

## SPECIFICATIONS

### ■ DC VOLTAGE (DC V)

Range	Maximum Output	Resolution	Stability (24 h) ±(% of setting + μV)	Stability (90 days) ±(% of setting + μV)	Accuracy (90 days) ±(% of setting + μV)	Accuracy (1 year) ±(% of setting + μV)	Temperature Coefficient ±(% of setting + μV)/°C
10 mV	±12.0000 mV	100 nV	0.002 + 3	0.014 + 4	0.018 + 4	0.025 + 5	0.0018 + 0.7
100 mV	±120.000 mV	1 μV	0.003 + 3	0.014 + 5	0.018 + 10	0.025 + 10	0.0018 + 0.7
1 V	±1.20000 V	10 μV	0.001 + 10	0.008 + 50	0.01 + 100	0.016 + 120	0.0009 + 7
10 V	±12.0000 V	100 μV	0.001 + 20	0.008 + 100	0.01 + 200	0.016 + 240	0.0008 + 10
30 V	±32.000 V	1 mV	0.001 + 50	0.008 + 200	0.01 + 500	0.016 + 600	0.0008 + 30

The stability (24 h) is the value at  $23 \pm 1^\circ\text{C}$ . The stability (90 days), accuracy (90 days) and accuracy (1 year) are values at  $23 \pm 5^\circ\text{C}$ . The temperature coefficient is the value at 5 to  $18^\circ\text{C}$  and 28 to  $40^\circ\text{C}$ .

Range	Maximum Output Current	Output Resistance	Output Noise	
			DC to 10 Hz	DC to 10 kHz (Typical Data)
10 mV	—	approx. 2 Ω	3 μVp-p	30 μVp-p
100 mV	—	approx. 2 Ω	5 μVp-p	30 μVp-p
1 V	± 120 mA	less than 2 mΩ	15 μVp-p	60 μVp-p
10 V	± 120 mA	less than 2 mΩ	50 μVp-p	100 μVp-p
30 V	± 120 mA	less than 2 mΩ	150 μVp-p	200 μVp-p

Common mode rejection:  
120 dB or more (DC, 50/60 Hz).  
(However, it is 100 dB or more in the 30 V range.)

### ■ DC CURRENT (DC A)

Range	Maximum Output	Resolution	Stability (24 h) ±(% of setting + μA)	Stability (90 days) ±(% of setting + μA)	Accuracy (90 days) ±(% of setting + μA)	Accuracy (1 year) ±(% of setting + μA)	Temperature Coefficient ±(% of setting + μA)/°C
1 mA	±1.20000 mA	10 nA	0.0015 + 0.03	0.016 + 0.1	0.02 + 0.1	0.03 + 0.1	0.0015 + 0.01
10 mA	±12.0000 mA	100 nA	0.0015 + 0.3	0.016 + 0.5	0.02 + 0.5	0.03 + 0.5	0.0015 + 0.1
100 mA	±120.000 mA	1 μA	0.004 + 3	0.016 + 5	0.02 + 5	0.03 + 5	0.002 + 1

The stability (24 h) is the value at  $23 \pm 1^\circ\text{C}$ . The stability (90 days), accuracy (90 days) and accuracy (1 year) are values at  $23 \pm 5^\circ\text{C}$ . The temperature coefficient is the value at 5 to  $18^\circ\text{C}$  and 28 to  $40^\circ\text{C}$ .

Range	Maximum Output Voltage	Output Resistance	Output Noise	
			DC to 10 Hz	DC to 10 kHz (Typical Data)
1 mA	±30 V	more than 100 MΩ	0.02 μAp-p	0.1 μAp-p
10 mA	±30 V	more than 100 MΩ	0.2 μAp-p	0.3 μAp-p
100 mA	±30 V	more than 10 MΩ	2 μAp-p	3 μAp-p

Common mode rejection:  
100 nA/V or more (DC, 50/60 Hz).

- **Response Time**
- **Delay time:** Approx. 10 ms (For the fixed range).
- **Response time:** Less than 10 ms to within  $\pm 0.1\%$  of set value, at the max. output and max. load, without actuation of limiter, with resistive load.

● **Limiter**

	Setting Range	Resolution	Others
<b>Current limiter</b>	5 to 120 mA	1 mA	At voltage output
<b>Voltage limiter</b>	1 to 30 V	1 V	At current output

After limiter actuation, automatic recovery from limit status is executed by removal of overload.

● **Data Setting**

- Continuous variable mode (set by each digit by up/down keys)
- Data mode (set directly by ten-key)

● **Interface Function**

● **GP-IB interface:**

Electrical and mechanical specifications: Conforms to IEEE Std 488-1978.

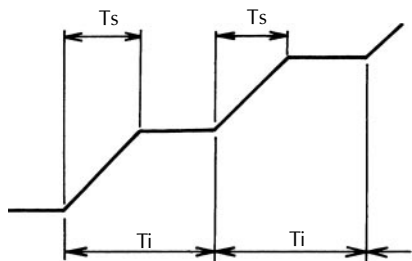
Interface function & identification: SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0

Address mode: Address setting, Header ON/OFF are settable

● **Programming Function**

- **Internal memories:** Stores settings up to 50 steps
- **IC memory card:** Stores 7 patterns of programs, each program can store settings up to 50 steps (IC memory cards; 8K bytes, optional)
- Program actuation by external trigger
- Interval time/sweep time (by each pattern)

	Setting Range	Resolution
<b>Interval time (Ti)</b>	100 ms to 1 h	100 ms
<b>Sweep time (Ts)</b>	0 to 1 h	100 ms



● **Execution mode:**

- SINGLE ... Executes programmed pattern only once
- REPEAT ... Repeats the execution of programmed pattern

● **External Trigger**

- Single step actuation of program can be executed by external trigger.
- Ready output: Suitable for system use

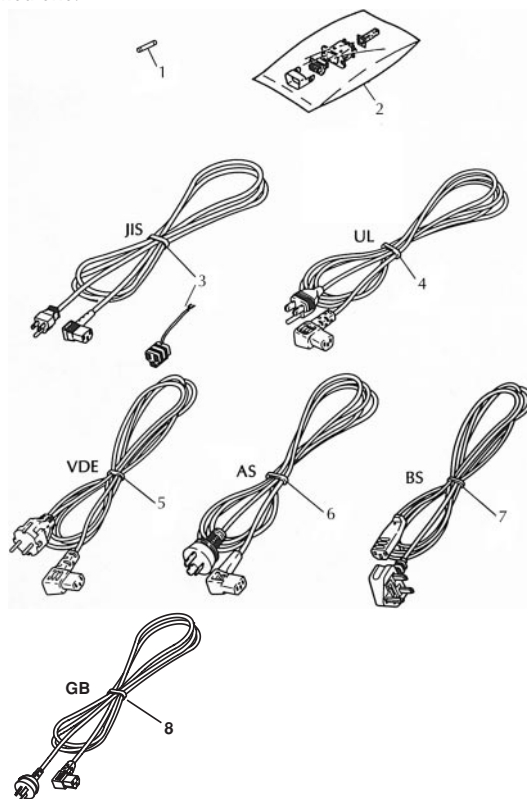
■ **GENERAL SPECIFICATIONS**

- **Operating Principle:** Multiplication type dual D/A conversion
- **Output Setting:**  $\pm 120,000$  (setting range),  $\pm 32000$  in the 30 V range only. continuous variable mode, data mode
- **Display:** 7-segment LED
- **Unit Indication:** 5 x 7 dot-matrix LED, mV/V/mA
- **Overload Indication:** "-oL-" sign display
- **Allowable Input Voltage:** 32 V/120 mA between Hi-Lo, 42 V peak between Lo-G, 500 V peak between G-Case
- **Operating Temperature Range:** 5 to 40°C (41 to 104°F)
- **Humidity Range:** 20 to 80% R.H.
- **Warm-up Time (approx.):** 60 minutes
- **Power Supply\*:** 100/115 V AC  $\pm 10\%$ , 50/60 Hz, selectable by switch  
\* As to source voltage 200/230 V, prescription is needed. Changeover operable.
- **Power Consumption (approx.):** 30 VA
- **Dimensions (approx.):** 213 (W) x 88 (H) x 350 (D) mm, (8-7/16 x 3-1/2 x 13-13/16")
- **Weight (approx.):** 3.6 kg (7.92 lbs)

■ **STANDARD ACCESSORIES**

No.	Name	Part No.	Q'ty	Description	
1	Fuse*	A1107EF	1	0.315 A, 100 V	
		A1104EF	1	0.16 A, 200 V	
2	Remote connector	A1003JD	1	—	
—	Instruction manual	—	1	—	
3	Power supply cord*	A1006WD	1	100 V series (JIS standard)	
4		A1253JZ			
4		A1006WD			115 V series (UL standard)
5		A1009WD			200 V series (VDE standard)
6		A1024WD			230 V series (AS standard)
7		A1023WD			BS standard
8		A1064WD			GB standard

\* Specified one.

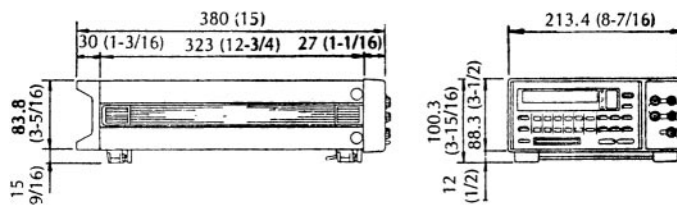


## AVAILABLE MODELS

Model	Suffix Codes	Option Codes	Description
765101			With front output terminal, GP-IB
765111			With rear output terminal, GP-IB
	-A		Always A (version code)
Power Requirements	-1		100 V AC (50 & 60 Hz), 115 V AC changeable
	-3		115 V AC (50 & 60 Hz), 100 V AC changeable
	-5		200 V AC (50 & 60 Hz), 230 V AC changeable
	-7		230 V AC (50 & 60 Hz), 200 V AC changeable
Power Cord	/M		JIS standard
	/D		UL standard
	/F		VDE standard
	/R		AS standard
	/J		BS standard
	/H		GB standard

## DIMENSIONS

Unit: mm (inch)

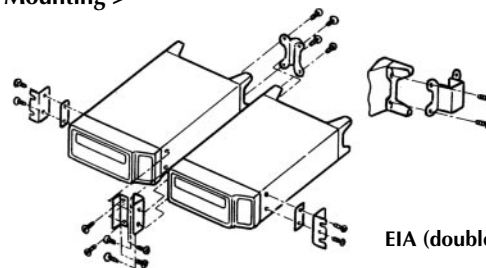


Front Output Model

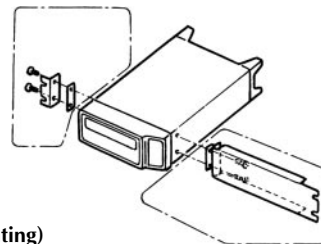
### OPTIONAL ACCESSORIES FOR 7651

No.	Code	Name	Order Q'ty
8	378901	IC memory card (setting data), 8 K bytes	1 unit (1 pc./unit)
-	B9586NG	Dummy card (Dust cap for IC memory card slot), 2 pcs./unit	1 unit (2 pcs./unit)
9	B9409LA	Test leads (alligator type, 0.8 m)	1 unit (1 pc./unit)
-	751501	Rack mounting kit (EIA, single mounting)	
-	751502	Rack mounting kit (EIA, double mounting)	
-	751503	Rack mounting kit (JIS, single mounting)	
-	751504	Rack mounting kit (JIS, double mounting)	

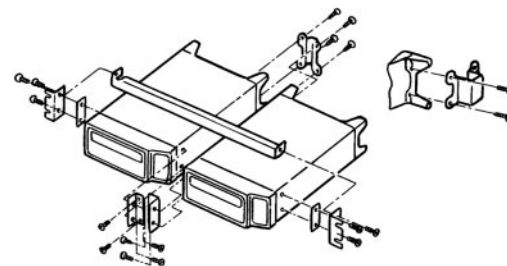
### < Rack Mounting >



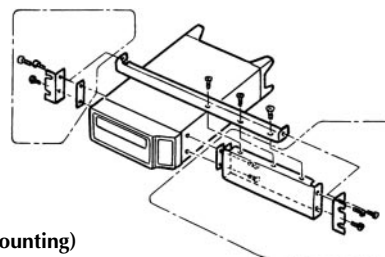
EIA (double mounting)



EIA (single mounting)



JIS (double mounting)



JIS (single mounting)



8  
IC memory card  
(378901)



9  
Shielded test leads  
(B9409LA)