# A new solution for inventory management







**Inventory Visibility and So Much More** 

## Inventory management challenges the best minds.

How can we reduce the costs related to customer returns? How can we make sure our manufacturing lines never shut-down waiting for a part? How can we keep accurate inventory without shutting-down to do physical inventory? How can we immediately know that we need to manufacture a part when our stock was just depleted by a large order? Has our supplier shipped our order? How can we quickly locate a part that has not been shipped in years? How can we identify our most active bins and reduce the amount of time needed for each bin visit? How can we see our customer's inventory levels from our headquarters so they do not fall below their minimum stocking level? How can we find bins that contain parts that do not belong in those bins? How can we reduce the stress level of our employees who are having a hard time picking orders quickly? How can we quickly identify theft? How can we stop our salesman from removing samples and not recording the transaction? How can we speed the creation of a PO when we are running low? How do we avoid contractual penalties caused by our VMI program allowing our customer to run-out? How do we know to assess a penalty when our VMI vendor has allowed us to run-out? How can we reduce the number of POs created manually?

Organizations that make inefficient use of their resources are going to find themselves struggling to hold on to market share and business viability.

If you have asked yourself some of the same questions, you owe it to yourself to look at DigitalBins.com

DigitalBins.com is a unique and powerful inventory management system that transforms dormant bin locations into computer addressable piece-counting scales and brilliant LED light clusters that will manage every inventory transaction and record every change.

The scales are available in a variety of sizes and sensitivities and accommodate standard bin sizes. The LED clusters contain six individually colored LEDs with special optical properties making them visible from far distances and at severe viewing angles.

The DigitalBins.com Software Application will make your bins come to life!

## How fast is it?

DigitalBins.com will count 100 bin locations per second. There is no limit to the number of bin locations it will monitor.

Wow!

## DigitalBins.com Application Software

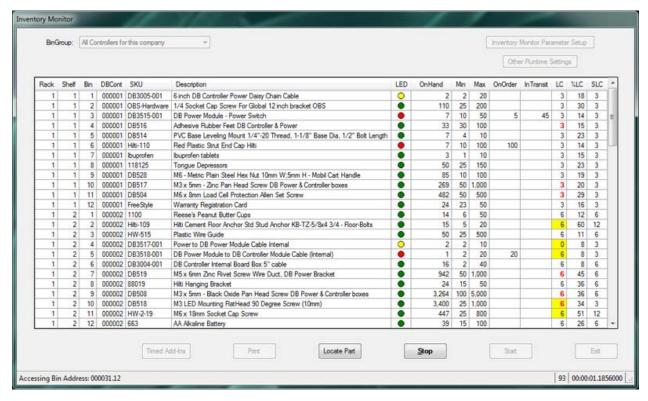
The DigitalBins.com Application Software is very powerful. It consists of five distinct program functions.

- Inventory Monitor
- Part Locator
- Picking & Receiving
- Watch Dog
- Foreign Object Detection



### **Inventory Monitor**

The Inventory Monitor continuously monitors every bin in the Bin Group selected. As it cycles, it recalculates and instantaneous updates the grid below.



The Inventory Monitor can easily be configured to light an LED representing the inventory level present in each bin. For example, the Inventory Monitor can light the Green LED when the inventory level is above the assigned min, Yellow when is equal to the min and Red when it falls below the min. The image to the right shows bins containing the three levels defined.



Or, the Inventory Monitor can be instructed to light the Blue LED under bins that contain 75% of the max defined, Orange to indicate 50%, White to indicate 25% and Red to indicate a re-order.

The grid above displays the inventory level LED lit under each bin. The grid can be sorted so all bins that need replenishment attention appear at the top. By clicking on any row in the grid, the user is taken to bin maintenance (see right) where min(s) may be redefined easily, specifications may be viewed and bin detail maintenance is done.



Imagine being able to visually spot bins in need of replenishment.

The OnOrder and InTransit columns of the grid display optionally and may be populated by your MRP system or your supplier's to provide a more complete picture.

The Inventory Monitor includes timed-add-in functions that may be activated and set to run on your schedule. They include:

- Transmit Data
- Email Purchase Orders
- Light Messaging
- Email Replenishment Reports
- Record Inventory Transactions
- Replenishment Violations

### > Transmit Data

The Inventory Monitor will electronically transmit all data related to every bin including the inventory levels. It is capable of sending the data via email, FTP or it will write directly to a network drive. It will also execute an SQL statement entered by you. Whichever method is chosen, the information sent by DigitalBins.com can immediately be processed by your host application into sales orders, purchase orders, transfer orders, etc.

The transmitted data can also be used to create web visibility on the internet or an intranet.

You can view inventory levels for any company /warehouse using your PC, iPad or cell phone browser.

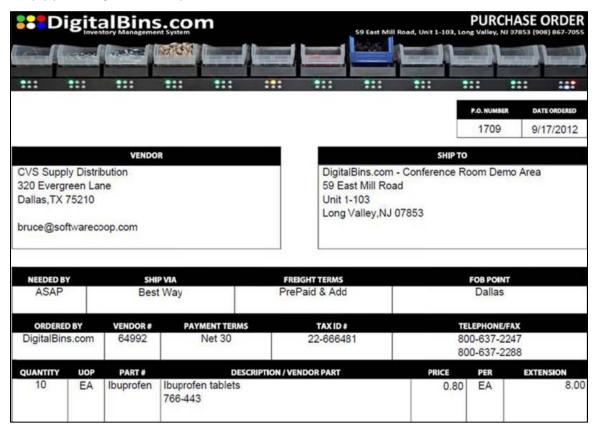


Imagine being able to see inventory levels from anywhere in the world.



#### Email Purchase Orders

The Inventory Monitor will email. pdf purchase orders to up-to five designated email recipients when bin levels fall below the minimum level. Customize the PO banner, include PO terms and conditions and play an alerting .wav message by simply providing a windows path to each.



#### Light Messaging



Light messages are visual bin alerts. The monitor will send light messages to a bin based upon flag settings in our database or the contents of a .txt file. Either may be updated by internal or external processes. Your vendor may light the orange LED when an open PO for that bin is entered or the white LED when the order is picked or the blue LED when it has shipped. You may also light the white LED if you have customer backorders for that bin or if the bin contains special material or if the product should not be picked because it is contaminated. Light messaging

is intended to instantaneously provide a viewer with important information about the contents of the bin. Each customer creates an LED dialogue for their viewers.

In this example above, the bin is at the minimum stocking level (yellow LED) and the product has reached its expiration date and should not be shipped (orange LED)

Imagine knowing that a replenishment order has been shipped by your supplier or that a bin contains recalled or contaminated goods.

### **Email Replenishment Reports**

The Inventory Monitor will email .pdf replenishment reports to up-to five designated email recipients when bins fall below the minimum level. This document can be used as a picking ticket for a stocking warehouse and will ensure that bins are replenished on time. The report can include images of each part needing replenishment and the process can play an alerting .wav message by simply providing a windows path to each.



COMPANY	WAREHOUSE	DOCUMENT	DATE
DigitalBins.com	Conference Room	Replenishment	4/30/2013

MRP BIN	RACK	SHELF	BIN#	DESCRIPTION - SKU	ОН	MIN	MAX	REQ	IMAGE
X81-941	1	1	000001.1	6 inch DB Controller Power Daisy Chain Cable [DB3005-001]	1	2	20	19	••
DB1500-001	1	3	000003.3	DB Controller Board [DB1500-001]	2	2	6	4	复图
7.3	4	1	000007.3	Heavy Duty Swivel Plate Caster 8" Mold-On Rubber Wheel 600 Lb. [Global-115]	0	2	3	3	9
DB1120-002	4	1	000007.4	Strut Spacer - 4 pack [DB1120-002]	5	24	75	70	
4.6	4	2	000006.4	Strut Shelf-Bracket [DB1100-002]	2	10	30	28	Ľ

## **Record Inventory Transactions**

The Inventory Monitor will record every inventory transaction instantly. This data may be used for historical purposes, to update other systems or to generate reports.

### > Replenishment Violations

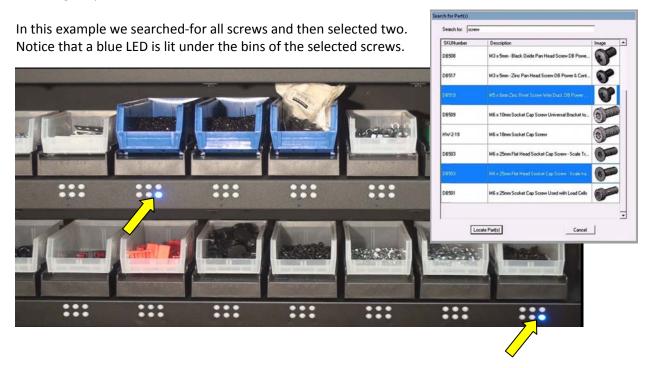
This is a handy tool if your vendor has contractual obligations to maintain bin levels. Let's say you set the timer for 48 hours; If your vendor has left you below minimum for 48 hours, a blue LED will be lit and an email sent to up-to five designated email recipients. In this example to the right, the bin is below minimum (red LED), the vendor has received our purchase order (orange LED) and we have been below minimum for more than 48 hours.



The Inventory Monitor makes traditional inventory counting obsolete! It makes data collecting with hand-held PDA devices obsolete! The Inventory Monitor will save money in ways that are easily quantifiable and even more in ways that may be more difficult to quantify such as increased customer satisfaction and reduced stress on employees.

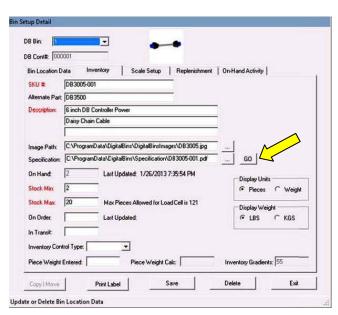
#### **Part Locator**

Part Locator will make it easy to locate SKUs. Simply enter an SKU number, scan the bar-code on the product or use the search-for feature pictured below. The Part Locator will light a brilliant LED under the bin(s). This will make picking and receiving simple and error free.



The Part Locator will also process all of the timed-add-ins discussed above.

The Part Locator will allow you to go directly to the bin detail maintenance program where you can make changes to the data, review purchasing details, etc. You may also see the detailed specifications of the part if a .pdf or .doc file has been placed in the



specifications directory or if a hyperlink to a web page has been copied into the specifications box; simply clicking on the go button.

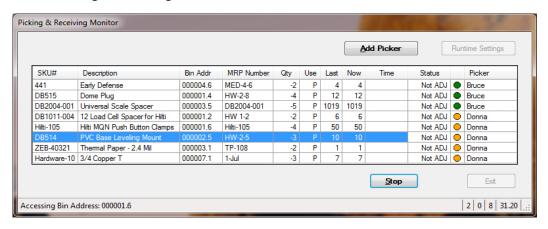


### **Picking & Receiving**

This program revolutionizes the way inventory is picked and received.

The process begins when the picker choses an LED color from the 6 available colors (Green, Amber, Red, Orange, White and Blue). In our example, Donna selected Orange. Next Donna selects a picking ticket to pick from a list of available tickets. The Picking & Receiving program immediately reads a file prepared by the host computer and the monitor below fills with information about Donna's pick. A small Orange led is shown next to her name in the monitor and the Orange LED will light under each bin Donna is to visit.





As Donna begins to pick, the Orange LED under the bin will blink slowly if she has not picked or received enough and it will blink rapidly if she picks or receives too many.

When Donna has picked or received the correct quantity from a bin, all 6 LEDs under the bin will blink rapidly. When Donna is finished she will simply close the ticket which will send all relevant information back to the host computer, turn-off all bin LEDs related to her pick and remove the information in the monitor above.



The picking and receiving program will **simultaneously** guide up-to six operators through the picking / replenishment process. It will immediately verify that the appropriate bins have been accessed and the quantities are correct. The program records how long it takes to go from bin to bin and how long it takes to process the entire ticket. This information can be valuable in terms of measuring productivity and may indicate that for optimum picking efficiency that the physical bin locations be moved so all fast moving parts remain together.

It is virtually impossible to ship the wrong SKU or the wrong quantity to your customer. It is virtually impossible to restock bins with incorrect parts or quantities from your vendor.

Your customers will appreciate always receiving what they ordered, your inventory will be managed at standards never before possible and your employees will appreciate how easy it is to pick and receive goods with DigitalBins.

How much will you save by eliminating credit memos and the costs associated with re-shipping.

### Watch Dog

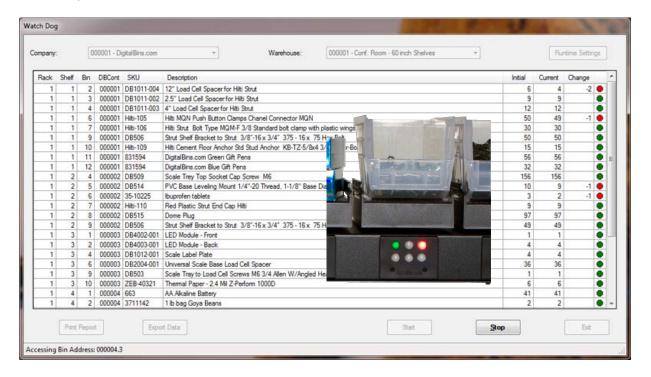
This program was designed to continuously monitor all bins during a period where you expect no inventory activity, let's say between 6:00 PM - 5:00 AM.

If a bin quantity changes, the Watch Dog Monitor records the change, lights the red LED and immediately sends an email notification.

The Watch Dog Monitor will also immediately play a computer .wav file of your choice. If the computer speakers are cranked-up, the sound of a vicious watch dog barking should convince any intruder to leave quickly.

Get me out of here!

If there was a theft, all of the items removed will appear on the Watch Dog report including a time-stamp. This report identifies your loss for insurance purposes. If you have surveillance equipment, the time-stamp will tell you exactly where to position the video.



In the example above, the WatchDog monitor displays the quantity taken by our thief in the "Change" column and replaces a green led with a red led.

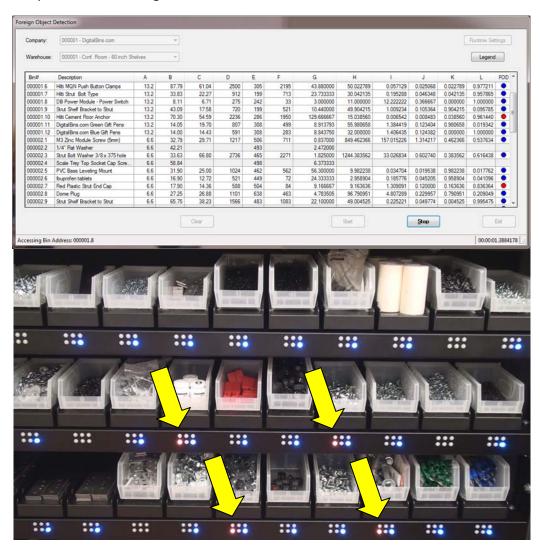
The Watch Dog monitor may also deter a salesman from taking samples after hours.

### **Foreign Object Detection (FOD)**

The Foreign Object Detection (FOD) monitor will help to insure that the contents of a bin belong in that bin. Using a sophisticated sensitivity algorithm, the FOD monitor will light a red LED under any bin mathematically suspected of containing a foreign object. When the foreign object is removed, the LED under the bin will be turned-off.

Nice!

Below is the FOD monitor and corresponding DigitalBins shelves. A blue LED indicates the bin is being monitored for FOD and a red LED indicates that the bin is suspected of containing a FOD.



Addressing FOD on a daily basis will prevent manufacturing & distribution errors. This could easily translate into significant savings in terms of manufacturing liability & customer relations.

There is no easier way to find foreign object in your bins. There is no more efficient or focused foreign object detection software.

### **User Documentation**

The DigitalBins.com Application is well documented and is delivered with user friendly HELP.

## Warranty

There is a 90 day warranty on the DigitalBins.com Application

## **Software Support Agreement**

DigitalBins offers an extended warranty agreement that will entitle you to many benefits including bug fixes, new functionality and priority response time. You will be notified when a new version of the software is available via email. You may simply download the software from our Customers WEB page when it is convenient for you. Release notes will accompany every new version of the software.

## **Phone Support**

Technical assistance is available from 8:00 am to 6:00 pm ET.

### **Custom Software Modifications**

Custom software modifications are available on a T&M or per contract basis.

## Write your own application

Write your own application using our simple to follow programming guide.



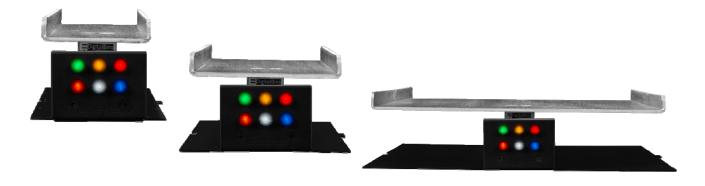
## Tell me about the hardware.

There are three hardware options, each having advantages depending upon a customer's environment and intended use. You may choose one option over another or you may mix and match. All DigitalBins hardware offerings are compatible with each other and use the same powerful software.

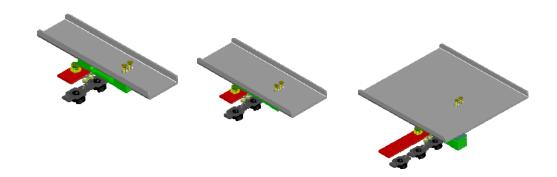
## **Enclosed Shelf**



## **Individual Components**



## **Strut Kit**



## **Enclosed Shelf Options**



A DigitalBins.com enclosed shelf is 2"-h x 60'-w x 12"-d.

Shelves may have (12) 2.9" scales, (12) 4" scales, (4) 11" scales, (2) 28" scales or (1) 56" scale.



4 - 11" scales

Sensor capacities are 3kg (6.6-lbs.), 6kg (13.2-lbs.), 12kg (26.4-lbs.), 15kg (33-lbs.) or 30kg (66-lbs.).



2 - 28" scales

You may also combine cells as in the shelf above which has 4 - 15kg cells under the left scale giving it a total capacity of 60kg.



1 - 56" scales

There are currently four hanger / bracket options for DigitalBins shelves.

**Strut Mounting Brackets** will allow each shelf to be easily slid into a rack constructed using 1 5/8" Hilti, UniStrut, etc., strut. Convenient spacers are included with the Strut Mounting Brackets to make it easy to space shelves in the rack. Strut mounting will protect daisy-chaining wires from unwanted factors such as vandalism and rodents.



**Angle Iron Mounting Brackets** will allow each shelf to be mounted to commonly available and inexpensive posts. Once installed, each shelf will have 16 bolting points making this racking method extremely sturdy. The stamped eyelets in each post make it easy to line-up and level each shelf.



**The Shelf Closure Bracket** allows a 60" DigitalBins shelf to sit flat on any surface including existing shelves and tabletops.

Each Shelf Closure Bracket includes two rubber leveling feet and wire management openings.





**Mobile Cart Mounting Brackets** will allow each shelf to be mounted to a commonly available and sturdy mobile cart. The cart is 5'-h x 5'-w x 2'-d and uses the same angle iron posts as above.

The Cart Mounting Bracket has separation notches allowing the shelves to be staggered

helping with accessibility and weight distribution.

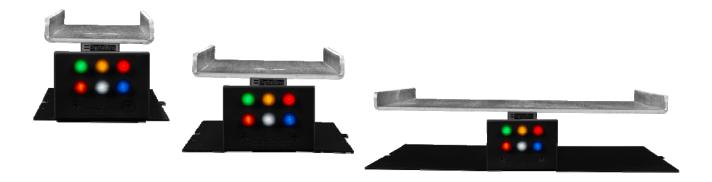
The cart is rated for 1,200 lbs.





## **Individual Component Options**

Individual Components are a good choice when you have adequate existing shelves or cabinets.



DigitalBins individual scales are available in three standard widths; 2.9", 4.0" & 11.0".

Each scale may be purchased with sensor capacities of 3kg (6.6-lbs.), 6kg (13.2-lbs.), 12kg (26.4-lbs.),

15kg (33-lbs.) or 30kg (66-lbs.). Custom scales/bin sizes are available to accommodate any need up-to 10,000 lb. pallet scales.

You can mix and match scale widths and sensor capacities to fit your specific needs.

Any existing shelf, cabinet or enclosure can be used with individual components and the DigitalBins technology.



Electronics, racks, strut, cabinets, etc. are purchased separately.



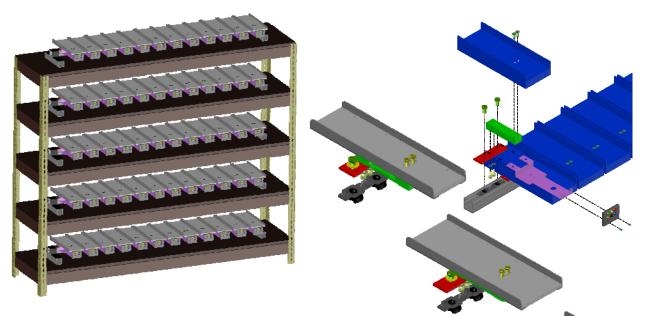
## **Strut Kit Options**

The strut kit will allow you to build our lowest price solution from a kit using standard 1 5/8" Hilti, UniStrut, etc. strut.

Each scale includes a precise mounting - spacing bracket and all hardware. This option is limited to 3 & 6KG sensors.



The kit is easy to build and allows for maximum flexibility. You can hang it from a wall, build a strut rack or just place it on existing shelving.



DigitalBins scales are available in three standard widths; 2.9", 4.0" & 11.0".

Scale using the strut kit technology are limited to sensor capacities of 3kg (6.6-lbs.) or 6kg (13.2-lbs.). Custom scales/bin sizes are available.

You can mix and match scale widths and sensor capacities to fit your specific needs

Each scale may be purchased with an LED module or upgraded afterwards.

Electronics, racks, strut, etc. are purchased separately.

## How do I know what sensor to choose for a particular SKU?

Selecting the optimum sensor for a given SKU requires planning. You will need to know the maximum that bin will weigh at any time. Use the chart below to decide which sensor to use. If a sensor is over-loaded it will be damaged. If the sensor is under-loaded optimum accuracy will not be realized.

Each scale may be purchased with sensor maximum capacities of 3kg (6.6-lbs.), 6kg (13.2-lbs.), 12kg (26.4-lbs.), 15kg (33-lbs.) & 30kg (66-lbs.).

Bin Weight Max(lbs)	Sensor Size
5.00	3kg
10.00	6kg
20.00	12kg
25.00	15kg
50.00	30kg

Items that seem to be identical can be slightly different in weight. Many people think that because the pieces they are counting look the same and perform the same function and have the same part number that they weigh the same. That is not always the case. This is why you need to take a wide sample in order to get an accurate average weight representation of the parts you are counting. Several manufacturers have mentioned in the past that a good rule of thumb when it comes to sampling is to use 100 pieces to yield the best counts.

## What drives the hardware?

#### **DB Controller**

At the heart of the DigitalBins.com hardware solution is a DB Controller. The DB Controller processes commands instructing it to return sensor information and/or turn LEDs on or off. Each DB Controller is capable of addressing twelve scales and twelve LED modules (6 LEDs each). There is no limit to the number of DB Controllers that may be daisy-chained.



Each Enclosed Shelf contains a built-in DB Controller. The Individual Components and Strut Kits require an external DB controller.

#### **DB Power Module**

The DB Power Module's two amp, 115V power supply is capable of providing adequate power to **10** DB Controllers with 12 scales and 12 LED modules connected or **30** DB Controllers with only scales connected. Adequate surge protection is advised.



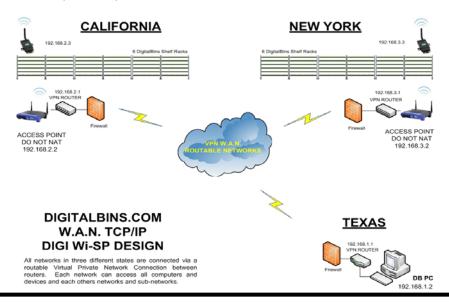
## How do I connect everything?

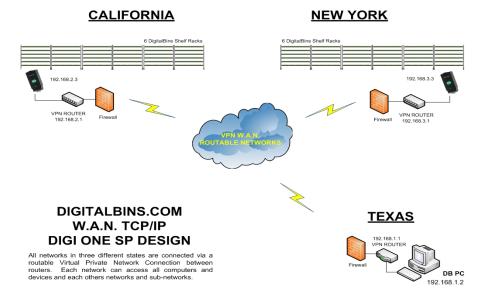
#### **Data**

DigitalBins.com software will bi-directionally communicate via PC and

TCP/IP wired or wireless	
USB COM	

The selected device is plugged into the first DB Controller's **Data In** port (see above). A standard Ethernet cable daisy-chains the **Data Out** port of the DB Controller to the **Data In** port of the next DB controller and on and on. Each DB Controller boosts the data signal so there is no limit to the number of DB Controllers that may be daisy-chained.



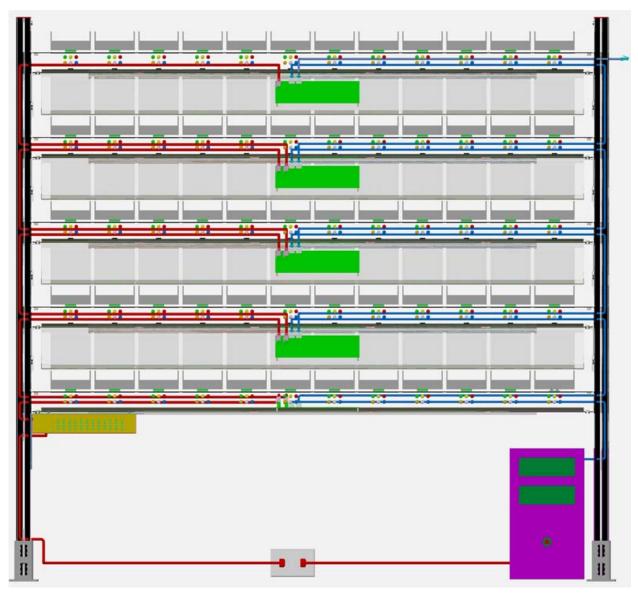


#### **Power**

A DB Power Module plugs in with a standard 115V receptacle. Power is then supplied to the DB Controller by plugging one end of part number DB3005-001(DB Controller Power Daisy Chain Cable) into the DB Power Module and the other end into the **Power In** connector on the DB Controller. To provide power to the next controller simply plug one end of a DB Controller Power Daisy Chain Cable into the **Power Out** of one DB Controller and into the Power In of the next and on and on.



Red interconnect wires are power Blue interconnect wires are RJ45 data



## DigitalBins Equipment Limitations (Wireless or Wired TCP/IP

12 Scales and LED modules per DB Controller (Group A) 10 of Group A per DB Power Module (Group B) 血血血血血血血血血血 Unlimited Group B per Communications Device (Group C) Unlimited Group C per PC

## Warranty

There is a 90 day warranty on all parts.

## **Hardware Support**

DigitalBins offers a next day replacement extended warranty for every part.



## **Spare Parts**

Spare parts are available upon request.

### **Features**

- Inventory Visibility at each bin
- Inventory Visibility from anywhere in the world
- Light Messaging
- Audible Messaging
- Instantly find any SKU
- Interface bi-directionally with your MRP system
- Email purchase orders automatically
- Email replenishment reports on your schedule
- Multi-Company & Multi-Warehouse capable
- Identify theft or shrinkage the day of the incident
- Eliminate costly physical inventory shut-downs
- Eliminate frequent cycle counting
- Dramatically simplify the picking and receiving processes
- Identify and locate foreign objects F.O.D.
- Monitor picking and receiving travel time
- Import and export data easily
- Remote Warehouse Inventory Control
- Integrated RFID Mantrap Crib Security
- Integrated RFID Secure and Semi-Secure Cabinets

### **Automates**

- Traditional Distribution and Inventory Management
- Vendor Managed Inventory
- Just-in-time Manufacturing
- Just-in-time Distribution
- Just-in-time Replenishment Including Holiday / Seasonal

## **Special System Features**

- DigitalBins.com hardware requires no battery back-up
- DigitalBins will count 100 bin locations per second

## Improves your bottom line

You owe it to yourself and your company to evaluate this revolutionary new Inventory Management System

www.digitalbins.com

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