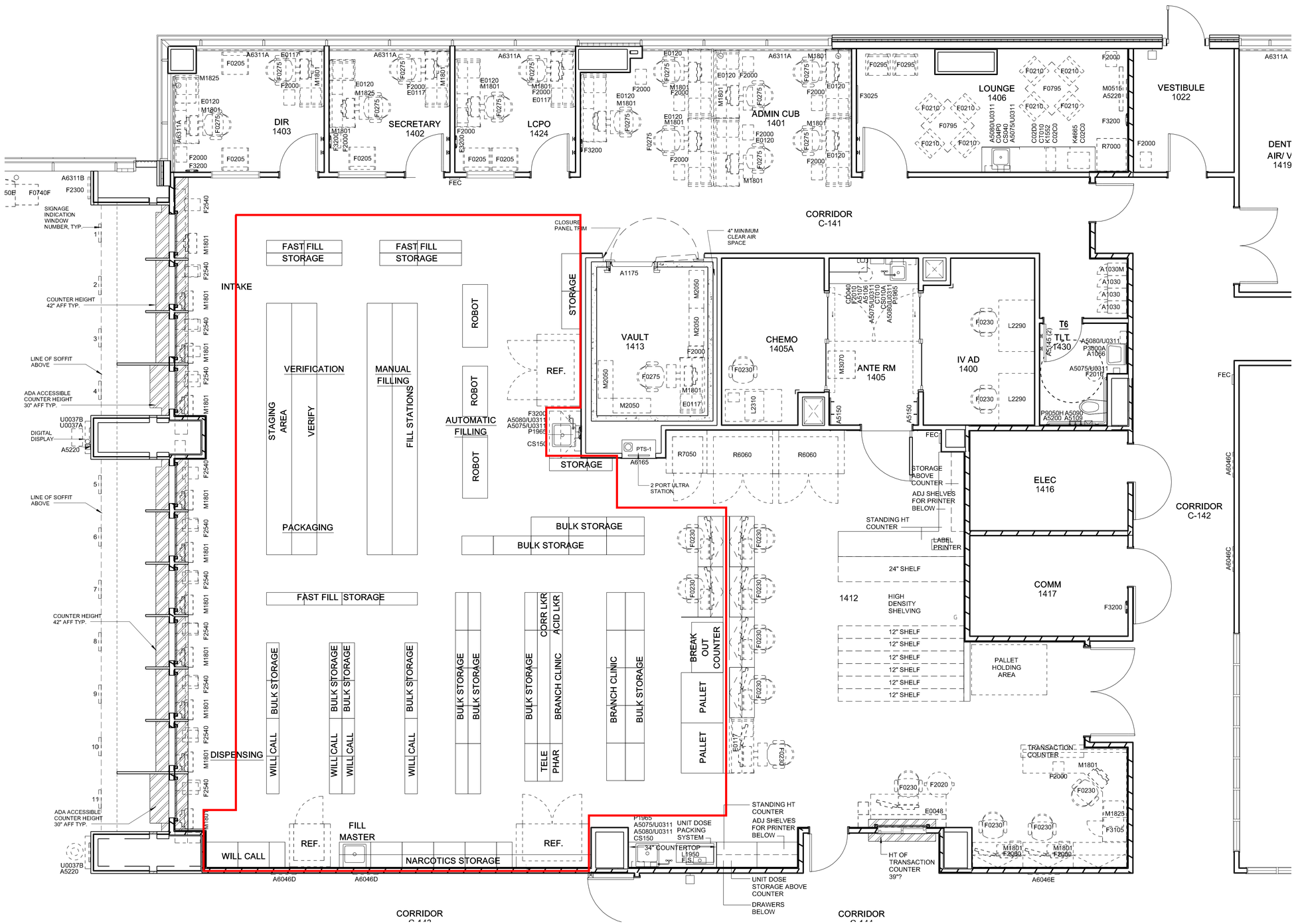

Outpatient Pharmacy Re-Design

March 14, 2013

APPR.	
DATE	
DESCRIPTION	
SYM	

SEAL

HKS
ARCHITECT OF RECORD
HKS, INC.

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO | DATE

DES | DRW | CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST COST LANT

NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC SW)
SAN DIEGO, CALIFORNIA

U.S. MARINE CORPS BASE CAMP PENDLETON OCEANSIDE, CA

REPLACEMENT NAVAL HOSPITAL

GENERAL INFORMATION

SCALE: 1/4"=1'-0"

EPROJECT NO.: 857404

CONSTR. CONTR. NO. HKS 14002.028

NAVFAC DRAWING NO. A-01

SHEET | OF

EXHIBIT

DRAWFORM REVISION: 10 MARCH 2009

EQUIPMENT DATA

EQUIPMENT DESCRIPTION: DISPENSING SYSTEM, PRESCRIPTION, ROBOTIC, MODIFIED

ITEM SYMBOL: M7280A

MANUFACTURER: PARATA SYSTEMS **LOGCAT:** C

EXT. DIM.: 87"H X 79 ½"W X 26 ½"D **WEIGHT:** 1,778 LBS.

SEISMIC: YES

HVAC:

HEAT GAIN (BTU/HR):

VENT SIZE: **CFM:** **S.P:**

REMARKS:

PLUMBING:

HOT WATER	**COLD WATER**	**TREATED WATER**
SIZE:	SIZE:	TYPE:
PRESSURE:	PRESSURE:	SIZE:
FLOW RATE:	FLOW RATE:	PRESSURE:
TEMP.:		FLOW RATE:

STEAM	**DRAIN**	**RETURN**
SIZE:	SIZE:	PUMPED:
PRESSURE:		GRAVITY:
FLOW RATE:		SIZE:

	SIZE	**TYPE**	**PRESSURE**
OXYGEN:			
AIR:			
VACUUM:			
N20:			
NITROGEN:			
GAS:			

REMARKS:

ELECTRIC:

VOLTAGE: 120 **AMPS:** 20 **WATTS:**

PHASE: 1 **HZ:** 60 **H.P.:**

REMARKS:

SPECIAL REQUIREMENTS: *DOORWAYS MUST BE AT LEAST 27" WIDE AND 80" HIGH TO PROVIDE ADEQUATE CLEARANCE FOR THE MAX. THE MAX HOOD IS NOT INSTALLED UNTIL THE UNIT IS POSITIONED IN PLACE; 80" IS SUFFICIENT HEIGHT FOR THE UNIT WITHOUT THE HOOD.UNIT. REQUIRES OPERATING CONDITIONS OF 0-40° C WITH A HUMIDITY OF 20-80%. CIRCUIT MUST BE USED ONLY FOR THE UNIT. CIRCUIT MUST TERMINATE IN A NEMA 5-20R RECEPTACLE; THE RECEPTACLE CAN BE LOCATED NEAR THE FLOOR WITHIN 3' OF EITHER END OF THE MAX, OR IN THE CEILING ABOVE UNIT.*

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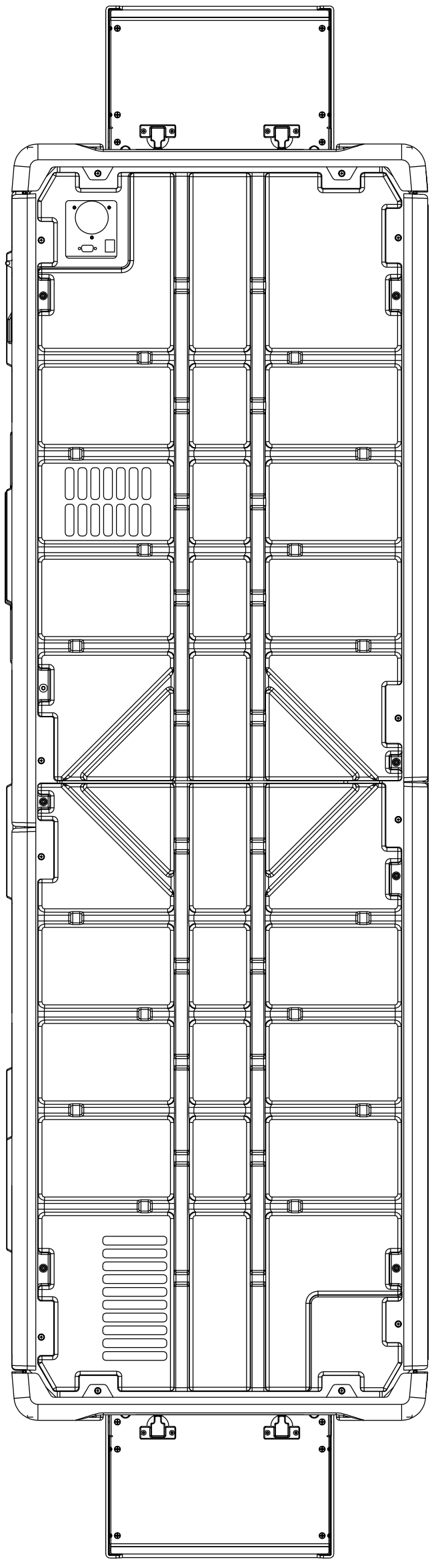
DATE: JUNE 3, 2011



JSN M7280A

Home

Circle of Pharmacy Care

Fill

Parata Max

Parata Mini

Parata RDS

Serve

Adhere

Long-Term Care

GREENGUARD Certification

Parata Difference

Contact Us

CIRCLE OF PHARMACY CARE: FILL

Parata Max™: Next-generation pharmacy automation

More Power, Less Time

First-generation technologies require you to adapt to them. Next-generation technologies adapt to how you use them.

With Parata Max, the first and only next-generation pharmacy automation, once-daily maintenance is all that's needed to automate 60 percent of your total prescription volume.

Good to Great

Max builds on knowledge and experience Parata gained safely dispensing 200 million prescriptions in pharmacies across America with Parata RDS. And, Parata Max enters the market with more than 200 years of lifecycle testing already under its belt.

"Now That's a No Brainer!"

The best innovations leave you scratching your head and asking why it took so long to come up with that idea! The power of Parata Max's ingenuity is that it seems like such a "no-brainer" when you see it in action.

HOW IT WORKS

In less than 30 minutes a day, your staff can equip Parata Max for an uninterrupted day of dispensing.

Fill dispensing cells - 22 minutes*

Add caps - 30 seconds

Add vials - 30 seconds

Never before has automation been easier to learn, use or maintain.

Once-Daily Maintenance	No more hand-feeding caps and vials. Simply dump a full box into Max's bins and you're good to go. Parata's next-generation dispensing cell boosts capacity by 30 percent, reducing replenishment time, even for bigger pills and bigger fills. And super cells are now part of our standard configuration. Max holds 232 finished prescriptions, a full day's volume in most pharmacies.
Flexible Design	An innovative two-sided design segregates inventory from dispensing activities to reduce bottlenecks and open a world of possibilities for installation and workflow. Max supports multiple vial sizes and types. Even the prescription drop-off shelves can be customized to the alphabetic mix of your customer base. An unsorted prescription bin that holds 100 finished prescriptions offers possibilities for off-hours IVR processing, segregation of late pick-ups, and other options to suit your workflow.
Improved Accuracy	Max maintains Parata's 100 percent accuracy for drug and dose,* and raises counting accuracy to about 10 times current industry standards

* Parata automation uses bar-coding to verify a match between the inventory bottle NDC, unique to medication and strength, and the barcode on the dispensing cell. Parata automation selects the correct cell for dispensing 100 percent of the time, ensuring accurate drug and total dosage.

JSN M7280A

Clear unsorted prescription bin - 1 minute**

* 2 minutes a cell, approximately 22 minutes a day in 250 script/day pharmacy
** Does not include time to transfer scripts for will call

JSN M7280A

Parata Max®

Site Preparation Guide

120-0017 Rev 05

Customer Care
1-888-PARATA-1

Contents

Introduction

This document is intended to guide you as you prepare to install a Parata Max automated filling device in your pharmacy. It provides important information about preparing your site, ordering supplies, and planning for training and implementation.

Parata Systems is committed to making your transition to an automated pharmacy system simple, quick and rewarding. If you have questions about any part of the implementation process, please contact a Parata implementation coordinator via phone, fax or email, as noted below.

Phone: 1-888-727-2821 (toll-free)
Fax: 919-433-4303
Email: CustomerApprovals@parata.com

Preparing your pharmacy

Deciding on a location

Max hood

The Max is 87” high with the hood installed. If height is an issue, the hood can be omitted without adversely affecting system operation.

The Max hood contains a HEPA filter and fan to help clean the interior of the unit in order to reduce upkeep for your staff. Additionally, it helps keep the system and its components at optimal temperature by cooling ambient air.

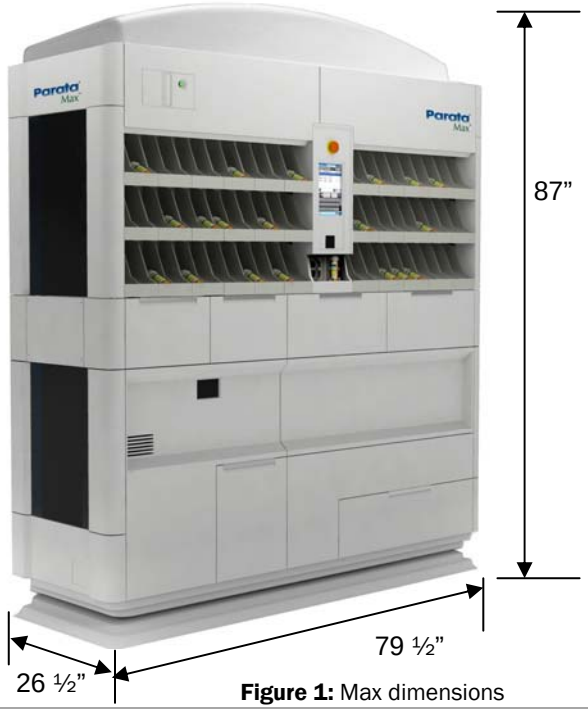


Figure 1: Max dimensions

Space requirements

The location where the Max is installed must accommodate:

- Parata Max with hood:
  79 ½" wide x 26 ½" deep x 87" high

  NOTE: The height with the HEPA blower assembly raised is 90 ½.”
- Parata Max:
  79 ½" wide x 26 ½" deep x 79 ½" high

  NOTE: The Max is 97” wide with both optional work shelves extended

- Minimum of 3’ clearance on each side (the “inventory side,” where drug cells are located, and the “prescription side,” where completed Rx orders are delivered)
- Minimum of 3’ clearance on either end of the Max and minimum of 1’ clearance on the other end
- Minimum of 1’ clearance above the Max, with 2’ to 3’ recommended

Special requirements

- If there are sprinkler heads installed near the Max location, consult local building codes to ensure that there will be enough clearance between them and the Max.
- Ensure that there will be enough clearance between the Max and lights or other fixtures in the ceiling.

Floor requirements

Empty, the Max weighs approximately 1,778 pounds and rests on four leveling feet positioned near the corners of the unit, as shown in Figure 2, below.

With pills, a Max containing 60 super cells weighs approximately 2,073 lbs. The pressure on each leveling foot pad is 422 psi (if the unit is resting evenly on all four feet) or 563 psi (if there are leveling issues and the unit is resting on three feet).

We recommend that you check with your facilities manager or a building contractor to ensure that your floor can support the weight of the Max.

The installation location must be level.

Figure 2: Max footprint

Operating environment

- Operating temperature range: 55°-80°F (12.8°-26.7°C)
- Operating humidity range: 30 to 70% relative humidity (non-condensing)
- The Max is designed to operate in ambient light, indoors. Do not locate the unit in direct sunlight or direct incandescent spot lights toward it.

Planning a delivery route

The Max is delivered on a 20' to 60' air-ride truck. If your location cannot accommodate a 60' delivery truck, contact Parata Implementation at 1-888-727-2821 immediately.

NOTE When you are considering whether you can accommodate a 60' truck, be sure to allow adequate space for the truck to maneuver and unload the Max unit.

The Max can be unloaded onto any solid, level surface (shipping dock, parking space, firm ground, etc.). Once the Max is unloaded, delivery representatives will uncrate it and roll it into position in your pharmacy.

In preparation, you need to plan a route from the delivery area to the location where the Max will be installed. Factors to consider include:

- Are all doorways on the route large enough to accommodate the Max? Doorways must be at least 27" wide and 80" high to provide adequate clearance for the Max. The Max hood is not installed until the unit is positioned in place; 80" is sufficient height for the unit without the hood.
- Are there any corners that must be turned? If so, is there sufficient space to maneuver the Max (79 ½" long) around the corner?
- Do any doorways have automatic door closers or other hardware that must be removed in order to get the Max through the door?
- Are there shelves or other obstructions along the route that must be removed in order for the Max to pass?
- Does the route include steps, thresholds, or other elevation changes that will require special tools or materials (e.g., ramp, planks, etc.)?
- Does the route include carpeted areas or "spongy" flooring that will make it difficult to push the Max?

A representative from the delivery company will visit your site a few days before the scheduled delivery to conduct a walk-through of the planned route.

Installing power and data outlets

In addition to the robotic system that fills prescriptions, a Max unit includes several other internal devices, including a label printer, an uninterruptible power supply (UPS), and two PCs. The power and data requirements described below apply to the Max unit *as a whole* (i.e., the Max unit and all its internal devices.)

Max power requirements

We recommend that you check with your facilities manager or an electrical contractor to ensure that your site meets these specifications:

- One 120V, 20A, 60Hz circuit
- Circuit must be used only by the Max unit
- Circuit must terminate in a NEMA 5-20R receptacle; the receptacle can be located near the floor within 3' of either end of the Max, or in the ceiling above the unit. (See figure 6 on the next page.)

Figure 3: NEMA 5-20R receptacle

Max network requirements

To enable the Max to communicate with your pharmacy network, you must supply:

- An Ethernet cable terminating in an RJ-45 jack (Figure 4, right)
- A 3' RJ-45-to-RJ-45 (Ethernet) patch cable
- An IP address on your pharmacy network

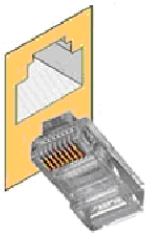


Figure 4: RJ-45 connection

The RJ-45 jack can be located near the floor at either end of the Max or in the ceiling above the unit. (See figure 6 on the next page.)

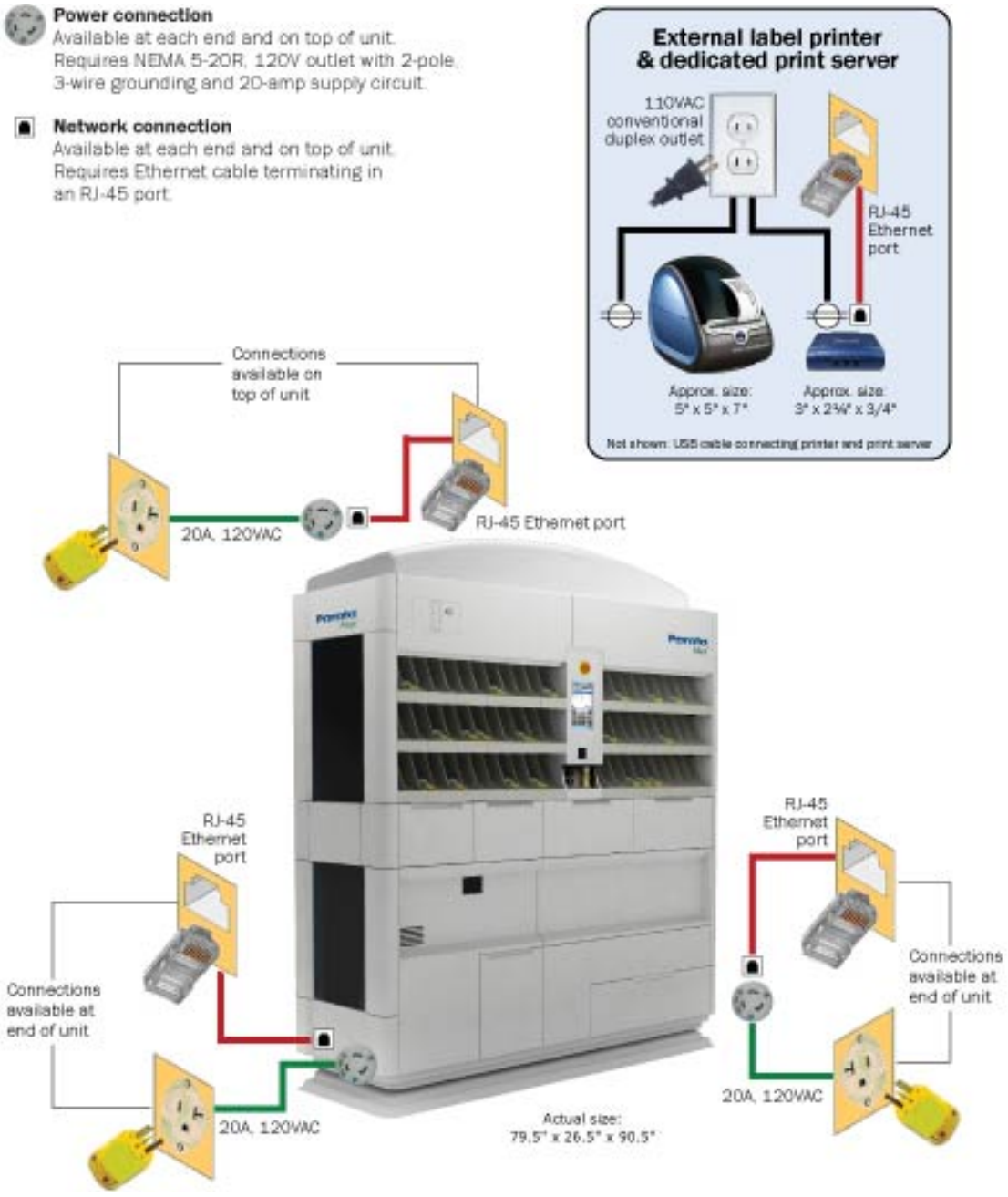


Figure 6: Type and location of connections on the Max.
(Inset: Power and network requirements for external label printer and print server.)

Note: The power connection and Ethernet port you use can be in different locations (e.g., one on top, the other on one end of unit); however, only one power connection and one Ethernet port can be active at any time.

Requirements for external printer and print server

In addition to its internal printer which generates vial labels, the Max also includes an external label printer and dedicated print server. The external printer allows you to print labels for the Max's counting cells and prescription drop-off shelves.

As part of the Max installation process, a Parata-certified installer will set up the external printer and print server in a location you designate. The two devices can be located anywhere in your pharmacy, as long as the necessary power and network connections are available (see below and Figure 6 inset on previous page).

NOTE The printer and print server must be connected to each other via a (supplied) USB cable; however, they need not be in physical proximity to the Max unit.

Considerations for location of external label printer & print server	
Space requirements	• Printer: approximately 5" x 5" x 7" • Print server: approximately 3" x 2 ¼" x 3/4"
Power requirements	• Two standard 110VAC receptacles (one for the printer; one for the print server)
Network requirements	• An Ethernet port terminating in an RJ-45 port • An RJ-45-to-RJ-45 Ethernet cable • An IP address on your pharmacy network for the print server

Arranging for your pharmacy software to communicate with the Max

The software that provides the interface between your pharmacy software and the Max is different from the software that comes with the Max and is obtained from a separate pharmacy host-software supplier. Please contact your host-software vendor for specifics on obtaining the vendor interface.

To best prepare your software supplier for your Max implementation:

- Give the supplier your Max installation date as soon as you receive it from Parata Implementation.
- Get a work order and service contract from the supplier.
- Verify that you have the latest software version or other requirements to support the Max.

Assembling a drug list

As soon as possible, you should send your Parata implementation coordinator a list of the drugs you would like to dispense via the Max. We will analyze the list to determine which drug cells we can pre-configure for you prior to delivery.

NOTE If your needs change at a later date, you can easily reconfigure a drug cell to dispense a different drug.

We ask that you provide the list in Excel or Text (Notepad) format. A printed list is acceptable if neither of the electronic methods is possible. For information on how to generate the list, reference your host software user's manual.

For each drug on the list, please ensure that the report includes:

- The drug's NDC (full product code representing the actual product you currently carry on your shelf)
- The drug name and strength
- The number of prescriptions you dispensed for the drug during the time period covered by the report

We recommend that you run your report for the past 90 days so that it includes data on 90-day fills. Please ensure the report period is included with your data file or printed report.

Designating drugs for super cells

Your pharmacy will receive a mix of super cells and standard cells with the Max. Each super cell can store 3.16 times the volume of a standard cell. Parata Systems created super cells to reduce replenishment frequency for:

- Large pills
- Frequently dispensed drugs
- Drugs whose inventory bottles hold more pills than a standard counting cell
- Medications prescribed for 90-day counts or more

After receiving your drug list, we will use the above criteria to help you decide which drugs are best suited to be your "super cell" drugs.

Obtaining supplies

Starter Kit

The Max ships with a "Starter Kit" that contains some of the supplies you will need to get started using the Max. These items include Max documentation and training materials, cell and vial labels, and various cleaning supplies. You can order additional documentation and maintenance supplies from Parata Supply.

Vial labels

Parata Supply also stocks vial labels for use in the Max, and can customize these labels to match your current labels. Your Parata implementation coordinator will provide you with a form where you can specify what types of information you want included on your labels. We also ask you to send sample labels for the following conditions:

- Regular label
- Refills remaining
- No refills remaining
- Partial refill
- Generic drug substituted
- Multi-vial label (if available)
- PRN label

NOTE The sample labels must be original printouts from your pharmacy label printer so that our label design vendors can match your colors and graphics accurately.

Vials and caps

The Max is compatible with specific vials and caps from several vendors. Your Parata implementation coordinator will provide you with specifications and ordering information for each type. If your wholesaler does not currently carry Max-compatible vials and caps, a representative from the vendor will contact your wholesaler to make the necessary arrangements.

Please ensure that you receive an ample supply of vials and caps prior to your scheduled installation date. We recommend that you store them in a location where they will not be used before your scheduled installation but can be retrieved easily on installation day.

NOTE Please do not accept substitute items from your wholesaler. Vials other than those specified by your Parata implementation coordinator will not work properly in the Max.

Planning for training

Basic training

Parata Systems will train up to 10 members of your pharmacy staff on basic Max operation. In order to provide each person with adequate hands-on training time with the Max, we prefer to conduct the training in two groups, with no more than five people in each group. Each group will meet for one session.

Specialist training

We recommend that you designate up to five (but no fewer than two) of the staff members who attend the "Basic" class to become "Parata Max Specialists." Users who are Max Specialists receive special in-depth training on the Max during a second session of training. These users are then prepared to take the lead among your staff in using and maintaining the Max.

Class descriptions

Class	Who should attend	Topics included
Basic	Staff members whose primary interaction with the Max will be filling prescriptions during day-to-day operations.	• Parata Max operation • Replenishment of consumables • Bar code-scanning procedures • Optimizing your workflow • Hands-on practice
Specialist	Staff members who will be responsible for keeping the Max running.	• Maintenance procedures • Basic troubleshooting • Reporting functions • How to add new drugs • How to calibrate drug cells • Simulations of potential issues • Hands-on practice

NOTE To enhance the effectiveness of the training and your satisfaction with the Max, please ensure that the staff members selected for training are not responsible for pharmacy operations during their training sessions.

Implementation

In general, our implementation schedule includes:

- Delivery of the Max unit
- Installation and drug set-up for up to 100 drugs

  NOTE A member of your pharmacy staff must participate in the drug set-up.
- Staff training

Delivery

The Max will arrive at an agreed-upon date and time. A delivery representative will unload the unit from the truck, uncrate it, and position it in your pharmacy.

The delivery representative will have a "Delivery Verification Form" that lists tasks related to Max delivery. You or a representative from your pharmacy will be asked to initial the Delivery Verification Form at various times during the process to verify that specific tasks were performed.

When the delivery process is complete, the delivery representative and a representative from your pharmacy will inspect your Max unit. Then both parties will sign the Delivery Verification Form to indicate that delivery is completed.

Installation

Following delivery, a Parata-certified installer will set up your Max unit.

Assessing site readiness

As the first step of the installation process, the installer assesses the readiness of your site on six key points:

- Adequate space is available for installation and operation of the Max.
- A 120V 20A 60Hz AC circuit terminating in a NEMA 5-20 receptacle has been installed per electrical requirements.
- An Ethernet cable with a RJ-45 jack has been installed per data requirements.
- Any software upgrades/patches required for your pharmacy software ("Host") to interface with the Max have been installed.
- Your store has an adequate supply of labels, vials, and caps.
- Your drug inventory is organized to support efficient operation of the Max.

Your site must meet each condition listed above in order to be considered ready for installation. If your site is not prepared, we reserve the right to reschedule the installation. In that case, a rescheduling charge will apply, per the Parata Purchasing Agreement.

Performing the installation

The installation process includes inspecting, configuring, testing and calibrating the Max.

During the installation process, the installer will help you load drugs in the Max. We will set up at least 10 drugs, and up to 100 if time permits.

To prepare for the drug setup:

- Ensure that you have full bottles of the drugs you want to dispense via the Max on hand in time for the Max installation.
- One or two days before your installation date, set up your pharmacy software to dispense the selected drugs via the Max.
- Have a pharmacy specialist designated to assist with the setup on installation day. (Parata employees may not handle the drugs directly, so someone from your staff must participate in this process.)

Documentation and sign-off

During the installation process, the installer will complete an Installation Authorization form, documenting that the site was prepared for installation and that installation tasks were performed.

In the final section of the Parata Max Installation Authorization form, both the installer and a representative from your pharmacy will document the outcome of the installation. Then both parties will sign the Parata Max Installation Authorization form.

Staff training

As described in the section titled “Planning for training,” a Parata-certified trainer will train up to ten of your staff members (in two groups of up to five each) on the basic operation of the Max. We also provide advanced, “specialist” training for up to five staff members who have completed the basic class.

Your Parata-certified trainer or implementation coordinator will contact you the week before training to confirm a specific training schedule with you.

Parata Max®

Site Preparation Checklist

Use this checklist to keep track of site preparation tasks. Timeframes are approximate.

30 days before scheduled delivery	Completed	Notes
1. Decide where the Max will be installed. Ensure that the selected location has adequate space (including clearance around the Max) and floor support for the Max.		
2. Arrange for the Max's power receptacle and circuitry to be installed.		
3. Arrange for installation of a network (Ethernet) cable terminating in an RJ-45 jack. Procure a 3' RJ-45-to-RJ-45 patch cable.		
4. Contact your pharmacy software vendor to obtain the appropriate interface between your software and the Max.		
5. Assemble list of drugs you want to dispense via the Max and forward to your Parata Project Manager.		
6. Provide sample labels (original printouts from your pharmacy label printer) for the following conditions: • Regular label • Refills remaining • No refills remaining • Partial refill • Generic drug substituted • Multi-vial label (if available) • PRN label		
2 weeks before scheduled delivery		
7. Decide which staff members will receive Basic and Specialist training.		
8. Order Max-compatible vials and caps from wholesaler.		
1 week before scheduled delivery		
9. Expect delivery of vials and caps from wholesaler.		
1-2 days before scheduled delivery		
10. Review the planned delivery route with representative from delivery company. (Delivery representative will contact you to schedule.)		
11. Ensure that obstacles such as automatic door-closers, shelves, etc. are removed from the delivery route.		
12. Prepare the drugs you want to load into the Max during installation and set up your pharmacy software to dispense those drugs from the Max.		
13. Ensure staff can locate your supply of Max-compatible vials and caps.		
14. Decide where to locate the Max's external printer and print server.		
15. Obtain two static IP addresses on your pharmacy network (one for the Max, one for the print server) from your IT staff.		

Parata Max®

Parata Max® at Department of Defense sites

Network connectivity guide

Parata Max is a prescription-filling device that automates vial selection, vial labeling, pill counting, vial capping and sorting of completed scripts into built-in shelving units by patient last name for technician retrieval. Parata Max processes prescriptions rapidly with consistent counting accuracy.

Parata Max helps pharmacists dispense medications more quickly, efficiently and accurately than is possible by hand, while maintaining the direct pharmacist interaction necessary to ensure patient safety. The operational workflow built into Parata Max ensures that the pharmacy staff follows a repeatable process and provides safety features that help pharmacists detect possible filling errors. The system's built-in transaction accounting provides the pharmacy with reportable transaction records.

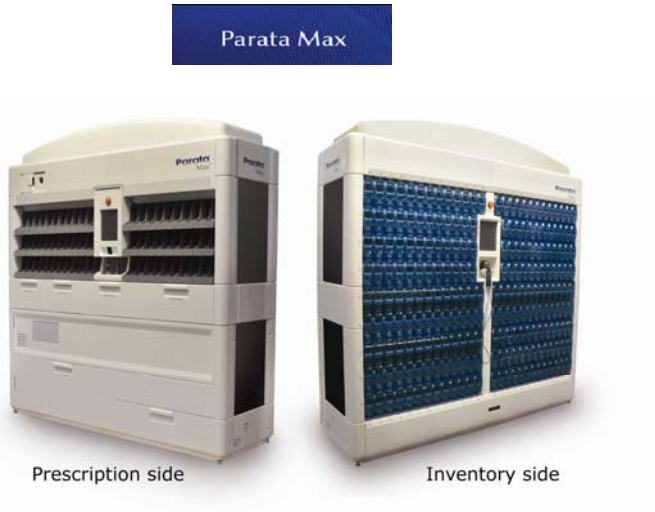


Figure 1. Parata Max is an automated medication-dispensing unit that fills prescriptions according to data received from the pharmacy host system. Parata Max counts pills while dispensing them into a vial, caps and labels the vial, and then places the completed prescription into one of the drop-off bins for retrieval by the pharmacy staff.

120-0159 Rev 02

System components

The internal components of a Max unit include:

- A primary and secondary CPU ("PC1" and "PC2") that house the Parata Max software; both CPUs are connected to the pharmacy network via a TCP/IP connection
- Drug cells that hold pill inventory and provide high-speed, accurate counting of pills; an internal compressor provides high-pressure air to the drug cells
- Robotic technology that automates vial handling, capping and labeling
- A printer that prints prescription vial labels
- (2) touch screen monitors and (2) bar code scanners for interacting with the system's user interface

System components *external* to the physical Max unit include a print server and a bar code printer. The print server connects to the pharmacy's VLAN via a TCP/IP connection; the bar code printer connects to the print server via a USB connection. Both of the Max unit's internal CPUs can access the bar code printer (via the pharmacy network) to generate identification labels for the Max unit's drug cells and drop-off shelves.

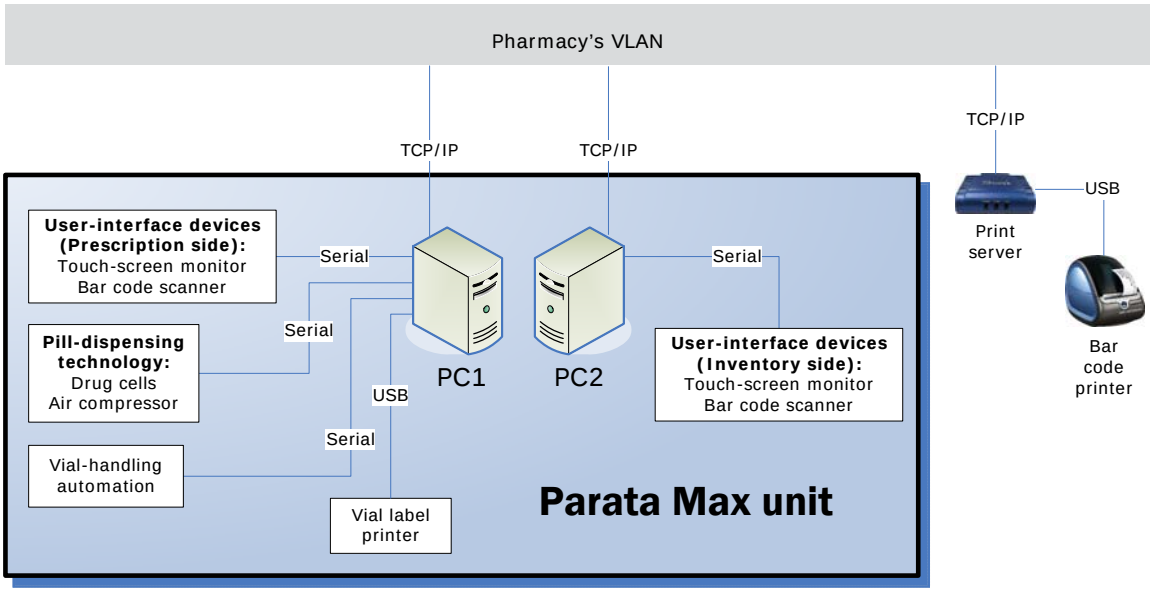


Figure 2. Internal and external components of Parata Max.

Parata Max software

The Parata Max software application exists only to control its internal pill-counting and automation systems, and to provide the end user with the ability to interact with the Max unit via a graphical user interface.

Primary internal components managed by the Max software application include: robotic hardware and subsystems; a vial labeler system; an air compressor and drug cells; an uninterruptible power supply (UPS); and the devices that provide input/output for the end user (touch-screen monitors and bar code scanners).

The Max software application provides the end user access to information regarding the status of filled and/or pending prescriptions, drug inventory and replenishment, prescription volume and drug cell settings. The application does not provide the end user any means to control systems or other applications external to the Max unit that may exist on a given network.

Parata Max interfaces

The Parata Max interfaces can be divided into three categories: peripheral interfaces, internal interfaces and external interfaces.

Peripheral interfaces refer to two USB ports that connect to the Max unit's primary and secondary CPUs. These USB ports are accessible only via a keyed door on the Max unit. Parata personnel use the USB ports to attach a keyboard to the system when performing initial installation, software updates and/or other maintenance.

Internal interfaces refer to the interactions between the primary and secondary CPUs within the Max unit, and to the interactions between each CPU and the Max hardware.

> **Note:** The primary and secondary CPUs communicate with each other across the pharmacy network, as illustrated in Figure 4 and Figure 5; however, these communications are considered internal to Parata Max since both CPUs are located within the physical Max unit.

External interfaces refer to communication with other systems or devices on the pharmacy network:

- The Max unit's primary and secondary CPUs can each access the external print server and bar code label printer supplied with Parata Max. Additionally, the Max CPUs can be configured to print reports to a network printer.
- Parata Max communicates with the pharmacy's host system (CHCS); Parata Max may also communicate with a workflow management system such as Pharmacy 2000™. Communication with these external systems is accomplished via the AIM service described below.

AIM service

Parata's Automation Interface Manager (AIM) service manages communication between the Max unit and the pharmacy host system (CHCS). The AIM service may be installed external or internal to the Max unit, as follows:

- **For sites that use Pharmacy 2000** (version 6.0 or higher): The AIM service is installed *external to Parata Max*, on the dedicated Pharmacy 2000 server.

- **For sites that do not use Pharmacy 2000:**
  - If the site has **more than one Parata automated filling device installed** (either multiple Max units, or one or more Max units in combination with other Parata automated filling devices): The AIM service is installed *external to Parata Max*, on a dedicated, Parata-provided "AIM box." (See "DoD configuration for multiple Parata Max units" on page 7.)
  - If the site has **only one Max installed**, with no other Parata automated filling devices: The AIM service is installed on the Max unit's secondary CPU, i.e., on "PC2." (See "DoD configuration for a single Parata Max unit" on page 6.)

Handling of patient healthcare information (PHI)

Parata Max's centralized architecture ensures that patient healthcare information (PHI) is stored in a single, manageable location. For each prescription, PHI is stored in a database until the prescription is filled and scanned. After the prescription request is completed successfully, all patient-specific information is automatically deleted from the database.

Database backup

Parata Max performs an automatic, once-daily backup of its database. The database backup location and the time when the daily backup occurs can be configured by Parata or by the site's IT staff. Users can also initiate a database backup manually via the user interface.

Remote connectivity

Parata uses the B2B gateway to access devices on DoD networks remotely. Individual sites must complete a defined B2B application process to allow remote access to Max units installed at that site.

IP address requirements

Two IP addresses for the Max unit

Each Parata Max contains two computers (referred to as "PC1" and "PC2") that utilize the Microsoft Windows XP™ operating system:

- PC1 houses the software for the Prescription side of the unit.
- PC2 houses the software for the Inventory side of the unit. When a single Max is the only Parata automation installed at a site that does not use Pharmacy 2000, PC2 also houses the AIM service (see page 4).

The IP addresses and ports for PC1 and PC2 are connected on a VLAN within the Pharmacy network. Each PC requires a static IP address for communication to and from the pharmacy host system; these IP addresses must be publicly routable to allow for remote support via the B2B gateway.

One IP address for the print server

Each Max unit must have an external label printer to print inventory cell labels. The printer is connected to a dedicated print server which requires a static IP address supplied by the customer. The external label printer and print server are supplied by Parata with each Max unit.

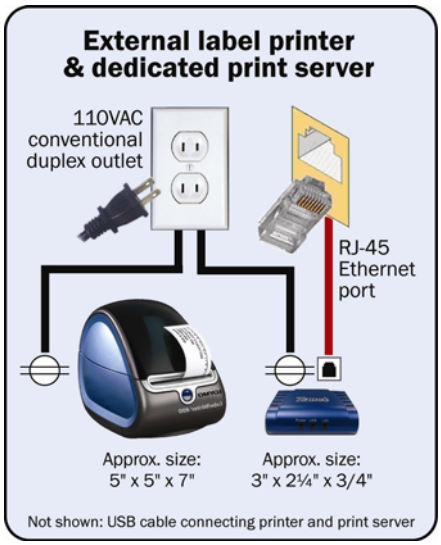


Figure 3. Parata provides an external label printer and dedicated print server for each Max unit. The site must provide a static IP address for the print server.

One IP address if AIM runs external to Max

When the AIM service is installed on an external device (either a Pharmacy 2000 server or a dedicated AIM box), the external device requires its own static, B2B-compliant (i.e., publicly routable) IP address.

System connection diagrams

DoD configuration for a single Parata Max unit

Figure 4 illustrates the system connections for a site using a single Parata Max unit.

The CHCS system sends prescription data to the Max unit via Parata's AIM service residing on PC2. The AIM service receives Rx fill data from CHCS on a port specified by the site's CHCS personnel. When the AIM service receives data from CHCS, it parses and translates the data, and then sends it to the main Max application on PC1.

As the Max processes each script, PC1 sends status messages to the AIM service on PC2. Examples of messages include acknowledgement of a fill request or cancel request; script queued; script started; script completed (or script incomplete); and script picked up.

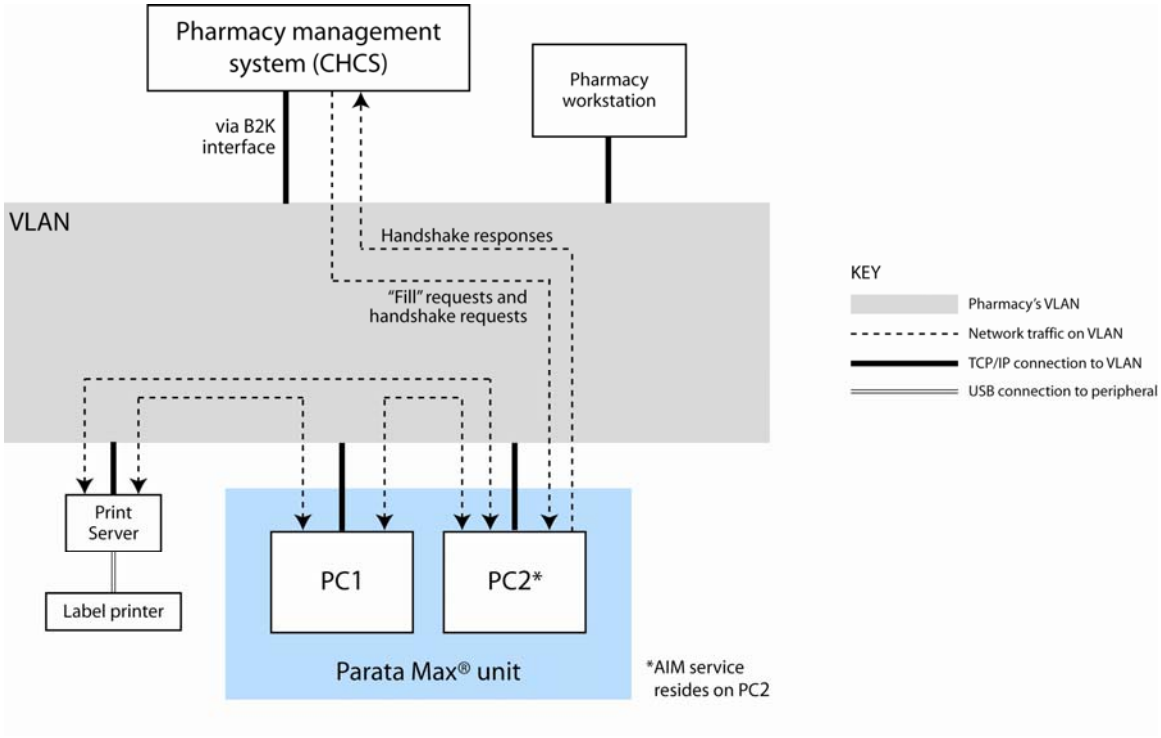


Figure 4. System connection diagram for a single Parata Max unit in a DoD environment.

(Note: This diagram shows a Max unit's connections to and communication over the pharmacy network. For a depiction of a Max unit's *internal* connections, refer to Figure 2 on page 2.)

DoD configuration for multiple Parata Max units

When more than one Parata automation device is present—either multiple Max units, or one or more Max units in combination with other Parata automated filling devices—AIM runs as an independent service on an external device:

- If a site uses Pharmacy 2000, AIM runs on the Pharmacy 2000 server.
- Otherwise, AIM runs on a Parata-supplied, dedicated CPU referred to as an "AIM box."

As illustrated in Figure 5, the CHCS system sends prescription data to a Max unit via the AIM service residing on the external device. The AIM service receives Rx fill data from CHCS on a port specified by the site's CHCS personnel.

When the AIM service receives Rx data from CHCS, it parses and translates the data, selects a Max unit, and then sends the data to PC1 of the selected unit.

As the Max processes each script, PC1 sends status messages back to the AIM service on the external device. Examples of messages include acknowledgement of a fill request or cancel request; script queued; script started; script completed (or script incomplete); and script picked up.

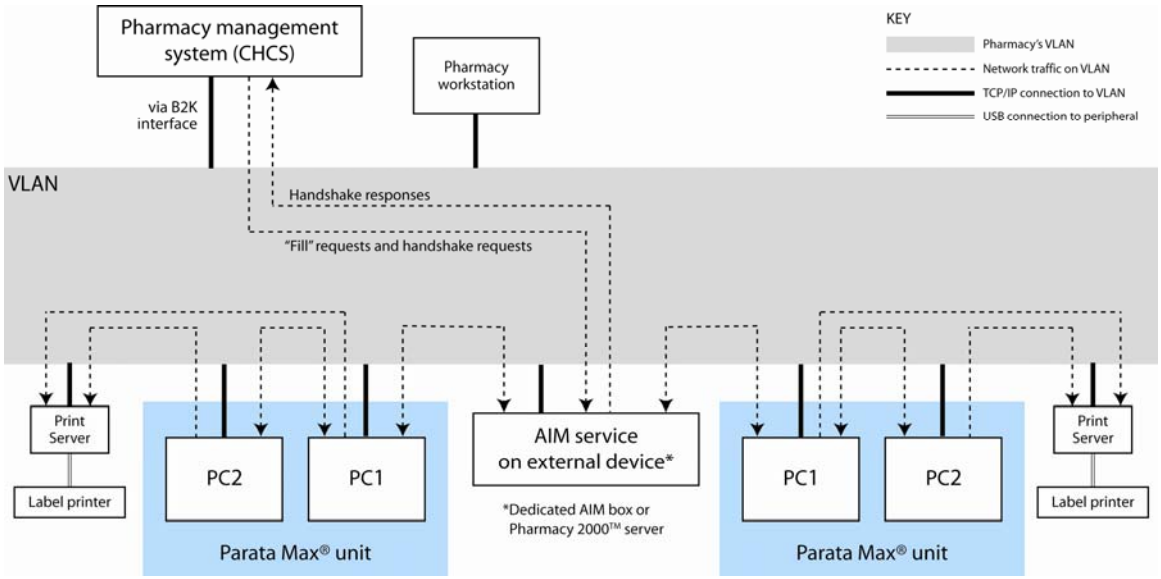


Figure 5. System connection diagram for multiple Parata Max units in a DoD environment.

(Note: This diagram shows each Max unit's connections to and communication over the pharmacy network. For a depiction of each Max unit's *internal* connections, refer to Figure 2 on page 2.)

EQUIPMENT DATA

EQUIPMENT DESCRIPTION: MESSAGING BOARD, PHARMACY WAITING AREA

ITEM SYMBOL: U0037

MANUFACTURER: ACF TECHNOLOGIES **LOGCAT:** C

EXT. DIM.: REFER TO CUT SHEET

SEISMIC: NO **WEIGHT:** 14 LBS

HVAC:

HEAT GAIN (BTU/HR)

VENT SIZE: **CFM:** **S.P**.

REMARKS:

PLUMBING:

HOT WATER
SIZE:
PRESSURE:
FLOW RATE:
TEMP.:

COLD WATER
SIZE:
PRESSURE:
FLOW RATE:

TREATED WATER
TYPE:
SIZE:
PRESSURE:
FLOW RATE:

STEAM
SIZE:
PRESSURE:
FLOW RATE:

DRAIN
SIZE:

RETURN
PUMPED:
GRAVITY:
SIZE:

	SIZE	TYPE	PRESSURE
OXYGEN:			
AIR:			
VACUUM:			
N20:			
NITROGEN:			
GAS:			

REMARKS:

ELECTRIC:

VOLTAGE: 120 **AMPS:** **WATTS:**

PHASE: 1 **HZ:** 60 **H.P.:**

REMARKS:

SPECIAL REQUIREMENTS:

ITEM REQUIRES A CONDUIT CONNECTION BETWEEN DISPLAY AND KEYBOARD. ITEM REQUIRES A WALL RECEPTACLE NEAR THE DISPLAY CABINET. ITEM REQUIRES STRUCTURAL SUPPORT.

DATE: MAY 19, 2011

REVISED
12:49 pm, Nov 14, 2011

U0037

New Provider of Queuing and Take-a-Number Systems in the Naval Pharmacy Market

MANAGE THE FULL CYCLE OF YOUR PATIENT FLOW

ACF Technologies combines web-based software, non-proprietary hardware devices and the highest level of service & support to offer your pharmacy an innovative and cost-effective alternative to meet all of your queuing needs.

Here are just some of the benefits of an ACF Solution:

- **Web-based Queuing** – One PC or server can drive all locations
- **Non-Proprietary Hardware**- Utilize off the shelf POS printers, LCD monitors – Including OFF THE SHELF TICKETS!
- **Non-Proprietary Database** – You own your data!
- **Call Patients Forward Using Naval Standard**– Last Initial, last four digits of the social security number (call out of order)
- **Web-based TV Display** – Does not require a PC or VGA Cables
- **No Client Software** – Easy to update, upgrade and service
- **Innovative, Intuitive Software** – Easy to use, manage and interface (CHCS, McKesson, ScriptPro, Etc.)
- **Excellent Customer/Technical Support** – Instant response!

Our customers include:

- Navy Medical Center San Diego (13 Pharmacies)
- Navy Medical Center Portsmouth (8 Pharmacies, Labs, Clinics)
- Navy Medical Center Okinawa (2 Pharmacies)
- Naval Air Station Jacksonville (2 Pharmacies)

MAXIMIZE PATIENT THROUGHPUT through enhanced public guidance systems, more effective patient reception, routing methodologies and smarter utilization of staff resources.

ACCESS REAL-TIME METRICS that measure wait and transaction times, total service time and abandonment/diversion rates. The ACF solution features easy-to-use statistical tools that provide an enterprise view of productivity, service and performance levels, customer flow patterns and more.

TRACK THE ENTIRE PRESCRIPTION FILL PROCESS along with the patient flow. The ACF Solution utilizes MS SQL as its core database, which allows pharmacies to port in real-time data from their automated distribution applications. Pharmacy managers can now merge the two data sets allowing for more enhanced oversight and benchmarking of organizational goals.

LAST INITIAL, LAST FOUR DIGITS OF THE SSN#

Q-Flow allows you to call patients to the counters using the DOD standard identifier (last initial and last four digits of the SSN) – printed on tickets, called through the voice system and displayed on the TV monitors – allows you to call patients in the order in which their prescriptions are filled

ACF TECHNOLOGIES

phone: 800.704.6592

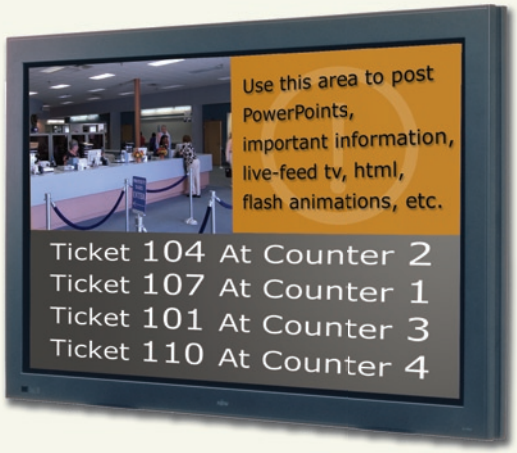
www.acftechnologies.com

Utilizing state of the art software and expert industry knowledge, ACF Technologies can facilitate the development of solutions that reduce patient cycle time, develop benchmarks for efficiency and positively impact patient and staff satisfaction.

"I NEED REAL TIME DATA **to benchmark** MY PHARMACY'S PERFORMANCE"

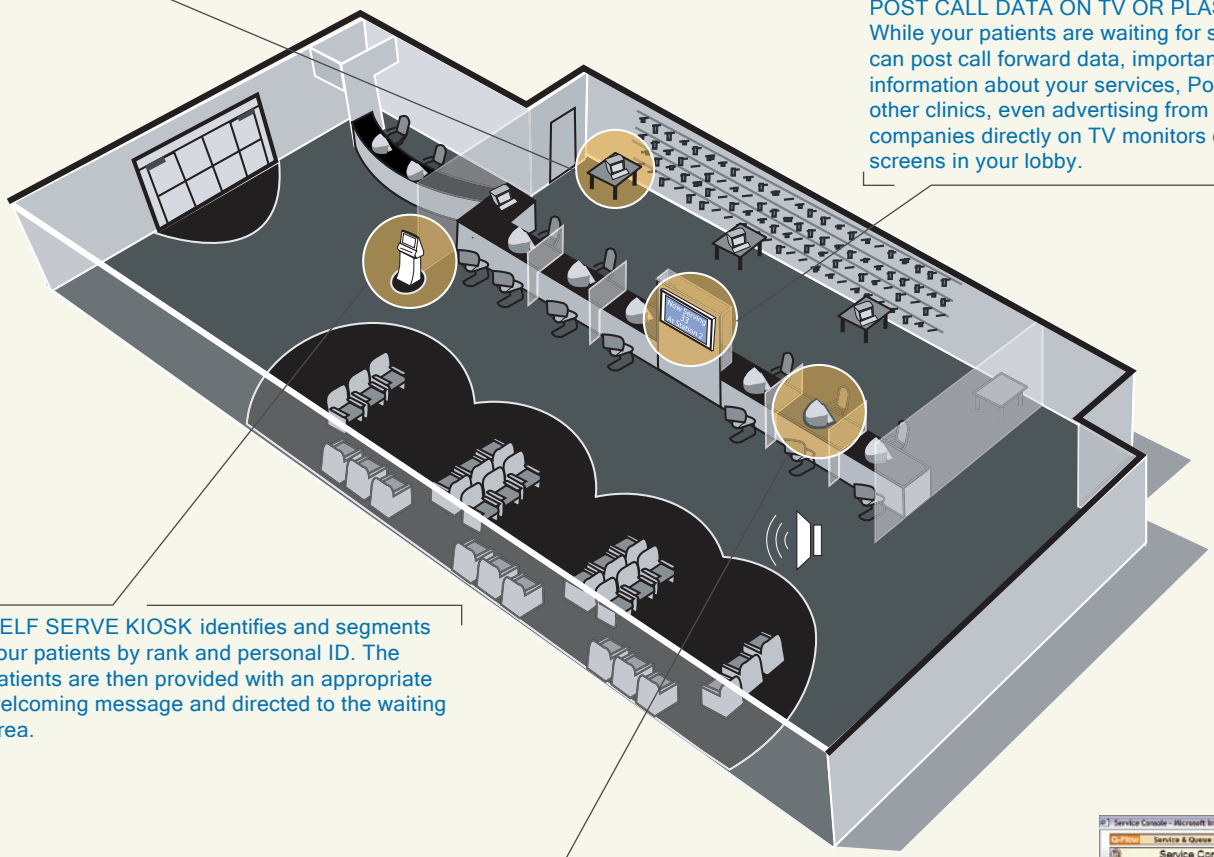
PATIENT FLOW SOLUTIONS THAT FIT YOUR NEEDS

YOUR ENTIRE ENTERPRISE ON A SINGLE SERVER
ACF Technologies can support a distributed network of campuses, registration areas, clinics and labs, all accessible through a standard MS internet browser. This allows you to install, manage and support your entire enterprise centrally through a single, secure (SSL supported) and easy-to-update user interface.



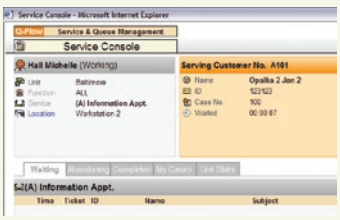
PHARMACY SYSTEM INTERFACE - Because the ACF core software application utilizes SQL Server as its database system, it can easily port in data in real time from your MS SQL and Oracle-based Prescription Filling Systems.

POST CALL DATA ON TV OR PLASMA SCREENS
While your patients are waiting for service, you can post call forward data, important instructions, information about your services, PowerPoints from other clinics, even advertising from pharmaceutical companies directly on TV monitors or plasma screens in your lobby.



SELF SERVE KIOSK identifies and segments your patients by rank and personal ID. The patients are then provided with an appropriate welcoming message and directed to the waiting area.

SERVICE CONSOLE allows staff to effortlessly observe waiting patients, call them forward and transfer to other counters, consult rooms or other pharmacy facilities.



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United States Navy Medical Center San Diego - Patient Flow Synopsis

Project History:
Dr. Michael Vancheri is the Director of Pharmacy for the entire USNMC SD system throughout the greater San Diego area. He oversees every pharmacy in all 14 hospitals, dealing with largest volume of DOD patients in the entire United States.

In 2005, the Command was becoming very unhappy with the level and quality of service currently being provided by the Queuing system already in place. Not only did this system limit their ability to adapt to the great changes in their patient flow caused by the large influx of service men and women and their families, but they were also having service issues that caused the system to crash at inopportune times. In addition to this, they were not happy with the customer-service afforded to them by the queuing company.

It was decided by leadership that a new system from another provider was warranted and they made initial contact with ACF Technologies at this time. Because of the extremely large volume of patients (up to 3000 a week) they were experiencing large wait times. This was compounded by the fact that the currently installed system slowed down some of the back-end processes.

ACF's solution was to install a system that would allow fluidity in the check-in area and allow for better segmentation of the patients by rank. Also, ACF eliminated the reliance on a static ticketing scheme, an unfortunate deficiency in the other system. This allowed the pharmacy to have up to 5 stations registering patients in times of great influx as well as shift their counter configuration to better dispense the prescriptions.

Priority Calling By Rank
The NMCSD pharmacy prioritizes patients by rank, so certain types of patients need to have a higher priority than others. Because the ACF solution is so adaptable, it can very easily accommodate any variation of services, priorities and functions. Another advantage of the system immediately perceived by the command was not only its ability to demonstrate in real time the current situation in the waiting area, but also to react and make changes in order to further optimize the environment.

Call Patients Using "V-Number"
Because each patient's prescription fill time varies, the pharmacy needed to come up with a scheme for calling patients out of order. They also needed to way to relate the prescription fill system to the ACF system so that they could call without having to cross-reference the two systems (another deficiency of the older queuing system). ACF was easily able to accommodate this by integrating the DOD standard identification number scheme into the software. This standard is the first initial of the last name and the last four digits of the social security number.

Now, when the counter sees that a prescription has been filled in the prescription system, they can choose the corresponding number in the ACF system calling the patient forward. An added benefit to this is that the patients waiting do not feel that they were skipped over because the numbers being called are not in numerical order.

Patient Flow Description:

- As the patients arrive, they approach the information desk
- The attendant ask what rank they are and issue a ticket for the particular service
- The ticket has a greeting message and their specific alphanumeric character (DOD Standard) The patients would then be directed to the Registration waiting area where they can relax or fill out necessary paperwork
- While the patients are waiting, the ACF Media Player is programmed to display sequenced images, posters, real-time scrolling messages, Cable TV, DVDs, even PowerPoint presentations
- When the Pharm-Techs in each of the counter-areas (a total of 12) are ready for the next patient, they press "NEXT" on an on-screen software application
- The ACF Media Player will interrupt the feed to display a call message for a few moments. This call message will then be cached into a line view showing the last 5-10 numbers called

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- An audio unit then announces, “Now Serving Patient R2234 At Counter Number One” (or some variation) over a speaker system
- The patient then proceeds to the appropriate workstation and picks up their prescription
- Managers for each of the areas are able to view and generate real-time and historical statistics reports based on wait times, service times and staff productivity, as well as manage the counters in real time

Noted Benefits of the System Implementation:

- Immediate decrease in patient confusion about where to go or who is next in line
- Much more efficient and effective patient flow
- Metrics are available in real time as well as historically that display thresholds, wait times, transaction times, staff productivity and due diligence
- Wait and Service time threshold notifications that alert the managers of excessive times respectively
- Plasma Monitor in the lobby can display DVD videos on a schedule about health subjects and benefits available
- Cost savings from the use of non-proprietary hardware devices: ticket printers using non-proprietary paper

Recent Enhancements

Once the system was shown to enhance the flow of patients, the efficiency of the staff as well as save the pharmacy money, NMCSD has expanded the application to all of the 13 remaining pharmacies in the San Diego system including the Veteran’s Affairs pharmacy.

There is also considerable movement within these hospitals to expand to other clinics, labs and registration areas within the NMCSD including Immunizations and Dental Health.

ACF has also developed a Live Search Tool that allows the manager to look up statistical details related to the queuing system by name. This tool has provided a customer service benefit to the overall management process by enabling the manager to type a complaining patient’s last name into a field and instantly pulling up information on their visit (wait, transaction and prescription fill times and the technician who worked with them).

Another recent enhancement has allowed patients to check the status of their prescription-fills on a Touchscreen kiosk by scanning the barcode on their tickets.

ACF Background

ACF Technologies, Inc. was founded in 2003 by queuing industry veterans with 20+ years of specialized combined experience in the development and deployment of advanced customer and patient flow solutions. ACF’s goal was to re-engineer the processes and methodologies lacking in the applications offered within the queuing industry.

ACF utilizes the most up-to-date development and architecture concepts and techniques to implement the first and most advanced real-time, **truly web-based**, enterprise customer and patient flow automation tool in the US market.

ACF currently has installed Q-Flow Patient Queuing Systems in pharmacies, labs, immunization clinics and other clinics at the ***Portsmouth Naval Medical Center, Okinawa Naval Medical Center and Jacksonville Naval Air Station***. Worldwide, ACF has nearly 500 queuing installations installed in organizations such as the US State Dept., the Dept. of Homeland Security, Boeing, healthcare enterprises, county Depts. of Health, private clinics, retail stores and airports.

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ACF Technical Requirements for Q-Flow v5.x

Q-Flow Server Requirements

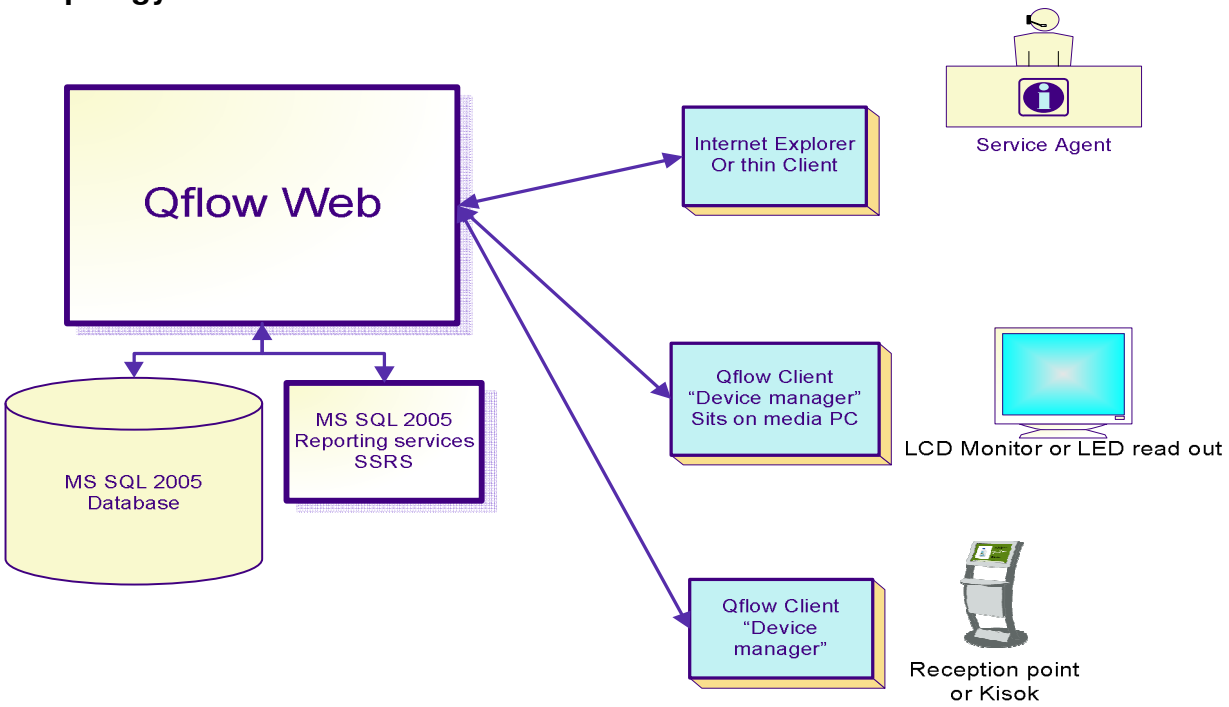
- WEB - Windows 2003/2008 Server with IIS and ASP.net 2.0
- DATABASE - MS SQL Server 2005 / 2008 including client components (i.e. MS SQL Management Studio and Business Development Studio).
- Default instance of Microsoft Reporting Services
- Dot.Net 3.5 framework (SP1)
- Min Server specs: 4 gig RAM, Pentium Dual Core+
- Requires a fixed IP address for server(s)
- ACF supports a VM environment for Q-Flow

Workstation PC

For the workstation PCs or thin clients:

- Must have network access to server
- Internet Explorer 6.0+ / 7.0+
- For viewing Q-Flow Reports, the server hosting Reporting Services must be included in trusted sites of Internet Explorer

Q-Flow Topology Overview



Other Common Hardware Considerations at Each Branch

NOTE: all hardware is commercially available

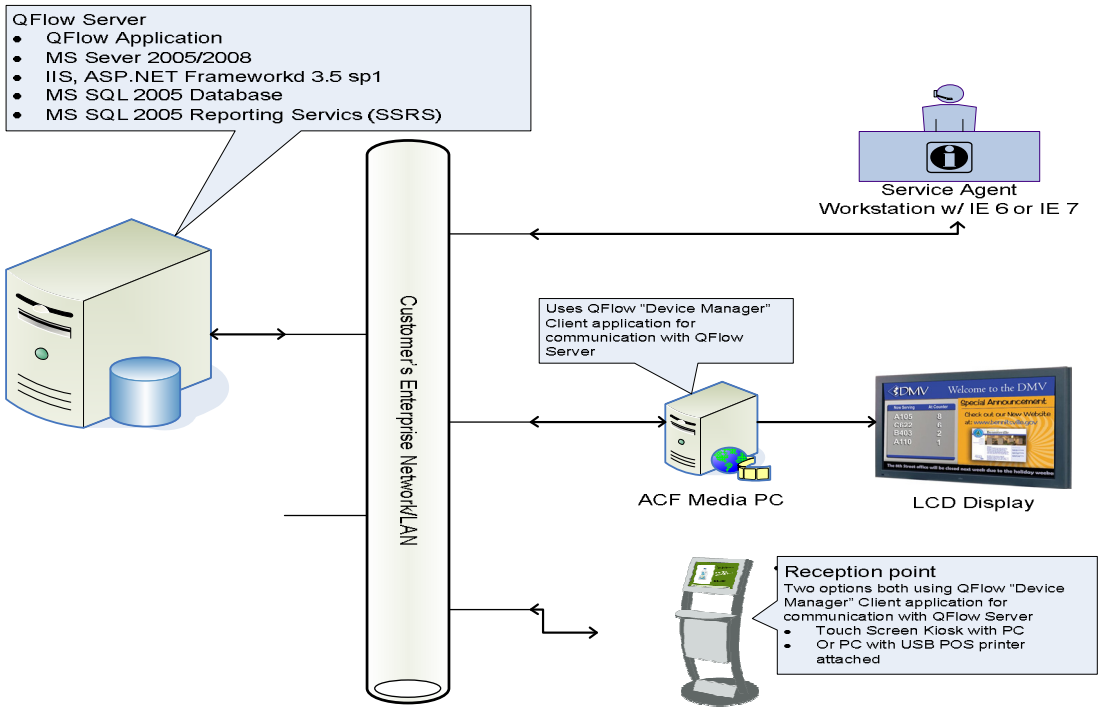
Ticket Printer
- Host PC if USB printer
- Network access with fixed IP if Network Printer

Self-Serve Kiosk
- Requires mounting location (wall or pillar, or freestanding if unit permits)
- Network access with fixed IP Address
- IE 6.0+ / 7.0+ browser
- 1 GB RAM

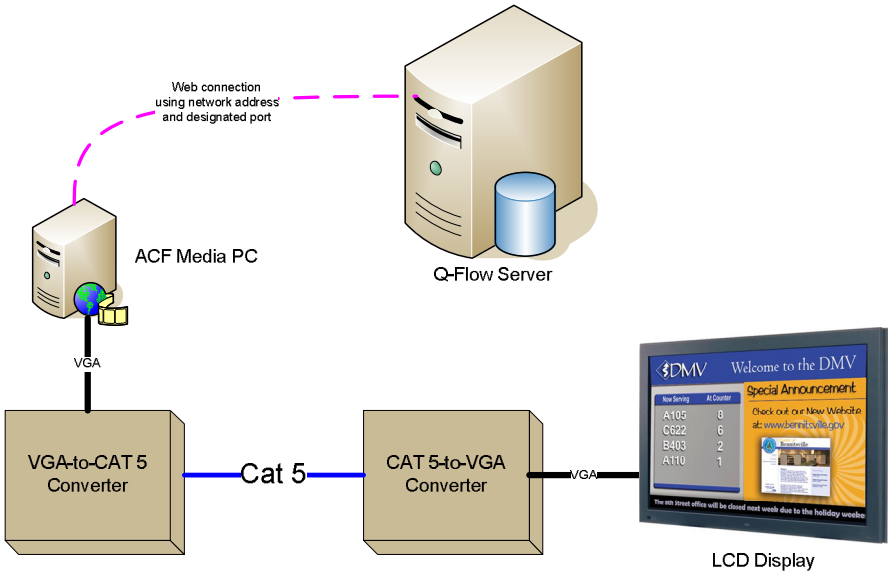
Video and Audio System
- The Media Player PC – MS Windows XP Pro+, Pentium-based processor w/ 1GB RAM
- MS Windows Media Player v11
- VGA and Audio over CAT 5/6 converters (requires power)
- Network connection with a fixed IP

LCD TV Monitor
- VGA / HDMI input and 1/8 inch din sound input.
- Cable TV / Satellite signal at site of Media Player if live TV overlay is desired

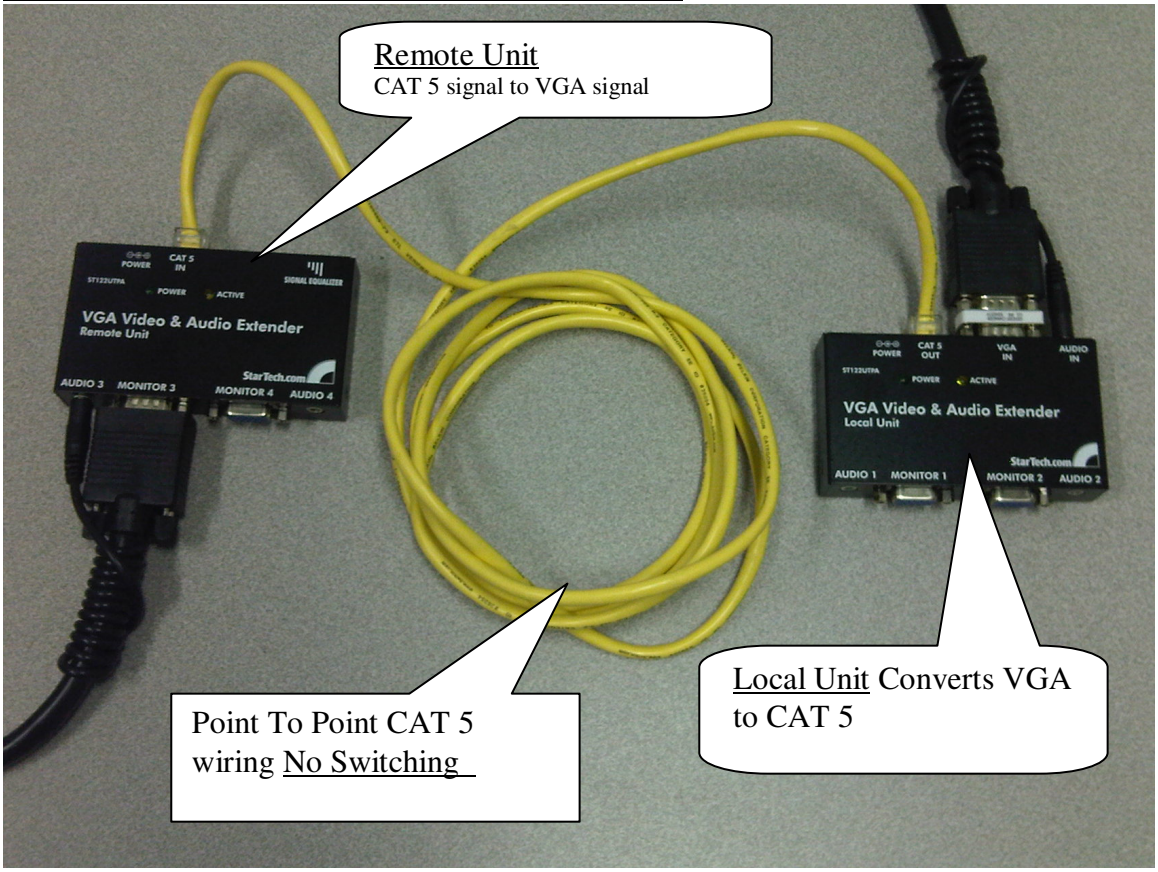
Display Setup Diagram 1.1



Display Setup Diagram 1.2



Video Signal Extensions setup (Diagram 1.3)



VGA-To-CAT 5 Converter Close up (Diagram 1.4)

PROPOSED WORKFLOW WITH SCREEN SHOTS

Step 1: Patient Reception at the Touchscreen Kiosk

NOTES:

- Screen design is fully customizable
- Multi-screen design is typical
- Multi-lingual options
- One Touch philosophy embraced
- Scanners may be incorporated
- Tickets are fully customizable, including Wayfinding Directions

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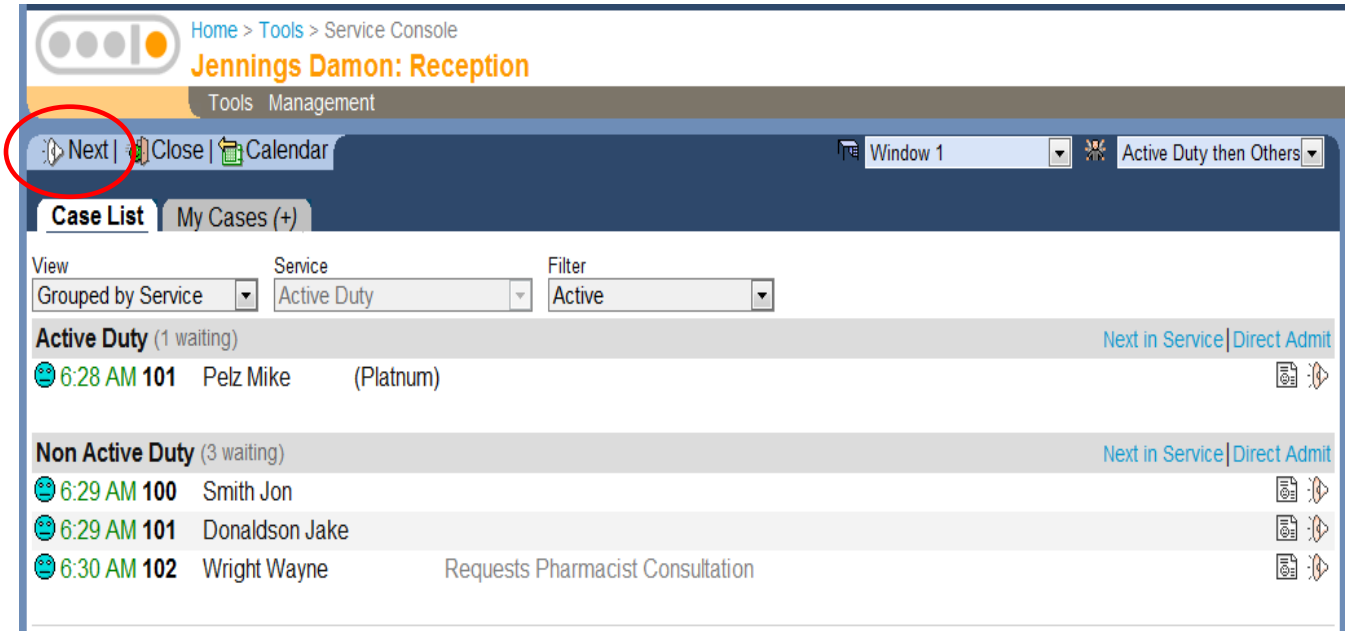
Step 2: Staff Calls Patient by Clicking NEXT



Notes:

- Service Console shows list of all waiting patients according to queue
- Service Console may be filtered according to Function (i.e. Job Role)
- NEXT Button is driven by configured automation, incl. BQ Threshold

Step 3: When Staff Clicks NEXT, Audio and Video Message Appears on TV alongside Cable TV or Announcements

NOTES:

- Content Frame (right frame) may be configured for CATV, Slides, or dynamic
- Font Sizes are adjustable
- Frame layouts are based on template designs included from ACF
- Typical layout includes:
    - Left Frame for calling patients
    - Right Frame for Dynamic Content
    - Scrolling Ticker for info, RSS, or Announcements

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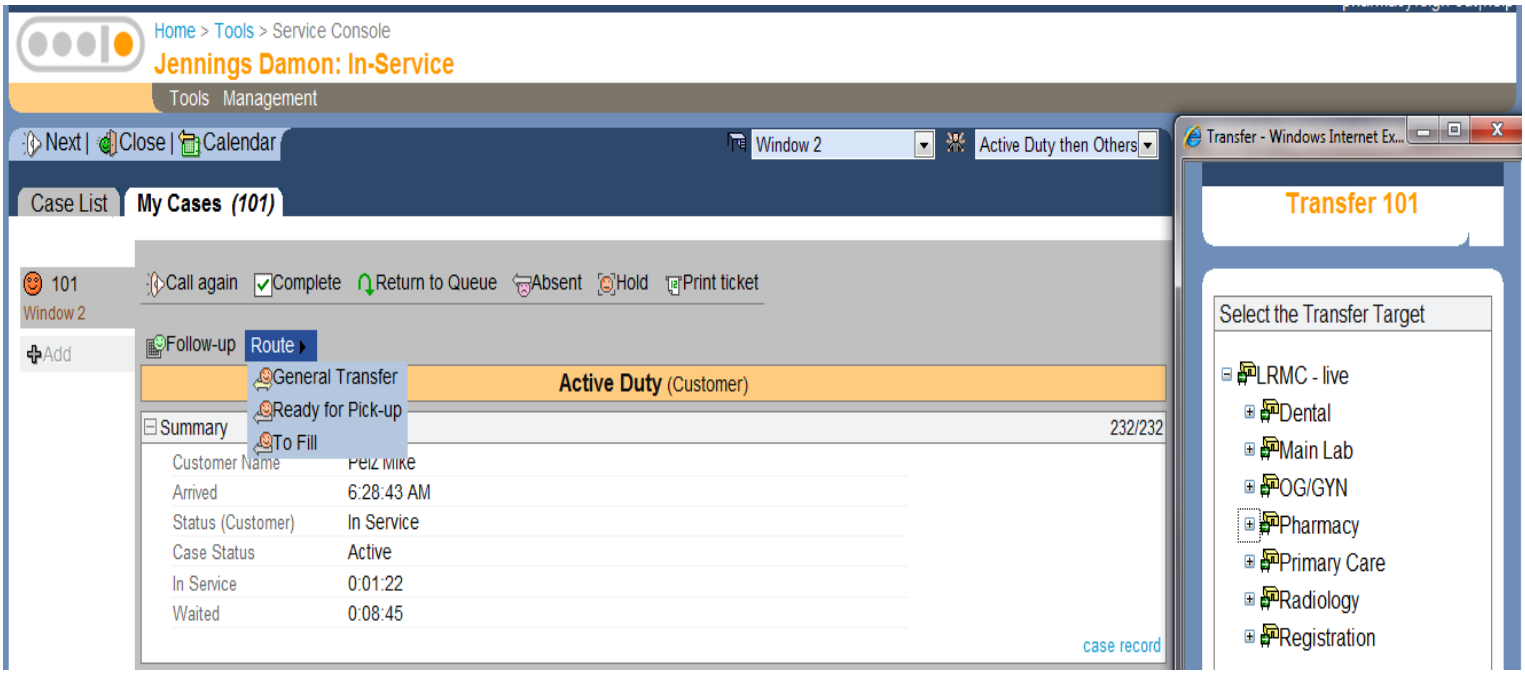
- Banner for Branding

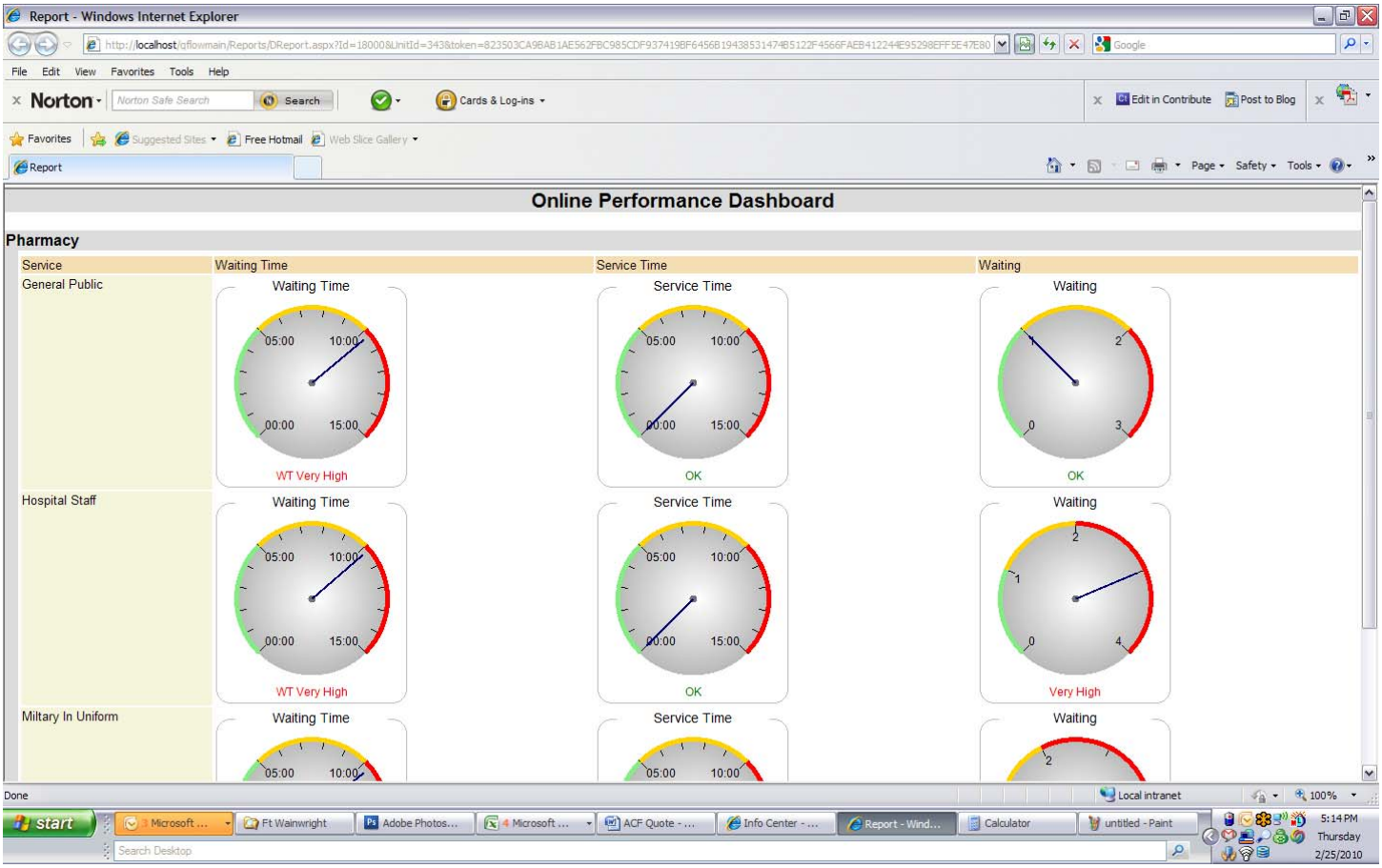
Step 5: Agent Advances Patient to Next Service using Routes



NOTES:

- Agents have on-screen access to wait times for all services
- Patient keeps original ticket – all transfers documented and reportable for “Entry to Exit” patient experience
- Transfers can be “rules based” to ensure proper regimented workflow (including dependencies)
- Transfers can incorporate User Permissions (e.g. Pharmacy Tech can’t escalate patient to LAB STAT queue)
- Transfers can offer Patient Control via simple barcode scanning (e.g. Patient may want to stop at café before proceeding to lab – transfer is performed in EXPECTED status until patient scans ticket to trigger WAITING status)

Step 5: Managers may View Real Time Dashboards and Reports



NOTES:

- All data is centralized on a single database
- Reporting levels are based on permissions and enterprise hierarchy (e.g. Lab Manager can't run reports on Pharmacy, but CIO can run reports across entire organization)
- Includes ACF Canned Reports, plus ad-hoc reporting via MS SQL Server Reporting Services

- Reports are Real Time (i.e. Dashboards) and historical

Additional Report Examples

Queue Dashboard

	Service	Waiting	W.Time
●	CT Scan	2	00:01:18
○	Imaging Appointment	0	00:00:00
●	MRI	2	00:01:17
●	Radiology and Imaging Reception	4	00:01:47
○	STAT	0	00:00:00
●	X-Ray	1	00:01:17

Service Performance Distribution

Service Performance Ext. Percentages

Date Range: 1/1/2008 - 6/2/2008

VISN 06 (Reporting Demo)

Asheville VA Medical Center (LIVE)

Service Name	Served	Abandoning	Total	% Under 5 min	% Under 10 min	% Under 15 min	% Under 20 min	% Under 25 min	% Under 30 min	% Under 35 min	% Under 40 min	% Under 45 min	% Over 45 min
Pharmacist Consultation (A)	7228	715	7943	97.62%	99.42%	99.76%	99.9%	99.94%	99.97%	100%	100%	100%	0%
Primacy Care (B)	3776	403	4179	93.94%	98.09%	99.05%	99.63%	99.97%	99.97%	99.97%	99.97%	100%	0%
Lab (C)	14595	1808	16403	73.02%	82.89%	90.04%	94.5%	96.92%	98.4%	99.12%	99.45%	99.7%	0.3%
Waiting For Prescription (D)	15353	451	15804	16.41%	49.93%	72.73%	86.17%	93.44%	96.5%	98%	98.79%	99.22%	0.78%
Average	10238.0	844.3	11082.3										
Sum	40952.0	3377.0	44329.0										

EQUIPMENT DATA

EQUIPMENT DESCRIPTION: MESSAGING BOARD, QUEUING KIOSK, PHARM WAITING AREA

ITEM SYMBOL: U0037A

MANUFACTURER: ACF TECHNOLOGIES **LOGCAT:** C

EXT DIM: 57.3"H X 16.56"W X 10.5"D **WEIGHT:** 109 LBS.

SEISMIC: NOS

HVAC:

HEAT GAIN (BTU/HR)

VENT SIZE: **CFM:** **S.P.**

REMARKS:

PLUMBING:

HOT WATER	**COLD WATER**	**TREATED WATER**
SIZE:	SIZE:	
PRESSURE:	PRESSURE:	SIZE:
FLOW RATE:	FLOW RATE:	PRESSURE:
TEMP.:		FLOW RATE:

STEAM	**DRAIN**	**RETURN**
SIZE:	SIZE:	PUMPED:
PRESSURE:		GRAVITY:
FLOW RATE:		SIZE:

	SIZE	**TYPE**	**PRESSURE**
OXYGEN:			
AIR:			
VACUUM:			
N20:			
NITROGEN:			
GAS:			

REMARKS:

ELECTRIC:

VOLTAGE: 120 **AMPS:** 8 **WATTS:**

PHASE: 1 **HZ:** 60 **H.P.:**

REMARKS:

SPECIAL REQUIREMENTS:

ITEM REQUIRES A DATA PORT AND A FLOOR DUPLEX RECEPTABLE. REQUIRES CONNECTIVITY TO THE QUEUE SYSTEM.

Designed for style and engineered for high performance!

THE STEALTH SERIES KIOSK

A WOLF IN SHEEP'S CLOTHING

The Stealth Series provides a line of elegant and fully functional interactive kiosks. Sleek in appearance, this kiosk fits into almost any environment and is available in a variety of finishes and colors to creatively enhance any self-service venue.

The Stealth combines a compact footprint and rugged field performance with standard model economy. This series offers generous LCD size, rugged keyboard and trackball options, and is available with a full range of overhead and panel signage to add visual impact to your application. Outdoor model options enable an expanded customer reach to an open-air self-service environment.

One of KIOSK's most popular and widely deployed models, the Stealth features hinged doors and readily accessible components for simple and efficient field maintenance. Custom graphic options emphasize corporate branding and provide optimal visibility for quick consumer adoption.

Inside, this kiosk is designed to accept a wide variety of optional components from biometrics to printers, monitors to card readers. Reliable and tested components.

See reverse for a detailed list of Stealth Series models, specifications and dimensions.

ISO 9001:2000 Certified

KIOSK Information Systems

FOR MORE INFORMATION CALL TOLL FREE: **800.509.5471**
OR VISIT US ONLINE AT **WWW.KIOSK.COM**

THE STEALTH SERIES: MODELS, SPECIFICATIONS AND DIMENSIONS

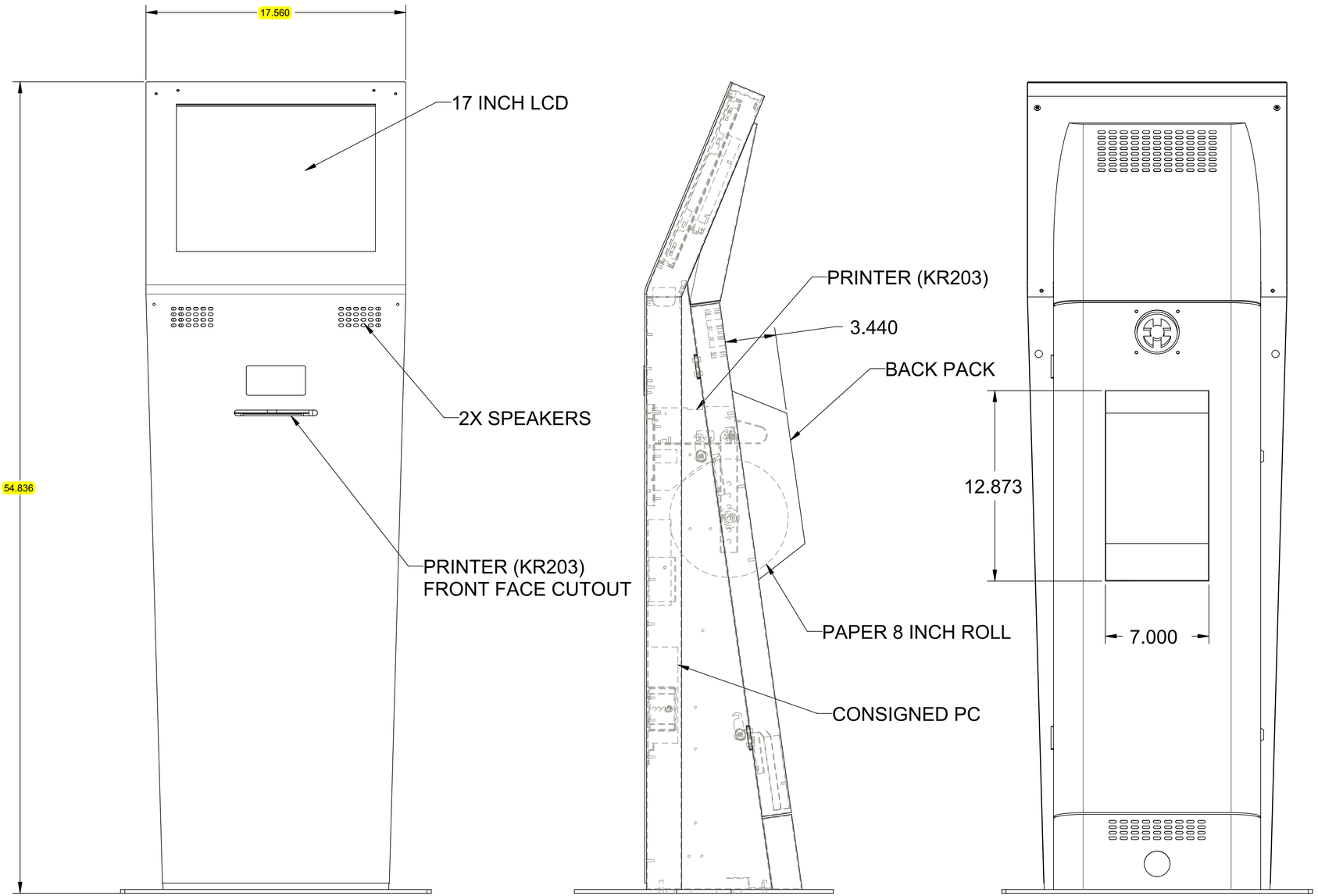
STEALTH SERIES	STANDARD CONFIGURATION:	DIMENSIONS:	OPTIONAL COMPONENTS:
	• Durable Powder Coated Steel Enclosure • Celeron or Pentium Dual Core Computer Genuine Intel Processor • Dual Amplified Speakers • 17" or 19" LCD Display (17" shown L, 19" R) • Touch Screen	• 16.56" Wide • 53.7" Tall • 10.5" Deep • Weight: 105 lbs 109 lbs for 19" LCD Display • Base Plate: 21" W, 17.5" D • Overhead Base Plate: 26" W, 26.1" D	• 19" Overhead Display*
	• Durable Powder Coated Steel Enclosure • Celeron or Pentium Dual Core Computer Genuine Intel Processor • Dual Amplified Speakers • 17" or 19" LCD Display (17" shown L, 19" R) • Rugged Keyboard and Trackball	• 16.56 " Wide • 53.7" Tall • 16.9" Deep • Weight: 113 lbs 117 lbs for 19" LCD Display • Base plate 21" W, 17.5" D • Overhead Base Plate: 26" W, 26.1" D	• 19" Overhead Display* • Touch Screen • 8.5" Wide Thermal printer • 80mm or 112mm Thermal Printer
	• Durable Powder Coated Steel Enclosure • Celeron or Pentium Dual Core Computer Genuine Intel Processor • Dual Amplified Speakers • 17" or 19" LCD Display (17" shown L, 19" R) • Touch Screen	• 16.56" Wide • 53.7" Tall • 10.5" Deep • Weight: 105 lbs 109 lbs for 19" LCD Display • Base Plate: 21" W, 17.5" D • Overhead Base Plate: 26" W, 26.1" D	• ~~19" Overhead Display*~~ • ~~1D / 2D Barcode Reader~~ • ~~MSR Smart Card Reader~~ • ~~8.5" Wide Thermal printer~~ • 80mm or 112mm Thermal Printer • ~~Rugged Keyboard and Trackball~~
 Sheltered Outdoor	• Durable Powder Coated Steel Enclosure • Celeron or Pentium Dual Core Computer Genuine Intel Processor • Dual Amplified Speakers • 17" or 19" Sunlight Readable LCD Display • Rugged Touch Screen • Weather-Seal Protection	• 20.7" Wide • 54" Tall • 13.7" Deep • Weight: 130 lbs • Base Plate: 23.4" W, 19" D	• MSR Smart Card Reader • Receipt Printer • 8.5" Wide Thermal printer
 Sheltered Outdoor	• Durable Powder Coated Steel Enclosure • Celeron or Pentium Dual Core Computer Genuine Intel Processor • Dual Amplified Speakers • 17" or 19" Sunlight Readable LCD Display • Rugged Keyboard and Trackball • Weather-Seal Protection	• 20.7" Wide • 54" Tall • 20" Deep • Weight: 138 lbs • Base Plate: 23.4" W, 19" D	• MSR Smart Card Reader • Receipt Printer • 8.5" Wide Thermal printer

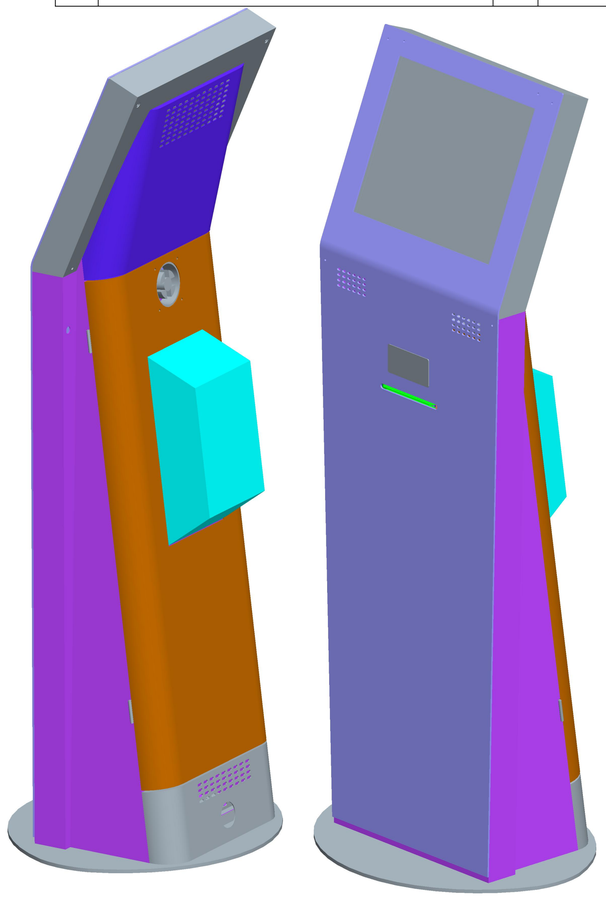
**19" Overhead Height 70.3", Width 17.5," Incremental 25 lbs.*

KIOSK™ Information Systems

ADDRESS: 346 SOUTH ARTHUR AVENUE • LOUISVILLE, CO 80027
PHONE: 303.466.5471 • TOLL-FREE: **1.800.509.5471**
FAX: 303.466.6730 • EMAIL: SALES@KIOSK.COM • WEB: **WWW.KIOSK.COM**

REVISIONS				
REV		DESCRIPTION	ENG	DATE
1.0		K12092	BAM	5-16-11





6. ALL STUDS TO BE INSERTED ALMOST FLUSH AND THEN GROUND AND SANDED FLUSH TO METAL.

5. ALL EDGES TO BE FREE OF SHARP EDGES AND BURRS.

4. TOLERANCES: .005 FEATURE.
.010 FEATURE TO FEATURE.
.015 FEATURE TO BEND.
.020 BEND TO BEND.

3. NEXT ASSEMBLY:

2. FINISH:

1. MATERIAL:

NOTES: UNLESS OTHERWISE STATED.

ALL DIMENSIONS. ARE IN INCHES UNLESS OTHERWISE SPECIFIED. THIS DRAWING IS THE PROPERTY OF KIOSK INFORMATION SYSTEMS, INC.	KIOSK Information Systems	346 S ARTHUR AVE. LOUISVILLE, CO 80027
	PART DESCRIPTION- CONCEPT DWG ACF Tech	
ENGINEER- BAM	PART NUMBER- K12092	REV- 1.0
DATE- 5-16-11		

EQUIPMENT DATA

EQUIPMENT DESCRIPTION: MESSAGING BOARD, MONITOR, QUE SYSTEM

ITEM SYMBOL: U0037B

MANUFACTURER: ACF TECHNOLOGIES **LOGCAT:** C

EXT DIM: 18.9"H X 31.1"W X 5.5"D **WEIGHT:** 35.3

SEISMIC: YES

HVAC:

HEAT GAIN (BTU/HR)

VENT SIZE: **CFM:** **S.P**.

REMARKS:

PLUMBING:

HOT WATER
SIZE:
PRESSURE:
FLOW RATE:
TEMP.:

COLD WATER
SIZE:
PRESSURE:
FLOW RATE:

TREATED WATER
TYPE:
SIZE:
PRESSURE:
FLOW RATE:

STEAM
SIZE:
PRESSURE:
FLOW RATE:

DRAIN
SIZE:

RETURN
PUMPED:
GRAVITY:
SIZE:

	SIZE	TYPE	PRESSURE
OXYGEN:			
AIR:			
VACUUM:			
N20:			
NITROGEN:			
GAS:			

REMARKS:

ELECTRIC:

VOLTAGE: 120 **AMPS:** **WATTS:** 140

PHASE: 1 **HZ:** 60 **H.P.:**

REMARKS:

SPECIAL REQUIREMENTS:

ITEM REQUIRES A CONDUIT CONNECTION BETWEEN DISPLAY AND KEYBOARD. ITEM REQUIRES A WALL RECEPTACLE NEAR THE DISPLAY CABINET. ITEM REQUIRES STRUCTURAL SUPPORT FOR INSTALLATION.

DATE: JULY 13, 2011

NEC MultiSync® Large-Screen LCD Series

32" (31.5" VIS), 40", 46" and 57" LCD displays
ideal for digital signage applications

Airports/flight and baggage information

DSTS Digital Signage Technology Suite

Digital merchandising

Corporate

Also serving markets such as...


Restaurants


Medical


Financial

Theaters


Tradeshows


Broadcasting

NEC

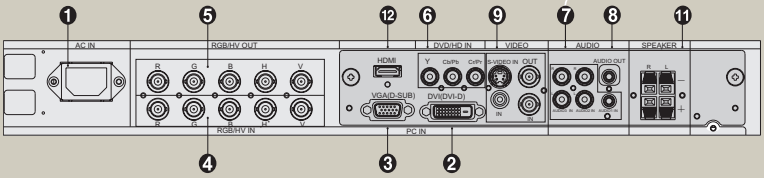
User-friendly, efficient design. As ease of installation is a main concern for the information display market, these displays were designed with light weight in mind, making them simple to transport and install wherever necessary. In addition, NEC is on the forefront of mounting technology as the displays' cabinets were designed to meet currently proposed VESA mounting standards for larger-sized public displays, which will be required of all manufacturers in the future. Their ability to be mounted in either portrait or landscape orientation further adds to your flexibility. With a uniformly thin frame, the displays' designs are ideal for multi-screen construction for virtually seamless video walls.

Simplified control of screen settings. For quick and easy setups, a multitude of presets, including automatic image adjust and automatic input detect, make MultiSync Large-Screen LCDs ready to go right out of the box. Their factory reset feature even allows you to return to the display's original settings if desired.

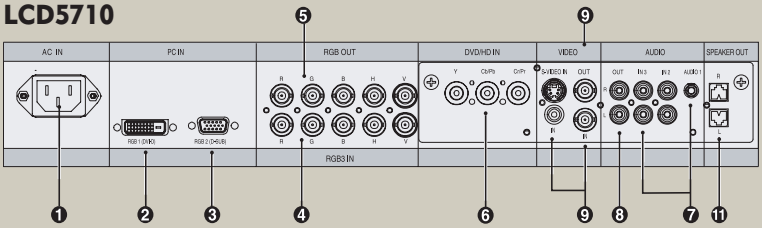
Intelligent power management ensures a smart investment. Utilizing energy-efficient technologies in their design, these displays reduce power consumption and significantly lower your total cost of ownership (TCO). The high-efficiency backlight reduces not only the power consumption but also the heat generation at the front of the screen, while the real-time clock's sleep/wake management scheduler improves energy savings and extends display life. In addition, the MultiSync LCD4020 and LCD4620 have been designed with two thermally controlled fans. Based on default temperature set points (or user-defined settings), sensors continuously monitor the interior temperature of the display. When the set temperature level is reached, the fans cool the display to the desired level. In cases in which the fans are unable to cool down the display, the backlights are dimmed or, as a last resort, the display is automatically shut down.

Figure 1

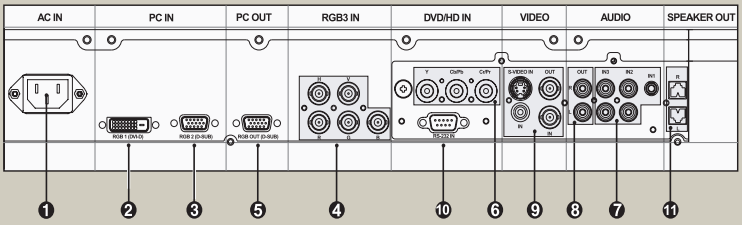
LCD4020/LCD4620

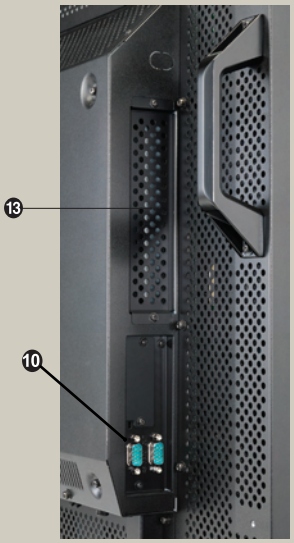


LCD5710



LCD3210





MultiSync Large-Screen LCDs feature a number of input connectors for maximum compatibility. This makes it possible to upgrade adapters or software without having to purchase a new display.

1. ***AC IN connector*** *Connects with the supplied power cord.*
2. ***RGB 1 IN (DVI-D)*** *To input digital RGB signals from a computer* * This connector does not support analog input.*
3. ***RGB 2 IN (mini D-Sub 15 pin)*** *To input analog RGB signals from a personal computer or other RGB equipment.*
4. ***RGB 3 DVD/HD [R, G, B, H, V] (BNC)*** *To input the analog RGB signals or signals from other RGB equipment. A Sync-on-Green signal can be connected to the G connector.*
5. ***RGB OUT connector (mini D-Sub 15 pin)*** *To output the signal from the RGB 2 or 3 IN connector.*
6. ***DVD/HD CONNECTOR (BNC)*** *Connecting equipment such as a DVD player, HDTV device or laser disc player.* (AV)
7. ***AUDIO IN 1,2,3*** *Input audio signal from external equipment such as a computer, VCR or DVD player.* (AV)
8. ***AUDIO OUT*** *Output the audio signal from the selected AUDIO IN source.* (AV)

(AV) *Denotes an AV unit function.*
All AV functions are enabled when the AV unit is installed.

9. ***VIDEO INPUT/OUTPUT CONNECTOR*** (AV)
   VIDEO IN connector (BNC and RCA): *Input a composite video signal. BNC and RCA are not available at the same time. (Use only one input).*
   VIDEO OUT connector (BNC): *Output the composite video signal from the VIDEO IN source.*
   S-VIDEO IN connector (DIN 4 pin): *Input the S-video (Y/C separate signal).*
10. ***EXTERNAL CONTROL (mini D-Sub 9 pin) RS-232C*** *Input signal from control equipment such as a computer.*
    In connector: *Input signal from control equipment such as a computer or the output from a different MultiSync LCD3210/LCD4020/LCD4620*
    LCD4610/LCD4010 only - Out connector: *To connect multiple MultiSync LCD4020/LCD4620*
11. ***EXTERNAL SPEAKER TERMINAL*** *Outputs the audio signal from the selected audio source.* (AV)
12. ***HDMI CONNECTOR*** *To input digital HDMI signals.* (AV)
13. ***EXPANSION SLOT*** *To connect ATSC/NTSC/QAM tuner or other third-party components*

U0037B

Model	LCD3210-BK (LCD3210-BK-IT)	LCD4020-BK-AV (LCD4020-BK-IT)	LCD4620-BK-AV (LCD4620-BK-IT)	LCD5710-BK (LCD5710-BK-IT)
Display				
Viewable Size Image	31.5"	40"	46"	57"
Pixel Pitch	0.511	0.648mm	0.746mm	0.6525mm
Pixels Per Inch	50 @ native resolution	40 @ native resolution	34 @ native resolution	39 @ native resolution
Brightness (typical)	500 cd/m²	500 cd/m²	500 cd/m²	450 cd/m²
Contrast Ratio (typical)	600:1	1200:1	1200:1	900:1
Viewing Angle (typical)	176° Vert., 176° Hor. (88U/88D/88L/88R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10
Response Time (typical)	Rapid Response (18ms)	Rapid Response (16ms)	Rapid Response (16ms)	Rapid Response (16ms)
Display Colors	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million
Active Screen Area (W X H)	760 x 450mm	886.5 x 497.8mm	1018.5 x 574mm	1252.8 x 704.7mm
Bezel Width (L/R, T/B)	45.66mm, 43.372mm	15.5mm, 15.5mm	16.5mm, 17mm	52.5mm, 44mm
Screen Aspect Ratio	16:9	16:9	16:9	16:9
Synchronization Range				
Horizontal	-15.625, 15.744, 31.5-91.1 KHz (Analog, LCD3210-BK)/-31.5-91.1 KHz (Analog, LCD3210-BK-IT)/-31.5-91.1 KHz (Digital)	-15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4020-BK-AV)/-31.5-91.1 KHz (Analog, LCD4020-BK-IT)/-31.5-91.1 KHz (Digital)	-15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4620-BK-AV)/-31.5-91.1 KHz (Analog, LCD4620-BK-IT)/-31.5-91.1 KHz (Digital)	-15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4610-BK)/-31.5-91.1 KHz (Analog, LCD4610-BK-IT)/-31.5-91.1 KHz (Digital)
Vertical	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital
Input Signal				
Video	ANALOG RGB 0.7 Vp-p / 75 Ohms	ANALOG RGB 0.7 Vp-p/75 Ohms, Digital, S-Video, HDMI, Composite, Component, Audio	ANALOG RGB 0.7 Vp-p/75 Ohms, Digital, S-Video, HDMI, Composite, Component, Audio	ANALOG RGB 0.7 Vp-p / 75 Ohms
Sync	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)
Input				
RGB1	DVI-D	DVI-D	DVI-D	DVI-D
RGB2	Analog D-sub	Analog D-sub	Analog D-sub	Analog D-sub
RGB3	Analog BNC	Analog BNC	Analog BNC	Analog BNC
Video 1*	Composite RCA or S-Video	Composite (Shared RCA and BNC), S-Video, HDMI	Composite (Shared RCA and BNC), S-Video, HDMI	Composite RCA or S-Video
Component Video 1 (DVD/HD)*	Component BNC	Component (RCA)	Component (RCA)	Component BNC
Audio*	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA)	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA)
External Control	Internal Speaker: None RS232, DDC/CI	Internal Speaker: None RS232, DDC/CI	Internal Speaker: None RS232, DDC/CI	Internal Speaker: None RS232, DDC/CI
Output				
RGB	Daisychain RGB3	Daisychain BNC - RGB3	Daisychain BNC - RGB3	Daisychain RGB2, RGB3
Video*	Daisychain Video1	Daisychain BNC (Composite) - Video1	Daisychain BNC (Composite) - Video1	Daisychain Video1
Audio*	Daisychain - Selected Audio in	Daisychain - Mini Pin Jack	Daisychain - Mini Pin Jack	Daisychain - Selected Audio in
Control	RS232 for multiple monitor control	RS232 for multiple monitor control	RS232 for multiple monitor control	RS232 for multiple monitor control
Audio Amplifier*	7W x 7W	15W x 15W	15W x 15W	7W x 7W
Resolutions Supported	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1280 x 1024 @ 50-85 Hz 1600 x 1200 @ 60 Hz (Compressed) 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i (not available on LCD3210-BK-IT)	640 x 400 @ 56.2 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 50-85 Hz 800 x 600 @ 50-85Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1152 x 870 1600 x 1200 @ 50-85 Hz 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 @ 60Hz (compressed) NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i, 1080p (not available on LCD4020-BK-IT)	640 x 400 @ 56.2 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 50-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1152 x 870 1600 x 1200 @ 50-85 Hz 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 @ 60 Hz (compressed) NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i, 1080p (not available on LCD4620-BK-IT)	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1280 x 1024 @ 50-85 Hz 1600 x 1200 @ 60 Hz (Compressed) 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 @ 50-60 Hz NTSC/PAL, SECAM, 4.43NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i (not available on LCD5710-BK-IT), 1080p
Native Resolution	1366 x 768	1366 x 768	1366 x 768	1920 x 1080
Recommended Resolution	1360 x 768 or 1366 x 768	1360 x 768 or 1366 x 768	1360 x 768 or 1366 x 768	1920 x 1080
Additional Features	Power Management, Plug and Play (DDC/CI, DDC2B), PIP (Remote), Multi-level Zoom, FullScan, TileMatrix, TileComp, Screen Saver, Rapid Response, Video Ready (no tuner), Infrared remote control included, removeable stand included	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color control, multi-level zoom, FullScan, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), OmniColor (NCM), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-compliant	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color control, multi-level zoom, FullScan, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), OmniColor (NCM), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-compliant	Power Management, Plug and Play (DDC/CI, DDC2B), PIP (Remote), Multi-level Zoom, FullScan, 6-axis color, CableComp, TileMatrix, TileComp, Screen Saver, Rapid Response, Video Ready (no tuner), Infrared remote control included
Touch-Capable	Designed for integration	Designed for integration	Designed for integration	Designed for integration
Voltage Rating	AC 100-120V / AC 220-240V @ 50/60 Hz	AC 100-120V / AC 220-240V @ 50/60 Hz	AC 100-120V / AC 220-240V @ 50/60 Hz	AC 100-120V / AC 220-240V @ 50/60 Hz
Power Consumption (typical)				
On	140W	240W	240W	350W
Power Savings Mode	< 5W	< 5W	< 5W	< 5W
Dimensions (WxHxD)				
Net (with stand)	31.1 x 20.1 x 7.9 in./789 x 510.3 x 200mm	36.2 x 22.4 x 13 in./919.5 x 567 x 330mm	41.6 x 25.4 x 13.8 in. /1056.6 x 645.2 x 350.3mm	53.5 x 32.5 x 19.4 in. /1357.8 x 825.1 x 492mm
Net (without stand)	31.1 x 18.9 x 5.5 in./789 x 479 x 140mm	36.2 x 21 x 5.5 in./919.5 x 533.4 x 140mm	41.6 x 24 x 5.5 in./1056.6 x 609.6 x 140mm	53.5 x 31.2 x 6.5 in./1357.8 x 792.8 x 164mm
Net Weight				
(with stand)	37.5 lbs./17 kg	68.6 lbs. / 31.1 kg	83.6 lbs. / 37.9 kg	138.9 lbs. / 63 kg
(without stand)	35.3 lbs./16 kg	64.8 lbs. / 29.4 kg	79.6 lbs. / 36.1 kg	130.1 lbs. / 59 kg
VESA Hole Configuration Specifications	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)
Environmental Conditions				
Operating Temperature	5-40° C/41-104° F	5-40° C/41-104° F	5-40° C/41-104° F	5-40° C/41-104° F
Operating Humidity	20-80%	10-80%	10-80%	20-80%
Operating Altitude	4200m/13,780 ft.	4200m/13,780 ft.	4200m/13,780 ft.	4200m/13,780 ft.
Storage Temperature	-20-60° C/-4-140° F	-20-60° C/-4-140° F	-20-60° C/-4-140° F	-20-60° C/-4-140° F
Storage Humidity	10-90%	10-90%	10-90%	10-90%
Storage Altitude	12,000m/39,370 ft.	12,000m/39,370 ft.	12,000m/39,370 ft.	12,000m/39,370 ft.
Regulatory Approvals	UL 1950/CSA C22.2 No. 950/TUV-GS/EN60950/FCC-B/DOC-B/EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/TUV-GS/EN60950/FCC-B/DOC-B/EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/TUV-GS/EN60950/FCC-B/DOC-B/EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/TUV-GS/EN60950/FCC-B/DOC-B/EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE
Included Accessories	AC power cord,user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stands	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stands	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stands	AC power cord, user manual, wireless remote control, batteries, 15-pin RGB cable, CD-ROM
Optional Accessories	External speakers	External speakers, digital tuner	External speakers, digital tuner	External speakers
Limited Warranty	3 year parts and labor, including backlight	3 year parts and labor, including backlight	3 year parts and labor, including backlight	3 year parts and labor, including backlight
Technical Support	24 hours/7 days	24 hours/7 days	24 hours/7 days	

* not available on IT models

ENERGY STAR

NEC Display Solutions
500 Park Boulevard, Suite 1100
Itasca, IL 60143
866-NEC-MORE

NEC