



Wand-Based Field Data Collection System

Base Guide



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Wand-Based Field Data Collection System

Collector's Guide

Table of Contents

Operating the Dolphin	1
The Dolphin Keyboard	1
The Dolphin Display	1
Rebooting the Wand	2
Provide the Collector with Information	2
Performing Collections	3
Collector Login	3
Office Comments	3
Cash Meters	4
Ticket Meters	4
Token Counts	4
Inventory Counts	5
Actual Cash	5
Shared Expenses	6
Location Commission	7
Collector Comments	7
Recording the Collection	7
Performing the Collection in Stages	7
Manual Collections	8
Unscheduled Collections	8
Collecting Machines in a Sequence	9
Reconciling Collections	9
Finalize the Location	9

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Table of Contents • 2

Loan Balances	10
Location Expenses	10
Operator Expenses	10
Payment Screen	10
Printing a Receipt	11
Reporting Other Activity on the Dolphin	11
Location Requests	11
Machine Moves	11
Service Calls	12
CD Placement	12
Route Totals	12
System Utilities	13




Technical References


Wand Date and Time Functions	14
Files that Reside on the Dolphin	15
InfraRed Communications Between the Wand and Printer	16
Battery Life and Maintenance / Deep Cycling	16
Dolphin Batteries vs. Data Loss	17





Operating the Dolphin






The Dolphin Keyboard

Please refer to the Dolphin Users Guide for detailed information on the operation of the wand.

Many of the keys have two possible meanings. For example, note the  above the <BKSP> key. By pressing the  key first, then pressing the <BKSP> key, the meaning changes to .

In the numeric keypad of the wand (with the yellow background), each key can have two meanings: the letter on the face of the key and the number (or symbol) to the upper left of the key. If the field you are in is generally numeric, these keys will have numeric values. If the field is generally alpha-numeric, the keys will have alpha values. To change from numeric to alpha (or vice versa), you may press the  key *before each entry*, or you may press the <NUM LOCK> key *once*.

The four function keys (, , , and ) have each been assigned special meaning in Coin ConneXion's wand program. During the collection process the meanings are:

- : Reverse one screen
- : Advance one screen
- : End and save this transaction
- : Cancel this transaction
-  + <BKSP>: Escape/Abort

The Dolphin Display

The Dolphin's screen can display up to eight lines of information at a time. In addition, the following indicators are found on the ninth line:

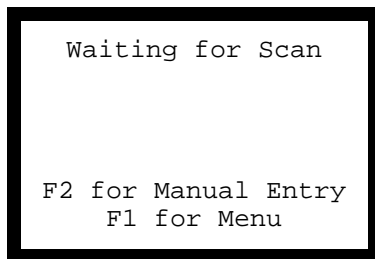
- Battery power indicator - shows relative remaining life of battery
- Num lock key indicator - shows if num lock key is numeric mode (123) or alpha mode (ABC)
- Shift key indicator - illuminates when you press shift prior to another key

Rebooting the Wand

Rebooting the wand is similar to rebooting your PC. Occasionally, this may be necessary, such as each time the program is uploaded. To reboot the wand, press the following keys simultaneously:

<SHIFT> + <ON/SCAN> + <BKSP>

After a series of configuration screens, the wand should display the following:



This is the wand's main display, the screen from which all activity begins. You may return to this display from most any other screen by pressing <ESC> (<SHIFT> then <BKSP>) repeatedly.

If the display is blank, the wand is "sleeping". Press <ON/SCAN> to "wake it up".

Provide the Collector with Information

Knowledge is the key to providing a measure of security against unauthorized use of the wand. Collectors must be given access to the information in the following sections regarding operation of the wand. (We have included a *Collector's Guide* containing the information needed to operate the wand.)

In addition to the *Collector's Guide*, we suggest collectors be provided with an alphabetical quick reference list of locations showing location numbers (EBAB). If you provide the collector with barcoded location numbers, he can scan his location numbers sheet rather than keying the location numbers.

If the collector is to be reporting service calls on the Dolphin, he/she should be provided with a list of valid service call codes.


As an additional measure of security, the collector will be asked to enter an employee identification number. Make sure each collector's employee number is included in the wand controls record (covered previously in detail).

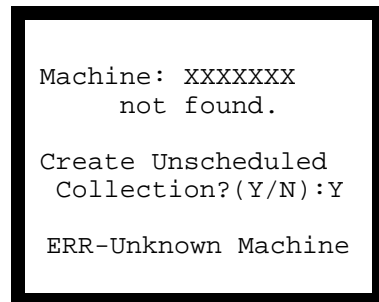
Performing Collections

We encourage the use of barcoded machine identification tags on the machines. Find a location that is convenient to the collector but out of reach of the general public.

If the machine does not have a barcoded identification tag or the tag is damaged, perform a manual collection (see "Manual Collections" section to follow).

To collect a machine, scan the barcoded machine identification tag by pressing the <ON/SCAN> button while directing the red laser beam at the tag. An audible beep indicates the scan was successful.

If the machine identification number is recognized by the wand, the name of the machine and its current location number and name are displayed. To verify that the correct machine is displayed, press  (the default answer is "Y" to the "Correct?" question). Advance to the next section: meter readings.




```
Machine: XXXXXXXX
      not found.

Create Unscheduled
Collection?(Y/N):Y

ERR-Unknown Machine
```

If the machine identification number is not recognized by the wand, the adjacent message appears:


If this is the case, the default answer is "Y". Press  and advance to the "Unscheduled Collections" section to follow.

Each of the subsequent wand collection screens has a title at the bottom indicating its purpose.

Collector Login

Enter the collector identification number. This is required on the first machine in the location, or after a period of time has elapsed. If the login is valid, the wand advances to the next screen. If the login is not valid, the wand returns to the "Waiting for Scan" screen.

Office Comments

If there are notes or reminders from the office to the collector concerning the selected machine, they are displayed immediately after confirming the machine's identity. If there are no comments, this screen is not displayed. After reading the office comments press the  key to advance.

Cash Meters

	Previous	Current
MI	12450	13152
MO	5487	7241
EI	9874	10721
EO	3157	5741
CP	15742	21546
Cash Meters		

If there are no cash meters, this screen is not displayed. If there are cash meters, an identification label and the previous meter readings may be displayed. If there are more than five cash meters, the additional meters will be displayed in the second screen of cash meters.

If a previous meter reading is displayed and it is not correct or must be reset, press the **SHIFT** + **F4** keys (the equivalent of the left arrow key), enter the *new* previous meter reading, then press the **ENTER** key.

Enter the current meter reading(s). If the previous meter readings are displayed, the current meter reading must be logical (greater than, or equal to the previous reading).

Enter all cash meter readings, then press the **F2** key to advance to the next screen. If the wand will not advance, a tone indicates that the meter readings are unacceptable. Re-key them again, then press the **F2** key.

If there are two screens of cash meters, repeat the above instructions for the readings on the second screen. Press **F1** to return to the first screen of cash meter readings. Press **F2** to advance to the next screen.

Ticket Meters

	Previous	Current
	8450	9127
	247	387
Ticket Meters		

The next display is ticket meters. If the machine does not have ticket meters, this screen is not displayed.

The same rules for cash meters apply to ticket meters (see the previous section). Previous meters may be reset if displayed, current meters must be logical. After entering all ticket meters, press **F2** to advance.

Token Counts

Current
475
Token Counts

The next display is token count. If the machine does not have token counts, this screen is not displayed.

There may be from one to four token counts. If there is more than one token count, the order in which they are keyed may be significant; check with your system administrator for more detail about how your company tracks tokens.

After entering all token counts, press **F2** to advance.

Inventory Counts

```

Opening :      12
Add/Adj  :      30
Closing  :      25
Used     :      17

Inventory Counts
    
```

The next display is inventory counts. If the machine does not have inventory counts, this screen is not displayed.

The opening count from the previous collection period is displayed. Enter the quantity of additions or adjustments; this number may be positive or negative. If you added 50 items, enter <50>, if you removed 10 items, enter <-10>. The closing inventory is the count remaining in the machine. The system calculates the quantity used. Press the **F2** key to advance to the next screen.

Actual Cash

```

Calc Cash:  $125.00
Actl Cash:  $125.00

Cash vs Meters
    
```

If there are cash meters, the system will calculate and display the cash required per meters ("Calc Cash").

Enter the actual cash in the machine. You may press **F2** to accept calculated cash as actual cash and advance to the next screen (even though actual cash shows "0.00 on the wand's display). Operators that key token counts and use those counts as the basis for actual cash do not key actual cash. Press the **F2** key to advance.

The amount of difference between calculated cash and actual cash that is acceptable is set by the wand controls. In other words, if a \$5.00 differential is acceptable, then keying actual cash that is \$6.00 more than calculated cash will produce the following message on the wand:

WARNING! MAXIMUM OVER/SHORT EXCEEDED

If you receive this message, press **ENTER** and double check the meter readings. If they are correct, simply press **F2** twice and the wand will accept them. If they are incorrect, enter new readings and new actual cash.

If the game is a payout game (both cash in and cash out meters), the cash vs. meters screen may look like the following.

```

Calc In   : $1250.00
Calc Out  : $ 800.00
Calc Net  : $ 450.00
Actl In   : $   0.00
Actl Out  : $   0.00
Actl Net  : $   0.00

Cash vs Meters
    
```

If you press the **F2** key without keying the actual cash amounts, the wand assumes the actual in and actual out are the same as calculated in and calculated out. If the actual in or actual out are different than the calculated amounts, enter BOTH the actual in and out amounts, then press the **F2** key.

Special logic has been implemented into the wand's program to deal with payout machines. It is important to understand how the calculations are done. The difference between actual in and calculated in is viewed as an over/short vs. meters.

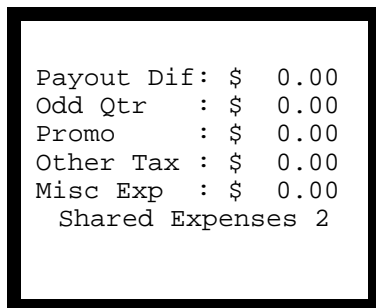
Payout machines have automatic expense functions. The difference between actual out and calculated out is viewed as a shared expense, and is automatically placed in the sixth shared expense field. This field is reserved for payout differences. The amount of actual out is automatically placed in the sixth "other" expense field, also known as the first operator expense.

The collector should enter into "actual out" the amount that the location is being reimbursed for paid outs. If the location presents tickets for more than the meters indicate, but it is agreed that all settlement is based on the meters, the actual out will be the same as calculated out.

To understand how the wand is deriving net-to-divide from payout machines, the formula is as follows:




$$\begin{aligned} \text{Actual In} - \text{Calculated Out} &= \text{Gross-to-Divide} \\ \text{Gross-to-Divide} - \text{ALL Expenses (including payout differences)} &= \text{Net-to-Divide} \end{aligned}$$

Shared Expenses





```
Payout Dif: $ 0.00
Odd Qtr   : $ 0.00
Promo     : $ 0.00
Other Tax : $ 0.00
Misc Exp  : $ 0.00
Shared Expenses 2
```

There are two screens of shared expenses. Each displays five categories of expenses. The use of these screens is controlled by the operator options.

To move from one expense line to the next, press . To return to a previous expense, press  + .

Some expenses may be automatically calculated by the wand according to predetermined formulas. In such cases, keying to that particular expense field is not permitted.

Enter all shared expenses, then press  to advance. Use the  key to return to previous expense or cash screens.

Location Commission

Actl Cash :	125.00
Sales Tax :	4.81
Shared Exp:	0.25
Net to Div:	119.94
Calc Cmsn :	59.97
Actl Cmsn :	60.00
Location Commission	

The next screen displays the wand's calculations in deriving the location commission. The wand supports the following commission plans:

1. Straight commission percentage of net to divide.
2. Straight commission percentage after operator guarantee or after both operator and location guarantees. These plans use the wand's date compared to the previous collection date to calculate guarantees. (See "System Utilities" for more information about setting the wand's date.)
3. Per item commission (such as per pack commission), based on items used/sold.

Commission rounding (up or down) is supported by the wand, if it has been told to do so in the program controls. This is determined by the normal settlement method of the current location (paid or due).

To accept the wand's commission calculation as "actual" press the **F2** key. If you are paying the location an amount that differs from the wand's calculations, enter the commission amount you are paying. To advance to the next screen, press the **F2** key.

Collector Comments

The collector may send comments or reminders for the current machine back to the office. Enter up to 60 characters of text. When finished, press the **F2** key.

Recording the Collection

The final step in the collection process is recording the transaction. This is done by simply acknowledging the wand's request.


Performing the Collection in Stages



As you have discovered, there are many stages to performing a collection on the wand. Suppose you want to enter *just the meter readings or token counts* for all the machines in a location, without going through the entire collection process.

Scan the machine identification and enter the meter readings, then press the **F3** key, (this is the "save" key). The wand remembers precisely where you left off for each machine. If you scan the same machine identification again, it skips the screens you have entered and begins with the next screen to key.



If you do not require a location settlement at the time of collection, and you only want to capture meter readings and/or token counts, that is fine. The wand will process whatever information you wish to record, without forcing you to report more information than you want the collector to deal with.

Manual Collections

At the main menu of the wand ("Waiting for Scan"), press the  key for the menu of manual collection choices.





To perform a manual collection (where a machine's identification tag is damaged or not available), select . Enter the machine identification number manually. Remember to use the <NUM LOCK> key to shift from alpha to numeric or vice versa, then press the  key.



If the wand recognizes the machine identification, the name of the machine and its current location are displayed. After confirmation, the wand takes you through the same steps described previously in "Performing Collections".



If the wand does not recognize the machine identification, it states "Machine Not Found: Create Unscheduled Collection?" Answer  if the machine identification is incorrect and start over, otherwise, press  to create an unscheduled collection, and advance to that section below.

Unscheduled Collections

The collector may be required to collect a machine that was not included in the wand's pre-loaded file. Since the wand doesn't know anything about the machine, such as the machine's meter configurations, previous meter readings, or location commission schedule, it captures limited information.



To report an unscheduled collection, press  for manual entry, then  for manual entry, and enter the machine identification. The wand responds "Machine Not Found: Create Unscheduled Collection?", press  or .

Enter the location number and the location's sales tax percentage (if any), then press . Enter any current meter readings and inventory counts that are applicable. Press  to advance through the screens, skipping any display that does not apply. Enter the actual cash in machine, any shared expenses, and the amount of the location commission.

Finish with any comments, and record the unscheduled collection. To update this collection record, select manual entry and enter the machine identification. Use the  key to reverse through the various screens to the point you wish to update, then finish recording the transaction with a succession of  screens.



Collecting Machines in a Sequence

The collection sequence of machines is honored by the wand. Of course, when you scan the identification barcode of a particular machine, the wand disregards the collection sequence.

To collect machines in sequence, the collector must only know the location number. Select  for manual entry, then  to collect the next machine. The wand will present each machine in order. If a machine has already been collected, the wand will skip it.

Reconciling Collections



Collections that are started, but not finished, are known by the wand as "not reconciled". You may recall the example of the collector whose sole task is to collect meter readings or token counts, after scanning machine identification and keying those entries, the partially finished collection is stored.


Some time later, the collector wants to finish the collections for the location. By selecting  for manual entry and  to reconcile collections, the wand "picks up where it left off" with each machine, in collection sequence. Scanning the barcoded machine identification number is not necessary, as the location number is all that must be entered.

When all collections have been completely finished, the wand will announce there are no more machines to reconcile. The last step is to finalize the location.

Finalize the Location

When all machines' collections have been recorded on the wand, the location must be finalized. This is the step where the settlement with the location is recorded. The wand does not view the collection process as finished until the location is finalized. If machine records are updated *after* the location is finalized, the process of finalizing the location must be repeated.

To finalize the location, press  for manual entry and  to finalize the location. Enter the location number.

The wand displays a summary of all the machines' collections: the cash vs. meters screen, the shared expenses screen, and the location commission screens. These screens display totals, and no data entry is performed in these screens. Press the  key repeatedly to advance through the screens.

Loan Balances

A/R	:	\$	450.00
LICENSES	:	\$	200.00
RENT	:	\$	0.00
PAYOUTS	:	\$	0.00
Locn Loans Balances			

The wand will report balances on up to four loans per location.

The next screen is the location expenses screen. If the operator uses the loan functions, it is recommended that there is a correlation between the first location paid expense categories and the loan accounts. To record loan payments, at least one of the location expense categories must be used.

Location Expenses

The first five non-shared expenses are viewed by the wand as being paid by the location to the operator. These amounts are deducted from the location commission to derive the final settlement.

Operator Expenses

The second five non-shared expenses are viewed by the wand as being paid by the operator to the location. These amounts are added to the location commission to derive the final settlement.

There is a special correlation between the last five shared expense categories and the operator expense categories. The total of the shared expenses from the machine collections may be calculated and displayed by the wand as operator expenses.

Payment Screen

The wand calculates the location total as follows:

$$\text{Total Commissions} - \text{Location Expenses} + \text{Operator Expenses} = \text{Location Total}$$

The amount of the location total can be either paid, due or split between them. It is assumed the location has received the amount entered as paid. It is assumed that the location is still owed the amount displayed as due. The total of paid and due must equal the location total. Save the transaction when finished.

Printing a Receipt

In order to print a receipt for a location, it must be finalized. Select **F2** (manual entry), **F6** (print receipt), and enter the location number.

Point the infrared sensor on the wand (on the bottom) at the infrared sensor of the printer. The printer should acknowledge the data from the wand and print the receipt. (See the chapter “Infrared Communications between the Wand and the Printer” for more information.)

Reporting Other Activities on the Dolphin

The Dolphin provides the collector with the ability to record most every type of field activity generally required. These include location requests, machine moves, service calls, and CD placement.

From the Dolphin's main menu, select **F1** for menu and **F1** for miscellaneous transactions.

Location Requests

```
Location: 1068
Comments: Please
send CD UPC#
093624590125

Location Request
```

Press **F1** for location requests.

Enter the location number, press **ENTER** and type in the location request. Press **F3** to save the transaction.

Machine Moves

```
Machine:    VA-10183
OUT RUN

From: 1001
To  : 1068

Machine Move
```

Press **F2** for machine moves.

Enter the machine identification number (or scan the identification tag). Enter both location numbers (from which the machine is being moved and to which it is going). You may enter warehouse numbers in place of location numbers if appropriate.

If you are moving the machine between collections, the wand will create a collection pending transaction and assume the collector is bagging the cash and leaving it for the next regularly scheduled collection. Enter the meter readings at the time of the move.

If you are collecting the machine first, then moving it, the meter readings are entered as part of the collection and they are not a necessary part of the move. When finished, press **F3** to save the transaction.

Service Calls

```
Machine:   CG-10398
CIGARETTE VENDING M
Service Code: BJ
Comments:  Bill Jam

Service Machine
```

Press **F3** for service calls. Enter the machine identification (or scan the identification tag). Enter the two-letter code that best describes the nature of the service call: "CJ" for coin jam, etc., followed by an explanation of the service performed. (The collector should be provided with a list of valid service codes.) When finished, press **F3** to save the transaction.

CD Placement

```
Machine:   JN-10305
ROWE-053-CD AMERICA

UPC # :093624590125
In/Out: IN (BKSP)
Slot  : 25

CD Placement
```

Press **F4** for reporting CD placement in jukeboxes. Enter the machine identification number (or scan the identification tag). Scan or key the UPC number of the CD. Select "in" or "out" (press the <BKSP> key to toggle between them). Enter the slot number if you track CDs by position. Press **F3** to save the transaction.

Route Totals

The collector may view route totals at any point. Select **F1** for menu, **F2** for reports, and **F2** for route totals. Select **F1** to view all collections. Select **F2** to view collections for a specific date. The wand displays the total locations and machines scheduled, the number collected, and the net cash the collector should have (total gross less location paid amounts).





System Utilities

To access the system utilities, press  (menu), then press  (utilities).

Set Contrast

Use this utility to adjust the contrast of the display (lighter to darker).


Set Time and Date

The wand has its own built in calendar and clock, to check the current settings or to change them, select . Use the  key to change the date, use the  key to change the time. Press the  key to save the changes and return to the menu.


Battery Power

The battery power status is now displayed in icon form in the lower left corner of the screen.

Version Number

Select  to display the current version number of the operating system and wand program.

Main Menu




Select  to return to the wand's main menu.

Technical References

Wand Date and Time Functions

Each activity on the wand is automatically date and time stamped. The wand maintains its own calendar and clock, which can be displayed, set, or adjusted:

 (Menu),  (Utilities),  (Set Time / Date)

Press the  to change the date,  to change the time, and  when finished.

The wand utilizes military time (a 24-hour clock). If you are setting the time to 2:00 PM, enter it as "14:00".

*** IMPORTANT! ***

Because each transaction is date and time stamped, the collections for ALL machines in one location should share the same date stamp. In addition, the settlement ("finalize location") transaction should also share the same date stamp.

If, for example, the collector uploads files to the office once a week, and he is reviewing Tuesday's collections on Thursday, by re-recording ANY of the transactions, he is (in effect) changing those transactions to Thursday collections.

Reviewing transactions must NOT include re-recording them, unless ALL collections for the same location are also re-recorded. This is also true of the transaction created by "Finalize Location".

What happens if just the "finalize location" transaction is re-recorded? When the collections are processed, the individual machine collections will belong to one date and the settlement transaction ("finalize location") will belong to a different date.

Proofing reports are typically printed by date. After importing and processing collections, then printing proofing reports, if collections are "missing" from the report but show to be processed correctly in the management review file, they probably belong to a different date, a situation caused by after-the-fact reviewing and re-recording of transactions.

Files That Reside on the Dolphin

The Dolphin is like a PC in that it has multiple drives. The Dolphin's operating system resides on it's a: drive. The programs and files that Coin ConneXion provides reside on the Dolphin's main drive (the C: or D: drive) are:

AUTOEXEC.BAT

The batch file that executes each time the wand is rebooted. It calls the wand's executable program.

WANDCCX.EXE

The main executable program developed by Coin ConneXion. If the system boots to "Waiting for Scan", the wand is running this program.

WANDSPEC.DAT

The specifications file, created by the wand's controls, telling the wand how to "think".

WANDFIG.DAT

The file that tells the wand its identity.

COLLDATA.BIN

The file where collections are stored.

LOANDATA.BIN

The file where loan balances are stored.

CNTRST.BIN

The file where the contrast settings are stored.

LOCNDATA.BIN

The file where location requests are stored.

MOVEDATA.BIN

The file where machine moves are stored.

SERVDATA.BIN

The file where service calls are stored.

CDDATA.BIN

The file where CD placements are stored.





PRINTER.INF





The client's customized wand receipt format.

RCPT.PRN

This file is the receipt file generated by the wand, then sent to the printer

To access this drive from the Coin ConneXion wand program, select:

 (Menu),  (System Utilities), then type  (Exit), .

This should produce a DOS prompt on the wand. To produce a directory list, type    .

To return to the wand program, simply reboot the wand.

InfraRed Communications Between the Wand and Printer

Wireless InfraRed ("IrDa") communications can be delicate. If the beam is broken during transmission, it will likely lock up both devices causing cold reboots to be necessary.

When you are preparing to print a receipt, do not hold the units in your hands. Place both the wand and the printer on a flat surface, such as a countertop or pool table, at a distance of about 3-inches with the InfaRed windows directly aimed at each other. Make sure there is no interruption of the beam during the process.

If the process does not work or generates an error (such as "No IrDa Devices Found"), please perform the following steps:

On the Dolphin:

Remove the battery from its compartment. In the upper right corner, remove the small cover over the reset hole. Using a paper clip (or similar device), carefully press the reset button on the wand's mother board, then replace the battery. If properly executed, the unit will reboot.

On the Printer:

Remove the boot covering the battery. Disconnect the battery for 5 seconds, then reconnect.

Battery Life and Maintenance / Deep Cycling

HandHeld Products recommends deep-cycling each new Dolphin battery twice before initial use of the new battery. Older batteries that go unused for a long time suffer a similar result and respond to a similar fix. Used NiMH batteries that are unused over an extended period of time, lose their charge and provide only 75%-85% of the maximum or normal charge capacity after the initial re-charge.

However, after several charge and discharge cycles, a NiMH battery recovers some lost potential and does provide the expected battery life. Normally, most customers will not notice the decrease in battery capacity, as the Dolphin battery provides more than enough energy to complete a work shift.

If maximum battery life is required of a used battery, the best way to get the longest battery life is to deep-cycle it twice before it is used again.

To deep-cycle a Dolphin battery, insert it in the auxiliary battery well of the HomeBase, then "push and hold" the recycle button for at least 4 seconds. It will take about 15 hours to automatically deep-cycle twice.

Dolphin Batteries vs. Data Loss

The collection data is written to a flash drive during the operation of the Dolphin. Therefore, removal of the battery for an extended period of time does not result in data loss.

There is a small battery mounted on the motherboard of the Dolphin. It is recharged when the main battery is in place, and its main purpose is to maintain the date and time of the wand while the main battery is removed. However, if the motherboard's battery runs too long without recharging, the date and time of the wand will have to be reset. The program logic will recognize when the date and time are not valid, and will require the collector to reset the date and time before routine operation.