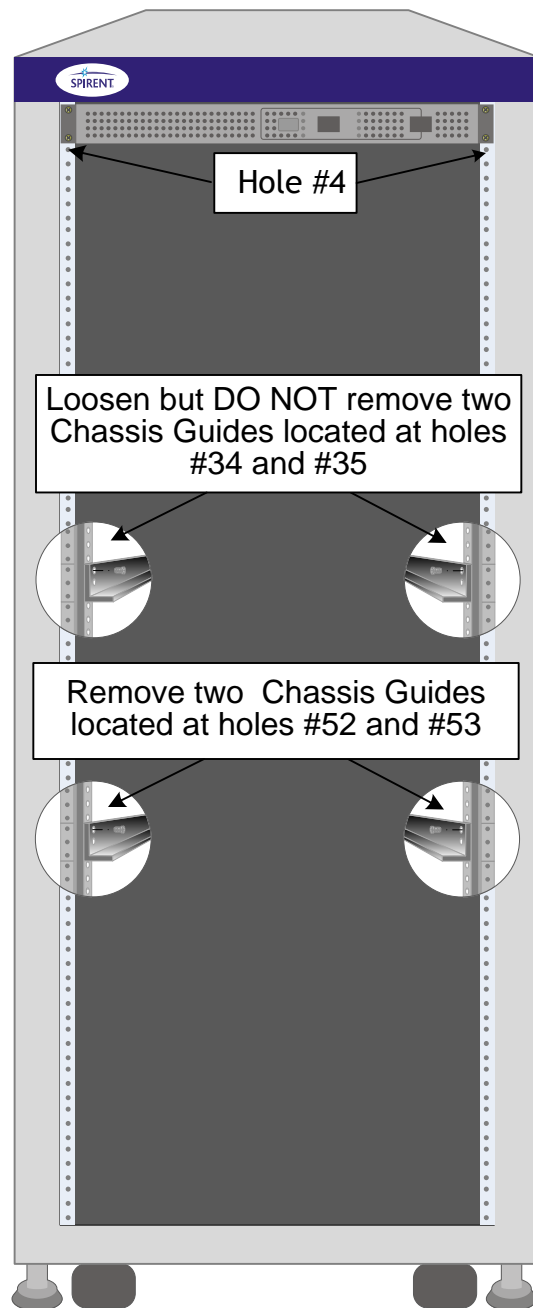
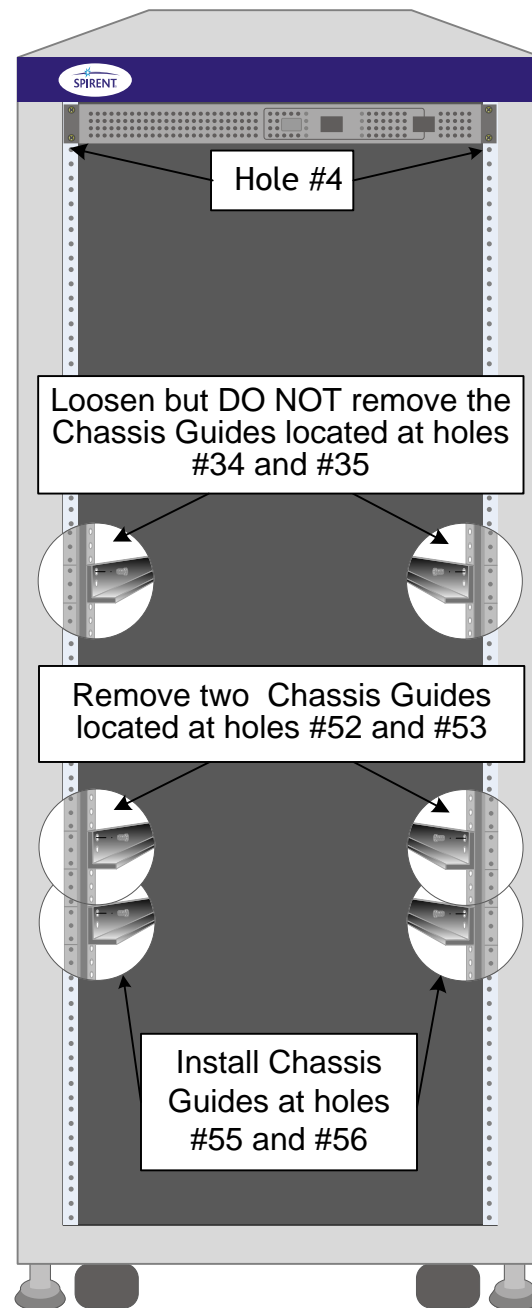


Chassis Guide Changes A



Chassis Guide Changes B

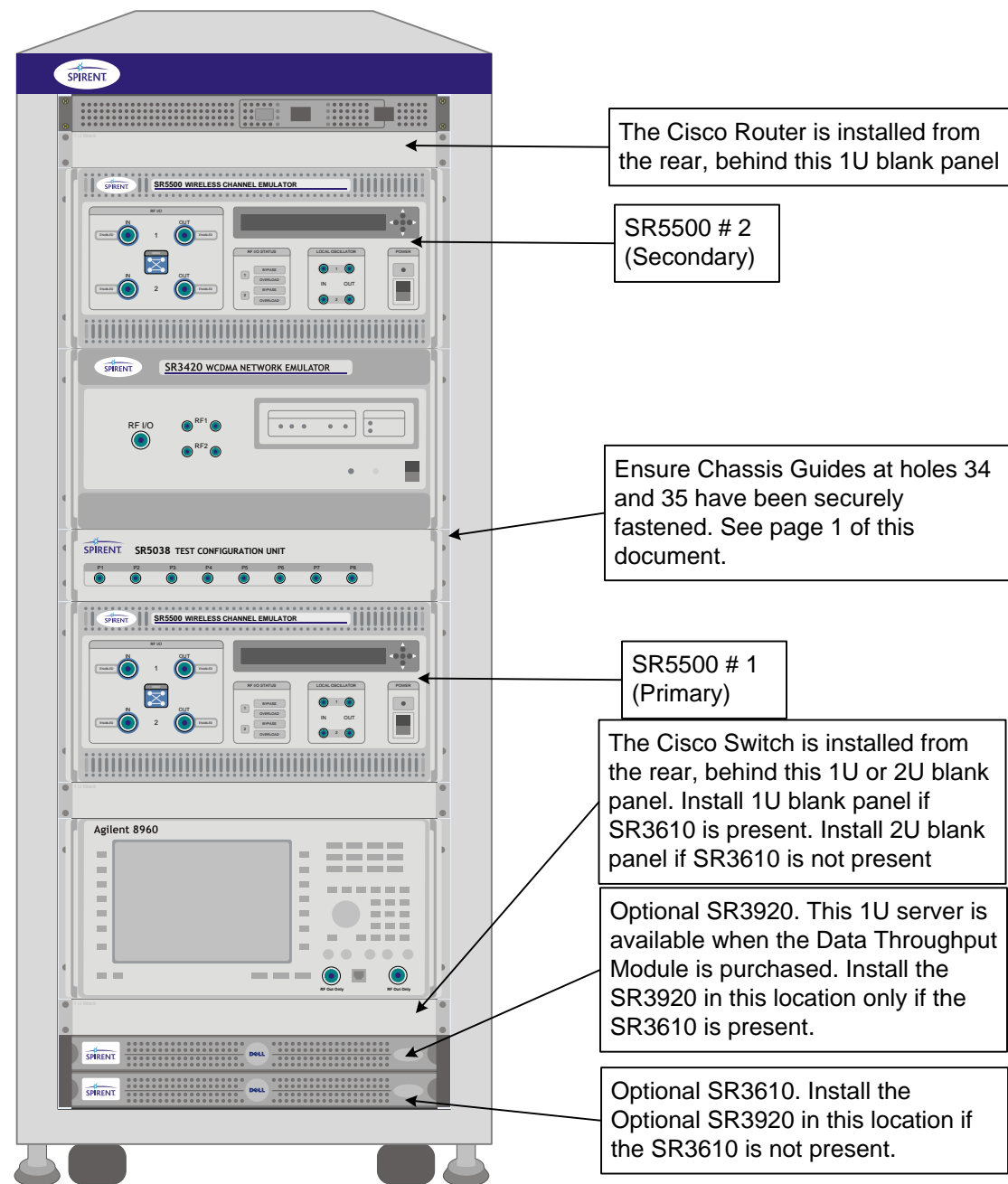


Chassis Guide Changes A

Instruction	
1	This change is to be performed for a NEW 8100-A304 installation.
2	Remove the Chassis guides located at holes 52 and 53 as shown in Chassis Guide Changes A digram. The Chassis Guides at Hole 55 and 56 are already in place as per the R28-8100-01 KIT definitions.
3	Loosen the screws for the Chassis Guides located at holes 34 and 35. DO NOT remove the chassis guides.
4	Install the SR5500 #1 and SR5038 as shown on Page 2 of this document. Enusre the SR5038 slides under the Chassis Guides at holes 34 and 35.
5	After installation of the SR5038, tighten the screws for Chassis guides 34 and 35. Ensure all (8) screws are tightened on these chassis guides.
6	Verify the Tinnerman locations on the front rail. To mount the equipment Tinnerman nuts are required at the following locations on both front rails. 9, 19, 24, 34, 37, 42, 45, 55, 59, 63,73, 77, 80 and 83.

Chassis Guide Changes B (Upgrades Only)

Instruction	
1	This change is to be performed for any upgrade from an existing 8100-A200 or 8100-A300 to an 8100-A304.
2	Remove all installed equipment above the optional 8960 location.
3	Remove the Chassis guides located at holes 52 and 53 as shown in Chassis Guide Changes B diagram
4	Install the removed chassis guides at holes 55 and 56. Ensure all (8) screws are tightened on these chassis guides.
5	Loosen the screws for the Chassis Guides located at holes 34 and 35. DO NOT remove the chassis guides.
6	Install the SR5500 #1 and SR5038 as shown on Page 2 of this document. Enusre the SR5038 slides under the Chassis Guides at holes 34 and 35.
7	After installation of the SR5038, tighten the screws for Chassis guides 34 and 35. Ensure all (8) screws are tightened on these chassis guides.
8	Verify the Tinnerman locations on the front rail. To mount the equipment Tinnerman nuts are required at the following locations on both front rails. 9, 19, 24, 34, 37, 42, 45, 55, 59, 63,73, 77, 80 and 83.

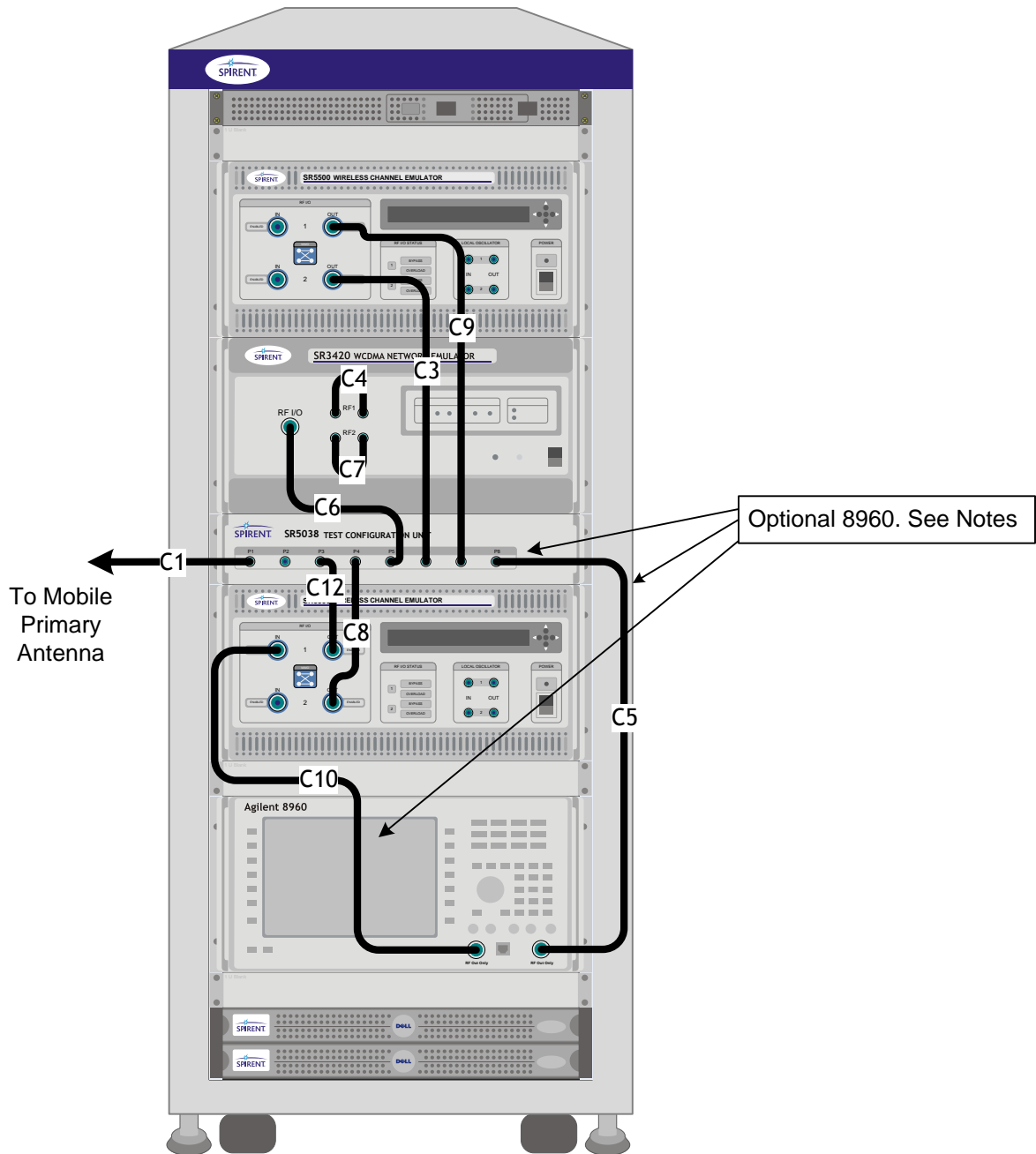


System Components		
Vendor	Model #	Qty
Agilent	8960 (Optional)	1
Spirent	SR5038	1
Spirent	SR3420	1
Spirent	SR5500M	2
Spirent	SR3920 (Optional)	1
Spirent	SR3610 (Optional)	1
Cisco	Router 1811	1
Cisco	Switch 2960	1
Emcor	1U Blank Panel	3
Emcor	2U Blank Panel	1

Assembly Procedure	
	Instruction
1	Ensure the rack AC power cords are not connected to wall outlets.
2	Turn the main power switches at the top of the racks to the OFF position.
3	Attach rack mount hardware to all instruments and remove the feet.
4	For a new 8100-A304 rack setup please refer to Page 1 (Chassis Guide Changes A) before installing instruments.
5	For an upgrade from an existing APEX-UDP-BX or APEX-UDP-CX to an 8100-A304 refer to Page 1 (Chassis Guide Changes B).
6	Put each instrument in the racks in the order shown at left, starting at the bottom of the rack and working upward.
7	Install filler panels on the racks as shown.
8	Install the Cisco Router & Switch from the rear of the rack. The Router and Switch should be mounted with the ports facing the rear of the rack.

The following steps shall be taken after all cable routing has been completed.

Applying Power to the System	
	Instruction
1	Install the hardware keys onto the Controller PC USB Ports.
2	Connect the PC's Serial or USB port to the mobile device under test, if interface is available.
3	Connect the AC power cords to all instruments.
4	Plug the rack AC power cord into the wall outlet.
5	Switch on the power switch on the front of the rack. Exhaust fans should be heard running at this time.
6	In the following order, one instrument at a time, turn on the power switches until all instruments are powered on; <ul style="list-style-type: none"> 1 - Router - wait 3 minutes 2 - SR3920 (Optional) 3 - SR3610 (Optional) 4 - Controller PC - Log In 5 - Client Laptop 6 - SR3420 7 - SR5500'S 8 - Power up remainder of instruments
7	Ensure each instrument powers up properly.
8	Setting the Time Zone on the system: <ul style="list-style-type: none"> 1 - To edit the time zone, double click on the clock displayed on the bottom right side of the Windows taskbar. Select the Time Zone tab and choose the appropriate Time Zone. 2 - Ensure the Time Zone is set the same for the Controller PC, Client Laptop, and Application Server 3 - To access the Application Server (SR3920) navigate to Start > All Programs> Accessories > Remote Desktop Connection on the Controller PC and use the following login information: Computer: 192.168.0.70 Username: Administrator Password: Sp!rent



Front Panel Cabling Procedure

Ref / Part # / Description

RF Cable Front Panel Connections:

Ref	Part #	Description
C1	04-001809	60" N-N (From) SR5038 P1 (To) Mobile Primary Antenna
C3	04-001806	19" 90 Deg N-N (From) SR5500#2 CH2 RF Out (To) SR5038 P6
C4	2310-9356	Front Panel Loopback (From) SR3420 SMA RF1 Out (To) SR3420 SMA RF1 IN
C5	04-001808	24" 90 Deg N-N (From) Agilent 8960 RF In/Out (To) SR5038 P8
C6	04-001807	12" 90 Deg N-N (From) SR3420 RF1/O (To) SR5038 P5
C7	2310-9356	Front Panel Loopback (From) SR3420 SMA RF2 Out (To) SR3420 SMA RF2 IN
C8	04-001845	9" 90 Deg N-N (From) SR5500#1 CH2 RF Out (To) SR5038 P4
C9	04-001806	19" 90 Deg N-N (From) SR5500#2 CH1 RF Out (To) SR5038 P7
C10	04-001806	19" 90 Deg N-N (From) SR5500#1 CH1 In (To) Agilent 8960 RF Out
C12	04-001784	6" 90 Deg N-N (From) SR5500#1 CH1 RF Out (To) SR5038 P3
2300-7564		50 Ohm Terminator (Optional see Notes) (From) SR5038 P8 (To)

Notes:

1. Optional 8960

Cables C5 and C10 only required if the optional 8960 is installed. Install 50 Ohm terminator (2300-7564) on port P8 of the SR5038 if the optional 8960 is NOT installed.

2. Cable C12 reference designator has been updated from C2. Older versions of the platform may indicate C2 cable reference designator.

8100-A304 RX Diversity Cable Changes

Ref / Part # / Description

Additional Required Components

C11	04-001809	60" N-N
	(From)	SR5500#1 CH2 RF Out
	(To)	Mobile Diversity Antenna

RF Cable Front Panel Changes to Support Rx Diversity

1	Disconnect end of C8 cable from SR5500#1 CH2 Output and connect to SR5038 P2.
2	Connect the C11 cable between the SR5500#1 CH2 output and the Mobile Diversity Antenna

Manual Cable Changes Required to Support 2 Channel RX Diversity Test Cases.

This option allows the user to run 2 channel RXD test cases without requiring the external Combiner as shown on page 5 of this document.

Note that specific calibration wizard steps must be performed to support this option.

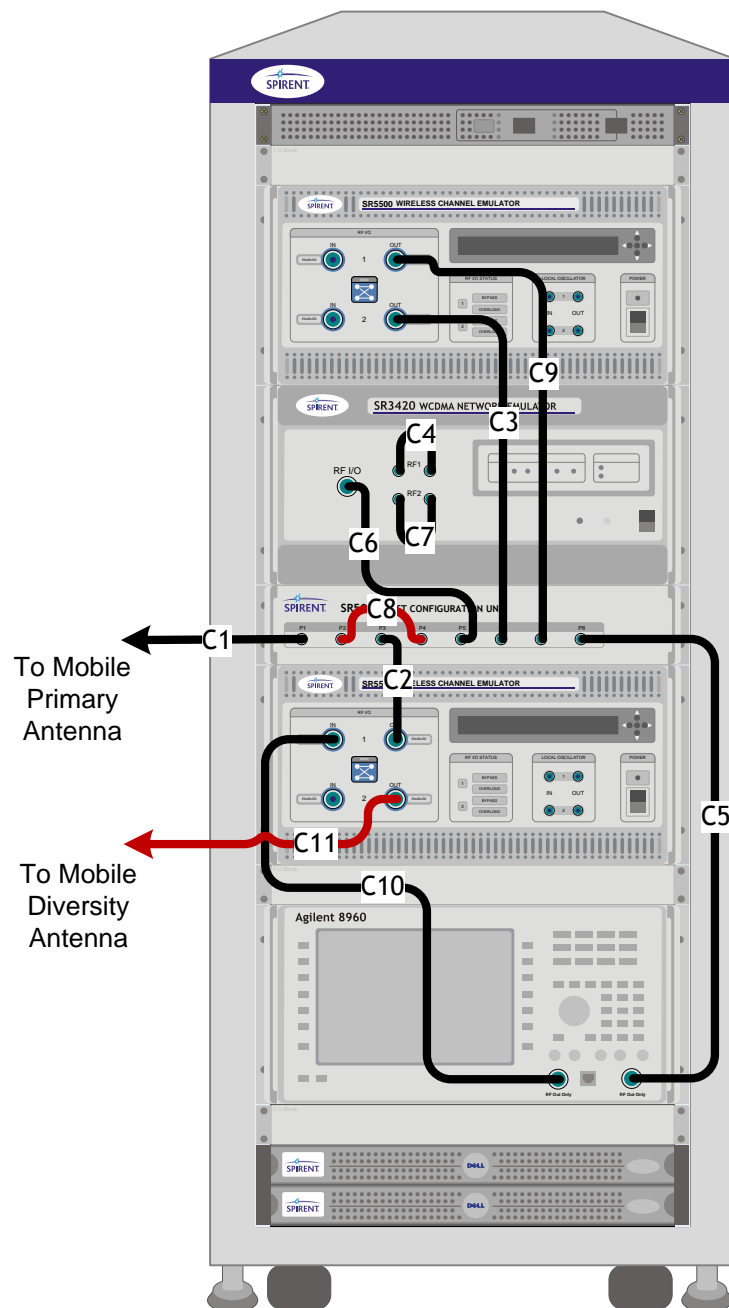
1. Cable C8 must be moved from the SR5500 Primary Channel 2 RF Output to the SR5038 P2 port.

Notes:

1. Optional 8960

Cables C5 and C10 only required if the optional 8960 is installed. Install 50 Ohm terminator (2300-7564) on port P8 of the SR5038 if the optional 8960 is NOT installed.

2. Cable C12 reference designator has been updated from C2. Older versions of the platform may indicate C2 cable reference designator.



C104-00180960" N-N(From)SR5058 #1 P2(To)Mobile Primary Antenna

8100-A304 RX Diversity Cable Changes

Ref / Part # / Description

RF Cable Front Panel Connections:

C3	04-001806	19" 90 Deg N-N	(From) SR5500#2 CH2 RF Out	(To) RF Power Combiner Out Port
C8	04-001809	9" 90 Deg N-N	(From) SR5500#1 CH2 RF Out	(To) RF Power Combiner Out Port
C11	04-001809	60" N-N	(From) SR5038 P1	(To) RF Power Combiner In Port
RF Power Combiner	85-002921		(From) SR5500#1 and SR5500#2	(To) UE RX Diversity Connection
2300-7564	50 Ohm Terminator		(From) SR5038 P4	(To)
2300-7564	50 Ohm Terminator		(From) SR5038 P6	(To)
2300-7564	50 Ohm Terminator (Optional see Notes)		(From) SR5038 P8	(To)

Manual Cable Changes Required to Support 4 channel RX Diversity Test Cases.

This option allows the user to run 4 channel Advanced Receiver RXD test cases.

Note that specific calibration wizard steps must be performed to support this option and the power divider is mandatory.

1. Cables C3 and C8 must be moved from the SR5038 to the external RF Power Combiner prior to running any RX Diversity test cases. See the above chart for cable location information.

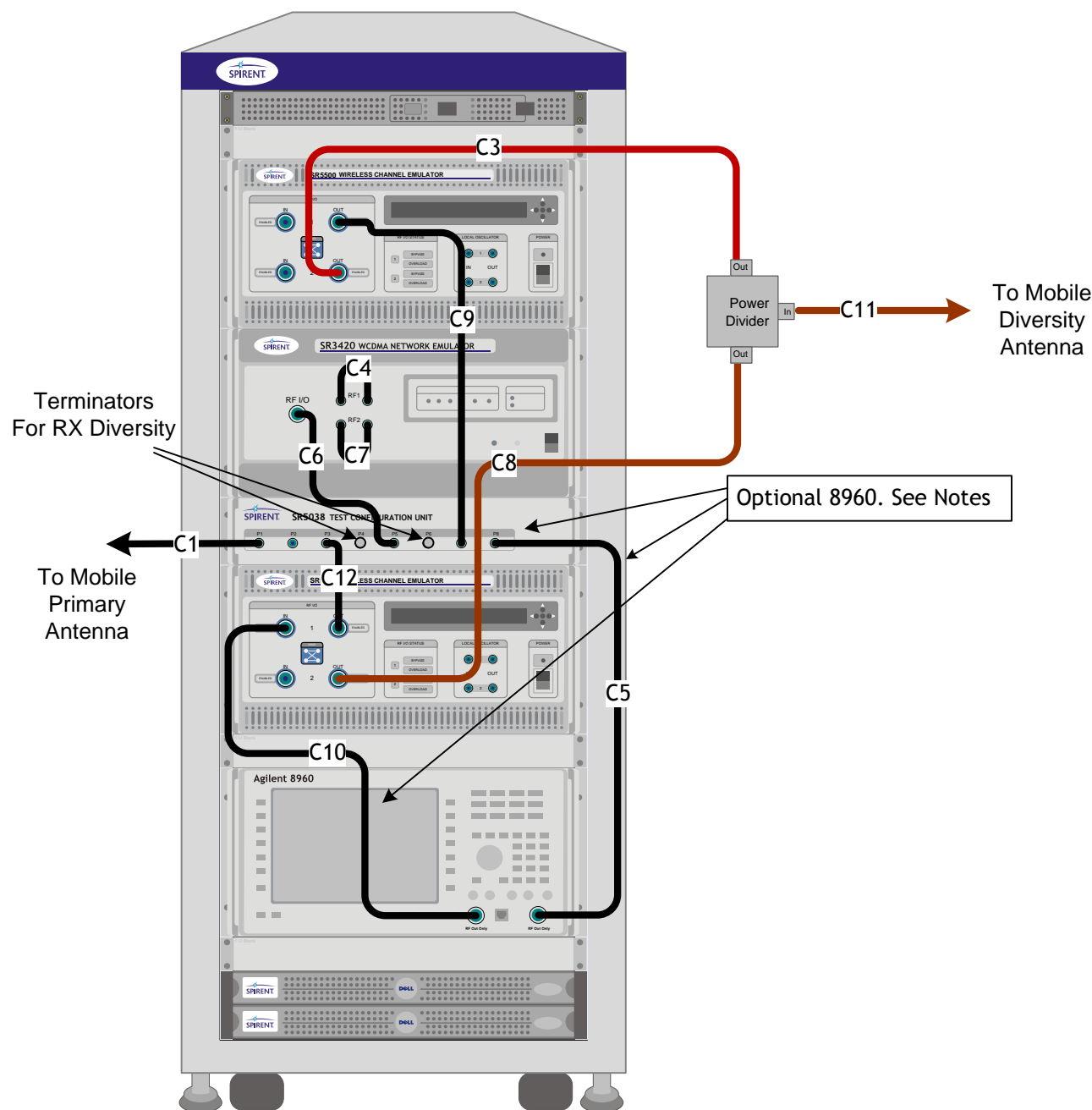
2. Install the N type 50 Ohm terminators on the SR5038 P4 and P6 ports.

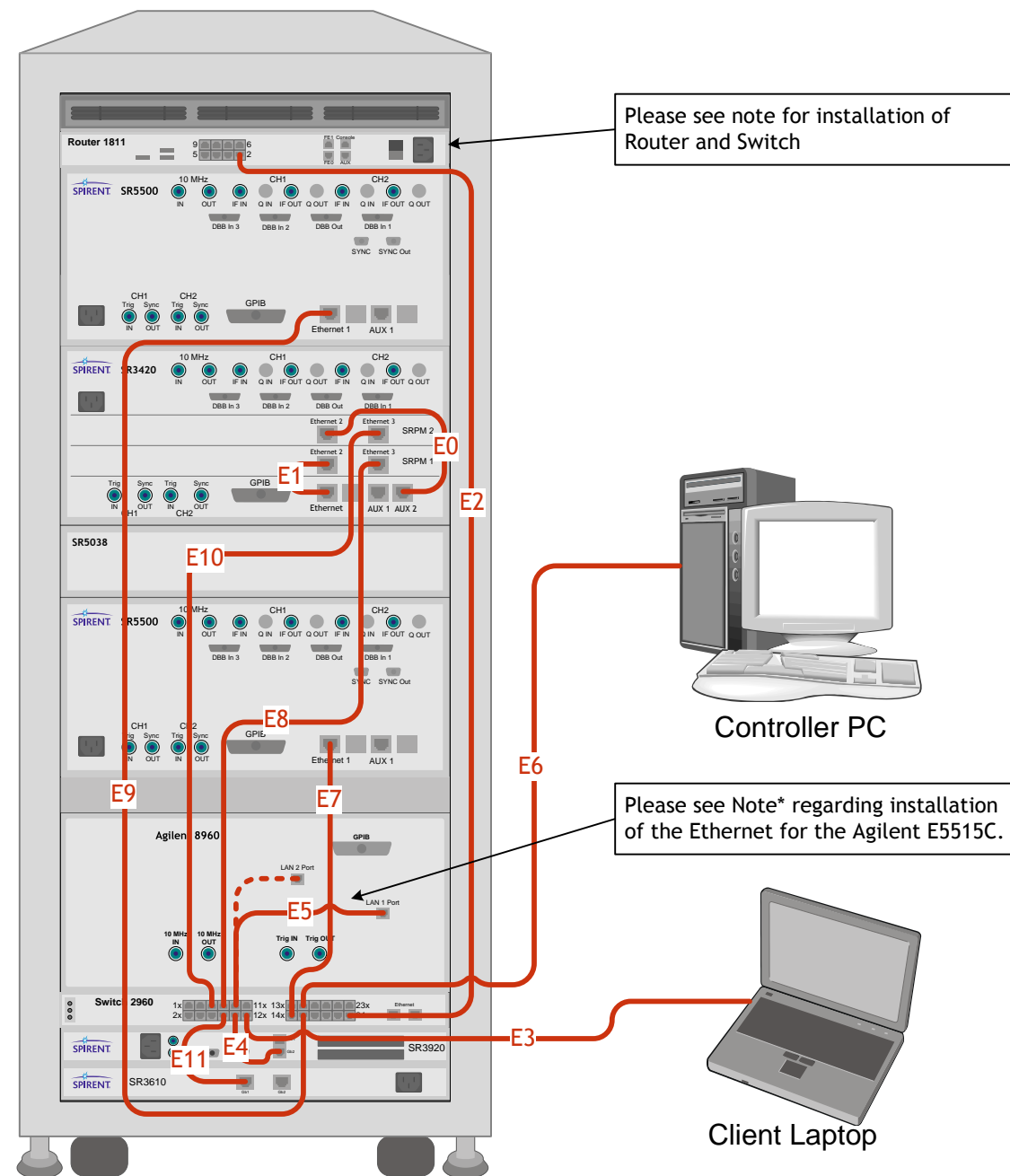
Notes:

1. Optional 8960

Cables C5 and C10 only required if the optional 8960 is installed.

Install 50 Ohm terminator (2300-7564) on port P8 of the SR5038 if the optional 8960 is NOT installed.





Rear Panel Cabling Procedure

Ref / Part # / Description

Ethernet Cable Rear Panel Connections:

E0	53-001223	Ethernet - Loopback (From) SR3420 Ethernet Port 2 (SRPM 2)	(To) SR3420 AUX 1
E1	2311-9653	Ethernet - Loopback (From) SR3420 Ethernet Port 2 (SRPM 1)	(To) SR3420 Ethernet Port 1
E2	2200-7566	Ethernet - 7' (From) Router Port 2X	(To) Switch Port 24X
E3	2200-7804	Ethernet - 15' (From) Client Laptop	(To) Switch Port 12X
E4	2200-7566	Ethernet - 7' Optional (From) SR3920 Ethernet Port Gb2	(To) Switch Port 10X
E5	2200-7566	Ethernet - 7' (From) Agilent 8960 LAN PORT (See Notes)	(To) Switch Port 9X
E6	2200-7804	Ethernet - 15' (From) Controller PC	(To) Switch Port 15X
E7	2200-7566	Ethernet - 7' (From) SR5500#1 Ethernet	(To) Switch Port 14X
E8	2200-7566	Ethernet - 7' (From) SR3420 Ethernet Port 3 (SRPM 1)	(To) Switch Port 7X
E9	2200-7566	Ethernet - 7' (From) SR5500#2 Ethernet	(To) Switch Port 16X
E10	2200-7566	Ethernet - 7' (From) SR3420 Ethernet Port 3 (SRPM 2)	(To) Switch Port 5X
E11	2200-7566	Ethernet - 7' Optional (From) SR3610 Ethernet Port Gb1	(To) Switch Port 8X

Notes:

1. Configured Options

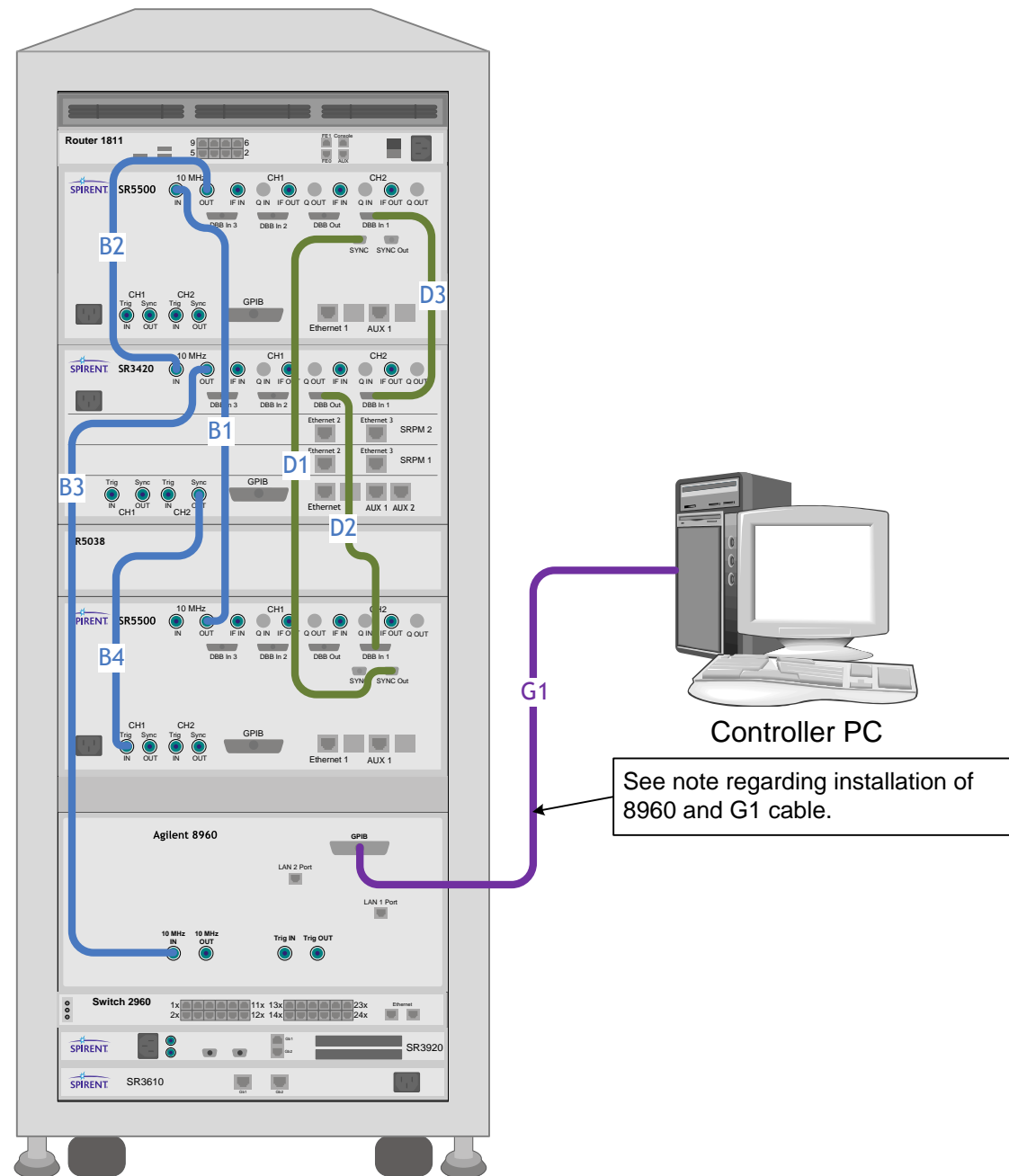
Cables E0 and E10 only needed if the SR3420 is configured with Dual SRPM's.

Cable E5 only required if the optional 8960 is present.

Cable E11 only required if the optional SR3610 is present.

2. Router models may vary. Please refer to Page 8 for detailed Ethernet connections

3. For the Agilent E5515C, rear panel connections may vary. Refer to Spirent Application Note 107 "Configuration Guide for the E5515C (Agilent 8960) Test Set" for a detailed description of the configuration and the rear panel cable connections.



See note regarding installation of 8960 and G1 cable.

Rear Panel Cabling Procedure

Ref / Part # / Description

BNC Cable Rear Panel Connections:

B1	2310-4859	BNC - 36"
	(From)	SR5500#2 10MHz Out (To) SR5500#1 10MHz In
B2	2310-4859	BNC - 36"
	(From)	SR3420 10 MHz Out (To) SR5500#2 10MHz In
B3	2310-4859	BNC - 36"
	(From)	SR5500#1 10MHz Out (To) Agilent 8960 10 MHz IN
B4	2310-4859	BNC - 36"
	(From)	SR3420 CH2 Sync Out (To) SR5500#1 CH1 Trig In

GPIB Cable Rear Panel Connections:

G1	2200-7817	GPIB - 2M
	(From)	Controller PC (thru GPIB-USB) (To) Agilent 8960

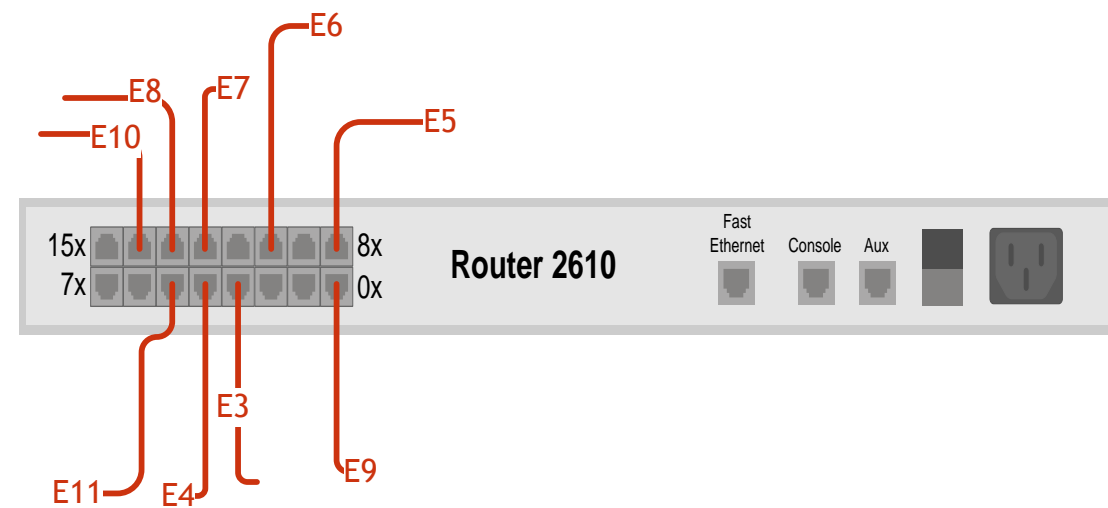
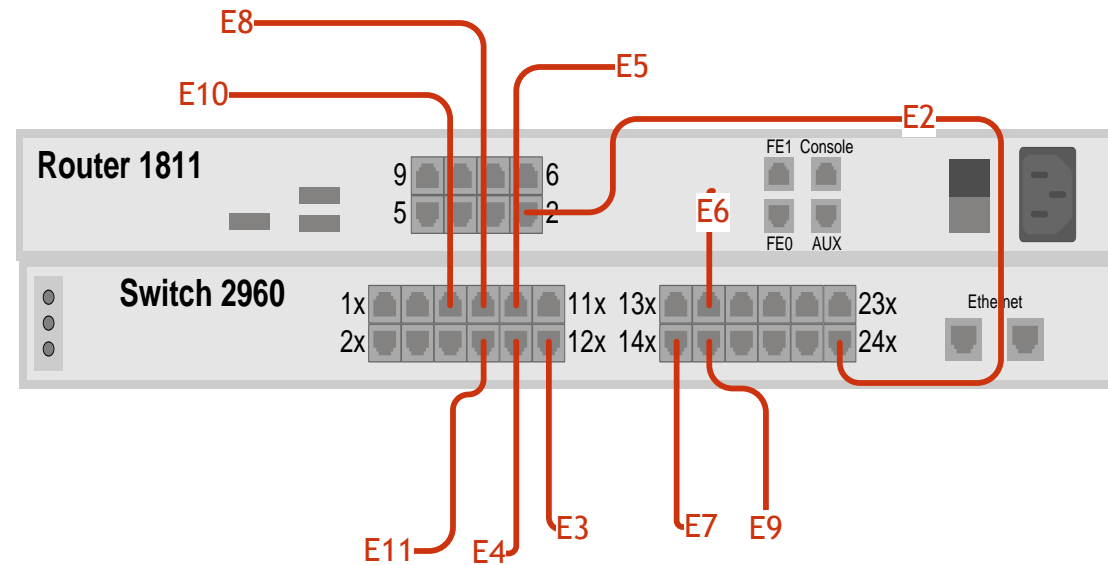
Other Rear Cable Panel Connections:

D1	2310-9552	SR5500 Sync Cable
	(From)	SR5500#1 Sync Out (To) SR5500#2 Sync In
D2	04-002105	DBB Cable
	(From)	SR3420 DBB Out 1 (To) SR5500#1 DBB In 1
D3	04-002105	DBB Cable
	(From)	SR3420 DBB In 1 (To) SR5500#2 DBB In 1

Notes:

1. Configured Options

Cables B3 and G1 only needed if the 8960 is present.



Ethernet Connections

Ref / Part # / Description

Ethernet Cable Rear Panel Connections:

E2	2200-7566	Ethernet - 7' (Optional) Connect when Router+Switch is present
E3	2200-7804	Ethernet - 15'
E4	2200-7566	Ethernet - 7'
E5	2200-7566	Ethernet - 7'
E6	2200-7804	Ethernet - 15'
E7	2200-7566	Ethernet - 7'
E8	2200-7566	Ethernet - 7'
E9	2200-7566	Ethernet - 7'
E10	2200-7566	Ethernet - 7'
E11	2200-7566	Ethernet - 7'

Depending on the router configuration available on the system, follow the appropriate Ethernet Connections diagram

Notes:

1. Configured Options

- Cable E10 only needed if the SR3420 is configured with Dual SRPM's.
- Cable E5 only required if the optional 8960 is present.
- Cable E11 only required if the optional SR3610 is present.