

No	Terminal Name	I/O	Description	P.OFF	P.Failure	Reset/ Release										
1	PROGRESSIVE TV (L)	I	Port for scanning line control: scanning line 628: H scanning line 624: L	Low	Low	Low										
2	CODE1	I	AD input terminal for model setting.	In	In	In										
3	CODE2	I	AD input terminal for model setting.	In	In	In										
4	T.S.CUREVE	I	Input terminal for "S-Curve" of Tuner AFC at channel selecting.	In	In	In										
5	NC	O	Low fix.	Low	Low	Low										
6	NORM/SERV/T2/TES	I	Factory mode/ Service mode setting terminal. <table border="1"><tr><td>Input Voltage</td><td>Mode</td></tr><tr><td>Over 4.0V</td><td>Normal</td></tr><tr><td>Over 2.0V and less than 4.0V</td><td>Service</td></tr><tr><td>Over 1.0V and less than 2.5V</td><td>Test 2</td></tr><tr><td>Less than 1.0V</td><td>Test 1</td></tr></table>	Input Voltage	Mode	Over 4.0V	Normal	Over 2.0V and less than 4.0V	Service	Over 1.0V and less than 2.5V	Test 2	Less than 1.0V	Test 1	In	In	In
Input Voltage	Mode															
Over 4.0V	Normal															
Over 2.0V and less than 4.0V	Service															
Over 1.0V and less than 2.5V	Test 2															
Less than 1.0V	Test 1															
7	S-PHOTO	I	Input terminal of the Tape End sensor detection. *More than 2.6V : Black tape part.    *Less than 2.4V :Trans. Tape part.	In	In	In										
8	T-PHOTO	I	Input terminal of the Tape Beginning sensor detection. *More than 2.6V : Black tape part.    *Less than 2.4V :Trans. Tape part.	In	In	In										
9	TRACKING_ENVE	I	Input terminal of the Video envelope signal.	In	In	In										
10	NC	O	Low fix.	Low	Low	Low										
11	CURRENT.LIMIT	O	Control terminal for the Capstan current limit. (Output impedance: MIN:1K, TYP:2.5K, MAX:4.0K)	In DA=0V	Low	In DA=0V										
12	EEPROM_CS	O	Chip Select terminal for NAVI Data backup EEPROM. *Active Low output.	High	Low	Low										
13	ART.V/H/N	O	Output terminal for the Artificial V-sync. 1. In trick playback. Artificial V sync inserting timing : High Artificial H sync inserting timing : Hi-Z (M output) Except above conditions : Low 2. NAVI REC : Hi-Z 3. OSD REC : Hi-Z 4. Other than above conditions : Low	Low	Low	Low										
14	REMOCON	I	Input terminal for the Remote Controller.	In	In	In										
15	PICT1	O	Control terminal for the Picture mode.	Low	Low	Low										
16	NC	O	Low fix.	Low	Low	Low										
17	PICT2	O	Control terminal for the Picture mode.	Low	Low	Low										
18	VIDEO.H.SW	O	Video head switching signal *L/R="High"                      *R/L="Low"	Low	Low	Low										
19	AUDIO.H.SW	O	Head switching signal for Audio circuit.	Low	Low	Low										
20	D.FM.REC	O	Recording control signal for Hi-Fi Audio signal. *REC, INSERT, AV INSERT:"High" is output. (Rec on) *Other than above condition: "Low" is output. (Rec off) *From L to H: Switching timing of this signal is synchronized with the HSW edge just after switching timing of "D33 of IC3001 = 0 to 1". (The delay is within 1 edge) *From H to L: When Editing, this switching timing is before the switching timing of "D33 of IC3001 = from 1 to 0" by 60 +- 10msec in SP mode, by 100 +- 10msec in LP/EP mode. When normal rec mode, this switching timing is before the switching timing of "D33 of IC3001 = from 1 to 0" by 0 ~ 150msec.	Low	Low	Low										
21	R_COLE_W (L)	O	Write protection releasing terminal for RAM correction EEPROM. *During ROM correction data being Written: "Low" is output. *Other than above condition: Hi-Z.	Hi-Z	Hi-Z	Hi-Z										

No	Terminal Name	I/O	Description	P.OFF	P.Failure	Reset/ Release																																																																	
22	NC	O	Low fix.	Low	Low	Low																																																																	
23	ABS_NORMAL	I	Enforced Normal selection signal and Audio Automatic Adjustment Trigger Input Terminal *To turn audio into normal: Low (During ADUBPS, HiFi Audio envelope deterioration) *Others: High	In	In	In																																																																	
24	D.A.REC(H)	O	Recording on/off control signal terminal for Linear audio. 1.When recording linear audio, take IC3001 D33, BIAS (H) and timing as below. *During Initial recording, at about same timing for D33=0 → 1, Bias=High. *When finished recording, BIAS (H)=H → L, after 140+-10msec, set to Low. 2.Other than above, Output=Low	Low	Low	Low																																																																	
25	PAL 9H (H)	O	PAL 9H: High is output.	Low	Low	Low																																																																	
26	BIAS(H)	O	Linear Audio recording/ erasing On/ Off control terminal. 1.When recording Linear Audio, at about same timing of D33, Output=Low. Output mode: REC, A. DUB, AV_INSERT *When initiating recording D. A. REC (H)=L → H, after 140+-10msec set to High. *When completing recording (Without delay) Output=Low 2.Wnen erasing TAPE REFRESH, Output=High 3.Other than above, Output=Low 4.When models without DUB, can control ERASE ON/OFF.	Low	Low	Low																																																																	
27	STAB(L)	I	SAFETY TAB DETECTION *With SAFETY TAB: "Low" *Without SAFETY TAB:"High"	In	In	In																																																																	
28	FM_MUTE	O	Audio mute control terminal. High output (AUDIO MUTE). The voltage is shifted to Hi-Z for reucing the current at 3 second after the power has been turned on .	Hi-Z	In	In																																																																	
29	SW1	O	AUDIO SYSTEM (TUNER PRESET)=BG, I: High output AUDIO SYSTEM (TUNER PRESET)=DK, M: Low output	Low	Low	Low																																																																	
30	POS.SW4	I	Input terminal for mechanism position. <table border="1"><thead><tr><th>SW4</th><th>SW3</th><th>SW2</th><th>SW1</th><th>Position Name</th></tr></thead><tbody><tr><td>1</td><td>1</td><td>1</td><td>0</td><td>EJECT Position</td></tr><tr><td>0</td><td>0</td><td>1</td><td>0</td><td>DOWN Position</td></tr><tr><td>0</td><td>0</td><td>1</td><td>1</td><td>R-REW Position</td></tr><tr><td>0</td><td>1</td><td>0</td><td>0</td><td>LOAD Position</td></tr><tr><td>0</td><td>1</td><td>0</td><td>1</td><td>REV Position</td></tr><tr><td>0</td><td>1</td><td>1</td><td>0</td><td>PLAY Position</td></tr><tr><td>0</td><td>1</td><td>1</td><td>1</td><td>P_OFF Position</td></tr><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>STOP_R Position</td></tr><tr><td>1</td><td>0</td><td>0</td><td>1</td><td>STOP_F Position</td></tr><tr><td>1</td><td>1</td><td>0</td><td>0</td><td>FF/REW Position</td></tr><tr><td>1</td><td>1</td><td>1</td><td>0</td><td>FF2 Position</td></tr><tr><td>1</td><td>1</td><td>1</td><td>1</td><td>Intermediate Positions between each Positions</td></tr></tbody></table>	SW4	SW3	SW2	SW1	Position Name	1	1	1	0	EJECT Position	0	0	1	0	DOWN Position	0	0	1	1	R-REW Position	0	1	0	0	LOAD Position	0	1	0	1	REV Position	0	1	1	0	PLAY Position	0	1	1	1	P_OFF Position	1	0	0	0	STOP_R Position	1	0	0	1	STOP_F Position	1	1	0	0	FF/REW Position	1	1	1	0	FF2 Position	1	1	1	1	Intermediate Positions between each Positions	In	In	In
SW4	SW3	SW2	SW1	Position Name																																																																			
1	1	1	0	EJECT Position																																																																			
0	0	1	0	DOWN Position																																																																			
0	0	1	1	R-REW Position																																																																			
0	1	0	0	LOAD Position																																																																			
0	1	0	1	REV Position																																																																			
0	1	1	0	PLAY Position																																																																			
0	1	1	1	P_OFF Position																																																																			
1	0	0	0	STOP_R Position																																																																			
1	0	0	1	STOP_F Position																																																																			
1	1	0	0	FF/REW Position																																																																			
1	1	1	0	FF2 Position																																																																			
1	1	1	1	Intermediate Positions between each Positions																																																																			
31	POS.SW3	I		In	In	In																																																																	
32	POS.SW2	I		In	In	In																																																																	
33	POS.SW1	I		In	In	In																																																																	
34	RESET	I	RESET Terminal.	In	In	In																																																																	
35	32KHz.IN	I	Sub clock (32.768KHz) osc. input terminal.	In	In	In																																																																	
36	32KHz.OUT	O	Sub clock (32.768KHz) osc. output terminal	Out	Out	Out																																																																	
37	5V(D)	-	VCC (5V) for Digital port	-	-	-																																																																	
38	12MHz.IN	I	Main clock (12MHz) osc. input terminal.	In	In	In																																																																	
39	12MHz.OUT	O	Main clock (12MHz) osc. output terminal.	Out	Out	Out																																																																	
40	GND(OSC)	-	Digital GND for OSC circuit.	-	-	-																																																																	
41	PAL PB (L)	O	3.58NTSC (D6=0, D7=0 both of IC3001): High output Other than above : Low output	Low	Low	Low																																																																	

No	Terminal Name	I/O	Description	P.OFF	P.Failure	Reset/ Release
42	PAL_SQPB	O	50Hz Playback on SQPB: High output Other than above : Low output	Low	Low	Low
43	32K.START(L)	I	Clock souce selection terminal at reset starting. *12/16MHz(High speed) :Connected to VCC (5V). *32KHz(Slow speed) :Connected to Vss (0V).	In	In	In
44	LC.OSC.IN	I	Input terminal of the LC Oscillation (For OSD dot clock)	In	In	In
45	LC.OSC.OUT	O	Output terminal of the LC Oscillation (For OSD dot clock)	Out	Out	Out
46	GND	-	Connected to the GND ( Test terminal "B" in the factory).	-	-	-
47	FSC.LPF	I	OSC Filter connection terminal for Internal sync generator.	In	Low	In
48	FSC.IN	I	Sub carrier (fsc) input terminal for sync generator.	In	Low	In
49	GND(OSD)	-	GND terminal for OSD circuit.	-	-	-
50	CVIN	I	Input terminal for composite video signal.	In	In	In
51	KILLER	I	When a signal that V-sync is 50Hz is putting in or playing back. * PAL/MESECAM distinction result input terminal. Low is put into this terminal: PAL High is put into this terminal: Dipend on MESECAM H /SECAM DET input terminal. When a NTSC signal is putting in. * Input terminal for distinction result of agreement between Fsc of input signal and frequency of OSC for sub-carrier that being chosen by IC3001. Low is put in: Agree High is put in: Different	In	In	In
52	CVOUT	O	Output terminal for the composite video signal.	Out	Out	Out
53	5V(OSD)	-	Power supply terminal for OSD	-	-	-
54	HLF	I	LPF connection terminal for slicer.	In	In	In
55	VHOLD	I	Capacitor connection terminal of the Reference voltage generator circuit for the slicer.	In	In	In
56	CVIN(EDS)	I	Composite video signal input terminal for the slicer.	In	In	In
57	GND	-	Connect to the GND (Test terminal "A" in the factory).	-	-	-
58	NC	O	Low fix.	Low	Low	Low
59	SECAM MIX (For other than NV-HV61GN)	I	SECAM CHROMA signal input terminal for SECAM SIGNAL SUPER IMPOSE.	Low	Low	Low
	NC (For NV-HV61GN)	O	Low fix.	Low	Low	Low
60	CHARA + HEM	O	OSD REC control terminal. 1. During OSD REC. *During OSD character is output (Including Hemming): "High" is output. *Output than above condition: "Low" is output. 2. Other than OSD REC: High-Z.	Hi-Z/Low	Hi-Z/Low	Hi-Z/Low
61	SW2	O	(For NV-HV61GN) High fix. (For other than NV-HV61GN) AUDIO SYSTEM = BG, DK: High is output. AUDIO SYSTEM = I, M: Low is output.	Low	Low	Low
62	A.SEARCH (L)	I/O	AGC gain selection signal for tuner CH selection. During digital AFC is working at TUNER PRESET mode: Low (AGC is high speed). Other than above: Hi-Z (AGC is normal speed).	Low	Low	Low
63	VBI2	O	NAVI writing terminal. * During NAVI data being written (During recording when JET NAVIGATOR is ON). OSD letters (Including the masking) being written : High Except OSD letters being written : Low * Other than above: Hi-z	Low / Hi-Z	Low / Hi-Z	Low / Hi-Z

No	Terminal Name	I/O	Description	P.OFF	P.Failure	Reset/ Release
64	VBI1/CHARA	O	Terminal for both NAVI Writing and OSD REC Writing. 1. During NAVI writing (During recording in JET NAVIGATOR is ON) At NAVI data "H" being written : High is output At NAVI data "L" being written : Low is output At except NAVI data being written : Low is output 2. During OSD REC (During recording in OSD REC is ON) During OSD letters (Except the masking) being written : High is output Except OSD letters being written : Low * Other than above condition : Hi-z	Low / Hi-Z	Low / Hi-Z	Low / Hi-Z
65	UNLOADING(H)	O	Control terminal for the Unloading operation.	Low	Low	Low
66	FLD_CS	O	Chip select signal for FIP driver. *Active: "Low"      *Non-active: "High"	(Normal ope.)	Low	Low
67	LOADING(H)	O	Control terminal for the loading operation.	Low	Low	Low
68	IC.DATA.OUT	O	Timer-Bus signal for peripheral ICs control: Data output	(Normal ope.)	In	Hi-Z
69	IC.DATA.IN	I	Timer-Bus signal for peripheral ICs control: Data input	(Normal ope.)	In	In
70	IC.DATA.CLK	O	Timer-Bus signal for peripheral ICs control:Clock outout	(Normal ope.)	In	Hi-Z
71	IIC.CLK	O	Serial communication terminal (IIC) for IC3001/FM audio IC.	(Normal ope.)	In	Hi-Z
72	IIC.DATA	I/O	Serial communication terminal (IIC) for IC3001/FM audio IC.	(Normal ope.)	In	Hi-Z
73	125Hz/ROM.CORE	O	ROM Correction confirmation mode: * ROM correction setting bit is "ON": "High". * ROM correction setting bit is "OFF": "Low" is existed. (Other than ROM Correction confirmation mode, this terminal is the output terminal of internal clock for main clock adjustment.:Outputting the 125Hz.)	(Normal ope.)	Low	Low
74	CAP R/F	O	The rotation direction control terminal of the capstan driver. *RVS="High"      *FWD="Low".	Low	Low	Low
75	NC	O	Low fix.	Low	Low	Low
76	CAP.ET	O	Power supply terminal for the capstan motor control. (Compared with the driver reference voltage, when it is "low", current will be cut. Also when it is "high", the rotation speed will be accelerated.)	High PWM=0V	Low	High PWM=0V
77	CYL.ET	O	Power supply terminal of the cylinder motor control: (Compared with the driver reference voltage, when it is "high", current will be cut. Also when it is "low", the rotation speed will be accelerated. (Max:2.8V))	Low PWM=2.800 V	Low	Low PWM=2.800 V
78	P.FAIL(L)	I	Input terminal for the power failar detection. Power failar : "Low".	In	In	In
79	S.REEL.PULSE	I	Input terminal of the S.Reel pulse.	In	In	In
80	T.REEL.PULSE	I	Input terminal of the T.Reel pulse.	In	In	In
81	SP(L)	O	REC MODE DATA *N2H/P3H:"Low" *N4H/N6H/N10H/P6H/P9H:"High"	Low	Low	Low
82	EX.FF/REW (L)	I/O	Control signal filter select terminal in FF/REW mode. *During FF/REW: Hi-Z *Except FF/REW: Low	Low	Low	Low
83	P.ON(H)	O	ON/OFF control terminal for the VCR Power. *Power ON : "High"      *Power OFF : "Low"	Low	Low	Low
84	AVR (L)	I/O	Simplified AI playback ON/OFF control.	Low	Low	Low
85	SQPB (H)	I	The distinction results whether S-VHS or VHS of the playback tape is input in VV mode. **"Low" is input: VHS tape playback. **"High" is input: S-VHS tape playback. NOTE: When the MESECAM (H) terminal receives "High", above result is invalidated and the tape is judged to VHS tape playback. *In case of model having SQPB function, ON/OFF setting of SQPB is performed with above result, Envelope voltage and result wheather the CTL pulse exists not. *In case of model not having SQPB function, above result is disregarded, and the VCR is always set to SQPB = off.	In	In	In
86	FG.AMP.OUT	O	Output terminal for the Capstan FG AMP signal.	Out	Out	Out
87	FG.AMP.IN	I	Input terminal for the Capstan FG AMP signal.	In	In	In
88	GND(A)	-	GND for Analogue circuit.	-	-	-

No	Terminal Name	I/O	Description	P.OFF	P.Failure	Reset/ Release
89	MESECAM (H)	I	Distinction terminal for the Video system. 1. In the VV mode. **"High" is input: Playback of a MESECAM recorded tape. **"Low" is input: Playback of other than MESECAM recorder tape. 2. In the EE mode. **"High" is input: Receiving a SECAM broadcast, or a SECAM signal is input. NOTE: *In case of model having MESECAM / SECAM REC/PLAY, the video system is controlled with above result. *In case of model do not having MESECAM / SECAM REC/PLAY, the above result is invalidated.	In	In	In
90	CYL.PFG	I	Input terminal for the Cylinder PG/FG.	In	In	In
91	OREF	O	1/2 VDD reference voltage output terminal for the Analogue AMP.	Out	Out	Out
92	IREF	I	1/2 VDD reference voltage input terminal for the Analogue AMP.	In	In	In
93	GND	I	GND	In	In	In
94	CTL.HEAD(-)	I/O	I/O terminal for the Control head (-)	In/Out	In/Out	In/Out
95	CTL.HEAD(+)	I/O	I/O terminal for the Control head (+)	In/Out	In/Out	In/Out
96	CTL.AMP.REF	I	Capacitor connection terminal for reference of the control AMP.	In	In	In
97	PB.CTL.OUT	O	Output terminal for the Control AMP.	Out	Out	Out
98	5V(A)	-	Power supply terminal for Analogue AMP.	-	-	-
99	5V(AD)	-	Reference power supply terminal for the AD/8bit DA	-	-	-
100	NTSC (L)	O	Output terminal for playback mode. *50Hz: "High"    *60Hz: "Low"	Low	Low	Low