# Limitimer®

## Connections for Touch Panel Controllers TP-2000X
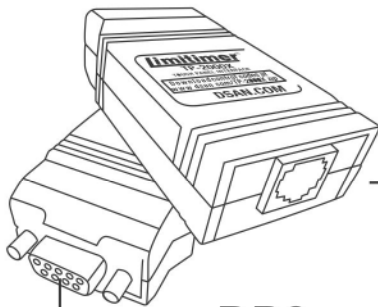
**ASL2-ND3, ASL4-ND3**



**0:00**

**PSL-20V**

**RS485**

| | | |
|---|---|---|
| O/W | 12V | |
| O | D- | |
| G/W | D+ | |
| BL | G | |
| BL/W | G | |
| G | D+ | |
| BR/W | D- | |
| BR | 12V | |

**TP-2000X**

9600 Baud
8 bit (1 Stop)
No Parity

12V

**DB9**

1 ——
2 —— TXD-RXD
3 —— RXD-TXD
4 ——
5 —— GND

**PRO-2000**

Touch Panel
Central Controller

sales@dsan.com     516 625-5608

**DSAN.COM**
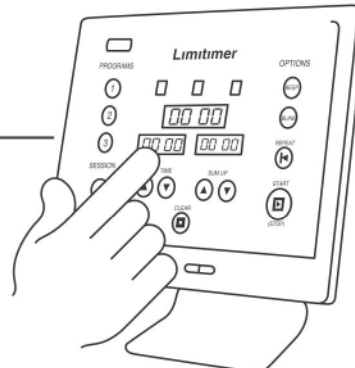
# Speaker Timer Serial Control Protocol
# Limitimer ASCII API

These messages are formatted as follows:

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

Checksum spans Command String and Space.

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 | |