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Start-Up Screen

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Supported Devices

The devices listed in the tables below are supported by the Merlin™ Patient Care System equipped with Model 3330 Software. The table also indicates whether the programmer’s telemetry wand should be used with the magnet installed or removed. If you attempt to interrogate a device not listed here, the programmer cannot identify the device.

Table 1. Bradycardia devices supported by the Merlin™ PCS

<table>
<thead>
<tr>
<th>Device</th>
<th>Model Number</th>
<th>Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent DR</td>
<td>PM2110</td>
<td>Remove</td>
</tr>
<tr>
<td>Accent DR RF</td>
<td>PM2210</td>
<td>Remove</td>
</tr>
<tr>
<td>Accent SR</td>
<td>PM1110</td>
<td>Remove</td>
</tr>
<tr>
<td>Accent SR RF</td>
<td>PM1210</td>
<td>Remove</td>
</tr>
<tr>
<td>AddVent</td>
<td>2060</td>
<td>Install</td>
</tr>
<tr>
<td>Affinity DC</td>
<td>5230, 5231</td>
<td>Remove</td>
</tr>
<tr>
<td>Affinity DR</td>
<td>5330, 5331</td>
<td>Remove</td>
</tr>
<tr>
<td>Affinity SR</td>
<td>5130, 5131</td>
<td>Remove</td>
</tr>
<tr>
<td>Affinity VDR</td>
<td>5430</td>
<td>Remove</td>
</tr>
<tr>
<td>Allure</td>
<td>PM3120</td>
<td>Remove</td>
</tr>
<tr>
<td>Allure Quadra</td>
<td>PM3140</td>
<td>Remove</td>
</tr>
<tr>
<td>Allure RF</td>
<td>PM3222</td>
<td>Remove</td>
</tr>
<tr>
<td>Allure Quadra RF</td>
<td>PM3242</td>
<td>Remove</td>
</tr>
<tr>
<td>Anthem</td>
<td>PM3110</td>
<td>Remove</td>
</tr>
<tr>
<td>Anthem RF</td>
<td>PM3210</td>
<td>Remove</td>
</tr>
<tr>
<td>Assurity</td>
<td>PM1240, PM2240</td>
<td>Remove</td>
</tr>
<tr>
<td>Assurity+</td>
<td>PM1260, PM2260</td>
<td>Remove</td>
</tr>
<tr>
<td>Endurity</td>
<td>PM1160, PM2160</td>
<td>Remove</td>
</tr>
<tr>
<td>Entity DC</td>
<td>5226</td>
<td>Remove</td>
</tr>
<tr>
<td>Entity DR</td>
<td>5326</td>
<td>Remove</td>
</tr>
<tr>
<td>Frontier II</td>
<td>5586</td>
<td>Remove</td>
</tr>
<tr>
<td>Frontier</td>
<td>5508</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity ADx DC</td>
<td>5286</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity ADx DR</td>
<td>5380</td>
<td>Remove</td>
</tr>
</tbody>
</table>

1 Not all device models are available in all countries.
<table>
<thead>
<tr>
<th>Device</th>
<th>Model Number</th>
<th>Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity ADx XL DR</td>
<td>5386</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity DR</td>
<td>5370</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity XL DR</td>
<td>5376</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity ADx SR</td>
<td>5180</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity SR</td>
<td>5172</td>
<td>Remove</td>
</tr>
<tr>
<td>Identity ADx VDR</td>
<td>5480</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity ADx DR</td>
<td>5360</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity ADx XL DR</td>
<td>5366</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity ADx SR</td>
<td>5160</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity ADx VDR SR</td>
<td>5346, 5342</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity ADx SR M/S</td>
<td>5142</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity µ DR</td>
<td>5336</td>
<td>Remove</td>
</tr>
<tr>
<td>Integrity µ SR</td>
<td>5136</td>
<td>Remove</td>
</tr>
<tr>
<td>Microny SR+</td>
<td>2425</td>
<td>Remove</td>
</tr>
<tr>
<td>Microny II SR+</td>
<td>2525</td>
<td>Remove</td>
</tr>
<tr>
<td>Microny K SR</td>
<td>2535</td>
<td>Remove</td>
</tr>
<tr>
<td>Paragon</td>
<td>2010, 2011, 2012</td>
<td>Install</td>
</tr>
<tr>
<td>Paragon II</td>
<td>2016</td>
<td>Install</td>
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<tr>
<td>Phoenix II</td>
<td>2304, 2305, 2314, 2315</td>
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<tr>
<td>Phoenix II</td>
<td>2005, 2008, 2009</td>
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<tr>
<td>Phoenix III</td>
<td>2204, 2205</td>
<td>Install</td>
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<td>Regency SC+</td>
<td>2402</td>
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<tr>
<td>Solus</td>
<td>2002, 2003</td>
<td>Install</td>
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<tr>
<td>Solus II</td>
<td>2006, 2007</td>
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<tr>
<td>Sustain XL DC</td>
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<tr>
<td>Sustain XL DR</td>
<td>PM2136</td>
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<tr>
<td>Sustain XL SC</td>
<td>PM1134</td>
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<td>Sustain XL SR</td>
<td>PM1136</td>
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<tr>
<td>Synchrony</td>
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<td>Synchrony II</td>
<td>2022, 2023</td>
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</tr>
<tr>
<td>Synchrony III</td>
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</tr>
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<td>Trilogy DC</td>
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<td>Trilogy DC+</td>
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<td>Install</td>
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<td>2350</td>
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<tr>
<td>Trilogy DR+</td>
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<td>Trilogy SR</td>
<td>2250</td>
<td>Install</td>
</tr>
<tr>
<td>Trilogy SR+</td>
<td>2260, 2264</td>
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<td>Verity ADx XL DC</td>
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<td>5356</td>
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<tr>
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<td>5357</td>
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<td>Verity ADx XL SC</td>
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</tr>
<tr>
<td>Verity ADx XL SR M/S</td>
<td>5157</td>
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</tr>
<tr>
<td>Verity ADx XL VDR</td>
<td>5456, 5456i</td>
<td>Remove</td>
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<td>Victory XL DR</td>
<td>5816</td>
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<tr>
<td>Victory DR</td>
<td>5810</td>
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<tr>
<td>Victory SR</td>
<td>5610</td>
<td>Remove</td>
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<tr>
<td>Zephyr XL DR</td>
<td>5826</td>
<td>Remove</td>
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<tr>
<td>Device</td>
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<td>Magnet</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>Zephyr DR</td>
<td>5820</td>
<td>Remove</td>
</tr>
<tr>
<td>Zephyr XL SR</td>
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<td>Remove</td>
</tr>
<tr>
<td>Zephyr SR</td>
<td>5620</td>
<td>Remove</td>
</tr>
</tbody>
</table>

Table 2. Tachycardia devices supported by the Merlin™ PCS

<table>
<thead>
<tr>
<th>Device</th>
<th>Model Number</th>
<th>Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlas DR</td>
<td>V-240, V-242</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas VR</td>
<td>V-199</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas+ DR</td>
<td>V-243</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas+ HF</td>
<td>V-340, V-341, V-343, V-344</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas+ VR</td>
<td>V-193, V-193C</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas II DR</td>
<td>V-265</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas II HF</td>
<td>V-365</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas II VR</td>
<td>V-168</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas II+ DR</td>
<td>V-268</td>
<td>Remove</td>
</tr>
<tr>
<td>Atlas II+ HF</td>
<td>V-366</td>
<td>Remove</td>
</tr>
<tr>
<td>Convert</td>
<td>V-191</td>
<td>Remove</td>
</tr>
<tr>
<td>Convert+</td>
<td>V-195</td>
<td>Remove</td>
</tr>
<tr>
<td>Current DR</td>
<td>2107-30, 2107-36, CD2207-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Current DR RF</td>
<td>2207-30, 2207-36</td>
<td>Remove</td>
</tr>
<tr>
<td>Current Accel DR</td>
<td>CD2215-30, CD2215-36, CD2215-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Current+ DR</td>
<td>CD2211-36, CD2211-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Current VR</td>
<td>1107-30, 1107-36, CD1207-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Current VR RF</td>
<td>1207-30, 1207-36</td>
<td>Remove</td>
</tr>
<tr>
<td>Current Accel VR</td>
<td>CD1215-30, CD1215-36, CD1215-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Current+ VR</td>
<td>CD1211-36, CD1211-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Ellipse DR</td>
<td>CD2311-36, CD2311-36Q, CD2411-36, CD2411-36C, CD2411-36Q, CD2411-36QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Ellipse VR</td>
<td>CD1311-36, CD1311-36Q, CD1411-36, CD1411-36C, CD1411-36Q, CD1411-36QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic DR</td>
<td>V-233, V-235</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic HF</td>
<td>V-337, V-338</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic VR</td>
<td>V-197</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic+ DR</td>
<td>V-236, V-239, V239T</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic+ HF</td>
<td>V-352</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic+ VR</td>
<td>V-196, V-196T</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic II DR</td>
<td>V-255</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic II HF</td>
<td>V-355</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic II VR</td>
<td>V-158</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic II+ DR</td>
<td>V-258</td>
<td>Remove</td>
</tr>
<tr>
<td>Epic II+ HF</td>
<td>V-356</td>
<td>Remove</td>
</tr>
<tr>
<td>Fortify DR</td>
<td>CD2231-40, CD2231-40Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Fortify VR</td>
<td>CD1231-40, CD1231-40Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Fortify Assura DR</td>
<td>CD2257-40, CD2257-40Q, CD2357-40, CD2357-40C, CD2357-40Q, CD2357-40QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Fortify Assura VR</td>
<td>CD1257-40, CD1257-40Q, CD1357-40, CD1357-40C, CD1357-40Q, CD1357-40QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Photon DR</td>
<td>V-230HV</td>
<td>Remove</td>
</tr>
<tr>
<td>Photon µ DR</td>
<td>V-232</td>
<td>Remove</td>
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</table>
Table 2. Tachycardia devices supported by the Merlin™ PCS

<table>
<thead>
<tr>
<th>Device</th>
<th>Model Number</th>
<th>Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photon µ VR</td>
<td>V-194</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote</td>
<td>3107-30, 3107-36, 3107-36Q, CD3207-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote Accel</td>
<td>CD3215-30, CD3215-36, CD3215-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote RF</td>
<td>3207-30, 3207-36</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote Q</td>
<td>CD3221-36</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote Quadra</td>
<td>CD3245-40, CD3245-40Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Promote+</td>
<td>CD3211-36, CD3211-36Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Quadra Assura</td>
<td>CD3265-40, CD3265-40Q, CD3365-40, CD3365-40C, CD3365-40Q, CD3365-40QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Unify</td>
<td>CD3231-40, CD3231-40Q</td>
<td>Remove</td>
</tr>
<tr>
<td>Unify Assura</td>
<td>CD3257-40, CD3257-40Q, CD3357-40, CD3357-40C, CD3357-40Q, CD3357-40QC</td>
<td>Remove</td>
</tr>
<tr>
<td>Unify Quadra</td>
<td>CD3249-40, CD3249-40Q</td>
<td>Remove</td>
</tr>
</tbody>
</table>

Table 3. Monitoring devices supported by the Merlin™ PCS

<table>
<thead>
<tr>
<th>Device</th>
<th>Model Number</th>
<th>Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJM Confirm</td>
<td>DM2100, DM2102</td>
<td>Remove</td>
</tr>
</tbody>
</table>

Start-Up Screen

The Start-Up screen provides access to the functions shown in the figure below.

Figure 1. Start-Up screen
1. ? Button (page 5). Opens the on-screen help menu.
2. RF Telemetry Status Icon (page 5). Reports the RF communication status for RF-capable devices.
3. Tools (page 6) button. Opens a menu for the PSA application, preferences, and other programmer functions.
4. Waveform Control (page 8) buttons. Open controls for the Rhythm Display’s gain and configuration.
5. Rhythm Display (page 8)
7. Freeze button. Freezes the Rhythm Display and opens the Freeze Capture (page 9) window.
8. Print Settings button. Opens the Print Settings window. An icon without a cord indicates the programmer is using the internal printer. An icon with a cord indicates the programmer is connected to an external printer (see below). The "PDF" icon indicates that a PDF report is available for export. See PDFs (page 7). To change printers, select Tools > Preferences > Printer (Printer Preferences (page 7)).
9. Printer Status panel
10. Interrogate button

---

**Figure 2. Printer icons**

1. Internal printer in use
2. External printer connected
3. Paperless or PDF printing selected

---

**? Button**

The ? button opens a window that provides context-sensitive help. You can also get help if you select Tools (page 6) > Educational Materials > Help.

Accessed From: Help button

**RF Telemetry Status Icon**

For more information on RF communication, consult the Merlin™ PCS User’s Manual or select the ? button after you interrogate an RF-capable device.
Table 4. RF telemetry icons

<table>
<thead>
<tr>
<th>Location</th>
<th>RF Telemetry Status</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start-Up Screen Icons</strong></td>
<td>Disconnected RF Base Station/Not Working</td>
<td><img src="image" alt="Icon" /></td>
</tr>
<tr>
<td></td>
<td>Ready to connect to device</td>
<td><img src="image" alt="Icon" /></td>
</tr>
<tr>
<td><strong>Application Icons</strong></td>
<td>Active RF telemetry connection</td>
<td><img src="image" alt="Icon" /></td>
</tr>
<tr>
<td></td>
<td>Inactive RF telemetry connection</td>
<td><img src="image" alt="Icon" /></td>
</tr>
<tr>
<td></td>
<td>Only wand telemetry is available</td>
<td><img src="image" alt="Icon" /></td>
</tr>
</tbody>
</table>

Tools

The Tools menu opens a number of programmer tools, including:

- **PSA.** Opens the PSA application for either the Merlin™ PSA Model EX3100 or the Model 3150 Pacing System Analyzer (Tools > Educational Materials > Help).
- **Session Records:**
  - **Session Records.** Opens archived data (for tachycardia devices only).
  - **PDFs (page 7).** Opens the PDFs window to manage the reports stored as PDFs on the programmer's hard disk.
- **Educational Materials:**
  - **Help.** Opens links for on-line Help for all supported devices.
  - **Demos.** Opens device demonstrations.
- **Maintenance.** Opens utilities for programmer maintenance (for use by St. Jude Medical personnel only).
- **Clinical Studies.** Opens information for studies (for use by St. Jude Medical personnel only).
- **Preferences (page 7).** Opens the Merlin PCS settings for language, date, format, audio, etc.
- **Customer Support.** Provides contact information for Technical Support. (page 9)
- **Print Screen (page 8).** Prints an image of the screen.
- **Export Screen (page 8).** Exports an image to a USB flash drive or floppy drive.

Accessed From: Tools Button

Session Records

The Session Records window allows you to search, review, and export programming session records that are recorded on the programmer's hard disk. Each session record contains one or more snapshots of the session captured during programming, measurement, and testing. Each snapshot is a representation of the programmer screen performed when the operation took place. The records can be exported to an external media device or a PC in a format for an external PC database or for Merlin.net.

The programmer does not maintain Session Records for all devices. For more information on a specific device, select Educational Materials > Help, and select the device you are interested in.

Accessed From: Tools menu > Session Records > Session Records
PDFs

Every time you select any Print button to create a report, the Merlin PCS programmer saves the report as a PDF (portable document file). This file can be exported to a flash drive connected to one of the programmer's USB ports. You must install Adobe Acrobat Reader or Adobe Reader on your PC to view the PDF.

From the PDFs window, you can:
- Check the number of PDFs stored on the programmer’s hard disk that have not been exported
- Export all the stored PDFs.
- Export the Most Recent PDFs (created in the last actual session or demo session, including your current session.
- Delete all PDFs.

When you select one of the Export buttons, the Export Data (page 8) screen appears.

The file naming and storing of the PDFs are as follows:

All PDFs are stored in a folder entitled “PDFs.”
- Subfolder Name: "Date of PDF creation"
- Sub-subfolder Name: "Patient Name_Model Number_Device Serial Number" (read from the Patient Data)
- File Name: "Device name_Device Model Number_Device Serial Number_Reportname.pdf"

Example: In the PDF folder is a subfolder called "2008-03-22." In this subfolder is a sub-subfolder called "John Smith_PromoteRF_3207-36_201399." Inside the sub-subfolder is the PDF titled: "PromoteRF_3207-36_201399_TestResults.pdf" containing the test results for John Smith on 3/22/2008.

The Merlin PCS can store a total of 30 "Date of PDF creation" subfolders containing PDFs. When 30 subfolders are stored on the programmer, the oldest subfolder is erased when a newer subfolder is created.

Accessed From: Tools menu > Session Records > PDFs

Preferences

The Preferences window sets the programmer’s:
- Date and time
- Language for display and help
- Date, time, and number formats
- ECG notch filter frequency
- Audio Preferences (page 7)
- Printer Preferences (page 7)

The ECG Notch Filter Frequency reduces ECG interference from the programmer’s AC power line frequency. Check with your local authorities for your power line frequency.

Note

It is important to set an accurate date and time because the device’s diagnostic tests, and other functions use the date and time from the programmer.

Accessed From: Tools menu > Preferences

Audio Preferences

This screen contains two panels:
- General Audio. Select the On button to allow audio cues for programmer activity. You can also select a volume level. The Off button turns all sounds off (except Charging Audio).
- Charging Audio (Tachy devices only). Select the On button for an audio cue when the capacitors charge during a programming session.

Accessed From: Tools menu > Preferences button > Audio tab

Printer Preferences

Every time you select any Print button to create a report, the Merlin™ PCS programmer saves the report as a PDF (portable document file). This file can be exported to a flash drive connected to one of the programmer’s USB ports. You must install Adobe Acrobat Reader or Adobe Reader on your PC to view the PDF.

To view the number of stored PDFs and to export or delete PDFs, select Tools > Session Records > PDFs (page 7).

The Printer Preferences window contains two panels:
- Selected Printer, You have three choices:
  - PDF Only (Paperless). Sends reports to the programmer’s hard disk as a PDF (paperless printing) with no paper documents.
  - Internal & PDF. Sends the report to the programmer’s internal printer and simultaneously creates a PDF on the hard disk.
  - External & PDF. Sends the report to an external USB printer and simultaneously creates a PDF on the hard disk. Before reports can be sent to an external printer, you must first connect the external printer to any one of the USB ports on the programmer. For more information on connecting an external printer, see the Merlin PCS User’s Manual.

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2 The programmer does not create a PDF for Freezes printed from the Start-Up screen, the Print Screen function, real-time printing, or on-screen Help.
3 Adobe, Acrobat, and Adobe Reader are trademarks of Adobe Systems Incorporated.
4 The programmer does not create a PDF for Freezes printed from the Start-Up screen, the Print Screen function, real-time printing, or on-screen Help.
• **Number of Paper Copies.** This selects how many reports are printed by the internal or external printer whenever a Print button is selected.

To view the number of stored PDFs and to export or delete PDFs, select Tools > Session Records > PDFs (page 7).

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**Note**

**Supported Printers.** The Merlin PCS can print to many laser jet printers. For a list of compatible printers, contact your St. Jude Medical Representative or Technical Support (page 9).

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**Accessed From:** Tools menu > Preferences > Printer tab

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**Print Screen**

The Print Screen button prints an image of the current screen. To send the image to an external printer, go to the Tools Menu > Preferences > Printer tab and select the External button.

This function does not create a PDF.

For more information on printing, see Print Menu Settings (page 9).

**Accessed From:** Tools menu > Print Screen button

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**Export Screen**

The Export Screen button opens the Export Data (page 8) window, which allows you to save the current screen as an electronic (.png) file and send the file to any storage device (floppy drive, or flash drive) connected to one of the programmer’s USB ports. The Merlin™ PCS detects all connected devices and asks you to select the device to receive the data.

**Accessed From:** Tools menu > Export Screen button

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**Export Data**

The Export Data window lists the devices that are currently connected to the programmer so that you can export device and session data for certain patient-tracking software programs.

**To export data:**

1. Insert the USB connector from a device into one of the three USB ports on the programmer. The device can be a USB floppy drive, a USB flash drive, or a PC connected to the Merlin™ PCS through a 9-pin serial to USB connector cable. The floppy or flash drive must be powered through the USB drive, not by an external power source.
2. Select the Export Data button. The programmer lists all connected devices.
3. Select the desired device. If a device hasn’t been detected, select Redetect Media.
4. Select Export. The programmer checks the device and writes data to it. Select the Close button to return to the previous window.

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**Rhythm Display**

The Rhythm Display on the Start-Up screen shows up to five ECG waveforms before you interrogate the device. On the left side are up to five Waveform Control (page 8) buttons that are used to adjust each waveform.

EGMs and Markers do not appear on the Start-Up screen.

The Rhythm Display allows you to:

- Drag and drop a waveform to a different position.
- Configure the waveform to show a certain vector, change the sweep speed from the Adjust Display (page 9) window and apply the ECG Filter to all waveforms.
- Increase or decrease the waveform Gain setting using the Waveform Control buttons.
- Take a snapshot of the Rhythm Display (see Freeze Capture (page 9)).

**Waveform Control**

The Waveform Control buttons on the left side of the Rhythm Display control the waveform’s appearance. To open the controls, select one of the buttons.
1. The **Configuration** button opens the ECG Configuration (page 9) window.
2. The **AutoGain** button allows the programmer to continually and automatically set the gain.
3. The **Plus** (+) and **Minus** (-) buttons allow you to set the gain manually.

Accessed From: Rhythm Display > Waveform Control button

**Adjust Display**

The Adjust Display window allows you to:
- Select the source for each waveform in the Rhythm Display window.
- Select the Configuration (the ECG Vector) of the waveform.
- Set the Sweep Speed.
- Apply the ECG Filter to reduce electromagnetic interference.

Accessed From: Rhythm Display > Adjust Display button

**ECG Configuration**

The ECG Configuration window changes the ECG vector on the Rhythm Display (page 8).

Accessed From: Adjust Display > Configuration button

**Freeze Capture**

The Freeze button captures the most recent 30 s of the waveform and shows the data in the Freeze Captures window. Up to six Freeze Captures are saved in the programmer memory. You can drag and drop any waveform to a new position. The controls on the Freeze Captures window include the:
- **Waveform Control** buttons, including the Hide button, which hides the selected waveform
- **Restore Channels** button, which restores the hidden waveforms
- **Sweep Speed** button
- **Show Calipers** button, which shows calipers that can be moved with button controls to display time measurements for a portion of the freeze
- **Hide Calipers** button, which toggles to the Show Calipers button
- **Scroll** buttons

You can also print the frozen waveform immediately (select the Print button) or at the end of the session (select the Print with Wrap-up button).

Accessed From: Freeze button

**Print Menu Settings**

The Print button on the Start-Up screen opens the Settings window, which allows you to advance the paper. Select the Printer Preferences (page 7) button to change the number of copies for each report and the type of printer.

Select the appropriate check-mark buttons if you wish to:
- Add the patient’s name and ID to the printed report headers. The information comes from the device’s memory that can be viewed in the Patient Data window for some devices.
- Add the Clinic Name to the printed report header. Select the blue panel to open the on-screen keyboard and enter the information into the programmer’s memory.
- Automatically print the Summary Report on initial interrogation for some devices.

Accessed From: Print button

**Technical Support**

St. Jude Medical Cardiac Rhythm Management Division maintains 24-hour phone lines for technical questions and support:
- 1 818 362 6822
- 1 800 722 3774 (toll-free within North America)
- + 46 8 474 4147 (Sweden)

For additional assistance, call your local St. Jude Medical representative.
Error and Informational Messages

No PSA Wand Communication or Merlin™ PSA is not Functioning
If the error message appears after you have verified the connection, there may be a mechanical problem in the PSA Wand Model 3150 or adapter, Merlin PSA Model EX3100, a programmer malfunction, a software problem, or electromagnetic interference. If you have another PSA Wand or adapter or Merlin PSA, connect the replacement and select the Retry button. If the problem continues, contact your St. Jude Medical Representative or Technical Support (page 9).

No PSA Detected
If the error message appears, verify that the Merlin PSA Model EX3100 is connected. If the problem continues, contact your St. Jude Medical Representative or Technical Support (page 9).

Help
The Help function provides context-sensitive information on programmer and device functions. When you select the ? button during a session, a Small Help window containing context-sensitive information appears. You can:
- Scroll down the page
- Select the "See More" button to view the information in the large Help window with a Table of Contents, Index, and Search function
- Select the "Search" button to open the Search function in the large Help window

The Large Help window contains:
- Icons for three navigation buttons (Back, Forward, Home) and a Print button
- Tabs for a Table of Contents, an Index, and a Search function
- A topic window with active hyperlinks to other topics.

Press. Select the Print icon to print entire topic.

Search. To search for a specific term, select the Search tab. Then, select the on-screen keyboard icon on the Search button. Type the search term and select the Done button. The Search tab opens with a list of all the entries containing the term.

Table of Contents and Index. Select an entry to display the topic.

Problem with Media Device
The media device is not functioning properly because the device is damaged, is not recognized by the programmer, or is busy. The programmer can communicate only with USB flash drives, floppy drives, and serial port adapters. Contact your St. Jude Medical representative or Technical Support (page 9) for a list of devices that are compatible with the Merlin™ PCS.

No Media Detected
Reasons for this error message include:
- The media device is not supported by the programmer. Contact your St. Jude Medical representative or Technical Support (page 9) for a list of supported devices.
- The USB port is not functioning. Use another port.
- The device connector is not fully inserted into the port.

Media Invalid or Not Present
Reasons for this error message include:
- The device connector is not fully inserted into the port.
- The media device is full. Select another device or erase enough data to allow room for the file and try again.
- The media device is write-protected or lacks proper read/write permission. Select another device or remove the write-protection or obtain permission and try again.
- The patient-tracking software or the destination PC is not operating. Reboot the PC and restart the patient-tracking software.
- The USB port is not functioning. Use another port.
- The cable for the floppy drive or serial connection is not functioning. Check or replace the cable.

Sustained Interruption
The programmer has tried unsuccessfully to interrogate the device for 15 minutes and has stopped interrogation. Reasons for this message include:
- The wand is out of range of the device.
- The wand was removed from the programmer.
- Other electronic equipment in the area is interfering with the telemetry.

Either select the End Session button correct any problem and select the Continue Session button.

Older Device
The programmer was unable to communicate with the device because the device may require a magnet.
Other possible reasons for this message include:

- The wand is out of range of the device.
- The wand was removed from the programmer.
- Other electronic equipment in the area is interfering with the telemetry.
- The Model 3530 wand (for the Model 3510/3500 programmer) is connected to the programmer.

Correct any problem and select the Interrogate button.

Device Not Supported

The programmer was unable to communicate with the device because it is not supported or could not be identified.

Attempt to interrogate the device with a Model 3510/3500 programmer.

Telemetry Interruption

Telemetry between the device and the programmer was interrupted.

Reasons for this message include:

- The wand is out of range of the device.
- The wand was removed from the programmer.
- Other electronic equipment in the area is interfering with the telemetry.
- The Model 3530 wand (for the Model 3510/3500 programmer) is connected to the programmer.
- A magnet has been placed in the wand.

Correct any problem and select the Interrogate button.

Invalid Parameters Detected

The programmer detected invalid parameter(s), which also invalidates the recorded diagnostics and episodes. Selecting the Program Nominals button institutes standard or nominal settings in the device.

On-Screen Keyboard

Use the On-Screen Keyboard to enter data.

- **Special Char key.** Select this key and then select the key to display the special character (labeled in green on the key).
- **Inactive Keys.** If the device memory does not support a character, the key may be displayed on the keyboard but it is not active.
- **Repeating Keys.** If you press and hold most keys on the on-screen keyboard, they are not continually typed. The exceptions are the arrow keys, the Space key, the Enter key, and the Backspace key.
- **External Keyboard.** You can use an external keyboard connected to the programmer through any of its USB ports. Both keyboards can operate simultaneously.

Emergency VVI Programming Interrupted

Emergency VVI programming cannot start because the telemetry between the device and the programmer was interrupted.

Reasons for this message include:

- The wand is out of range of the device.
- The wand was removed from the programmer.
- Other electronic equipment in the area is interfering with the telemetry.
- The Model 3530 wand (for the Model 3510/3500 programmer) is connected to the programmer.
- A magnet has been placed in the wand.

Correct any problem and select the Continue Session button or contact Technical Support (page 9) for more information.

Backup VVI Procedure Interrupted

The Backup VVI procedure could not complete because the telemetry between the device and the programmer was interrupted.

Reasons for this message include:

- The wand is out of range of the device.
- The wand was removed from the programmer.
- Other electronic equipment in the area is interfering with the telemetry.
- The Model 3530 wand (for the Model 3510/3500 programmer) is connected to the programmer.
- A magnet has been placed in the wand.

Correct any problem and select the Continue button or contact Technical Support (page 9) for more information.

Help Not Provided

The Merlin™ PCS does not provide context-sensitive help for this topic. Select the See More button to view the Help Table of Contents.

Requires Connection to Computer

Before you can export the data to a computer database, you must connect the computer’s serial port to a USB port on the Merlin™ PCS using a USB-to-serial adapter. Contact Technical Support (page 9) for more information.
BVVI Session Must Be Ended
You have chosen to cancel the Backup VVI procedure. If you wish to attempt the procedure again, re-interrogate the device. Do not remove the wand until all error messages have been removed. Contact Technical Support (page 9) for more information.

Unable to Restore Original Parameters
An error has occurred during the restoration of new pacer software, and the Backup VVI procedure cannot be completed. Contact Technical Support (page 9) for more information.
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