

Procedure 3.1 - Software Access Codes

The C546i uses the standard access codes to provide access to the various software features. In using the standardized access codes the keys are hypothetically numbered left to right with key #1 on the far left and key #7 on the far right. The standard access codes use all sequential key presses. The allowable delay between key presses is short. If too much time is taken between key presses the access procedure will be aborted. If the access is aborted, it will be necessary to start over from the beginning. See Diagram 3.1. The C546i display does not utilize key positions #2 and #3, however, they must be counted to correctly locate keys #4 through #6. On the C546i display key #1 is the **RESET** key and key #4 is the **QUICK START** key.

Standard Access Codes

Diagnostics

Keys **RESET**,5,1,7,6,5,7,6,1

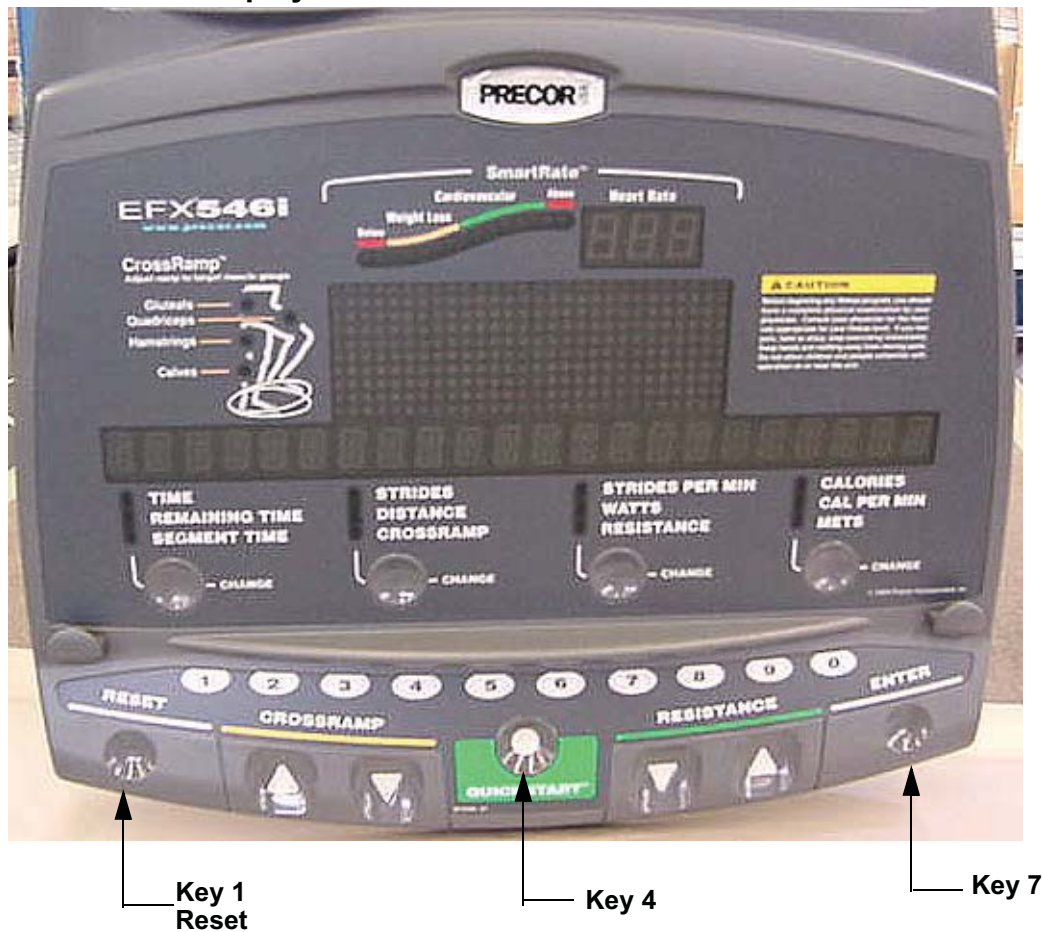
Odometer

Keys **RESET**,6,5

Club Settings

Keys **RESET**,5,6,5,1,5,6,5

Diagram 3.1 - C546i Display Panel



Procedure 3.2 - Accessing the Diagnostic Program

The EFX diagnostic software cycles through the following tests:

- Display Test
- Keyboard Test
- Heart Rate Test
- Battery Test
- RPM Test
- Lift Test
- Brake Test

Procedure

1. Start pedalling and continue to pedal as you perform step 2.
2. With the **PRECOR** banner displayed, press keys **RESET,5,1,7,6,5,7,6,1.**, sequentially.
3. The message **HARDWARE VALIDATION** will be displayed for a few seconds.
4. The message **DISPLAY TEST** will be displayed followed by every LED on the display being illuminated. Check each LED segment to ensure that all of the segments are illuminated. Press the **ENTER** key to advance to the keyboard test.
5. The message **KEYBOARD TEST** will be displayed followed by a graphical representation of each key position on the display housing. As each key on the display is pressed the key representation is turned "off", indicating that the key is functioning. Check each key in this manner, including the numeric keyboard. Press and hold the **ENTER** key for 2 seconds to advance to the heart rate test.
6. The message **HEART RATE TEST** will be displayed followed by the unfiltered (U), filtered (F) and polar (P) heart rate readings if the heart rate option is installed in the C546i and a chest strap transmitter or a test transmitter is being used. If the heart rate option is not installed in the C546i, the message **NO HEART RATE RECEIVER** will be displayed instead of the heart rate readings. Press the **ENTER** key to advance to the brake test.
7. The message **BATTERY TEST** will be displayed followed by the battery voltage. Press the **ENTER** key to advance to the RPM test.
8. The message **RPM TEST** will be displayed followed by the pulse (power bit) reading and the RPM reading. Press the **ENTER** key to advance to the lift test.
9. The message **LIFT TEST** will be displayed followed by the ramp level and A/D (analog to digital) reading. The A/D is the number the system use to track the lift position. The A/D number will be used in the lift calibration portion of this service manual. (Procedure 5.3).

10. The message **BRAKE TEST** will be displayed followed the resistance level and brake level readings. This test allows you to test the brake (resistance) at each resistance level. Press the **ENTER** key to exit the diagnostics program.

Procedure 3.3 - Displaying the Odometer

Procedure

1. Start pedalling and continue to pedal as you perform step 2.
2. With the **PRECOR** banner displayed, press keys **RESET,6,5**, sequentially.
3. The message **INFORMATION DISPLAY** will be displayed for a few seconds.
4. The message **ODOMETER** will be displayed followed by the total number of strides accumulated. The total number of strides can be converted to miles by dividing by 2241 or to kilometers by dividing by 1392.5. Press the **ENTER** key to advance to total strides.
5. The message **TOTAL STRIDES** will be displayed followed by the total number of strides logged on the C546i. Press the **ENTER** key to advance to hour meter.
6. The message **HOUR METER** will be displayed followed by the total number of hours that the C546i has been in use. Press the **ENTER** key to advance to software version.
7. The message **SOFTWARE VERSION** will be displayed followed by the upper software part number **UPPER APP XXXX-XXX**. Use the ▼ and ▲ keys to display the boot software part number **UPPER BOOT XXXXX-XXX** and lower software part number **LOWER XXXXX-XXX**. Press the **ENTER** key to advance to error log.
8. The message **ERROR LOG** will be displayed followed by the error in log position 1. Each log entry shows the log position, the stride count when the error occurred and the hour meter when the error occurred. For example; **1 ER21 123456 STR 45678 HRS**. The error log can record up to ten error conditions. The error code in position one will be the most recent error and the error in position ten will be the oldest error. If more than ten errors have been logged, only the ten most recent will be displayed. When a new error is logged, each existing error is pushed down one position and the error in position 10, if any, is lost. Use the ▼ and ▲ keys to move through the log. Pressing and holding the **QUICK START** key for four seconds will clear the log. Press the **ENTER** key to advance to the serial number display.
9. If a serial number has been entered it will be displayed otherwise **NO SERIAL NUMBER** will be displayed. Press the **ENTER** key to exit the odometer program.

Procedure 3.4 - Club Settings

1. Start pedalling and continue to pedal as you perform step 2.
2. Enter the club settings by pressing keys **RESET,5,6,5,1,5,6,5**, sequentially.
3. The message **SET CLUB PARAMETERS** will be displayed for a few seconds.
4. The message **SELECT LANGUAGE** will be displayed followed by the currently selected language. Use the ▼ and ▲ keys to select the language preference. Press the **ENTER** key to advance to units of measurement.
5. The message **SELECT UNITS** will be displayed followed by the currently selected unit of measurement. Use the ▼ and ▲ keys to select either **U.S. Standard** or **METRIC** measurements. Press the **ENTER** key to advance to maximum workout time.
6. The message **SET MAX WORKOUT TIME** will be displayed followed by the currently selected maximum workout time. Use the ▼ and ▲ keys to select the maximum workout time. The maximum workout time may be set between 1 and 240 minutes or no limit. Press **ENTER** to advance to maximum pause time.
7. The message **SET MAX PAUSE TIME** will be displayed followed by the currently selected maximum pause time. Use the ▼ and ▲ keys to select the maximum pause time. The maximum pause time is the that will elapse after the pause key has been pressed until the unit resets. The maximum pause time may be set between 1 and 120 seconds. Press **ENTER** to advance to set cool down time.
8. The message **SET COOL DOWN TIME** will be displayed followed by the currently selected cool down time. Use the ▼ and ▲ keys to select the cool down time. Cool down time is the period of time following the completion of a program for the user to cool down at a reduced work rate. Press **ENTER** to exit the club settings program.

Procedure 3.5 - Documenting Software Problems

When a problem is found with either the upper software or lower PCA's, record the information listed below. Refer to Procedure 3.6 to install new upper software. Please note, installing new upper software is only appropriate if a later software version containing a correction for the problem experienced is available. If an appropriate software version is not available the information below must be forwarded to Precor customer support. This information will be used to correct and create new software, whenever it is appropriate. Lower software is "firmware". The PROM in the lower PCA must be replaced to install new lower software, refer to Diagram 6.4.

When a problem occurs, record the following information:

- Model and serial number
- Software part numbers
- User and program number running when the problem occurred
- A description of:
 - a What happened or failed to happen.
 - b The action taken by the user just before the problem occurred.
 - c Problem-related information (such as how far into the program the problem occurred, the work level being used when the problem occurred, etc.).
- The frequency of occurrence.

Procedure 3.6 - Software Uploading Procedure

This unit utilizes an upper PCA software system that is capable of on site upper PCA software uploading (re-programming). The software upload may be accomplished with the use of a PDA (palm device) or a laptop computer.

If a palm device is to be used it must use OS software version 3.2 or higher. Currently, we have only tested devices manufactured by Palm, but other manufacturer's palm devices may also function correctly.

If a palm device is to be used, the appropriate software must be available in the palm device. A PDA containing the appropriate software may be ordered from Precor or it may be downloaded to the PDA from your desktop or laptop computer via the "hot sync" function. With the PDA inserted in the hot sync cradle, download to "Precor IFP" (in field programmer) directory.

If a laptop computer is to be used, the computer's DB9 serial port will be used for the upload.

Upload Procedure

1. The EFX must be "powered down" before the upload procedure can be initiated. Ensure that the EFX has not be used for a sufficient time to allow the lower PCA to completely discharge. The light emitting diode on the lower PCA will go out when the power supply is discharged.
2. If the CSAFE port is in use, temporarily disconnect the RJ-45 cable from the CSAFE port. If the CSAFE port is not in use, temporarily remove the plastic plug from the CSAFE port.
3. Connect the PDA or computer interface cable to the CSAFE port.
4. Select the software file to be uploaded on the palm device or computer.
5. Start pedaling the EFX or power up using the external power supply. When the EFX "powers up" the upload will commence. You must continue to pedal until the upload is complete, approximately 2 minutes.
6. Stop pedaling or disconnect the external power supply when the upload is complete, and allow the lower PCA to completely discharge. The light emitting diode on the lower PCA will go out when the power supply is discharged.
7. Start pedaling the EFX, after it has been allowed to power down, the EFX will now be operating on the newly uploaded software.
8. Thoroughly, check the EFX's function per Section Four.