

# Chapter 3.27: Setting Up Barcodes

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## Introduction

Barcodes can be used in a number of different ways with the Route Manager software. The purpose of this guide is to demonstrate the various ways that you can derive greater efficiency with you operations.

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## Do I even need to use bar codes?

There are several areas where bar codes can be extremely helpful. Likewise, there are a number of industries where it does not make much sense to use them. Here are some thoughts on ways to use bar codes.

### Areas that show good ROI using bar codes

Many times, using bar codes can make sense. Here are a few scenarios:

1. You have many hundreds of products. This is true is you sell coffee, any lines of tea products; do wholesale distribution or something similar.
2. Your products have bar codes on them from your supplier.
3. You have one or more routes that do not nothing but process equipment. This may include delivering, exchanging, servicing, etc.
4. You refurbish equipment in your warehouse and most of your equipment has bar codes on them.

## Areas that do not show much improvement using bar codes

The following represents situations that do not show a great ROI by using bar codes. This would include:

1. Scanning product bar codes (UPC) when you have a couple of dozen products or less. If this is the case, it is quicker to pick the product from a list. This is true if you sell ice, propane; pick up recycled oils, etc.
2. Very few, if any, of the products you sell have UPC bar codes on them when you buy them.
3. You do not deal with equipment or the equipment that you service does not have bar codes on them.

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## Bar code areas

There are several key areas that you can use bar codes. These include:

1. When scanning equipment.
2. When looking up products.
3. To identify that you are at the correct stop.
4. Adding products to desktop invoices (for Point-of-Sale use).
5. Adding products to Delivery Orders.

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## How to set up barcodes for equipment

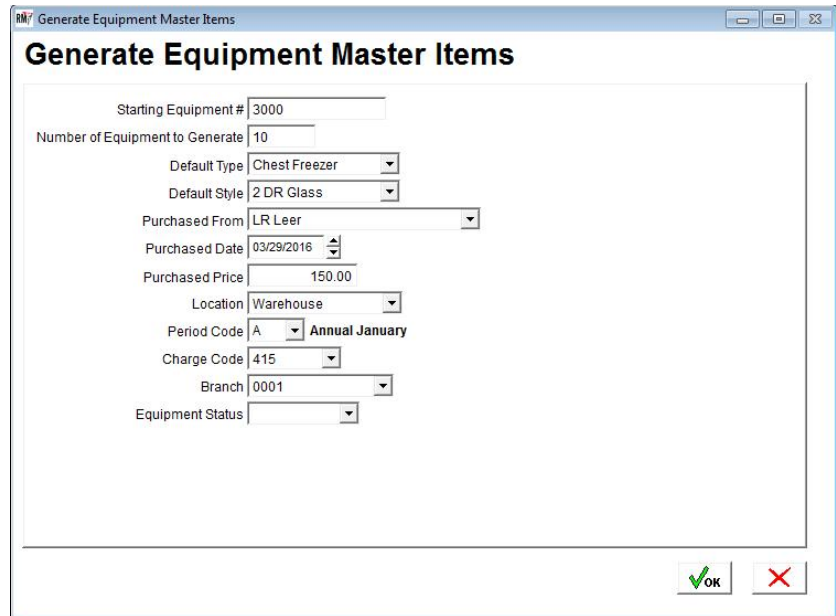
Many times you will purchase equipment with bar codes already on them. This may apply to merchandisers, water coolers, display racks, steel tanks, cages, etc. – all depending on your industry.

You may also choose to put your own asset tags on the equipment. This can clearly identify your property to others and let you use bar code scanning, too. There is a separate chapter on asset tags in the Supplemental Manual. It is called *Chapter 4.31 Buying Asset Tags for Your Equipment*.

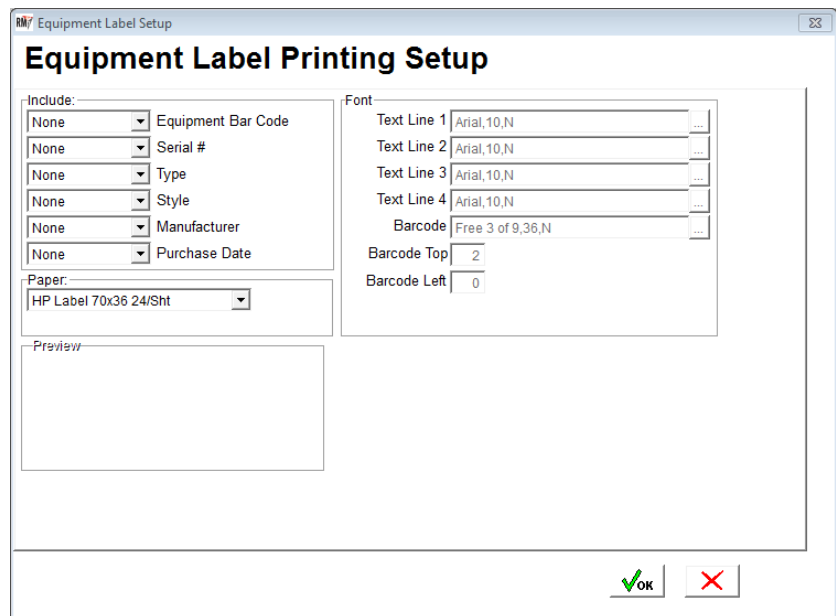
If you choose to make your own bar code labels, you may do so by going to *Lists > Equipment > Equipment Label Generator*. This is a dual purpose feature.

1. It will actually generate equipment entries into your master file.
2. It will generate bar code labels to match what you create as piece of equipment.

Here is the screen as a reference for you.



There is also a setup screen so you can define how you want your labels to look. This screen can be found under *Lists > Equipment > Equipment Label Printing Setup*. On this screen you can define what will be printed on the label, and in what order they will be printed. A preview of the barcode will be shown for easy reference.

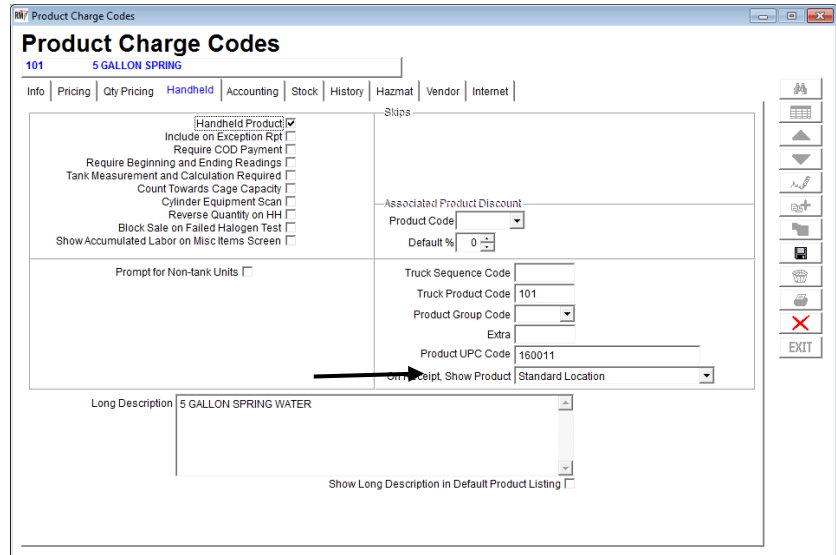


On this screen, you have flexibility to set up the format and position of various equipment elements.

## How to set up bar codes for products

In order to scan product bar codes, you will need to enter them with each product in your system. This can

be done by going to the product file. Lists > Product information > Product lists. Then, go to the handheld tab. See the screen below for the product UPC code.



## How to use bar codes on your handheld

There are a number of ways that you can use bar codes on your handheld. Starting out as you load your truck, you can either scan products as you load them or equipment that you are removing from the warehouse.

To do this, you will need a handheld that is capable of scanning bar codes.

### Handheld scanners

While you are in the field, there are several ways that you can scan bar codes using your handheld devices:

1. As you load your truck
2. As you arrive at a stop
3. If you want to select products to sell
4. As you service, swap, remove or add equipment.

Here are screens to show you how this works.

### ***Load or Unloading a Truck***


After choosing your bay during either the Load or Unload Truck area, and reaching the Product List screen, you can then start scanning in products.

 Product List for Bay 1

Code	Description	Start	Add
160	4-7# Bags Ice	0	8
080	8# Bag Ice	0	5
050	5# Bag Ice	0	0
140	Refresh Premium Beverage Ice	0	0
150	7lb Bag Ice	0	0
175	6-7# Bags	0	0
190	40# Ice	0	0
205	5 Gal Spring Water	0	0
20CKF	20 Count Fog Lifter K-Cup	0	0
20CKP	20 Count Pacific K-Cup	0	0
20KSF	20 Count San Francisco K-Cup	0	0
210	16oz Bottle Water Case	0	0
215	1 Gal Water 3 ct	0	0
217	6 One gal water	0	0
225	Dry Ice Pellet	0	0
226	Dry Ice Rice	0	0
250	Donation	0	0
3GW	3 Gal Water	0	0



Simply press the “Scan” button on your handheld device (Barcode Scanning and the button to enable/disable it will vary by device. Generally if barcode scanning is supported there will be a button located on either the left or right side of the units.). If the upc number the scanner found matches what was set in Route Manager, the Product screen should appear, similar to the one below. You can then select the quantity to load on the truck and select the Green Arrow to save it.

 Enter Product Quantity

Enter the quantity for:  
16oz Bottle Water Case  
Current Quantity: 0

1	2	3	← x
4	5	6	Done
7	8	9	.-
	0		⌂

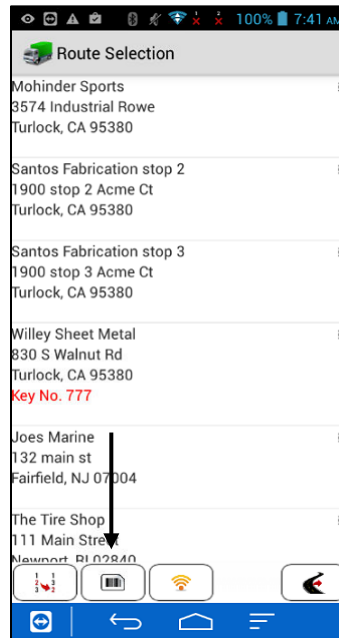
If the barcode the scanner picked up does not match up with a product in Route Manager, then you will

receive a warning indicating the product was not found.

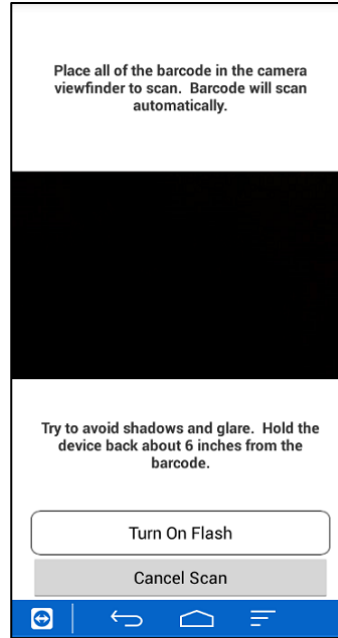
You will either need to adjust (or add) the Bar Code to your product in Route Manager, or in some cases, you may need to adjust the Scanner Settings on the device. Please refer to the Setup Guide for the device you are using for further information.

### ***Arrival at a Stop***

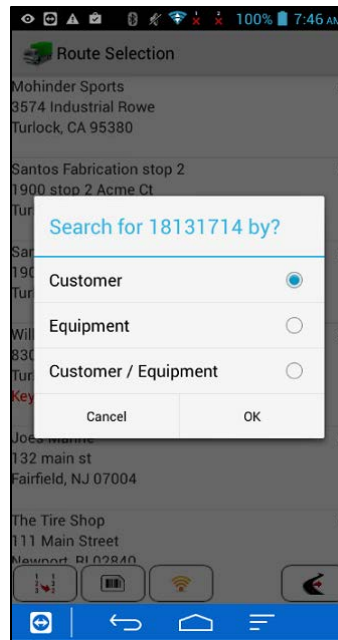
From within the Route Listing screen, you can also choose to scan a bar code at your location to pull up a specific account. This bar code could either be the customer's account number, or their equipment serial number. Simply select the bar code button on the bottom of the screen to open up this feature.



After selecting the Bar Code button, you will be taken to the Camera app which is used to scan the barcode:

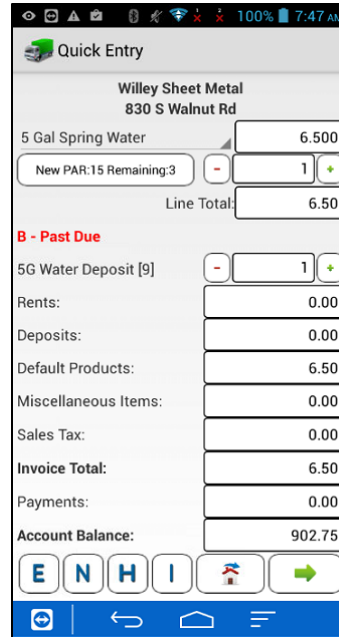


After you have scanned the barcode, you will be prompted to choose which type of Bar Code you are scanning. Either the Customer code, the equipment code or to make it simpler, both. Note: You will need to create your own door stop bar codes.



Once on this screen, and you have a search method selected, press the "Scan" button on your device to activate the scanner and scan your bar code. If there is a match, the account will be pulled up on the screen. If there was no match, nothing will happen. In this example, the user scanned one of the pieces of equipment assigned to this account. In which it

automatically pulled the account up and into the Invoice Quick Entry screen:



You may now service the stop as normal.

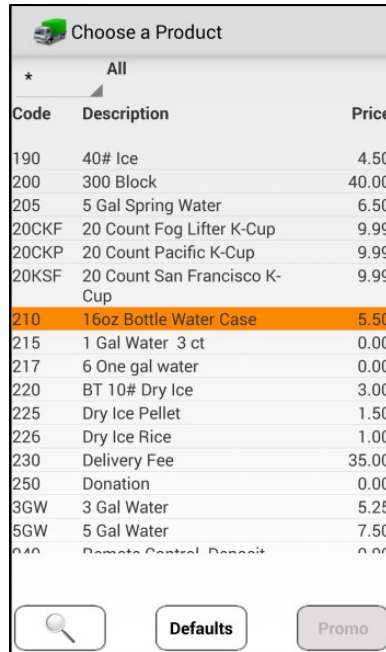
### ***Selling Products at a Stop***

Once you are at a stop, you will want to open the Misc. Items screen to start scanning in your products. You may scan from either the Misc Items Summary Screen:

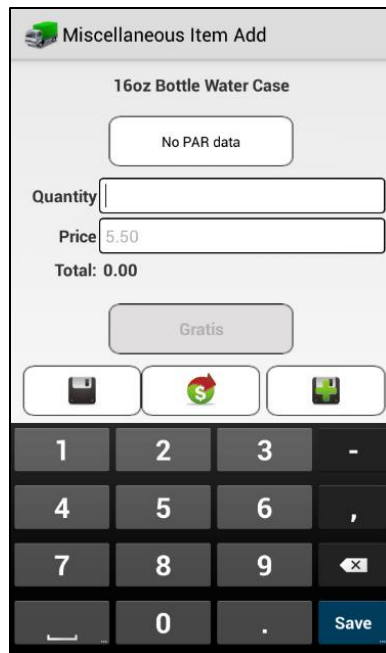


Or, from the Product List screen:





As previously mentioned, press the “Scan” button on your device to initiate the scanner and scan the product bar code of choice. Similar to the Load/Unload Truck screen, if a match is found it will automatically display the product on the screen, allowing the driver to enter the quantity sold, and if necessary, override the price:



After the driver has entered the Quantity/Price as needed, he will have two choices to continue:



**Save:** Select the save button if this is the only or last product to be entered on the account. The system will then automatically take you back to the Misc Items Summary if you were scanning products via the Product List screen, or back to the Invoice Entry screen if you were scanning from the Misc Items Summary screen.



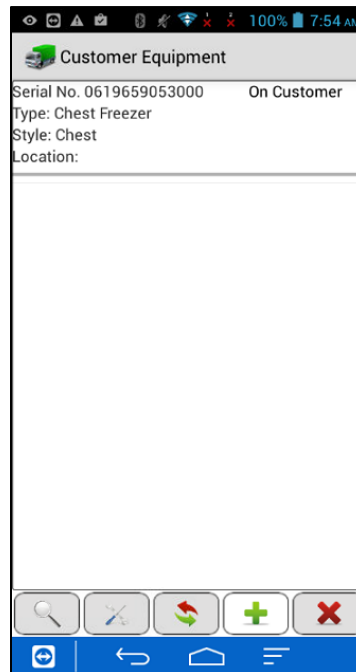
**Save & Add More:** The driver can choose this option if there are more products to add to the account. This will take the driver back to the previous screen, which will allow him to scan another product right away.

The driver can then complete the stop as normal.

### ***Working with Equipment at a stop***

If you are on a stop and you would like to install a new piece of equipment that is on the truck, you can scan the barcode of that item to easily add it.

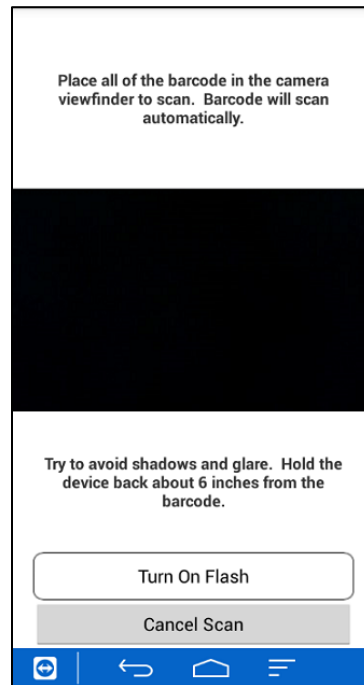
The first thing you will want to do is enter the Change Equipment screen on the customer's account. This is the "E" button located at the bottom left of the Invoice Entry screen. After you touch it, you will find a screen similar to this:



Once in this screen, you can choose the green add (+) sign at the bottom to enter the Install Equipment screen:



Next, select the Barcode scan button at the bottom of the screen to launch the Camera app to be able to scan in a Barcode:



You can also select a piece of existing equipment and then choose the “Exchange” button (the one with the Red and Green arrows) to swap these two pieces of equipment. You can repeat this process for any additional equipment if necessary.

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## What about barcode handheld devices?

There are a number of types of bar code scanning technologies. While there are many permutations, they tend to fall into 3 major classifications:

1. Laser scanning
2. CCD scanning
3. Camera Picture scanning

In this section, you will find a short introduction as to how these various technologies can work for you.

### Laser Scanning

Generally regarded as the best, fastest and most accurate scanning method, laser scanners are popular in many applications. They are typically the most expensive, too.

#### ***How it Works:***

A laser scanner consists of a light source and a photo diode that are placed closely together on a device used for barcode scanning. As the laser hits the barcode, the dark lines absorb the light and the white spaces between reflect the light. The photo diode then measures the intensity of the light reflected back and generates a digitized waveform that is used to measure the widths of the bars. This is then decoded by the scanner.

#### ***When to use it:***

A laser is one of the fastest and most reliable barcode scanners on the market. They can be either stand-alone devices or built into a handheld. Thus the reason you see them at most supermarkets. If you need accurate and high speed scanning for adding products quickly, a laser scanner is your best bet. The extra cost will be made up with its speed and efficiency.

### CCD Scanning

Another popular scanner type is a Charge Coupled Device Scanner, or CCD Scanner. This is a mid-range solution that is often used in keyboard or USB type devices.

### ***How it Works:***

A CCD scanner uses hundreds of individual light sensors, each acting as their own photo diode that measures the intensity of the light in front of it to decode the barcode. The key difference is that it measures the ambient light from the barcode, as opposed to the reflected light like a laser scanner.

### ***When to use it:***

A CCD scanner is usually a stand-alone scanning device that can be hooked up to your computer. This makes it ideal for Point-of-Sale use, or inventory tracking when the inventory goes in and out of a specific place in the warehouse where a computer can be located.

## **Camera or Picture Scanning**

On Android devices, a common inexpensive method of doing bar codes is by using the internal camera of your cell phone. While it is not the quickest or most reliable, it is basically free – so you get what you pay for!

### ***How it Works:***

On most Android devices, they have a built in Camera. This camera can be used to take a small snippet of video of a barcode that the handheld device can use to decode the barcode using sophisticated digital image processing techniques. It act's similar to a CCD scanner. However, ambient light plays a much more definitive role in the decoding process, and dimmer locations or devices without a built in LED Flash may find it tough to decode.

### ***When to use it:***

The Camera on your device is ideal to use when you only need to scan a few items here and there and do not need to invest the extra costs for a CCD or Laser compatible device. There should be a good amount of light on the barcode being scanned and it could take a little extra finesse in lining up the barcode for it to decode it. Thus resulting in a slower process, but a cheaper one too.

## Barcode Scanning on Desktop

You will need a handheld scanner to that will be plugged into a desktop computer in order to use the following features. Many different types of scanners will work with the Route Manager program; this includes multiple interface options, such as USB or Bluetooth connections. While Advantage Route Systems has not tested many of the available options on the market, generally you can search for software or hardware that allows the scanner to function as a 'keyboard wedge' — this includes scanners that are wired and wireless.

Once you have installed the device, all you have to do is point the scanner at a barcode and it will automatically scan it into the barcode scan area on the desktop.

## How to use bar codes For Invoice Product Entry

If you are using a desktop PC as a Point-of-Sale computer for walk in or storefront sales, using a Barcode scanner can help make the invoice entry process faster. Add a new invoice via Invoices and Adjustments as you normally would for a sale and then choose the one of the two Barcode scan options near the bottom of the screen:



This option is the Single Entry barcode option. Use this button if the quantities of the products you are scanning are always "1". Once you scan an item, it will be matched against the products list and if found, placed on the invoice with a quantity of 1.



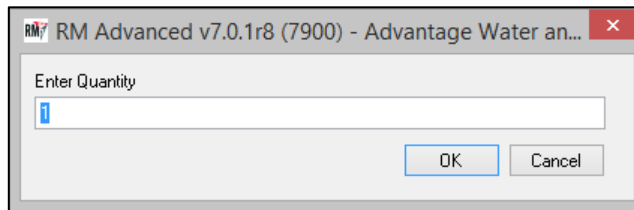
This is the Multi-Unit barcode option. After scanning an item, it will prompt the user to input the quantity sold (defaulting to 1). This allows you to quickly enter multiples of products if needed.

Once you select either option, you will be prompted with the Scan Items screen, as shown below.



Once this screen is showing, you can start scanning barcodes. If you selected the single quantity entry option, it will scan, add, and refresh this screen so it's ready for the next scan.

If you chose the multi-unit scan option, after each scan it will prompt for the number of units sold:



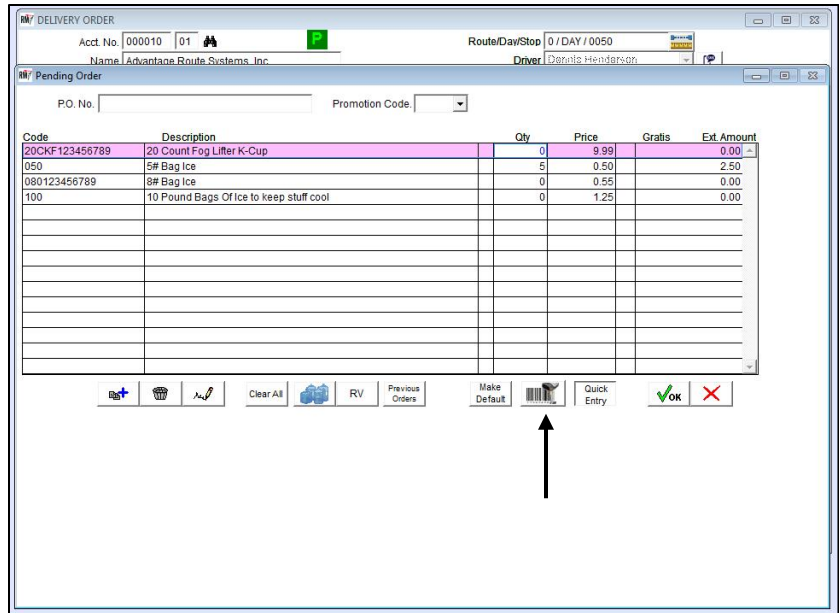
Enter the quantity sold and choose the OK button to add it to the invoice, and ready to scan the next product.

Repeat for all items and select the *Done* button to close the *Scan Items* screen.

## How to use bar codes For Delivery Order Product Entry

Similar to the Invoices and Adjustments product entry scanning feature, you can also add products to a Delivery Order quickly and efficiently by using the barcode product scan option.

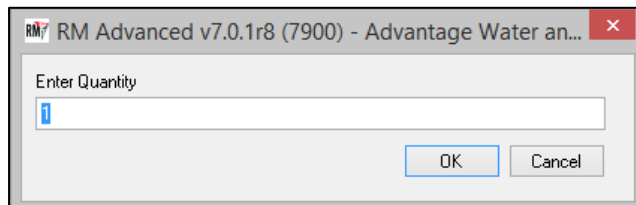
When on the Pending Order screen of the Delivery Order Entry process, select the Barcode Scan button as noted in the screenshot below.



This will allow the entry person to scan products just like they were able to in the Invoices & Adjustments screen. The Scan Items screen will appear, and work just like the Multi-Unit barcode scan button mentioned previously.



Simply scan the item in question and it will prompt the employee to enter the number of units to add to the order:



Enter the quantity, select OK to proceed and then scan the next item.

Repeat for all items and select the *Done* button to close the *Scan Items* screen.



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## Summary

There are numerous areas that you can use bar codes to help you work more efficiently. After you read this guide, feel free to call one of our experienced technicians who can help you weigh the value of each point to decide if it makes sense in your business.

If it does, then we will be more than happy to help you set up your scanning equipment and create needed labels.

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