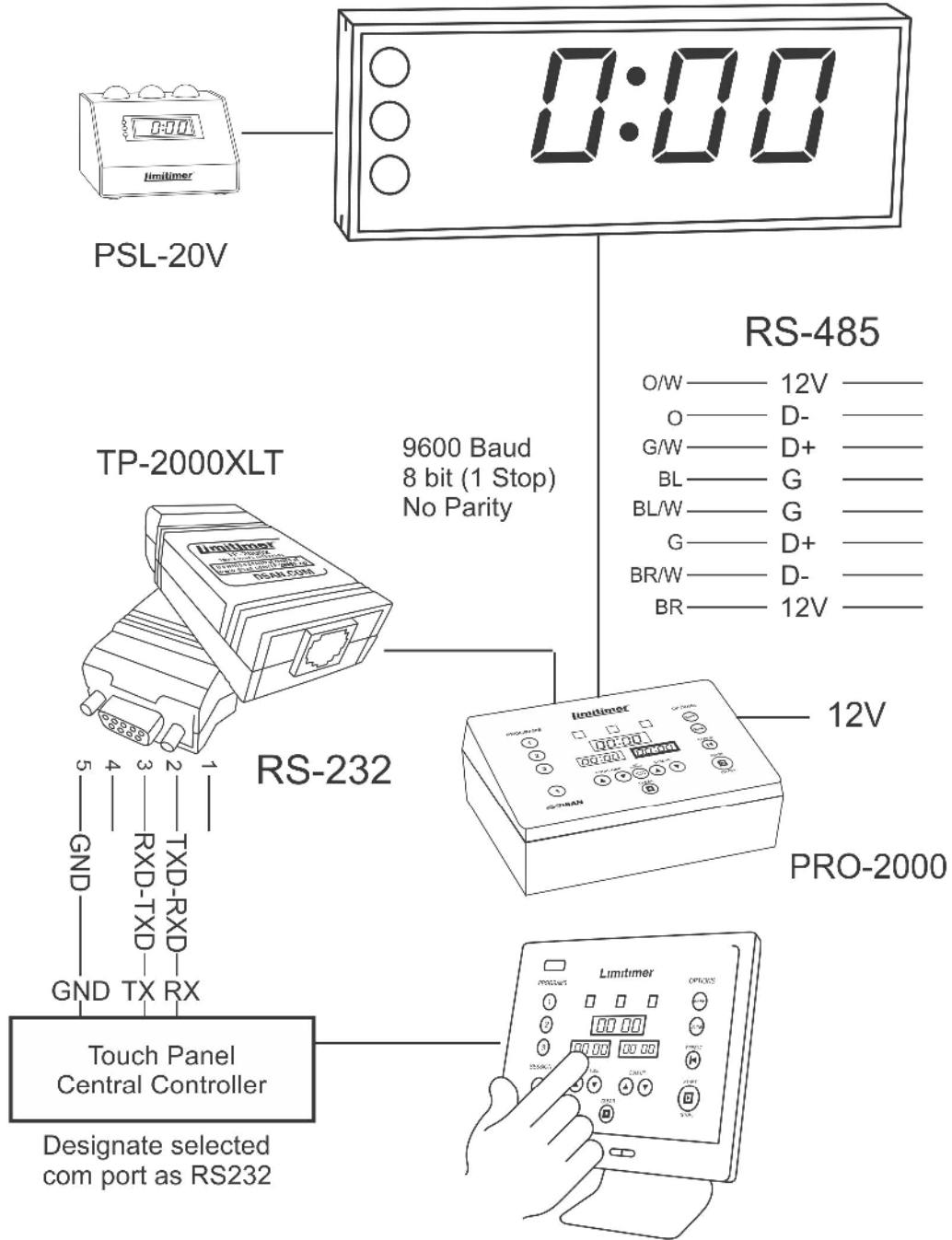


Limitimer®

Connections for Touch Panel Controllers TP-2000XLT

ASL2-ND3, ASL4-ND3



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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 | | |

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.

*When sending commands to Limitimer, use carriage return delimiter "/x0D" (Forward slash). Return delimiter is "\x0D"

| | |
|-----------|-------|
| 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 Timer Display on Large Signal Light* | >ENTIME E2<CR> |
| DISTIME | Disable Timer Display 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> |

*If disabled, large clock will either display time-of-day or blank depending on its DIP switch #9

LED Indicators: (from Limitimer)

| | | |
|-----------|----------------------------|---------------|
| P1LEDON | Program 1 LED ON | >P1LEDON 13 |
| P1LEDDM | Program 1 LED Dim | >P1LEDDM 07 |
| P1LEDOF | Program 1 LED OFF | >P1LEDOF 0B |
| P2LEDON | Program 2 LED ON | >P2LEDON 14 |
| P2LEDDM | Program 2 LED Dim | >P2LEDDM 08 |
| P2LEDOF | Program 2 LED OFF | >P2LEDOF 0C |
| P3LEDON | Program 3 LED ON | >P3LEDON 15 |
| P3LEDDM | Program 3 LED Dim | >P3LEDDM 09 |
| P3LEDOF | Program 3 LED OFF | >P3LEDOF 0D |
| SESLLEDON | Session LED ON | >SESLLEDON 7D |
| SESLLEDDM | Session LED Dim | >SESLLEDDM 71 |
| SESLLEDOF | Session LED OFF | >SESLLEDOF 75 |
| BPLEDON | Beep LED ON | >BPLEDON 24 |
| BPLEDOF | Beep LED OFF | >BPLEDOF 1C |
| BKLEDON | Blink LED ON | >BKLEDON 1F |
| BKLEDOF | Blink LED OFF | >BKLEDOF 17 |
| GRNLEDON | Green LED ON | >GRNLEDON 79 |
| GRNLEDOF | Green LED OFF | >GRNLEDOF 71 |
| YELLEDON | Yellow LED ON | >YELLEDON 7C |
| YELLEDOF | Yellow LED OFF | >YELLEDOF 74 |
| REDLEDON | Red LED ON | >REDLEDON 6D |
| REDLEDOF | Red LED OFF | >REDLEDOF 65 |
| SMON | Seconds Mode Indicator ON | >SMON 5D |
| SMOF | Seconds Mode Indicator OFF | >SMOF 55 |
| BEEP | Beep | >BEEP 3C |

Time Strings: (from Limitimer , approximately 4 Hz)

| | | |
|---------------|---|-------------------|
| TTSTR=00:00 | Total Time String | >TTSTR= 0:00 E8** |
| STSTR=00:00 | Sum-Up Time String | >STSTR= 0:00 E7** |
| RTSTR=00:00 | Remaining Time String | >RTSTR= 0:00 E6** |
| RTSTRSZ=00:00 | Remaining Time String – Stop at 0:00*** | >RTSTRSZ= 0:00 9 |

**Obviously, the check sum will change with each change of time time value.

***Use this variable if you want the clock to stop displaying time past 0:00. Note: The timer will continue to count past 0:00 until the STOP command is received.