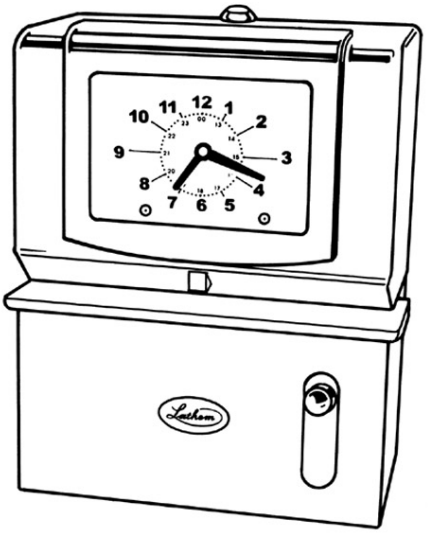
Mechanical Time Recorder



User's Guide

LATHEM TIME

Contents

Here's all the information you need for setting and operating your new Lathem time recorder. Service information is also included in this manual, in case any problems ever arise.

Thank you for choosing a Lathem time recorder. Should you ever need assistance, please let us know.

Setting the Time

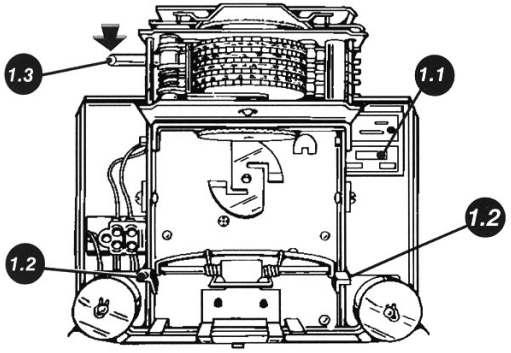


Figure 1

Determine Your Model

Model	Print Hours	Print Units	Description
xxx1	1 – 12 , 1 – 12	00 – 59	12 Hour & Minutes
xxx2	1 – 12 , 1 – 12	.0 – .9	12 Hour & Tenths
xxx3	1 – 12 , 1 – 12	.00 – .98	12 Hour & Hundredths
xxx4	00 – 23	00 – 59	24 Hour & Minutes
xxx5	00 – 23	.0 – .9	24 Hour & Tenths
xxx6	00 – 23	.00 – .98	24 Hour & Hundredths

Before proceeding, it is important to know the exact model of your clock so it can be set properly. The fourth digit in the model number indicates the print format.

Example: Since the fourth digit in the model number 2104 is a "4", it will print with 00-59 minutes and 00-23 hours (see table above). The model number is located on the ***Label 1.1*** *positioned as shown in* ***Figure 1****.*

Raise the Type Section

1. Unlock the case cover and pull it forward to remove it.
2. Note the position of the Release Latch and Face Setting Wheel used later in this process.
3. Wait until you hear the clock "click".
4. Press either side of the **Type Section Headlock – 1.2** and pull upward on the lower part of the Clock Face until the Type Section locks in the up position as shown in **Figure 1**. Note position of the Overthrow Lever and the Setting Wheel.
5. Press the red **Overthrow Lever – 1.3** away from you until it clicks. This releases the wheels allowing them to turn.

Set the Time on the Type Wheels

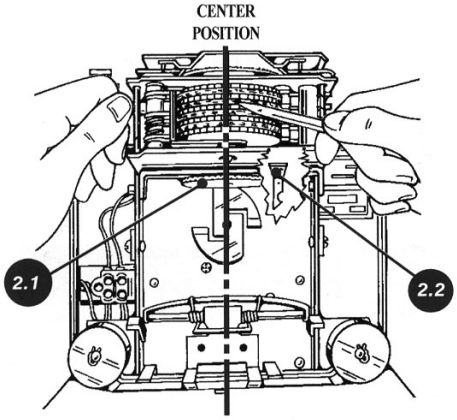


Figure 2

1. Locate the Center Line where all the wheels line up as shown in **Figure 2**.
2. Rotate the wheels using a pointed object. Rotate each wheel until the correct date and time are aligned at the Center Position, as shown in **Figure 2**. ***Hint: Start at the top wheel and work down when setting.***

If your model prints Tenths (model with 4th digit of 2 or 5), go to the section "**Setting Decimal Wheel with Tenths**".

If your model prints Hundredths or 00-23 hours, refer to the **Dial of Decimal Equivalents in Figure 3** (page 5) to determine the correct setting.

Note: if your machine records in 1-12 hours, the PM hours are underlined. AM hours are not underlined. Set time to the proper hour of the day to avoid errors such as setting the day wheel to the next day at noon rather than midnight.

3. Rotate the Minute Wheels to show the current minute.
4. Set the Hour Wheel to the current hour
5. Rotate the **Clock Face Setting Wheel – 5.1, Figure 5 on page 8,** to set the hands to match the time set on the wheels.
6. Rotate the **Main Setting Wheel – 2.1** to advance both the Clock Face and Print Wheels together. Rotate until you pass the actual time by one minute (each "click" indicates one minute.)
7. Hold the corner of the Clock Face and release the **Release Latch – 2.2** by pushing it to the left. Slowly let the Type Section down and press it firmly into the Type Section Headlock.
8. Make a sample registration and verify the time and date or day is correct.
9. Replace and lock the case cover.

Note: The month wheel and the date wheel must be reset manually at the beginning of each month.

Dial of Decimal Equivalents

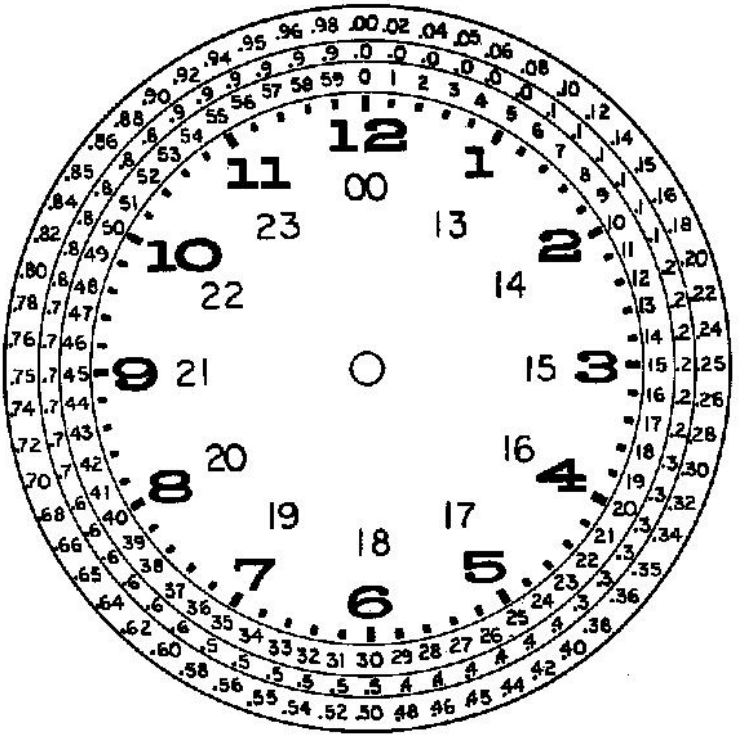


Figure 3

The dial in Figure 3 shows the tenths and hundredths setting for each minute. The inner circle represents regular minutes, the middle circle represents tenths, and the outer circle represents hundredths of a minutes.

For example:

45 minutes = .7 tenths = .75 hundredths

Setting Decimal Wheel with Tenths

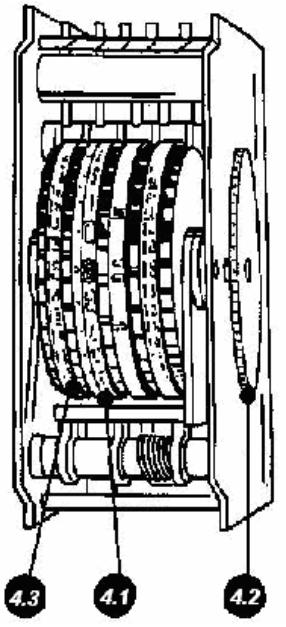


Figure 4

Use only for recorders printing in tenths (models with a 4th digit of "2" or "5")

1. Rotate Tenths Wheel (0.9) 4.1 until it is set at "9". Rotate the Main Setting Wheel until the Tenths Wheel moves to a "0". (This is the zero minute.)

2. Set the Hour Wheel to the current Hour.

3. Rotate the Clock Face Setting Wheel – 5.1, Figure 5 on page 8, to set the hands to match the time set on the wheels.

4. Rotate the Main Setting Wheel to advance both the Clock Face and Print Wheels together. Rotate until you pass the actual time by one minute (each "click" indicates one minute.)

   For example, at 10:05, rotate 5 times = 5 clicks = 5 minutes past ten o'clock.

5. Hold the corner of the Clock Face and release the Release Latch by pushing it to the left. Slowly let the Type Section down and press it firmly into the Type Section Headlock.

6. Make a sample registration and verify the time and date or day is correct.

7. Replace and lock the case cover

Set the Time on the Analog Clock Face

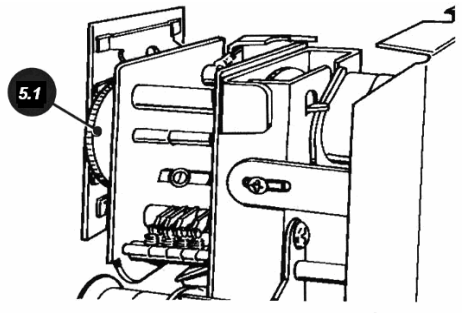


Figure 5

1. Make a sample registration on paper.
2. Rotate **Clock Face Setting Wheel 5.1** until the clock face displays the same time as shown on the sample registration.

   DO NOT TURN CLOCK HANDS EXCEPT BY USING SETTING WHEEL.

Set the Time on the Digital Clock Face

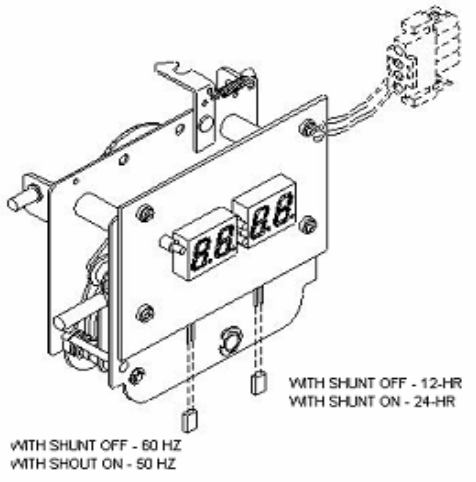


Figure 6

1. Make a sample registration on paper.
2. Use the Hour and Minute buttons to set the display to the time shown on the sample registration.
3. To synchronize the display with the type wheels, listen for the type wheels to click. At the click, press the minute button to advance to the next minute. Seconds are now synchronized. Always set the display to regular minutes. Refer to Figure 3, "dial of decimal equivalent" if using hundredths or tenths.

Changing the Ribbon

Lathem time recorders have self-reversing ribbons. With normal use, a ribbon should last for many months or even years….and when the time comes, it is easy to change.

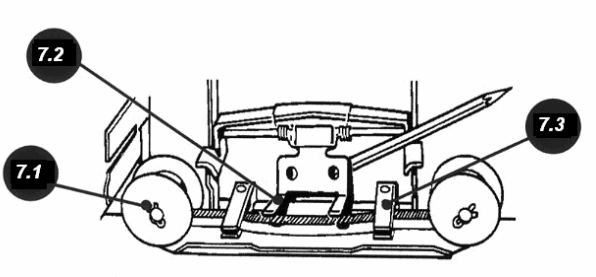


Figure 7

1. Remove the top cover and raise type section (see "Raise the type section" on page 3.)
2. Remove the **cotter pins 7.1** that retain the ribbon spools and slide off old spools.
3. Lift **ribbon hold-down guide 7.2** – use pencil to support in up position.
4. Remove ribbon and replace with new Lathem ribbon. Make sure the ribbon feeds from bottom of spools and runs BETWEEN **reversing fingers 7.3**, the red side aligned with date wheel(s).
5. Install cotter pins, remove pencil, and lower type section into place.

Replacing the Type Section

If your type section needs servicing, you can easily remove and replace it without sending the entire machine for service.

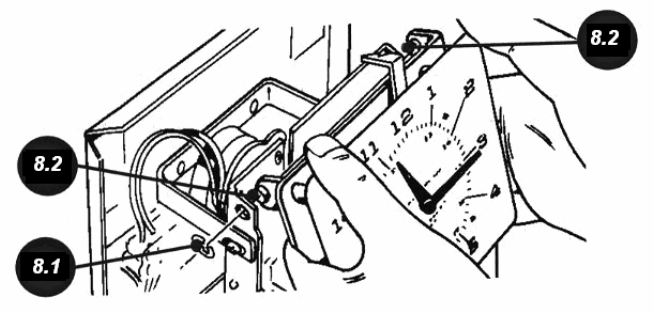


Figure 8

1. Remove the top cover.
2. Remove **Type Section Retaining Ring – 8.1**.
3. Unplug connectors if type section has digital time display (not shown).
4. Lift type section slightly and move it to the right to release **Hinge Pins – 8.2** from their sockets. Unit will lift out.

Install / Replace Batteries in BATT

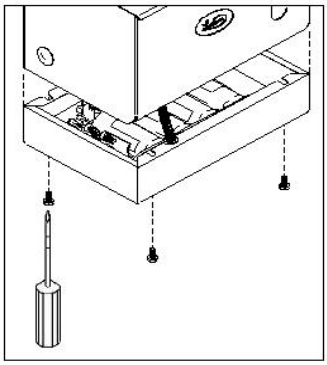


Figure 9

The 2000-BATT requires four "D" size batteries and should operate for six months before replacement. An internal beeper sounds momentarily each minute when the battery supply discharges below 4.5 volts. Replace batteries as follows when this occurs:

1. Pull and remove the front two rubber feet underneath the unit.
2. Loosen, 1 to 2 turns, the two phillips-head screws located 1.5 inches directly inside the rubber feet mounting holes.
3. Slide the bottom battery compartment outward (to front) and down, to get to the batteries. (See Figure 9.)
4. Replace the four "D" size batteries. Be sure the batteries are installed with proper polarity (+/-) as marked on battery holder.
5. Re-install the battery compartment on the bottom of the recorder, aligning the holes with the screws. Press the compartment firmly to the back (inward), tighten the two Phillips-head screws, and re-insert the two rubber feet.

Changing the Motor

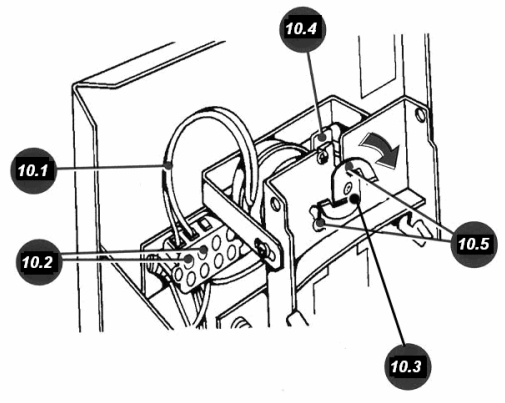


Figure 10

1. Unplug cord from wall outlet (except 2100BATT).
2. Remove type section from main frame (see "Replacing the Type Section").
3. **Figure 10** shows a close-up of cam block terminal.
4. Disconnect **Motor Wire Leads – 10.1** by turning each **Screw – 10.2** one-quarter of a turn counterclockwise.
5. Remove the **Motor Clutch – 10.3** from its shaft. The shaft has LEFT HAND threads – remove clutch by turning clockwise.
6. Hold **Motor Bracket – 10.4** and loosen **Motor Mounting Screws – 10.5**. Remove and retain screws and bracket from old motor.
7. Install motor clutch on new motor. Turn counterclockwise to tighten. DO NOT OVERTIGHTEN OR BEND – YOU MAY DAMAGE INTERNAL MOTOR GEARS.
8. Install new motor.
9. Plug cord back in wall outlet, and reset the time.