

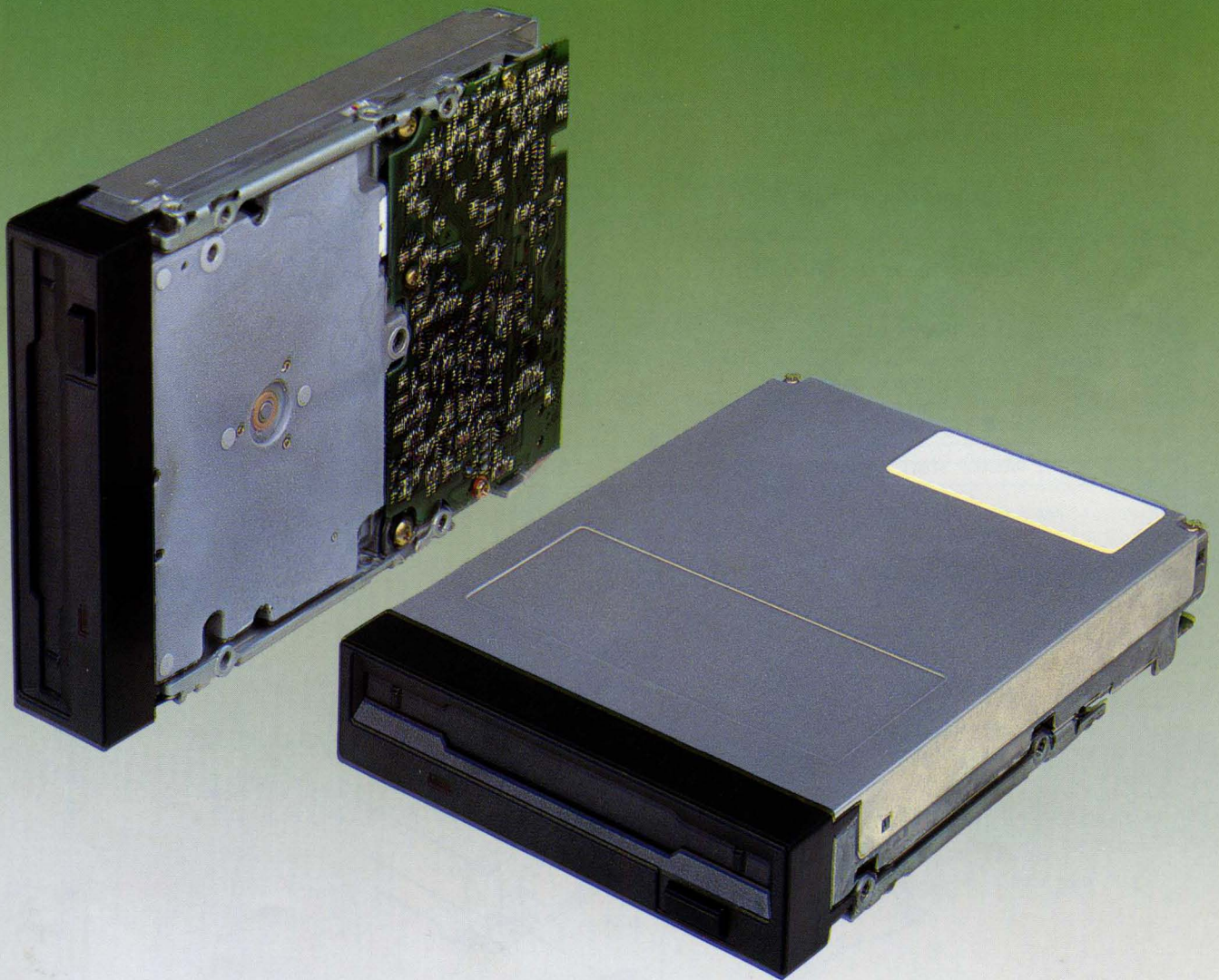
Panasonic

3.5inch Floppy Disk Drive

MAR 14 1991

JU-253/253A

JU-257/257A

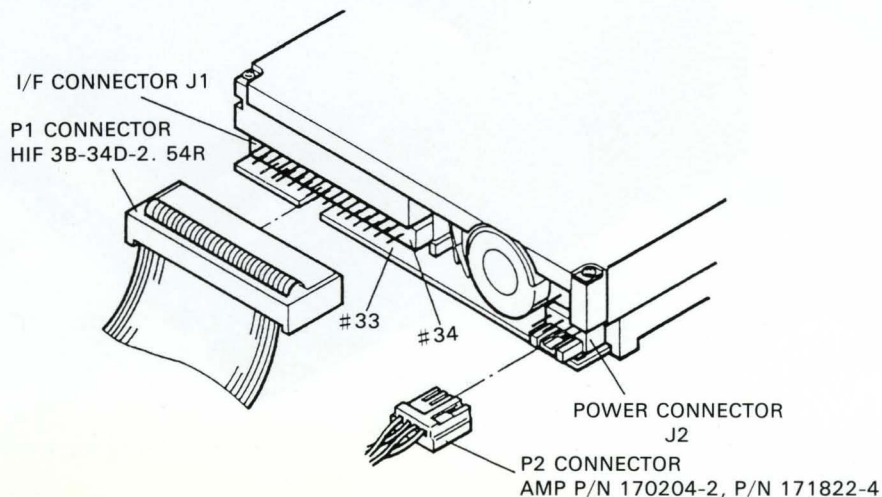


SPECIFICATIONS SUMMARY

Performance Specifications

ITEM				RATING				
				JU-253A	JU-253	JU-257A & JU-257		
						2.0M MODE	1.0M MODE	
Capacity	Total storage capacity/disk	Unformatted (K bytes)	FM	500	500	1000	500	
			MFM	1000	1000	2000	1000	
		Formatted (K bytes)	FM	328	328	32 Sectors 1311	18 Sectors 1475	—
			MFM	655	655	9 Sectors —	16 Sectors —	737.28 655.36
	Storage capacity/track	Unformatted (bytes)	FM	3125	3125	6250	3125	
			MFM	6250	6250	12500	6250	
		Formatted (bytes)	FM	2048	2048	32 Sectors 8192	18 Sectors 9216	—
			MFM	4096	4096	9 Sectors —	16 Sectors —	4608 4096
Recording density	Number of heads			2	2	2		
	Number of tracks			160	160	160		
	Recording density (BPI)	FM	4359	4359	8717	4359		
		MFM	8717	8717	17434	8717		
	Track density (TPI)			135.467	135.467	135.467		
	Data transfer rate (K bit/s)t	FM	125	125	250	125		
MFM		250	250	500	250			
Access	Rotational speed (R.P.M.)			300	300	300	300	
	LSV (%)			±1.0	±1.0	±1.0		
	ISV (%)			±1.5	±1.5	±1.5		
	Track to track seek (ms)			6	3	3		
	Settling time (ms)			15	15	15		
Motor start time (ms)			500	500	500			

PHYSICAL INTERFACE



POWER SPECIFICATIONS

Installation Requirements

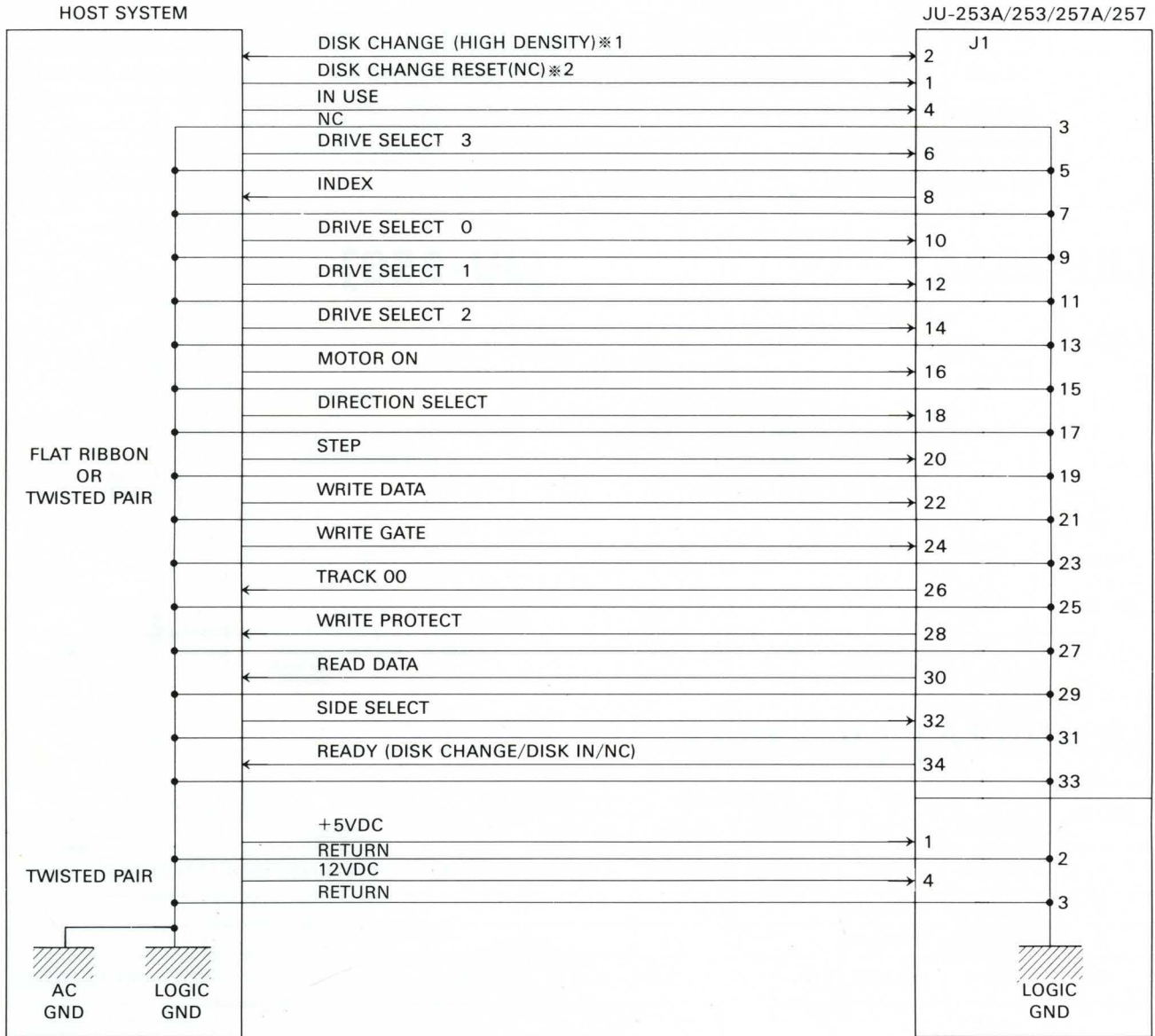
ITEM				RATING						
				JU-253A	JU-253	JU-257A	JU-257			
Power requirement	12VDC	Current	During Operating	SEEK	—	0.29A (MAX) 0.26A (TYP)	—	0.3A (MAX) 0.26A (TYP)		
				READ	—	0.13A (MAX) 0.12A (TYP)	—	0.13A (MAX) 0.12A (TYP)		
				WRITE	—	0.14A (MAX) 0.13A (TYP)	—	0.14A (MAX) 0.13A (TYP)		
			At motor start			—	0.29A (MAX) 0.26A (TYP)	—	0.29A (MAX) 0.26A (TYP)	
	5VDC	Current	Voltage		5V±10% MAX Ripple 100mVp-p	5V±5% MAX Ripple 50mVp-p	5V±5% MAX Ripple 50mVp-p			
			During Operating	SEEK	0.6A (MAX) 0.5A (TYP)	0.15A (MAX) 0.14A (TYP)	0.55A (MAX) 0.45A (TYP)	0.15A (MAX) 0.14A (TYP)		
				READ	0.36A (MAX) 0.3A (TYP)	0.14A (MAX) 0.13A (TYP)	0.35A (MAX) 0.29A (TYP)	0.14A (MAX) 0.13A (TYP)		
				WRITE	0.38A (MAX) 0.32A (MAX)	0.15A (MAX) 0.14A (TYP)	0.37A (MAX) 0.31A (TYP)	0.15A (MAX) 0.14A (TYP)		
			Environment	Temperature	Operating		5 to 45°C (41 to 113°F)			
					Storage		-40 to 60°C (-40 to 140°F)			
Shipping		-40 to 60°C (-40 to 140°F)								
Temperature gradient		20°C (68°F)/H		20°C (68°F)/H						
Humidity	Operating			20 to 80% RH No Condensation						
	Non Operating			5 to 90% RH No Condensation						
	Maximum wet bulb		29°C (84.2°F)							
Vibration	Operating	Acceleration		0.6G						
		Frequency		5 to 500Hz (Except resonant point)						
	Non-operating	Acceleration		2.0G						
		Frequency		10 to 500Hz (Except resonant point)						
Shock	Operating	Acceleration		5.0G (No hard error)						
		Interval		10ms (Half sign wave)		10ms (Square sign wave)				
	Non-operating	Acceleration		60G						
		Interval		10ms (Half sign wave)		10ms (Square sign wave)				
Mechanical dimension	Width		101.6mm (Except front bezel)							
	Height		25.4mm							
	Depth		150mm							
	Weight		370g		380g					
Mounting angle	Vertical		0° to 20°							
	Horizontal		0° to 20°							
Media Operating force	Insertind		800gf							
	Ejecting		1500gf							
Acoustic Noise		45 dB 100cm from drive A fast								
Dielectrical Withstanding Voltage		Between the mounting bracket and signal ground.		250VDC (1minute)						
Insulation resistance		Between the mounting bracket and signal ground.		More than 50MΩ (250VDC)						

Reliability Specification

ITEM		RATING
Drive	MTBF	10,000 POH
	MTTR	0.5 hours
	Drive life	5 years or 15,000 POH
Error rate	Soft errors	10 ⁻⁹ /bit
	Hard errors	10 ⁻¹² /bit
	Seek errors	10 ⁻⁶ /seek

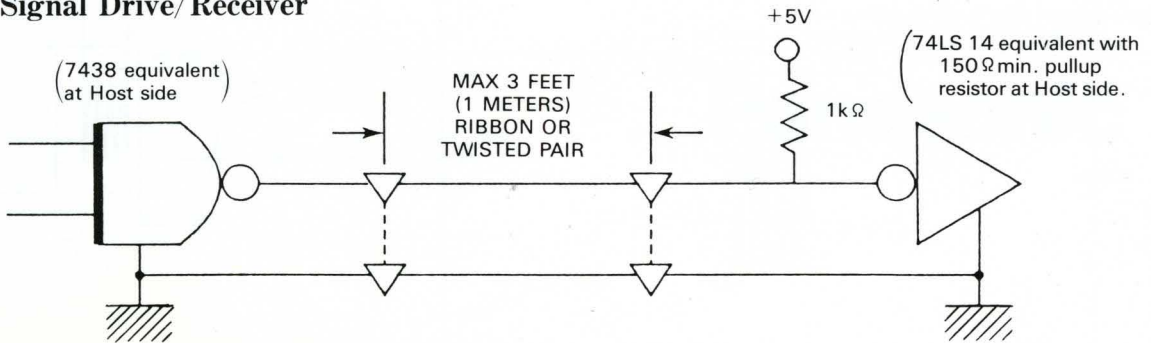
ELECTRICAL INTERFACE

Interface Connections



※1 In case of JU-253A, Disk Change (Disk In)
 ※2 In case of JU-253A, NC only.

Interface Signal Drive/Receiver

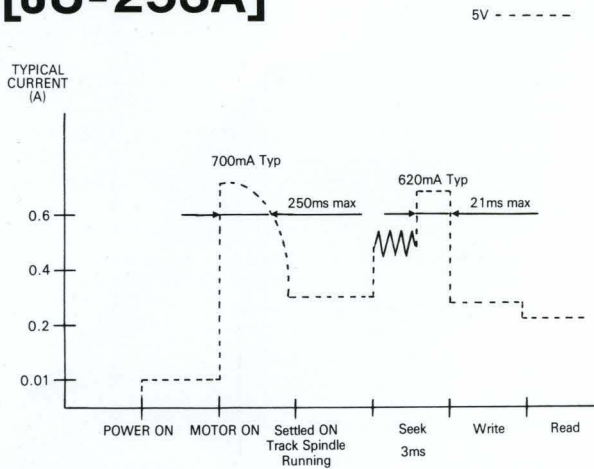


DC POWER PROFILE

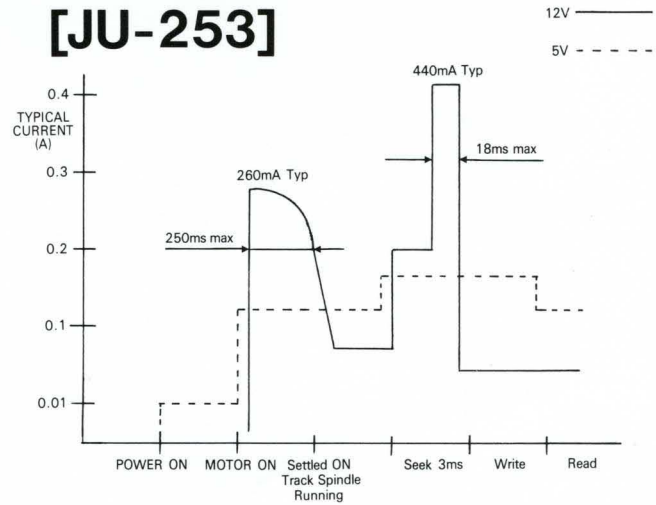
[JU-253A] [JU-253]

J2 PIN	DC VOLTAGE		TOLERANCE		CURRENT		MAX RIPPLE (p to p)	
	JU-253A	JU-253	JU-253A	JU-253	JU-253A	JU-253	JU-253A	JU-253
1	+5 VDC	+5 VDC	±0.5VDC	±0.25 VDC	0.8A MAX	0.15A MAX	100mV MAX ALLOWABLE	50mV MAX ALLOWABLE
2	+5 RETURN	+5 RETURN						
3	+5 RETURN	+12 RETURN						
4	NOT USED	+12 VDC		±1.2 VDC		0.3A MAX		100mV MAX ALLOWABLE

[JU-253A]



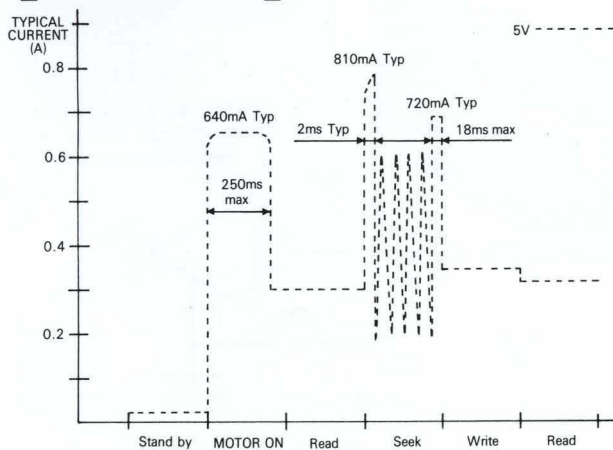
[JU-253]



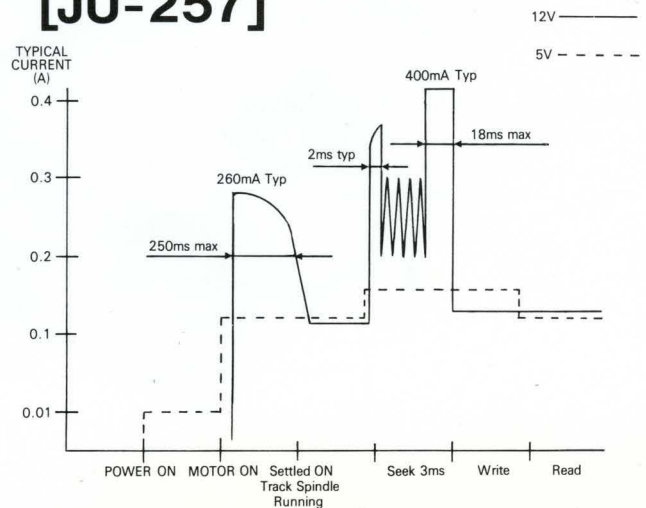
[JU-257A] [JU-257]

J2 PIN	DC VOLTAGE		TOLERANCE		CURRENT		MAX RIPPLE (p to p)	
	JU-257A	JU-257	JU-257A	JU-257	JU-257A	JU-257	JU-257A	JU-257
1	+5 VDC	+5 VDC	±0.5 VDC	±0.25 VDC	0.9A MAX	0.15A MAX	100mV MAX ALLOWABLE	50mV MAX ALLOWABLE
2	+5 RETURN	+5 RETURN						
3	+5V RETURN	+12 RETURN						
4	N.C.	+12 VDC		±1.2 VDC		0.3A MAX		100mV MAX ALLOWABLE

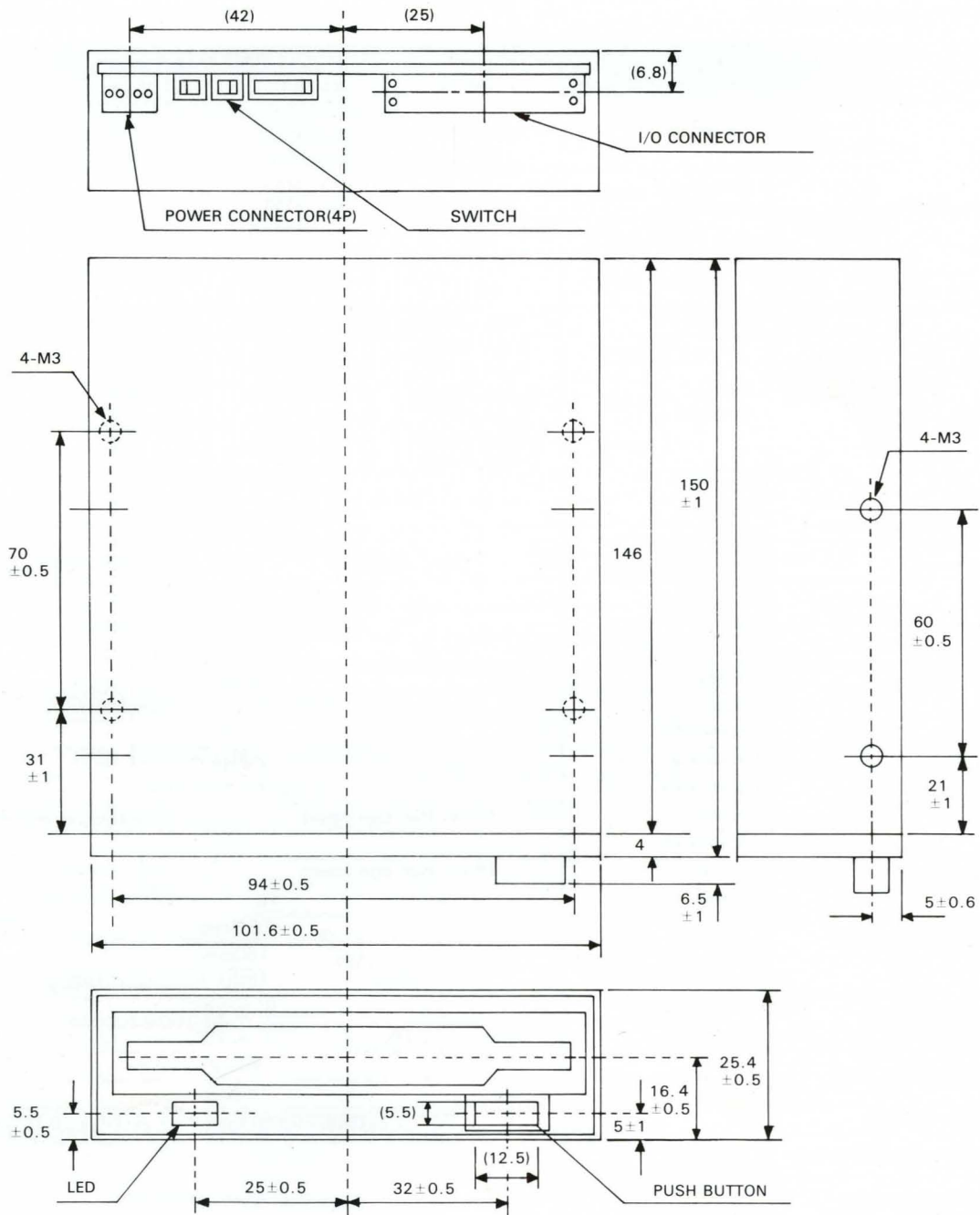
[JU-257A]



[JU-257]



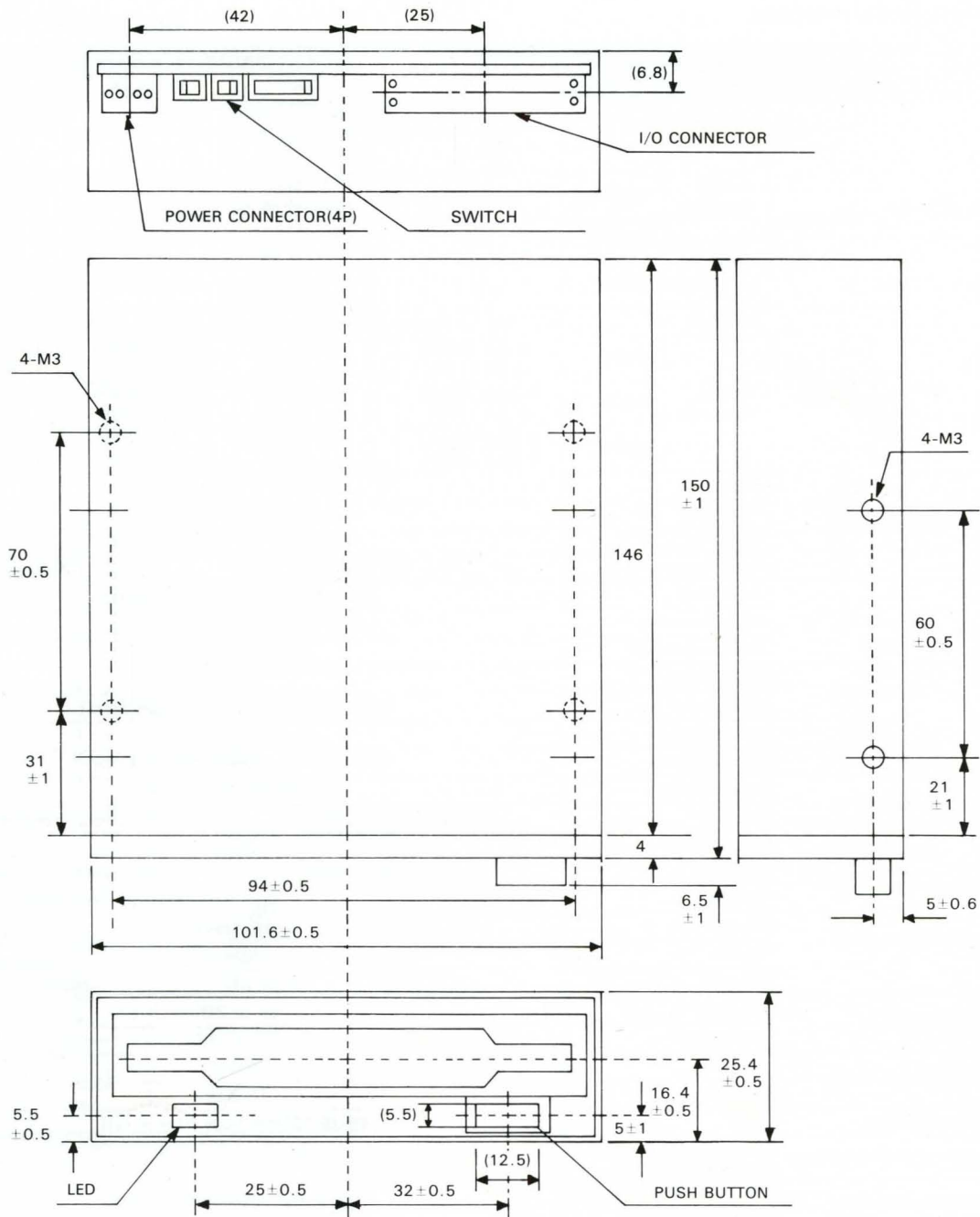
MECHANICAL DIMENSIONS



For further details of each Model, please refer to the specification sheet.

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