518 MISCELLANEOUS FACTs

1. The **Model 518** is ready to connect without any programming necessary.

2. The Bridge MUST be connected to a 120VAC source at all times for normal operation.

3. Naming descriptors:

PORT x	=	The physical modular connection for [circuits 1 – 7 on the back panel] or [terminal 8 on the front panel].
PBx_SW_z	=	PushButton x = {1-7} SWitch z = {0/1} where z = 0 = **NOT** pushed, 1 = pushed
R_SW_x	=	ROTARY SWITCH x = { 1 > 8 } PORT 8 Monitor Terminal
RELAY 1	=	PATH RELAY – Denoting the routing of the RX audio to PORT 8 Monitor Terminal. Controllable with programming step D6x, x=0 unswitched audio, x=1 switched audio.
AUX PORT	=	USB SERIAL CONNECTION connecting to a PC. OKphone recommends Tera Term VT ver. 4.76 freeware serial connection or Hyperterminal {Win XP}, or any commercial Serial program. Settings 9600 / 8bit data / no parity/ 1 bit stop / no flow control.
MODE SW_A,B,C		A = normal operation, GREEN LED. B = allows **518** to respond remotely to command phones via DTMF, RED LED. C = allows **518** to **be programmed** by the Monitor Phone on Port 8 only, RED LED. [TO enter MODE C, one must toggle past MODE B in less than one second, or the MODE will interpret the MODE as MODE B].

4. Drawings 64-518-W2 and 64-518-W4 and 64-518 SPEC are referenced in this manual.

5. For the quietest operation, it is best to disconnect the USB SERIAL cable. Normal ERL and noise should be <-52dBm without the USB connected, and <-46dBm connected.

Work in Progress

518 Operations

1. When PBx_SW_0 is not pushed, the GREEN LED in the pushbutton indicates RX/TX audio is able to pass in/out that port. When PBx_SW_1 is pushed, the LED will extinguish, indicating that the PORT audio is disabled from the other six CIRCUIT ports, with the exception of Port 8. PORT 8 was designed to be a troubleshooting MASTER terminal allowing the operator to listen for audio changes on both sides of a disconnected CIRCUIT. This will more efficiently allow for the detection of problems on the WAWAS circuit.

2. The Rotary Switch … R_SW_x has eight positions labeled PORTS 1 > 7 and the eighth position is labeled ALL PORTS. The first 7 positions allow the PORT 8 Monitor to specifically target only one port for RX/TX. Here is an example to illustrate:

PB1_SW_0	PB5_SW_0	R_SW_2
PB2_SW_1	PB6_SW_0	
PB3_SW_0	PB7_SW_0	MODE=A
PB4_SW_0		

   With the 6 circuit ports and only PORT 2 enabled, PORT 8 can monitor just PORT 2 without any influence from the other circuits, this is an example of an EXCLUSIVE audio connection.

   Without touching the ROTARY SWITCH, enable each of the circuits by toggling the pushbuttons so as to illuminate the GREEN LEDS. PORT 8 still has an exclusive connection with PORT 2 only, however PORT 2 is connected to the other six circuits. So when PORT 8 speaks {TX}, only port 2 will hear this audio, when Port 2 answers PORT8, the other circuit ports will be able to hear this audio.

   Without touching the ROTARY SWITCH, disable the PORT 2…. PB2_SW_0.
   PORT 8 still has an exclusive connection with PORT 2 and now vice versa,
   and even though the 6 other ports are enabled, these ports do NOT hear the RX/TX audio between PORT 2 & PORT 8. So the operator on PORT 8 can communicate with a single port, no matter if the PUSH BUTTON SWITCH is enabled/disabled …….only in the first 7 positions of the ROTARY SWITTCH. This EXCLUSIVITY doesn't apply to position 8.

3. POSITION 8 has the unique feature of excluding other circuits in positions 1>7.

   Position 8 is for monitoring ALL PORTS for RX/TX for PORT 8 ONLY.

   Referencing 64-518-W2 shows an ***important*** distinction about PORT 8.

   TX audio from PORT 8 to PORTS 1>7 RX….always is SWITCHED by the PUSHBUTTONS for the circuits.

   RX audio from PORTS 1>7 TX to PORT 8 can be switched or unswitched depending on the PATH RELAY.

518 USB CONNECTION with a PC

1. First step is to determine which COM port the ***518*** will be communicating over. Power down the ***518*** and do not connect the USB cable yet. Start the PC serial application program *TERA TERM*. Choose SETUP on the MENU bar, Choose the PORT drop down box to see which ports are available BEFORE connecting the USB cable. Write down the current ports. Press the CANCEL button and EXIT the *TERA TERM* program.

2. With the ***518*** still powered down, plug in the USB cable from the PC to the ***518*** and allow Windows to initialize the USB buss.

3. Re-Start the serial application program *TERA TERM*, choosing SETUP as in STEP 1. and click PORT to choose the new COMx port (this port wasn't included in step one) that will be used for communication between the ***518*** and the CPU.

4. Plug in the ***518*** and allow it to initialize, RED/GREEN leds will flash, with solid RED indicating the initialization is over.

5. Press the "D" key on the keyboard of the CPU and the ***518*** will issue 7 lines of info for an eventual software application:

   * SABx MODEL 518 *
   SN: 518-1001
   ID: 7777
   FIPS: 11001
   VER: 1.00
   MODE: SAB1
   RELAY: 1

8. Pressing a second "D" will **D**isplay **D**ata:

```
NUMBER ID DIGITS........D0 4                ******************************
BRIDGE MODE.............D1 0 = SAB1         *** OKphone SABx PARAMETERS ***
STATION ID..............D2 7777             *** FIRMWARE VERSION = 1.00 ***
RELAY MODE..............D6 1                *** SN:518-1001  FIPS:11001 ***
                                            ******************************
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9. Reference SAB Programming Parameters v1.00 for setup of ***Model 518***.

Work in Progress