



Model 72-7660 Regulated Power Supply

USER'S MANUAL

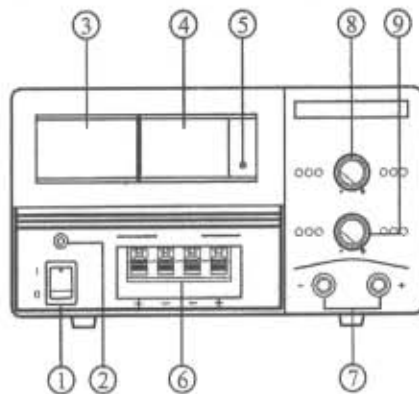
I. GENERAL

This DC Regulated Power Supply is completely solid state, compact, well-regulated constant voltage power supply suitable for service field, hobby & telecommunication equipment use. It provides three different voltages output for different usage.

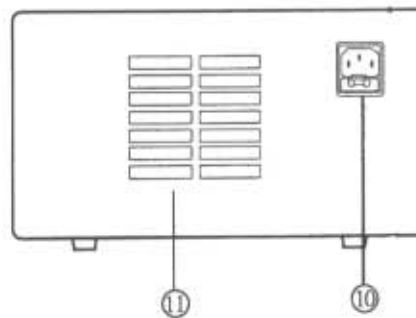
II. FEATURES

1. Overload and Short Circuit Protection: Prevent the unit from overload and short circuit. In case of overload or short-circuit, the output current will be limited.
2. Independent 5V, 12V. Easy Snap-On output terminals to make it easy to use for TTL and CMOS circuit testing. The grounding of the output terminals is independent that the output can be connected in series to make a higher output voltage.

III. FRONT AND REAR PANELS



1. ON/OFF Switch
2. Power Indicator
3. LCD Voltmeter Display
4. LCD Ammeter Display
5. Current Limited Indicator
6. Easy Snap-On Output Terminals



7. Screw-On Output Terminal
8. Voltage Adjustment Knob
9. Current Adjustment Knob
10. AC Socket with Fuse Holder
11. Cooling Fan Air Outlet

IV. OPERATION

A. Installation:

1. Place the unit in a free air circulation location.
2. **DO NOT** place the unit in high humid, dusty or sunshiny places.
3. The input power source must be $\pm 5\%$ of the rated input voltage.

Note: The power supply is for indoor use only.

B. Caution:

1. **DO NOT** use the unit for equipment that requires higher current rating than the unit is designed for, otherwise it will damage the unit.
2. **DO NOT** replace the fuse before ceasing the problems and **DO** replace with the same type of fuse.
3. If the external flexible cable or cord is damaged, it shall be replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.
4. The installation of the supply cord and plug shall be installed and protected in accordance with national wiring rules.

C. Safety Precautions:

The following precautions **MUST** be read carefully to prevent from electric shock.

1. **NEVER** remove the metal cover of the power supply while power source is connecting.
2. **NEVER** touch the power supply when your hand is wet.
3. **NEVER** operate the power supply if foreign materials such as metallic objects, water or other debris have fallen inside. Contact your dealer for check and repair.
4. **NEVER** operate the unit that was being damaged. As the voltage regulation circuitry may have been disabled, the resulting high DC voltage could cause damage to your equipment.
5. **NEVER** allow foreign objects to touch the output terminals.
6. **NEVER** repair the unit or inspect the interior part by yourself if it is damaged or working abnormally. Contact your dealer for check of repair.
7. **NEVER** block the cooling fan air outlet.

D. Connection and Operation:

1. Turn ON the unit and adjust the unit to suitable output voltage.
2. Turn OFF the unit and make sure the equipment is OFF.
3. Connect the equipment to the unit. Positive polarity to red (+) and negative polarity to Black (-).
4. Turn ON the unit first and then turn ON the equipment.
5. When an operation is finished, turn OFF the equipment first and then turn OFF the unit.

V. SPECIFICATIONS

OUTPUT VOLTAGE:	0-30Vdc
OUTPUT CURRENT:	0-10A
FIXED OUTPUT:	5V/0.5A and 12V/0.5A
RIPPLE & NOISE:	5mV _{r.m.s.}
LINE REGULATION:	≤ 10mV
LOAD REGULATION:	≤ 50mV
POWER SOURCE:	110VAC 60Hz
METERS TYPE:	Digital LCD
DIMENSION:	205 × 115 × 335 (mm)
WEIGHT:	Approx. 10Kg

Tenma Test Equipment
Variable Power Supply Model 72-7660
Sample Test Record

編號(PN):

DATE: 25-03-2004

型號(MODEL)		版次(REV.)	1
描述(DESCRIPTION)	0-30V10A,12V0.5A,5V0.5A DC REGULATED POWER SUPPLY		
輸入電壓(INPUT VOLTAGE)	120Vac	頻率(FREQUENCY)	50Hz
環境溫度(AMBIENT TEMPERATURE)	25°C		
測試儀器 (TEST INSTRUMENTS)	DMM.: HP-34401A(MSE-132-RD-29) MV METER: GVT-47(MSE-196-QA-07) ELE.LOAD: MSE-147-RD-11		
項目(ITEM)	單位(UNIT)	樣機(S1)	樣機(S2) Specifications
0-30V:			
MIN. OUTPUT VOLTAGE	V	0	-0.2~+0.2
MAX. OUTPUT VOLTAGE	V	31.5	30.5 ~ 33
MIN. PROTECTION CURRENT	A	0.01	-0.2~+0.2
MAX. PROTECTION CURRENT	A	11.02	10.5~13
LOAD REGULATION	mV	16	<50
LINE REGULATION(+/-5%)	mV	2	<10
RIPPLE & NOISE	mVrms	0.5	<1
12V OUTPUT VOLTAGE(0.5A load)	V	11.9	11.4-12.6
5V OUTPUT VOLTAGE(0.5A load)	V	4.95	4.65-5.35
NO LOAD INPUT CURRENT	mA	465	<550
FULL LOAD INPUT CURRENT	A	4.96	<5.2
WITHSTANDING TEST(60SEC. 1mA) INPUT VS OUTPUT	KV	OK	≥1.5
WITHSTANDING TEST(60SEC. 1mA) INPUT VS HOUSING	KV	OK	≥1.5
INSULATION RESISTANCE(500V dc) INPUT VS OUTPUT, INPUT VS HOUSING	Mohm	OK	≥100
VOLTMETER ACCURACY	Digit	0.1	±1%+2
AMMETER ACCURACY	Digit	-0.02	±1%+2
備注(REMARKS): The unit has been burnt in for 8 hours			

Tenma Test Equipment
Variable Power Supply Model 72-7660
Preliminary Specifications

MODEL :	REV . 1.0	DATE : 23-03-2004
DESCRIPTION : 0-30V 10A DC REGULATED POWER SUPPLY		
INPUT VOLTAGE : 120 VAC		FREQUENCY : 50/60 Hz
ENVIRONMENT TEMPERATURE : 25°C		

	MIN.	TYP.	MAX.	UNIT
Operation Input Voltage	108	120	132	V
Min. Output Voltage	-0.2	0	0.2	V
Max. Output Voltage	30.5	31.5	33	V
Max. Output Current		10		A
Min. Protection Current	-0.2	0	0.2	A
Max. Protection Current	10.5	11.0	13	A
Voltage Regulation :				
Load (0~100% load)		20	50	mV
Line (+/-5% Variation)		5	10	mV
Ripple & Noise		0.5	1	mVrms
Additional Output :				
Fixed DC 12V 500mA	11.4	11.9	12.6	V
Fixed DC 5V 500mA	4.65	4.9	5.35	V
No Load Input Current			550	mA
Full Load Input Current			5.2	A
Withstanding Test (60 sec. 1mA) Input V.S Output	1.5			KV
Withstanding Test (60 sec. 1mA) Input V.S Housing	1.5			KV
Insulation Resistance (500VDC) Input V.S Output, Input V.S Housing	100			MOHM
Voltmeter Accuracy			+/-1%+2	Digit
Ammeter Accuracy			+/-1%+2	Digit
Fuse		6.3		A

REMARKS:

1. The power indicator LED will light up, when power switch is turn ON.
2. The warning indicator LED will light up , when output is overload or short circuit.
3. Rated load is 30V 10A.