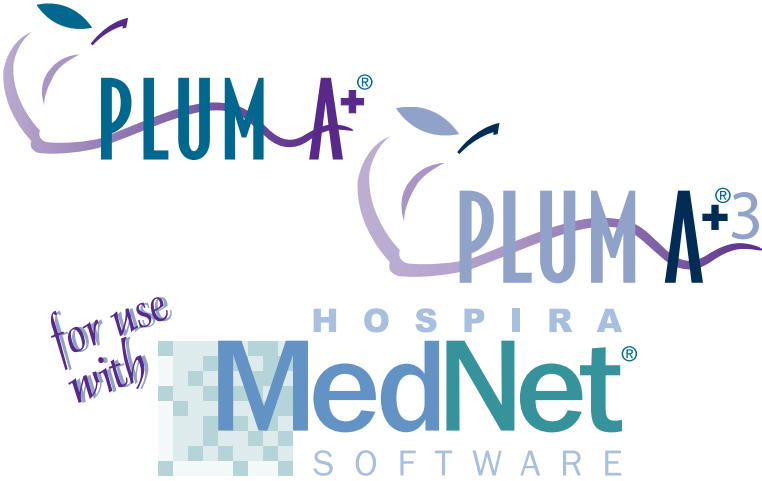


# System Operating Manual



For use with List Numbers: 20678/20679/20792-04 & (11971-04 or 12391-04 with Module 20677-04)



Back  
Prime

A

B

Options/  
Vol Inf



*Hospira*

**HOSPIRA, INC., LAKE FOREST, IL 60045, USA**

**430-95597-004, B (Rev. 04/2007)**

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**SECTION 1**

**Descriptive Information**

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**NOTE:** In this manual, references to Plum A+® Infusion System apply to both the Plum A+® Infuser and Plum A+®<sup>3</sup> Infuser unless otherwise noted.

**Plum A+® Infuser  
List # 20679/20792-04**

**NOTE:** This operating manual may also be used with Device List # 12391-04 & 11971-04 when used with Module List # 20677-04.



**Plum A+®<sup>3</sup> Infuser  
List # 20678-04**

**CAUTION: THIS DEVICE IS TO BE USED WITH AN IV POLE WITH A 6-WHEEL BASE AND A SHELF.**



## ***For Systems With Hospira MedNet® Software***

The Plum A+ and Plum A+3 Volumetric Infusion Systems are designed to meet the fluid delivery requirements of today's evolving healthcare environments. Both are cassette based multi-function infusion systems. The Plum A+ allows two lines in and one line out while the Plum A+3 allows six lines in and three lines out. Each pump can be used for standard, piggyback, or concurrent delivery. Delivery modes include:

- Standard Infusions
- Loading Dose
- Multistep Programming
- Dose Calculation

The Plum A+ and Plum A+3 are designed to deliver parenteral, enteral, or epidural infusions over a broad range of infusion rates from multiple fluid container types.

Both are designed to be used in most areas of patient care, including, but not limited to:

- *General Floor*
- *Labor/Delivery/  
Post Partum*
- *Burn Unit*
- *Medical/Surgical*
- *OR/Anesthesia*
- *Hemodialysis*
- *ICU/CCU*
- *Post Op/Recovery*
- *Oncology*
- *Pediatrics*
- *Cardiac Cath Lab*
- *Mobile Intensive  
Care*
- *Neonatology*
- *Emergency*
- *Nutritional*

## **Product Description**

Each system includes a pumping module (hereafter called the infuser) and an assortment of disposable IV sets (hereafter called a set), optional accessories, and this operator's manual.

The Plum A+ host device contains a Connectivity Engine peripheral module that provides wired Ethernet and wireless 802.11 a/b/g local area networking capabilities. This allows the Hospira Mednet® networked application software to download drug libraries to the infuser and enable the auto-programming feature.

Accessory equipment connected to the analog and digital interfaces must be certified according to the respective IEC Standards (e.g. IEC 60950 for data processing equipment and IEC 60601-1 for Medical Equipment). Furthermore, all configurations shall comply with the system standard IEC 60601-1-1. Any person who connects additional equipment to the signal input or output part configures a medical system, and is therefore responsible for ensuring that the system complies with the requirements of the system Standard IEC 60601-1-1. If in doubt, consult the technical service department or your local representative.

## **Indications for Use**

### **USER QUALIFICATION**

The Plum A+ is intended for use at the direction or under the supervision of licensed physicians or certified healthcare professionals who are trained in the use of the infuser and the administration of parenteral, enteral, and epidural fluids and drugs and whole blood or red blood cell components. The training should emphasize preventing related IV complications, including appropriate precautions to prevent accidental infusion of air. The epidural route can be used to provide anesthesia or analgesia.

### **WARNING**


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**ADMINISTER ONLY ANESTHETICS/ANALGESICS APPROVED FOR EPIDURAL ADMINISTRATION (AS INDICATED OR ALLOWED BY THE DRUGS' FDA APPROVED LABELING). EPIDURAL ADMINISTRATION OF DRUGS OTHER THAN THOSE INDICATED FOR EPIDURAL USE COULD RESULT IN SERIOUS INJURY TO THE PATIENT.**

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## Conventions

This section describes the conventions used throughout this manual, as follows:

CONVENTION	APPLICATION	EXAMPLE
<i>Italic</i>	Reference to a section, figure, or table  Function or mode specific instructions	(See Figure 3-1, Priming Cassette)  <i>Primary Only:</i> Attach an empty container.
[BRACKETED ALL CAPS]	Keys or buttons on the device are displayed in [BRACKETED ALL CAPS] or with a graphic.	[START] or 
▲ [ <i>Italic</i> ]	Softkey Options	▲ [ <i>Choose</i> ]
Initial Caps lowercase	Screen displays and device labels (as appropriate)	Program Dose Calculation
<b>Bold</b>	Emphasis	...sets are supplied <b>Sterile</b> and are for....

### WARNINGS, CAUTIONS, AND NOTES

Alert messages used throughout this manual are described below. Pay particular attention to these messages.

#### WARNING

**A WARNING MESSAGE CONTAINS SPECIAL SAFETY EMPHASIS AND MUST BE OBSERVED AT ALL TIMES. FAILURE TO OBSERVE A WARNING MESSAGE IS POTENTIALLY LIFE THREATENING.**

**CAUTION:** A CAUTION USUALLY APPEARS IN FRONT OF A PROCEDURE OR STATEMENT. IT CONTAINS INFORMATION THAT COULD PREVENT IRREVERSIBLE PRODUCT DAMAGE OR HARDWARE FAILURE. FAILURE TO OBSERVE A CAUTION COULD RESULT IN SERIOUS PATIENT OR USER INJURY.

**NOTE:** A Note highlights information that helps explain a concept or procedure.



This symbol directs the user to consult accompanying documents.

When visible on the display, this symbol informs the user to use CAUTION because the specified drug has NOT been programmed with specified safety limits.

**NOTE:** Figures are rendered as graphic representations to approximate the actual product. Therefore, figures may not exactly reflect the product.

## Precautions

The Plum A+ has been designed and manufactured to be safe, reliable, and easy to use. This section details precautions and possible hazards.

For safe operation of the Plum A+, observe the following precautions and hazards.

### HEALTHCARE PROFESSIONALS AND PATIENT RELATED

- In vitro studies have suggested that packed red blood cells with unusually high hematocrit be diluted with blood-compatible fluids, such as 0.9% sodium chloride injection, to decrease hemolysis and increase flow rate.
- Setting the primary rate greater than the secondary rate will result in a more rapid infusion of any residual secondary drug remaining in the line and the cassette.
- Consult drug labeling to confirm drug compatibility, concentration, delivery rates, and volumes are all suitable for secondary, concurrent and piggyback delivery modes.

## ***For Systems With Hospira MedNet® Software***

- Arrange tubing, cords, and cables to minimize the risk of patient strangulation or entanglement.
- Before opening the door, close clamp on the primary line or remove the secondary container from the secondary port to prevent mixing of primary and secondary fluids.
- Although unlikely, failure of certain robust mechanical components such as the anti-free flow mechanism or valve control springs could cause fluid delivery limited to the contents of the fluid container. Single fault failure of certain electronic/motor control components would result in no more than 5 mL of unexpected fluid delivery.
- A small amount of fluid is expelled from the set (less than 0.05 ml) each time the door is opened or closed with a set installed. If potent drugs are being used, take appropriate action to guard against overmedication of the patient.
- Before disconnecting a syringe from the cassette, pull up the plunger slightly to avoid spilling the fluid. For rigid containers, close the upper slide clamp, open the cassette door, then remove and invert the cassette (ports down).
- Air bubbles may form distal to the cassette as result of normal outgassing of dissolved air in the fluid. This may occur if chilled solution is in use, if the infuser is mounted significantly above the patient, or when using certain fluids known to routinely outgas. In these cases, an air eliminating filter may be used.
- Repeated opening and closing of the door may defeat the proximal air-in-line alarm and may cause a distal air-in-line alarm, requiring repriming.
- The screen displays the VTBI (volume to be infused) in integers when value is above 99.9. Any fraction of a milliliter delivered is not displayed, but is retained in memory.
- For Plum A+3 users, be aware that changing the weight on one device does NOT change the weight on the other two devices. Patient weight must be changed on each device when delivering weight-based therapy dependent on medication requirements.

## CONCURRENT FLOW

### GUIDELINES

When delivering short half-life critical drugs (*see Critical Drugs, this section*) using the Plum A+ in the Concurrent mode, the following delivery rate guidelines should be observed:

- If the critical drug (with half-life less than 6 minutes) is to be infused at less than 2 mL/hr, the other infusion should be no faster than 5 times the critical drug's rate. Dopamine, for example, delivered at 1.5 mL/hr should not be accompanied by an infusion programmed any faster than 7.5 mL/hr.
- If the critical drug (with half-life less than 6 minutes) is to be infused at 2 - 5 mL/hr the other infusion should be no faster than ten times the critical drug's rate. Dopamine, for example, delivered at 3.5 ml/hr should not be accompanied by an infusion programmed any faster than 35 mL/hr.
- If the critical drug (with half-life less than 6 minutes) is to be infused at 5.1 mL/hr or greater, the other infusion can be programmed at any desired rate.

**NOTE:** The total of the primary rate plus the secondary rate cannot exceed 500 mL/hr.

These guidelines apply *only* when infusing *short half-life critical drugs* in *Concurrent mode*. Individual patient responses may vary requiring adjustment of delivery rates.

DELIVERY RATE GUIDELINES	
SHORT HALF-LIFE (LESS THAN 6 MINUTES) CRITICAL DRUG INFUSION RATE	MAXIMUM RATE OF ACCOMPANYING INFUSION
0.5 - 1.9 mL/hr	5 Times the Critical Drug Rate
2 - 5 mL/hr	10 Times the Critical Drug Rate
5.1 or Greater	Any Desired Ratio



## ***For Systems With Hospira MedNet® Software***

### **CRITICAL DRUGS**

Examples of drugs with a short half-life (approximately 6 minutes or less when given IV) include:

Dobutamine	Esmolol	Nitroprusside
Dopamine	Isoproterenol	Norepinephrine
Epinephrine	Lidocaine	Oxytocin
Epoprostenol	Nitroglycerin	Procainamide

For these drugs, the concurrent flow guidelines should be followed when the infusion rate of the drug will be 5 mL/hr or less.

**NOTE:** This list of critical drugs is not intended to be all-inclusive of critical drugs or drugs with a short half-life.

The clinician should become familiar with the pharmacodynamics of any critical drug before administration.

This information is presented to inform clinicians of a rare situation that could be misinterpreted if they are unfamiliar with this phenomenon.

### **EPIDURAL ADMINISTRATION**

- Recommended use of the epidural route is to provide anesthesia or analgesia for periods up to 96 hours.
- This device can be used to administer only those anesthetics/analgesics approved for epidural administration (as indicated or allowed by the drugs' FDA approved labeling). Epidural administration of drugs other than those indicated for epidural use could result in serious injury to the patient.
- For epidural administration, the use of Hospira catheters, Plum sets without Y-sites, and "epidural" stickers indicating ongoing epidural administration are recommended.
- Administration of drugs via the epidural route should be limited to personnel familiar with associated techniques and patient management problems. Proper epidural placement of the catheter is essential since catheter migration could result in intravascular or intrathecal administration. Facilities

practicing epidural administration must be equipped with resuscitative equipment, oxygen, naloxone, and other resuscitative drugs. Adequate monitoring equipment (e.g., Oximetry) is recommended for continuous monitoring of the patient during epidural administration. Patients must be observed frequently for side effects in a fully-equipped and staffed environment for at least 24 hours following completion of drug administration by the epidural route. DELAYED RESPIRATORY DEPRESSION FOLLOWING CONTINUOUS EPIDURAL ADMINISTRATION OF PRESERVATIVE-FREE MORPHINE SULFATE HAS BEEN REPORTED.

- The epidural space has 58 openings through which fluid can exit. Pressure buildup during administration is transient. However, if a large volume of fluid is administered over a short time period, the pressure will take longer to return to normal. If overdelivery occurs during administration, observe the patient closely for signs of spinal cord compression (disorientation, headache, transient neuralgias) and drug overdose.

### **BATTERY OPERATION**

- When the battery is removed from the Plum A+, do not operate on patients. Use of a properly maintained and charged battery helps confirm proper operation.
- The battery may not be fully charged upon receipt. Connect the infuser to AC power for at least six hours.
- Use AC power whenever possible. Connect to AC power during storage to ensure a fully charged battery for emergencies. If the quality of the earth grounding source is in doubt, use battery power.
- If the low-battery alarm sounds, connect the infuser to AC power immediately.

### **SETS AND ACCESSORIES**

- Only compatible LifeCare PlumSets® can be used with the Plum A+. See individual set instructions for additional information.

## ***For Systems With Hospira MedNet® Software***

- Administration sets should be changed per CDC guidelines or healthcare provider policy. Discard after use.
- LifeCare® IV infusion sets with integral nonblood filters are not for use in the administration of blood, blood products, emulsions, suspensions, or any medications not totally soluble in the solution being administered. These medications may be administered through the lower Y-injection site, below the filter.
- When infusing at low delivery rates (5 mL/hr or less) the use of thick-walled microbore PlumSets is recommended. This will reduce the amount of the fluid bolus that may be delivered when a distal line occlusion is released.
- Syringes must be larger than 3 cc. Use syringe adapter (List 11986-48) when using syringes smaller than 10 cc. Some 10 cc syringes may require use of a syringe adapter. Syringes larger than 10 cc may be attached directly to the secondary port of the cassette. Use of a syringe adapter may decrease the occurrence of proximal occlusion alarms.
- Use a 19-gauge or larger needle or catheter at the venipuncture site for viscous fluids if operating at rates greater than 500 ml/hr. See *Section 10 for information on sets and accessories*.

### **BACKPRIMING**

- Backpriming is not recommended for reconstituting secondary containers containing dry powders.
- To avoid pressurization when backpriming into a syringe, the user must confirm there is sufficient empty space to accept the backprimed fluid.

### **GENERAL**

- Possible explosion hazard exists if used in the presence of flammable anesthetics.
- Do not place Plum A+ in service if it fails the self-test.
- Do not operate the Plum A+ with the case opened.

## **Plum A+® Infusion Systems**

- Keep the cassette door securely closed while the infuser is not in use, to avoid cassette door damage.
- Values beyond a field's maximum hard limit will be displayed as dashes (-- -- --). The user must clear these fields using the [CLEAR] key prior to entering new values.
- The Plum A+3 is to be used with an IV pole with a 6-wheel base and a shelf.

### **CLEANING**

For more information on cleaning the infuser, *see Section 8.*

- To avoid mechanical or electronic damage, do not immerse the Plum A+ in any fluids or cleaning solutions.
- Do not spray cleaning solutions toward any opening in the instrument.
- Certain cleaning and sanitizing solutions may slowly degrade components made from some plastic materials. Using abrasive cleaners or cleaning solutions not recommended by Hospira may result in product damage. Do not use compounds containing combinations of isopropyl alcohol and dimethyl benzyl ammonium chloride.
- Never use sharp objects such as fingernails, paper clips, or needles to clean any part of the infuser.
- Do not sterilize by heat, steam, ethylene oxide (ETO), or radiation.
- To avoid infuser damage, cleaning solutions should only be used as directed. The disinfecting properties of cleaning solutions vary; consult the manufacturer for specific information.

### **BOLUS RELATED**

Use the following procedure to avoid the administration of a bolus following a distal occlusion (i.e., a closed distal clamp):

- If a secondary container is in use, clamp proximal tubing before opening cassette door.
- Open cassette door and remove the cassette.

## ***For Systems With Hospira MedNet® Software***

- Open the flow regulator briefly to dissipate the pressure and then close it.
- Eliminate the source of occlusion (closed clamp).
- Reinsert the cassette and close the cassette door.
- Open all clamps and resume infusion.

**NOTE:** When troubleshooting an occlusion where all clamps are in the OPEN position, use care to avoid delivery of a bolus by opening the flow regulator to release any built-up pressure. Close the clamp between the cassette and the patient before opening the flow regulator to relieve the pressure. See *Section 7, Alarms and Troubleshooting*, for more information.

### **ARTIFACTS**

- Nonhazardous, low-level electrical potentials are commonly observed when fluids are administered using infusion devices. These potentials are well within accepted safety standards, but may create artifacts on voltage-sensing equipment such as ECG, EMG, and EEG machines. These artifacts vary at a rate that is associated with the infusion rate. If the monitoring machine is not operating correctly or has loose or defective connections to its sensing electrodes, these artifacts may be accentuated so as to simulate actual physiological signals. To determine if the abnormality in the monitoring equipment is caused by the infusion device instead of some other source in the environment, set the infusion device so that it is temporarily not delivering fluid. Disappearance of the abnormality indicates that it was probably caused by the electronic noise generated by the infusion device. Proper setup and maintenance of the monitoring equipment should eliminate the artifact. Refer to the appropriate monitoring equipment system documentation for setup and maintenance instructions.
- The Plum A+ Infusion system is designed to operate normally in the presence of most encountered electromagnetic interference (EMI) conditions. In the event of extreme levels of interference, such as encountered next to an electrosurgical generator, it is possible that the normal

operation of a sensor or microcomputer might be disrupted. Even in this event, the outcome would likely be a false alarm or detected system malfunction and would not result in a hazard to patient or operator.

- This equipment has been tested and found to comply with the EMC limits for the Medical Device Directive 93/42/EEC (EN 55011 Class B and IEC/EN 60601-1-2:2001). These limits are designed to provide reasonable protection against harmful interference in a typical medical installation. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving device
  - Increase the separation between the equipment
  - Connect the equipment into an outlet on a circuit different from that to which the other device(s) is connected
  - Consult the manufacturer or field service technician for help
- Portable and mobile RF communications equipment, such as cellular telephones, 2-way radios, Bluetooth devices, microwave ovens, in close proximity to this device may affect wireless and wired communications with the Infusion pump and/or the operation of the Infusion pump. Special precautions need to be exercised regarding EMC, These include:
  - Use of a shielded Ethernet cable (CAT5 STP or better) for plugging into the RJ45 Ethernet connector. Using an unshielded Ethernet cable may result in increased emissions.

## ***For Systems With Hospira MedNet® Software***

- Maintaining a minimum separation distance of 2 ½ ft between the Infusion pump system and portable/mobile RF communications equipment
- List Numbers 12391 and 11971 are compliant to IEC/EN 60601-1-2 (1993)

List Numbers 20678, 20679, & 20792 are compliant to IEC/EN 60601-1-2 (2001) and have been tested and found to comply with EMC limits for the Medical Device Directive 93/42/EEC (EN 55011 Class B and EN 60601-1-2:2001).

### **INTERCONNECTING OF MEDICAL EQUIPMENT**

- Accessory equipment connected to the analog and digital interfaces must be certified according to the respective IEC Standards (e.g. IEC 60950 for data processing equipment and IEC 60601-1 for Medical Equipment). Furthermore, all configurations shall comply with the system standard IEC 60601-1-1. Any person who connects additional equipment to the signal input or output part configures a medical system, and is therefore responsible for ensuring that the system complies with the requirements of the system Standard IEC 60601-1-1. If in doubt, consult the technical service department or your local representative.

## **Guidance on EMC Compatibility**

- There is a shared responsibility between manufacturers, customers and users to ensure that Medical Equipment and Systems are designed and operated as intended. Medical electrical equipment needs special precautions regarding electromagnetic compatibility and needs to be installed and used according to the electromagnetic compatibility information provided in this manual.
- The device is suitable for use in all establishments, including domestic establishments. If extended operation during power mains interruption is needed, use battery power.
- Always manage the electromagnetic environment.

- The guidance included in this manual provides information needed to:
  - Determine the device's suitability for use in the intended environment.
  - Manage the electromagnetic environment to permit the device to perform as intended without disturbing other equipment.
- Separate the device from all other electronic equipment. If the device must be used near other electrical equipment, monitor the equipment to ensure there is no electromagnetic interference.
- Devices should not be used adjacent to or stacked with other equipment. If the device must be used adjacent to or stacked with other equipment, monitor the devices to verify normal operation.
- USE ONLY components specifically labeled for use with the Plum A+ Infusion System to help ensure the device operates as intended.
- If you suspect external RF sources or other equipment are influencing device operation, contact the biomedical engineering department for additional guidelines concerning electromagnetic immunity.
- Contact the biomedical engineering department for additional information in the technical service manual concerning operating devices near RF sources.
- The wireless module (20677/20791-04) has been tested with Plum A+ infusion systems and has been found to comply with the international standard IEC 60601-1-2 Edition 2 Electromagnetic Compatibility (EMC) of Medical Electrical Equipment.



## **FCC Information**



### **US FCC (FEDERAL COMMUNICATIONS COMMISSION) STATEMENT**

- This device complies with Part 15C, 15E of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including that may cause undesired operation of these devices.

### **FCC INTERFERENCE STATEMENT**

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15C, 15E of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the distance between the equipment and the receiver.
  - Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by Hospira could void the user's authority to operate the equipment.

### **RADIO FREQUENCY EXPOSURE STATEMENT**

- The Wireless LAN radio device in the Connectivity Engine peripheral board with this infusion device has been evaluated and found compliant to the requirements of the following Radio Frequency exposure standards:
  - Federal Communications Commission, OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields, July 2001.
  - Industry Canada, Evaluation Procedure for Mobile and Portable Radio Transmitters with respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields, Radio Standards Specification RSS-102 Issue 1 (Provisional): September 1999.
- The radiated output power of this Wireless LAN device is far below the FCC radio frequency exposure limits. The Wireless LAN device for both Plum A+ and Plum A+3 has been evaluated with 0.2 inches separation of human body from the antenna and found to be compliant with FCC RF exposure limits.

### **WIRELESS DEVICE PRECAUTION**

- The wireless 801.11a/b/g device usage in the 5150-5250 MHz band is limited to indoor use to reduce potential for harmful interference to co-channel mobile satellite systems.
- In the 5250-5350 MHz and 5650-5850 MHz frequency bands, high power radars are allocated as primary users and these radars could cause interference and/or damage to LE-LAN devices.
- Operation is subject to the following two conditions: (1) the wireless device may not cause interference, and (2) the wireless device must accept any interference, including interference that may cause undesired operation of the wireless device.

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**SECTION 9**

**Specifications**

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**NOTE:** Specification information applies to both systems (Plum A+ & Plum A+3) unless otherwise noted.

## Physical

<b>Dimensions:</b>	<b>Plum A+-</b> Approximately 8" X 8" X 6", excluding pole clamp protrusion and power cord storage. <b>Plum A+3-</b> Approximately 19" X 15" X 14", including pole clamp, barcode wand holder, and power cord.
<b>Weight:</b>	<b>Plum A+-</b> Approximately 9.5 lbs. with battery. <b>Plum A+3-</b> Approximately 28 lbs. with (3) batteries.
<b>Casing:</b>	High-impact plastic.

## Electrical

<b>Power Requirements:</b>	<b>Plum A+-</b> 120 V~, 50-60 Hz, 35 VA. Meets UL 60601-1. <b>Plum A+3-</b> 120 V~, 50-60 Hz, 120 VA.
<b>Fuses:</b>	F1, F2, 250V~, 0.5 A. (internal)
<b>Power Cord:</b>	Hospital-grade AC cord. 10 ft long, with transparent plug and retainer plate.
<b>Battery:</b>	<b>Plum A+-</b> One sealed, lead-acid, rechargeable 6 V battery, internal to device. <b>Plum A+3-</b> Three sealed, lead-acid, rechargeable 6 V batteries, internal to device.

## ***For Systems With Hospira MedNet® Software***

<b>Battery Life:</b>	With a new fully charged battery, the infuser operates for a minimum of three hours at 125 mL/hr or less, or delivers 250 mL if > 126 mL/hr. (Time is measured from initial pumping to Depleted Battery Alarm)
<b>Recharge:</b>	The battery charges whenever the infuser is connected to AC power. The recharge time is approximately six hours with the device operating at 125 mL/hr on one line.
<b>Electrical Leakage:</b>	Meets IEC 60601-1 standard: Medical Electronic Equipment, Part 1: General Requirements for Safety.
<b>NURSE-CALL System:</b>	NURSE-CALL alarm is factory set for Normally-Open (NO)  Contact the Technical Services Center to make an internal adjustment to change the device from Normally-Open (NO) to Normally Closed (NC) system.
<b>Circuitry Ratings:</b>	Voltage-30 VDC Max Current- 0.25 Amps Max Contact Rating- 3 Watts Max

## **Wireless Lan Upgrade Module**

<b>Device Name:</b>	Hospira MedNet 802.11 a/b/g Wireless (Upgrade) Module
<b>Standards:</b>	IEEE802.11a/b/g
<b>Transmit Power:</b>	802.11 b/g- 17 dBm 802.11 a- 16 dBm
<b>Antenna:</b>	Integrated surface mount antenna
<b>Certifications:</b>	FCC Part 15.247, 15.407 IC RSS-210, RSS-102
<b>This Device Contains:</b>	FCC ID: STJ80411396001 IC: 5627A- 80411396 Model: CUSTOM DWL-AG132