

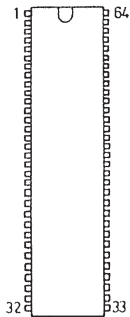
LIST OF ABBREVIATIONS - LISTE DES ABREVIATIONS - ABKÜRZUNGEN LISTA DELLE ABBREVIAZIONI - LISTA DE ABREVIACIONES

● BCL	BEAM CURRENT LIMITING INFORMATION
● BLACK_I	BLACK CURRENT INPUT
● B / B'	BLUE SIGNAL TO VIDEO AMPLIFIER
● CVBS	COMPOSITE VIDEO BASE BAND SIGNAL
● DEGAUSS	DEGAUSS SIGNAL
● DEG-COIL	DEGAUSS COIL
● FAULT	SIGNAL TO DETECT FAULT CONDITION
● FB	FAST BLANKING
● G / G'	GREEN SIGNAL TO VIDEO AMPLIFIER
● H / HDRIVE	DRIVE SIGNAL FOR HORIZONTAL DEFLECTION
● HTR / HEATER	HEATER VOLTAGE
● I_CUT	CUT OFF CURRENT
● IR	DATA FROM INFRARED RECEIVER
● MUTE	MUTE AUDIO AMPLIFIER
● OPTO	REGULATION SIGNAL GOING TO OPTO COUPLER ON DC-DC POWER SUPPLY MODULE.
● PO	POWER ON. SIGNAL FROM MICRO. TO POWER SUPPLY. SWITCHES THE POWER SUPPLY FROM STANDBY TO ON.
● R / R'	RED SIGNAL TO VIDEO AMPLIFIER
● SCL	SERIAL CLOCK
● SDA	SERIAL DATA
● SLOW_SW	SLOW SWITCH FROM SCART
● SOUND_SW	IF SELECTION CONTROL INPUT
● UA	POSITIVE AUDIO VOLTAGE
● -UA	AUDIO VOLTAGE GROUND
● USTBY	STANDBY VOLTAGE: 11.9V
● +UB / USYS	SYSTEM VOLTAGE
● USYS_MOD	SIGNAL TO MODULATE USYS
● UVIDEO	VIDEO VOLTAGE FOR THE CRT BOARD
● V_DRIVE	DRIVE SIGNAL FOR VERTICAL DEFLECTION
● +VSUPPLY	12.9V. POSITIVE SUPPLY VOLTAGE FOR VERTICAL POWER AMPLIFIER
● -VSUPPLY	10.5 TO 12.5V (DEPENDING ON TUBE TYPE). NEGATIVE SUPPLY VOLTAGE FOR VERTICAL POWER AMPLIFIER 12.9V.
● VT	TUNING VOLTAGE
● +5VON	SUPPLY VOLTAGE FOR THE MICROPROCESSOR AND AUDIO PART. ONLY PRESENT IN ON MODE.
● +8V	SUPPLY VOLTAGE FOR THE MICROPROCESSOR, AUDIO PART AND FOR THE DRIVER PULL-UP RESISTOR
● +3VUP	PRESENT IN STANDBY MODE. POWER SUPPLY VOLTAGE FOR THE MICROPROCESSOR. POWER SUPPLY INTERNAL USED AS REFERENCE VOLTAGE FOR THE REGULATION
● +33V	TUNER VOLTAGE

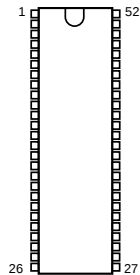
INTEGRATED CIRCUITS AND TRANSISTORS OUTLINE - CIRCUITS INTEGRES ET TRANSISTORS

INTEGRIERTE SCHALTUNGEN UND TRANSISTOREN - CIRCUITI INTEGRATI TRANSISTOR

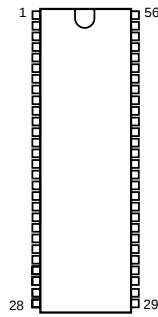
CIRCUITOS INTEGRADOS Y TRANSISTORES



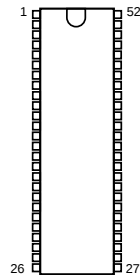
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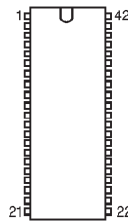
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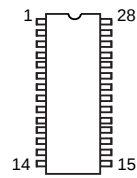
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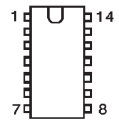
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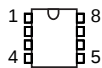
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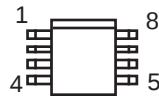
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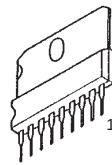
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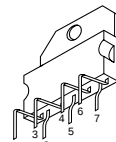
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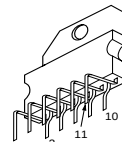
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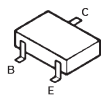
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MC7805/ACT
78L09



BC 337
BC337-40
BC 547B/C
BC 548B
BC 558B



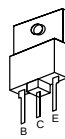
BC846B
BC 847B
BC856B
BC 858 B/C
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BCR141
BCR185
DTC144EK
MMBTH10L
RN1409
RN2417



TT52
BF 422
BF423
2SA1020
2SC2236



BC327



BUH515D
STP3NB90FP



STP3 NA80F1



EACEM-IRIS REPAIR CODING SYSTEM

SYMPTOM CODE TABLE



CONSTANTLY		1	NO ACTION	2	LEVEL	3	QUALITY	4	NOISE		
2	INTERMITTENTLY	1	GENERAL	110	POWER PROBLEM OR NOT OPERATING	120	CHARGING PROBLEM	130	DISPLAY FUNCTION PROBLEM	140	ABNORMAL NOISE
3	AFTER A WHILE			111	NO POWER	121	NO BATTERY CHARGING	131	FAULTY DISPLAY	141	CRT DISCHARGING NOISE
4	IN A HOT ENVIRONMENT			112	NO POWER WHEN USING AC-ADAPTER	122	INCOMPLETE BATTERY CHARGE	132	FAULTY LAMP/LED OPERATION	142	EHT DISCHARGING NOISE
5	IN A COLD ENVIRONMENT			113	NO POWER WHEN USING DRY BATTERIES	123	CHARGING TIME TOO LONG	133	FAULTY LEVEL METER OPERATION	143	NOISY CABINET/CRACKING TRAYS
6	WHEN SWITCHING			114	NO POWER WHEN USING RECHARGEABLE BATTERIES	12X	OTHER 'CHARGING' PROBLEM	134	FAULTY ON-SCREEN DISPLAY OPERATION	144	NOISY TRANSFORMER/HUMMING
7	UNDER VIBRATION			115	NO POWER FROM SOLAR CELL			135	ELECTRONIC TUNING DISPLAY FAULT	145	NOISY COMPONENT(S)
8	IN A DAMP/WET/ RAINY/SNOWY ENVIRONMENT			116	NO POWER WHEN USING A CAR BATTERY			136	MECHANICAL TUNING DISPLAY FAULT	146	RATTLE
9	IN A DRY ENVIRONMENT			117	SHORT OPERATION TIME/SHORT BATTERY LIFE			137	FAULTY TIME CODE DISPLAY	147	CLICKING
A	AFTER BEING DROPPED/ TRANSPORT DAMAGE			118	POWER-OFF FUNCTION NOT WORKING			138	FAULTY ALARM/ERROR DISPLAY	148	CLOCK NOISE
B	AFTER LIGHTNING STRIKE			119	NO SWITCH-ON FROM STANDBY			139	DISPLAY DIM/TOO DARK	149	CRACKING
C	ONLY CERTAIN STATIONS/ SOFTWARE/ MODE/ CHANNELS/ FREQUENCY BAND	2	COMMUNICATION	210	NO RECEPTION OR CONNECTION	220	POOR RECEPTION OR CONNECTION	230	TRANSMISSION/CONNECTION PROBLEM	240	NOISY RECEPTION/TRANSMISSION
D	ONLY ON CERTAIN STANDARDS			211	NO AM RECEPTION	221	POOR AM RECEPTION	231	NO TRANSMISSION/CONNECTION	241	LINE NOISE
E	ONLY ON ONE CHANNEL			212	NO FM RECEPTION	222	POOR FM RECEPTION	232	POOR TRANSMISSION/CONNECTION	242	OSCILLATION
F	ONLY WITH CERTAIN INPUT(S)			213	NO SW RECEPTION	223	POOR SW RECEPTION	233	TRANSMISSION LEVEL TOO HIGH	243	INTERSTATION INTERFERENCE
G	ONLY ON CERTAIN OUTPUT(S)			214	NO VHF RECEPTION	224	POOR VHF RECEPTION	234	NO TRANSMISSION BETWEEN BASE UNIT AND HANDSET	24X	OTHER 'NOISY RECEPTION/TRANSMISSION' PROBLEM
H	IN STANDBY/OFF MODE			215	NO UHF RECEPTION	225	POOR UHF RECEPTION	235	POOR TRANSMISSION BETWEEN BASE UNIT AND HANDSET		
J	AT EDIT POINT			216	NO BS RECEPTION	226	POOR BS RECEPTION	236	NO IR TRANSMISSION		
K	WHEN INTERCONNECTED			217	NO CS RECEPTION	227	POOR CS RECEPTION	237	ONE-SIDED CONNECTION		
L	LIQUID CONTAMINATION			218	NO HDTV RECEPTION	228	POOR HDTV RECEPTION	238	MODEM HANGS UP IMMEDIATELY ONCE CONNECTED		
M	FOR A SHORT WHILE AFTER SWITCHING			219	NO GPS/QPS RECEPTION	229	POOR GPS/QPS RECEPTION	23X	OTHER 'TRANSMISSION/CONNECTION' PROBLEM		
N	AFTER MAKING A COPY	3	PICTURE	310	NO PICTURE	320	PICTURE LEVEL PROBLEM	330	PICTURE QUALITY PROBLEM	340	PICTURE NOISE
O	UNDER STRESSED CONDITIONS / HIGH LOAD			311	NO PICTURE IN E TO E MODE	321	PICTURE TOO DARK	331	POOR PICTURE RESOLUTION	341	SNOWY PICTURE
P	AT SWITCH-OFF			312	NO PICTURE IN PLAYBACK MODE	322	PICTURE TOO BRIGHT	332	POOR WHITE BALANCE	342	DOT NOISE OR DROPOUT ON PICTURE
				313	NO PICTURE IN VIEWFINDER	323	CONTRAST TOO LOW	333	RINGING ON PICTURE	343	NOISE BARS ON PICTURE
				314	NO PICTURE, ONLY RASTER	324	CONTRAST TOO HIGH	334	EXCESSIVE SMEAR/LAG	344	BLANKING LINES ON PICTURE
				315	NO RASTER, BLACK PICTURE	325	SATURATED WHITE OR BLACK LEVEL	335	POOR LINEARITY OR GEOMETRY	345	BEATING ON PICTURE
				316	ONLY HORIZONTAL LINE	326	SHADING ON PICTURE	336	PICTURE SIZE INCORRECT	346	GHOSTING ON PICTURE
				317	ONLY VERTICAL LINE	327	ONLY PARTIAL PICTURE	337	INCORRECT CENTRING OF PICTURE	347	VCR HEAD SWITCHING NOISE ON PICTURE
				318	NO PICTURE	328	OTHER 'PICTURE LEVEL' PROBLEM	338	PICTURE SIZE INCORRECT	348	OVERMODULATION NOISE
				319	NO 2nd (OR HIGHER) MONITOR DISPLAY			339	V-SIZE INCORRECT	349	MOIRE
		31X	OTHER 'NO PICTURE' PROBLEM			33A	H-SIZE INCORRECT	34A	MOSAIC NOISE		
						33X	OTHER 'PICTURE QUALITY' PROBLEM	34B	SCRAMBLED PICTURE		
								34X	OTHER 'PICTURE NOISE' PROBLEM		
CAUTION THE 'X' EXTENDED SYMPTOM CODES (*-**X) SHOULD ONLY BE USED TO INDICATE THAT A SUITABLE SYMPTOM DESCRIPTION IS NOT AVAILABLE IN THE CONCERNED SYMPTOM GROUP	(*1)	4	COLOUR	410	NO COLOUR	420	COLOUR LEVEL PROBLEM	430	POOR COLOUR QUALITY	440	NOISY COLOUR
				411	NO COLOUR IN E TO E MODE	421	WEAK COLOUR	431	SOME OR ALL COLOURS MISSING	441	COLOUR NOISE ON A BLACK & WHITE PICTURE
				412	NO COLOUR IN PLAYBACK MODE	422	EXCESSIVE COLOUR	432	POOR WHITE BALANCE	442	COLOUR BREAKING
				413	NO COLOUR IN VIEWFINDER	42X	OTHER 'COLOUR LEVEL' PROBLEM	433	HUE PROBLEM	443	COLOUR BARS ON PICTURE
				414	NO COLOUR IN PART OF PICTURE			434	PURITY ERROR	44X	OTHER 'COLOUR NOISE' PROBLEM
				41X	OTHER 'NO COLOUR' PROBLEM			435	LANDING ERROR/WHITE UNIFORMITY		
								436	CONVERGENCE ERROR		
								437	REGISTRATION ERROR		
								438	PITCH MOIRE/RAINBOW PATTERN		
								439	COLOUR SHIFT		
				43X	OTHER 'COLOUR QUALITY' PROBLEM						
	5	AUDIO	AUDIO	510	NO AUDIO	520	AUDIO LEVEL PROBLEM	530	AUDIO QUALITY	540	NOISY AUDIO
				511	NO SOUND IN E TO E MODE	521	LOW AUDIO LEVEL	531	POOR FREQUENCY RESPONSE	541	HUM
				512	NO PLAYBACK OF OUTGOING MESSAGE(S)	522	EXCESSIVE AUDIO LEVEL	532	DISTORTED AUDIO	542	HISS
				513	NO PLAYBACK OF INCOMING MESSAGE(S)	523	BALANCE PROBLEM	533	NO OR POOR TREBLE	543	CRSOTALK
				514	NO AUDIO PLAYBACK	524	FADER PROBLEM	534	NO OR POOR BASS	544	STATIC, POP OR CLICK NOISE
				515	NO SOUND FROM HANDSET	525	AUDIO LEVEL REMAINING/NO MUTING	535	EARPHONE/HEADPHONE AUDIO POOR	545	BUZZ
				516	NO SOUND FROM SPEAKER	52X	OTHER 'AUDIO LEVEL' PROBLEM	53X	OTHER 'AUDIO QUALITY' PROBLEM	546	SCRATCHING NOISE
				517	NO SOUND FROM EARPHONE/HEADPHONE					547	IGNITION NOISE
				518	NO MICROPHONE SOUND					548	WHISTLING/MULTIPATH NOISE
				519	NO SOUND FROM DIGITAL OUTPUT					549	DATA/DIGITAL NOISE
		51X	OTHER 'NO AUDIO' PROBLEM			54X	OTHER 'AUDIO NOISE' PROBLEM				
	6	MECHANISM	MECHANISM	610	NO MECHANICAL OPERATION	620	IRREGULAR MECHANICAL OPERATION	630	SPEED PROBLEM	640	MECHANICAL NOISE
				611	NO ROTATION OF MOTOR/DISC	621	IRREGULAR ROTATION	631	SPEED TOO FAST	641	ROTATION NOISE/DRUM NOISE
				612	NO FORWARD OPERATION	622	IRREGULAR FORWARD MODE	632	SPEED TOO SLOW	642	MOTOR NOISE
				613	NO OPERATION FROM PLUG-IN	623	IRREGULAR REVERSE OPERATION	633	SPEED UNADJUSTABLE	643	WIND/FAIR NOISE
				614	NO FAST FORWARD OR REWIND FUNCTION	624	IRREGULAR FAST FORWARD OR REWIND FUNCTION	63X	OTHER 'SPEED' PROBLEM	644	SOULAGING
				615	NO LOADING	625	IRREGULAR LOADING OF MEDIA			645	FAN NOISE
				616	NO UNLOADING OR EJECTING	626	IRREGULAR UNLOADING OR EJECTING			646	DISC SCRAPPING
				617	NO AUTO SHUT-OFF OPERATION	627	IRREGULAR AUTO SHUT-OFF OPERATION			647	NOISY TAPE LOADING
				618	TONER/ARM DOES NOT MOVE	628	IRREGULAR TONER/ARM MOVEMENT			648	GEAR NOISE
				619	DISC NOT BEING EJECTED	629	IRREGULAR EJECTION OF DISC			649	CONTROL OR SWITCH NOISY
		61A	MAGAZINE OR MODULE	62A	IRREGULAR EJECTION CHANGE			64A	GRINDING		
		61B	LOADING/UNLOADING	62B	FAULTY DISC CHANGE OPERATION			64B	RUMBLING		
		61X	CONTROL/SWITCH NOT WORKING/ OTHER 'NO MECHANICAL OPERATION' PROBLEM	62X	OTHER 'IRREGULAR MECHANICAL OPERATION' PROBLEM			64C	VIBRATION NOISE		
								64X	OTHER 'MECHANICAL NOISE' PROBLEM		
	7	DATA PROCESSING	DATA PROCESSING	710	NO DATA PROCESSING OPERATION	720	FAULTY DATA PROCESSING OPERATION	730	DATA DISPLAY PROBLEM	740	KEYBOARD/POINTING DEVICE
				711	NO INITIAL SCREEN	721	INCORRECT DATA	731	INCORRECT CHARACTER DISPLAY	741	MOUSE/TRACKBALL/TRACKPAD NOT WORKING
				712	SYSTEM DOES NOT RESET	722	SYSTEM RESET WHILE BEING USED	732	MISSING DISPLAY CHARACTERS	742	KEYBOARD LOCKS UP
				713	SYSTEM DOES NOT BOOT UP	723	SYSTEM LOCKS OUT/CRASHES/HANGS	733	FAULTY GRAPHIC DISPLAY	743	POINTING DEVICE LOCKS UP
				714	NO OPERATION FROM PLUG-IN MODULE/PERIPHERAL	724	FAULTY OPERATION OF PLUG-IN MODULE	734	FAULTY SWITCHING BETWEEN GRAPHIC/ CHARACTER MODE	744	STICKY KEY(S)
				715	NO KEYBOARD OPERATION	725	FAULTY KEYBOARD OPERATION			745	INOPERATIVE KEY(S)
				716	NO OPERATION FROM OTHER INPUT/OUTPUT DEVICE	726	FAULTY OPERATION OF OTHER INPUT/OUTPUT DEVICE	735	FAULTY PROMPT/CURSOR OPERATION	746	POINTING DEVICE NOT TRACKING PROPERLY
				717	NO DATA STORAGE OPERATION	727	FAULTY DATA STORAGE OPERATION	736	DATA DISPLAY COLOUR INCORRECT	747	POINTING DEVICE JITTERY
				718	NO DATA COMMUNICATION	728	FAULTY DATA COMMUNICATION	737	NO PAGING OR SCROLL MODE	748	LEFT-OR RIGHT CLICK BUTTON INOPERATIONAL
				719	ERROR MESSAGE DISPLAY	729	MEMORY ERROR	73X	OTHER 'DATA DISPLAY' PROBLEM	749	TRACKPAD SURFACE DAMAGED
		71A	HDD BOOT FAILURE	72A	REQUIRES 'SET UP' AT BOOTING			74A	KEYBOARD KEY(S) DAMAGED		
		71B	FDD BOOT FAILURE	72X	OTHER 'FAULTY DATA PROCESSING' PROBLEM			74X	OTHER KEYBOARD/POINTING DEVICE PROBLEM		
		71X	OTHER 'NO DATA PROCESSING' PROBLEM								
	8	PRINT/COPY/SCAN	PRINT/COPY/SCAN	810	NO PRINT/COPY/SCAN OPERATION	820	ERRONEOUS PRINT/COPY/SCAN OPERATION	830	POOR PRINT QUALITY	840	NOISY PRINTING
				811	NOT PRINTING	821	PRINT IMAGE REVERSED (NEGATIVE/POSITIVE)	831	INCORRECT PRINTING POSITION	841	PRINTING NOISE LINES
				812	NO COMMUNICATION WITH PRINTER	822	IRREGULAR PAPER FEED	832	LOW PRINT CONTRAST	842	DIRTY PRINTING
				813	PAPER NOT LOADING	823	ERRONEOUS PRINT MODE SWITCHING	833	EXCESSIVE PRINT CONTRAST	843	UNPLEASANT SMELL (OZONE)
				814	NO PAPER FEED	824	COPY TOO DARK	834	BLURRED PRINT IMAGE	844	BLACK LINES/STRIPES IN FEED DIRECTION
				815	NO IMAGE FIXATION	825	COPY TOO BRIGHT	835	PRINT IMAGE NOT SHARP	845	WHITE LINES/STRIPES IN FEED DIRECTION
				816	NO DOCUMENT FEEDING	826	BLACK COPY	836	DOTS MISSING IN PRINT IMAGE	846	BLACK LINES/STRIPES ACROSS FEED DIRECTION
				817	SCANNER NOT WORKING	827	WHITE COPY	837	COLOUR STREAKING		
				818	OTHER 'NO PRINT/COPY/SCAN OPERATION' PROBLEM	828	POOR COLOUR LEVELS	838	NO COLOUR IN PART OF PICTURE	847	WHITE LINES/STRIPES ACROSS FEED DIRECTION
						829	IRREGULAR DOCUMENT FEED	839	PRINT IMAGE/PRINT INCOMPLETE	84X	OTHER 'NOISY PRINTING' PROBLEM
		82A	FAULTY CORRECTION FUNCTION	83A	FAULTY CALIBRATION						
		82B	POOR SCANNING QUALITY	83X	OTHER 'PRINT QUALITY' PROBLEM						
		82X	OTHER 'PRINT/COPY/SCAN OPERATION' PROBLEM								
BROWN GOODS REV 03 - 2000/02											

	UNSTABLE	6	RECORDING & PHYSICAL PROBLEMS	7	SPECIAL FUNCTIONS	8	OTHER CONDITIONS
150	REMOTE CONTROL PROBLEM	160	PHYSICAL DAMAGE	170	GENERAL FUNCTION PROBLEM	180	SPECIAL REQUIREMENTS
151	NO REMOTE CONTROL OPERATION	161	DAMAGED/DEFORMED CABINET/PANEL	171	FAULTY CLOCK FUNCTION	181	TEST AND CHECK
152	INCORRECT REMOTE CONTROL OPERATION	162	DAMAGED HANDLE/CLIP	172	FAULTY SLEEP FUNCTION	182	GENERAL OVERHAUL
153	REMOTE CONTROL PROGRAMMING/ LEARNING MODE PROBLEM	163	DAMAGED CONTROL KNOB(S)/BUTTON(S)/KEYPAD	173	FAULTY TIMER PROGRAMMING	183	SYSTEM/FREQUENCY CONVERSION
154	POOR REMOTE CONTROL SENSITIVITY	164	DAMAGED DOOR/COVER	174	FAULTY TIMER OPERATION	184	INITIAL SETUP/INSTALLATION REQUESTED
15X	OTHER 'REMOTE CONTROL' PROBLEM	165	DAMAGED SEAL	175	PROGRAMMING/USER ADJUSTMENT PROBLEM	185	MODIFICATION/CIRCUIT/INSTALLATION CHANGE
		166	DAMAGED PLUG/SOCKET/TERMINAL/CONNECTOR	176	FAULTY RECORD MUTE OPERATION	186	WRONG PRODUCT IN CARTON
		167	DAMAGED LENS	177	FAULTY PROGRAMMED PLAYBACK OPERATION	187	ACCESSORY MISSING
		168	DAMAGED CARTRIDGE OR STYLUS	178	FAULTY MEMORY FUNCTION	188	UNABLE TO CONNECT PARTS/-TO ASSEMBLE
		169	DAMAGED ANTENNA	179	FAULTY INPUT SWITCHING	189	WRONG COLOUR
		16A	DAMAGED CRT OR VIEWFINDER/LCD DISPLAY	17A	FAULTY OUTPUT SWITCHING	188	BATTERY MOUNTING PROBLEM
		16B	MISSING COMPONENT(S) OR ORNAMENTAL PARTS	17B	ELECTRIC SHOCK/STATIC DISCHARGE	18X	OTHER SPECIAL REQUIREMENTS
		16C	PRINTED MARKINGS ERASED/PEELED OFF	17C	FAULTY SEARCH FUNCTION (INDEX/VIEW/TITLE/CHAPTER/TRACK...)	182	SYMPTOM NOT AVAILABLE
		16D	SET BURNING/EMITS SMOKE	17D	WRONG LANGUAGE/CHARACTER SET		
		16E	EXTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED)	17E	ERROR CODE APPEARS IN DISPLAY		
		16F	SMELL	17F	SWITCH NOT OPERATING		
		16G	WEAK/DAMAGED STAND	17G	PEDAL NOT OPERATING		
		16H	DAMAGED SPEAKER	17H	FAULTY STANDBY MODE		
		16J	SET GETS VERY HOT / PARTS MELTING	17J	FAULTY HIBERNATION MODE		
		16K	FOREIGN SUBSTANCE ON/IN UNIT	17K	NO AUDIBLE WARNING SIGNAL		
		16L	BURNING MARKS	17L	FAULTY OPERATION OF PARENTAL LOCK/KEYLOCK FUNCTION		
		16M	INTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED)	17M	FAULTY MODE SWITCHING		
		16N	DAMAGED POWER CABLE	17N	MENU FUNCTION PROBLEM		
		16P	DAMAGED ACCESSORY	17X	OTHER 'GENERAL FUNCTION' PROBLEM		
		16R	DISCOLOURATION				
		16X	OTHER PHYSICAL DAMAGE				
250	UNSTABLE RECEPTION/TRANSMISSION	260	TUNING PROBLEM	270	SPECIAL COMMUNICATION PROBLEM	280	SPECIAL RECEPTION PROBLEM
251	TUNING DRIFT	261	MANUAL TUNING PROBLEM	271	FAULTY DIALLING	281	FAULTY STEREO RECEPTION
252	FADING	262	AUTOMATIC TUNING PROBLEM	272	FAULTY CHANNEL SELECTION	282	FAULTY MAIN CHANNEL (A) FUNCTION
253	INTERMITTENT LINE/LINE BREAKING OFF	263	INCORRECT TUNING	273	FAULTY AUTO-ANSWER OPERATION	283	FAULTY SUB-CHANNEL (B) FUNCTION
254	NO OR UNSTABLE CONNECTION COMBINED WITH 'WEAK SIGNAL STRENGTH' INDICATION	264	TUNING MEMORY PROBLEM	274	FAULTY MESSAGE READ-OUT FUNCTION	284	FAULTY SSB RECEPTION
25X	OTHER 'UNSTABLE RECEPTION/ TRANSMISSION' PROBLEM	26X	OTHER 'TUNING' PROBLEM	275	FAULTY AUTODIAL/REDIAL MEMORY	285	FAULTY RDS/VPS/PDC/XDS OPERATION
				276	FAULTY SPEECH PROCESSING	286	FAULTY TELETEXT/CLOSE CAPTION/EPG RECEPTION
				277	NO RINGING TONE	287	FAULTY SATELLITE/RTTY RECEPTION
				278	LOUD/WEAK RINGING TONE	288	FAULTY FAX OPERATION
				279	MODEM STUCK OFF/HOOK	289	MODEM NOT RECOGNIZED BY SYSTEM
				27A	FAX DOES NOT WORK PROPERLY	28A	FAULTY CALL CHARGE DISPLAY
				27B	MODEM CAUSES PROBLEM WITH PHONE	28B	FAULTY HANDS-FREE OPERATION
				27C	NO MODEM DIAL TONE	28C	SET LOCKED
				27X	OTHER 'SPECIAL COMMUNICATION' PROBLEM	28X	OTHER 'SPECIAL RECEPTION' PROBLEM
350	UNSTABLE PICTURE	360	POOR PICTURE RECORDING	370	SPECIAL PICTURE FUNCTION PROBLEM	380	PICTURE DISPLAY/PICKUP PROBLEM
351	SYNC PROBLEM	361	NO PICTURE RECORDING	371	EDITING PROBLEM	381	BURN MARK ON DISPLAY/PICKUP
352	PICTURE PUMPING	362	NO ERASURE PROTECTION FOR VIDEO	372	FAULTY FADING/WIPER OPERATION	382	SCRATCH ON DISPLAY/PICKUP
353	PICTURE JITTER	363	PREVIOUS VIDEO RECORDING NOT BEING ERASED	373	FAULTY NEGATIVE/POSITIVE SWITCHING FUNCTION	383	DUST/DIRT ON DISPLAY/PICKUP
354	PICTURE SHAKING (HORIZONTAL OR VERTICAL)	364	UNWANTED ERASURE OF PICTURE	374	FAULTY SUPERIMPOSE/TELOP OPERATION	384	PHOSPHOR/PIXEL MISSING ON DISPLAY/PICKUP
355	FLICKERING PICTURE	365	NO CAMERA RECORDING	375	FAULTY PICTURE IN PICTURE/DIGITAL PICTURE OPERATION	385	BRIGHT POINT(S) IN PHOSPHOR/PIXEL
356	FLASHING PICTURE	366	ONLY ONE FIELD PER FRAME BEING RECORDED	376	FAULTY PICTURE TRANSMISSION	386	LINES ACROSS/DOWN IMAGE
357	CYCLIC PICTURE MUTING	367	RECORDS ONLY A FEW PICTURES	377	FAULTY DIGITAL SHUTTER FUNCTION	387	OUT OF SPECS PIXEL DEFAULTS
358	HEAD IMPACT ERROR CAUSING UNSTABLE PICTURE	36X	OTHER 'PICTURE RECORDING' PROBLEM	378	FAULTY GENLOCK FUNCTION	388	BACKGROUND BURN IN
359	VCR SKEW/H-SHIFT ERROR			379	FAULTY FLASH-STROBE FUNCTION	38X	OTHER 'PICTURE DISPLAY/PICKUP' PROBLEM
35A	FROZEN PICTURE			37A	FAULTY DIGITAL PICTURE/ZOOMING FUNCTION		
35B	JUMPING/REPEATING PICTURE			37B	FAULTY AUTO-EDIT FUNCTION		
35X	OTHER 'UNSTABLE PICTURE' PROBLEM			37C	FAULTY PICTURE STABILIZER FUNCTION		
				37D	FAULTY PICTURE CAPTURE FUNCTION		
				37E	FAULTY SUBTITLING FUNCTION		
				37F	FAULTY VARIABLE SPEED PLAYBACK		
				37G	FAULTY VIEW-/MULTI-ANGLE SWITCHING		
				37H	FAULTY ASPECT RATIO SWITCHING		
				37J	THUMBNAIL OR INDEX PICTURE PROBLEM		
				37K	NO BLANKING SCREEN		
				37X	OTHER 'SPECIAL PICTURE FUNCTION' PROBLEM		
450	UNSTABLE COLOUR	460	POOR COLOUR RECORDING	470	SPECIAL COLOUR FUNCTION PROBLEM	480	
451	COLOUR FLASHING	461	NO COLOUR RECORDING	471	FAULTY AUTOMATIC WHITE BALANCE		
452	HUE/CONSTANTLY CHANGING	462	NOISY COLOUR RECORDING	472	FAULTY COLOUR EFFECTS FUNCTION		
453	FLICKERING COLOUR	46X	OTHER 'COLOUR RECORDING' PROBLEM	47X	OTHER 'SPECIAL COLOUR FUNCTION' PROBLEM		
454	COLOUR NOT LOCKED						
45X	OTHER 'UNSTABLE COLOUR' PROBLEM						
550	UNSTABLE AUDIO	560	POOR AUDIO RECORDING	570	POOR SPECIAL AUDIO FUNCTION	580	STEREO/MULTI MODE OPERATION PROBLEM
551	JUMPING OR REPEATING AUDIO	561	AUDIO NOT BEING RECORDED	571	FAULTY FADE OPERATION	581	NO STEREO OPERATION
552	AUDIO PUMPING OR BREATHING	562	NO ERASURE PROTECTION FOR AUDIO	572	FAULTY ECHO OPERATION	582	POOR CHANNEL SEPARATION
553	AUDIO DROPOUTS	563	PREVIOUS AUDIO RECORDING NOT BEING ERASED	573	FAULTY MIXING OPERATION	583	DIFFERENCE IN PHASE BETWEEN CHANNELS
554	CYCLIC AUDIO MUTING	564	UNWANTED ERASURE OF AUDIO	574	FAULTY REPEAT MODE OPERATION	584	PROBLEM WITH SURROUND SOUND MODE
555	WOW AND FLUTTER	565	MESSAGE NOT BEING RECORDED	575	FAULTY AUDIO PROCESSING	585	PROBLEM WITH PCM AUDIO MODE
556	HOWLING/ACOUSTIC FEEDBACK	566	DISTORTED AUDIO RECORDING	576	FAULTY SYNC RECORDING OPERATION	58X	OTHER 'STEREO/MULTI MODE' PROBLEM
557	ECHO IN SOUND	56X	OTHER 'AUDIO RECORDING' PROBLEM	577	FAULTY DSB/DOL OPERATION		
55X	OTHER 'UNSTABLE AUDIO' PROBLEM			578	FAULTY NOISE REDUCTION OPERATION		
				579	FAULTY AUDIO DUB FUNCTION		
				57A	FAULTY TITLE PROGRAMMING		
				57B	FAULTY MIC CONTROL		
				57C	FAULTY PITCH CONTROL		
				57X	OTHER 'SPECIAL AUDIO FUNCTION' PROBLEM		
650	MECHANICAL INSTABILITY	660	DAMAGE TO MEDIA	670	MECHANICAL OPERATION PROBLEM	680	LENS PROBLEM
651	UNEVEN FEET	661	TAPE GETS SCRATCHED	671	FAULTY START/STOP OPERATION	681	FOCUS PROBLEM
652	FAULTY HINGE	662	DISC GETS SCRATCHED	672	FAULTY PAUSE OPERATION	682	ZOOM PROBLEM
653	VIBRATING/JUMPING	663	TAPE GETS CHEWED/WRINKLED	673	FAULTY AUTOMATIC PROGRAM SEARCH	683	IRIS PROBLEM
654	PARTS LOOSE	664	TAPE JAMMED OR BROKEN	674	FAULTY CUE/REVIEW MODE	684	MACRO PROBLEM
655	DAMAGED WHEEL(S)	665	TAPE GETS CURLED	675	FAULTY SLOW MOTION OPERATION	68X	OTHER 'LENS' PROBLEM
65X	OTHER 'MECHANICAL INSTABILITY' PROBLEM	666	SLACK TAPE	676	FAULTY HIGH-SPEED SCANNING MODE		
		667	TAPE STICKING	677	FAULTY SPEED COPY FUNCTION		
		66X	OTHER 'SOFTWARE DAMAGE' PROBLEM	678	FAULTY REPEAT OPERATION		
				679	FAULTY RECORD REVIEW MODE		
				67A	FAULTY AMS OPERATION		
				67B	AUTO-REVERSE MALFUNCTION		
				67C	FAULTY END DETECTION		
				67D	FAULTY DISC SIDE (A-B SELECT) SWITCHING		
				67X	OTHER 'MECHANICAL OPERATION' PROBLEM		
750	PERIPHERAL PROBLEM (NON-STORAGE)	760	DATA STORAGE PROBLEM	770	SPECIAL DATA PROCESSING FUNCTION PROBLEM	780	INTERFACE PROBLEM
751	PERIPHERAL DOES NOT INITIALISE	761	FORMATTING PROBLEM	771	FAULTY SELF-DIAGNOSTIC MODE	781	USB INTERFACE PROBLEM
752	COMMUNICATION FAILURE WITH PERIPHERAL	762	DATA ON STORAGE MEDIUM BEING LOST	772	FAULTY WORD PROCESSING FUNCTION	782	PARALLEL INTERFACE PROBLEM
753	INTERNAL PERIPHERALS FAILURE	763	FRAME MEMORY PROBLEM	773	FAULTY GRAPHIC EFFECT FUNCTION	783	SCSI INTERFACE PROBLEM
754	EXTERNAL PERIPHERALS FAILURE	764	READ/WRITE ERRORS	774	PROGRAM CANNOT BE INSTALLED	784	SERIAL INTERFACE PROBLEM
755	NETWORK CARD ERROR	765	HARD- OR OPTICAL DRIVE PROBLEM	775	PRE-LOADED PROGRAM CANNOT BE STARTED UP	785	INCOMPATIBLE WITH OTHER SYSTEMS
756	PERIPHERAL FAILS SELF TEST	766	FLOPPY DRIVE PROBLEM	776	NOT PRE-LOADED PROGRAM CANNOT BE STARTED UP	786	AUDIO/VIDEO INTERFACE PROBLEM
75X	OTHER PERIPHERAL PROBLEM	767	CD/DVD-ROM DRIVE PROBLEM	777	VRUS ALARM	787	LINK/FIREWIRE/IEEE1394 INTERFACE PROBLEM
		768	TAPE PROBLEM	77X	OTHER 'SPECIAL DATA FUNCTION' PROBLEM	78X	OTHER 'INTERFACE' PROBLEM
		769	DRIVE WILL NOT MOUNT/CANNOT ACCESS DRIVE				
		76A	DISCS EXCHANGE PROBLEM				
		76B	READ/WRITE OPERATION VERY SLOW				
		76X	OTHER 'DATA READ/WRITE' PROBLEM				
850	UNSTABLE PRINTER OPERATION	860	RIBBON/PAPER PROBLEMS	870		880	FAULTY FONT/CHARACTER FUNCTIONS
851	UNSTABLE PAPER LOADING	861	RIBBON BROKEN			881	INCORRECT CHARACTERS OR IMAGE
852	UNSTABLE MULTI-PAPER LOADING	862	RIBBON STUCK/STICKING			882	INCORRECT CHARACTER SIZE
853	INCORRECT LINE-UP OF CHARACTERS	863	RIBBON DERAILED			883	FONT LOADING PROBLEM
85X	OTHER 'UNSTABLE PRINTER OPERATION' PROBLEM	864	PAPER STUCK/STICKING TO MECHANISM			88X	OTHER 'FAULTY FONT/CHARACTER' FUNCTION' PROBLEM
		865	PAPER JAM				
		866	DOCUMENT JAM				
		867	ERRONEOUS 'NO INKT/TONER' MESSAGE				
		86X	OTHER 'RIBBON/PAPER' PROBLEM				

EACEM - SECTION CODES

COMMON	
ANT	ANTENNA SECTION
APR	SIGNAL PROCESSING (ANALOG)
BCH	BATTERY CHARGE
CLK	CLOCK/TIMER SECTION
CPA	COLOUR PROCESSING/ANALOG
CTR	CONTROL PANEL
DPR	SIGNAL PROCESSING (DIGITAL)
ERA	ERASE CIRCUIT
FLX	FLEXIBLE PRINTED CIRCUIT BOARD
HFS	HIGH FREQUENCY SECTION (RF)
IDS	INFORMATION DISPLAY SECTION
IFC	IF-CIRCUIT
ILN	i.LINK (IEEE1394) SECTION
INP	SIGNAL INPUT SECTION
IRD	INFRARED (IrDA) SECTION
MEM	MEMORY CIRCUIT
OUT	SIGNAL OUTPUT SECTION
PRG	PROGRAMMING SECTION
PRT	PROTECTION CIRCUIT
PSU	POWER SUPPLY
PWA	POWER AMP SECTION
REM	REMOTE CONTROL SECTION
RFU	BOOSTER,RF UNIT
SFT	SOFTWARE (TAPE, DISC, ETC.)
SNS	SENSOR UNIT
SVO	SERVO SECTION
SYS	SYSTEM CONTROL SECTION
TUN	TUNING SECTION
TXT	TEXT PROCESSING
SOUND-RELATED	
APA	AUDIO PROCESSING/ANALOG
APD	AUDIO PROCESSING/DIGITAL
CDC	CD CHANGER SECTION
CDS	CD SECTION
MDC	MD CHANGER SECTION
MDS	MINIDISC SECTION
MIC	MICROPHONE SECTION
PUD	PICK-UP DEVICE
SHD	STATIONARY HEAD(S)
SPK	SPEAKER
PICTURE-RELATED	
CAM	CAMERA CIRCUIT
CPD	COLOUR PROCESSING/DIGITAL
CRT	PICTURE TUBE
DFL	DEFLECTION CIRCUIT
DVD	DVD SECTION
FPK	FOCUS PACK
IMG	IMAGE DISPLAY UNIT

PICTURE-RELATED	
LCD	LCD SECTION
LMP	LAMP/FLASH SECTION
VPA	VIDEO PROCESSING/ANALOG
VPD	VIDEO PROCESSING/DIGITAL
VWF	VIEWFINDER
PC-RELATED	
FDD	FLOPPY DISC DRIVE
FMW	FIRMWARE
HDD	HARD DISC DRIVE
ISA	ISA SECTION
JST	JOYSTICK
KBD	KEYBOARD (SEPARATE)
MDM	MODEM SECTION
NIF	NETWORK INTERFACE
PAR	PARALLEL PORT
PCC	PC CARD
PCI	PCI SECTION
SCS	SCSI PORT
SER	SERIAL PORT
USB	USB PORT
MECHANICAL	
ARM	ARM MECHANISM
BZL	BEZEL
CBT	CABINET
CHA	CHASSIS
DDM	DISC DRIVE MECHANISM
EXC	EXTERNAL CONNECTOR
HCM	HEAD CARRIAGE MECHANISM
HOL	CASSETTE HOLDER
INC	INTERNAL CONNECTOR
LDG	LOADING MECHANISM
LMN	LENS MECHANISM
PFM	PAPER FEED MECHANISM
PIN	PINCH ROLLER/LEVER
PRI	PRINT BLOCK
RFM	RIBBON FEED MECHANISM
RHD	ROTARY HEAD(S)
SLD	SLED MECHANISM
SRS	SUPPLY REEL SECTION
STA	STATIC BLOCK
TDM	TAPE DRIVE MECHANISM
THR	THREADING MECHANISM
TNR	TENSION REGULATOR
TPT	TAPE PATH
TRS	TAKE-UP REEL SECTION
WIR	LEAD WIRE
XXX	CABINET/COSMETIC PARTS

DEFECT CODES			
MECHANICAL		ELECTRICAL	
A	WORN OUT (OR GENERAL MECHANICAL DEFECT)	N	DEFECTIVE ELECTRICAL COMPONENT/MODULE
A1	MISOPERATING	O	BURNT, ARCING, MISSING PIXELS
B	DIRTY, CLOGGED	P	ELECTRICALLY MISALIGNED/WRONG SETTING
C	MECHANICALLY MISALIGNED	Q	SHORT CIRCUIT
D	CUT, BROKEN	R	OPEN CIRCUIT
E	DEFORMED	S	LEAKING (ELECTRICAL)
F	SNAPPED	T	BAD CONTACT, CONNECTION
G	SCRATCHED, DENTED, SHARP EDGES	T1	BAD EARTH CONNECTION
H	CRACKED, PEELED, CORRODED, MELTED	U	OPEN PATTERN
I	LOOSE/OFF/STRIPPED	V	CRACKED PRINTED CIRCUIT BOARD
J	SHAKY, UNSTABLE	W	COLD OR NO SOLDERING
K	LEAKING (MECHANICAL)	X	BRIDGED SOLDERING
L	DRY (NO LUBRICANT)	Y	WRONG COMPONENT/MODULE
M	FOREIGN OBJECT	Z	MISSING COMPONENT/MODULE
		1	SOFTWARE PROBLEM
		11	LOSING DATA FROM MEMORY
		12	FAULTY PROGRAM SETTING/INSTALLATION
		13	SOFTWARE DEFECTIVE OR INCOMPLETE
		14	SOFTWARE SETUP PROBLEM
		15	NO IDENTIFICATION / AUTHENTICATION OF PRODUCT OR USER
		2	EXHAUSTED, LOW EMISSION
		3	NO PROBLEM FOUND (SET WITHIN SPEC)
		4	NO PROBLEM FOUND - CUSTOMER MISUNDERSTANDING
		5	NO PROBLEM FOUND - LOCAL CONDITIONS
		51	FAULTY MAINS VOLTAGE
		6	UNABLE TO DIAGNOSE FAULT
		7	INCORRECTLY WIRED/ASSEMBLED
		81	INCORRECT EQUIPMENT CONNECTION
		9	CUSTOMER MISUSE
		93	UNAUTHORISED MODIFICATION

REPAIR CODES	
A	REPLACEMENT
B	MECHANICAL ALIGNMENT
C	ELECTRICAL ALIGNMENT
D	RESOLDERING
D1	REFITTING, PUT BACK IN POSITION (CONNECTOR, TUBE...)
E	CLEANING
F	LUBRICATION
G	REPAIRED ELECTRICAL PARTS
H	REPAIRED MECHANICAL PARTS
I	MODIFICATION REQUESTED BY MANUFACTURER
J	REMOVED
K	ADDED
L	FUNCTIONAL CHECK
M	SPECIFICATION MEASUREMENT
N	MAINTENANCE
O	REFURBISHING, RECONDITIONING
P	PREVENTIVE PARTS REPLACEMENT
Q	PREVENTIVE ACTION WITHOUT PARTS REPLACEMENT
U	EXPLANATION FOR CUSTOMER
V	COST ESTIMATION REFUSED
W	COST ESTIMATION WITH PARTS
X	COST ESTIMATION WITHOUT PARTS
Y	RETURN WITHOUT REPAIR
Z	PRODUCT EXCHANGE
Z1	PRODUCT EXCHANGE (REPAIR TOO EXPENSIVE)
Z2	PRODUCT EXCHANGE (TOO MANY VISITS/REPAIRS)
Z3	PRODUCT EXCHANGE (PARTS NOT AVAILABLE)
Z4	PRODUCT EXCHANGE (IMPOSSIBLE TO REPAIR)
Z5	PRODUCT EXCHANGE (ON REQUEST OF RETAILER)
Z6	PRODUCT EXCHANGE (ON REQUEST OF MANUFACTURER)
1	SOFTWARE CORRECTION/RESET
2	SOFTWARE UPGRADE
3	PRODUCT UPGRADE (ON REQUEST)

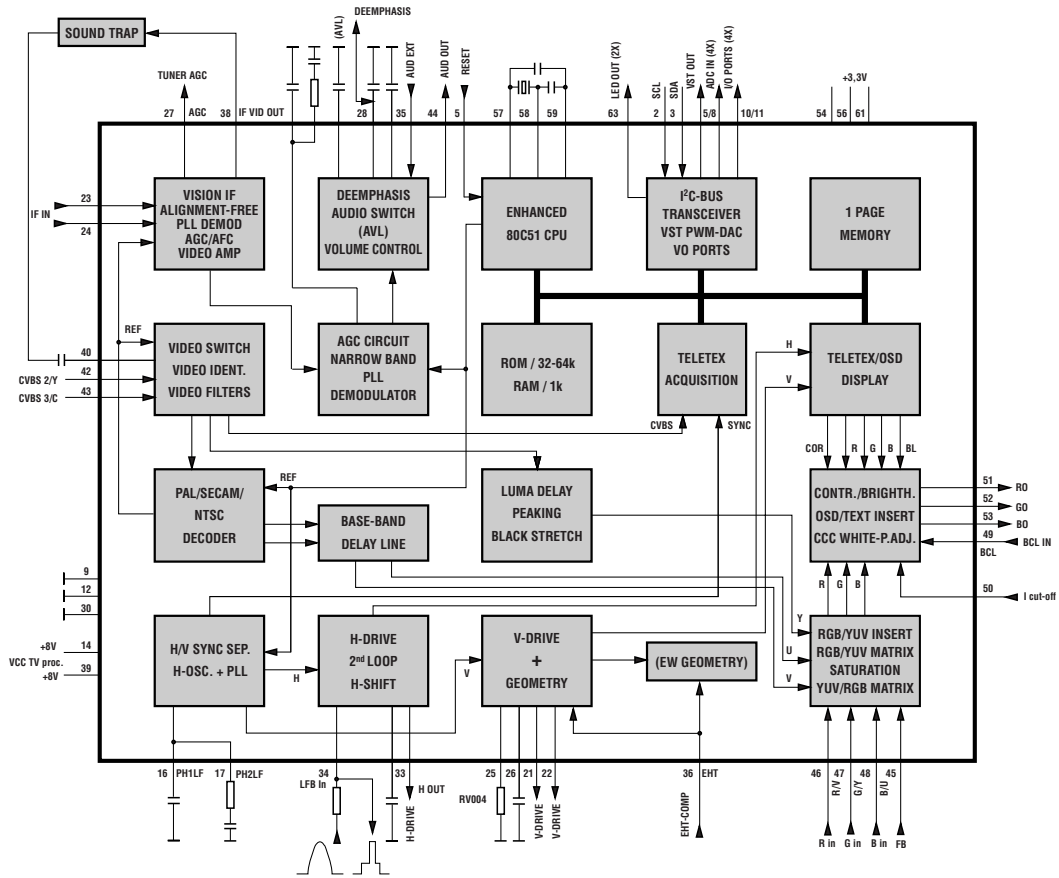
EXAMPLE OF USE:

FLAG	SYMPTOM CODE	PART NO.	REF. NO.	SECTION	PCB	DEFECT CODE	REPAIR CODE	QTY
1	1 4 1 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R 1 2 3	T D M	Y A 2 2 . . .	C 1	Z 1	. .
.	3 6 4 1	3 4 5 6 7 8 9 X X X X X X X X	1 1 1					

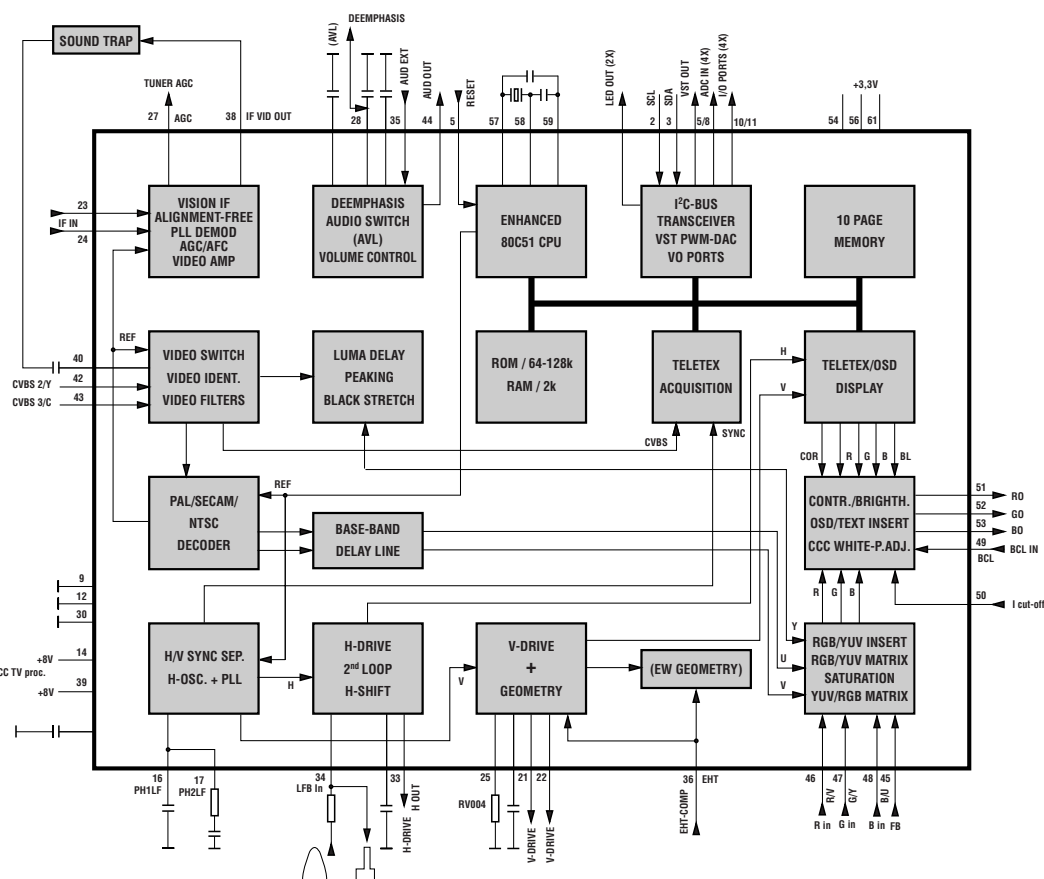
FLAG: INDICATES THE ONE MAJOR SYMPTOM/PART COMBINATION BY '1'

INTEGRATED CIRCUITS BLOCK DIAGRAMS - SYNOPTIQUES INTERNES DES CIRCUITS INTEGRES - INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBIlder - SCHEMA A BLOCCHI DEL CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

TDA9351N1 MICROPROCESSOR

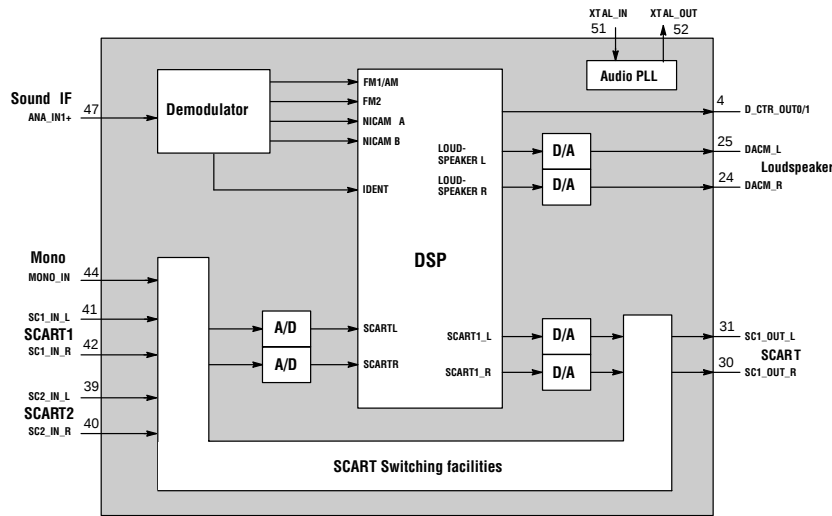


TDA9367N1 MICROPROCESSOR

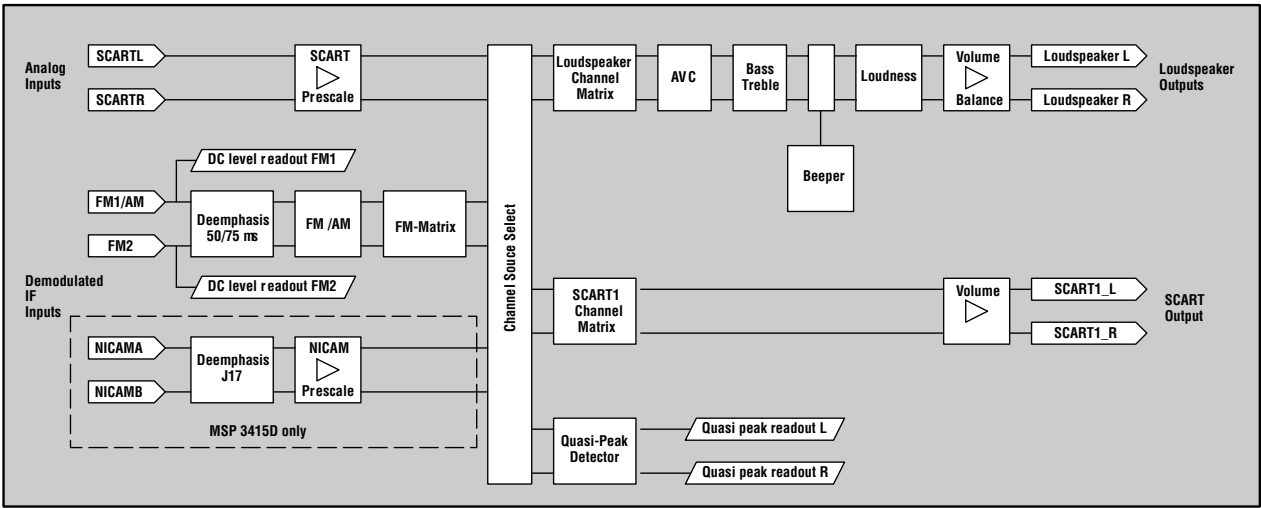


MSP 3415D

MULTISTANDARD SOUND PROCESSOR



AUDIO BASEBAND PROCESSING



DETECTION PART OF THE MSP3415D

