

Model 8304-5 RF Switching Subsystem *Simplifies Mobile Radio Testing*

DC to 2 GHz



Features

- /// DC - 2 GHz Frequency Range
- /// 50 Ohm Impedance
- /// 5 Radio Interfaces
- /// RS-232 Control

Description

API /Weinschel's Model 8304-5 RF Switching System is part of an automated test set-up for various types of commercial and military radios. The difference in the test set up and configuration between different types of radios will be the control interconnect cables used.

The block diagram below shows the RF Switch Subsystem which is designed to control and test up to 5 radios at a time. The API Test Solutions 3900 Series Digital Radio Test Set (Customer provided) will be used as the controller, signal stimulus and measurement instrument. The API

Wichita Model 3901 Digital Radio Test Set is connected to the API / Weinschel RF Switching Subsystem to enable the total system to automatically connect signals to 5 radios. The RF signals are routed through an electro-mechanical switch.

All switching selection occurs via the USB control port located on the rear panel of the Model 8304-5. The RF Switching System is an RF subsystem that utilizes an internal Micro Computer to provide control of the switches and relays via the USB to serial interface.

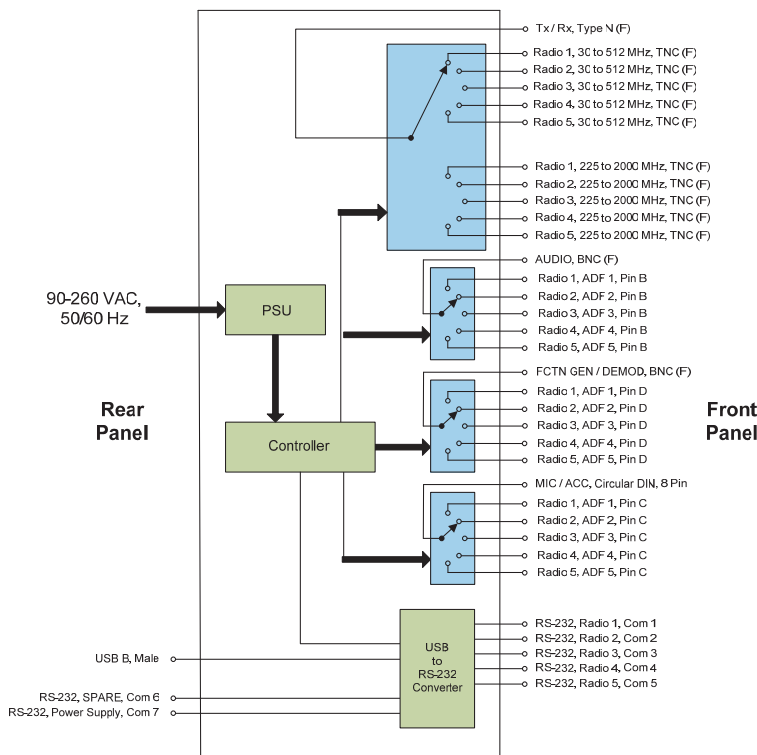


Figure 1. Block Diagram, Model 8304-5

SPECIFICATION	DESCRIPTION	
Input Power Requirements	AC 115/230 Vac, 50/60 Hz, 1.5 A Connector per IEC320	
Environmental Operating	Temperature 0 to +50°C Storage Temperature -40° to +167 °F (-40° to +75°C)	
USB to 8 Serial Ports Adapter	Connector	9-pin male D
	Number of Ports	8
	Signals	TXD, RXD, RTS, CTS, DTR, DSR, DCD, GND
	Speed	up to 921.6 kbps
	Driver	Windows 98, ME, 2000, XP, 2003 Server, Vista, Linux (Kernel 2.4 and up built-in)
	Indicators (Front Panel) Tx (Transmit) and Rx (Receive)	
RF IN / OUT	Frequency Coverage	DC - 2000 MHz
	Impedance	50 Ω nominal
	VSWR	1.3:1 maximum
	Pin (CW maximum)	+30 dBm hot switching +43 dBm carrying
	Switching Operations	1 million minimum
	Switching repeatability (System)	+/- 0.1 dB
	Flatness	+/- 0.5 dB
	Insertion Loss	0.5 dB
	RF In Connector (1 Place)	Type N Female
	RF Out Connector (10 Places)	TNC Female
	Switching Speed	20 mSec from receipt of command at switch
Tx Audio	Frequency Range	500 Hz – 15 kHz
	Impedance	600 Ω nominal
	Connector In	BNC Female
	Output (5 Places)	Pin D ADF Connector
Rx Audio	Frequency Range	500 Hz – 15 kHz
	Impedance	600 Ω nominal
	Connector In	BNC Female
	Output (5 Places)	Pin B ADF Connector
Push to Talk	Signal Input	HI/GND TTL control
	Connector In	8 pin DIN
	Output (5 Places)	Pin C ADF Connector
FUNCTION GENERATOR / DEMO MOD	Connector IN	Circular DIN, 8 Pin, Female

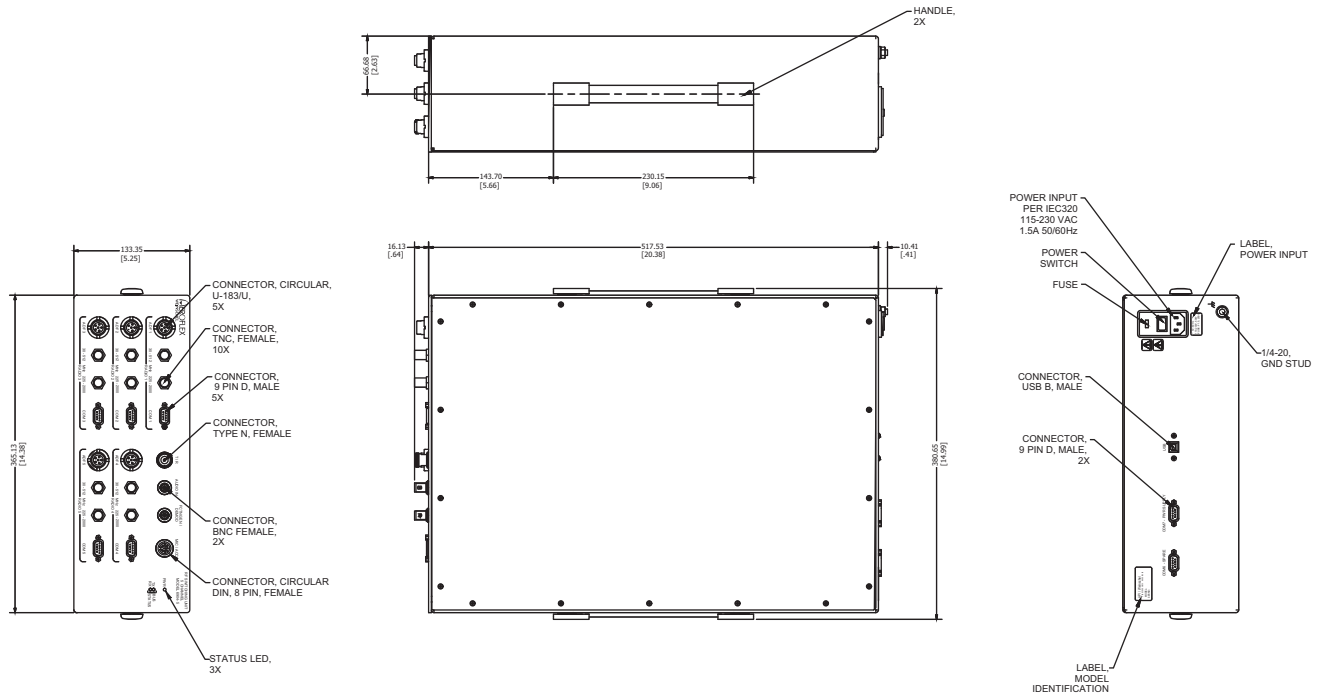
EXPORT CONTROL:

This product is controlled for export under the International Traffic in Arms Regulations (ITAR). A license from the U.S. Department of State is required prior to the export of this product from the United States.

EXPORT WARNING:

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Physical Dimensions:



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

Interconnect Cables

The following interconnect cables are provided:

From API Wichita Model 3901 Digital Radio Test Set to API / Weinschel 6904 RF Switch Subsystem

TR to RF IN	N to N	P/N 068-72-12/0
Audio IN	BNC to BNC	P/N 068-95-12/0
Funct Gen/Demod	BNC to BNC	P/N 068-95-12/0
Mic	8 pin DIN to 8 pin DIN	P/N 193-10843

From API / Weinschel 6904 RF Switch Subsystem to Radio Under Test

30-88 MHz In/Out	TNC to TNC	P/N TBD
90 - 512 MHz In/Out	TNC to TNC	P/N TBD
ADF Connector	A3012775-2 to A3012775-2	P/N 193-1084