AMANO®

PIX-200

Time Signal Option

Distributor's
Installation and Operation Manual

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Amano Cincinnati, Inc. reserves the right to make equipment changes and improvements, which may not be reflected in this document. Portions of this document may have been updated to include the latest hardware or firmware version, if applicable.

To ensure safe use of this time recorder/stamp, be sure to thoroughly read this manual in its entirety before any attempt is made to operate the equipment. After you have finished reading this manual, be sure to store it and in a safe place for further reference.

Thank You….

For purchasing another fine product from
Amano Cincinnati, Inc.

Warranty Notice

Any claim for warranty, express or implied, due to the clocks failure to properly receive the radio signal because of interference, whatever may be the source of this interference, are hereby expressly excluded.

The PIX-200 has the atomic clock (radio-controlled clock) feature which displays the current time precisely by automatically receiving time code signals on long wave radio from the transmitting station. The unit receives the time code signal via its built-in antenna system.

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Chapter 1: Overview and Installation

This manual is intended to be a reference source for the person(s) responsible for installing, and configuring the PIX-200 Time Signal Option. Only Amano Cincinnati, Inc. authorized service personnel and dealers should have access to this manual.

Before attempting to install and use the Amano PIX-200 Time Signal Option, please carefully review Chapter 1: Overview and Installation.

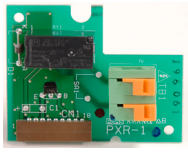
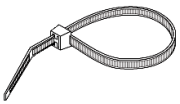
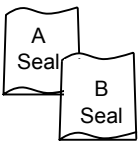
This chapter of the manual covers the specifications, accessories, Time Signal Option installation, external signal connections, and description of controls for PIX-200.

Specifications (Time Signal Option)

PCB Name:	PXR
Contact Output:	Dry Contact Output (Normal Open)
Contact Configuration:	Single Circuit
Contact Voltage Rating:	30 VAC at 3A or less (resistive), 30 VDC at 3A or less (resistive)
Program Numbers:	1 – 20 (20 steps)
Duration:	00 – 59 seconds (Default is 5 seconds)
Ambient Temperature:	14°F to 113°F (-10°C to 45°C)
(w/full power reserve battery	32°F to 104°F (0°C to 40°C)
Ambient Humidity:	10% to 90% (non-condensing)
Environment:	Indoor use only; dust-free environment. Keep out of direct sunlight.

Accessories

The following accessories are provided with the Amano PIX-200 Time Signal Option. After unpacking, please ensure that all of the following items are provided:

			
Time Signal PCB option with flat cable (1 unit)	This option manual (1 copy)	Cable Tie (1)	A & B Seal (2)

- Please note that specifications, appearance, and/or description are subject to change without notice due to product enhancements.

- This manual has been carefully prepared, but Amano assumes no liability for errors and/or omissions. If you should find any errors or unclear information, please contact your Amano dealer.

Time Signal Option Installation

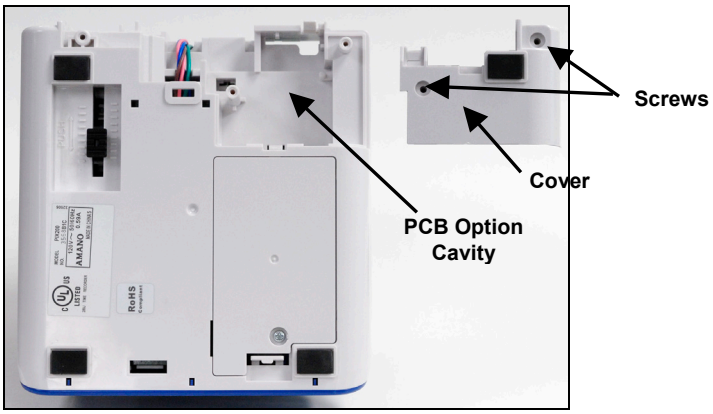
The following describes a step-by-step procedure for the installation of the Time Signal Option in a PIX-200. Make sure the power to the PIX-200 clock is unplugged while you install the PCB Time Signal Option. When the installation is complete, put the back plate and clock cover on and plug in the power to verify the regular LCD display is functioning properly.

Materials Required

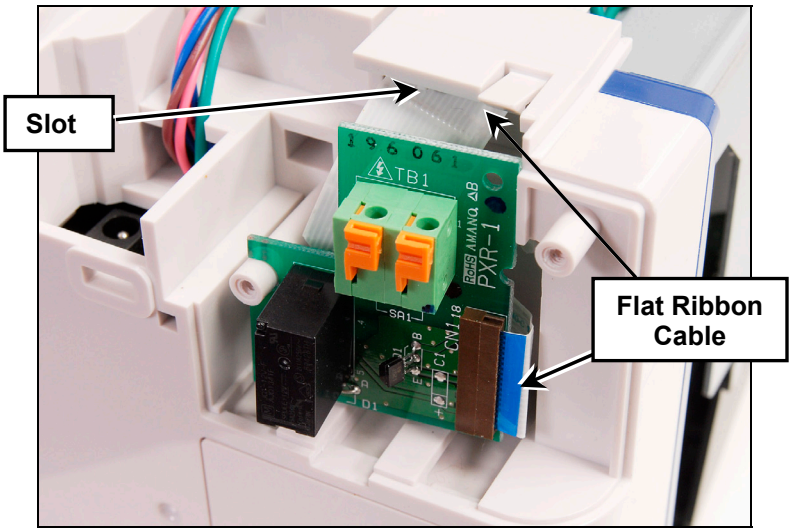
1. Time Signal PCB with flat cable.
2. Time Signal Option Installation and Operation Manual.
3. Small flathead screwdriver for inserting wires into the time signal terminal block.
4. Signal sticker for the front panel (B Seal) and program sticker for the top label (A Seal).
5. Cable tie.
6. The PIX-200 Operation Manual.

Installing the Time Signal PCB

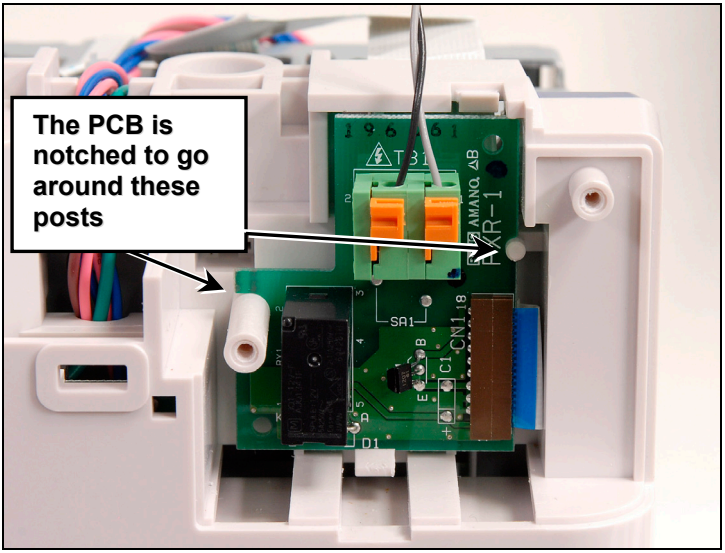
1. Unplug power to the PIX-200 at the outlet.
2. Disconnect the full power reserve battery pack (if installed).
3. Unlock the PIX-200 top cover using the key and remove the cover.
4. Remove the back plate. In case of a wall mount type, remove the back plate and detach the unit from the wall. See PIX-200 Operation Manual.
5. Disconnect the power plug from the back of the PIX-200 unit.
6. Unscrew the two (2) screws, which are holding the cover in place for the PCB option cavity and remove the cover (see the following figure – *bottom view*).



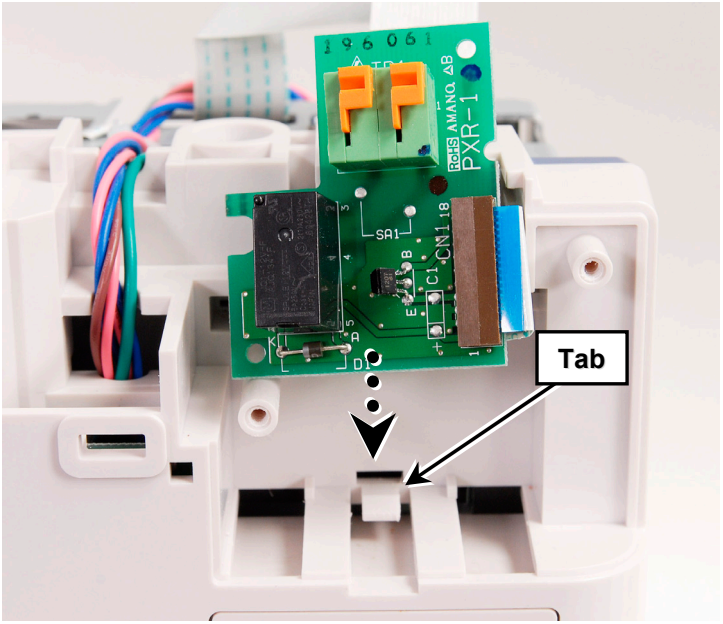
7. With the cover off, insert the Time Signal PCB ribbon cable through the slot as illustrated in the following figure - *bottom view*.



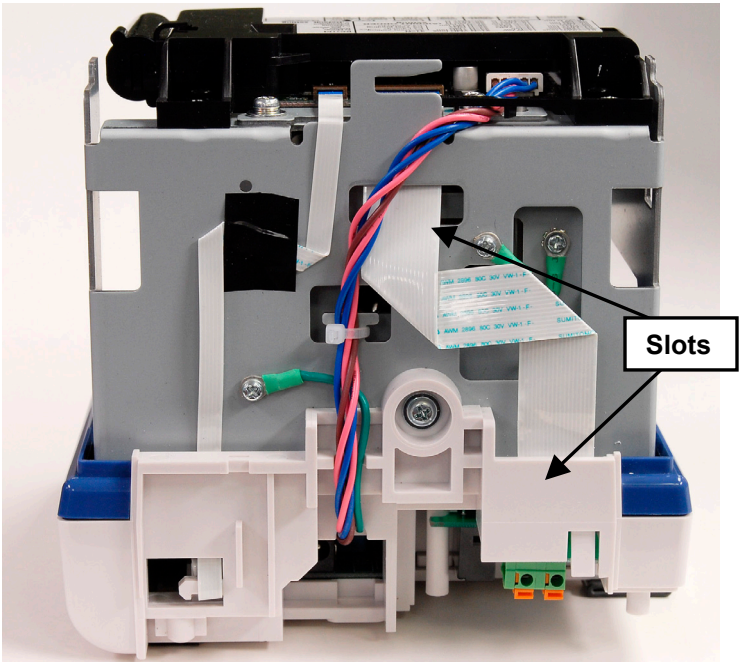
8. Insert the Time Signal PCB (PXR-1) into the cavity in the bottom of the PIX-200 as illustrated in the following figure – *bottom view* (the PCB assembly is notched so the assembly can only be inserted into the cavity in one direction). Please hold the edge of the PCB to avoid damaging the PCB.



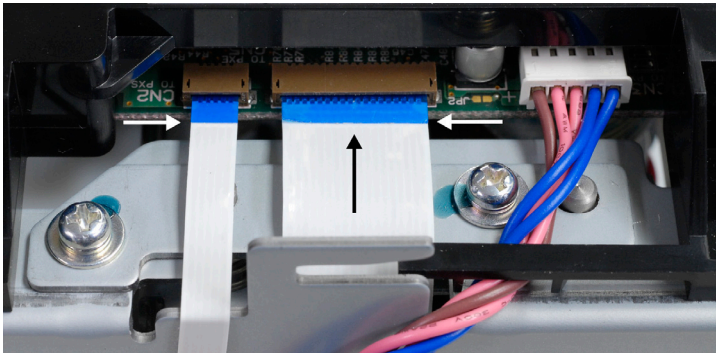
9. The PXR-1 PCB for the Time Signal Option will snap into place under a tab (see the following figure – *bottom view*). Use care to push the tab aside if necessary.



10. Insert the folded ribbon cable through the top slot (see the following figure - *back view*). Do not unfold the flat ribbon cable.



11. Insert the folded ribbon cable into the top center ribbon connector (see the wider cable in the following figure). Be careful not to damage the ribbon cable during insertion. When fully inserted, the cables' degree of insertion should be similar as indicated by the white arrows.



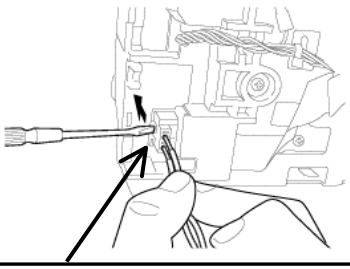
13. Be sure the flat ribbon cable also goes under the black plastic arm (see above figure). Place the option cover back on, and screw in the two (2) screws to tighten the cover down.

14. Plug in the power plug, which was disconnected in Step 5. Feed the AC power cable through one of the holes on the lower portion of the back plate and attach the back plate until the tab is fully inserted. (Refer to PIX-200 Operation Manual if the PIX-200 is wall mounted).
15. Reattach the full power battery reserve if that option was installed. (Refer to PIX-200 Full Power Battery Reserve Instructions).
16. Do not put the PIX-200 cover back on until the configuring time signal procedure in Chapter 2 is complete. Plug the PIX-200 into a 110/120 AC power source, and the LCD display window will show the date and time.

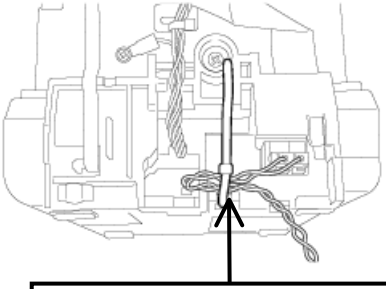
Installing The Signal Wires

WARNING: To avoid electric shock, be sure to disconnect the unit from its power supply. (Both AC power cord and full power reserve batteries)

1. Unplug power to the PIX-200 at the outlet.
2. Disconnect the full power reserve battery pack (if installed). See Amano Full Power Reserve System Manual.
3. Unlock the PIX-200 top cover using the key and remove the cover.
4. Remove the back plate. In case of a wall mount type, remove the back plate and detach the unit from the wall. See PIX-200 Operation Manual.
5. Disconnect the power plug from the back of the PIX-200 unit.
6. Connect the Signal wires into the terminal block and use the cable tie to secure the wires in place (see the following figures).

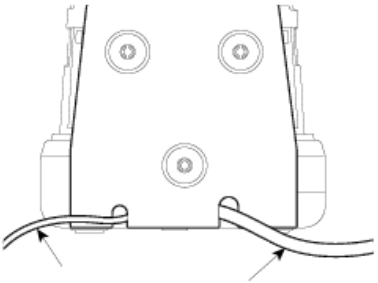


Press the orange protrusion of the terminal block downwards using a small flathead screwdriver when inserting the wires



In order to feed the wires through the hole of the back plate, secure the wires using the cable tie as shown above.

7. Plug the power back in (disconnected in Step 5). Feed the AC power cable through one of the back plate holes, and the time signal wire through the other hole (see the following figure). Reattach the back plate, ensuring the tab is fully inserted. Refer to PIX-200 Operation Manual "Wall Mounting" if the PIX-200 is wall mounted.



8. Attach the signal sticker for the front panel (B Seal) and the program sticker for the top label (A Seal).
9. Put the cover back on and plug the AC power cord into the outlet to confirm that the regular display on the LCD display panel appears.
10. If applicable, reattach the full power reserve battery pack.

External Signal Connections

The PIX-200 time signal option provides a single external signal relay circuit that enables you to activate an audible device such as a bell or buzzer. The relay contacts of the circuit are normally open and should not exceed Class 2 circuit requirements (30 VAC RMS at 3A, or 30 VDC at 3A). It is recommended that a Surge Absorber (Amano P/N ESA-100010) be connected as shown in the following figure to eliminate and prevent power line noise or electromagnetic interference that might enter the PIX-200 via the relay circuit. The duration (in seconds) that the relay contacts will be activated or closed is set in the **Signal Duration** item, and the time of the day and day(s) of the week that this will occur on is set in the **Weekly Programming**.

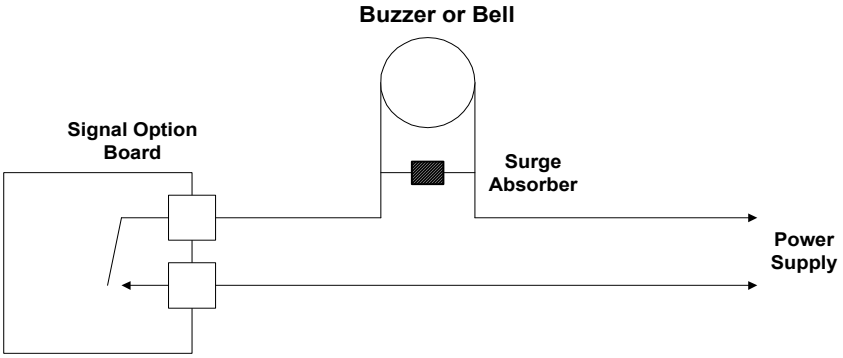


Figure – Time Signal Wiring Diagram

Description of Controls For PIX-200 (function buttons)

Normally, the **Display Window** shows the date and time. When you use the Program Mode to change the settings of the PIX-200, the instructions to change the clock are shown in this window.

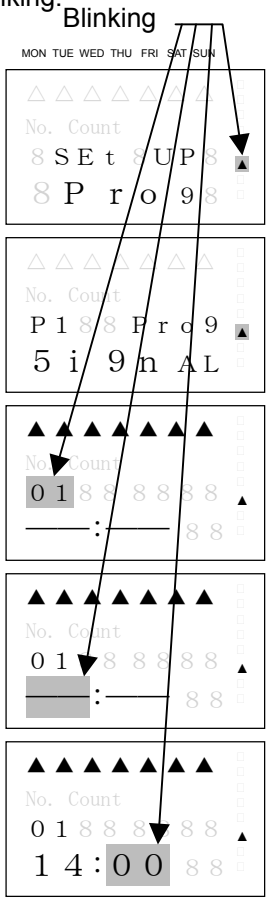
The 5 function buttons underneath the cover are used to navigate through the Quick Set and Program Mode to change the clock's settings.

- The **(-)** button is used to change the information on the display by decrementing the set value or moving the "▲" to the left.
- The **(+)** button is used to change the information on the display by incrementing the set value or moving the "▲" to the right.
- The **E** button is used to accept the information shown on the display and save it in memory.
- The **+1 HOUR** button advances the hour in the display by increments of 1.
- The **+1MIN.** button advances minutes in the display by increments of 1.

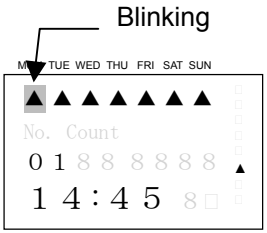
Make sure the AC power is plugged in while changes are made to the PIX-200 settings. Replace the cover, once all setting changes are performed, to exit from the setup program mode and return to normal operation.

How To Set the Weekly Program (20 steps)

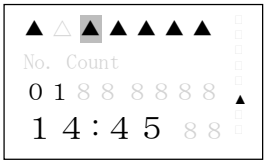
The illustrations on the right show samples of the displays. The shaded area means that the symbols, numbers or characters are blinking.



1. With the top cover removed, press the (**+**) and (**E**) buttons on the top of the unit at the same time, holding down for 2 seconds until **Set UP Pro9** appears on the display. The "▲" on the top of the display will be blinking under **MON**.
2. Press the (**+**) button twelve times to position the "▲" alongside the 6th line from the upper right-hand corner of the display, alongside a blank (on the label).
3. Press the (**E**) button once and the display will show "**P1 Pro9 5i9nAL"** with the "▲" blinking.
4. Now press the (**E**) button once to begin setting the program number. While the program number "**01**" is blinking, adjust the program number by pressing the (-) and (**+**) buttons. Now press the (**E**) button once to confirm the program number and the display will show "**- - : - -**".
5. While the hour display ["**- - : - -**"] is blinking, adjust the hours by pressing the (-) and (**+**) buttons. Now press the (**E**) button once to confirm the hour.
6. While the minute display is blinking, adjust the minutes by pressing the (-) and (**+**) buttons. Now press the (**E**) button once to confirm the minute.



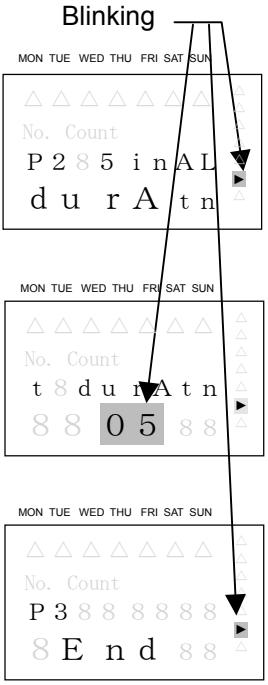
7. Once the minute is confirmed, you can now set the day of the week. Press the (**+**) button with the "▲" blinking under desired days to make that day of the week valid, or press the (**-**) button with the "▲" blinking under desired days to make those days invalid.
8. After validating the days, press the (**E**) button once for confirmation and **Set UP Pro9** will appear on the display. The example shown to the right shows that the time signal will turn on at 2:45pm on Monday, Wednesday, Thursday, Friday, Saturday and Sunday.



How To Set the Signal Duration (from 00 to 59 seconds)

Once the program has been set (see previous procedure), the duration (from 00 to 59 seconds) for the time signal can be set.

The illustrations on the right show samples of the displays. The shaded area means that the symbols, numbers or characters are blinking.



1. Press the (**+**) button at the "**P1 Pro9 5i9nAL"** display with the "▲" blinking, and the display will show "**P2 5i9nAL durAtn"**.
2. Press the (**E**) button and the display will show "**t durAtn**" with the "seconds" blinking. Press the (**+**) or (**-**) buttons to set the duration of the signal by adjusting the seconds. The default is 5 seconds.
3. Press the (**E**) button to confirm the duration and the display will show "**P3 End**" with the "▲" blinking. Press the (**E**) button again to return to the "setup program".
4. Put the clock cover back on to return back to normal operation.

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