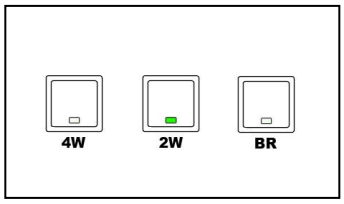
@ 324B TERMINAL



1. 

2W-switch pushed means that ***324B*** terminal will connect to the 2W circuit when the handset goes OFF-HOOK, Dial Tone will be heard in the Handset Receiver.

   A. Programming step (DC7x) must be configured for x=1 for this to occur.

   B. 

BR-switch MUST be OFF for 2wire connection to occur. (***324B*** will not initiate a 2W connection unless the BR-switch is not pushed (OFF)).

   C. 

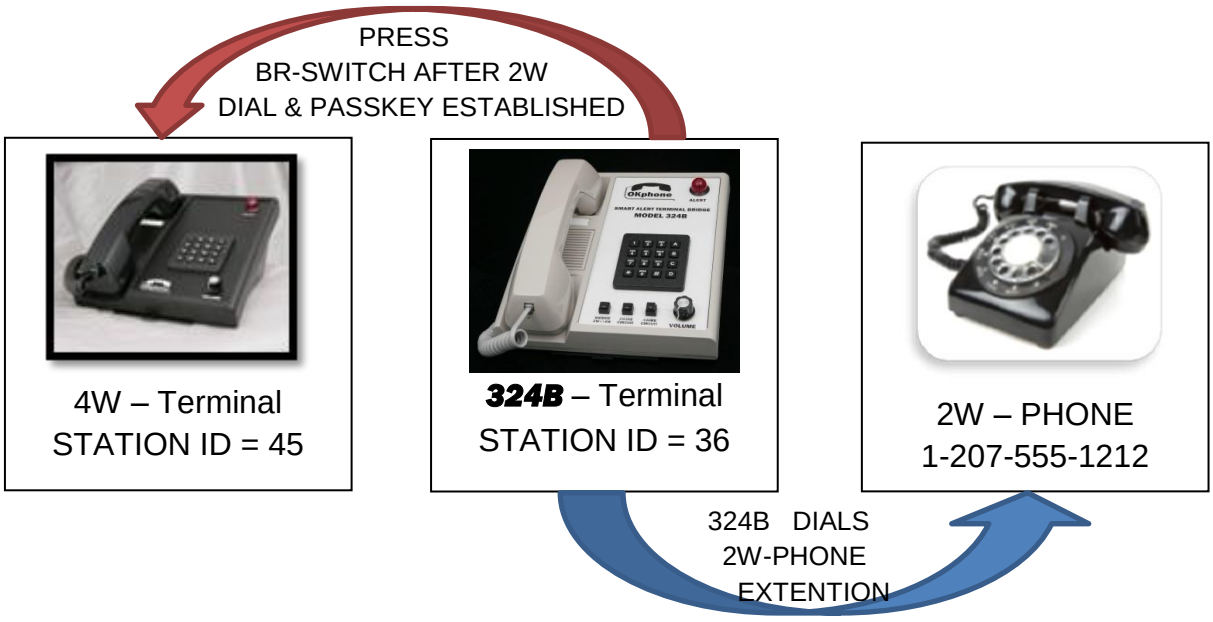
4W-switch OFF insures that the 4W circuit doesn't hear any 2wire circuit audio, such as DTMF signaling, dial tones, and busy signals.

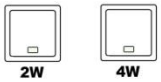
2. The operator can commence to dial the desired exchange telephone number. If the line is busy or if the operator wishes to terminate the call, replace the handset ON-HOOK, assuming programming step DC4x where x=1 is configured.

3. Once the **2Wire Remote Phone** operator knows that the ***324B*** is trying to connect, HE or SHE MUST enter the BRIDGE PASSKEY (reference programming step DB1xxxx) within 30 seconds or the ***324B*** will automatically terminate the call.

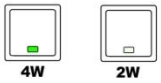
4. Once the 2W Remote Phone has "picked-up", entered the PASSKEY # "79", the ***324B*** will illuminate the BR LED, deliver a HI/LO confirmation tone signaling that the 2wire circuit has BRIDGED with the 4wire circuit, Pressing the BR switch to the OFF state will disconnect the 4W circuit from the [2W-4W circuit BRIDGE], yet keep the 2W circuit connected with the ***324B***. Pressing the BR switch again restores the [2W-4W circuit BRIDGE] with the 4W circuit. Page 2 contains the pictorial diagram of circuit connection.

5. An alternative way to contact the 2W circuit is to leave the handset ON-HOOK, and to Press "B*" on the terminal keypad. This SPEED DIAL action causes the ***324B*** to connect to the 2W circuit and to dial the stored number in programming step (D# 15N #). The handset can be picked up anytime after the SPEED DIAL command has been entered.

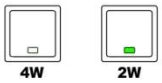


6. 

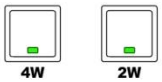
The Primary reason for 2W-switch and 4W-switch is to direct DTMF/SS4 signaling from the keypad to the respected circuits.



This combination sends SS4 to the 4W circuit only.



This combination sends DTMF to the 2W circuit only.



This combination sends SS4 to both the 2W & 4W circuits.

7. Terminating the 2W connection is accomplished five ways.

A. Replacing the Handset ON-HOOK will terminate the [2W-4W circuit BRIDGE].
B. 2W REMOTE PHONE is “hung-up”, by replacing the handset ON-HOOK, or the circuit is interrupted by the Central Office (CO).
C. 2W REMOTE PHONE issues a 2 digit DTMF 2nd ALERT #, Our Ex. “58”
D. 4W Terminal issues a 2 digit SS4 command, Our Ex. “58”.
E. If handset is ON-HOOK, Pressing “B” and “#”
F If handset is ON-HOOK, Pressing “*” and “#” simultaneously, holding pressed for two seconds will RESET the terminal.
G. Removing the power cord from ***324B***.
H. SERIAL program – “^” will perform warm boot.

1. 

If the Handset is picked up with only the 4W-switch pushed, the ***324B*** is connected to the 4W circuit ONLY. In this MODE the [2W-4W BRIDGE] is disabled and cannot be activated until the handset goes back ON-HOOK and the 2W-switch is Pushed (ON) and the 4W-switch is OFF.

2. The extra STATION ID functionality will be described more fully in the next section [4W SIGNALS THE ***324B***].

3. If ***324B*** Terminal is left in an unmanned location expecting to be reached by either 4W or 2W circuits, leave the 4W SWITCH off and the 2W SWITCH ON.

224B 2WIRE REMOTE INTERFACE

1. The **MODEL 224B 2WIRE REMOTE** Interface senses line current being seized by the ***324B*** and doesn't require any DTMF dialing from the ***324B*** before ringing the 2wire remote phone.

2. to The **MODEL 224B 2WIRE REMOTE** Interface should NOT be connected to the CO. It is meant be used as an interface between the ***324B*** and a 2wire phone or CONSOLE, since it provides DC battery bias, dial tone, and ringing.

3. Practical max length of connections should be 1000 FT.

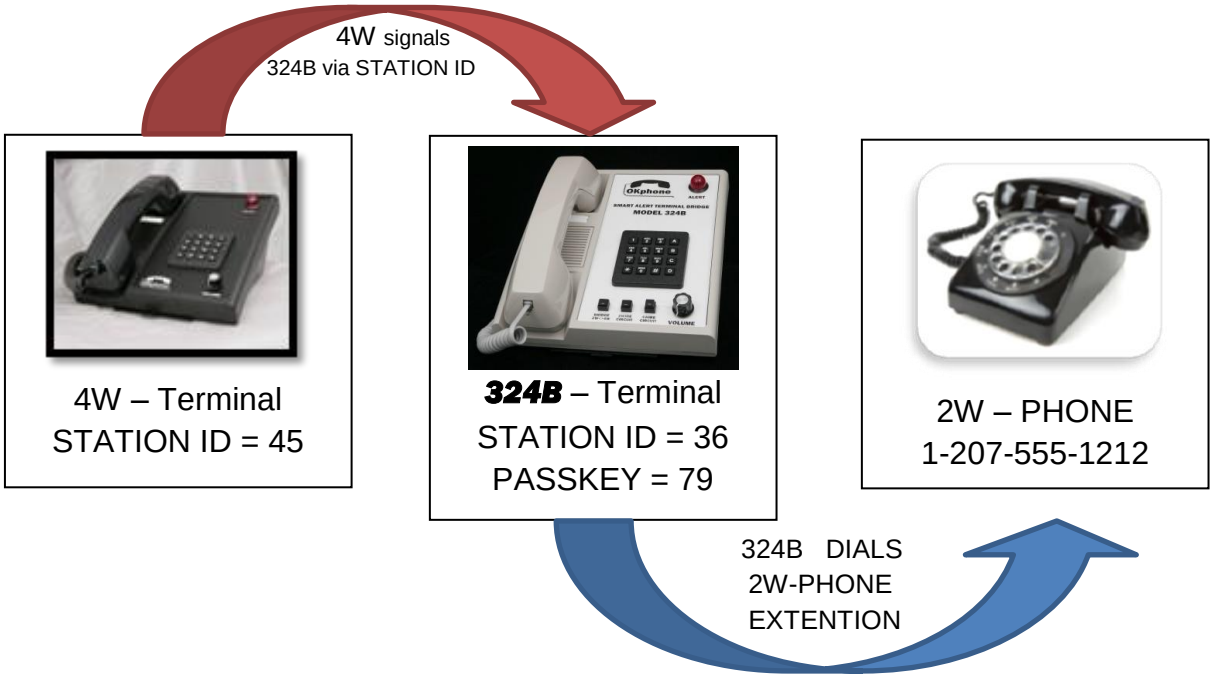
324B MISCELLANEOUS

1. The ***Model 324B*** only recognizes DTMF signals for dialing. Pulse dialing hasn't been configured.

2. The ***Model 324B*** can be powered off the LINE cord connection, Apply 12-24vdc to 4W port Pins 1 & 6. The DEMO has not enabled this feature.

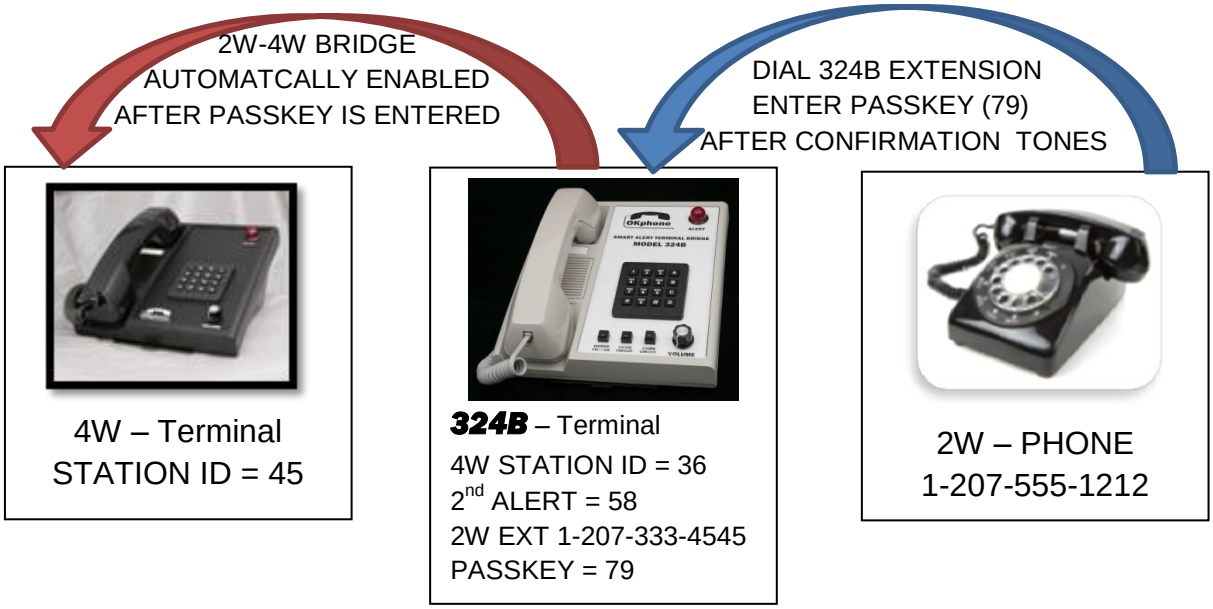
3. Once the [2W-4W BRIDGE] has been established, the **2WIRE REMOTE PHONE** can contact terminals connected in the 4wire network. The DTMF "touch tones" get converted to SS4 signaling tones (2.4/2.6KHz) by the ***324B*** and broadcasted to the 4w circuit.

   Remember that the number "1" is a reset. Always good to proceed any contact with a "1" which enhances that the phones on the 4wire circuit have been initialized properly before accepting the station command to follow. A successful station transmission and reception is followed in the handset receiver by hearing two confirmation tones {Okphone brand terminals}.



@ *REMOTE 4W TERMINAL*

1. With ***324B*** Terminal unmanned, the REMOTE 4W Terminal can signal the ***324B*** by issuing a SS4 STATION ID (36) command.
2. The ***324B*** terminal acknowledges the STATION ID by sending back to the 4W circuit two 2 600Hz confirmation tones, then the ***324B*** begins an ALERT WARBLE through the internal speaker (controlled by the Volume knob on the front panel) for xx rings (Determined by programming step D4xx).
3. The ***324B*** automatically draws line current on the 2W line and dials the stored number (ref. program step (D# 15n #)).
4. The ***324B*** begins a 30 second timer that will ABORT the 2W connection attempt and return four confirmation tones if the 2W called party:
    A. fails to pickup the 2W REMOTE phone.
    B. picks up the 2W REMOTE phone, but fails to enter the required PASSKEY to shutdown the ABORT timer and enable the 2w<>4w audio paths. This PASSKEY is determined by two programming steps, [D0x where x = number of digits in the STATION ID command string (either 2,3,4), and DB1xxxx where xxxx is an unused ID on the 4W circuit. For our example 4W circuit, the number of digits in the STATION ID = 2, and the PASSKEY is set to (79).
5. Once the Passkey is entered, the ***324B*** will issue a single (HI / LO) confirmation tone and ENABLE the [2W-4W BRIDGE], illuminating the BR-Switch Button (even if it isn't pushed).
6. To terminate the [2W-4W BRIDGE], please reference Page 2, Section 7.



@ *REMOTE 2W PHONE*

1. Even if the ***324B*** Terminal is unmanned, the REMOTE 2W PHONE can DIAL the ***324B*** by calling the 2W exchange number assigned to the ***324B*** (our example 1-207-333-4545).

2. 

2W-switch MUST be pushed (ON) for the *324B* terminal to be connected by the 2W REMOTE PHONE.

3. The ***324B*** terminal will answer the incoming RINGing after the assigned number of rings (reference programming step DC5x, where x=number of rings), issue two 600Hz confirmation tones, commence the 30 second timer, waiting to decode the xxxx digit PASSKEY.

4. The PASSKEY command string is entered by the 2W REMOTE PHONE, Our example “79”.

5. As in PAGE 4 Section 4, the ***324B*** will ABORT the 2W connection attempt and return four confirmation tones if the 30 second timer elapses without a valid PASSKEY.

6. Once the Passkey is entered, the ***324B*** will issue a single (HI / LO) confirmation tone and ENABLE the [2W-4W BRIDGE], illuminating the BR-Switch Button (even if it isn’t pushed).

7. To terminate the [2W-4W BRIDGE], please reference Page 2, Section 7.

8. It is recommended that the 2W REMOTE PHONE be outfitted with a PTT type handset to prevent ambient noise from being transmitted to the 4W circuit.

324B USB CONNECTION

1. First step is to determine which COM port the ***324B*** will be communicating over. Power down the ***324B*** and do not connect the USB cable yet. Start the 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. Press the CANCEL button and EXIT the *TERA TERM* program.

2. With the ***324B*** still powered down, plug in the USB cable from the PC to the ***324B*** 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 ***324B*** and the CPU.

4. Plug in the ***324B*** and allow it to initialize.

5. Press the ESC key on the keyboard of the CPU and the message (…RESET) should be displayed.

6. Next the 3 DIGIT PASSKEY needs to be entered before any programming can commence.

7. Contact OKphone for initial PASSKEY, this is in the format (#xxx). In other words press the # key and follow with 3 digits. The programming Parameter sheet contains the default passkey.

8. Press "**DD**" to **D**isplay **D**ata.

9. Reference SATx Programming Parameters v1.60 for setup of Model ***324B***.