

RESISTANCE CAPACITANCE & INDUCTANCE

SUBSTITUTERS

PARTS LIST & LAYOUT

MODELS RS-200, RS-201, RS-200W, RS-201W,
CS-300, CS-301, RCS-500, RCS-502, LS-400,
LS-400A

TABLE OF CONTENTS

Section

- I. RESISTANCE SUBSTITUTERS
 - 1.1 RS-200 Resistance Substituter
 - 1.2 RS-201 Precision Resistance Substituter
 - 1.3 RS-200W Wide Range Resistance Substituter
 - 1.4 RS-201W Wide Range Precision Resistance Substituter
- II. CAPACITANCE SUBSTITUTERS
 - 2.1 CS-300 Capacitance Substituter
 - 2.2 CS-301 Precision Capacitance Substituter
- III. RESISTANCE-CAPACITANCE SUBSTITUTERS
 - 3.1 RCS-500 Resistance-Capacitance Substituter
 - 3.2 RCS-502 Precision Resistance-Capacitance Substituter
- IV. INDUCTANCE SUBSTITUTER
 - 4.1 LS-400 Wide Range Inductance Substituter
 - 4.2 LS-400A Inductance Substituter
- V. SPECIFICATION SHEET

LIST OF ILLUSTRATIONS

Figure

- 1.1 RS-200 Component Layout (Schematic)
- 2.1 CS-300 Component Layout (Schematic)
- 4.1 LS-400 Component Layout (Schematic)

SECTION I

RESISTANCE SUBSTITUTERS

1.1 RS-200 Resistance Substituter

RS-200 PARTS LIST

DECADE 1 RESISTORS (ALL RESISTORS BELOW ARE .05 Watt, Metal Film, 1%)

R1	1 ohm
R2	2 ohm
R3	2 ohm
R4	2 ohm
R5	2 ohm

DECADE 2 RESISTORS

R1	10 ohms
R2	20 ohms
R3	20 ohms
R4	20 ohms
R5	20 ohms

DECADE 3 RESISTORS

R1	100 ohms
R2	200 ohms
R3	200 ohms
R4	200 ohms
R5	200 ohms

DECADE 4 RESISTORS

R1	1 kohm
R2	2 kohm
R3	2 kohm
R4	2 kohm
R5	2 kohm

DECADE 5 RESISTORS

R1	10 kohms
R2	20 kohms
R3	20 kohms
R4	20 kohms
R5	20 kohms

DECADE 6 RESISTORS

R1	100 kohms
R2	200 kohms
R3	200 kohms

R4 200 kohms
R5 200 kohms

DECADE 7 RESISTORS

R1 1 Mohm
R2 2 Mohm
R3 2 Mohm
R4 2 Mohm
R5 2 Mohm

RS/SW/1 Resistance Switch, 1st Decade (Black)
RS/SW/2 Resistance Switch, 2nd Decade (Black)
RS/SW/3 Resistance Switch, 3rd Decade (Black)
RS/SW/4 Resistance Switch, 4th Decade (Red)
RS/SW/5 Resistance Switch, 5th Decade (Red)
RS/SW/6 Resistance Switch, 6th Decade (Red)
RS/SW/7 Resistance Switch, 7th Decade (Green)

RS/CAS RS-200 Case
RS/ RBP Red Binding Post
RS/ BBP Black Binding Post

1.2 RS-201 Precision Resistance Substituter

The RS-201 is essentially the same as the RS-200 except the resistors are 0.1% instead of 1%. Add "P" to the RS-200 resistor part number in order to get the RS-201 resistor part number. (i.e. DECADE 1 R1 becomes DECADE 1 R1P)

1.3 RS-200W Wide Range Resistance Substituter

The RS-200W is the same as the RS-200 except that it has a 0.1 ohm scale and a 10 Mohm scale.

Add the following to the Parts List.

DECADE 0 RESISTORS

R1 0.1 ohm
R2 0.2 ohm
R3 0.2 ohm
R4 0.2 ohm
R5 0.2 ohm

DECADE 8 RESISTORS

R1 10 Mohms
R2 20 Mohms
R3 20 Mohms
R4 20 Mohms
R5 20 Mohms

RS/SW/0 Resistance Switch for decade below 1 ohm.
RS/SW/8 Resistance Switch for decade above 1 Mohm.

For the Component Layout add to figure 1.1 the following:

DECADE 0, RS/SW/0 to the right of DECADE 1.

DECADE 8, RS/SW/8 to the left of DECADE 7.

1.4 RS-201W Wide Range Precision Resistance Substituter

The RS-201W is essentially the same as the RS-200W except the resistors are 0.1% instead of 1%. Add "P" to the RS-200W resistor part numbers in order to get the RS-201W resistor part number.

(i.e. DECADE 0 R1 becomes 0 R1P)

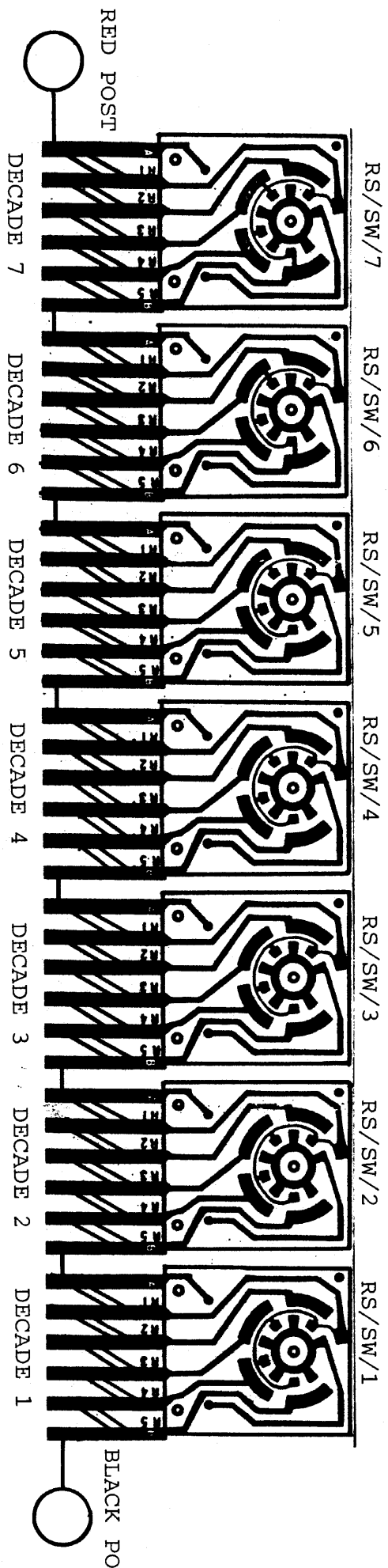


Figure 1.1
RS-200 COMPONENT LAYOUT (SCHEMATIC)

SECTION II

CAPACITANCE SUBSTITUTERS

2.1 CS-300 Capacitance Substituter

CS-300 PARTS LIST

DECADE 1 CAPACITORS (All Capacitors are 4%)

C1 100pF, 100V, Mica
C2 200pF, 100V, Mica
C2 200pF, 100V, Mica
C4 400pF, 100V, Mica

DECADE 2 CAPACITORS

C1 1nF, 100V, Polystyrene
C2 2nF, 100V, Polystyrene
C2 2nF, 100V, Polystyrene
C4 4nF, 100V, Polystyrene

DECADE 3 CAPACITORS

C1 10nF, 100V, Polycarbonate
C2 20nF, 100V, Polycarbonate
C2 20nF, 100V, Polycarbonate
C4 40nF, 100V, Polycarbonate

DECADE 4 CAPACITORS

C1 0.1uF, 100V, Polycarbonate
C2 0.2uF, 100V, Polycarbonate
C2 0.2uF, 100V, Polycarbonate
C4 0.4uF, 100V, Polycarbonate

DECADE 5 CAPACITORS

C1 1uF, 100V, Polyester
C2 2uF, 100V, Polyester
C2 2uF, 100V, Polyester
C4 4uF, 100V, Polyester

DECADE 6 CAPACITORS

C1 10uF, 20V, Tantalum
C2 20uF, 20V, Tantalum
C2 20uF, 20V, Tantalum
C4 40uF, 20V, Tantalum

CS/SW/1 Capacitance Switch, 1st Decade (Black)
CS/SW/2 Capacitance Switch, 2nd Decade (Red)
CS/SW/3 Capacitance Switch, 3rd Decade (Red)

CS/SW/4 Capacitance Switch, 4th Decade (Red)
CS/SW/5 Capacitance Switch, 5th Decade (Green)
CS/SW/6 Capacitance Switch, 6th Decade (Green)

RS/CAS RS-200 Case
RS/RBP Red Binding Post
RS/BBP Black Binding Post

2.2 CS-301 Precision Capacitance Substituter

The CS-301 is essentially the same as the CS-300 except the capacitors are 1% instead of 4%. Add "P" to the CS-300 capacitor part numbers in order to get the CS-301 capacitor part number.

(i.e. DECADE 1 C1 becomes DECADE 1 C1P)

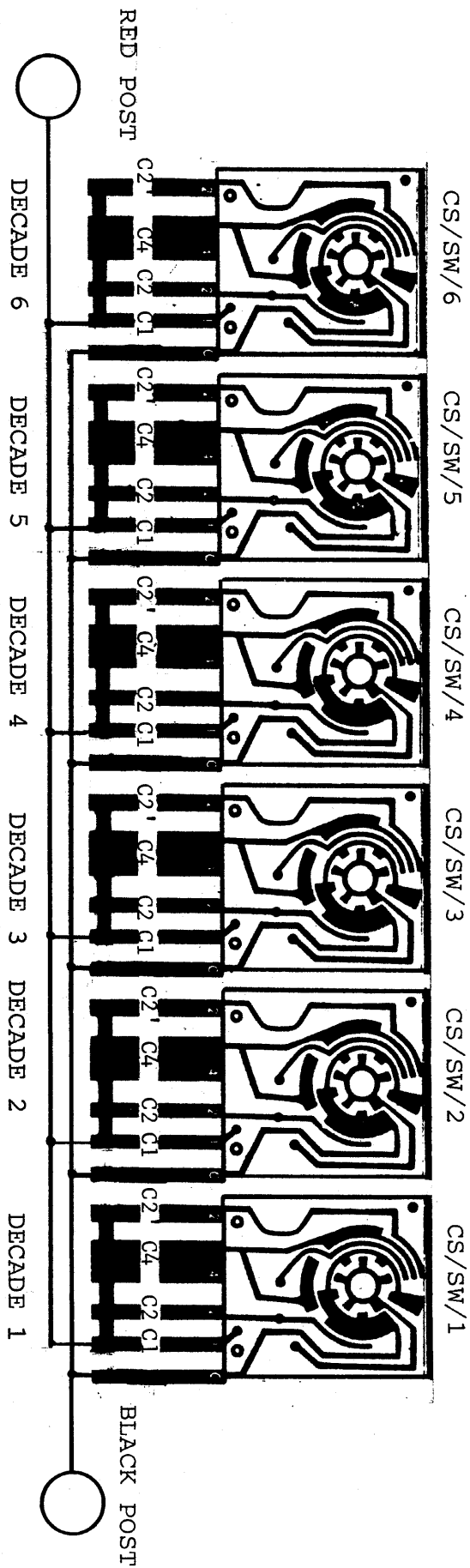


Figure 2.1
CS-300 COMPONENT LAYOUT (SCHEMATIC)

SECTION III

RESISTANCE-CAPACITANCE SUBSTITUTER

3.1 RCS-500 Resistance-Capacitance Substituter

The RCS-500 combines the RS-200 and the CS-300. Combine both the Part Numbers and Layouts of the RS-200 and CS-300 to get the PartsList and Layout of the RCS-500, except for the following.

Omit RS/CAS
Omit CS/CAS
Add RCS/CAS RCS-500 Case

3.2 RCS-502 Precision Resistance-Capacitance Substituter

The RCS-502 combines the RS-201 and the CS-301. Combine both the Part Numbers and Layouts of the RS-201 and CS-301 to get the Parts List and Layout of the RCS-502, except for the following:

Omit RS/CAS
Omit CS/CAS
Add PRCS/CAS RCS-502 Case

SECTION IV

INDUCTANCE SUBSTITUTER

4.1 LS-400 Wide Range Inductance Substituter

LS-400 PARTS LIST

DECADE 1 INDUCTORS

L1 1mH
L2 2mH
L3 2mH
L4 2mH

DECADE 2 INDUCTORS

L1 10mH
L2 20mH
L3 20mH
L4 20mH

DECADE 3 INDUCTORS

L1 100mH
L2 200mH
L3 200mH
L4 200mH

DECADE 4 INDUCTORS

L1 1H
L2 2H
L3 2H
L4 2H

LS/SW/1 Inductance Switch, 1st Decade
LS/SW/2 Inductance Switch, 2nd Decade
LS/SW/3 Inductance Switch, 3rd Decade
LS/SW/4 Inductance Switch, 4th Decade

LS/CAS LS-400 Case
LS/RBP Red Binding Post
LS/BBP Black Binding Post

4.2 LS-400A Inductance Substituter

The LS-400A is the same as the LS-400 except for the following:

Omit DECADE 4
Omit LS/SW/4

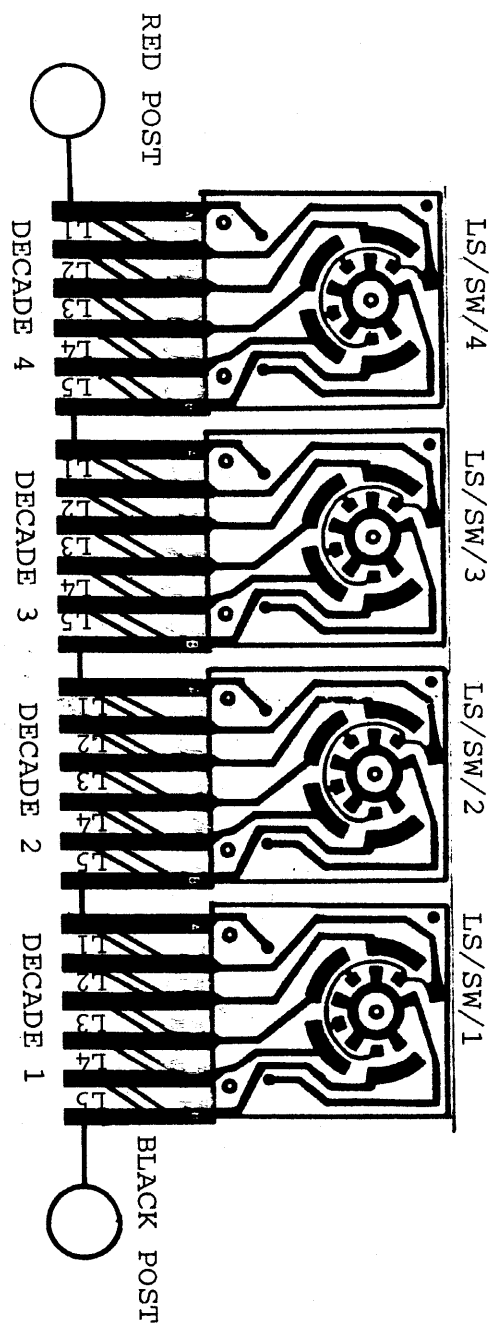


Figure 4.1
LS-4100 COMPONENT LAYOUT (SCHEMATIC)