Standel®
Solid State Music Systems
P. O. BOX 709
4918 DOUBLE DRIVE
EL MONTE, CALIFORNIA 91734
686-0850 (213) 442-0301

STANDEL SERVICE INFORMATION

1968

MASTER CONTROL
PR5B AND PR5R

S-148-4
6C168

STANDEL SERVICE INFORMATION

CIRCUIT DESCRIPTION

A modular design concept has been utilized throughout the amplifier in order to provide a unit that may be serviced with a minimum of individual component measurements.

The blue modules are high input impedance pre-amplifiers which amplify the signal from the instrument to a level which is compatible with the tone and volume control circuitry. The tone and volume control components are mounted directly on the terminals of the associated controls.

The output signals from the tone controls of the two channels are resistively mixed by R 11 and R 12 and the composite signal is fed into the green module which serves as an interstage amplifier. It provides the necessary signal gain and impedance level to drive any model Acoustic Magnifier.

The red module is the vibrato oscillator and modulator. The speed and intensity controls respectively adjust the frequency of oscillation and the degree of signal modulation.

The yellow module in conjunction with the reverb control, reverb drive circuitry, and reverb spring provides the amplifiers reverb capabilities.

The yellow module has two separate functions. One section serves as a reverb drive pre-amplifier while the other section provides amplification for the signal from the reverb spring. The circuit components for the reverb drive adjustment are located on a terminal board mounted near the yellow module.

The power supply consists of a stepdown isolation transformer, a rectifier bridge, a capacitive input filter and resistance capacitance filtering as required for the various stages of the amplifier.

TROUBLE SHOOTING

Signal tracing methods may be used to isolate the trouble to a module or component. The signal levels indicated at various points on the circuit should result from a 50 mv RMS input of approximately 300 cycles/second.

The signal levels associated with the blue and yellow leads of the yellow module are not indicated because the impedance of the reverb spring is extremely variable and cannot be specified. But the signal level on the yellow lead should be approximately 20 times the signal level on the blue lead. (10 mv on blue should cause approximately 200 mv on yellow.) For the same reason, the signal level indicated at the collector of Q1 is valid only if the cable to the reverb spring is disconnected.

REVERB ADJUSTMENT

Reverb intensity may vary from one amplifier to another due to variation of circuit tolerances. An internal adjustment has been provided to compensate for this variation.

The miniature control R26 shown on the enclosed drawing may be adjusted to increase or decrease reverb intensity. Care must be taken not to turn the control beyond the stops or it will be permanently damaged.

PARTS REPLACEMENT AND BIAS SETTINGS

If reverb drive transistor or associated components must be replaced, it will be necessary to reset R 27 as indicated on schematic. The reverb drive transistor Q1 may be removed by disconnecting its leads and unscrewing the top of the heatsink. Silicon grease should be applied to a new transistor prior to installation in the heatsink.

Replacements for faulty modules or components may be ordered from the factory. When ordering replacement parts, please specify the Standel part number of the required parts, as well as the model and year of the unit for which they are required.

If further information is required, contact factory Service Department at the following address:

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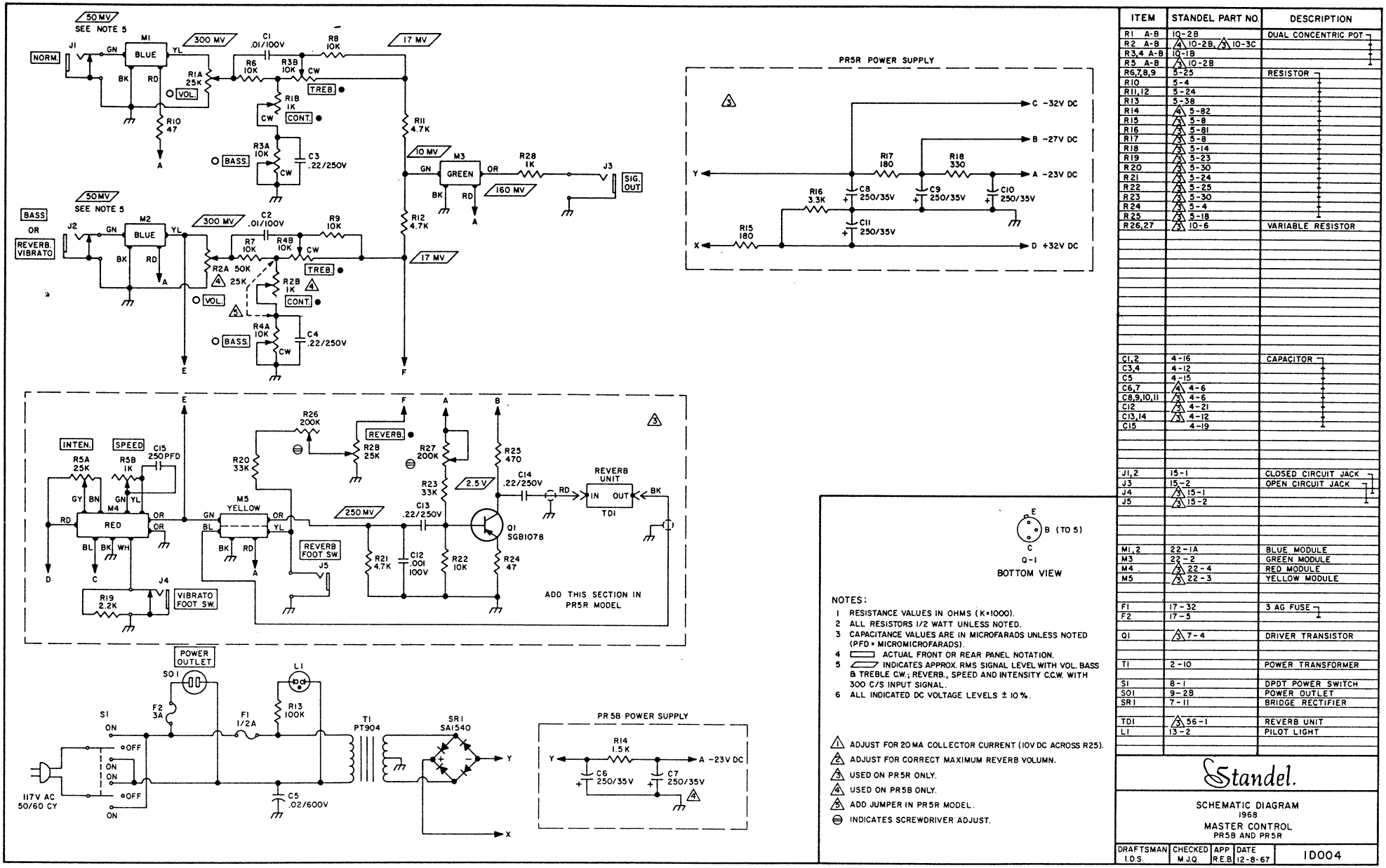


NOTES:

1. RESISTANCE VALUES IN OHMS (K=1000).
2. ALL RESISTORS 1/2 WATT UNLESS NOTED.
3. CAPACITANCE VALUES ARE IN MICROFARADS UNLESS NOTED (PFD = MICROMICROFARADS).
4. ▭ ACTUAL FRONT OR REAR PANEL NOTATION.
5. ▱ INDICATES APPROX. RMS SIGNAL LEVEL WITH VOL. BASS & TREBLE C.W.; REVERB., SPEED AND INTENSITY C.C.W. WITH 300 C/S INPUT SIGNAL.
6. ALL INDICATED DC VOLTAGE LEVELS ± 10%.

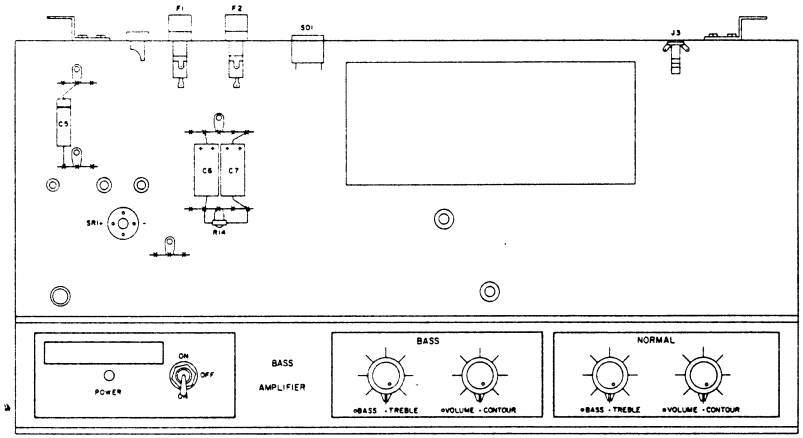
△1 ADJUST FOR 20 MA COLLECTOR CURRENT (10V DC ACROSS R25).
△2 ADJUST FOR CORRECT MAXIMUM REVERB VOLUMN.
△3 USED ON PR5R ONLY.
△4 USED ON PR5B ONLY.
△5 ADD JUMPER IN PR5R MODEL.
⊖ INDICATES SCREWDRIVER ADJUST.

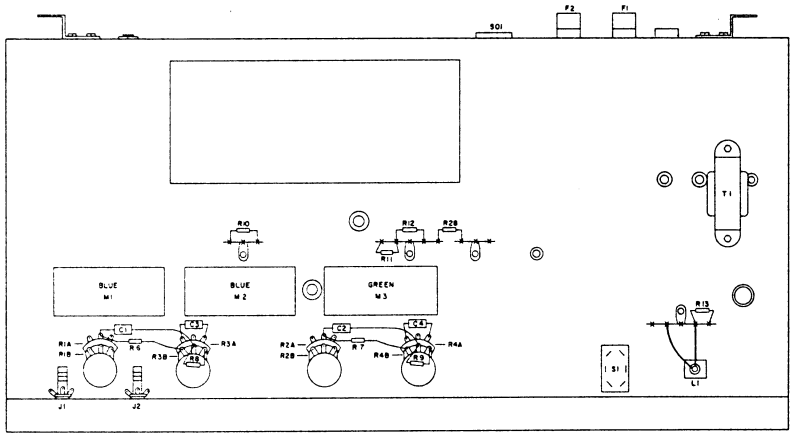
ITEM	STANDEL PART NO.	DESCRIPTION
R1 A-B	10-28	DUAL CONCENTRIC POT
R2 A-B	△4 10-28, △3 10-3C	
R3,4 A-B	10-18	
R5 A-B	△4 10-28	
R6,7,8,9	5-25	RESISTOR
R10	5-4	
R11,12	5-24	
R13	5-38	
R14	△4 5-82	
R15	△3 5-8	
R16	△3 5-81	
R17	△3 5-8	
R18	△3 5-14	
R19	△3 5-23	
R20	△3 5-30	
R21	△3 5-24	
R22	△3 5-25	
R23	△3 5-30	
R24	△3 5-4	
R25	△3 5-18	
R26,27	△3 10-6	VARIABLE RESISTOR
C1,2	4-16	CAPACITOR
C3,4	4-12	
C5	4-15	
C6,7	△4 4-6	
C8,9,10,11	△3 4-6	
C12	△3 4-21	
C13,14	△3 4-12	
C15	4-19	
J1,2	15-1	CLOSED CIRCUIT JACK
J3	15-2	OPEN CIRCUIT JACK
J4	△3 15-1	
J5	△3 15-2	
M1,2	22-1A	BLUE MODULE
M3	22-2	GREEN MODULE
M4	△3 22-4	RED MODULE
M5	△3 22-3	YELLOW MODULE
F1	17-32	3 AG FUSE
F2	17-5	
Q1	△3 7-4	DRIVER TRANSISTOR
T1	2-10	POWER TRANSFORMER
S1	8-1	DPDT POWER SWITCH
SO1	9-2B	POWER OUTLET
SR1	7-11	BRIDGE RECTIFIER
TDI	△3 56-1	REVERB UNIT
L1	13-2	PILOT LIGHT

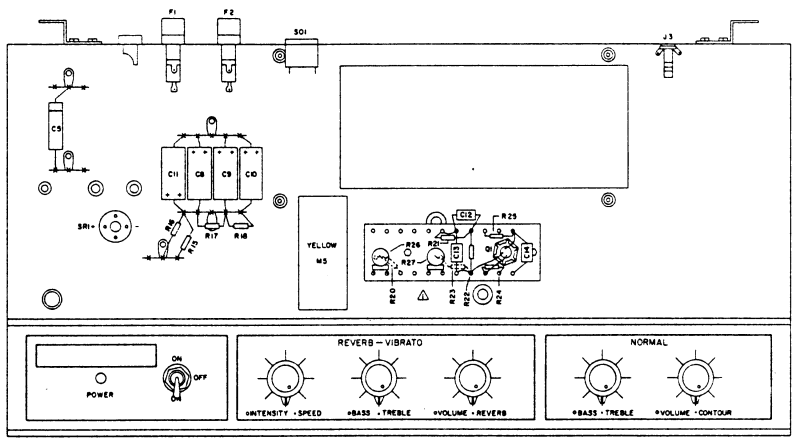
Standel.

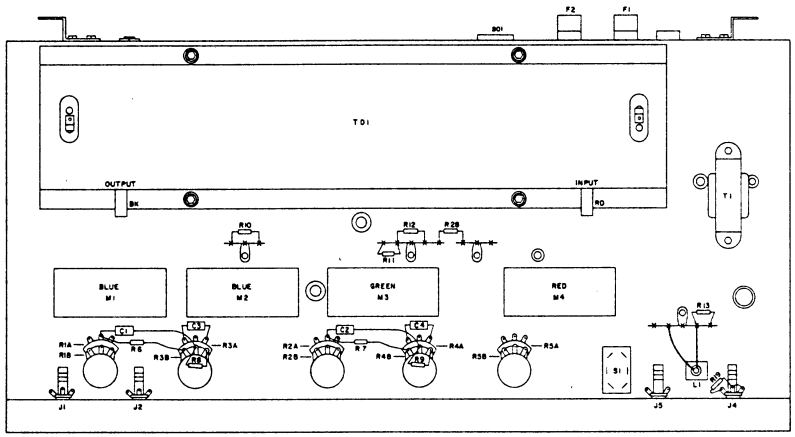
SCHEMATIC DIAGRAM
1968
MASTER CONTROL
PR5B AND PR5R

DRAFTSMAN	CHECKED	APP	DATE	
I.D.S.	M.J.Q.	R.E.B.	12-8-67	ID004









Standel.				
PICTORIAL DIAGRAM 1968 PR 58				
DRAFTSMAN H.M.M.	CHECKED M.J.Q.	APP R.E.B.	DATE 12-14-67	1E005

Standel.				
PICTORIAL DIAGRAM 1968 PR 5R				
DRAFTSMAN H.M.M.	CHECKED M.J.Q.	APP R.E.B.	DATE 12-14-67	1E004