

Procedure 2.1 — Accessing the Diagnostic Software

The treadmill's diagnostic software consists of the following modes:

- Display Test
- Keyboard Test
- Heart Rate Test
- Lift Test
- Belt Speed Test
- Belt Power Test
- Circuit Breaker Test

Procedure

1. Plug the power cord into the wall outlet, then turn on the treadmill with the circuit breaker.
2. The keys on the display are hypothetically numbered 1 to 7 from left to right. See Diagram 2.1. The **STOP** is key number 4 and is located directly below the **QUICK START** key.
3. With the **PRECOR** banner scrolling, press keys **RESET,5,1,7,6,5,7,6,1**, sequentially. The display test will be initiated.
4. Watch the electronic display as the display test progresses. This test illuminates all of the LED's on the display. If all of the LED's do not illuminate, replace the upper PCA per Procedure 5.2 of the Commercial Treadmill Service Manual.
5. Press the **STOP** or **ENTER** key to proceed to the keyboard test.

Diagram 2.1 — C966 Treadmill Display



6. The keyboard test will place two dots on the display for each key on the display, including the numeric keypad. Pressing a key will cause the upper of the two dots associated with the key to go out. Test all of the keys in this manner. Tug on the safety key lanyard, to ensure that the **STOP** key is operating normally.
7. Press and hold the **STOP** key or **ENTER** key to proceed to the heart rate test.
8. The heart rate test will display the heart rate being received during this test from either a chest strap transmitter, the hand held system or a test transmitter.
9. Three heart rate values will be displayed. They are prefixed “U” for unfiltered, “F” for filtered and “P” for Polar filtering. The Polar filtered heart rate will also appear in the normal heart rate display, since Polar filtering is the filtering used during normal operation. The right most red LED in the smart rate display will flash each time a heart beat is detected.
10. Press the **STOP** or **ENTER** key to proceed to the lift test.
11. Two numbers will be displayed, the percent of lift and A/D number related to the current lift position. The A/D (analog to digital) number represents the lift potentiometer reading. The A/D number will be in the range of 0 to 255.
12. The lift may be operated using the **INCLINE** keys. The incline percentage and A/D numbers will change accordingly. Care must be taken while operating the lift in this mode because the normal upper and lower range limits are not in effect. It is possible to operate the lift to it's physical limits and may cause the lift motor to jam.
13. The A/D reading will be used later in this service manual to calibrate the lift.
14. Press and hold the **STOP** or press the **ENTER** key to proceed to the belt speed test.
15. The speed of the running belt is controlled by the **SPEED** keys during this test.
16. The following values are displayed; time (that the running belt has operated during this test), current (in amps through the drive motor), belt speed (in MPH) and power bits (PWM value).
17. This test is valuable in diagnosing treadmill load conditions such as running bed and/or running belt condition. As load is increased, the speed is kept at a constant value (as set via the **SPEED** keys) and the current and power bits will vary proportionately to the load.
18. It is suggested that you perform this test on a treadmill known to be in excellent operating condition. Note the values displayed at a fixed speed (such as 3 MPH) and your body weight. Those values may then be used to benchmark the operation of treadmills you are diagnosing.
19. Press and hold the **STOP** or press the **ENTER** key to proceed to the belt power test.
20. The belt power test is similar to the belt speed test except that the **SPEED** keys control the power bits (PWM value) instead of the belt speed.
21. The same (see step 16) values will be displayed as in the belt speed test.

22. This test is valuable in diagnosing treadmill response to load conditions. As load is increased, the power bits are kept at a constant value (as set via the **SPEED** keys) and the current and belt speed will vary proportionately to the load.
23. It is suggested that you perform this test on a treadmill known to be in excellent operating condition. Note the values displayed at a fixed power bit reading (as set by the **SPEED** keys) and your body weight. Those values may then be used to benchmark the operation of treadmills you are diagnosing.
24. Press the **STOP** or the **ENTER** key to proceed to the circuit breaker test.
25. The message **HOLD ARROW KEY TO TRIP** will be displayed. When the arrow key is held, the message **BREAKER WILL TRIP 3 2 1** will flash on the screen one word at a time. Shortly after the **1** is displayed, the circuit breaker will trip. If the arrow key is released before the circuit breaker trips, the test will be terminated.
26. The circuit breaker test is the last test in the diagnostics routine. If you do not wish to cause the circuit breaker to trip, press the **RESET**, **STOP** or the **ENTER** key to exit the diagnostics routine.

Procedure 2.2 — Displaying Information

The information display will access the following data;

- Odometer
- Hour meter
- Software version
- Error log
- Serial Number

Procedure

1. Plug the power cord into the wall outlet, then turn on the treadmill with the circuit breaker.
2. With the **PRECOR** banner scrolling, press the keys **RESET,6,5**, sequentially. The odometer display will be initiated.
3. The treadmill's odometer will be displayed as **1234567 MPH** or **1234567 KPH** depending on club settings (See Procedure 2.3).

Note: The odometer data is stored in non-volatile memory on the upper PCA. If the upper PCA is replaced the odometer data will be lost.

4. Press the **STOP** or the **ENTER** key to proceed to the hour meter display.'
5. The operating time of the unit will be displayed as **12345 HOURS**. The operating time is defined as total amount of time that the unit has operated in program modes with the drive motor running. The hour meter is also used to provide the "time stamp" for the error code log.
6. Press the **STOP** or the **ENTER** key to proceed to the software version display.
7. The software versions of the upper and lower PCA's will be displayed as;
UPPER X.XX LOWER X.XX
8. Press the **STOP** or the **ENTER** key to proceed to the error log.
9. The error log will store up to 10 error conditions. The errors are logged with the most recent error in position one. When a new error condition occurs, each existing error is pushed down one position in log. If there was an error in position 10 when a new error was logged, the error that was in position 10 will be lost.
10. Each error in the log will show the odometer reading (in miles) and the time (hour meter) when the error occurred. The errors are displayed as;
1 ER20 1234567 MI 12345 HRS.

11. The arrows keys will allow you to scroll through the log. When the first unused position is reached in the log, the message **NO MORE ERRORS** will be displayed.
12. If you wish to clear the error log of all existing errors, follow the procedure in step 13.
13. When the **QUICK START** key is held for 2 seconds the message **HOLD TO CLEAR ERRORS** will be displayed. If the **QUICK START** key is held for an additional 2 seconds, the message **CLEARED** will be displayed. When the **QUICK START** key is released the message **NO MORE ERRORS** will be displayed and all error are erased from the log.
14. Press the **STOP** or the **ENTER** key to proceed to the serial number display.
15. The unit's serial number will be displayed.
16. Press the **RESET**, **STOP** or the **ENTER** key to exit the information display.