OPERATING INSTRUCTION

GSV3000
GSS3000

REGULATED DC POWER SUPPLY UNIT

SAFETY PRECAUTIONS

■ GENERAL

1)Please read through this operating instruction carefully and follow the instructions to prevent from abuse or misuse. This instruction must be kept to refer anytime in need.

2)The GSV3000 and the GSS3000 are specially designed Regulated DC Power Supply Unit for DC operated radio equipments sourcing from an AC outlet and providing a fixed voltage of 13.8V (GSS3000) or variable voltages of 1V to 15V (GSV3000) under 30A continuous operation or 34A intermittent operation. NO RESPONSIBILITY is extended to other than above applications and/or use.

■SETTING UP

1) Make grounding the unit to prevent from electric shock at high voltage caused by leakage or lightning.
2) DO NOT put this unit in high humid, dusty and/or sunshinny places.
3) DO NOT block the air convection slits to keep efficient heat radiation.
4) DO NOT put this unit close to the TV sets or CRT monitors.
5) Couple with an AC outlet directlly, as sourcing via distribution cables may heat plugs and cables.
6) Put the unit horizontally for accurate meter readings.

■ CAUTION

1) DO NOT use for equipments require higher current input than the designed value otherwise it may damage the unit.
2) DO NOT use this unit for battery charging. Battery backup terminal is prepared as an option for GSS3000.
3) DO NOT use for lamps or motorized equipment which require high current input at starting and it may damage the unit.
4) DO NOT use as the real cigar-lighter with the DC POWER OUTLET, as it may damage the unit.
5) DO NOT replace the fuse before ceasing problems and the assigned value of fuse must be used in place.

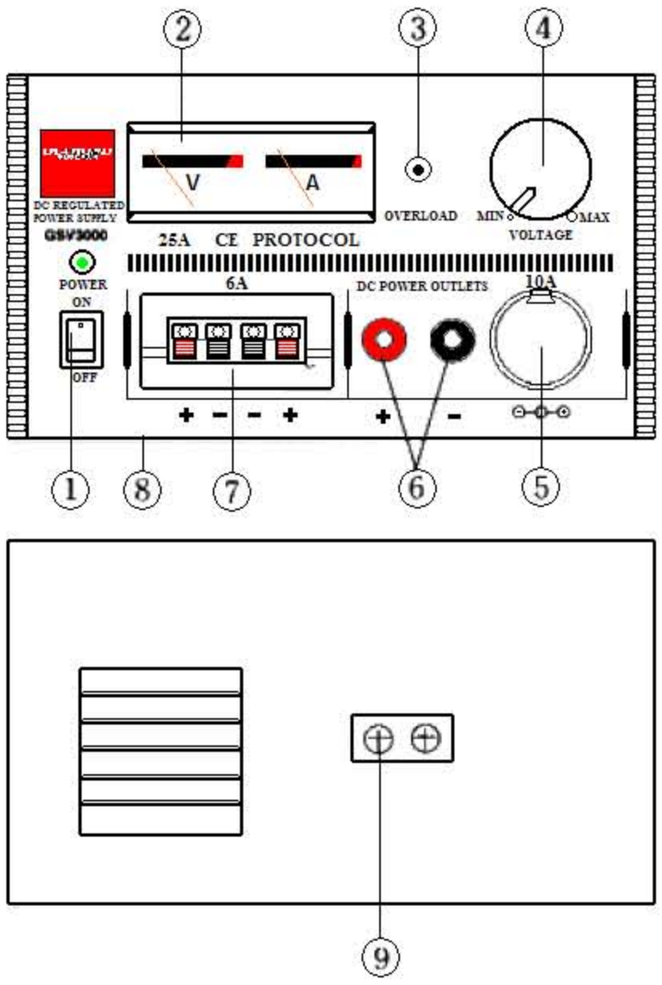
■ WARNING

The following precautions must be observed to help prevent from electric shock which may hurt you.

1) NEVER remove the metal cover during the unit is powered.
2) NEVER touch the unit with wet hands.
3) NEVER operate the unit which has foreign articles, such as metals, water and etc., inside of the unit. Call your dealer for check and repair.
4) NEVER operate the damaged unit as it may output high voltage at the terminals. Call your dealer for check and repair.
5) NEVER put foreign articles into the DC POWER OUTLET.

Touching inside of the unit may burn your hands or part of your body by high temperature unless otherwise it comes cool down.

■ CONTROLS AND FUNCTIONS



①POWER SWITCH : Turning ON, the indicator lights up.

②METER : A for Current and V for Voltage indications being operated respectively.

③OVERLOAD INDICATOR: Lights up when Over Load Protection circuit is activated. Start blinking when Over Voltatge Protection (option) is activated.

④VOLTAGE CONTROLLER(GSV3000) : To adjust the output voltage from 1V to 15V. One touch 13.8V setting is made at a clicking point. The maximum output current is limited by output voltage as per Fig.1.

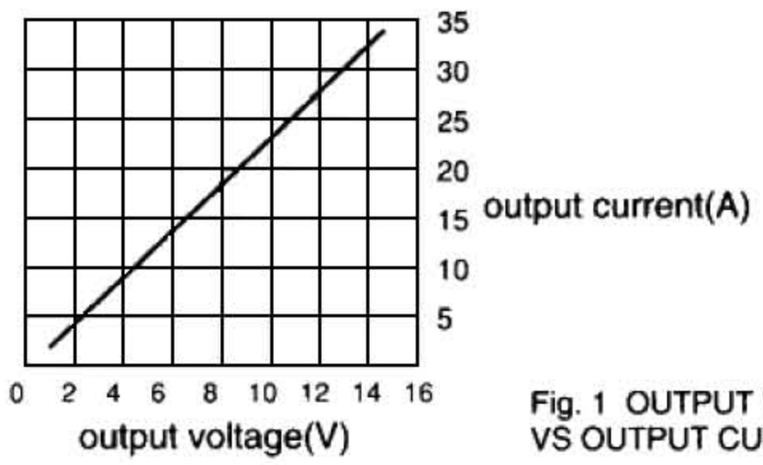


Fig. 1 OUTPUT VOLTAGE VS OUTPUT CURRENT

⑤DC POWER OUTLET : For cigar-lighter type adapter plug for 10A max.(Negative ground only)

⑥OUTPUT TERMINAL : For high capacity (34A) output terminal. Red is for (+) positive and Black is for (-)negative connection.

⑦OUTPUT TERMINAL : Two pairs of snap-in output terminal for 6A max.Red is for (+)positive and Black is for (-)negative.

⑧GND. TERMINAL : This is located on the bottom case. Connect this terminal to the ground with a thickwire (not included).

⑨BATTERY BACKUP TERMINAL : For battery backup

■CONNECTION AND OPERATION

1. Turn Off the unit.
2. Be sure an AC input voltage fits with the unit labeled input voltage and plug it into the AC outlet.
3. Turn ON the unit and adjust an output voltage to match with the input voltage of equipments to be powered.(GSV3000)
4. Be sure the equipments are turned off and connect red (+) output terminal of the unit to the positive polarity input of the equipment to be powered.
5. Connect black (-) output terminal of the unit to the negative polarity input of the equipment to be powered.
6. Turn ON the unit first and turn ON the equipment to be powered.
7. When an operation is over, turn OFF the equipment being powered first. Then turn OFF the unit.
8. For the optional Battery Backup connection, be sure the polarities.

■ FEATURES

1. *Overload Protection*
   Current foldback circuit is adopted to prevent the unit from overload. The overload indication lights up when it works.
   Note: When the protection circuit was activated, switch off the supply and disconnect the equipment.
   Keeping the case may damage the unit or even may hurt you.
2. *Over Voltage Protection*
   This circuit is available as an optional requirement to prevent your radio from damages of high voltage. When over voltage is detected, the unit cuts output and the overload indicator starts blinking.
   Note: When the protection circuit works, turn off the unit and disconnect the equipment. Call your dealer for check and repair.
3. Battery Backup
   A Battery Backup system is available as an optional requirement for GSS3000. Connecting a backup battery to the terminal block (option)located on the rear panel, the battery is charged by 1A while the unit is ON. When no output voltage is detected at the output terminal while power is ON, the battery starts supplying output to the output terminals.
   The overload indicator keeps blinking while voltage comes from the battery
   Note: The battery should be leadacid type 12V.
4. High RFI Stability
   Designed for high protection circuitry against RFI(Radio Frequency Interference) provides you a stable operation.
5. Variable Output Voltage (GSV3000)
   The variable range of output voltages from 1V to 15V, enables good fits with various kinds of radios.
6. DC Power Outlet
   A cigar-lighter type adapter socket is prepared for easy connection.

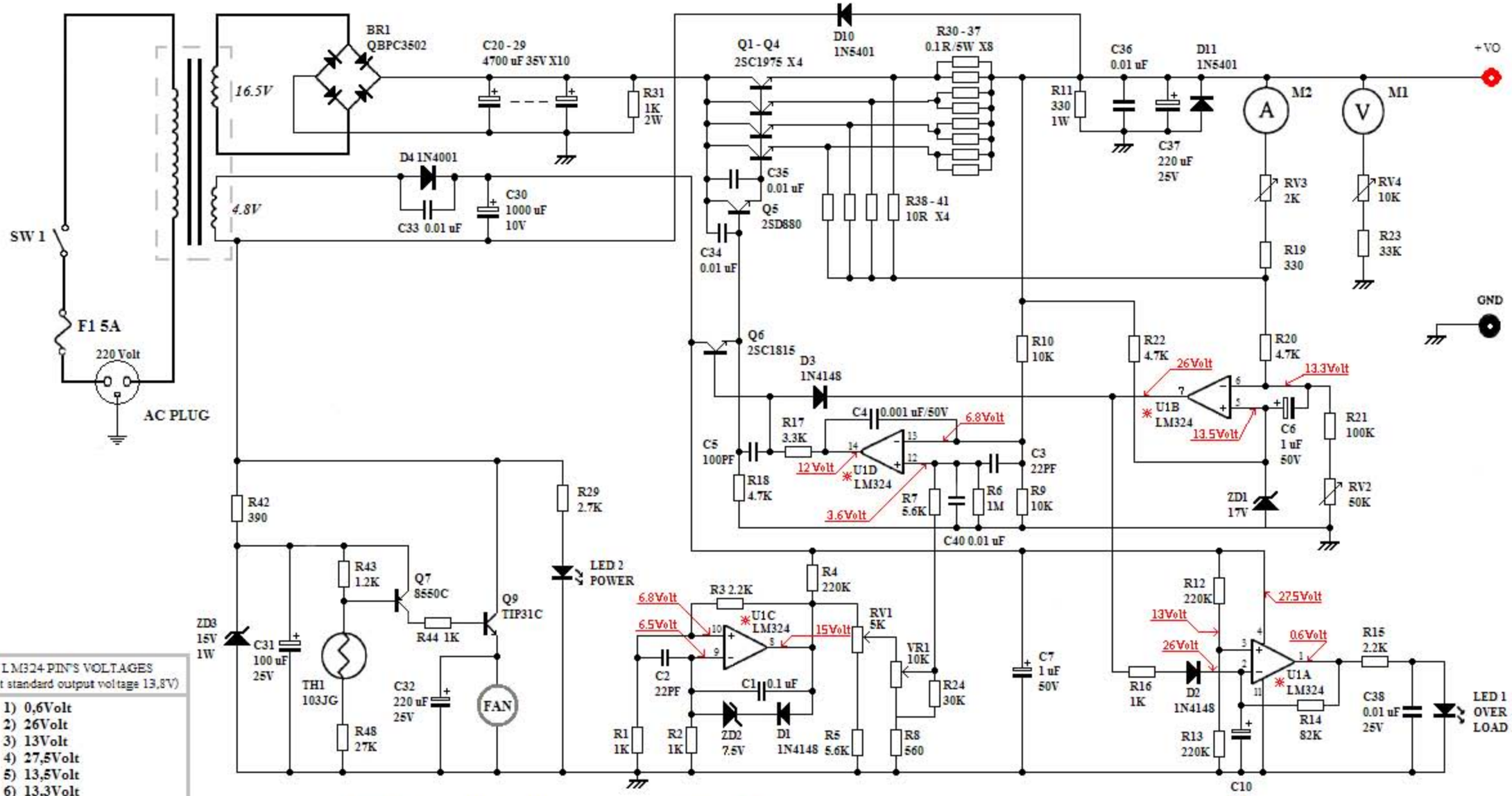
■ SPECIFICATIONS

	GSV3000	GSS3000
INPUT VOLTAGE	100V, 110V OR 220V	
OUTPUT VOLTAGE	DC 1V TO DC 15V VARIABLE	DC 13.8V FIXED
OUTPUT CURRENT	30A CONTINUOUS(8 HOURS), 34A INTERMITTENT(1 MIN. ON/OFF)	
OVERLOAD PROTECTION	CURRENT FOLDBACK REFLECTING FIG. 1	
OVER-VOLT. PROTECTION	LESS THAN 16V(OPTION)	
RIPPLE VOLTAGE	BETTER THAN 3mVp-p AT 13.8V, 30A	
COOLING SYSTEM	TEMPERATURE SENSITIVE COOLING FAN	
CIRCUIT SYSTEM	LINER SERIES	
FUSE	5A FOR 220V AND 8A FOR 100V/110V INPUT VOLTAGE	
WEIGHT/DIMENSION	9.5KGS, 250(W) X 150(H) X 240(D) mm	

*** Specifications are subject to change without prior notice.**

■ NOTE

CE version for European countries is limited to operate for 25A under CE protocol



* LM324 PIN'S VOLTAGES
(at standard output voltage 13,8V)

1) 0,6Volt
2) 26Volt
3) 13Volt
4) 27,5Volt
5) 13,5Volt
6) 13,3Volt
7) 26Volt
8) 15Volt
9) 6,5Volt
10) 6,8Volt
11) GND
12) 3,6Volt
13) 6,8Volt
14) 12Volt

TOLERANCE UP TO +/- 5%

NOTE: ALL RESISTORS ARE IN OHM AND 1/4W
EXCEPT SPECIFIED

SAME MODEL: GSV-3000-502; 503; 504; 505; 506; 508; 510

DIAMOND ANTENNA

TITLE: GSV-3000-501 SCH		DWG NO.: 9800-3000-5010			
DRAWN BY:	CHECKED BY:	APPROVED BY: K.K. Leung	SHEET 1 OF 1	REVISION: 1.1	DATE: 01-09-2000