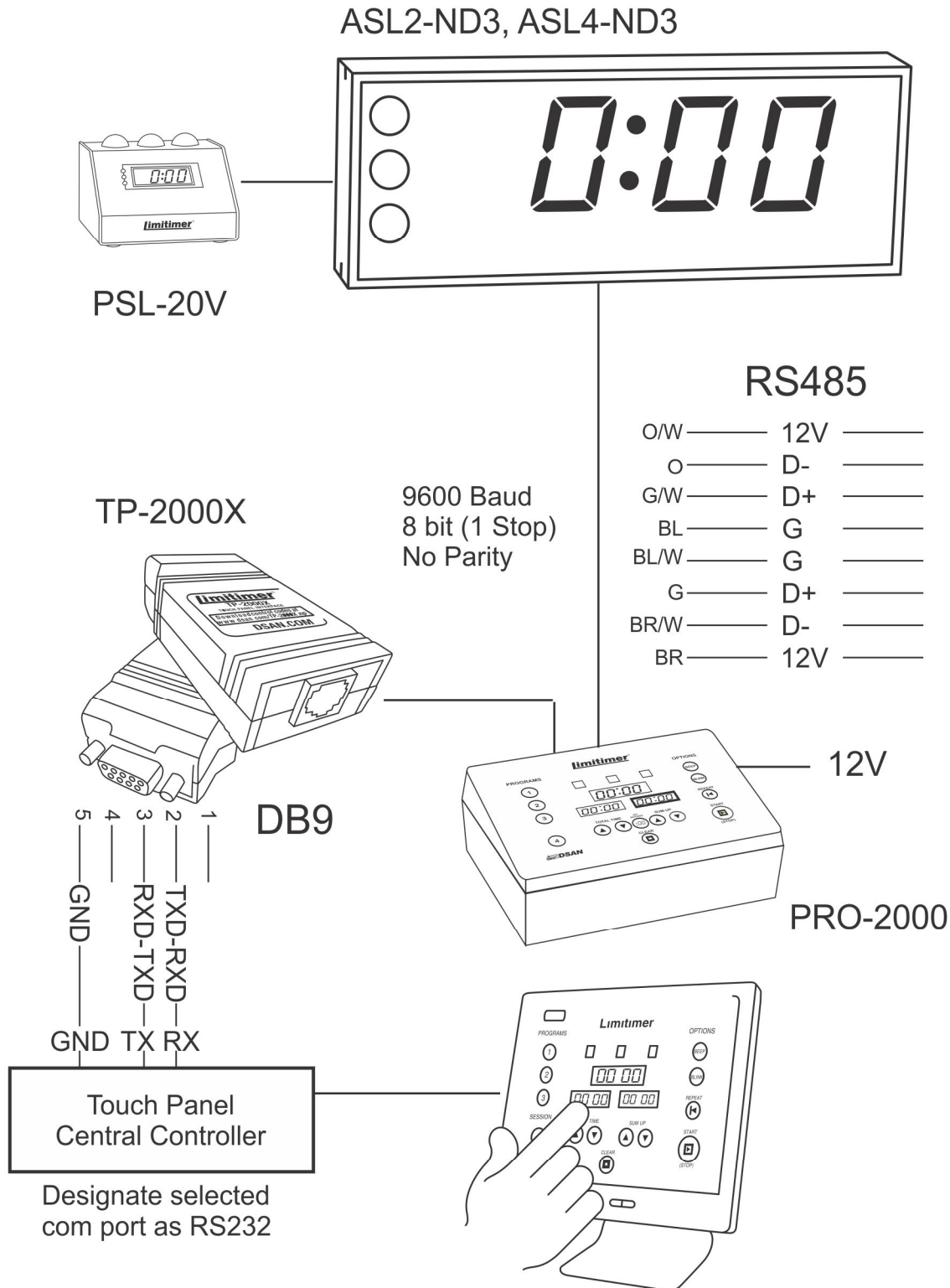




Connections for Touch Panel Controllers TP-2000X



Speaker Timer Serial Control Protocol

Limitimer ASCII API

These messages are formatted as follows:

>	Command String	Space	Checksum High	Checksum Low	<CR>
Checksum					

Checksum

Add all bytes of Command String and Space; Use lower 2 digits

Example:

"PRG1" $0x50+0x52+0x47+0x31+0x20 = 0x13A$

Checksum High = 3 Checksum Low = A

Full Message >PRG1<SP>3A<CR>

Don't forget to include the ">" – start of message.

Baud Rate 9600

Data: 8-bit

Parity: None

Stop Bit: 1

Buttons: (to Limitimer)

Command String	Description	Full Message
PRG1	Program 1 button	>PRG1 3A<CR>
PRG2	Program 2 button	>PRG2 3B<CR>
PRG3	Program 3 button	>PRG3 3C<CR>
SESS	Program 4 (Session) button	>SESS 5E<CR>
TTUP	Total Time Up button	>TTUP 6D<CR>
TTDN	Total Time Down button	>TTDN 5A<CR>
STUP	Sum-Up Time Up button	>STUP 6C<CR>
STDN	Sum-Up Time Down button	>STDN 59<CR>
SSEC	Set Seconds button	>SSEC 4E<CR>
CLR	Clear button	>CLR 01<CR>
BEEP	Beep button	>BEEP 3C<CR>
BLNK	Blink button	>BLNK 47<CR>
REPT	Repeat button	>REPT 5B<CR>
STOP	Start/Stop button	>STOP 66<CR>
ENTIME	Enable Time Updates on Large Signal Light (default)	>ENTIME E2<CR>
DISTIME	Disable Time Updates on Large Signal Light	>DISTIME 2F<CR>
INCMIN	Increment Large Signal Light Minutes	>INCMIN DE<CR>
INCHOUR	Increment Large Signal Light Hours	>INCHOUR 38<CR>

LED Indicators: (from Limitimer)

P1LEDON	Program 1 LED ON	
P1LEDDM	Program 1 LED Dim	
P1LEDOF	Program 1 LED OFF	
P2LEDON	Program 2 LED ON	
P2LEDDM	Program 2 LED Dim	
P2LEDOF	Program 2 LED OFF	
P3LEDON	Program 3 LED ON	
P3LEDDM	Program 3 LED Dim	
P3LEDOF	Program 3 LED OFF	
SESLEDON	Session LED ON	
SESLEDDM	Session LED Dim	
SESLEDOF	Session LED OFF	
BPLEDON	Beep LED ON	
BPLEDOF	Beep LED OFF	
BKLEDON	Blink LED ON	
BKLEDOF	Blink LED OFF	
GRNLEDON	Green LED ON	
GRNLEDOF	Green LED OFF	
YELLEDON	Yellow LED ON	
YELLEDOF	Yellow LED OFF	
REDLEDON	Red LED ON	
REDLEDOF	Red LED OFF	
SMON	Seconds Mode Indicator ON	
SMOF	Seconds Mode Indicator OFF	
BEEP	Beep	

Time Strings: (from Limitimer, approximately 4 Hz)

TTSTR=00:00	Total Time String	
STSTR=00:00	Sum-Up Time String	
RTSTR=00:00	Remaining Time String	
RTSTRSZ= 0:00	Remaining Time String stops at 0:00*	

*Use this string when the timer is set to count beyond 0:00 (DIP switch 5 = ON) but you want the touch panel display 0:00 even during overtime.

