an L.E.D.) in either, or both, the telemetered characteristic monitor transmitter **100** and the medical device module **200** to provide a tactile (vibration) alarm to the user, such as sensor set **150** malfunction, improper connection, low battery, missed message, bad data, transmitter interference, or the like. The use of a vibration alarm provides additional reminders to an audio alarm, which could be important to someone suffering an acute reaction, or where it is desirable to have non-audio alarms to preserve and conceal the presence of the characteristic monitor system **10**.

[0109] **FIGS. 7 and 8** show a second embodiment of the medical device module **200** may be used with a telemetered characteristic monitor transmitter **100** coupled to a sensor set **150** and an infusion pump **400** connected to an infusion set **450**. In this embodiment, the medical device module **200** is also used to program and obtain data from the infusion pump **400**, or the like. This further reduces the amount of equipment, the user must have, since the medical device module **200** already includes a characteristic monitor **200'** and a characteristic meter **300** that will be required for calibration of the data from the telemetered characteristic monitor transmitter **100**. Thus, the medical device module **200** can coordinate the sensor data and meter data with the data from the infusion pump **400**, or update the delivery parameters of the infusion pump **400**. The medical device module **200** may also be used to update and program the telemetered characteristic monitor transmitter **100**, if the transmitter **100** includes a receiver for remote programming, calibration or data receipt. Thus, the user may need only a single device—the medical device module **200** in the PDA **10** that will receive data from a sensor set **150**, perform discrete tests of an analyte with the characteristic meter **300**, program and control an infusion pump **400**, and operate to download data or upload programming instructions to a computer, communication station, or the like.

[0110] As discussed, the medical device module **200** can also be used to store data obtained from the sensor set **150** and then provide it to either an infusion pump **400**, computer or the like for analysis. In further embodiments, the medical device module **200** can include a modem, or the like, to transfer data to and from a healthcare professional. Further embodiments, can receive updated programming or instructions via a modem connection. In addition, a relay or repeater **4** may be used with a telemetered characteristic monitor transmitter **100** and a medical device module **200** to increase the distance that the telemetered characteristic monitor transmitter **100** can be used with the medical device module **200**, as shown in the third embodiment of **FIG. 9**. For example, the relay **4** could be used to provide information to parents of children using the telemetered characteristic monitor transmitter **100** and the sensor set **150** from a distance. The information could be used when children are in another room during sleep or doing activities in a location remote from the parents. In further embodiments, the relay **4** can include the capability to sound an alarm. In addition, the relay **4** may be capable of providing data from sensor set **150** and telemetered characteristic monitor transmitter **100** to a remotely located individual via a modem connected to the relay **4** for display on a monitor, pager or the like. In alternative embodiments, the data from the medical device module **200** and sensor set **150** may also be downloaded through a communication station **8** (or alternatively, through a medical device module **200**, other data transfer device, or the like) to a remotely located computer **6** such as a PC, lap top, or the like, over communication lines, by modem or wireless connection, as shown in the fourth embodiment of **FIG. 10**. Also, some embodiments may omit the communication station **8** and use a direct modem or wireless connection to the computer **6**. In further alternatives, either the medical device module **200** or the telemetered characteristic monitor transmitter **100** may transmit an alarm to a remotely located device, such as a communication station, modem or the like to summon help. In addition, further embodiments of the characteristic monitor **200'** of the medical device module **200** may include the capability for simultaneous monitoring of multiple sensors. Data transmission may be to other devices or include the capability to receive data or instructions from other medical devices. Preferred embodiments, as shown in FIGS. **1-8**, use wireless RF frequencies; however, alternative embodiments may utilize IR, optical, ultrasonic, audible frequencies or the like. Further embodiments may also use a wired connection, as shown in **FIG. 18**.

[0111] Preferably, the PDA **10** uses a medical device module **200** that combines the characteristic monitor **200'** and character meter **300** into a single device, but avoids an actual wired connection to the sensor set **150** by using a telemetered characteristic monitor transmitter **100**. By separating the PDA **10** electronics into two separate devices; a telemetered characteristic monitor transmitter **100** (which attaches to the sensor set **150**) and a characteristic monitor **200'**, several advantages are realized. For instance, the user can more easily conceal the presence of the PDA **10** and the telemetered characteristic monitor transmitter **100**, since a wire will not be visible (or cumbersome), with clothing. In also makes it is easier to protect the medical device module **200** with a characteristic monitor **200'**, which can be removed from the user's body during showers, exercise, sleep or the like. In addition, the use of multiple components (e.g., transmitter **100** and medical device module **200** with a characteristic monitor **200'** with a characteristic meter) facilitates upgrades or replacements, since one module or the other can be modified or replaced without requiring complete replacement of the system. Further, the use of multiple components can improve the economics of manufacturing, since some components may require replacement on a more frequent basis, sizing requirements may be different for each module, there may be different assembly environment requirements, and modifications can be made without affecting the other components. For instance, the PDA **10** with its standard interface and other uses can be mass produced at lower cost. And the medical device module **200** can be made to rigorous medical standards at lower cost than a complete device with an interface comparable to the PDA **10**. This lowers the overall system costs, which permits quicker upgrades or design modifications. Thus, manufacturers can bring new devices and/or options to market in less time and cost and with less risk.

[0112] **FIG. 11** is a perspective view of a medical device module **500** that interfaces with a telemetered characteristic monitor transmitter **100** in accordance with a fifth embodiment of the present invention. This medical device module **500** includes a characteristic monitor **200'** as described above, and communicates with the telemetered characteristic monitor transmitter **100** to transfer data signals from a sensor set. This embodiment does not include a characteristic meter as described above. Preferably, the communication between the medical device module **500** and teleme-