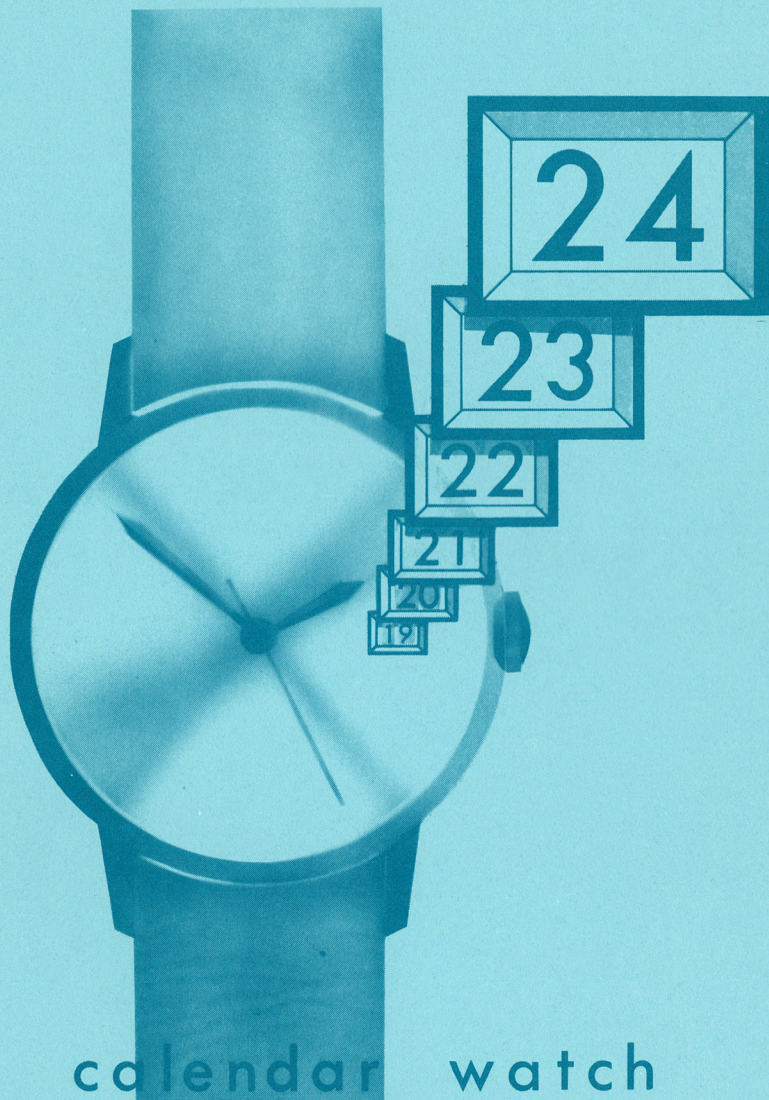


TIMEX

model

81

SERVICE MANUAL
MODEL 81



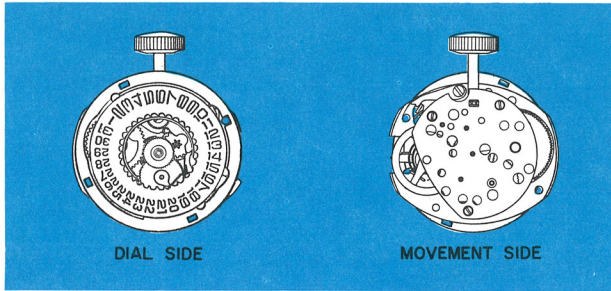
calendar watch

9 $\frac{3}{4}$ lig.

22.00 mm.

.8660 in.

the TIMEX Model 81 Movement



The TIMEX Model 81 is a $9\frac{3}{4}$ Ligne calendar movement which utilizes the basic Model 80 movement with "V-conic" bearing system and rugged two plate design.

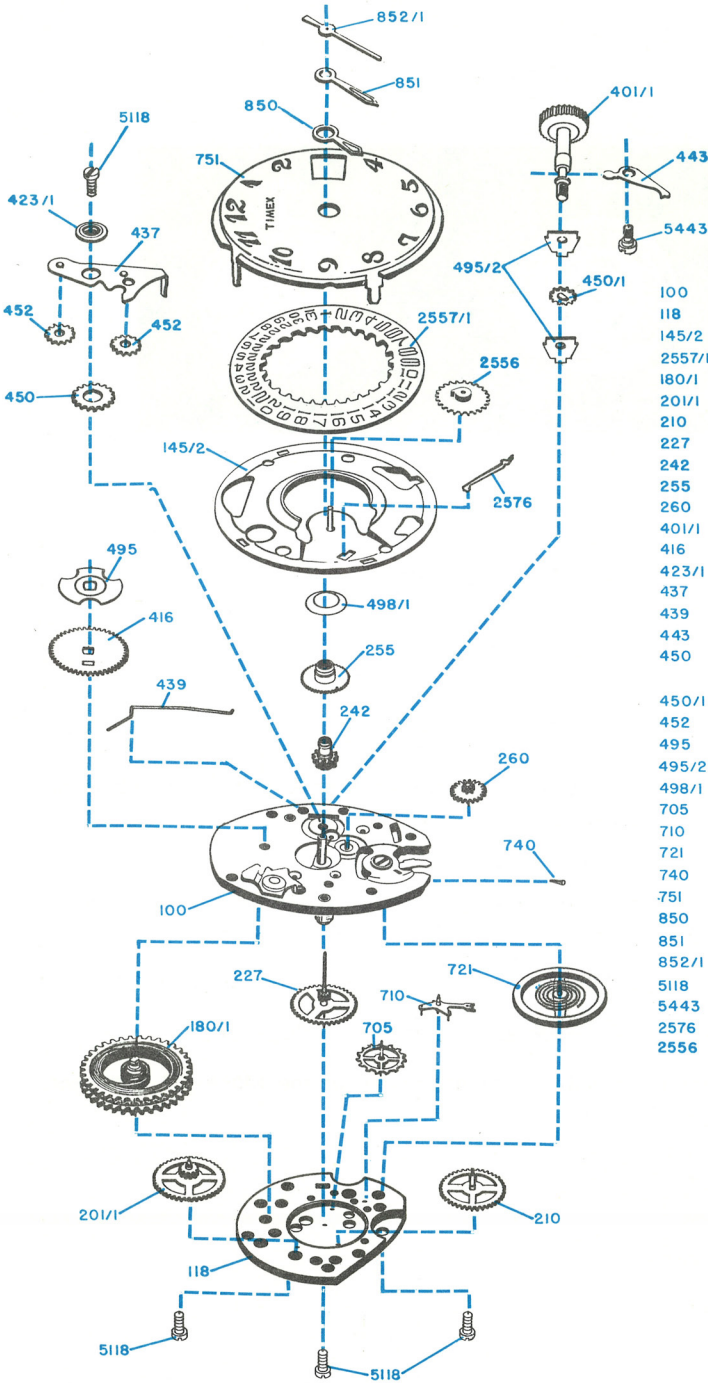
The entire calendar mechanism is housed between the Date Frame Assembly and the Dial.

To clean the TIMEX Model 81, follow instructions on Page 81.3.

An exploded view of the Model 81 is shown on Page 81.2.

Instructions for disassembly and reassembly of the Model 81 movement start on Page 81.3.

the TIMEX Model 81 Movement (exploded view)



- 100 DIAL PLATE ASS'Y.
- 118 MOVEMENT PLATE ASS'Y.
- 145/2 DATE FRAME ASS'Y.
- 2557/1 DATE RING
- 180/1 BARREL ASS'Y.
- 201/1 2ND. WHEEL ASS'Y.
- 210 3RD. WHEEL ASS'Y.
- 227 4TH. WHEEL ASS'Y.
- 242 CANNON PINION ASS'Y.
- 255 HOUR WHEEL ASS'Y.
- 260 MINUTE WHEEL ASS'Y.
- 401/1 CROWN & STEM ASS'Y.
- 416 RATCHET WHEEL
- 423/1 ROCKING BAR BUSHING
- 437 ROCKING BAR ASS'Y.
- 439 ROCKING BAR SPRING
- 443 SET LEVER
- 450 INTERMEDIATE WIND
PINION
- 450/1 WINDING STEM PINION
- 452 WIND & SET PINION
- 495 RATCHET WHEEL WASHER
- 495/2 WINDING BRIDGE
- 498/1 HOUR WHEEL WASHER
- 705 ESCAPE WHEEL ASS'Y.
- 710 PALLET LEVER ASS'Y.
- 721 BALANCE WHEEL ASS'Y.
- 740 HAIRSPRING WEDGE PIN
- 751 DIAL
- 850 HOUR HAND
- 851 MINUTE HAND
- 852/1 SWEEP SECOND HAND
- 5118 PILLAR SCREW
- 5443 SET LEVER SCREW
- 2576 DETENT SPRING
- 2556 DATE WHEEL ASS'Y.

Disassembly of movement for Cleaning (model 81)

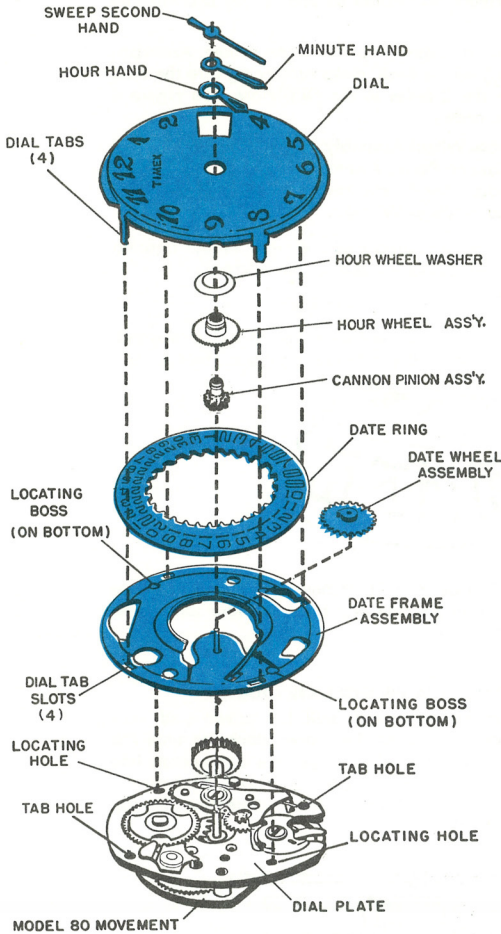


FIGURE 1

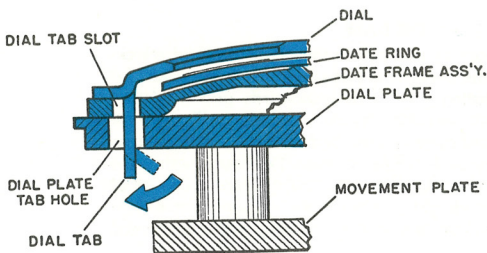


FIGURE 2

To clean the Model 81 Movement it is necessary to:

- A. Remove the sweep second hand, the minute hand and the hour hand.
- B. The Dial Assembly is clamped to the movement by means of four tabs which are inserted through slots in the Date Frame Assembly and then bent under the plate to secure the assembly (see Figure 2 at left). Bend the tabs slightly to free the dial from the movement and then lift off in order (see Figure 1 at left).

- Dial
- Date Ring
- Hour Wheel Washer
- Hour Wheel Assembly
- Date Wheel Assembly
- Date Frame Assembly
- Cannon Pinion Assembly

- C. After the above parts have been removed, the movement can be disassembled, cleaned, lubricated, and reassembled as outlined for the Model 80 Movement starting on Page 80.3.

- D. Extreme care must be exercised in cleaning Dials, Hands, and Date Rings. Solvent type cleaners will often damage the finish.

Reassembly of the model 81 movement

After the basic movement has been lubricated and reassembled as outlined for the Model 80 movement, the Model 81 reassembly is completed as follows:

Assemble the Detent Spring (if loose) into the Date Frame Assembly. Place the date frame assembly on the M-80 movement being sure the date frame bosses are located in the 2 holes in the Dial Plate (see Figure 1 on Page 81.3). Assemble in order:

Date Wheel Assembly
Cannon Pinion Assembly
Hour Wheel Assembly
Hour Wheel Washer

Lubricate the Cannon Pinion bearing area and the Date Wheel bearing area with fine watch oil (Elgin M56b is used in the factory).

Position the Date Ring on the Date Frame assembly.

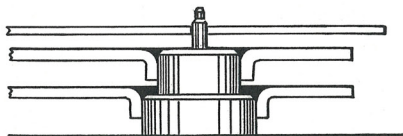
Lubricate the face of the Date Ring and the Detent Spring with fine watch oil as shown in the illustration below (Elgin M56b is used in the factory).



Insert the Dial tabs (tabs should be straight) through the slots in the Date Frame assembly. Hold the Dial in position and bend the four tabs under the Dial Plate.

TO POSITION HANDS FOR PROPER DATE CHANGE

With the Dial assembled to the movement, pull the crown and stem assembly into the set position and rotate the crown clockwise until the date starts to move. Continue to rotate slowly until the date jumps into place—stop rotating. Replace all hands at the 12 o'clock position. Be certain the Sweep Second Hand is set below the chamfer on the top of the staff as shown in illustration below.



Test the assembly for proper function of the hands and calendar mechanism.

TO SET THE DATE

Pull the crown out to the set position and rotate the hands forward (clockwise) until the date shown in the window changes. The date may now be advanced rapidly by first rotating the hands backwards past 9 o'clock and then rotate them forward past 12 o'clock. The date will advance each time the backward-forward cycle is repeated. The date may also be advanced by rotating the hands forward through 24 hours. After the correct date is set and remembering that the date change occurred at the equivalent of 12 o'clock midnight, set the time properly for AM or PM; otherwise, the next date change will occur during mid-day instead of at midnight.