16V)
L601
1mH
R618
1.2K
C608
.22
(ML)
R614
100K
T601
H0016GE
L602
220μH
C611
.022
(ML)
C613
47μ
(16V)
C612
.01
(ML)
C609
220P
C610
.022
(PF)
Q603
TC124F
MUTE
R627
10K
C614
1μ
(50V)
R624
68K
(B)
R645
10
R648
3.9K
REC BIAS
Q604
2SC496
OSC
IC601
AN262
EM AMP
SYST
ALC
TONE AMP
REC AMP
EQ AMP
POWER AMP
R622
10K
C616
10μ
(16V)
R623
18K
C626
10μ
(16V)
C624
0.033(ML)
C623
4.7μ
(50V)
C622
10μ
(16V)
C621
100μ
(15V)
C620
220μ
(16V)
C619
.47
(50V)
C617
10μ(16V)
D605
R633
56K
D608
1SS119
R629
6.8K
C615
680P
(SA)
R631
100K
R638
3.3K
R637
68K
R636
220
R635
560
R634
820
D604
1SS119 X2
C618
100μ
(16V)
R632
10K
R649
2.2K
C627
1μ
(50V)
R630
2.7K
R639
22K(B)
Q606
2SC945
MUTE
Q605
2SC2001
SWITCH
PB LEV
D607
1SS119
L603
220μH
D617
1SS119
SWITCH
Q609
2SA970
Q616
2SA733
SWITCH
Q615
2SA733
SWITCH
R640
4.7K
Q607
Q608
D611
1SS119
C644
100μ
(16V)
D606
1SS119
R664
4.7K
R642
27K
C625
.01
R641
2.7K
TP602
TP603
D613
1SS119
D612
X2
C642
4.7μ(50V)
R663
22K
C640
22μ
(16V)
2SC2240 X2
SWITCH
R670
6.8K
R661
33K
C641
10μ
(16V)
R662
22K
R660
33K
D610
1SS119
D614
1SS119

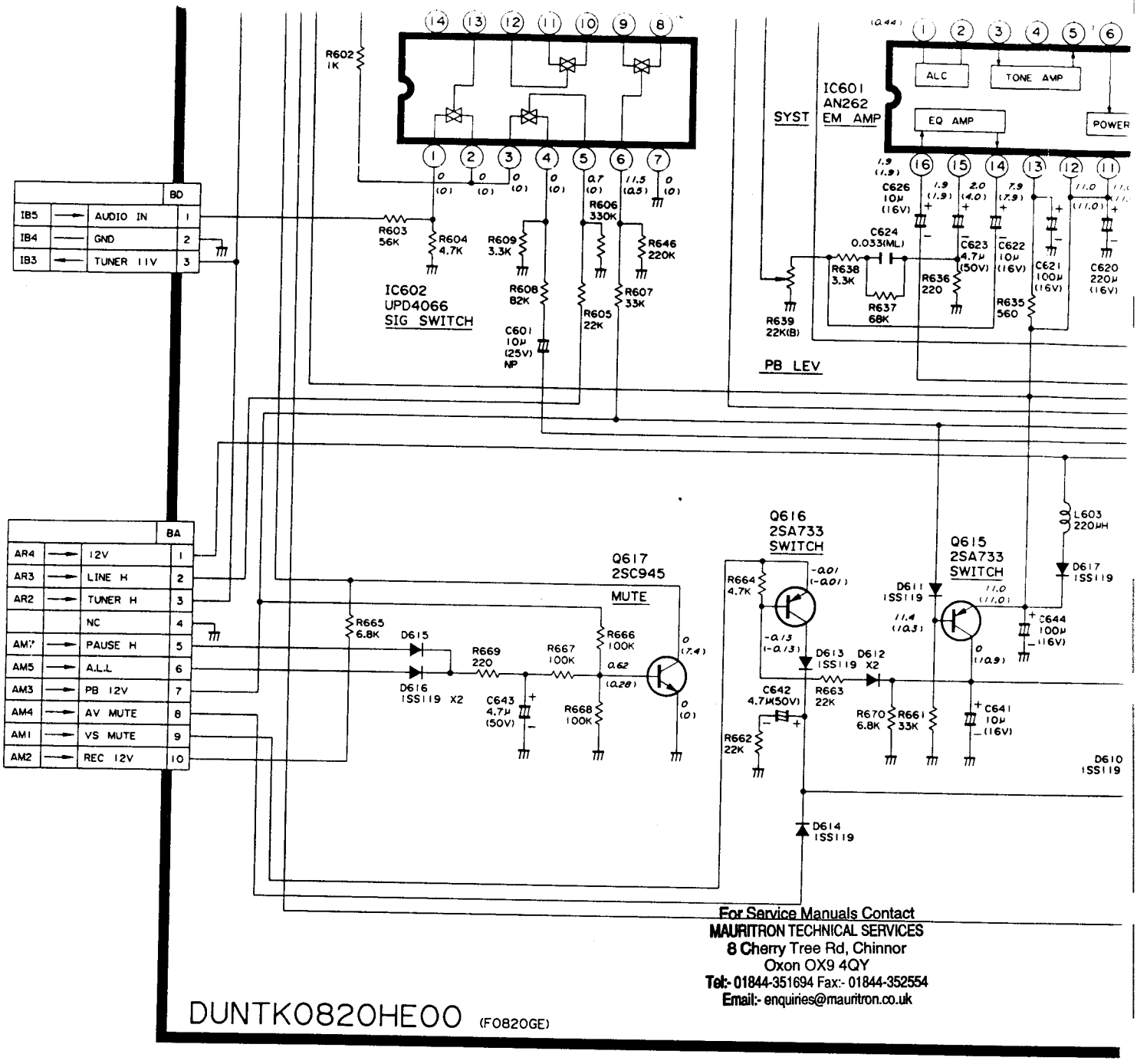
PWB-B, AUDIO CIRCUIT WIRING SIDE





PWB-B, AUDIO CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)





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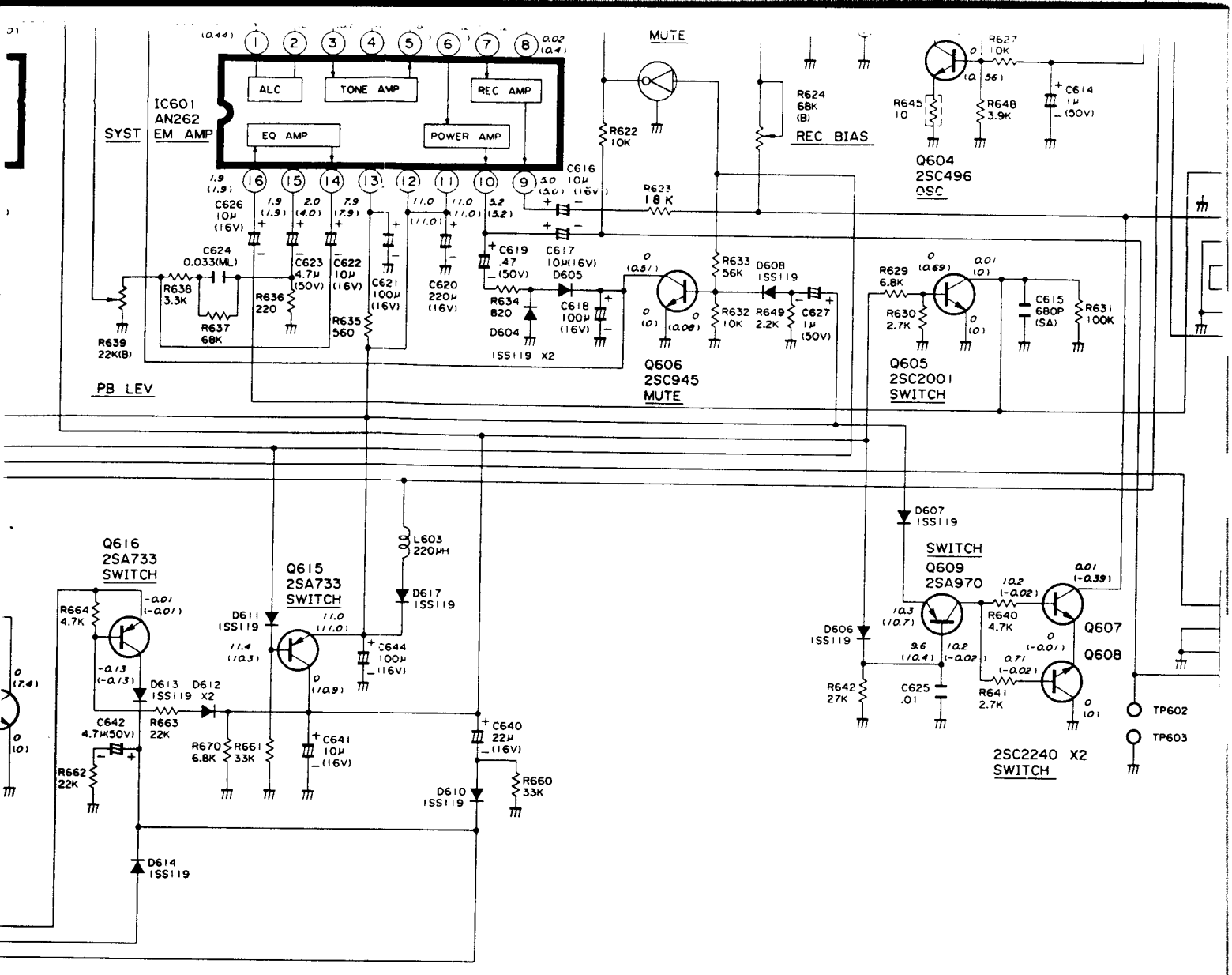
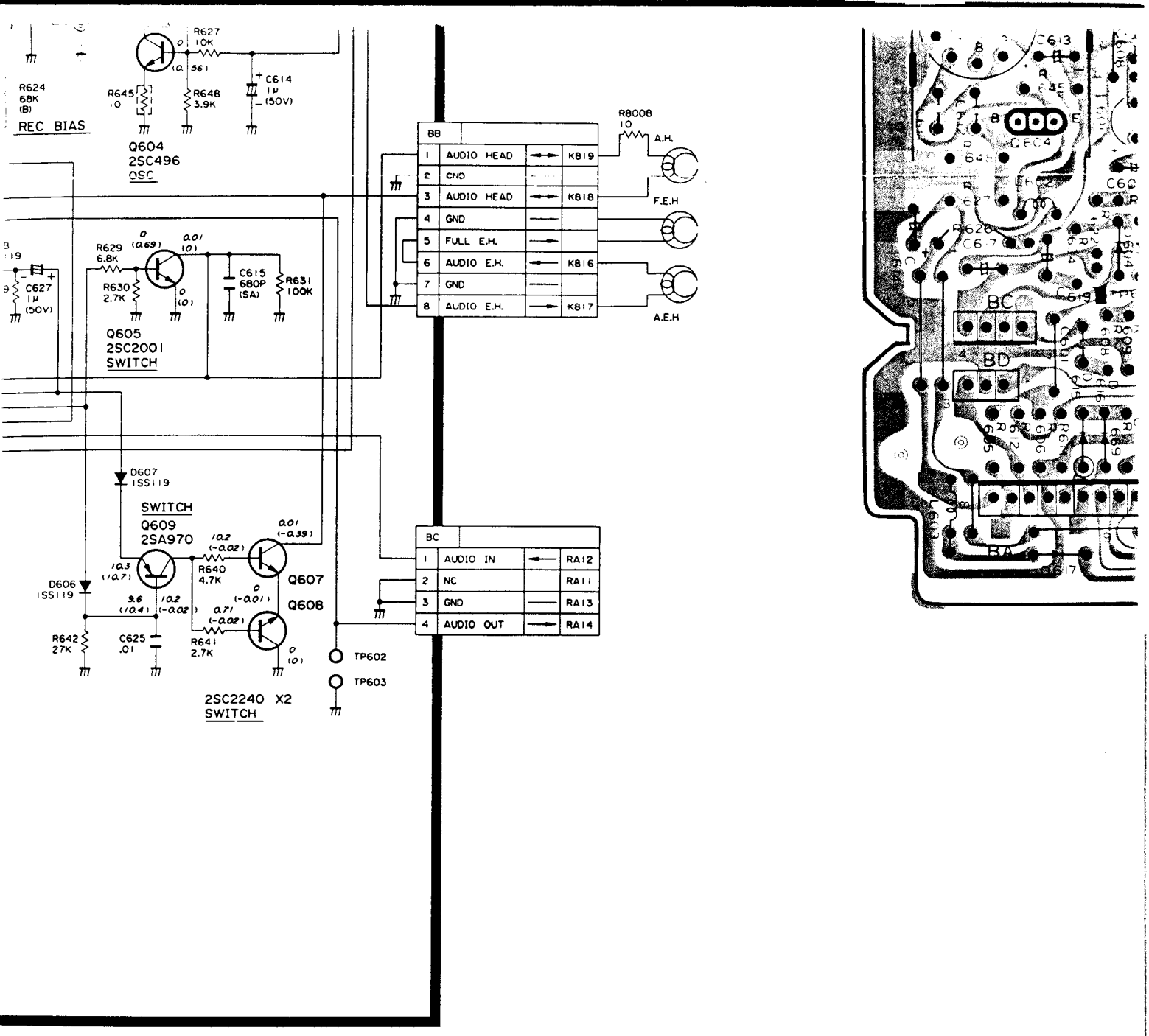
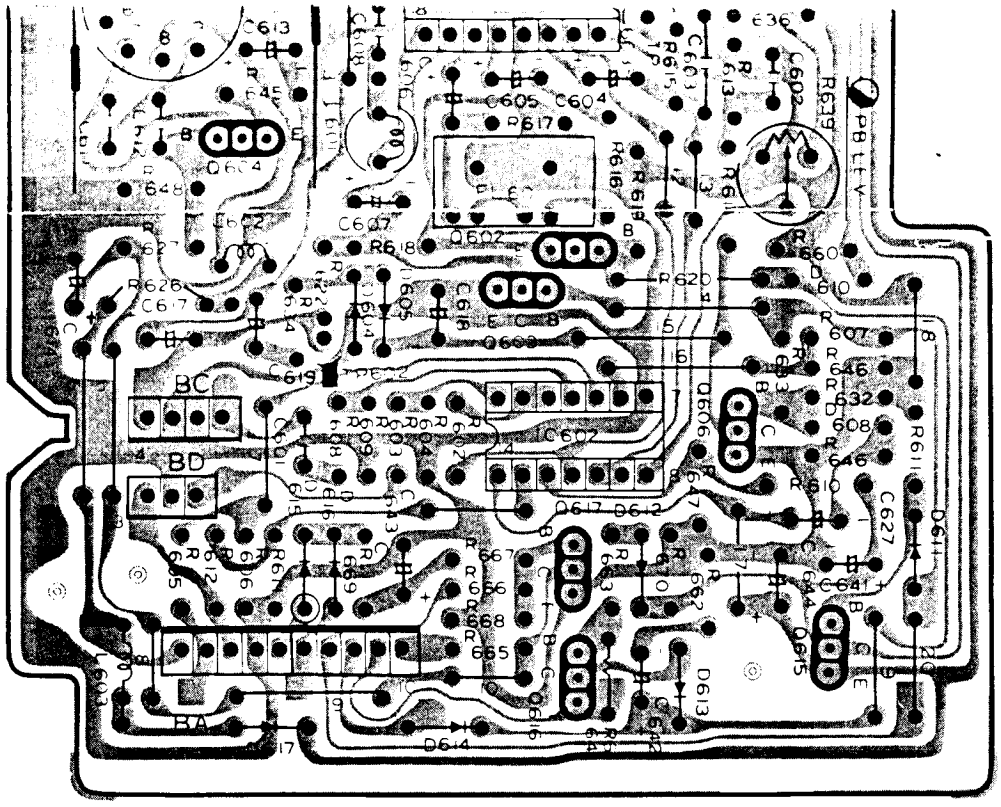
DUNTK0820HE00 (F0820GE)


IC601
AN262
EM AMP
SYST
ALC
TONE AMP
REC AMP
EQ AMP
POWER AMP
MUTE
REC BIAS
PB LEV
Q604
2SC496
OSC
Q605
2SC2001
SWITCH
Q606
2SC945
MUTE
Q607
Q608
SWITCH
Q609
2SA970
SWITCH
Q615
2SA733
SWITCH
Q616
2SA733
SWITCH
2SC2240 X2
SWITCH
TP602
TP603
R622 10K
R623 18 K
R624 68K (B)
R627 10K
R645 10
R648 3.9K
C614 1μ (50V)
C616 10μ (16V)
C626 10μ (16V)
C624 0.033(ML)
C623 4.7μ (50V)
C622 10μ (16V)
C621 100μ (16V)
C620 220μ (16V)
C619 .47 (50V)
C617 10μ(16V)
D605
R634 820
D604
ISS119 X2
C618 100μ (16V)
R633 56K
D608 ISS119
R632 10K
R649 2.2K
C627 1μ (50V)
R638 3.3K
R636 220
R637 68K
R635 560
R639 22K(B)
R629 6.8K
R630 2.7K
C615 680P (SA)
R631 100K
D607 ISS119
D606 ISS119
R640 4.7K
R641 2.7K
R642 27K
C625 .01
L603 220μH
D617 ISS119
D611 ISS119
C644 100μ (16V)
R664 4.7K
D613 D612 ISS119 X2
R663 22K
C642 4.7μ(50V)
R662 22K
R670 6.8K
R661 33K
C641 10μ (16V)
C640 22μ (16V)
R660 33K
D610 ISS119
D614 ISS119


R627
10K
(0.56)
R624
68K
(B)
REC BIAS
R645
10
R648
3.9K
C614
1μ
(50V)
Q604
2SC496
OSC
R629
6.8K
(0.69)
(0.01)
R630
2.7K
(0)
C615
680P
(SA)
R631
100K
C627
1μ
(50V)
Q605
2SC2001
SWITCH
D607
1SS119
SWITCH
Q609
2SA970
(0.2)
(-0.02)
(0.01)
(-0.39)
R640
4.7K
Q607
Q608
(0.3)
(0.7)
D606
1SS119
(9.6)
(0.4)
(0.2)
(-0.02)
(0.7)
(-0.02)
(0)
(-0.01)
R642
27K
C625
.01
R641
2.7K
(0)
(0)
TP602
TP603
2SC2240 X2
SWITCH
BB
1 AUDIO HEAD → K819
2 GND
3 AUDIO HEAD → K818
4 GND
5 FULL E.H. →
6 AUDIO E.H. → K816
7 GND
8 AUDIO E.H. → K817
R8008
10
A.H.
F.E.H
A.E.H
BC
1 AUDIO IN ← RA12
2 NC RA11
3 GND RA13
4 AUDIO OUT → RA14
C613
C604
R628
C617
C619
BC
BD
BA



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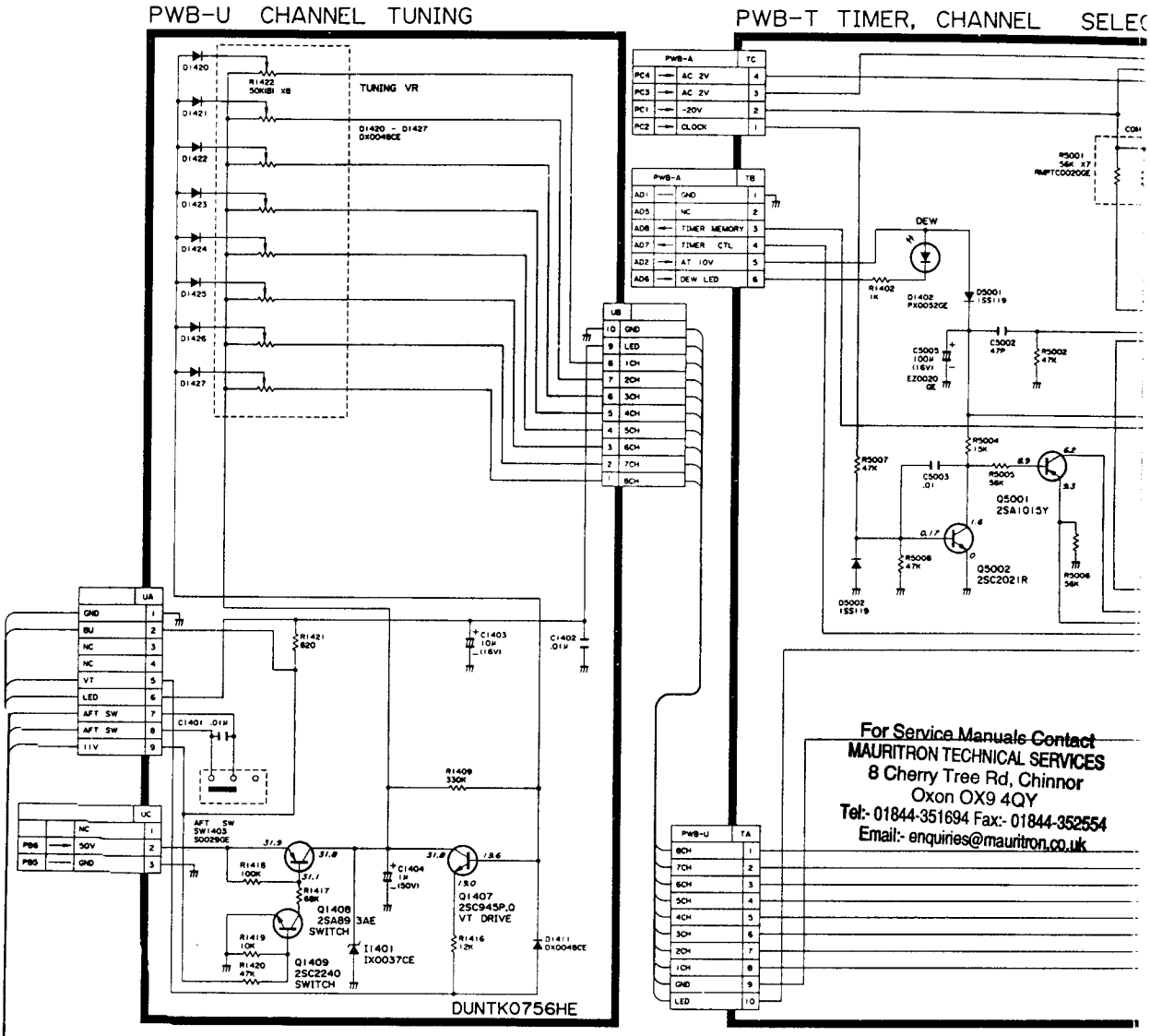
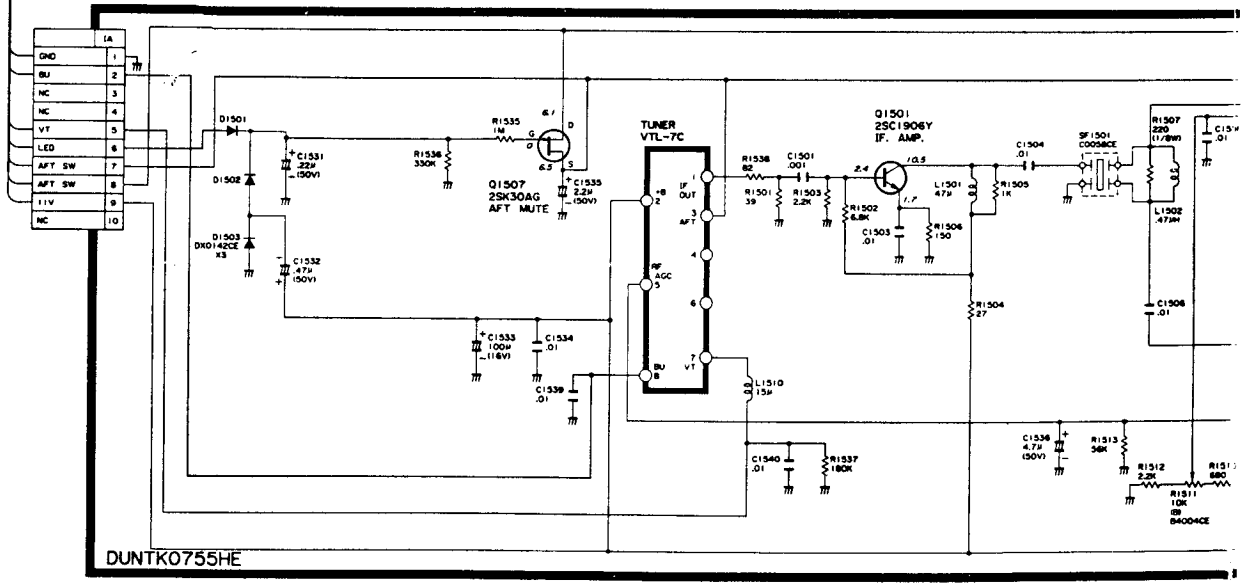
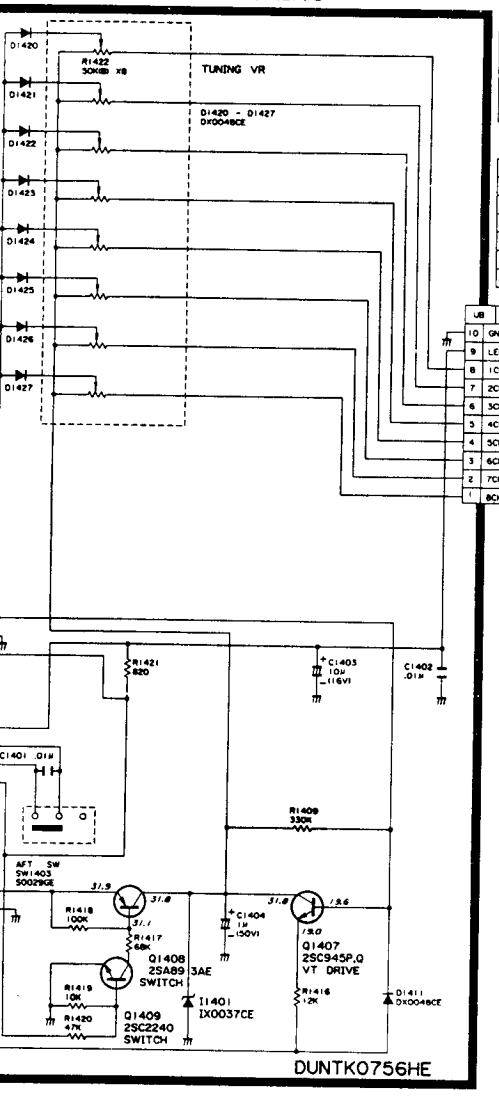
PWB-I, IF CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)
PWB-U, CHANNEL TUNING CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)



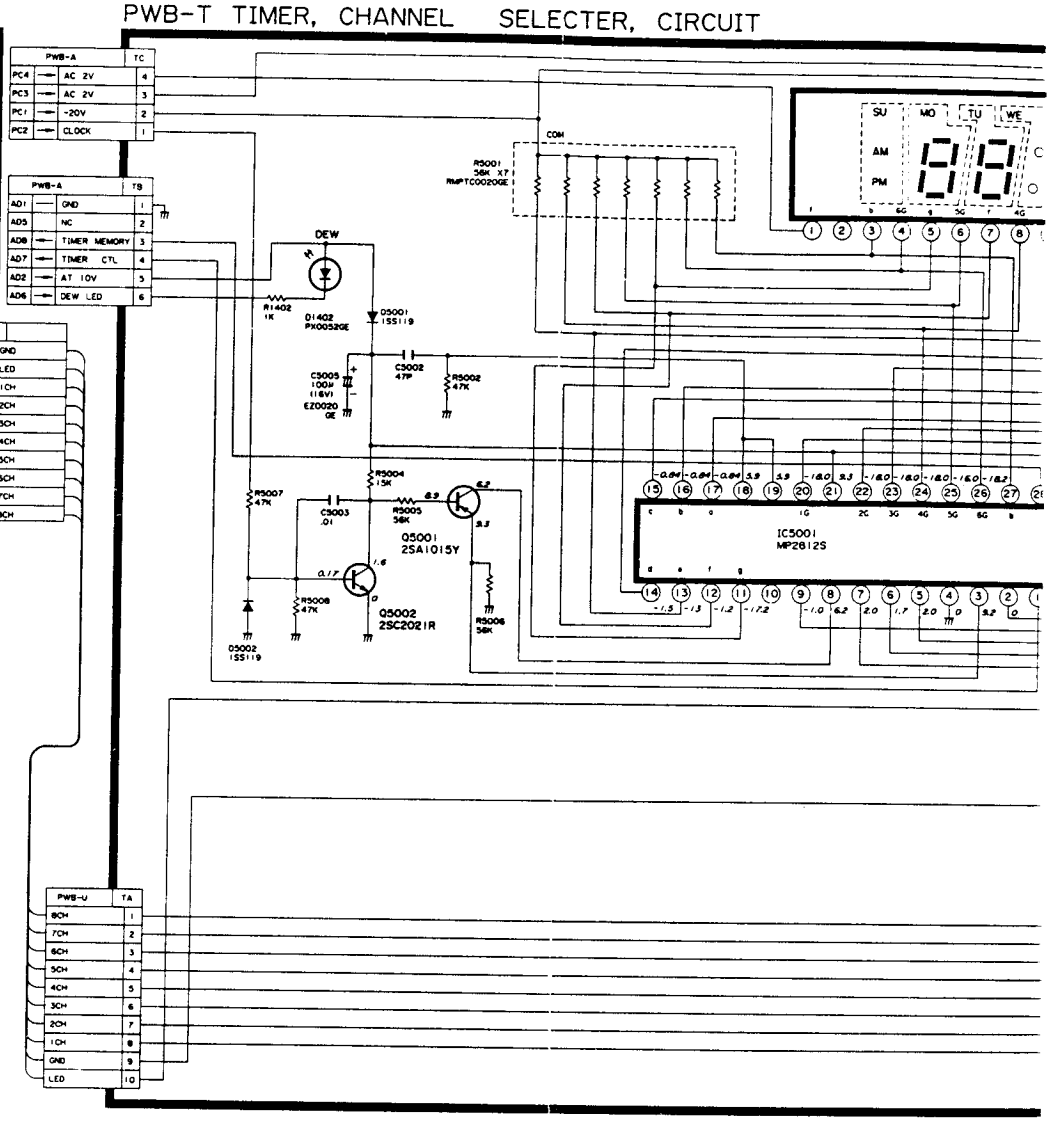


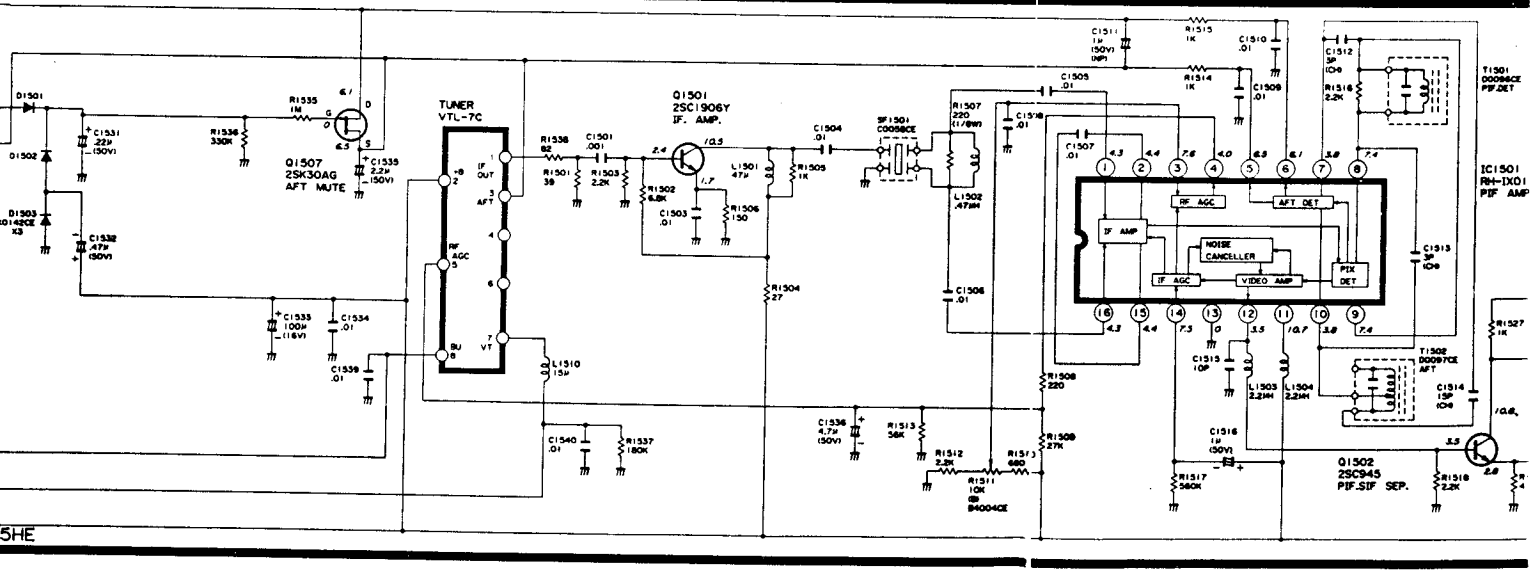
TIC DIAGRAM (VC-381H,W/383H)
ELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)
CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)

WB-U CHANNEL TUNING

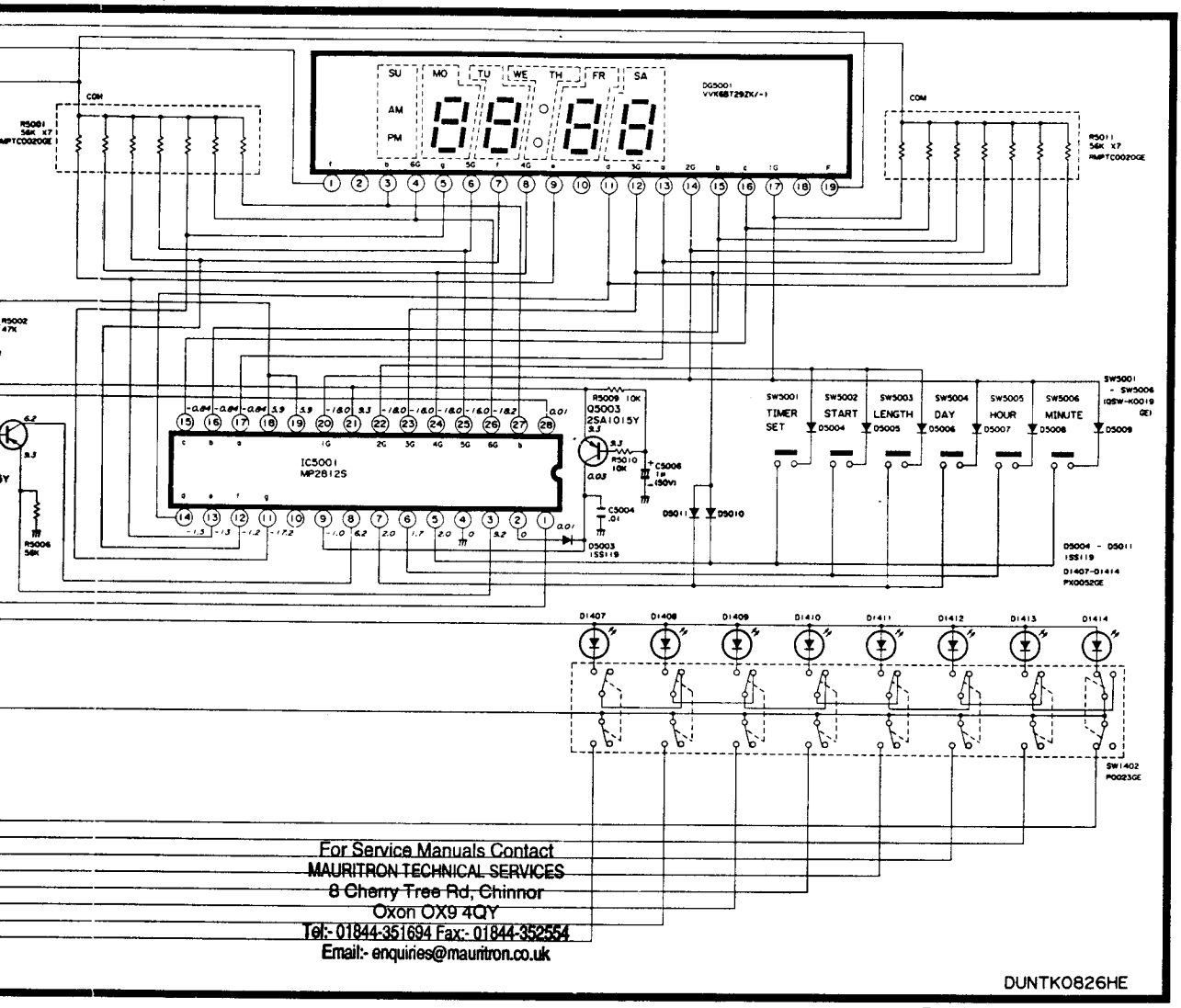


PWB-T TIMER, CHANNEL SELECTER, CIRCUIT

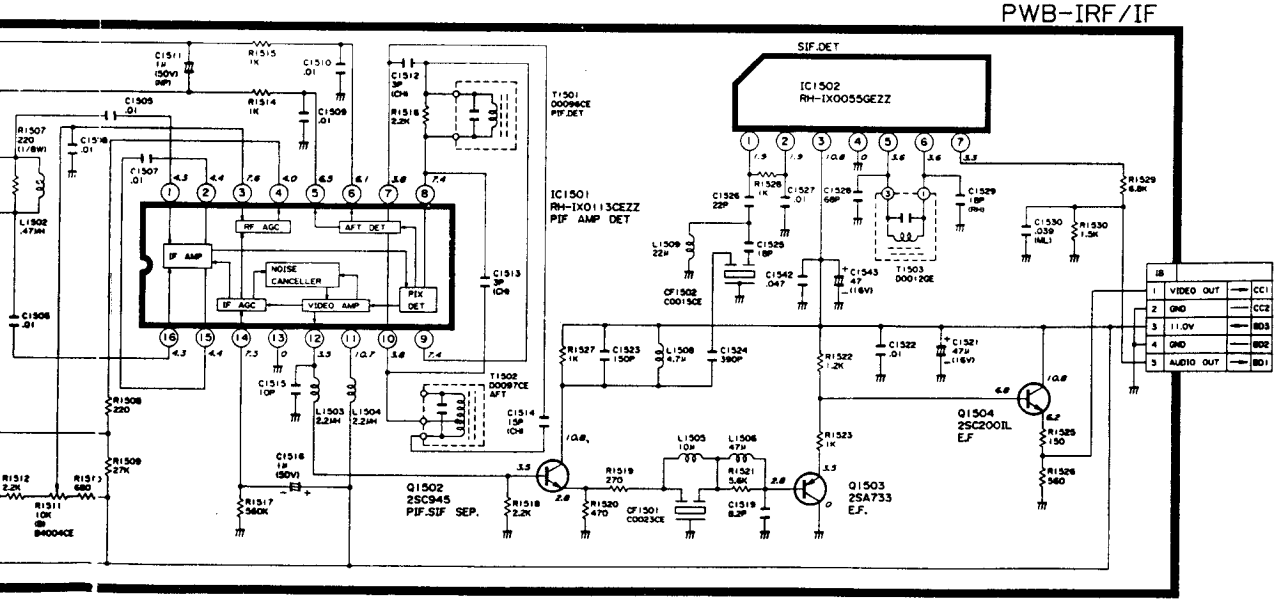




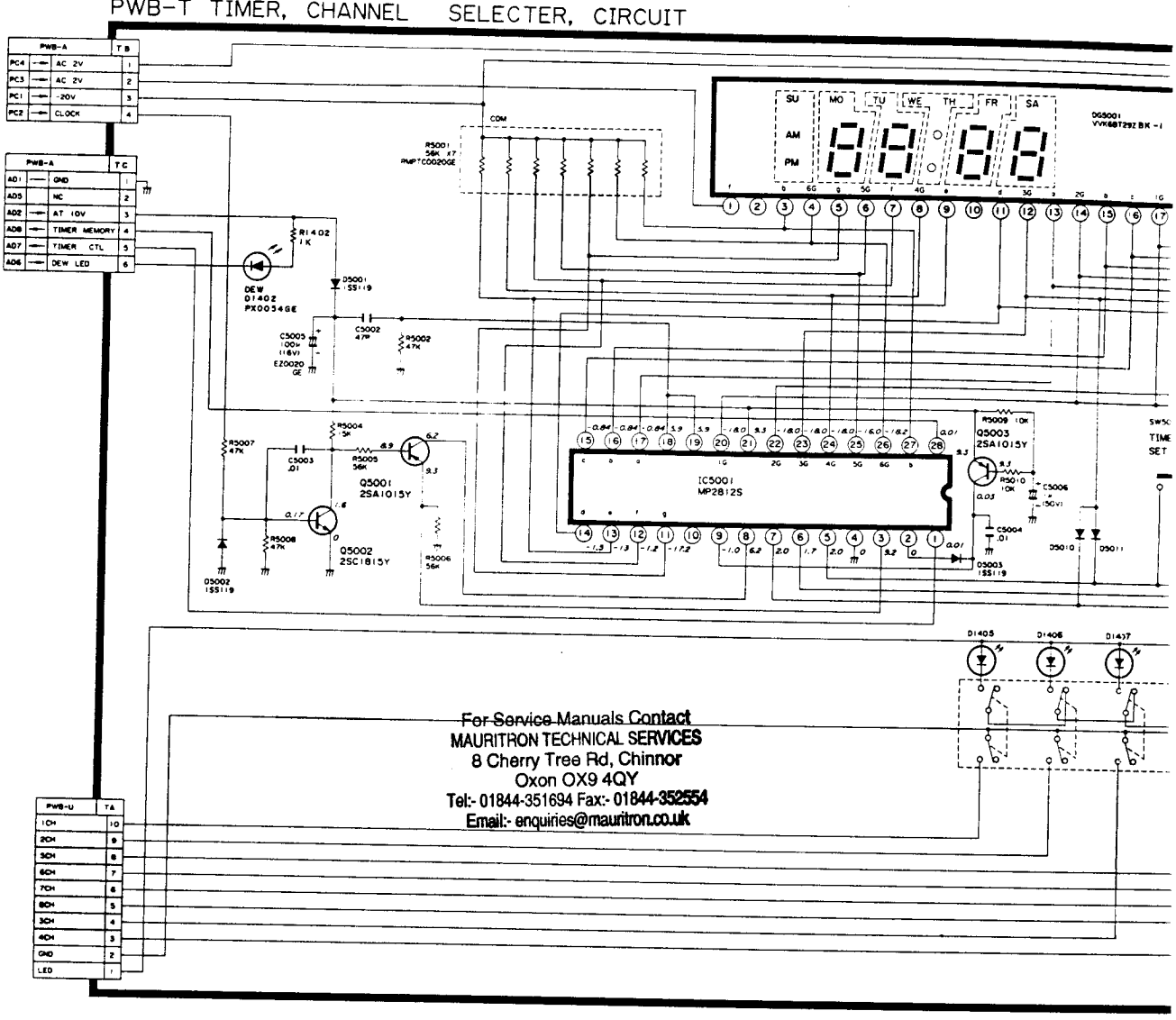
SELECTER, CIRCUIT



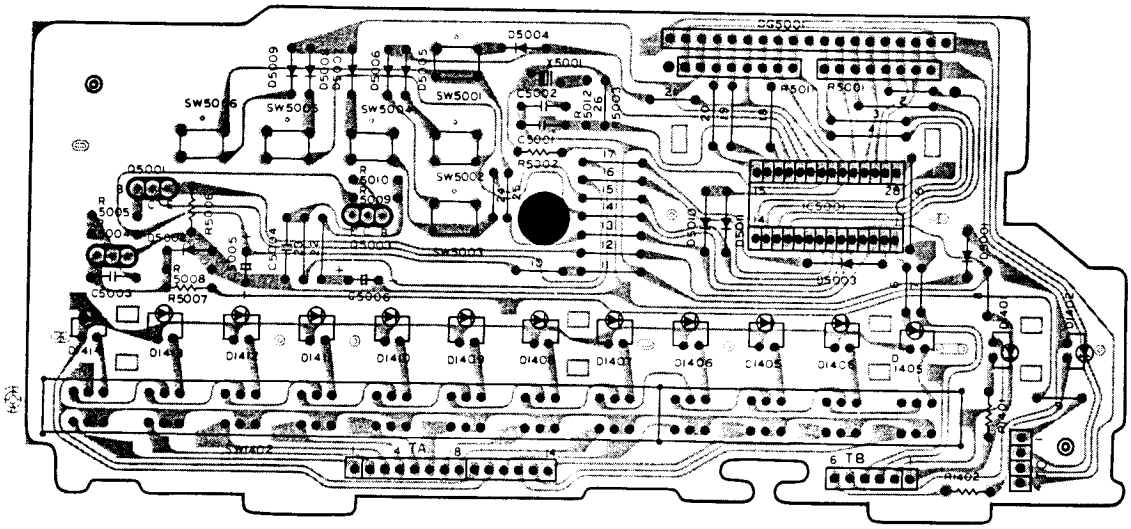
PWB-IRF/IF



PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-383H)



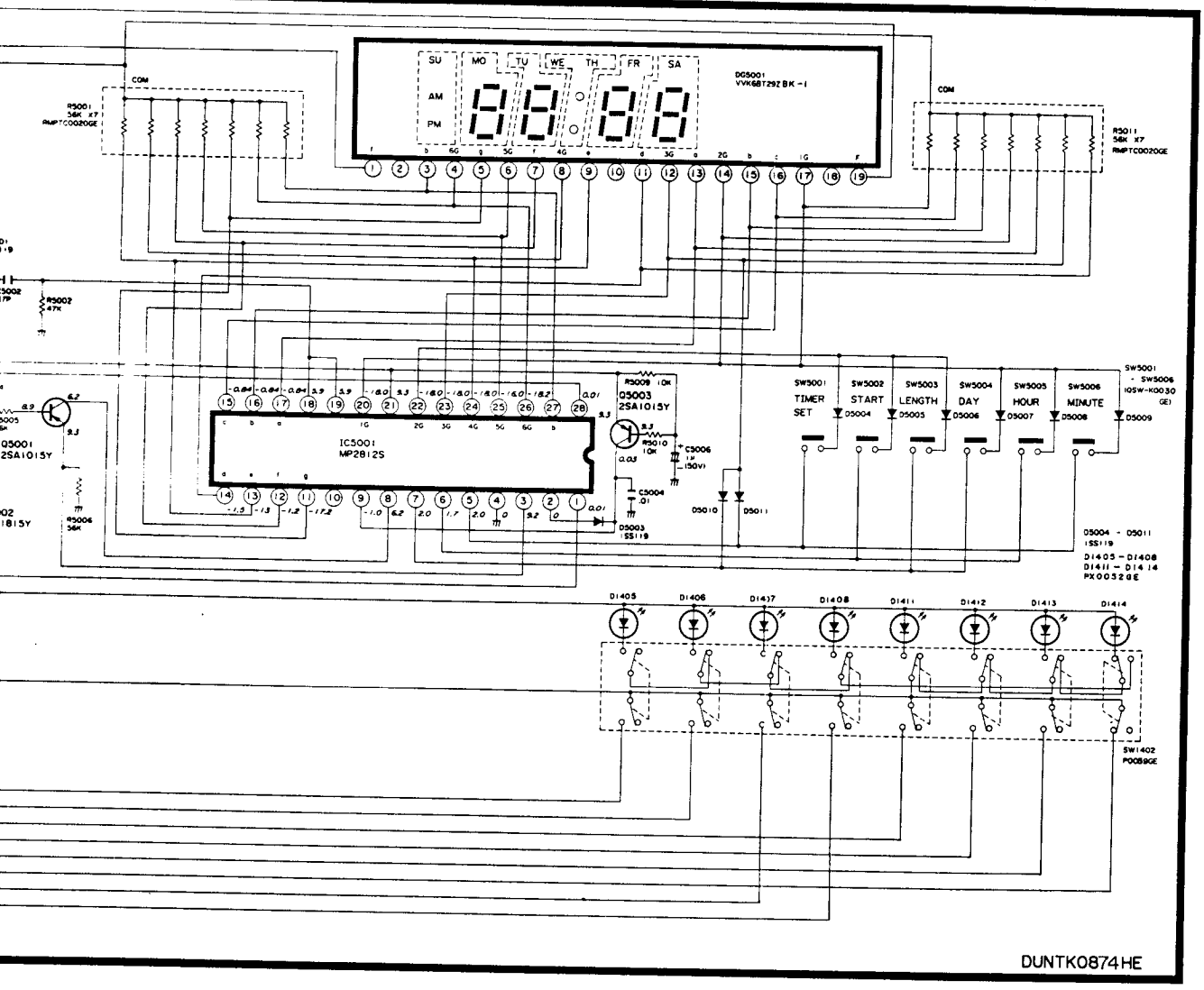
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT WIRING SIDE PWB (VC-381H,W)



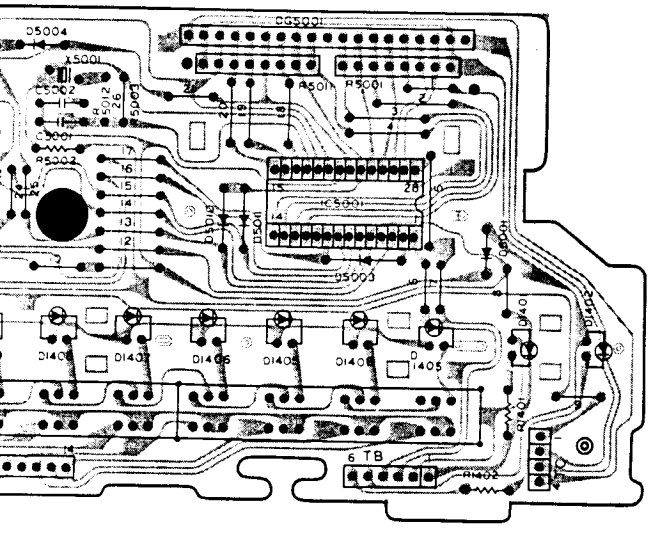
RCUIT SCHEMATIC DIAGRAM (VC-383H)

NNEL SELECTER, CIRCUIT

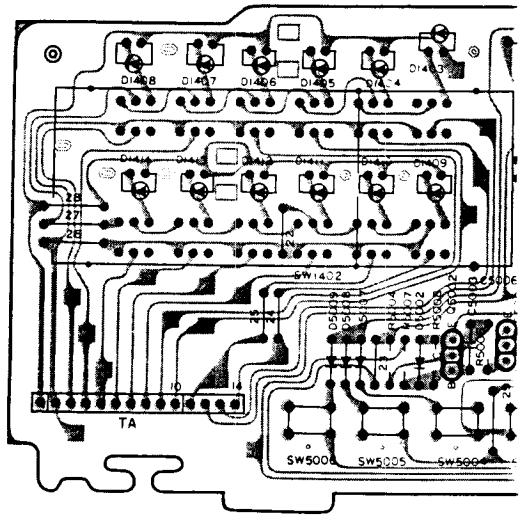
VC-383 H



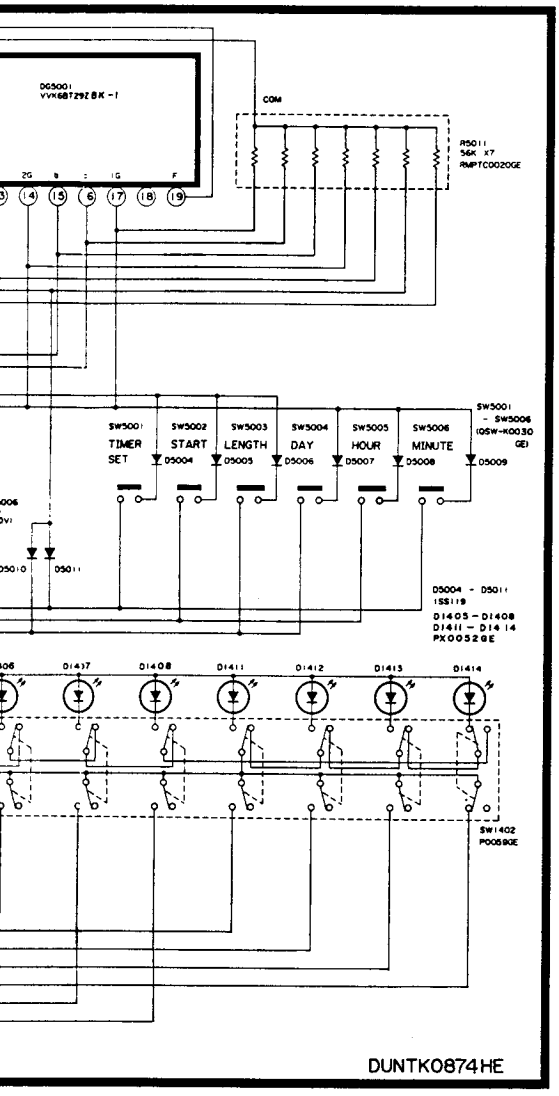
CUIT WIRING SIDE PWB (VC-381H,W)



PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT



VC-383 H



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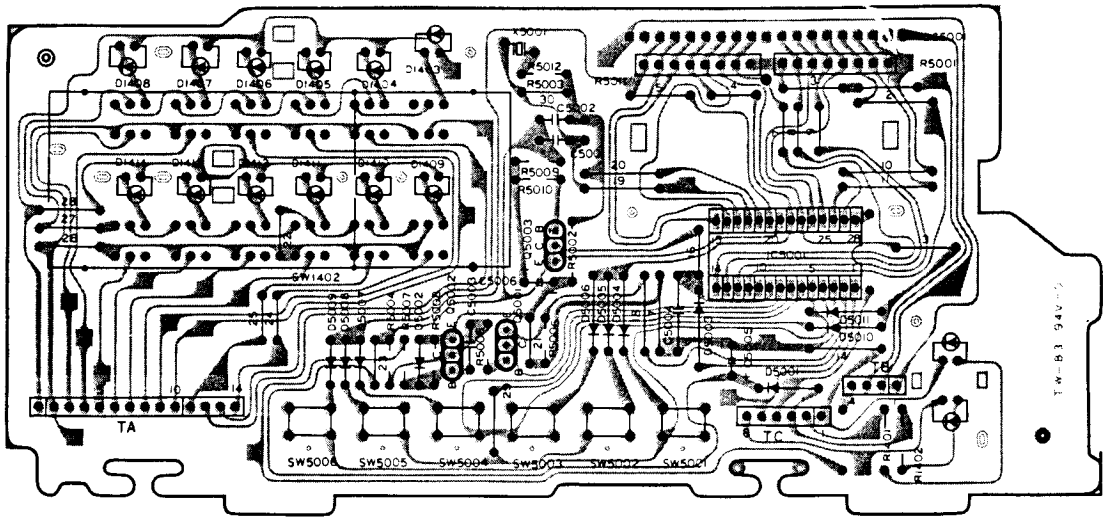
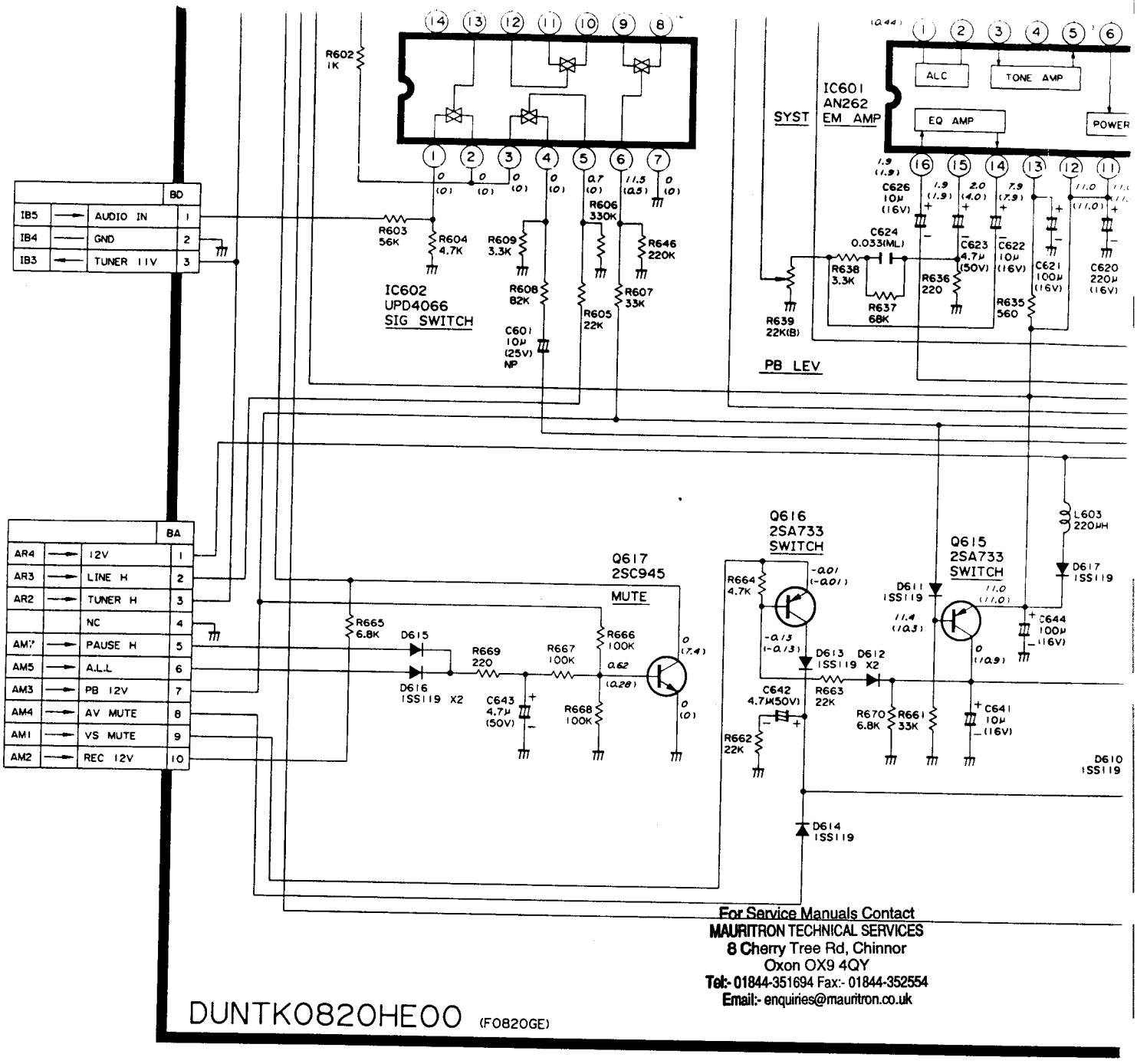
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT WIRING SIDE PWB (VC-383H)





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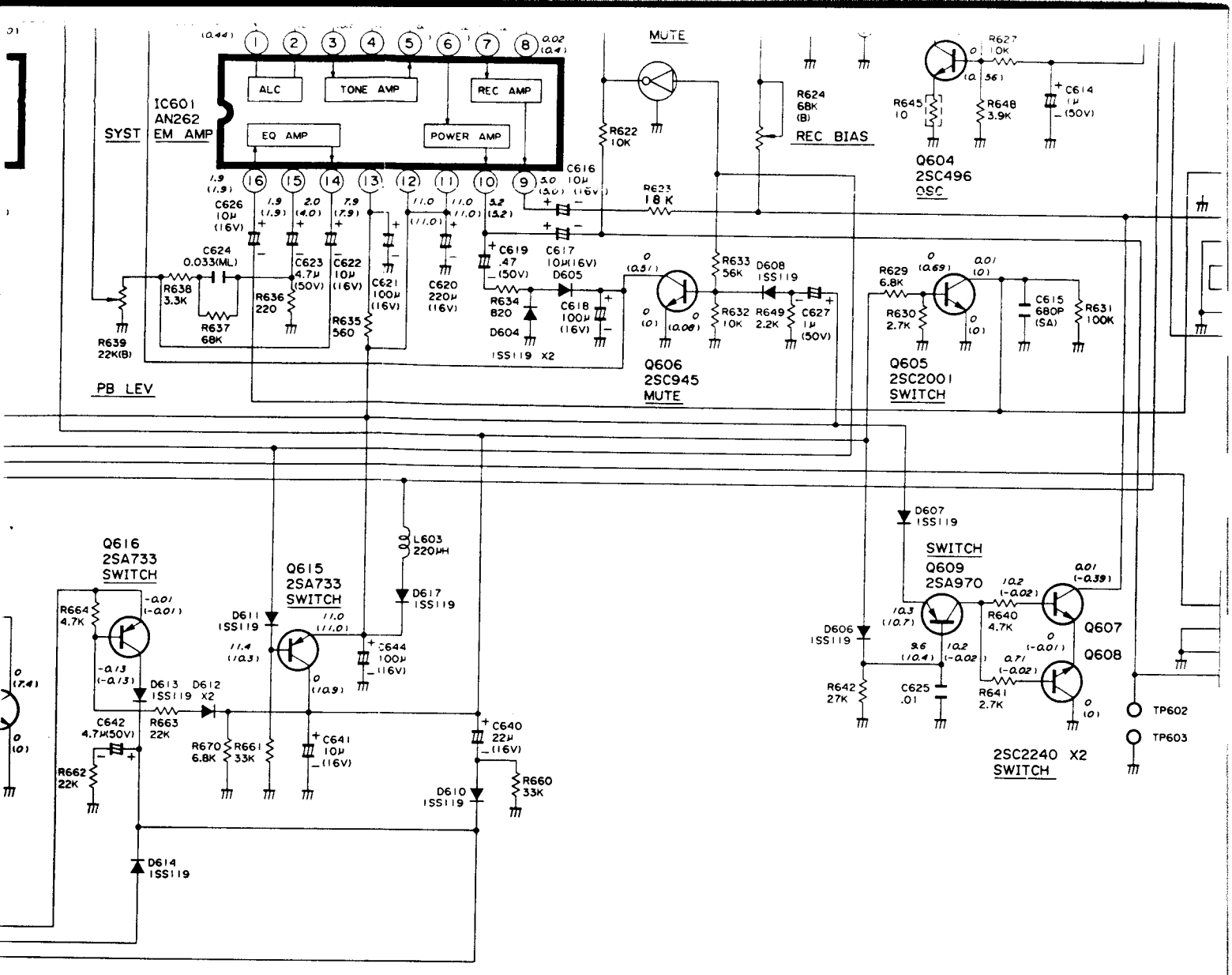
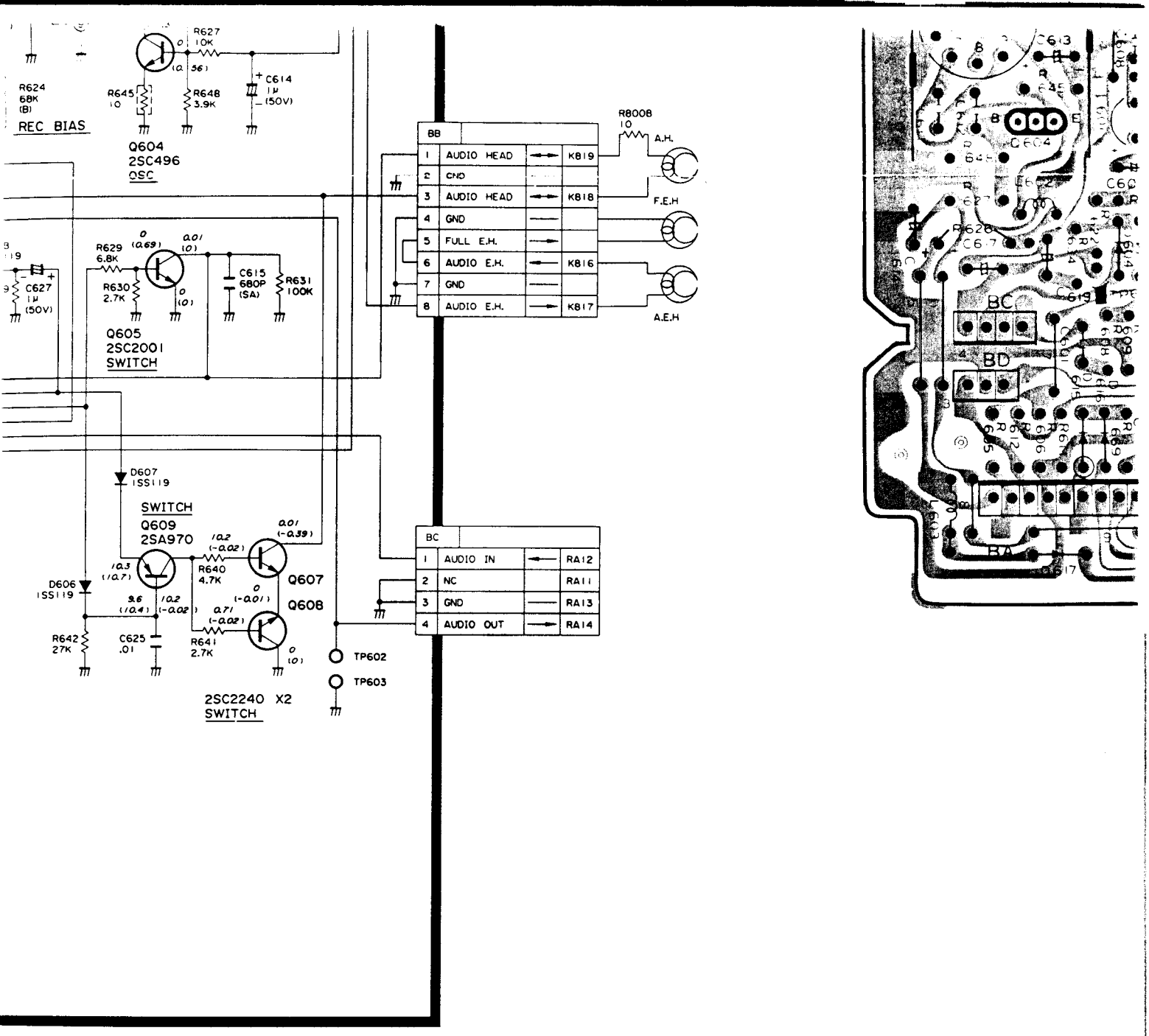
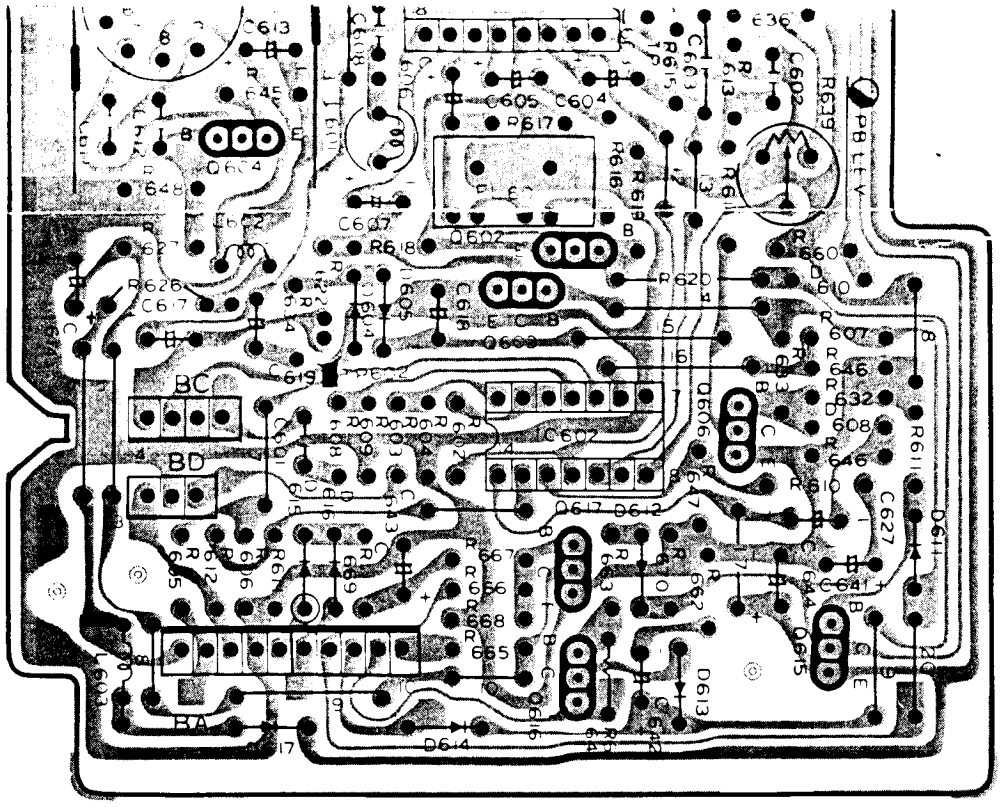
DUNTK0820HE00 (F0820GE)


IC601
AN262
EM AMP
SYST
ALC
TONE AMP
REC AMP
EQ AMP
POWER AMP
MUTE
REC BIAS
PB LEV
Q604
2SC496
OSC
Q605
2SC2001
SWITCH
Q606
2SC945
MUTE
Q607
Q608
SWITCH
Q609
2SA970
SWITCH
Q615
2SA733
SWITCH
Q616
2SA733
SWITCH
2SC2240 X2
SWITCH
TP602
TP603
R622 10K
R623 18 K
R624 68K (B)
R627 10K
R645 10
R648 3.9K
C614 1μ (50V)
C616 10μ (16V)
C626 10μ (16V)
C624 0.033(ML)
C623 4.7μ (50V)
C622 10μ (16V)
C621 100μ (16V)
C620 220μ (16V)
C619 .47 (50V)
C617 10μ(16V)
D605
R634 820
D604
ISS119 X2
C618 100μ (16V)
R633 56K
D608 ISS119
R632 10K
R649 2.2K
C627 1μ (50V)
R638 3.3K
R636 220
R637 68K
R635 560
R639 22K(B)
R629 6.8K
R630 2.7K
C615 680P (SA)
R631 100K
D607 ISS119
D606 ISS119
R640 4.7K
R641 2.7K
R642 27K
C625 .01
L603 220μH
D617 ISS119
D611 ISS119
C644 100μ (16V)
R664 4.7K
D613 D612 ISS119 X2
R663 22K
C642 4.7μ(50V)
R662 22K
R670 6.8K
R661 33K
C641 10μ (16V)
C640 22μ (16V)
R660 33K
D610 ISS119
D614 ISS119


R627
10K
(0.56)
R624
68K
(B)
REC BIAS
R645
10
R648
3.9K
C614
1μ
(50V)
Q604
2SC496
OSC
R629
6.8K
(0.69)
(0.01)
R630
2.7K
(0)
C615
680P
(SA)
R631
100K
C627
1μ
(50V)
Q605
2SC2001
SWITCH
D607
1SS119
SWITCH
Q609
2SA970
(0.2)
(-0.02)
(0.01)
(-0.39)
R640
4.7K
Q607
Q608
(0.3)
(0.7)
D606
1SS119
(9.6)
(0.4)
(0.2)
(-0.02)
(0.7)
(-0.02)
(0)
(-0.01)
R642
27K
C625
.01
R641
2.7K
(0)
(0)
TP602
TP603
2SC2240 X2
SWITCH
BB
1 AUDIO HEAD → K819
2 GND
3 AUDIO HEAD → K818
4 GND
5 FULL E.H. →
6 AUDIO E.H. → K816
7 GND
8 AUDIO E.H. → K817
R8008
10
A.H.
F.E.H
A.E.H
BC
1 AUDIO IN ← RA12
2 NC RA11
3 GND RA13
4 AUDIO OUT → RA14
C613
C604
R628
C617
C619
BC
BD
BA



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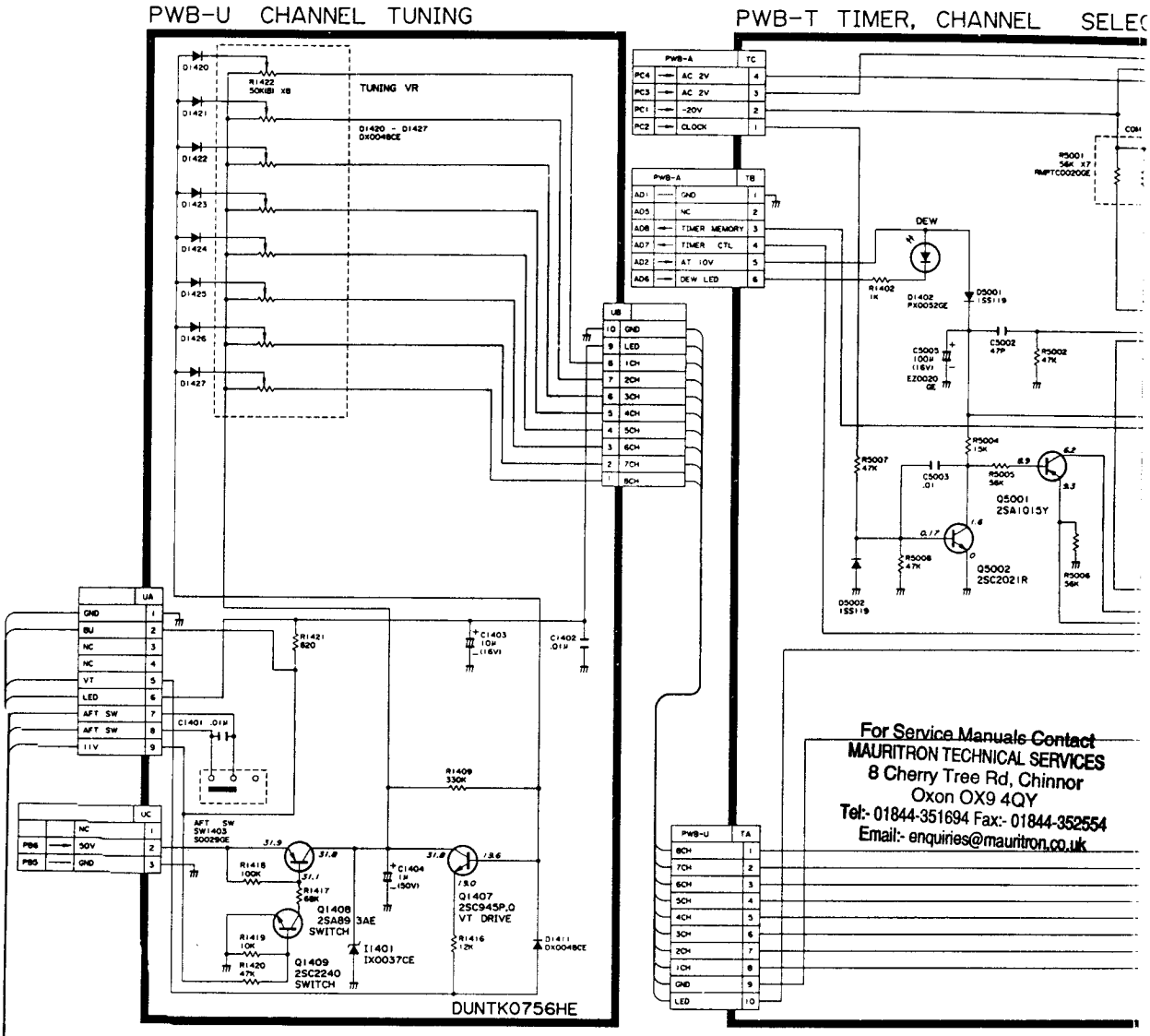
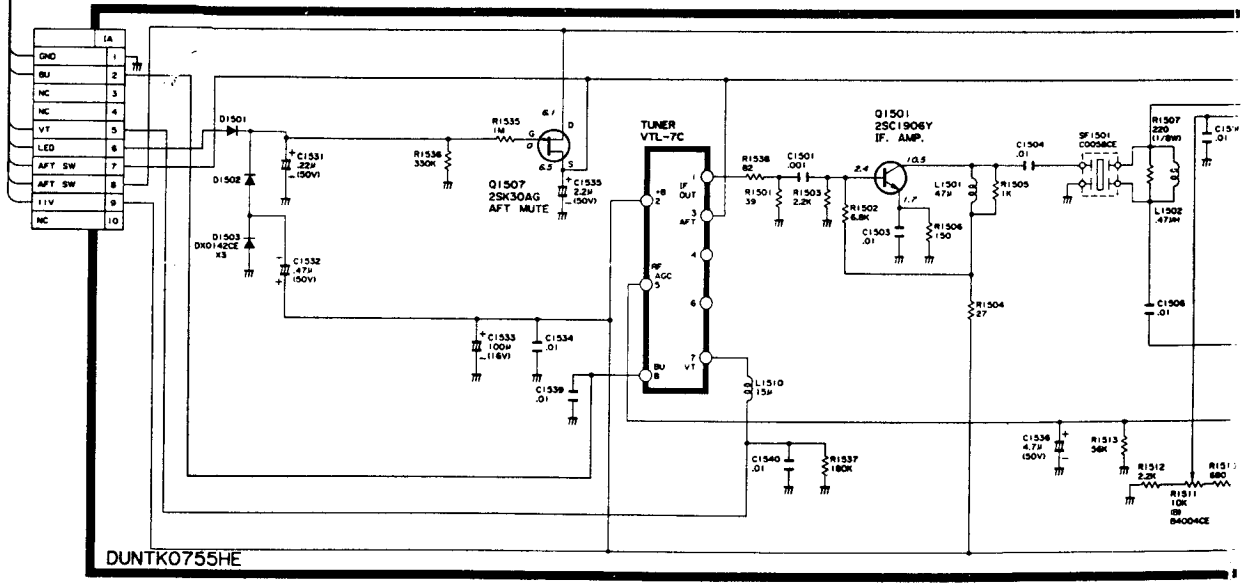
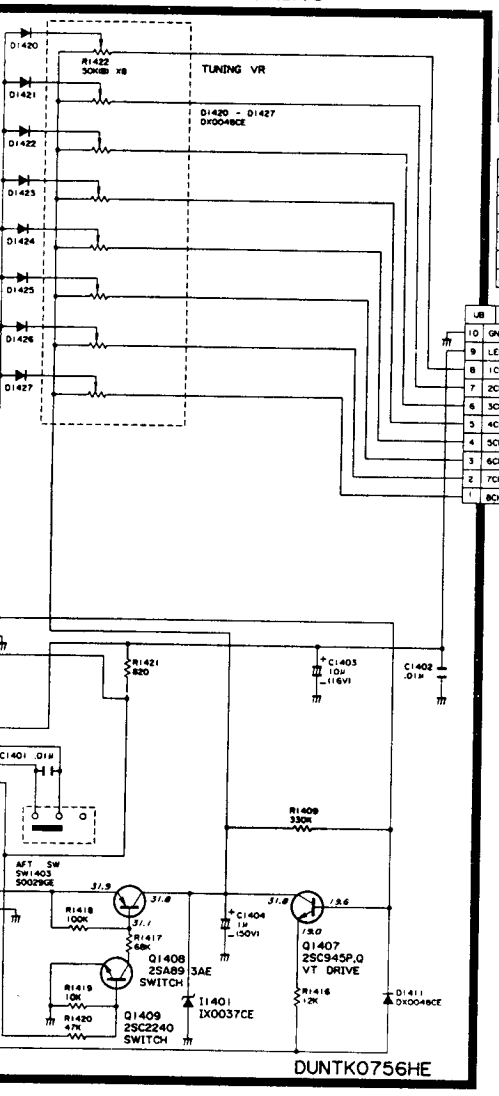
PWB-I, IF CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)
PWB-U, CHANNEL TUNING CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)



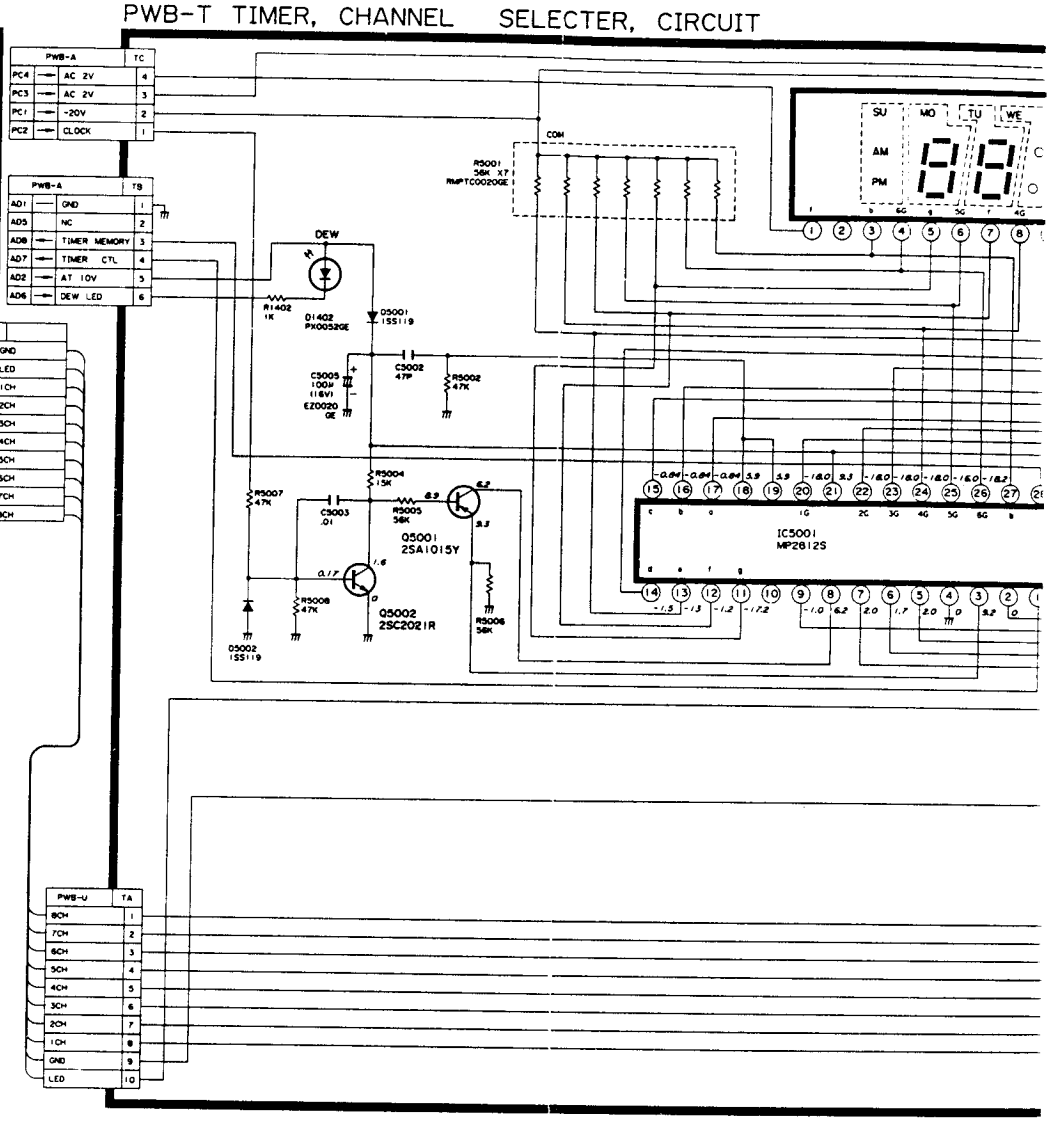


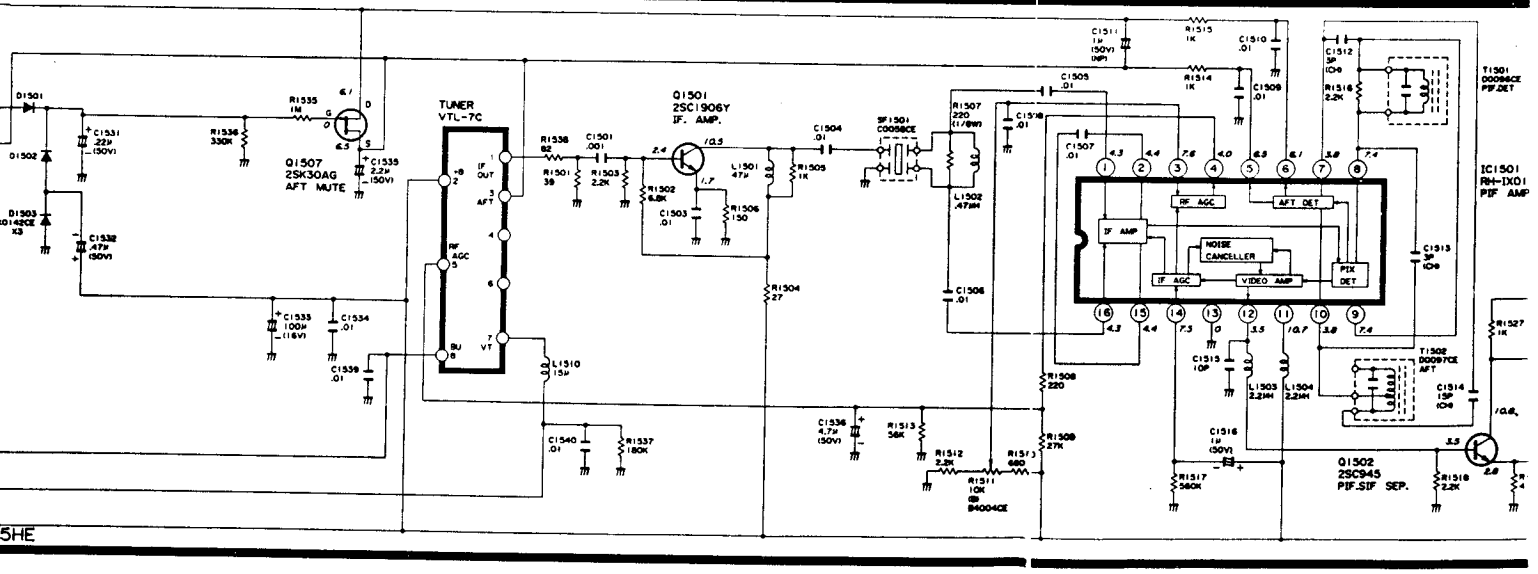
TIC DIAGRAM (VC-381H,W/383H)
ELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)
CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W/383H)

WB-U CHANNEL TUNING

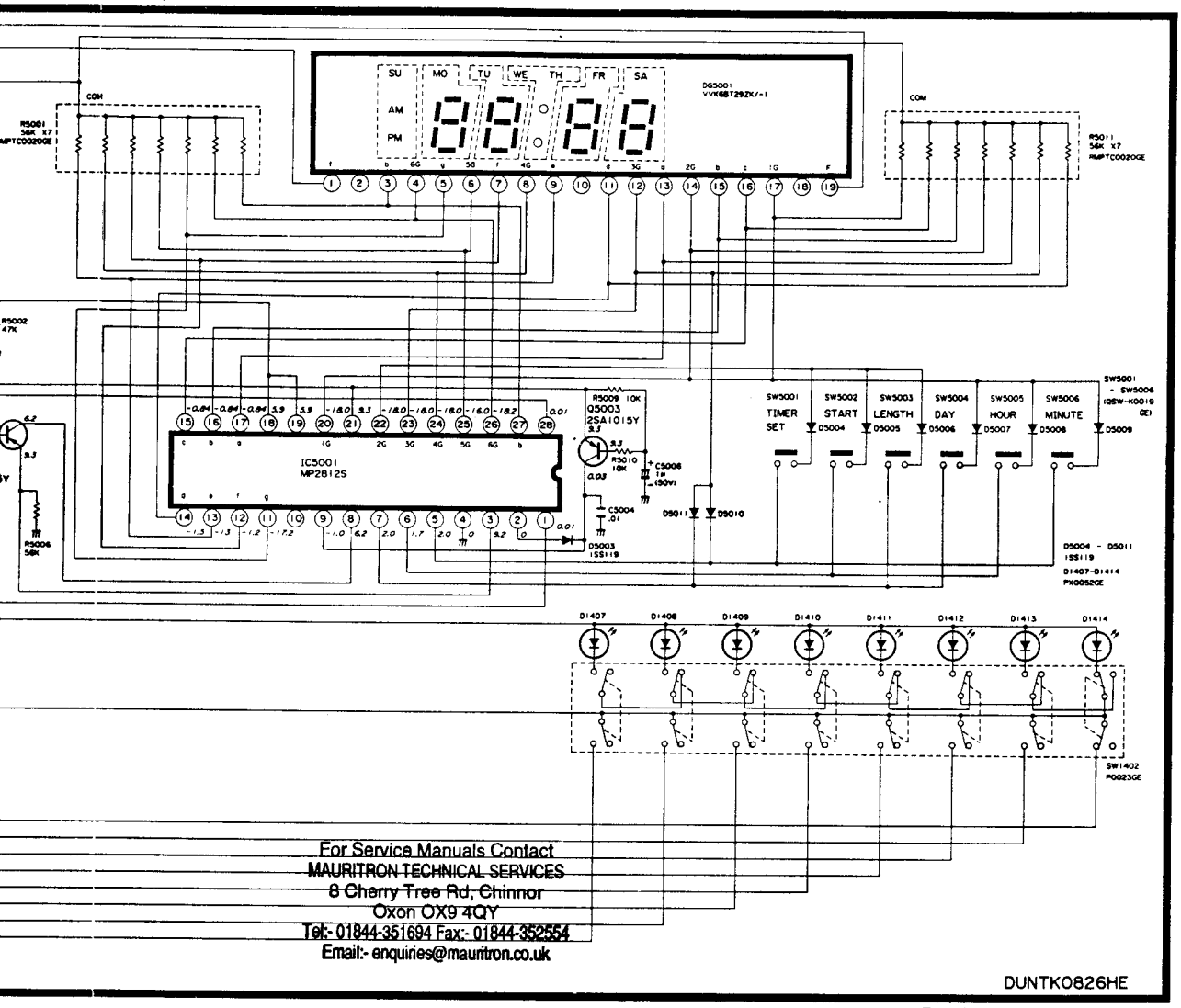


PWB-T TIMER, CHANNEL SELECTER, CIRCUIT

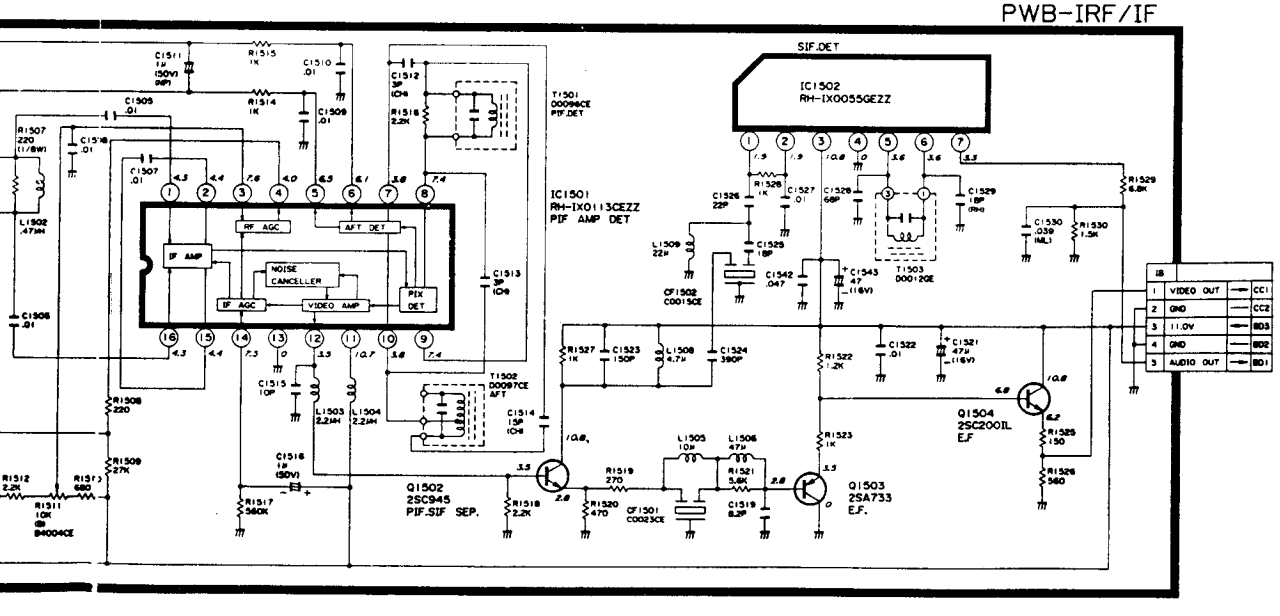




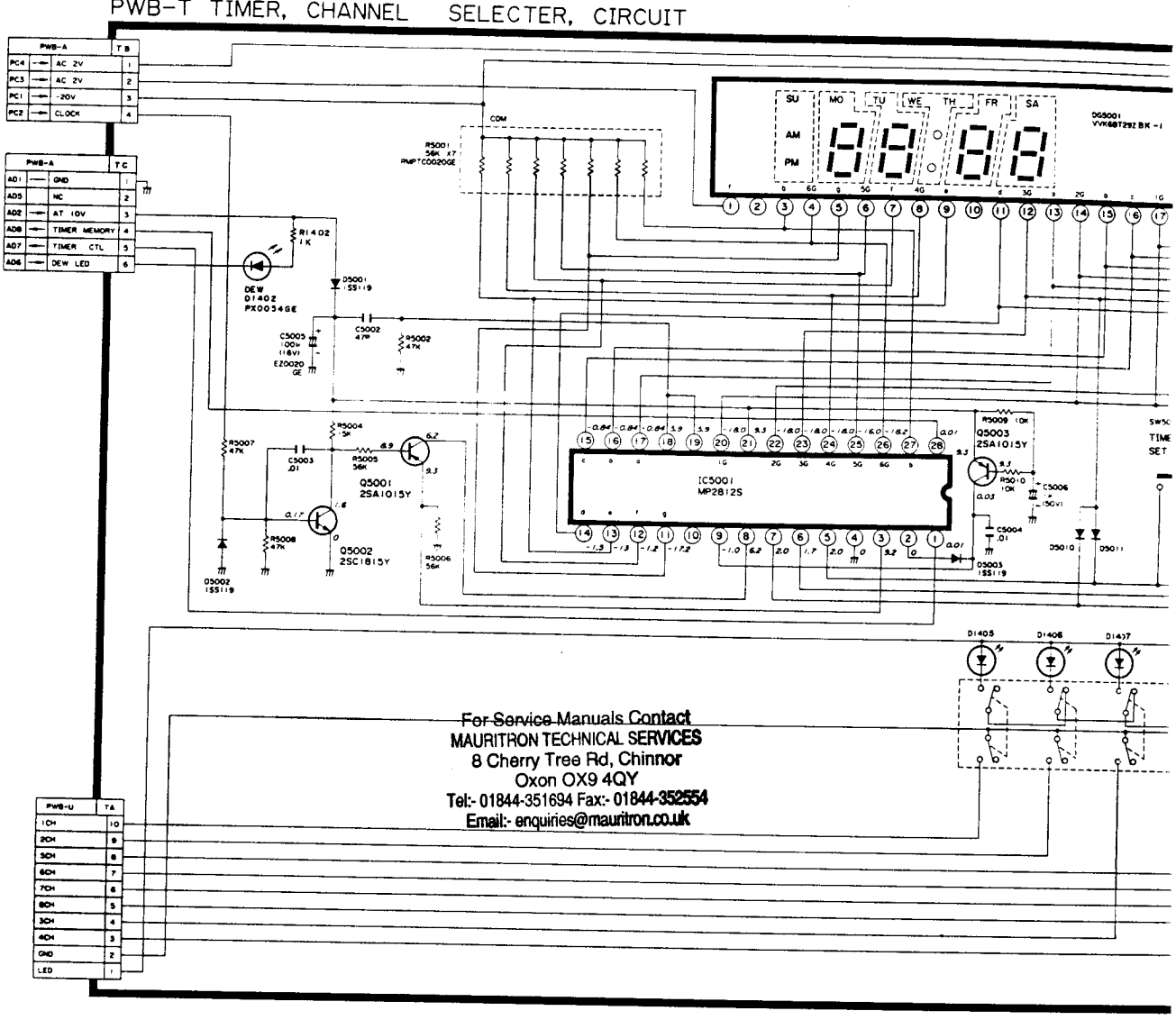
SELECTER, CIRCUIT



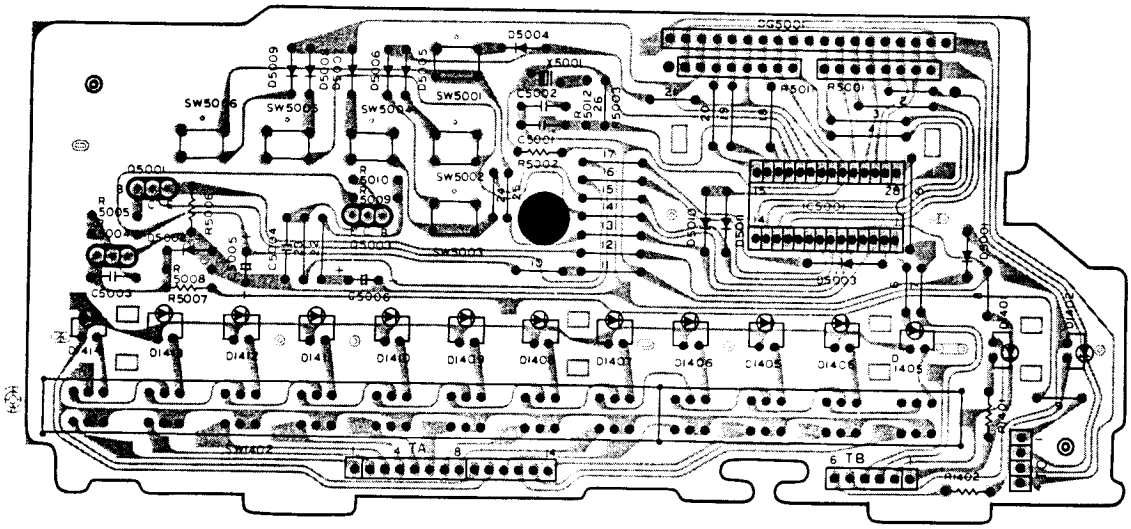
PWB-IRF/IF



PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT SCHEMATIC DIAGRAM (VC-383H)



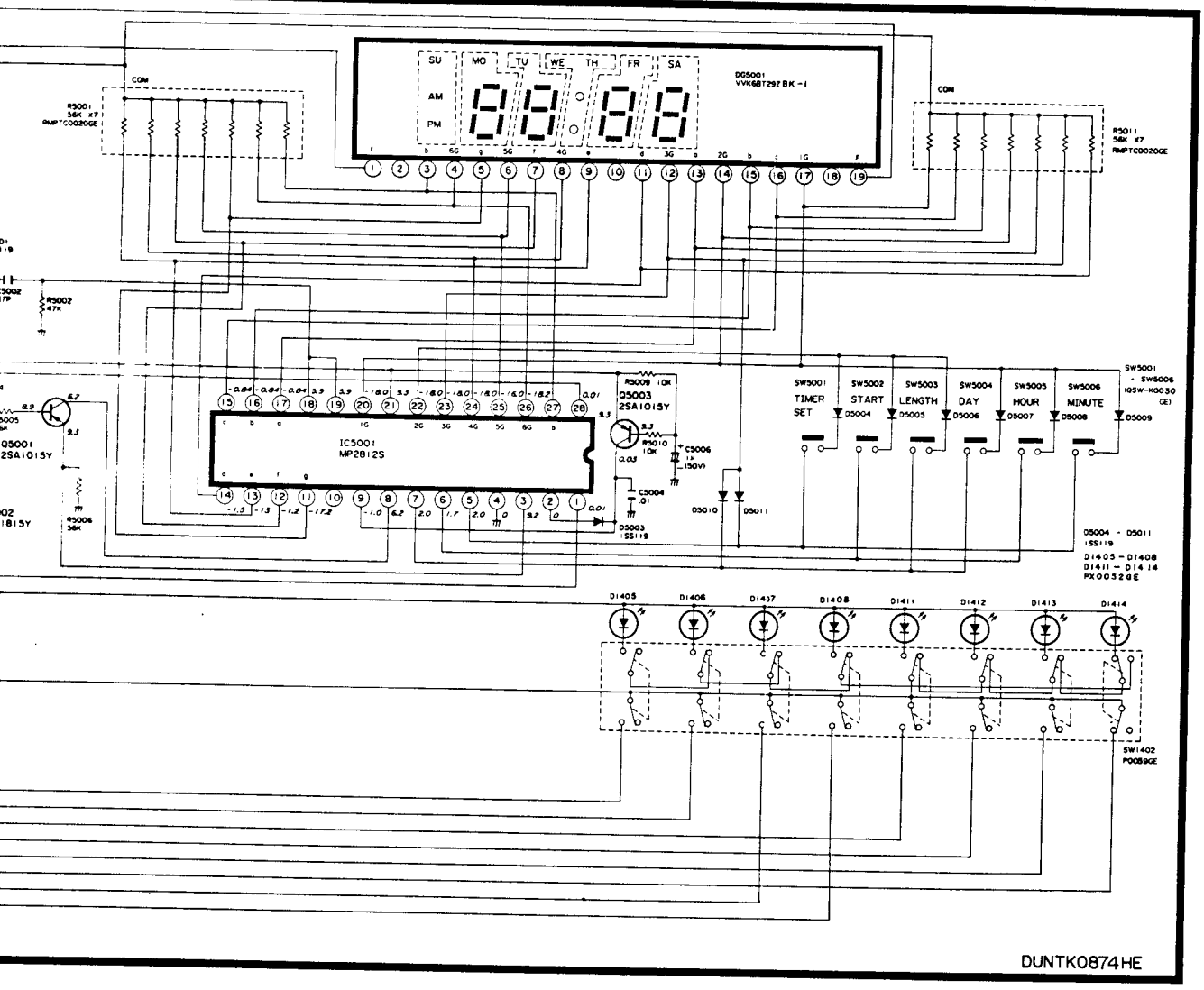
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT WIRING SIDE PWB (VC-381H,W)



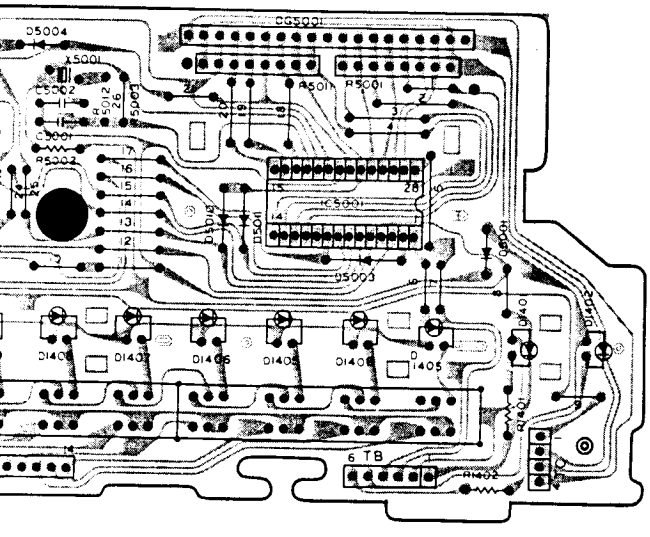
RCUIT SCHEMATIC DIAGRAM (VC-383H)

NNEL SELECTER, CIRCUIT

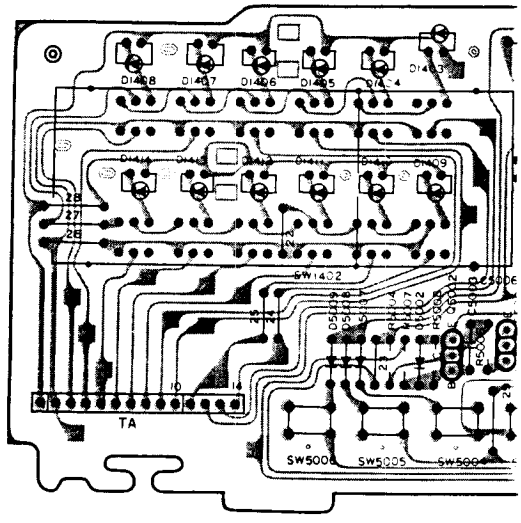
VC-383 H



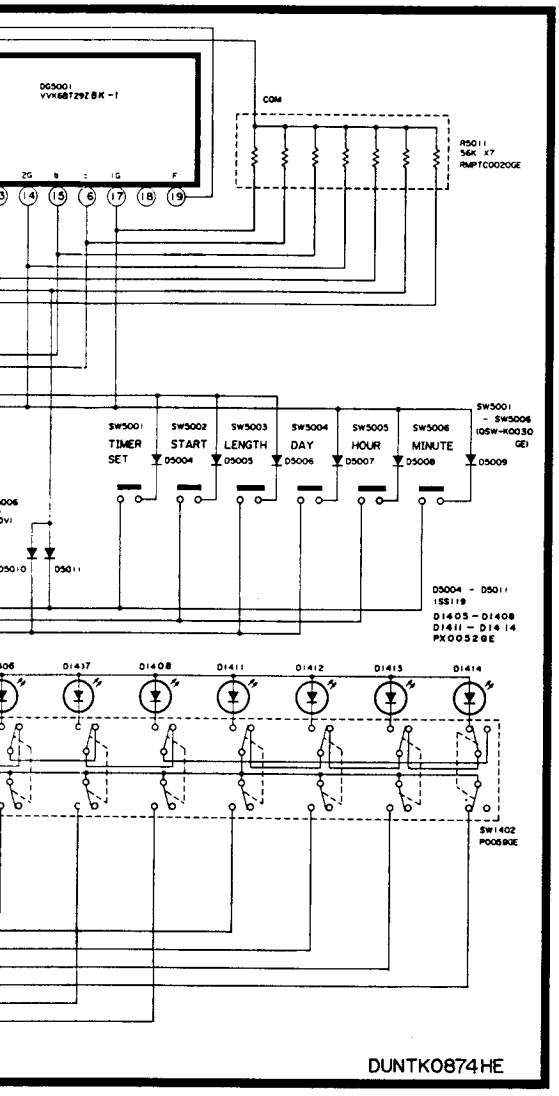
CUIT WIRING SIDE PWB (VC-381H,W)



PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT



VC-383 H



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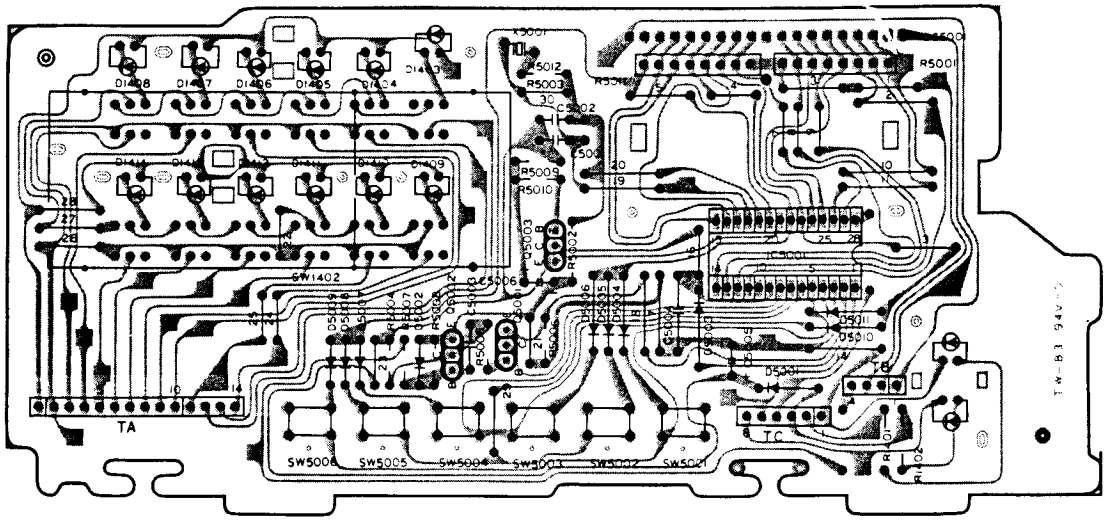
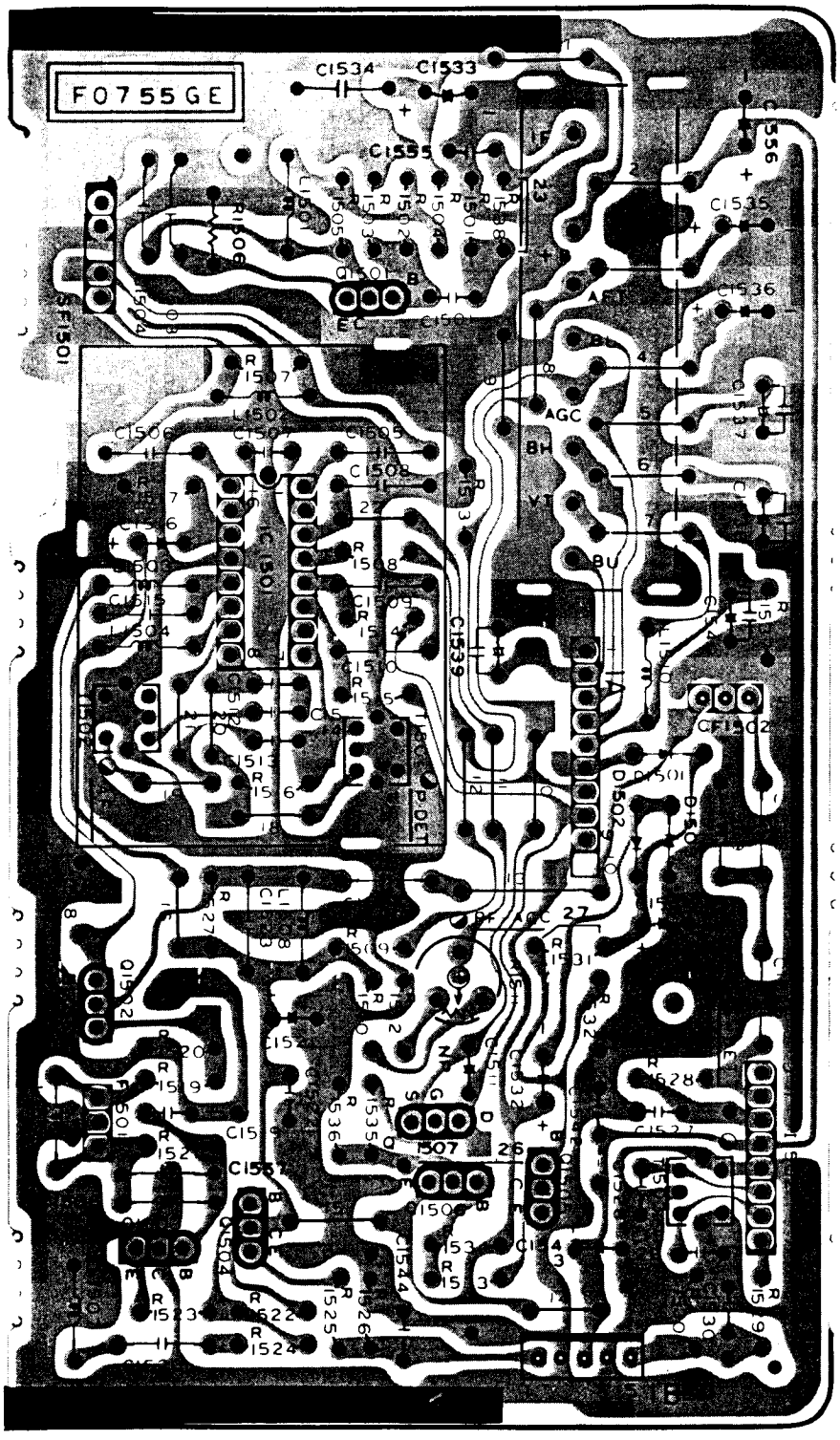
PWB-T, TIMER, CHANNEL SELECTOR CIRCUIT WIRING SIDE PWB (VC-383H)



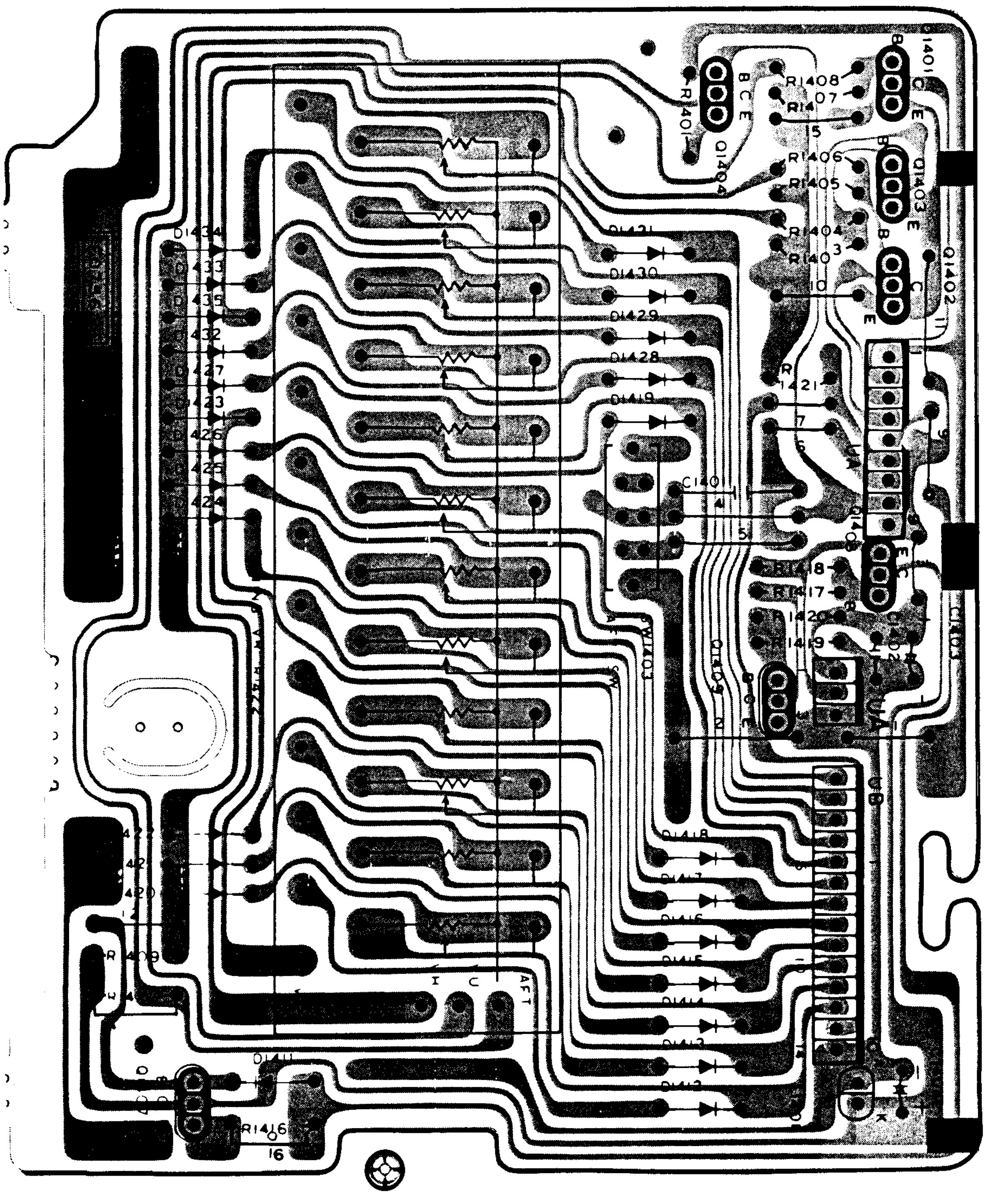
PWB-I, IF CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)



7 8 9 10 11 12

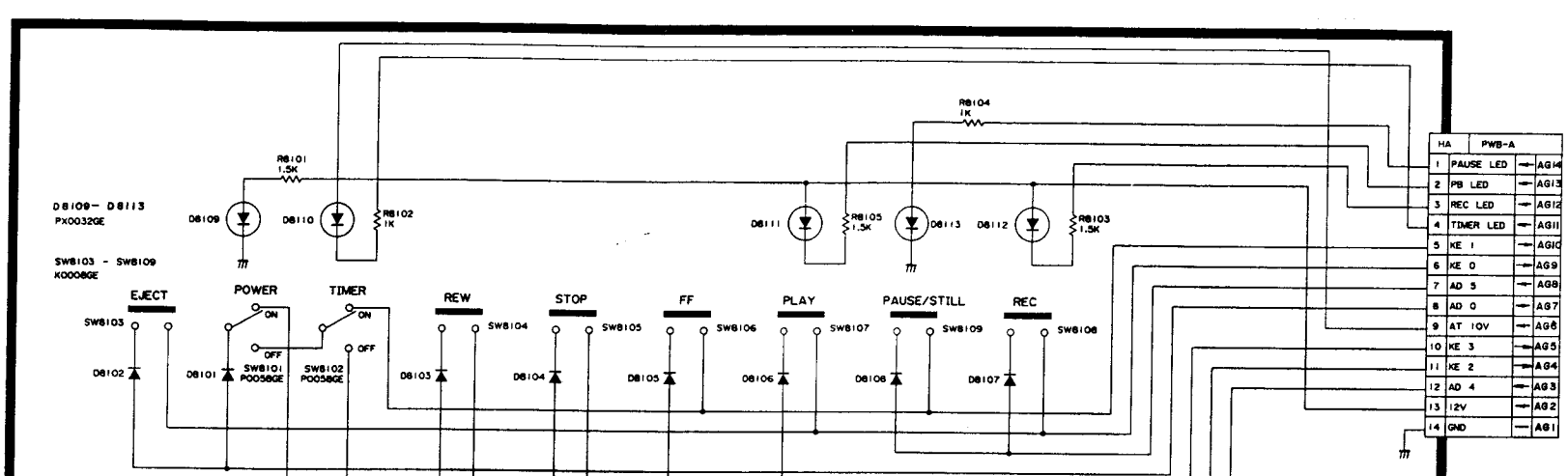
PWB-U, CHANNEL TUNING CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)

A
B
C
D
E
F
G

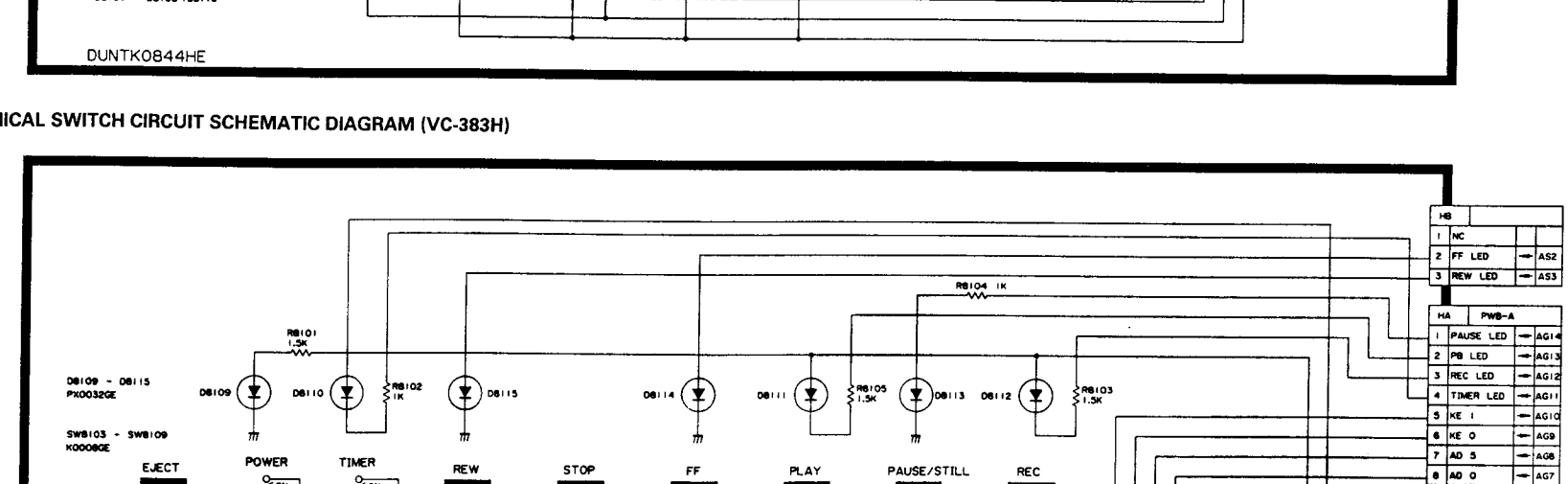


H

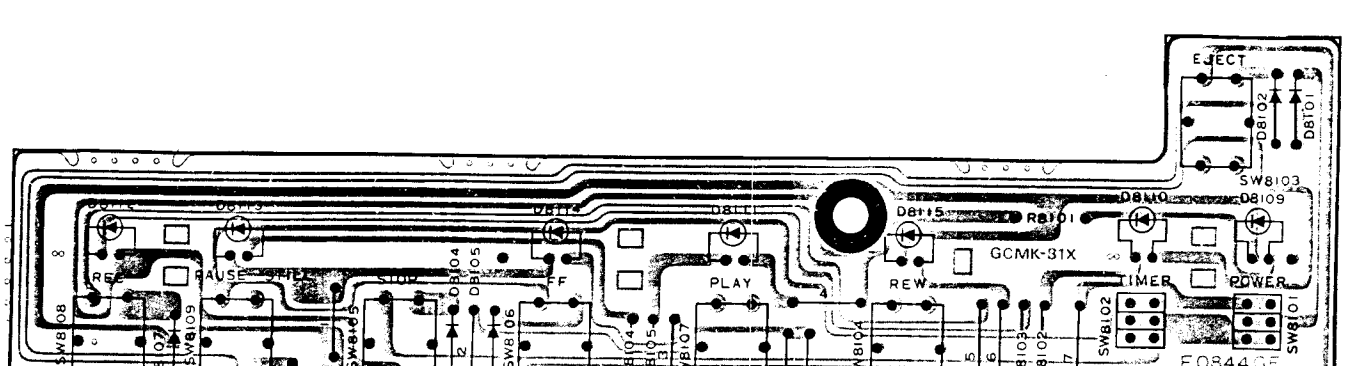
PWB-H, MECHANICAL SWITCH CIRCUIT SCHEMATIC DIAGRAM (VC-381H,W)



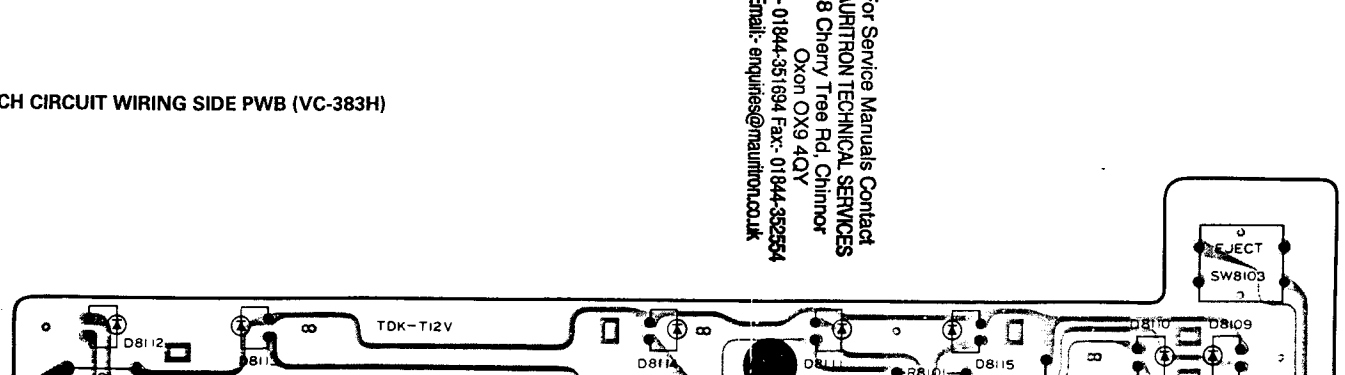
PWB-H, MECHANICAL SWITCH CIRCUIT SCHEMATIC DIAGRAM (VC-383H)



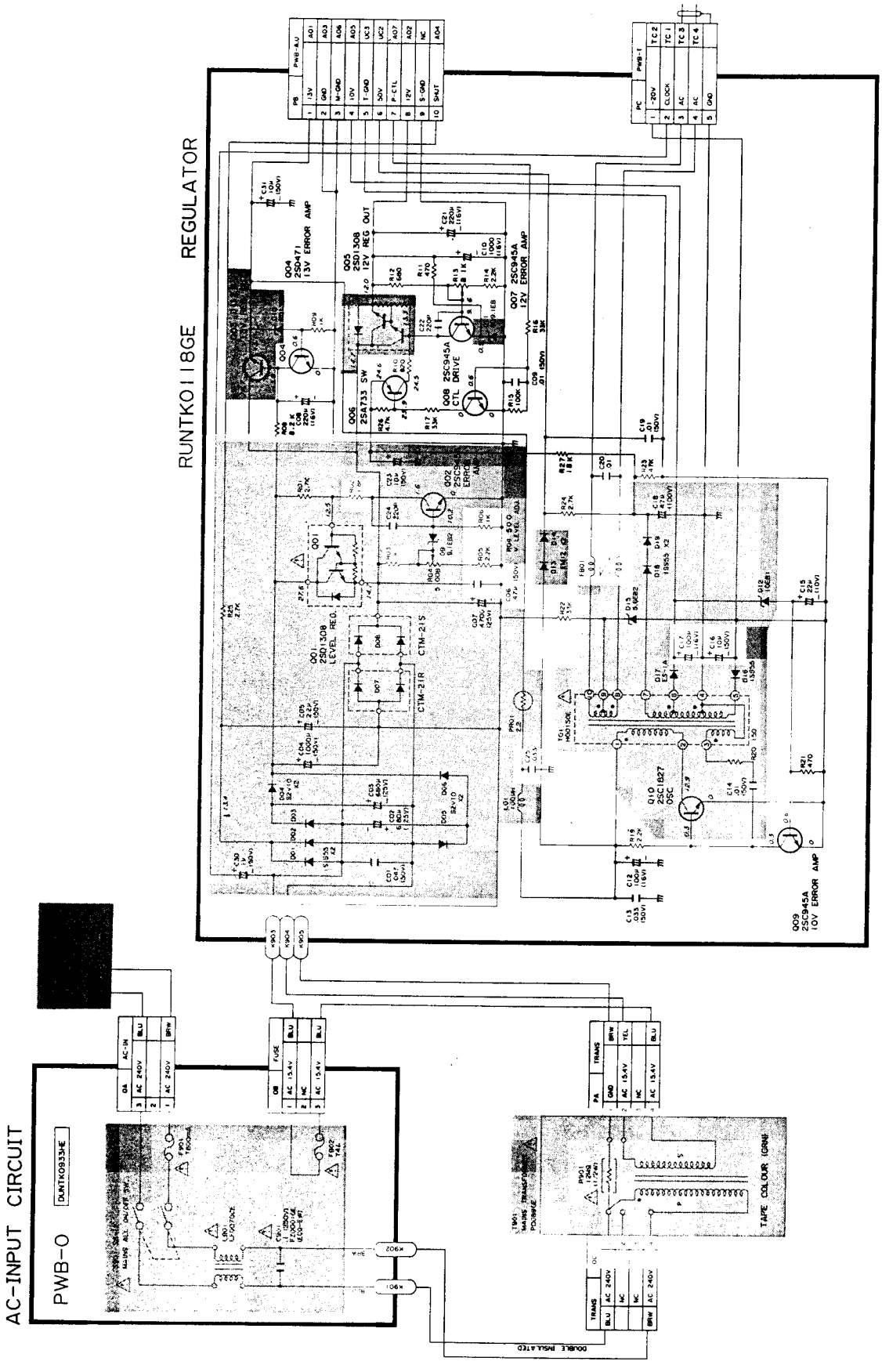
MECHANICAL SWITCH CIRCUIT WIRING SIDE PWB (VC-381H,W)



MECHANICAL SWITCH CIRCUIT WIRING SIDE PWB (VC-383H)



PWB-O, POWER CIRCUIT SCHEMATIC DIAGRAM (VC-381H/383H)
PWB-P, CHOPPER REGULATOR CIRCUIT SCHEMATIC DIAGRAM (VC-381H/383H)



PWB-O, POWER CIRCUIT SCHEMATIC DIAGRAM (VC-381W)
PWB-P, CHOPPER REGULATOR CIRCUIT SCHEMATIC DIAGRAM (VC-381W)

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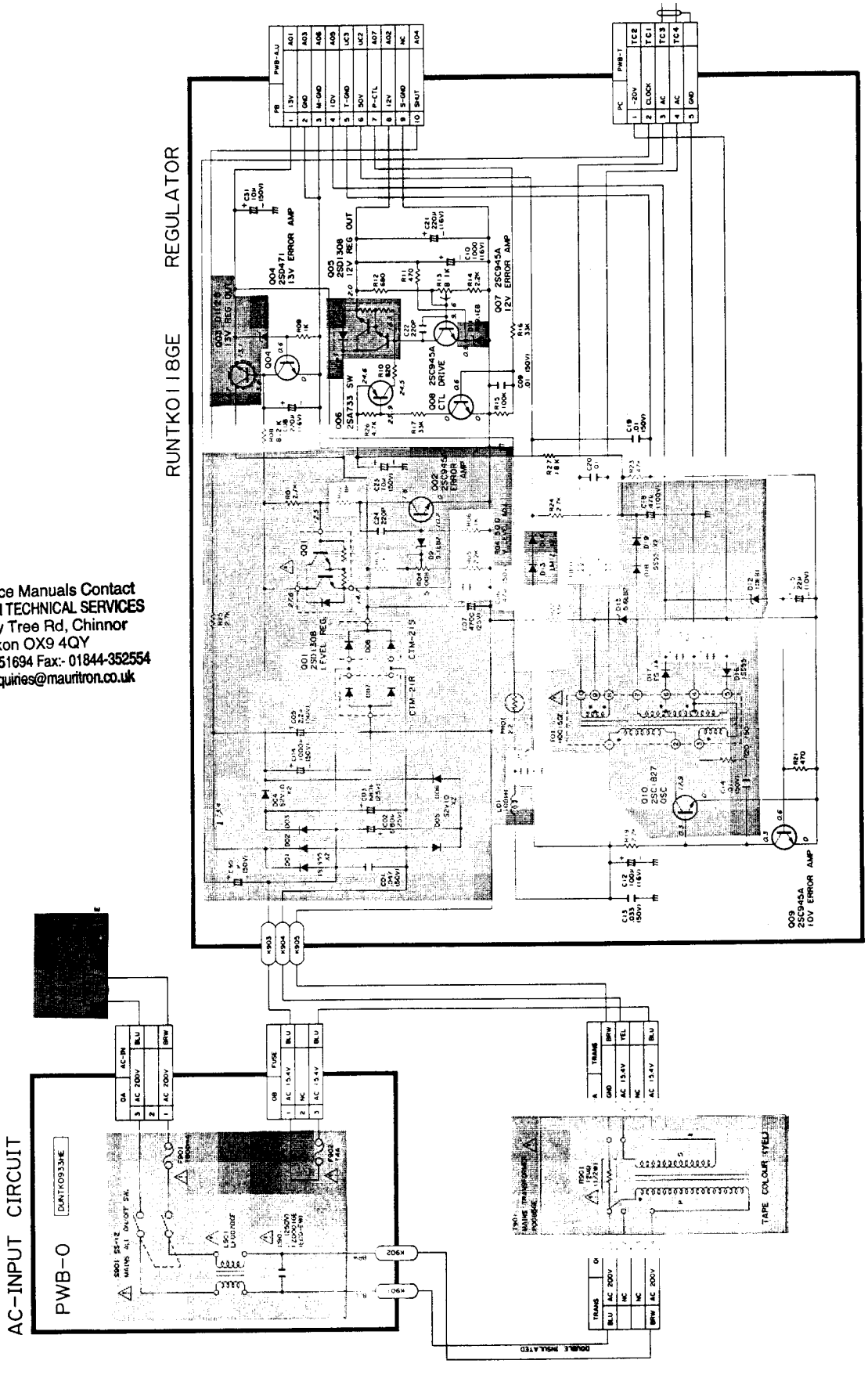
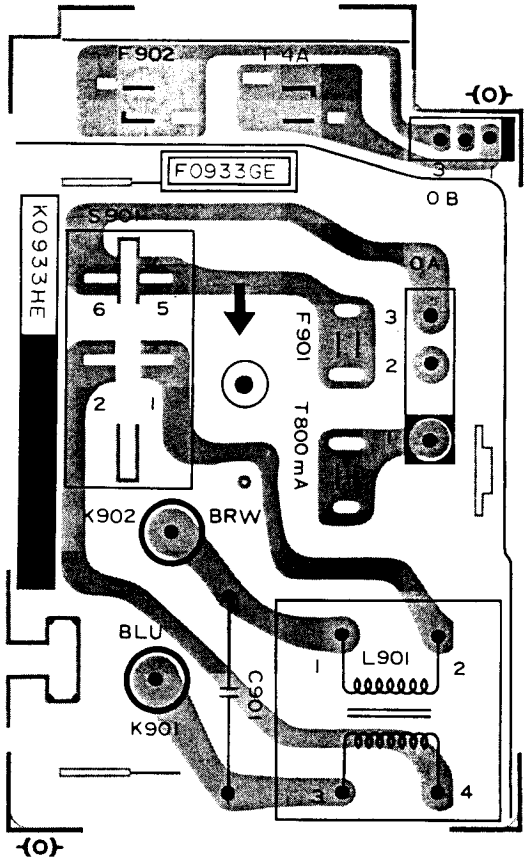
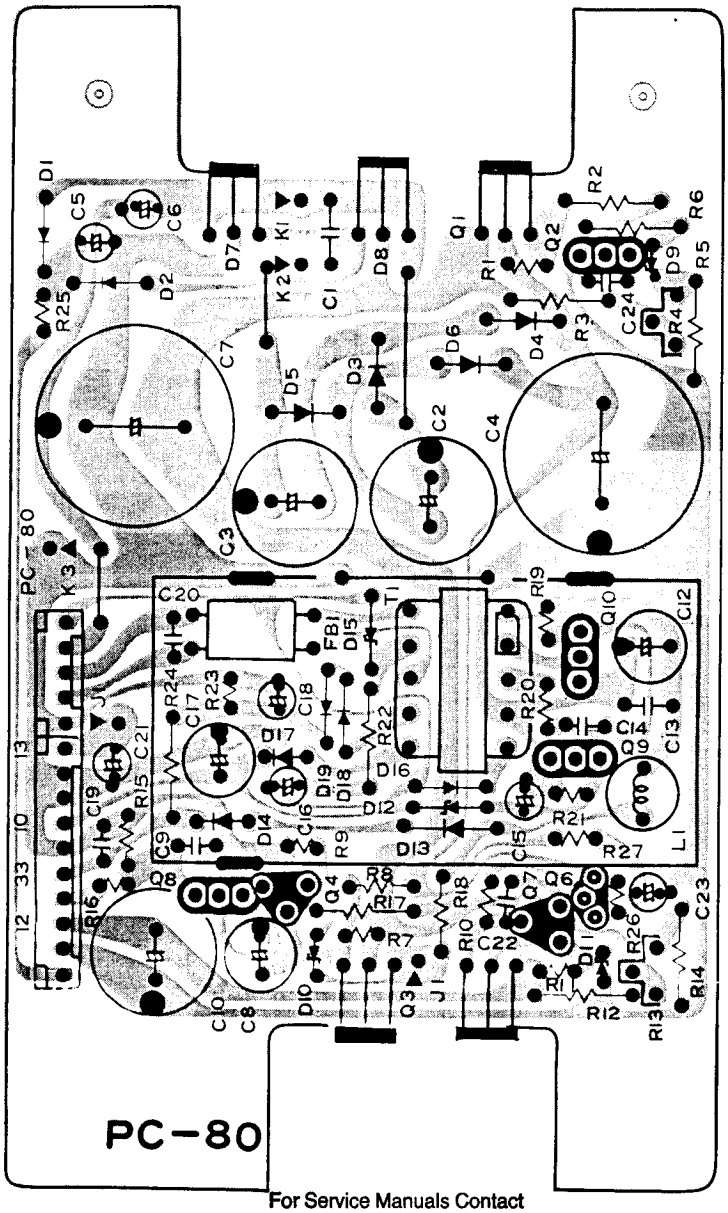


PWB-O, POWER CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)



PWB-P, CHOPPER REGULATOR CIRCUIT WIRING SIDE PWB (VC-381H,W/383H)



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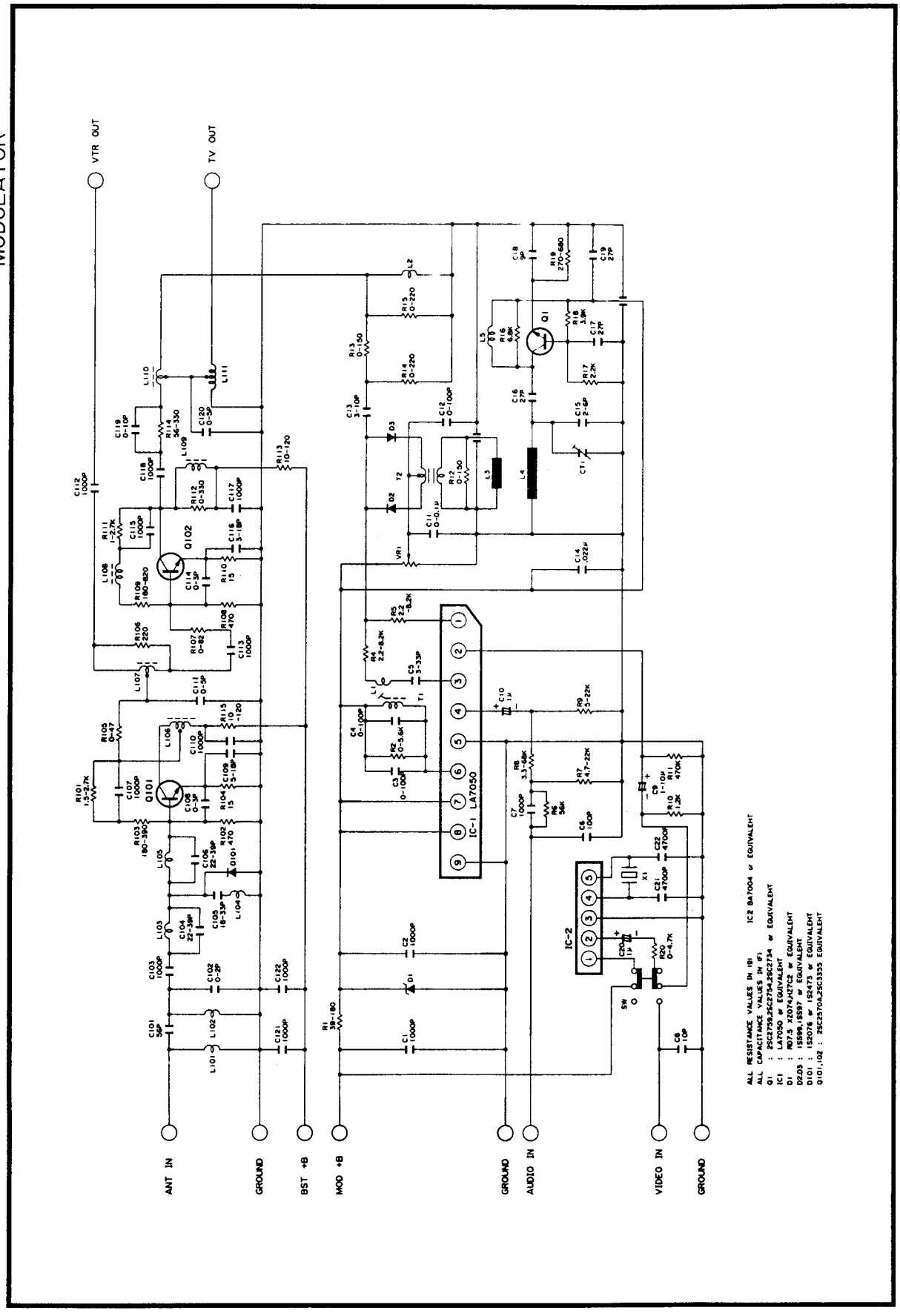
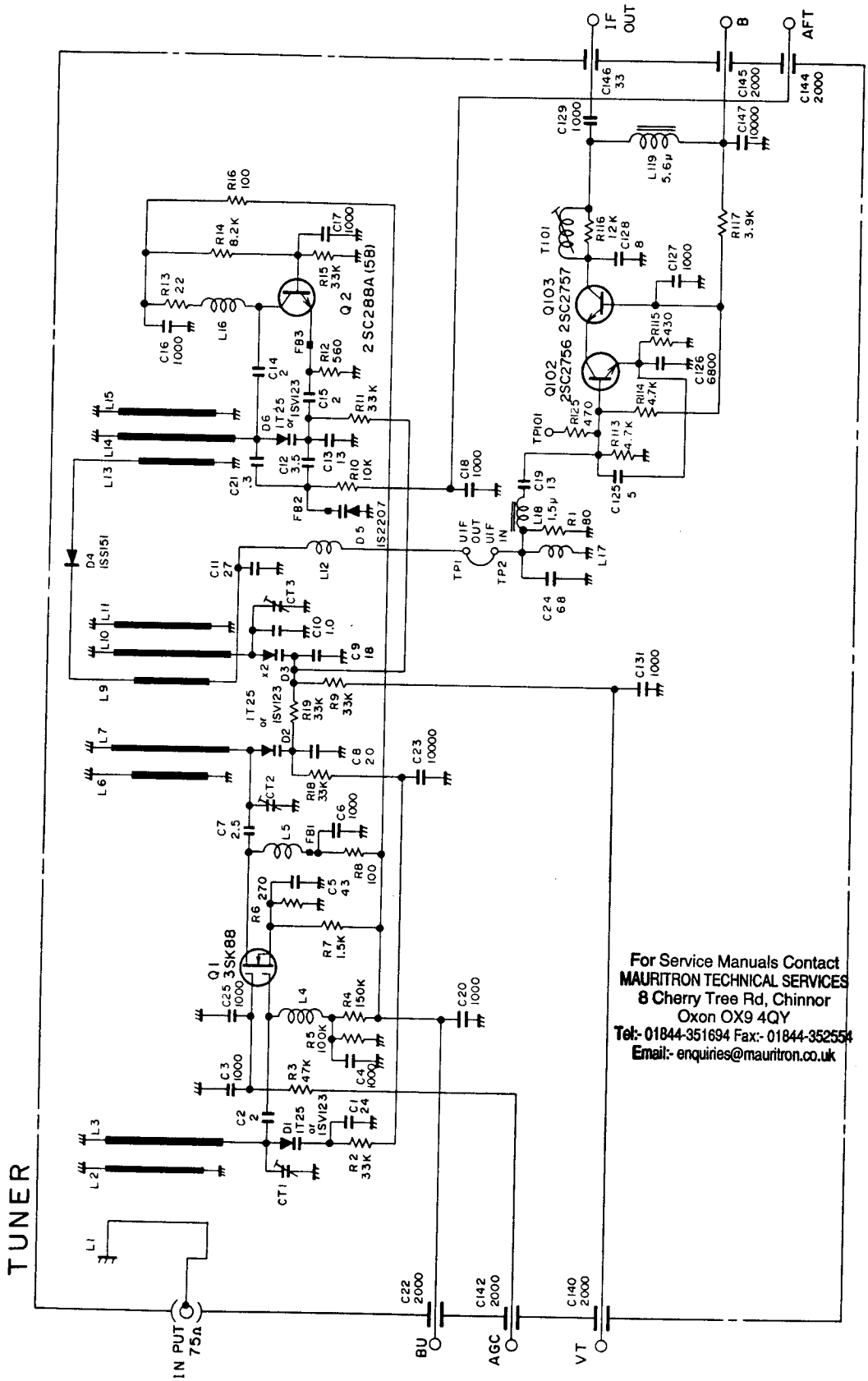
MODULATOR SCHEMATIC DIAGRAM (VC-381H,W/383H)



TUNER SCHEMATIC DIAGRAM (VC-381H,W/383H)



REPLACEMENT PARTS LIST

It is recommended to use genuine factory SHARP replacement parts to assure fine performance.

"How to order Replacement Parts"

To have your order filled promptly and correct, please furnish the following informations.

1. Modell Number.
2. Ref. No.
3. Part No.
4. Description

NOTE: Marked ⚠ : Safety Related Parts.

Ref. No.	Part No.	Description	Code
PRINTED WIRING BOARD ASS'Y (NOT REPLACEMENT ITEM)			
PWB-A	DUNTK0871HE01	Mechanical Control Circuit (VC-383H)	—
	DUNTK0871HE02	Mechanical Control Circuit (VC-381H/W)	—
PWB-B	DUNTK0820HE00	Audio Circuit	—
PWB-C	DUNTK0809HE01	Video Chroma Head Amp Circuit	—
PWB-H	DUNTK0844HE00	Mechanical Switch Circuit (VC-381H/W)	—
	DUNTK0894HE00	Mechanical Switch Circuit (VC-383H)	—
PWB-I	DUNTK0755HE11	IF Circuit	—
PWB-O	DUNTK0933HE00	Power Circuit	—
PWB-T	DUNTK0826HE02	Timer Channel Selecter Circuit (VC-381H/W)	—
	DUNTK0874HE00	Timer Channel Selecter Circuit(VC-383H)	—
PWB-U	DUNTK0756HE05	Channel Tuning Circuit	—
	RUNTK0118GEZZ	Chopper Regulator	—
PWB-A			
TRANSISTORS			
Q701	VS2SC945APQ1E	VS-Sync. Amp (2SC945)	AB
Q702, 703	VS2SC945APQ1E	Mono Multi (2SC945)	AB
Q707	VS2SC945APQ1E	Still-Brake (2SC945)	AB
Q710	VS2SC945APQ1E	CAP-Drive (2SC945)	AB
Q711	VS2SC945APQ1E	Drum P.G. (2SC945)	AB
Q712	VS2SC945APQ1E	Capstan F.G. Amp (2SC945)	AB
Q713	VS2SC945APQ1E	Control Amp (2SC945)	AB
Q716	VS2SC945APQ1E	Low Pass, Filter (2SC945)	AB
Q717	VS2SC945APQ1E	Amp (2SC945)	AB
Q801	VS2SC945APQ1E	Dew-Amp (2SC945)	AB
Q802	VS2SC1815YW1E	Dew-Amp (2SC1815Y)	AB
Q806	VS2SA950-Y/1E	PB Switching (2SA950Y)	AE
Q807	VS2SA950-Y/1E	Rec Switching (2SA950Y)	AE
Q808	VS2SC2021-R-1	Shutt OFF Amp (2SC2021)	AB
Q811	VS2SC945APQ1E	Remote VS-FF (2SC945)	AB
Q812	VC2SC945APQ1E	Remote VS-FF (2SC945)	AB
Q813	VS2SC945APQ1E	CTL-P Amp (2SC945)	AB
Q7001	VS2SC945APQ1E	Still-H Amp (2SC945)	AB
Q7751	VHiDTC144F/-1	Reel VS AFC Switch (DTC144F)	AC
Q7752, 7753	VS2SC945APQ1E	Reel-VS AFC (2SC945)	AB
Q7754	VS2SA733APQ1E	Reel-M Drive (2SA733)	AC
Q7755	VS2SA733APQ1E	Reel-M Drive (2SA733)	AC
Q7757	VS2SC945APQ1E	Reel-M UL INV(2SC945)	AB
Q704, 705	VS2SK30AG//1E	Phase Compensation (2SK30AG)	AD
Q709	VHiDTC144FX-1	Cap-Mute (DTC144F)	AC
Q714	VHiDTC144F/-1	CtL-P Amp (DTC144F)	AC
Q715	VHiDTC144F/-1	CtL-P VS Level Shift (DTC144F)	AC
Q719	VS2SC2021-R-1	Drum Mute (2SC2021)	AB
Q721	VS2SD468-C/-1	Noise Reduction (2SD468)	AD
Q722	VHiDTA124F/-1	VS-FF SW (DTA124F)	AC
Q723	VHiDTA124F/-1	VS-REW SW (DTA124F)	AC
Q724	VHiDTA124F/-1	N S SW (DTA124F)	AC
Q725, | 728	VHiDTC124F/-1	INVERTER (DTC124F)	AC
DIODES			
D704, | 710, 713, | 715, 720, | 722, 724, 725, 727, 731, 732, 740, 801, 810, | 820, 822, | 827, 830, 7002, | 7014, 7017, | 7019, 7753, | 7755, 7757, | 7762	VHD1SS119//-1	Diode	AB
D723, 726	RH-DX0028GEZZ	Diode Array	AC
INTERGRATED CIRCUITS			
IC701	VHiiR3P08//-1	IC Drum Servo	AV
IC703	VHiiR3P06//-1	IC Capstan Servo	AQ
IC706	VHiSTA471C/-1	IC Transisor Array	AQ
IC801	RH-iX0077GEZZ	IC Mecha Control LSI	AX

Ref. No.	Part No.	Description	Code
IC802	VHi i R3403/ / - 1	IC Inverter	AK
IC803	VHi M54532P/ - 1	IC Inverter	AK
IC804, 7754	VHi i R2403/ / - 1	IC Inverter	AK
IC805, 7003, 7004	VHi TC4081BP- 1	IC AND Gate	AF
IC806	VHi UMPC339/ - 1	IC Comparater	AH
IC7001	VHi TC4013BP- 1	IC H-Switching Pulse Inverter	AL
IC7002	VHi HD14538/ - 1	IC FV Multe Control Delay	AR
IC7752	RH- i Z0003GEZZ	IC Reel Servo	AX
IC7753	VHi NJM4558D- 1	IC DC Amp	AH
CAPACITORS			
C713	RC- QZA273TAYJ	.027µF, 50V, 5%, Malar	AB
C721, 722, 7758	VCFCSH1HA563J	.056µF, 50V, 5%, Malay	AB
C727, 738	VCSATA1CE106M	10µF, 16V, 10%, Tantul	AD
C762	RC- QZA472TAYJ	.0047µF, 50V, 5%, Mylar	AB
C803	VCEAAA1CW107M	100µF, 16V, Electrolytic	AB
C815, 818	VCEAAA1CW227M	220µF, 16V, Electrolytic	AC
C7005	RC- QZA222TAYJ	.0022µF, 50%, 5%, Mylar	AB
C7008	RC- QZA122TAYJ	.0012µF, 50V, 5%, Mylar	AB
C7010	VCFCSH1HA274J	.27µF, 50V, 5%, Mylar	AD
C7756	VCE9EA1EW106M	10µF, 25V, Non Polar	AB
CONTROLS			
R709	RVR- M7170TAZZ	100Kohm, Pot., BVF, OSC	AE
R721	RVR- M7168TAZZ	47Kohm, Pot., Ch2 Phase	AE
R722	RVR- M7168TAZZ	47Kohm, Pot., Ch1 Phase	AE
R738	RVR- M7168TAZZ	47Kohm, Pot., Drum Lock	AE
R723	RVR- M7170TAZZ	100Kohm, Pot., Rec Phase	AE
R736	RVR- M7166TAZZ	22Kohm, Pot., D-VS REW Shift	AE
R737	RVR- M7166TAZZ	22Kohm, Pot., D-VS FF Shift	AE
R740	RVR- M7168TAZZ	47Kohm, Pot., Cap Lock	AE
R750	RVR- B4084GEZZ	200Kohm, Pot., Traking	AD
R751	RVR- M7170TAZZ	100Kohm, Pot., Traking Pre Set	AE
R4405	RVR- B4083GEZZ	10Kohm, Picture Tone	AD
R7014	RVR- M7171TAZZ	220Kohm, Pot., VS FV	AE
R7015	RVR- M7171TAZZ	220Kohm, Pot., Still FV	AE
R7016	RVR- M7171TAZZ	220Kohm, Pot., FV	AE
R7021	RVR- B4200CEZZ	220Kohm, Pot., Still Pre Set	AC
R7050	RVR- B4084GEZZ	200Kohm, Pot., Still Traking	AD
R7765	RVR- M7161TAZZ	3.3Kohm, Pot., Torque Adj	AE
R7770	RVR- M7169TAZZ	68Kohm, Pot., VS-Rew, Speed	AE
R7778	RVR- M7169TAZZ	68Kohm, Pot., VS, FF, Speed	AE
RESISTORS			
R810, 811	VRS- PU3DB390J	39 ohm, 2W, 5%, Oxide Film	AA

Ref. No.	Part No.	Description	Code
COILS & TRANSFORMERS			
L4401	VP- MK820K0000	82µH	AB
MISCELLANEOUS			
RY801, 802, 7751	RRLYZ0016GEZZ	Relay	AN
SW2201	QSW- S0020GEZZ	Switch	AG
	JKNBK1017GESA	Knob, Tracking	AC
AD	QPLGN0913GEZZ	Plug	AB
AH	QPLGN0213GEZZ	Plug	AB
PWB-B			
TRANSISTORS			
Q602	VS2SC2001- L- 1	Muting (2SC2001)	AD
Q603	VHi DTC124F/ - 1	Muting (DTC124F)	AC
Q604	VS2SC496- Y/ 1E	Bias Oscillator (2SC496Y)	AF
Q605	VS2SC2001- L- 1	Switching (2SC2001)	AF
Q606	VS2SC945APQ1E	Muting (2SC945)	AB
Q607, 608	VS2SC2240BL1E	Switching (2SC2240BL)	AD
Q609	VS2SA970- BL1E	Switching (2SA970BL)	AC
Q615, 616	VS2SA733APQ1E	Switching (2SA733Q)	AC
Q617	VS2SC945APQ1E	Muting (2SC945Q)	AB
INTERGRATED CIRCUITS			
IC601	VHi AN262/ / / - 1	Audio Amp, Lifier	AM
IC602	VHi UPD4066B- 1	Switching	AL
DIODES			
D604, | 608, 610, | 617	VHD1SS119/ / - 1	Diode	AB
CAPACITORS			
C601	VCE9AA1EW106M	10µF, 25V, Non Pouler	AC
C610	VCQPSB2GA223K	.022µF, 400V, 10%, Polypropylen Film	AB
C615	VCRYPA1HA681J	680pF, 50V, 5%, Ceramic	AB
C618, 621, 644	RC- EZ0042GEZZ	100µF, 16V, Electrolytic	AC
C620	VCEAAA1CW227M	220µF, 16V, Electrolytic	AC

Ref. No.	Part No.	Description	Code
	RESISTOR		
R626	RR-XZ0026CEZZ	10ohm, Fuse Resistor	AB
	COILS & TRANSFORMERS		
L601	RCiLP0002GEZZ	1mH	AC
L602	VP-MK221K0000	220µH	AB
L603	VP-DF221K0000	220µH	AB
T601	RTRNH0016GEZZ	Bias Oscillator	AF
FL601	RCiLF0006GEZZ	Filter	AK
	CONTROLS		
R624	RVR-B4198CEZZ	68Kohm, Pot., Red, Bias	AD
R639	RVR-B4006CEZZ	22Kohm, Pot., Play back Level	AC
	MISCELLANEOUS		
BA	QPLGN1013GEZZ	Plug	AB
BB	QPLGN0813GEZZ	Plug	AB
BC	QPLGN0413GEZZ	Plug	AB
BD	QPLGN0313GEZZ	Plug	AB
	PSLDM3177GEZZ	Shield	AB
	PSLDM3178GEZZ	Shield	AB
	PSLDM3229GEZZ	Shield	AC
	PWB-C		
	TRANSISTORS		
Q201	VS2SC945APQ1E	Video Signal Switching	AB
Q203	VS2SC945APQ1E	Emitter Follower	AB
Q303, 305	VS2SC945APQ1E	Rec Amp	AB
Q306	VS2SC945APQ1E	Rec Current Muting	AB
Q309	VS2SC945APQ1E	Emitter Follower	AB
Q311,	VS2SC945APQ1E	P, B, EQ Amp	AB
313			
Q401	VS2SC945APQ1E	Amp	AB
Q402,	VS2SC945APQ1E	Emitter Follower	AB
405			
Q406	VS2SC945APQ1E	Switching For FV Input	AB
Q407	VS2SC945APQ1E	Emitter Follower	AB
Q408	VS2SC945APQ1E	Amp	AB
Q409, 410	VS2SC945APQ1E	Emitter Follower	AB
Q411	VS2SC945APQ1E	Switching For Video Clip	AB
Q501	VS2SC945APQ1E	Rec/P.B Colour Signal Switching	AB
Q502	VS2SC945APQ1E	Emitter Follower	AB
Q503	VS2SC945APQ1E	ID Amp	AB
Q504, 505	VS2SC945APQ1E	H, SW, P, Inverter	AB
Q506	VS2SC945APQ1E	P,B, Colour Amp	AB

Ref. No.	Part No.	Description	Code
Q507	VS2SC945APQ1E	Emitter Follower	AB
Q508	VS2SC945APQ1E	Manaual Colour Mode Switching	AB
Q509	VS2SC945APQ1E	Emitter Follower	AB
Q510	VS2SC945APQ1E	4.44MHz. Local OSC	AB
Q511	VS2SC945APQ1E	Emitter Follower	AB
Q512, 514	VS2SC945APQ1E	Amp	AB
Q202	VS2SC1959Y/1E	Video Signal Switching	AC
Q301, 302, 307, 308	VS2SC1959Y/1E	Video Head Switching	AC
Q204	VS2SA733APQ/E	Emitter Follower	AC
Q304	VS2SA733APQ/E	Rec Amp	AC
Q403	VS2SA733APQ/E	P.B Video Amp	AC
Q513	VS2SC496-Y/1E	9V Regurator	AF
	DIODES		
D201	VHD1SS119//-1	Diode	AB
D202, 203	VHD1SS16-2/1E	Diode (1SS-16)	AC
D301, 302, 401, 402, 403, 501, 503, 504, 506, 5503	VHD1SS119//-1	Diode	AB
D303	RH-EX0024CEZZ	Zener Diode	AB
D502	RH-EX0045TAZZ	Zener Diode	AB
	INTEGRATED CIRCUITS		
IC201	VHiAN6310//-1	Y-Signal Rec Rrocessor (AGC, Clip, Pre-Emphasis, Mojdulator)	AS
IC301	VHiTA7339P/-1	Pre-Amp	AN
IC401	VHiHA11702/-1	Limitter RF-AGC, DOC	AU
IC402	VHiHA11703/-1	Y-Signal P.B Processor (De-mondulator, Sync Sep, Noise Cancel, Y/C MIX)	AV
IC501	VHiHA11781NT1	Colour Signal Processor ACC, APC, AFC, Killer)	AZ
IC502	VHiAN6342N/-1	Freg Devider For P.B 50Hz	AN
	CAPACITORS		
C203, 446	VCEAAA1AW107M	100µF, 10V, Electrolytic	AB
C206	VCEAAA1AW227M	220µF, 10V, Electrolytic	AC
C207, 223	VCE9AA1CW476M	47µF, 16V, Non Polur	AC

Ref. No.	Part No.	Description	Code
C209, 444, 445	VCEAAA1CW107M	100µF, 16V, Electrolytic	AB
C220, 423, 442	VCEAAA1CW227M	220µF, 16V, Electrolytic	AC
C227	VCE9AA1EW475M	4.7µF, 25V, Non Polur	AC
C441	RC-EZ0025GEZZ	470µF, 16V, Electrolytic	AC

RESISTORS

R352, 353	VRD-RA2HD220J	22ohm, 1/2W, 5%, Carbon	AA
R333, 513	VRD-RA2HD391J	390ohm, 1/2W, 5%, Carbon	AA

CONTROLS

R207	RVR-M7133TAZZ	4.7Kohm, Pot., E-E Level	AC
R215	RVR-M7133TAZZ	4.7Kohm, Pot., D, Clip	AC
R216	RVR-M7133TAZZ	4.7Kohm, Pot., W, Clip	AC
R328	RVR-M7133TAZZ	4.7Kohm, Pot., Ch2, Dump	AC
R329	RVR-M7133TAZZ	4.7Kohm, Pot., Ch1, Dump	AC
R220	RVR-M7132TAZZ	3.3Kohm, Pot., Deviation	AC
R304	RVR-M7123TAZZ	100ohm, Pot., Rec Balance	AC
R315	RVR-M7130TAZZ	1.5Kohm, Pot., Rec Y	AC
R316	RVR-M7131TAZZ	2.2Kohm, Pot., Rec C	AC
R426	RVR-M7125TAZZ	220ohm, Pot., P.B Y Level	AC
R528	RVR-M7135TAZZ	10Kohm, Pot., AFC Adj	AC
R532	RVR-M7137TAZZ	22Kohm, Pot., APC Adj	AC
R541	RVR-M7137TAZZ	22Kohm, Pot., Carr Balance	AC
R558	RVR-M7129TAZZ	1Kohm, Pot., P.B.C Level	AC

TRIMMER

C229	RTō-H1006GEZZ	50pF, FM Frequency	AE
C318	RTō-H1005GEZZ	50pF, Ch2 Peak	AE
C319	RTō-H1005GEZZ	50pF, Ch1 Peak	AE
C540	RTō-H1009GEZZ	20pF, 4.44MHz Adjust	AE

COILS & TRANSFORMERS

L201, 202, 204, 301, 305, 306, 311, 403	VP-DF221K0000	220µH	AB
L406, 407, 409	VP-DF221K0000	220µH	AB
L205, 408	VP-DF820K0000	82µH	AB
L206	VP-DF151K0000	150µH	AB
L302	VP-MK5R6K0000	5.6µH	AB
L303	RCiLP0008GEZZ	2.2mH	AD
L304, 507, 312	VP-DF390K0000	39µH	AB
L309	VP-DF330K0000	33µH	AB
L310	VP-DF151K0000	150µH	AB
L401, 402	VP-DF8R2K0000	8.2µH	AB
L404, 308	VP-DF270K0000	27µH	AB
L405	VP-DF180K0000	18µH	AB
L502	VP-CF221K0000	220µH	AB
L503, 504, 505	VP-DF221K0000	220µH	AB
FL201	RMPTD0127GEZZ	Filter	AH
FL202	RMPTD0128GEZZ	Filter	AK
FL301	RMPTD0124GEZZ	Filter	AG
FL302	RMPTD0120GEZZ	Filter	AF
FL401	RMPTD0127GEZZ	Filter	AH
FL402	RMPTD0086GEZZ	Filter	AG
FL403	RMPTD0128GEZZ	Filter	AK
FL501	RMPTD0131GEZZ	Filter	AK
FL502	RMPTD0126GEZZ	Filter	AK
FL503	RMPTD0052GEZZ	Filter	AG
DL401	RCiLZ0090GEZZ	Delay Line	AT
DL501	RCiLZ0091GEZZ	Delay Line	AX

MISCELLANEOUS

X501	RCRSB0002CEZZ	Crystal	AM
X502	RCRSB0008GEZZ	Crystal	AL
CA	QPLGN0713GEZZ	Plug (7 Pin)	AB
CB	QPLGN1013GEZZ	Plug (10 Pin)	AB
CC	QPLGN1413GEZZ	Plug (14 Pin)	AB
	QPLGN0304CEZZ	Plug (TP308)	AB
	QPLGN0413GEZZ	Plug (TP305)	AB
	QPLGN0513GEZZ	Plug (TP301)	AB

PWB-H (VC-381H/W)

DIODE & LED

D8101, | 8108	VHD1SS119//-1	Diode	AB
D8109, | 8113	RH-PX0032GEZZ	LED	AC

Ref. No.	Part No.	Description	Code
PWB-H (VC-383H)			
DIODES & LED			
D8101, | 8108	RH-DX0048CEZZ	Diode	AB
D8109, | 8115	RH-PX0032GEZZ	LED	AC
MISCELLANEOUS (VC-381H, W / VC-383H)			
SW8101	QSW-P0058GEZZ	Switch, Power	AF
SW8102	QSW-P0058GEZZ	Switch, Timer	AF
SW8103, | 8109	QSW-K0008GEZZ	Switch, Mecha Operation	AF
HA	QPLGN1414GEZZ	Plug	AE
HB	QPLGN0314GEZZ	Plug	AB
PWB-I			
TRANSISTORS			
Q1501	VS2SC1906//1E	IF Amp (2SC1906)	AC
Q1502	VS2SC945APQ1E	PIF, SIF Separator (2SC945)	AB
Q1503	VS2SA733APQ1E	Emitter Follower (2SA733)	AC
Q1504	VS2SC2001-L-1	Emitter Follower (2SC2001L)	AD
Q1507	VS2SK30AG//2E	AFT Mute (2SK30AG)	AD
INTERGRATED CIRCUITS			
IC1501	RH-iX0113CEZZ	PIF Amp, Detector	AR
IC1502	RH-iX0055GEZZ	SIF, Detector	AG
DIODES			
D1501, | 1503	RH-DX0142CEZZ	Diode	AB
CAPACITORS			
C1511	VCE9AA1HW105M	1µF, 50V, Non Polur	AB
C1530	VCQYSH1HM393K	.039µF, 50V, 5%, Mylar	AB
C1533	VCEAAA1CW107M	100µF, 16V, Electrolytic	AB
CONTROL			
R1511	RVR-B4004CEZZ	10Kohm, Pot., RF AGC	AC

Ref. No.	Part No.	Description	Code
COIL & TRANSFORMERS			
L1501, 1502	VP-DFR47M0000	.47µH	AB
L1503, 1504	VP-DF2R2M0000	2.2µH	AB
L1505	VP-DF100K0000	10µH	AB
L1506	VP-DF470K0000	47µH	AB
L1508	VP-DF4R7K0000	4.7µH	AB
L1509	VP-DF220K0000	22µH	AB
L1510	VP-DF150K0000	15µH	AB
T1501	RCiLD0096CEZZ	PIF-Detector	AE
T1502	RCiLD0097CEZZ	AFT	AE
T1503	RCiLD0012GEZZ	Sound Detector	AE
CF1501	RFiLC0023CEZZ	Filter	AE
CF1502	RFiLC0015CEZZ	Filter	AE
SF1501	RFiLC0058CEZZ	Filter	AL
MISCELLANEOUS			
	PSLDM3279GEZZ	Shield (Upper)	AC
	PSLDM3280GEZZ	Shield	AB
	PSLDM3281GEZZ	Shiel (Lower)	AC
	QPLGN0513GEZZ	Plug, IB	AB
	VTUVTL-7C////	Tuner	BM
PWB-O			
⚠ L901	RCiLF0070CEZZ	Line Filter	AM
⚠ C901	RC-FZ0001GEZZ	.1µF, 250V	AG
⚠ F901	QFS-C8011CEZZ	Fuse, T800mA SEMKO, 250V	AE
⚠ F902	QFS-C4021GEZZ	Fuse, T4mA SEMKO, 250V	AE
⚠ S901	QSW-S0035GEZZ	Switch, Power	AL
	QFSHD1001GEZZ	Fuse Holder	AA
	QFSHD1002CEZZ	Fuse Holder	AA
	QPLGN0304CEZZ	Plug, 0A	AB
	QPLGN0309GEZZ	Plug, 0B	AE
THE OTHERS PARTS			
⚠ R901	RR-DZ0001GEZZ	12Mohm, 1/2W, Carbon	AD
⚠ T901	RTRNP0089GEZZ	Power Transformer (VC-381H) (VC-383H)	BA
⚠ T901	RTRNP0085GEZZ	PowerTransformer (VC-381W)	BA
⚠	QACCZ2005GEZZ	AC Cord (VC-381W)	AK
⚠	QACCB9007GEZZ	AC Cord (VC-381H) (VC-383H)	AK
	TiNS-0203GEZZ	Instruction Manual	AL
	QTANN9057GEZZ	Antenna Terminal	AY
	RTUNE0114GEZZ	RF Converter	BK
	RRMCK0022GEZZ	Remote Control Unit	AW
PWB-T (VC-381H/W)			
TRANSISTORS			
Q5001	VS2SA1015Y/2E	Switching (2SA1015Y)	AC
Q5003	VS2SA1015Y/2E	Timer Reset (2SA1015Y)	AC
Q5002	VS2SC2021-R-1	Inverter (2SC2021R)	AB

Ref. No.	Part No.	Description	Code
DIODE			
D1402	RH-PX0052GEZZ	LED	AB
D1407, | 1414	RH-PX0052GEZZ	LED	AB
D5001, | 5011	VHD1SS119//-1	Diode	AB
INTERGRATED CIRCUIT			
IC5001	VHi MP2812SL1E	Timer Micro Processor	AW
CAPACITOR			
C5005	RC-EZ0020GEZZ	100µF, 16V, Electrolytic	AC
RESISTORS			
R5001, 5011	RMPTC0020GEZZ	Packaged Circuit (56Kohm × 7)	AC
MISCELLANEOUS			
SW1402	QSW-P0023GEZZ	Switch, Channel Selector	AS
SW5001, | 5006	QSW-K0019GEZZ	Switch	AC
DG5001	VVK6BT29ZK/-1	Digitron	AW

PWB-T (VC383H)

Ref. No.	Part No.	Description	Code
TRANSISTORS			
Q5001	VS2SA1015Y/2E	Switching (2SA1015Y)	AC
Q5003	VS2SA1015Y/2E	Inverter (2SA1015Y)	AC
Q5002	VS2SC1815YW1E	Timer Reset (2SC1815Y)	AB
INTERGRATED CIRCUIT			
IC5001	VHi MP2812SL1E	Timer Micro Processor	AW
DIODES & LED			
D1402	RH-PX0054GEZZ	LED	AB
D1405, | 1408	RH-PX0052GEZZ	LED	AB
D1411, | 1414	RH-PX0052GEZZ	LED	AB
D5001, | 5011	VHD1SS119//-1	Diode	AB
CAPACITOR			
C5005	RC-EZ0020GEZZ	100µF, 16V, Electrolytic	AC
RESISTORS			
R5001, 5011	RMPTC0020GEZZ	Packaged Circuit (56Kohm × 7)	AC
MISCELLANEOUS			
SW1402	QSW-P0059GEZZ	Switch, Channel Selector	AS
SW5001, | 5006	QSW-K0030GEZZ	Switch, Timer Operation	AB
DG5001	VVK6BT29ZBK-1	Digitron	AX

PWB-U

Ref. No.	Part No.	Description	Code
TRANSISTORS			
Q1407	VS2SC945APQ1E	VT Drive (2SC945P,Q)	AB
Q1408	VS2SA893AEF1E	Switch (2SA893AE)	AD
Q1409	VS2SC2240BL1E	Switch (2SC2240BL)	AD
INTERGRATED CIRCUIT			
I1401	RH-iX0037CEZZ	Zener IC	AF
DIODES			
D1411	RH-DX0048CEZZ	Diode	AB
D1420, | 1427	RH-DX0048CEZZ	Diode	AB

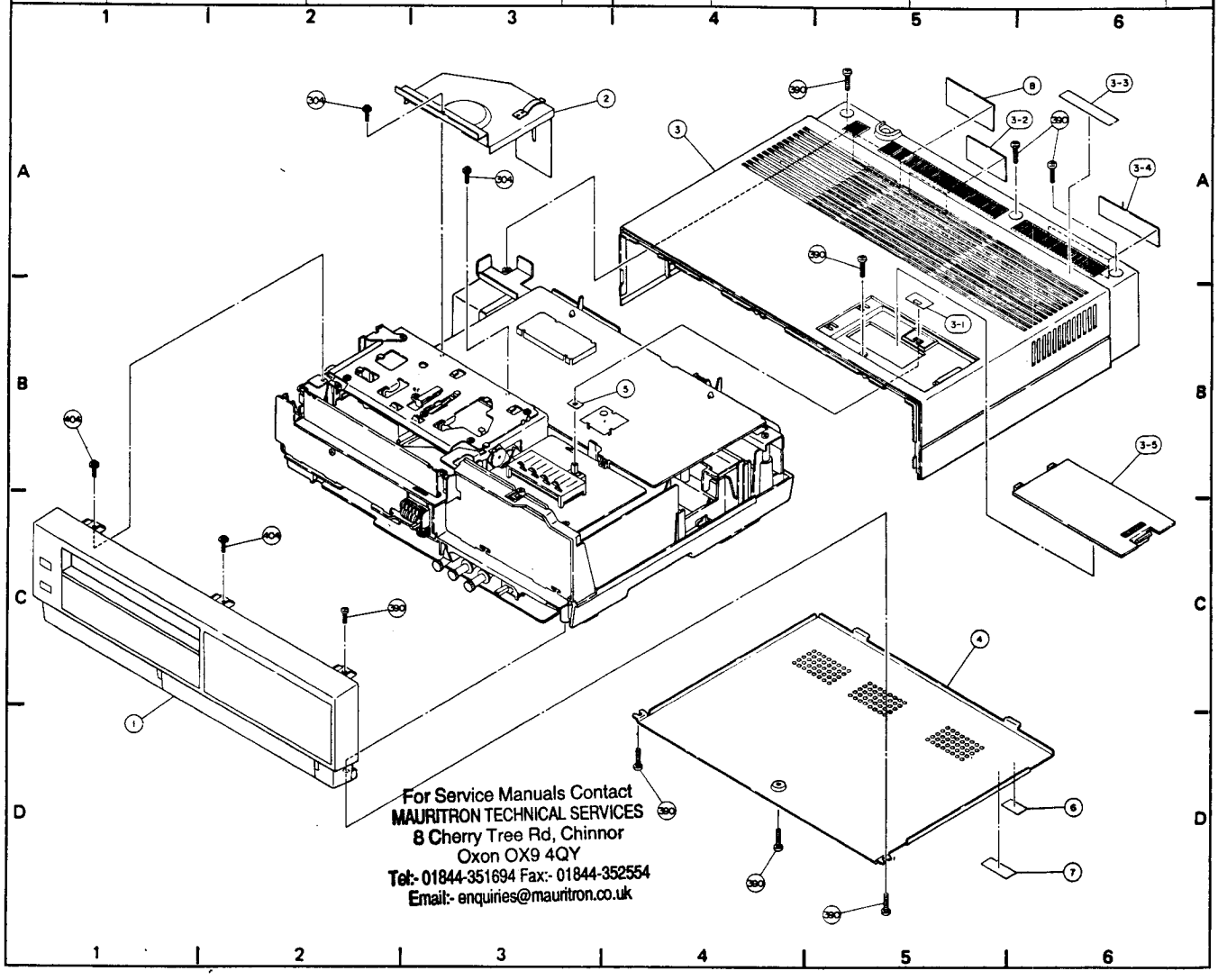
Ref. No.	Part No.	Description	Code
	CONTROLS		
R1422	RVR-Y4049GESA	50Kohm, Pot., Tuning Control	AT
	MISCELLANEOUS		
SW1403	QSW-S0029GEZZ	Switch, AFT	AD
	QPLGN0913GEZZ	Plug, UA	AB
	QPLGN1013GEZZ	Plug, UB	AB
	QPLGN0313GEZZ	Plug, UC	AB
	CHOPPER REGULATOR		
	TRANSISTORS		
⚠ Q01	95KUAD0036CZ	Level Regulator (2SD1308)	AG
⚠ Q02	95KUAC0004CZ	Error Amp (2SC945A)	AC
⚠ Q03	95KUAD0041BZ	13V Regulator Output (2SD1128)	AG
Q04	95KUAD0038CZ	13V Error Amp (2SD471)	AE
⚠ Q05	95KUAD0036CZ	12V Regulator output (2SD1308)	AG
Q06	95KUAA0006CZ	Switching (2SA733)	AC
Q07	95KUAC0004CZ	12V Error Amp (2SC945A)	AC
Q08	95KUAC0004CZ	CTL Drive (2SC945A)	AC
Q09	95KUAC0004CZ	10V Error Amp (2SC945A)	AC
⚠ Q10	95KUAC0025CZ	OSC (2SC1827)	AH
	DIODES		
⚠ D01, ⚠ 02	95KUBA0005AZ	(1SS55)	AB
⚠ D03, | ⚠ 06	95KUBB0055RZ	(S2V10)	AH
⚠ D07	95KUBB0033AZ	(CTM-21R)	AF
⚠ D08	95KUBB0032AZ	(CTM-21S)	AF
⚠ D09	95KUBD0120CZ	Zener Diode (RD9, 1EB2)	AC
⚠ D10	95KUBD0125BZ	Zener Diode (RD13EB1-A)	AC
⚠ D11	95KUBD0120CZ	Zener Diode (RD9, 1EB2), 12V	AC
⚠ D12	95KUBD0121BZ	Zener Diode (RD10EB1), 10V	AB
⚠ D13, ⚠ 14	95KUBC0014AZ	(EM1Z), 50V	AC
⚠ D15	95KUBD0115BZ	Zener Diode (RD5,6EB2)	AB
⚠ D16	95KUBA0005AZ	(1SS55), −20V	AB
⚠ D17	95KUBA0005AZ	(1SS55), 10V	
⚠ D18	95KUBA0005AZ	(1SS55), 50V	
⚠ D19	95KUBA0005AZ	(1SS55), 50V	
	CAPACITORS		
⚠ C01	95KUGFF473AF	.047μF, 50V Mylar Condenser	AB
⚠ C02	95KUGAD681AK	680μF, 25V, Electrolytic	AD
⚠ C03	95KUGAD681AK	680μF, 25V, Electrolytic	AD
⚠ C04	95KUGZ0189ZZ	1000μF, 50V, Electrolytic	AL
⚠ C05	95KUGAF2R2AK	2.2μF, 50V, Electrolytic	AB
⚠ C07	95KUGAD682BL	4700μF, 25V, Electrolytic	AN
C08	95KUGZ0188ZZ	220μF, 16V, Electrolytic	AC
C10	95KUGAC102BB	1000μF, 16V, Electrolytic	AD
C12	95KUGZ0188ZZ	100μF, 16V, Electrolytic	AC
⚠ C14	95KUGFF103AF	.01μF, 50V, Film Condensor	AB
C17	95KUGZ0188ZZ	100μF, 16V, Electrolytic	AC
⚠ C18	95KUGAJ4R7AK	47μF, 100V, Electrolytic	AC
C21	95KUGZ0188ZZ	220μF, 16V, Electrolytic	AC
⚠ C23	95KUGAF100AU	10μF, 50V, Electrolytic	AC
⚠ C24	95KUGZ0086ZZ	220pF, 50V, Ceramic	AA
⚠ C30	VCEAAA1HW105M	1μF, 50V, Electolytic	AB
C31	95KUGAF100AU	10μF, 50V, Electrolytic	AC
	RESISTORS		
⚠ R01	95KUEEB272AJ	2.7Kohm, Bias resistor for QCI	AA
⚠ R20	95KUEEB151AJ	150ohm, DC-DC converter oscillation for feedback	AA
⚠ R25	95KUEEB272AJ	2.7Kohm, Current limiter for power failure detection	AA
⚠ PR01	95KUZZ0012ZZ	2.2ohm, Positive charater-istic thermistor, thermal currect limeter	AE
	COILS		
⚠ L01	95KUZZ0011ZZ	100μH	AD
	CONTROLS		
⚠ R04	95KUFZ0062ZZ	500ohm, Pot., 15.5V, Levle, Adjust	AD
R13	95KUFZ0065ZZ	1Kohm, Pot., 12V Adjust	AD
	MISCELLANEOUS		
FB01	95KBFZ89111Z	Biis Coaa	AB
⚠ T01	RTRNH0015GEZZ	Converter Trans	AM

SCREW, NUTS, WASHERS, AND WIRE CLAMP

Ref. No.	Part No.	Description	Size	Code
301	XBPSD20P04000	Pan Head Screw	2P+4S	AA
302	XBPSD20P05J00	Pan Head Screw	SW 2P+5S	AA
303	XBPSD20P10J00	Pan Head Screw	SW 2P+10S	AA
304	XBPSD30P04J00	Pan Head Screw	SW 3P+4S	AA
305	XBPSD30P04000	Pan Head Screw	3P+4S	AA
306	XBPSD30P05J00	Pan Head Screw	SW3P+5S	AA
307	XBPSD30P06JS0	Pan Head Screw	WSW 3P+6S	AA
308	XBPSD30P06J00	Pan Head Screw	SW 3P+6S	AA
309	XBPSD30P06000	Pan Head Screw	3P+6S	AA
310	XBPSD30P08JS0	Pan Head Screw	WSW 3P+8S	AA
311	XBPSD30P08J00	Pan Head Screw	SW 3P+8S	AA
312	XBPSD30P08000	Pan Head Screw	3P+8S	AA
313	XBPSD30P10JS0	Pan Head Screw	WSW 3P+10S	AA
314	XBPSN30P06000	Pan Head Screw	3P+6S	AA
315	XBSSD26P06000	Pan Head Screw	2.6S+6S	AA
316	XEBSD40P10000	P Tight Screw		AA
317	XEBSD40P16000	P Tight Screw		AA
318	XEBSD40P26000	P Tight Screw		AA
319	XHPSD20P06WS0	Cup Tight Screw	C 2P+6S	AA
320	XHPSD30P05000	S Cup Tight Screw	S 3P+5S	AA
321	XHPSD30P06WS0	Cup Tight Screw	S 3P+5S	AA
322	XHPSD30P06000	S Cup Tight Screw	S 3P+6S	AA
323	XHPSD30P08WS0	Cup Tight Screw	C 3P+8S	AA
324	XHPSD30P10WS0	Cup Tight Screw	C 3P+10S	AA
325	XLHAZ30-06000	Rivet		AA
326	XRESJ20-04000	E Ring	E-2	AA
327	XRESJ30-06000	E Ring	E-3	AA
328	XRESJ40-06000	E Ring	E-4	AA
329	XRESJ50-06000	E Ring	E-5	AA
330	XUASD30P10000	Tapping Screw	A 3P+10S	AA
331	XWHJZ18-05040	Plain Washer	1.8W 4-0.5	AA
332	XWHJZ21-05045	Plain Washer	2.1W 4.5-0.5	AA
333	XWHJZ31-01054	Plain Washer	3.1W 5.4-0.13	AA
334	XWHJZ31-02054	Plain Washer	3.1W 54.-0.25	AA
335	XWHJZ31-05054	Plain Washer	3.1W 5.4-0.5	AA
336	XWHJZ38-05100	Plain Washer	3.8W 10-0.5	AA
337	XWHJZ42-05070	Plain Washer	4.2W 7-0.5	AA
338	XWHSD21-04060	Plain Washer	2.1W 6-0.4	AA
339	LHLDF1001CEZZ	Clamp		AB
340	LHLDW1001GEZZ	Clamp		AA
341	LHLDW1006GEZZ	Clamp		AA
342	LHLDW1008GEZZ	Clamp		AA
343	LHLDW1033CE00	Clamp		AA
344	LHLDW1046CEZZ	Clamp		AA
345	LHLDW1049CEZZ	Clamp		AC
346	LHLDW9003CEZZ	Clamp		AA
347	LX-BZ3004GEFD	AC Head Screw	WH-1	AB
348	LX-BZ3008GEZZ	Screw		AA
349	LX-BZ3009GEFD	Screw		AA
350	LX-BZ3011GEFD	Screw with Washer		AA
351	LX-LZ1002GE09	Rivet D4		AB
352	LX-NZ3002GEFW	Nut		AC
353	LX-NZ3005GEFW	Nut		AA
354	LX-NZ3037CEFJ	Nut		AA
355	LX-PZ3001GEFJ	Spring Pin		AA
356	LX-WZ0015TAFW	Washer		AA
357	LX-XZ3001GEFP	Fixing Screw	M 2×3	AC
358	LX-XZ3003GEFP	Fixing Screw	M 2.6×4	AB
359	LX-XZ3009GEFP	Fixing Screw		AA
360	LX-XZ3013GEFP	Fixing Screw	M 3-5S	AA
361	XCBSD40P08000	Tapping Screw	M 4×8	AA
362	LX-RZ3001GEFP	Grip Ring	ø 2	AA
363	XJBSD30P10000	Fixing Screw B	B 3P+10	AA
364	LX-JZ3001GEFD	Special Screw	WSW 3P+6S	AA
365	PSPAN0005GEZZ	Spacer	9.5	AB
366	XHPSF30P08WSö	Cup Tight Screw	C 3P+8S	AA
367	LX-RZ3003GEFJ	Retainer CS		AA
368	PSPAN0002GEZZ	Spacer	5.2	AS
369	XWHSD31-05080	Plain Washer	3.1W 8-0.5S	AA
370	LX-WZ1001GE00	Washer		AA
371	LHLDW9001GEZZ	Wire Holder		AA
372	XWHSD31-05060	Plain Washer	3.1W 6-0.5S	AA
373	XHPSD30P22000	Cup Tight Screw	S 3P+22S	AA
374	LX-HZ3002GEFD	Tightening Screw B	B 3P+8S	AA
375	XWHJZ21-05045	Washer	2.1W 4.5-0.5	AA
376	XRESJ25-04000	E Ring	E 2.5	AA
377	LX-BZ3019GEZZ	Screw		AA
378	PSPAN0006GEZZ	Wire Holder		AC
379	XHPSF30P12WS0	Wire Holder		AA
380	XHPSD30P08000	Wire Holder		AA
381	XWHJZ17-05040	Polyslider Washer	1.7W 4-0.5	AA
382	XBPSD20P08J00	Pan-Head Screw	SW 2P+8S	AA
383	LHLDF1006GEZZ	Y/C Board Holder		AB
384	LHLDW1037CEZZ	Wire Holder		AA
385	LHLDF1002AEUA	Insulating Sheet Holder		AA
386	LHLDW1004GEZZ	Wire Holder		AA
387	XJBSD30P16000	B-Tight Screw		AA
388	XJBSD30P08000	B-Tight Screw	M 3×8	AA
389	XHPSD30P06WS0	Screw	C 3P×6S	AA
390	XJBSF40P16000	Screw		AA
391	XHPSF30P06WS0	Screw		AA
392	XJBSD26P06000	Screw		AA
393	XBPSD30P10J00	Screw	SW 3P+10	AA
394	LX-BZ3039GEFN	Screw	W 3P+9S	AA
395	XBPSD20P17000	Screw	SW2P	AA
396	XBPSD20P04J00	Screw	2S 2P+4S	AA
397	XBPSD26P04J00	Screw	SW 26P+4S	AA
398	XBPSD20P03000	Screw	2P+3S	AA
399	XWHJZ34-05100	Polyslider W	3.45W 10-0.5	AA
400	XWHJZ52-05080	Polyslider W	5.2W 8.0-0.5	AA
401	LX-XZ3016GEFP	Set Screw	M 2×4	AA
402	XJBSD30P10000	B-Tight Screw	3×10	AA
403	XNESD30-02000	Nut	3N	AA
404	XHPS330P06XS0	Screw		AA
405	XJBSD30P06000	B-Tight Screw	M3×6	AA
406	XJBSD30P08000	Screw		AA
407	PSPAN0003GEZZ	Spacer		AB
408	XJASD40P10000	Screw		AA
409	XBPSD30P06J00	Screw		AA
410	MHNG-1005GEZZ	Hing		AA
411	LHLDW1019GEZZ	Wire Holder	WH-1 Small	AA
412	LX-HZ3008GEFD	Screw		AA
413	LX-DZ3029GEFW	Screw		AA
414	XBPSF30P06000	Screw		AA
415	LX-BZ3029GEFN	Screw		AA
416	LX-BZ3050GEFD	Screw		AA
417	QHWS-0004CEFW	Lug Terminal		AA

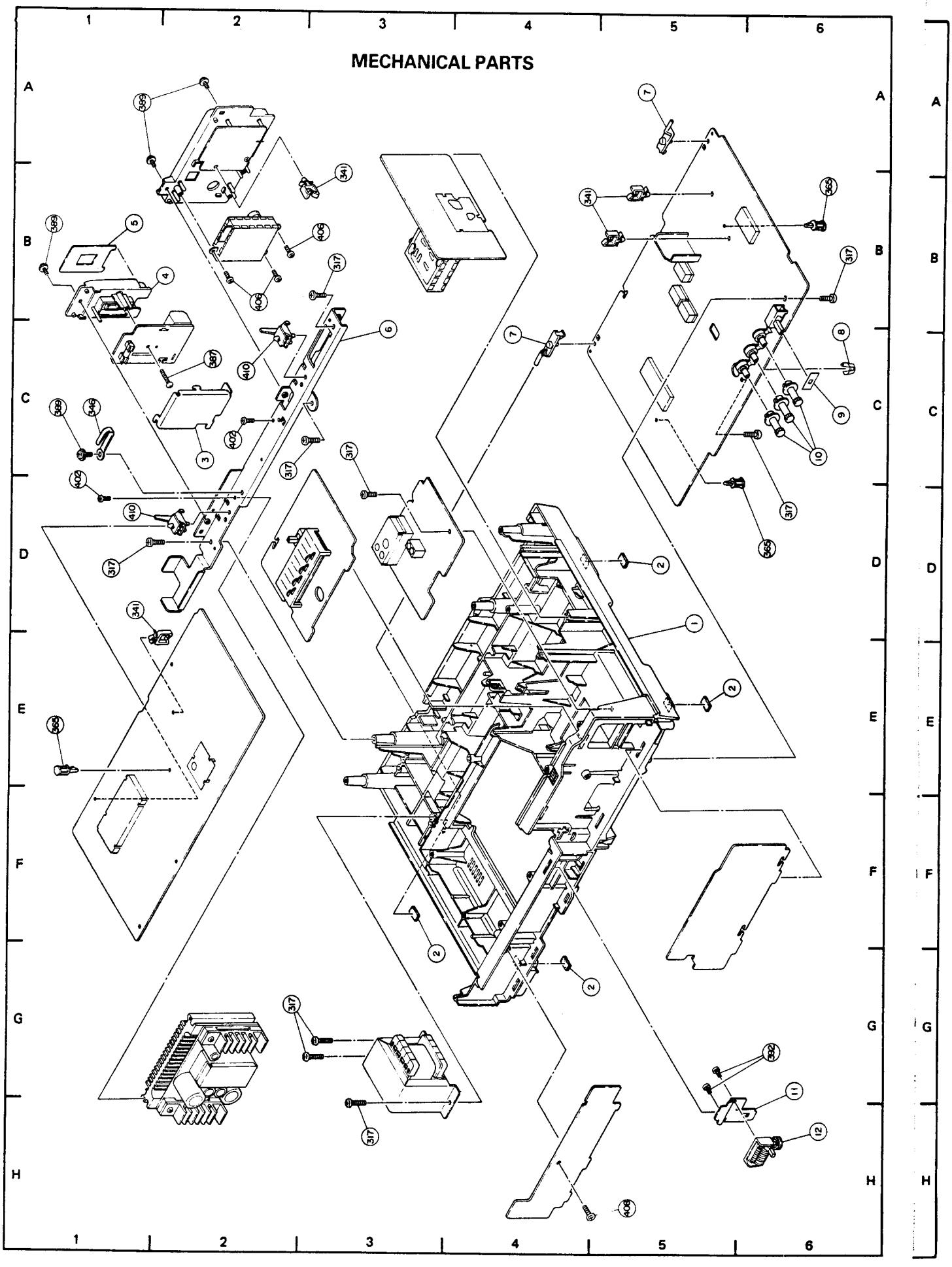
CABINET PARTS

Ref. No.	Part No.	Description	Code
1		Front Panel Ass'y (See Front Panel Parts)	
2	PSLDM9033GEZZ	Cover	AK
3	CCABA1014GE37	Upper Cabinet Ass'y (VC-383H, VC-381H)	BD
3	CCABA1014GE31	Upper Cabinet Ass'y (VC-381W)	BA
3-1	Hi NDP0084GESB	AFT Indication Plate	AF
3-2	TLABS0005GEZZ	Causion Label	AB
3-3	TLABS0002GEZZ	Causion Label	AA
3-4	TCAUH3023GEZZ	RF Converter Causion Label	AA
3-5	GFTAT1004GESH	Memory Adjuster Part Cover	AH
4	GBDYU3007GEZZ	Bottom Plate	AL
5	PSPAH0014GEZZ	Spacer	AA
6	TLABZ0024GEZZ	Adjust Label A	AA
7	TLABZ0025GEZZ	Adjust Label B	AA
8	TLABM0240GEZZ	MODEL Label (VC-383H)	AB
8	TLABM0249GEZZ	MODEL Label (VC-381H)	AB
8	TLABM0271GEZZ	MODEL Label (VC-381W)	AB

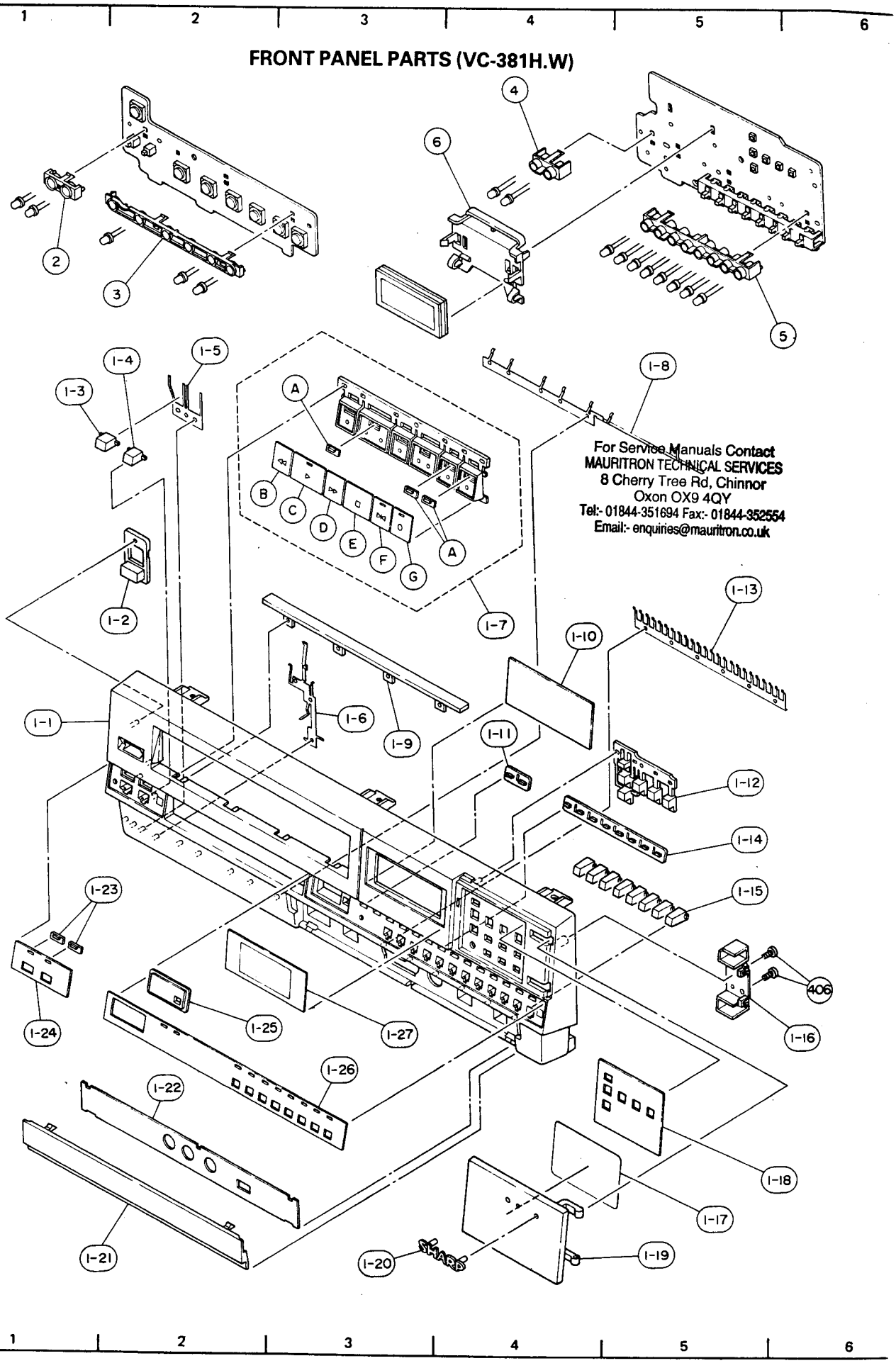


MECHANICAL PARTS

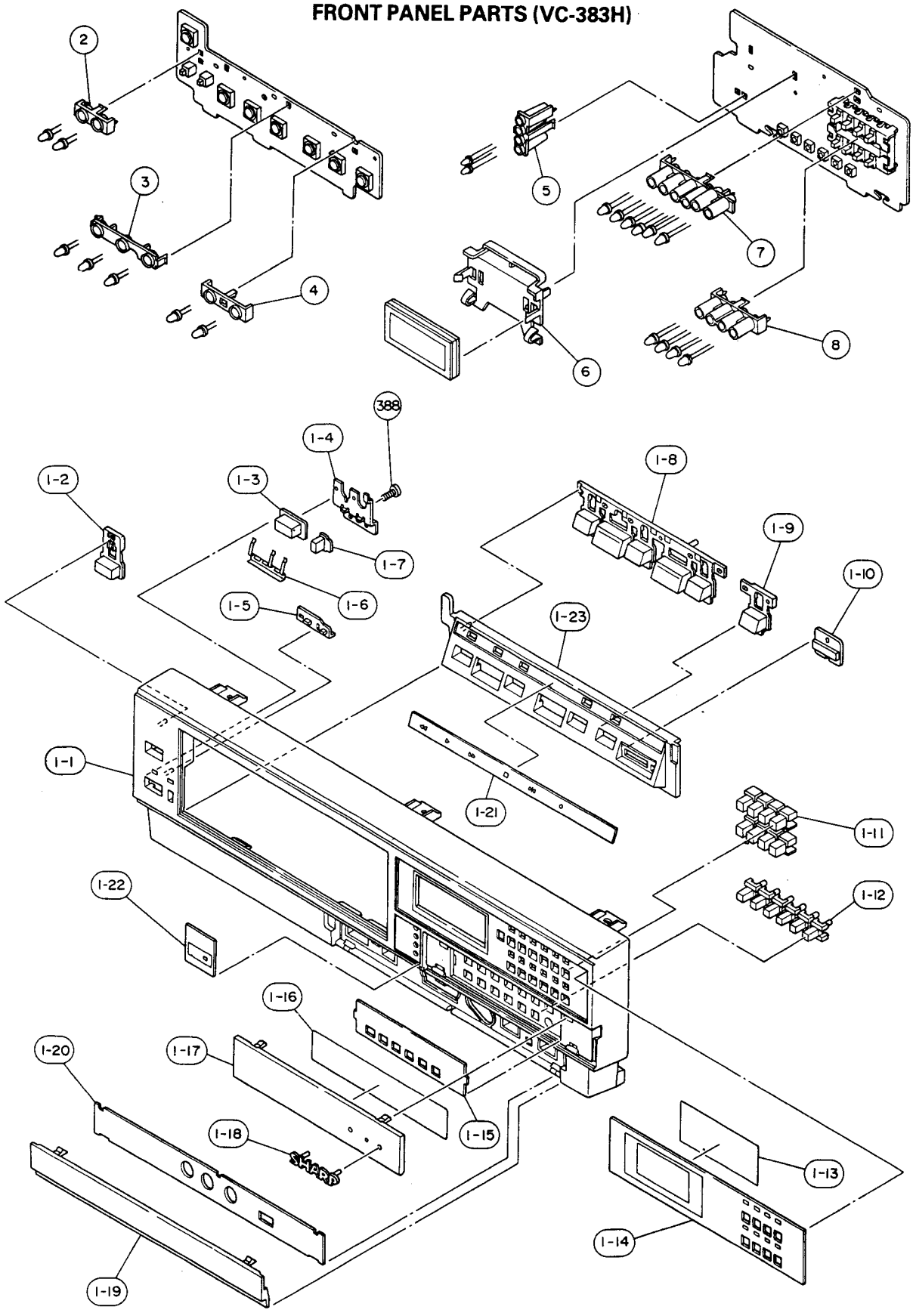
Ref. No.	Part No.	Description	Code
1	GCABB1008GESA	Enclosure Battom	AX
2	PFLT-0006GEZZ	Rubber	AB
3	PZETV0125GEZZ	Cover	AC
4	HPNLH1001GE00	AC Cord panel	AD
5	Hi NDP0268GEZZ	Indication Plate (VC-383H, VC-381H)	AD
5	Hi NDP0283GEZZ	Indication Plate (VC-381W)	AE
6	LANGQ4019GEFW	Angle	AG
7	NSFTP0005GEZZ	Shaft	AB
8	CEARP0022HE00	Earth Plate	AE
9	PSPAH0010GEZZ	Knob Cover	AA
10	JKNBK1017GESA	Tracking Knob	AC
11	LANGF9124GEZZ	Counter Angle	AB
12	KCōUB0020GEZZ	Counter	AM


MECHANICAL PARTS

FRONT PANEL PARTS (VC-381H.W)



FRONT PANEL PARTS (VC-383H)



FRONT PANEL PARTS (VC-381H, W)

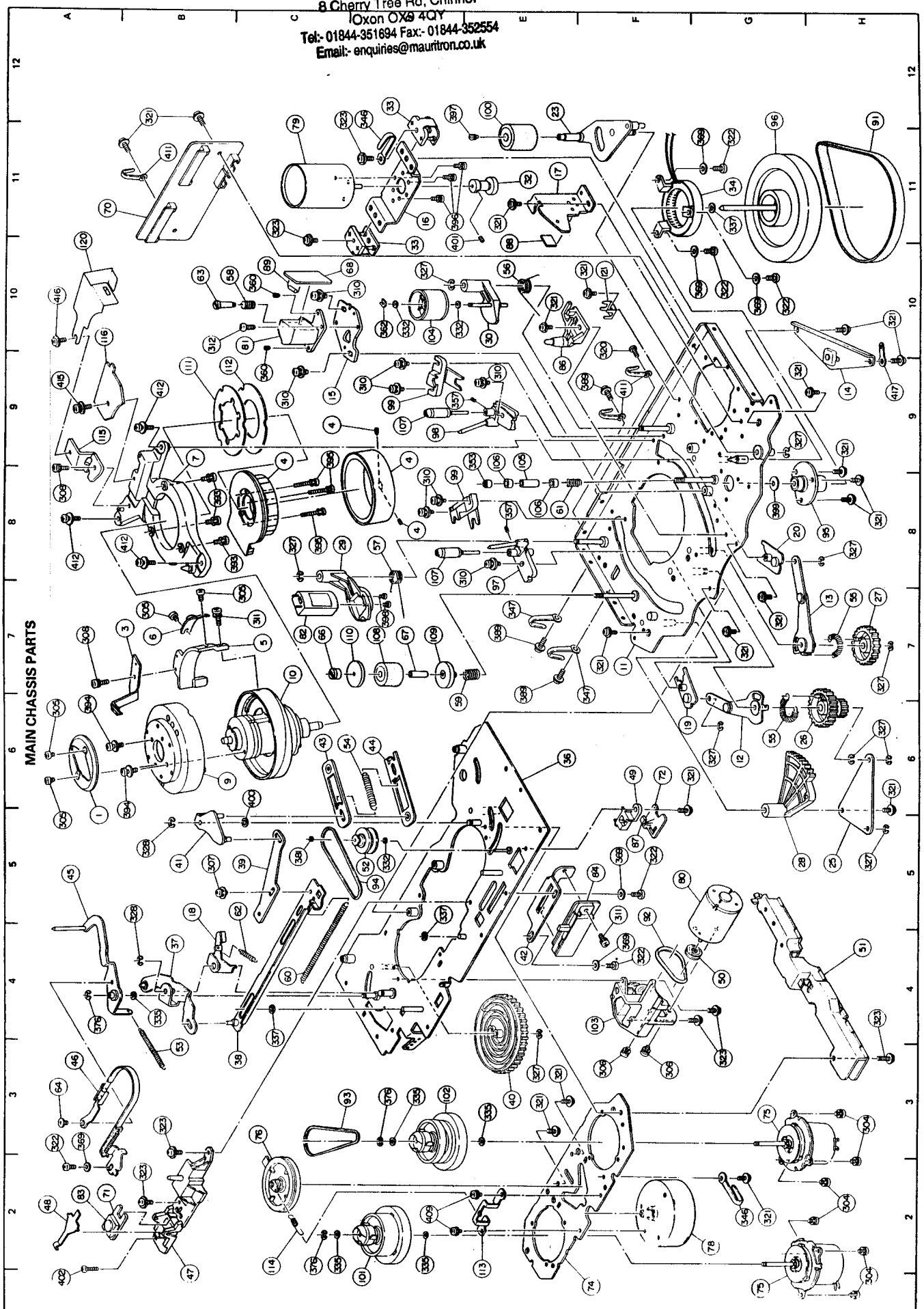
Ref. No.	Part No.	Description	Code	Ref. No.	Part No.	Description	Code
1	CPNLC1120GE01	Front Panel Ass'y (VC-381H)	BC	1-14	GCôVA1103GESA	Decoration Cover, Channel	AE
1	CPNLC1120GE04	Front Panel Ass'y (VC-381W)	BC	1-15	JBTN-1167GESA	Channel Button	AC
1-1		Front Panel (Not replacement item)		1-16	LHLDZ1168GE00	Timer Door Holder	AE
				1-17	TLABH0051GEZZ	Timer Label	AB
1-2	JBTN-1164GESA	Eject Button	AE	1-18	Hi NDP0233GESA	Indication Plate	AD
1-3	JBTN-1163GESA	Power Button	AD	1-19	GDôRF1037GESA	Timer Door (VC-381H)	AG
1-4	JBTN-1165GESA	Timer Chage Button	AD	1-19	GDôRF1025GESA	Timer Door (VC-381W)	AH
1-5	MSPRP0073GEFW	Power Button Spring	AB	1-20	HBDGB3007GESA	Sharp Badge	AD
1-6	QEARP0043GEFW	Spring	AD	1-21	GDôRF1027GESA	Tracking Door	AM
1-7	JBTN-1216GESA	Operation Button	AU	1-22	Hi NDP0212GESA	Indication Plate, Tracking	AE
A	GCôVA1106GESA	Cover	AC	1-23	GCôVA1105GESA	Decoration Cover, Power	AE
B	Hi NDM0282GESA	Indication Plate	AD	1-24	Hi NDM0288GESA	Indication Metal, Operation	AD
C	Hi NDM0283GESA	Indication Plate	AF	1-25	GMADK0009GESA	Counter Window	AF
D	Hi NDM0284GESA	Indication Plate	AD	1-26	Hi NDM0295GESA	Indication Metal, Operation	AE
E	Hi NDM0285GESA	Indication Plate	AE	1-27	GMADi 0028GESA	Timer Window	AP
F	Hi NDM0286GESA	Indication Plate	AD				
G	Hi NDM0287GESA	Indication Plate	AD	2	LHLDZ1184GEZZ	LED Holder	AB
1-8	QEARP0044GEFW	Spring	AG	3	LHLDZ1185GEZZ	LED Holder	AB
1-9	HDECQ0027GESA	Decoration Cover, Cassette	AD	4	LHLDZ1186GEZZ	LED Holder	AB
1-10	PCôVU9025GESA	Timer Filter	AD	5	LHLDZ1198GEZZ	LED Holder	AB
1-11	GCôVA1110GESA	Decoration Cover, Dew	AF	6	LHLDZ1187GEZZ	Degitron Holder	AB
1-12	JBTN-1168GESA	Timer Button	AD				
1-13	QEARP0045GEFW	Spring	AF				

FRONT PANEL PARTS (VC-383H)

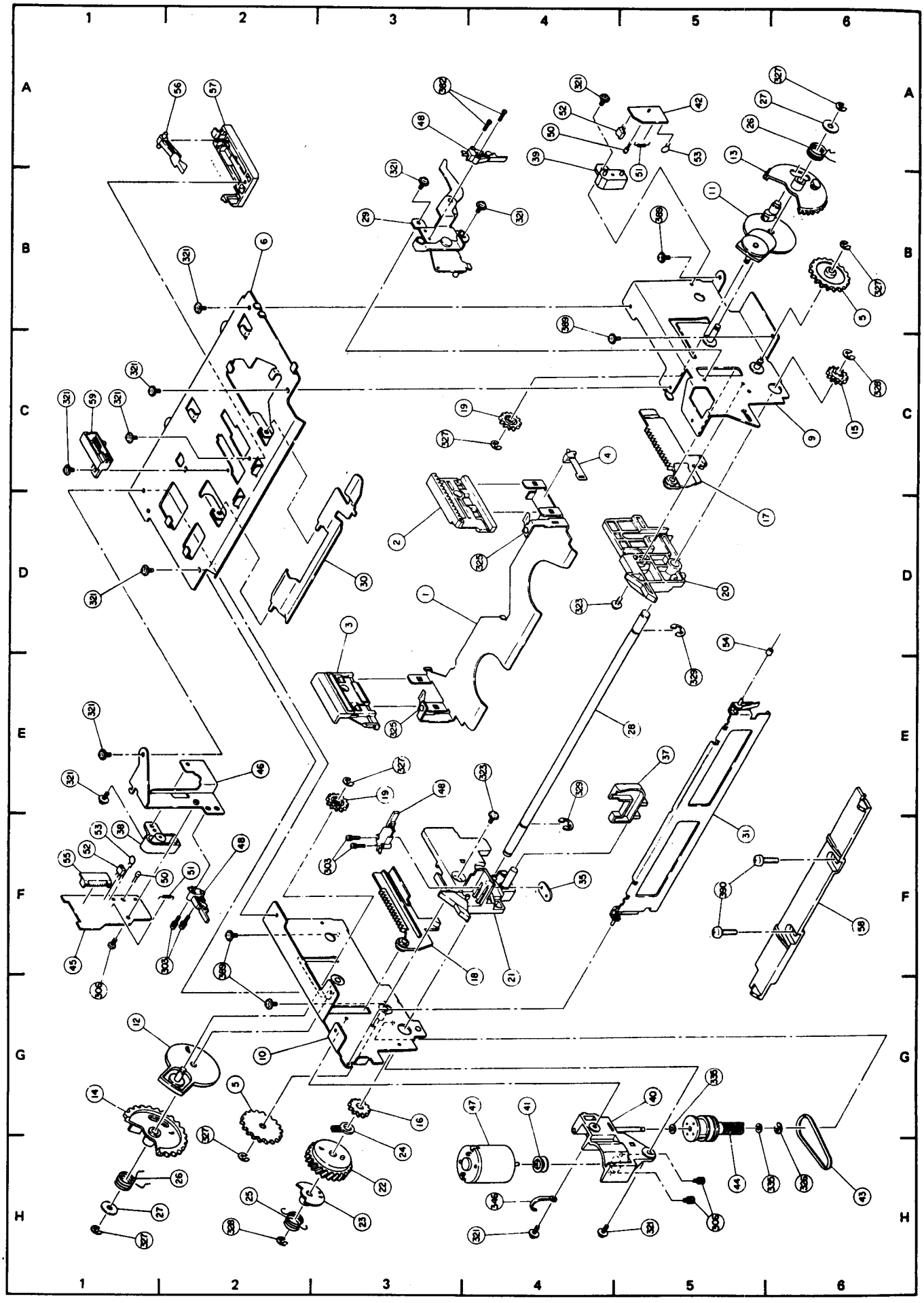
Ref. No.	Part No.	Description	Code	Ref. No.	Part No.	Description	Code
1	CPNLC1109GE01	Front Panel Ass'y	BD	1-17	GDôRF1032GESB	Timer Door	AE
1-1		Front Panel (Nor replacement item)		1-18	HBDGB1057AFSA	SHARP Badge	AD
				1-19	GDôRF1027GESA	Tracking Door	AH
1-2	JBTN-1169GESB	Eject Button	AD	1-20	Hi NDP0212GESA	Low Indication Plate	AE
1-3	JBTN-1171GESB	Power Button	AD	1-21	Hi NDP0209GESB	Operation Indication Plate	AD
1-4	LANGF9161GEFW	Angle	AB	1-22	Hi NDP0231GESB	LED Indication Plate	AD
1-5	GCôVA1093GESA	Power LED Decoration Metal	AC	1-23	HPNLC1110GESB	Sub Panel	AN
1-6	MSPRP0078GEFW	Button Spring	AB	2	LHLDZ1157GEZZ	Power LED Holder	AB
1-7	JBTN-1170GESB	Timer ON/OFF Button	AC	3	LHLDZ1158GEZZ	Play Back LED Holder	AB
1-8	JBTN-1172GESB	Operation Button	AK	4	LHLDZ1159GEZZ	Recording LED Holder	AB
1-9	JBTN-1176GESA	Recording Button	AD	5	LHLDZ1161GEZZ	LED Holder	AC
1-10	GMADK0008GESA	Counter Window Plate	AC	6	LHLDZ1180GEZZ	Degitron Holder	AB
1-11	JBTN-1173GESB	Selector Button	AC	7	LHLDZ1160GEZZ	Channel LED Holder	AB
1-12	JBTN-1174GESB	Timer Button	AC	8	LHLDZ1182GEZZ	Channel LED Holder	AC
1-13	GCôVU9013GESA	Degitron Filter	AD				
1-14	Hi NDP0210GESB	Selector Indication Plate	AE				
1-15	Hi NDP0211GESB	Timer Indication Plate	AD				
1-16	TLABH0059GEZZ	Timer Seting Label	AA				

MAIN CHASSIS PARTS

Ref. No.	Part No.	Description	Code
1	PCōVP3006GEFW	Video Head Lead Cover	AC
2		Drum Lead Shield Case	AC
3	QBRSK0008GEZZ	Earth Brush Ass'y F	AE
4	RMōTP1046GEZZ	Direct Drive Motor Ass'y	BF
5	LHLDZ3016GEFW	Heater Holder D	AH
6	RHETP0001GEZZ	PTC Heater	AH
7	PGiDC0011GEZZ	V-Base Ass'y B	AW
8	PCōVP3007GEFW	Video head Amplifier Lead Clamp	AC
9	DDRMU0002HE05	Upper Drum Ass'y (VC-381H, VC-383H)	BS
9	DDRMU0005HE04	Upper Drum Ass'y (VC-381W)	BS
10	DDRML0002HE00	Lower Drum Ass'y	BP
11	–	A-Chassis	–
12	MARMM0033GEZZ	Loading Arm A Ass'y	AF
13	MARMM0034GEZZ	Loading Arm B Ass'y	AF
14	LANGF9116GEZZ	Fly Angle Ass'y	AC
15	LDAiH1007GEFW	Audio Control Head Plate	AC
16	LANGT9046GEFW	Capstan Motor Base Plate	AC
17	LANGF9171GEZZ	Cassette Lod Open Angle Ass'y	AD
18	MLEVF0137GEZZ	Auxiliary Brake Ass'y	AC
19	PGiDH0018GEZZ	Slider A Ass'y	AE
20	PGiDH0019GEZZ	Slider B Ass'y	AE
21	LANGT9047GEFW	DEW Sensor Base Plate	AC
23	MLEVF0129GEZZ	Pinch Roller Lever Ass'y	AF
25	LANGF9122GEFW	Loading Gear Plate	AB
26	NGERH1021GEZZ	Loading Gear A Ass'y	AD
27	NGERH1022GEZZ	Loading Gear B Ass'y	AD
28	NGERH1023GEZZ	Segment Gear Ass'y	AD
29	MARMP0015GEZZ	Erase Head Arm	AC
30	MARMP0016GEZZ	Take-up Impedance Roller Arm Ass'y	AD
32	NPLYV0077GEZZ	Capstan Motor Pulley Ass'y 8112	AD
33	PZETN0002GEZZ	Motor Angle Insulator	AB
34	RSTR-0033GEZZ	PPG Stator Ass'y	AK
36	–	B-Chassis	–
37	MARMM0035GEZZ	Shifter Arm Ass'y	AG
38	MSLiF0006GEZZ	Shifter A8010 Ass'y	AD
39	MSLiF0007GEFW	Shifter B8101	AB
40	NGERH1024GEZZ	Master Cam	AL
41	MLEVF0130GEZZ	Pinch Roller Drive Lever 8010 Ass'y	AD
42	LANGQ9006GEFW	Slide Switch Angle 8010	AC
43	MLEVF0131GEFW	Pinch Roller Double Action Lever, Upper	AC
44	MLEVF0132GEFW	Pinch Roller Double Action Lever, Lower	AC
45	MLEVF0133GEZZ	Tension Arm 8010 Ass'y	AH
46	LBNDK3010GEZZ	Tension Band Ass'y 8010	AG
47	LHLDZ1066GE00	Cassette Down Switch Holder	AE
48	MLEVF0135GEFW	Cassette Down Actuator	AC
49	LHLDZ1067GE00	Reel Sensor Holder 8010	AB
50	NPLYV0036GEZZ	Loading Motor Pulley	AB
51	LHLDW1025GEZZ	Wire Holder 8010	AD
52	PMAGP1002GEZZ	Reel Pulser Ass'y 8010	AE
53	MSPRT0138GEFJ	Tension Arm Spring	AA
54	MSPRT0139GEFJ	Pinch Roller Pressure Spring	AA
55	MSPRT0140GEFJ	Double Action Spring	AA
56	MSPRD0029GEFJ	Take-up Impedance Roller Arm Spring	AA
57	MSPRD0030GEFJ	Full Erase Head Arm Spring	AA
58	MSPRC0006GEFJ	Audio Control Head Spring	AA
59	MSPRC0015GEFJ	Adjusting Spring A	AA
60	MSPRT0141GEFJ	Shifter Spring	AB
61	MSPRC0016GEFJ	Adjusting Spring B	AB
62	MSPRT0143GEFJ	Auxiliary Brake Spring	AB
63	LX-BZ3018GEZZ	AC Head Screw	AA
64	LX-BZ3026GEFD	Tension Spacer Screw 8010	AB
65	–	–	–
66	LX-NZ3008GEFW	Adjusting Nut B	AB
67	NSFTL0215GEFW	Supply Impedance Rolelr, Inner	AB
68	–	AC Head C Base	–
69	–	Capstan PG Base	–
70	–	Mechanism Platform 8379	–
71	–	Cassette Down SW Base	–
72	–	Reel Sensor Base	–
74	LCHSS0004GEFW	Reel Unit Chassis	–
75	RPLU-0062GEZZ	Reel Brake Ass'y	AQ
76	NiDL-0005GEZZ	Reel Idler Ass'y	AL
78	RMōTV1004GEZZ	Reel Motor Ass'y	BA
79	RMōTP1029GEZZ	Capstan Motor 8112	BE
80	RMōTM1017GEZZ	Loading Motor	AV
81	RHEDU0031GEZZ	AC Head C Ass'y PAL	AZ
82	RHEDT0005GEZZ	Full Erase Head Ass'y	AX
83	QSW-K0008GEZZ	Cassette Down Switch	AF
84	QSW-S0032GEZZ	Slide Switch 8010	AN
86	RLMPM0008GEZZ	Cassette Lamp Ass'y	AH
87	VHiDN6838//-1	Reel Sensor (Hall IC)	AG
88	RDTCH0010GEZZ	Dew Sensor	AG
89	VRD-RA2EE100J	Resistor	AA
91	NBLTH0022GE00	Capstan Belt 8010	AE
92	NBLTK0020GE00	Loading Belt 8010	AC
93	NBLTK0010GE00	Counter Belt A	AC
94	NBLTK0021GE00	Counter Belt B	AC
95	NBRGC0016GEZZ	Capstan Holder Ass'y PAL	AR
96	NFLYV0026GEZZ	Capstan Flywheel Ass'y PAL	AR
97	LPōLM0013GEZZ	Pole Base A Ass'y	AP
98	LPōLM0014GEZZ	Pole Base B Ass'y	AP
99	PGiDC0010GEFW	V-Block	AG
100	NRōLR0005GEZZ	Pinch Roller Ass'y	AQ
101	NDAiV1013GEZZ	Supply Reel Disk Ass'y 8010	AL
102	NDAiV1014GEZZ	Take-up Reel Disk Ass'y 8010	AL
103	NPLYV0069GEZZ	Loading Block Ass'y 8010	AR
104	NRōLM0010GEZZ	Impedance Roller Ass'y	AK
105	PGiDP0001GEFW	Fixed Guide	AE
106	PGiDP0003GEFW	Guide Flange B	AC
107	NRōLP0007GEZZ	Guide Roller Ass'y	AN
108	NRōLM0011GEZZ	Supply Impedance (Si) Roller Ass'y	AK
109	PGiDS0004GEZZ	Si Roller Flange A Ass'y	AK
110	PGiDS0005GEZZ	Si Roller Flange B	AE
111	PSLDM3341GEZZ	Drum Motor Shield Plate	AE
112	PZETV0086GEZZ	DD Shield-insulator	AB
113	LANGK0066GEFN	Angle	AB
114	MSPRT0169GEFJ	Spring	AB
115	LANGT9071GEFW	Shild Fixed Angle	AC
116	QPWBF0931GEZZ	V Base Relay PWB	–
117	QPLGN0214GEZZ	Plug	AB
118	QPLGN0514GEZZ	Plug	AC
119	QPLGN0614GEZZ	Plug	AC
120	PSLDM9032GEZZ	V.H Amp. lead Shild Case	AB
121	QEARP0015GEFW	Earth Terminal	AB



MAIN CHASSIS PARTS



CASSETTE HOUSING PARTS

Ref. No.	Part No.	Description	Code	Ref. No.	Part No.	Description	Code
1	LHLDX3010GEZZ	Slider Ass'y	AK	34	–	–	–
2	LHLDX1001GEZZ	Cassette Holder (Right)	AC	35	LANGT9040GEFW	SW Base Plate 1	AB
3	LHLDX1002GEZZ	Cassette Holder (Left)	AC	36	–	–	–
4	MARMP0014GEZZ	Unlock Ass'y	AC	37	MLEVP0034GEZZ	Write Disable SW Lever	AB
5	NGERH1025GEZZ	Intermediate Gear	AC	38	LHLDZ1068GE00	E-Sensor Holder	AD
6	LANGF9118GEFW	Top Plate	AD	39	LHLDZ1069GE00	S-Sensor Holder	AB
7	–	–	–	40	CHLDZ1030GE01	Motor Holder Ass'y	AD
8	–	–	–	41	NPLYV0036GEZZ	L-Motor Pulley	AB
9	LANGF9119GEZZ	Cassette Controller Frame Right Ass'y	AK	42	–	S-Sensor Base Plate	–
				43	NBLTK0009GE00	Cassette Controller Loading Belt	AC
10	LANGF9120GEZZ	Cassette Controller Frame Left Ass'y	AK	44	NGERW1006GEZZ	Worm Ass'y	AF
11	CARMP0006GE01	Drive Arm Right Ass'y	AE	45	–	C-Base Plate	–
12	MARMP0007GEZZ	Drive Arm Left Ass'y	AE	46	LANGQ1030GEFW	Cassette Controller Base Plate angle	AD
13	NGERH1006GEZZ	Drive Gear (Right)	AC				
14	NGERH1007GEZZ	Drive Gear (Left)	AC	47	RMōTM1017GEZZ	Cassette Controller Motor	AV
15	NGERH1009GEZZ	Cassette Controller Pinion (Right)	AA	48	QSW- M0019GEZZ	Skelton SW	AE
				49	–	–	–
16	NGERH1010GEZZ	Cassette Controller Pinion (Left)	AA	50	RH- PX0001GEZZ	Phototransistor	AH
				51	VRD- RA2EE335J	Resistor	AA
17	PGi DM0018GEZZ	Slide Guide, Right	AF	52	VS2SD636-Q/1E	Transistor	AB
18	PGi DM0019GEZZ	Slide Guide, Left	AF	53	VCKZPA1HF103Z	Capacitor	AA
19	NGERH1011GEZZ	Slide Gear	AB	54	MSPRT0171GEFJ	Spring	AB
20	PGi DM0020GEZZ	Fixed Guide (Right)	AC	55	QPLGN0912GEZZ	Plug	AC
21	PGi DM0021GEZZ	Fixed Guide (Left)	AC	56	MLEVP0047GEZZ	Anti-Reverse Loading Lever	AB
22	NGERW1003GEZZ	Worm Wheel	AB	57	LHLDZ1070GEZZ	Anti-Reverse Loading Lever Holder	AC
23	LANGJ0009GEZZ	Double Action Plate	AC				
24	LANGA0011GEZZ	worm Stopper	AB	58	PGi DM0017GE00	Cassette Down Guide (not included in Ass'y)	AE
25	MSPRD0021GEFJ	Double Action Spring	AB				
26	MSPRD0022GEFJ	Drive Spring	AC	59	QSW- F0004GEZZ	Cassette SW (Reef SW)	AE
27	MARMM0022GEFD	DS Washer	AG		CHLDX3014GE28	Cassette Housing Ass'y (VC-381H, W)	BK
28	NSFTL0139GEFD	Main Shaft	AF				
29	LANGF9121GEZZ	Lid Lever Angle Ass'y	AD		CHLDX3014GE32	Cassette Housing Ass'y (VC-383H)	BK
30	MLEVF0123GEFW	D-Prevention Lever	AD				
31	HDECA0034GESB	Cassette Cover (VC-381H, W)	AK				
31	HDECA0034GESC	Cassette Cover (VC-383H)	AK				
32	–	–	–				
33	–	–	–				

PACKING OF THE SET

■ **Setting positions of the knobs**

Main switch	at "OFF"
Video/TV selector	at "TV" Position
Tape counter	at "0000" Postion
Test signal switch	at "OFF" Position
AFT switch	at "ON" Position
Rec. selector switch	at " Tuner" Position
Picture tone	at "center" Position

Tuner Selector	at "1ch" Position
Tracking knob	at "center click" Position
Rec. selector	at "Tuner" Position
Timer	at "OFF" Position
Outo mode switch	at "Outo" Position
Standby switch	at "OFF" Position
Still tracting	at "center click" Position