

ptf 8000TCi

Time Code Display System

User Guide



Document #: 11874

Revision:A



NOTE: This manual is best viewed in electronic form. Clicking on any of the Contents items will take you to that item. To return to the contents page, click on the "Go to Contents" link at the foot of the page.

Notices

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The manual's contents do not apply to previously released versions of ptf 3207A hardware or software.

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Comment [DB1]:

1. Purpose

The timecode unit is a box that takes time code information from IRIG B inputs. The time is displayed on a standard monitor. It takes one IRIG B AM or one IRIG B DCLS input.

The time may be obtained from either of these inputs (but not both). One must select (in the setup screen) which input to take the timecode input from. If neither input is selected, the default will be IRIG B DCLS.

2. System Specifications

Mechanical/Environmental

Operating Temperature:
0 °C to +55 °C (-13 °F to +104 °F)

Humidity: to 95% non-condensing

Storage Temperature:
-55 °C to +85 °C (-67 °F to +185 °F)

Operating Altitude:
Maximum 4 km (2.49 mi. or 13147 ft.)

AC Power Supply

Input:
Input connector: IEC 320 connector
Input voltage range: UL: 100 – 240 VAC

Wattage: 10 watts maximum

Universal, 90 – 264 VAC and 110 – 370 VDC
Input freq. range: 47 Hz – 440 Hz

Power Supply Status:
Visual (green panel LED)

Status LEDs

Alarm Status LED:
IRIG Present: Green LED on with no fault
Amber LED with fault

1PPS Green LED flashes at 1PPS

3. Hardware setup

Set up a monitor to use with the timecode unit. The output of the unit is an HDMI signal. Connect the HDMI output to the monitor. Or, if the monitor requires a VGA input, connect the HDMI to VGA adapter.

Plug the timecode unit in.

Connect the IRIG B input source(s), which are the IRIG B AM and IRIG B DC.

Make sure the input sources are properly connected. Connect the IRIG B AM cable to the IRIG B AM input connector.

and Connect the IRIG B DCSL cable to the IRIG B DCLS input connector.

Connect the HDMI cable to the monitor.

Connect the USB dongle into a USB port.

4. Wireless Keypad



The unit comes with a wireless keyboard (see picture above). This is used to select menu items on the display and to enter information on the setup screen.

Turn the keyboard on by sliding the switch located in the front side of the keyboard (see picture above). To move the mouse, slide your finger on the touchpad. To enter values, press the appropriate keys. To select a button on the screen, move the mouse until the mouse pointer is above that button, then click “OK”, or “Enter” on the keypad.



5. Screens

The different screens can display count up/down or time information. Below is a list of the screens on the timecode unit.

- 1 Setup Screen
- 2 Count up/down +-HH:MM:SS.s
- 3 Count up/down +-SSSS.s
- 4 Time, DOY, HH:MM:SS
- 5 Time, DOY, HH:MM:SS.s with IRIG Information

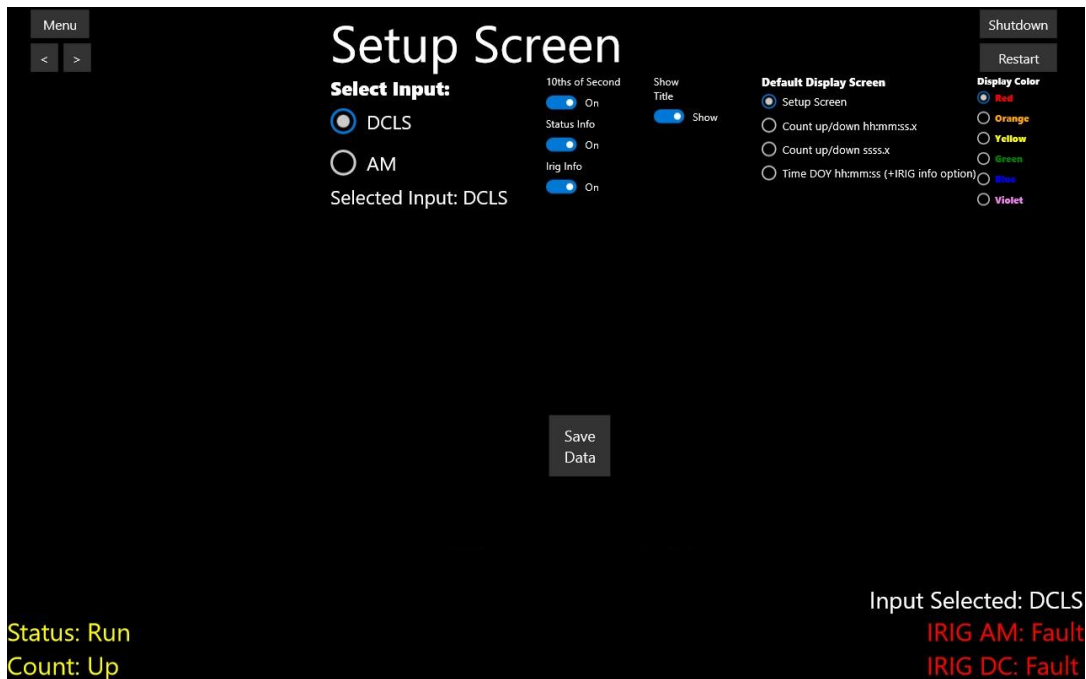
The Setup Screen is to set up the unit with default inputs, default screen, display color, NTP server update frequency, and other parameters.

The count up/down screens (Screen 2 and Screen 3) provide a count display.

The Time displays show the DOY and Time. DOY, Time, and IRIG information is shown on Screen 5

6. Setup Screen

The first screen is Setup Screen. You should go to the setup screen first to set up the unit.



The program will start at the stored startup screen (the default screen is screen 1, the setup screen).

Click "OK" button to use the values while the program is running.

Click "Save" button to save the values.

To see the various display screens, click the "Menu" button.

The "<" will go to the previous screen.

The ">" will go to the next screen.

Click a number to go to that display screen.

The Display Screen that will come up upon startup will be the saved display screen.



Choose Input

This set of buttons, selects which input to get the time signal from (DCLS or AM). Click on circle to select an input. Only one input can be selected. If no input was selected, the default input is DCLS.

10ths of second toggle switch

See the list of Screens. The screens with .s may use 10ths of a second.

This turns on or off the tenths of second display on the screens that use it. If this switch is turned to the "Off" position, 10ths of a second will not be displayed. If the switch is in the "On" position, 10ths of a second will be displayed.

Show Display Title

This toggle switch sets whether or not to display the screen title on top of the screen. Set this switch to the "On" position to show the screen title on any page. Otherwise, select the "Off" position to not display screen titles.

Fault Indicators

This is shown in the lower right hand corner. It indicates if that input signal is present or not.

Example1:

IRIG AM: Okay

IRIG DC: Fault

This indicates the IRIG AM signal is connected and detected, but the IRIG DC signal is either disconnected or faulty.

Example2:

IRIG AM: Okay

IRIG DC: Okay

This indicates that both input signals are connected, and detected properly

Note that this indicates which inputs are connected. The input that the unit will use is set on the setup screen. So, if DCLS is set on the setup page, the unit will get the time from the DCLS input. If AM is selected, the unit will get the time from the AM input.



Screen Color

The color of the time, DOY, and countdown items can be changed by selecting the color from the color selection items.

Status indicators

This is shown at the lower left corner of the screen.

Example:

Status: Count

Count: Up

This means the unit is in Count mode, and will count up.

Status may be hold or count. If it shows “Hold”, the count is stopped or paused. If it says Count, the count will be counting.

Count can either be up or down. If it says “Up”, the count will count up. If it says “Down”, the count will count down.

Selection of whether to hold or count, or whether to count up or down will be made on the ptf unit that connects to the timecode unit. (The timecode unit reads the selection from the other unit).

Note:

Status indicators will only appear on countdown screen displays. (e.g. it will only appear on relevant screens). They will not be shown on non-countdown display screens, regardless of whether or not this display is enabled on the setup screen.

Shutdown Button

Note:

Proper shutdown is required to restart the unit. If the unit is not properly shut down, this may result in corrupting the memory in the unit. The proper way to shut down the unit before re-starting, is to click on the “Shutdown” button. This is preferred to pulling out the plug.

On the upper right hand corner of the Setup Screen, there is a Shutdown Button. This is used to Shut down the unit. If you are not on the Setup Screen, you need to go to the Setup Screen through the menu to be able to press the Shutdown button.



If the Setup page screen information was saved, these settings will come up the next time the unit is restarted.

Restart Button

Press the Restart button to restart.

UTC Time

Display

Offset Time

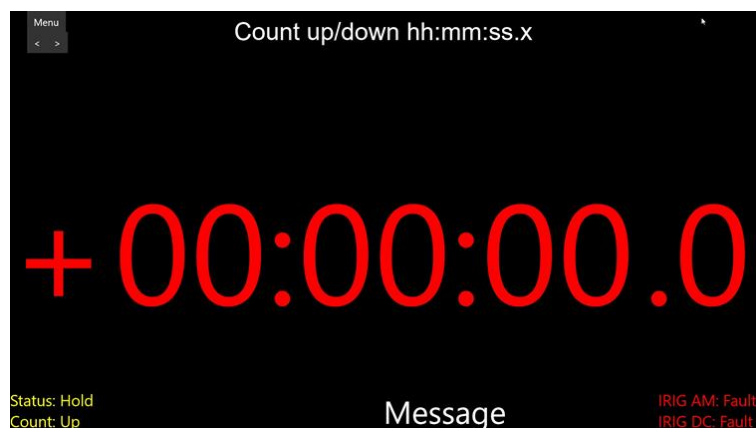
This is the local time. It is the time after the offset value.

Offset Time=UTC time+ Time Zone Offset

Note: this time may be off by 1 hour if daylight savings is not taken into account.

7. Count up/down +-HH:MM:SS.s Screen

This screen counts up or down from Time



.s is tenths of seconds. This will be displayed if tenths of seconds display is enabled in the setup screen.

When Counting down, the "-" sign will appear.

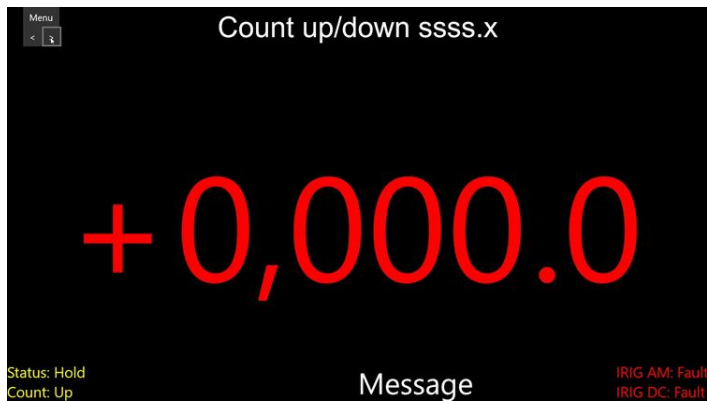
When Counting up, the "+" sign will appear

If the counting status is on hold, counting will be paused.

Set the count to "run" to start the counting.

8. Count up/down +-SSSS.s Screen

This screen counts up or down in seconds up to +/-9999 seconds.



When the count reaches 0 or 9999 the count will stay at this value. “.s” is tenths of seconds. This will be displayed if tenths of seconds display is enabled in the setup screen.

9. Time, DOY, HH:MM:SS Screen

This screen displays the Day of Year, and Time from an IRIG B input source.



Tenths of seconds is not displayed on this screen.

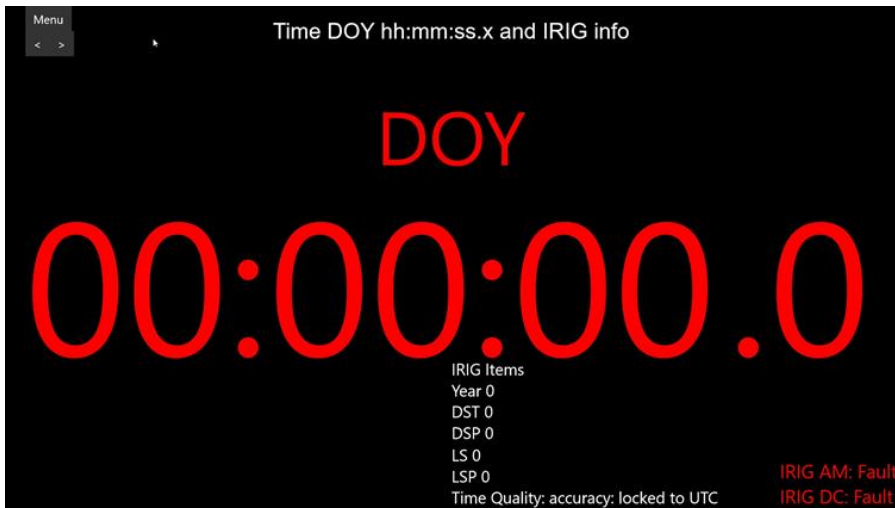
The time is obtained from one of the inputs (DCLS or AM).

If DCLS was selected, the time will be obtained from the DCLS input.

If AM was selected, the time will be obtained from the AM input.

10. Time, DOY, HH:MM:SS.s with IRIG Information Screen

This screen displays the Day of Year, and Time from an IRIG B input source.



This screen also displays Irig information.

Year is the current year

DST is Daylight Savings Time. 1 if in daylight savings time, 0 if not in daylight savings time

DSP is Daylight Savings Pending. This indicates if the next WEEK will be daylight savings time

LS is leap seconds (0 or 1)

LSP is leap seconds pending (0 or 1). This indicates if leap seconds is pending.

Time Quality indicates the accuracy of the time source (IRIG B input)

The following Time Quality accuracies may be displayed:

"locked to UTC",

"1e-9 sec", "1e-8 sec", "1e-7 sec", "1e-6 sec", "1e-5 sec", "1e-4 sec", "1e-3 sec",

"0.01 sec", "0.1 sec", "1 sec", "10 seconds"

11. Charging the wireless keypad.

To charge the wireless keypad, plug a USB charger into the USB charge connector on the keypad. You can disconnect the charger when the keypad is ready to use.

The keypad should be charged regularly in order to be ready to use. If the keypad is infrequently used, it can last several days without charging. For more frequent use, charge the keyboard more frequently. Turn off the keypad when not in use. To turn off the keypad, move the switch to the "OFF" position. The mouse pointer will also disappear from the screen when the keypad is switched off.

12. Shutdown

Shut down by pressing the "Shutdown" button on the Setup Screen.
After Shutdown, the user must re start the system.

The preferred way to shutdown the unit is to go to the setup screen and press the shutdown button.
After this button is pressed, the screen will go blank.
Pull out the plug after the screen goes blank.
Wait at least 2 minutes before plugging in the unit.
The program should start up again.
You should see the ptf Hourglass logo when the program starts.

Warnings:

Do not shut down the unit by pulling out the plug.
Do not shut down the unit while the software is loading. It is not safe.

Notes:

When the Shutdown button is pressed, the screen will go blank in about 15 seconds.
After the screen has gone blank, wait another 2 minutes before plugging the unit back in.



13.Sales and Customer Assistance

Precise Time and Frequency, Inc. maintains a central Customer Assistance Center to handle customer needs.

Customer Assistance Center Telephone Number:

- Worldwide (Main Number): 1-781-245-9090
- In addition Precise Time and Frequency, LLC. maintains a network of Representatives around the world who are able to offer first line technical support. For a list of the representative(s) for your region please refer to the ptf web site at www.ptf-llc.com .

Customers may e-mail support requests to:

support@ptf-llc.com OR use the customer contact form on the ptf web site, www.ptf-llc.com

14.Revision Record

Revision	Date	Comments	
ptf 8000 TCi revA	November 19, 2017	Initial release	