



# Operators Manual

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# RF DataLink Setup

## **Sequence of Operations**

After installing your software, please follow this section to setup the RF Datalink for use. It is important that you follow along with this sequence.

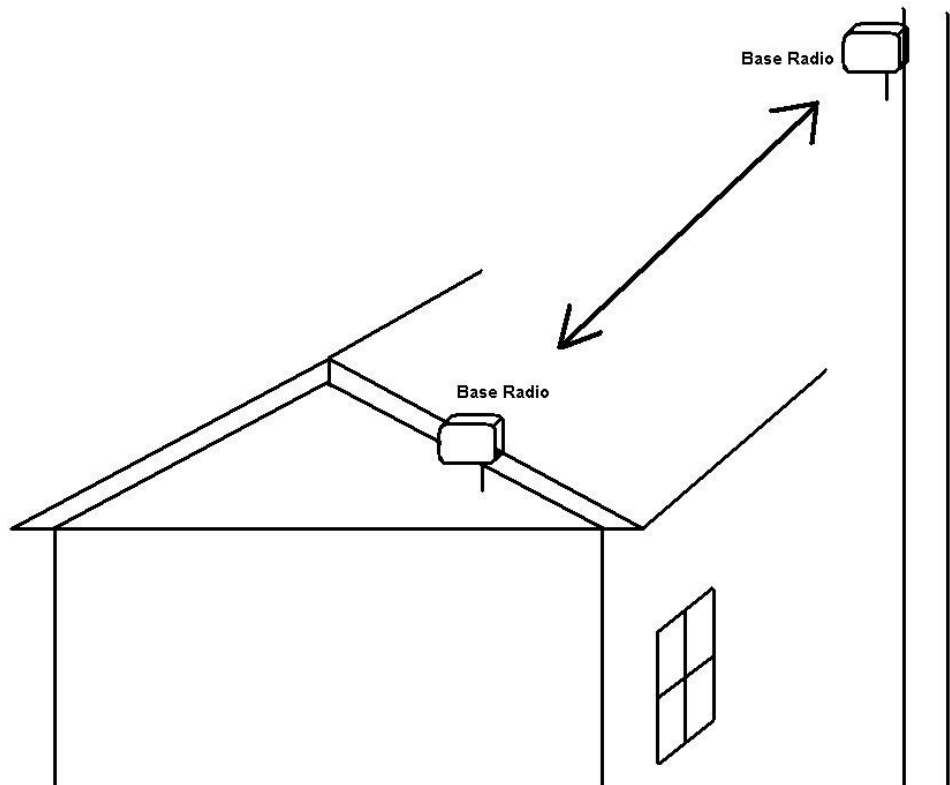
## **Registering the Software**

Once the software has been installed, it must be registered. Contact Digi-Star to obtain your registration code. The code is case sensitive; all letters must be entered in upper case.

## **Radio Installation and Setup**

When installing the base radio; make sure the “ram mount” is fully extended away from the mounting surface.

For greater radio communication and range mount the radio in the highest position that it is visible from the ground or were the mixers are being loaded. Mount the radio in either position like the illustration. On the corner of the office or on a utility pole.



**Radio Antennas**

The location of the antennas is critical. Check the installation of the antennas and the antenna location.

**Indicator and Truck Mounted Antenna:** Truck Mounted Antenna, mount the antenna outside, on the top of the cab, in the center of the roof. Do not modify the cable between Truck Mounted Antenna and the indicator.

Yes No Are any building near the Base Station Antenna metal?

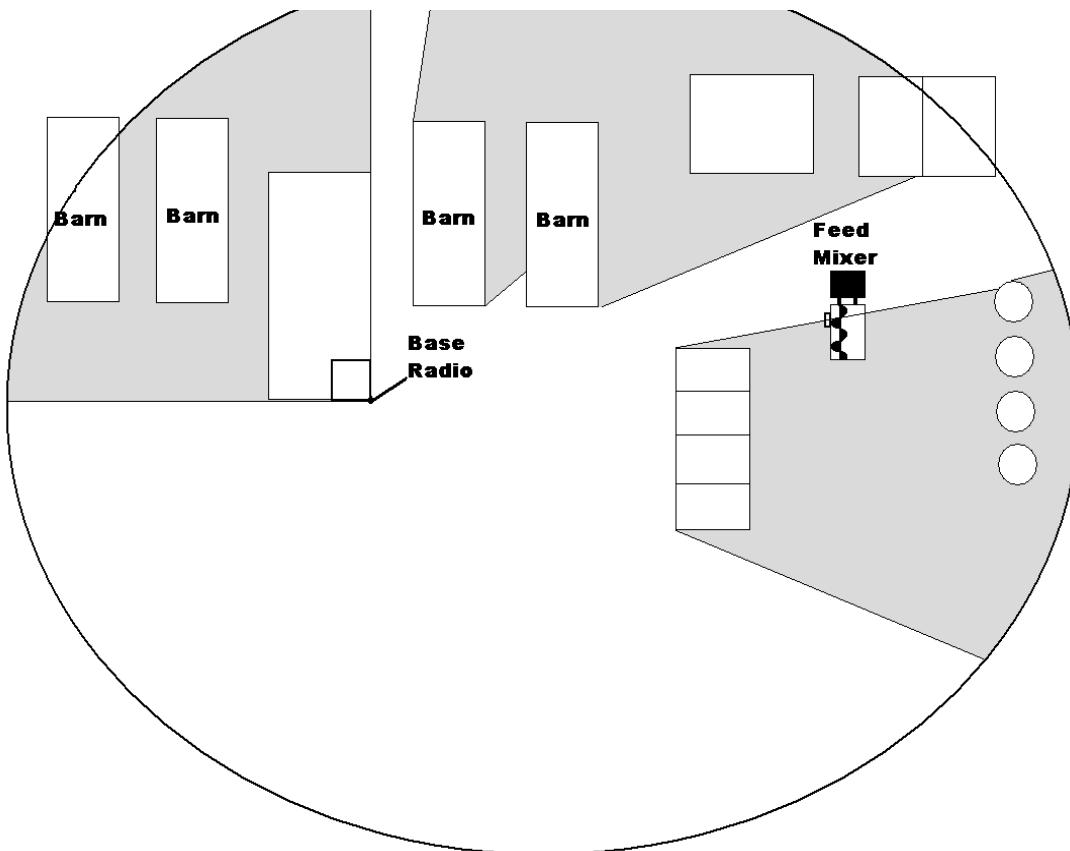
Yes No Are any metal structures located between the Base Station Antenna and the mixers?

Yes No When standing at the Base Station Antenna, can you see the mixer?

Yes No Have any of the antenna cables been modified?

**Radio Range:**

The picture below shows how radio range would be affected by obstructions like metal barns or earth. The gray areas show poor radio signal. If the radio is mounted higher, this may improve radio range.





The Fresnel Zone can be thought of as a football-shaped tunnel between two sites that provides a path for RF signals.

In order to achieve the greatest range, the football-shaped path in which radio waves travel must be free of obstructions. Buildings, trees or any other obstacles in the path will decrease the communication range. If the antennas are mounted just barely off the ground, over half of the Fresnel Zone ends up being obstructed by the earth resulting in significant reduction in range. To avoid this problem, the antennas should be mounted high enough off the ground so that the earth does not interfere with the central diameter of the Fresnel Zone.

Minimal height of base radio:

Range Distance	Height
1000 ft (305 m)	15 ft (4.6 m)
1 Mile (1.61 km)	25 ft (7.6 m)
1.5 Miles (2.42 km) or more	45 ft (13.7 m)

If you do not have enough cable from the computer to the radio there are different cable lengths that Digi-Star offers, or you would like a higher powered antenna, contact Digi-Star.

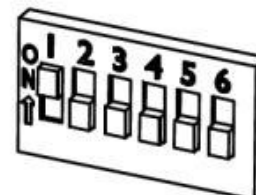
Standard length is 150 ft / 45.75 m (RS-232). Extended length is 150 ft / 45.75 m (RS-422) or custom lengths are available (150+)

### **Radio Interference**

There are many types of wireless networks or (WIFI) and some can interfere with the DataLink radio. If DataLink is still showing radio interference, check the WIFI network number. Changing this number can correct for radio interference. For further information about WIFI, check the website of the brand of your radio. 802.11 2.4GHZ use channels 1 – 6 and 13 & 14.

### **Standard Range Setup**

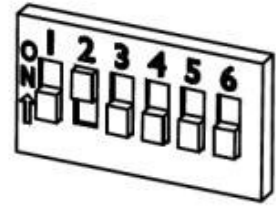
When using the standard range kit, connect the DB9 serial connector to either a serial port on the PC or use the USB to Serial adapter included and connect the 12VDC power supply to the cable. The base radio is shipped from Digi-Star setup for standard range. The switch settings on the radio are set to the picture to the right: Verify this if you are not able to communicate with the base radio



Standard Range (RS-232)

**Extended Range Setup**

If you are using the extended range radio kit (RS-422) you must go to System, then Defaults, and select [Radio Settings]. Under Base Radio Type, select [Extended Range Base Radio (RS-422)]. RF Datalink will then pause while looking at the radio for the new settings.

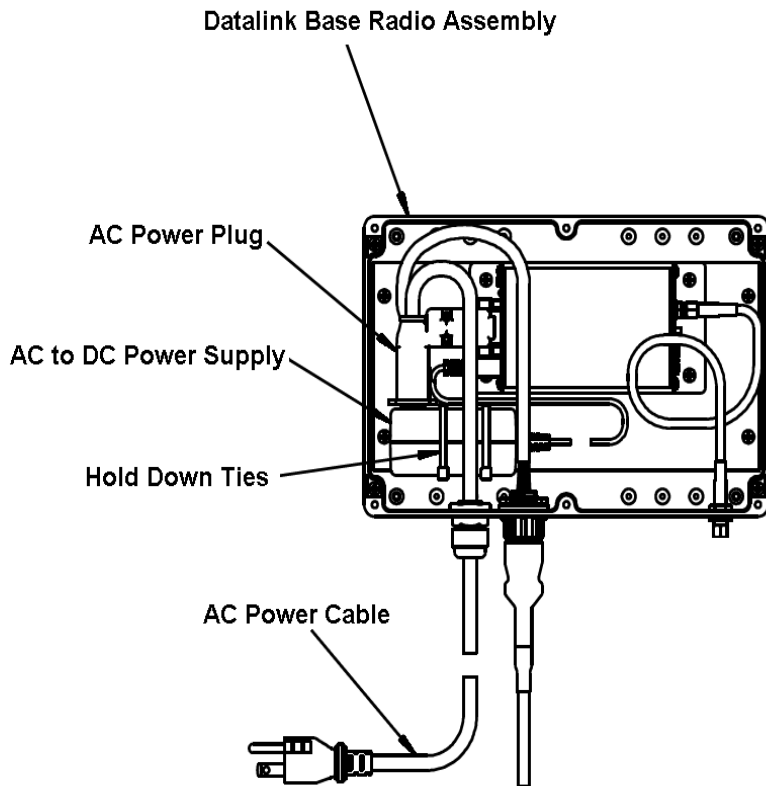


Extended Range (RS-422)

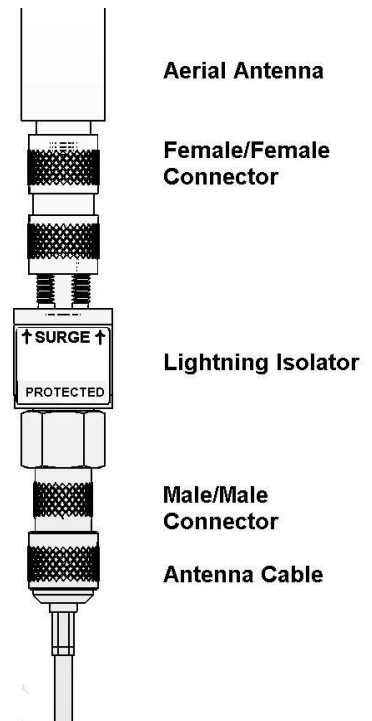
Next open the housing of the base radio. There is a bank of dip switches on the right side,

Set switches as the picture on the right:

Install the AC/DC power transformer into the base radio box and run AC power into the unit as shown. When attaching the female plug to the power cord, remove green ground wire and attach either of the remaining two wires to either terminal. AC/DC adaptor is not polarized.



**Antenna Assembly**



**USB Black Box Installation**

Plug in the Black box into a USB port. Windows will detect the Black box and at this point Insert the driver CD. Follow the Windows prompts.

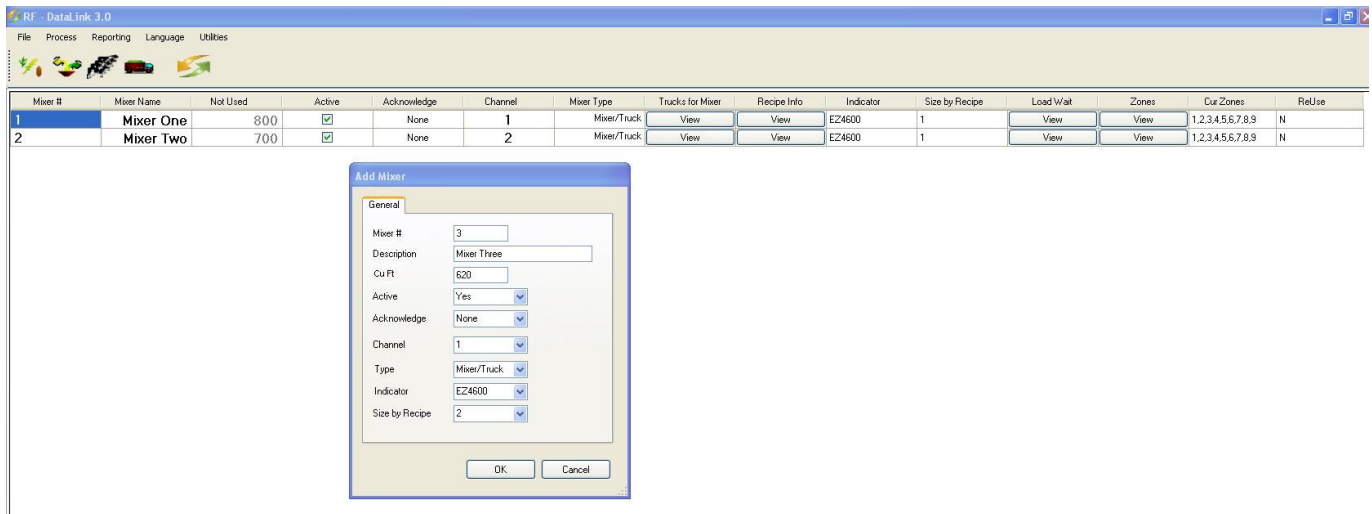
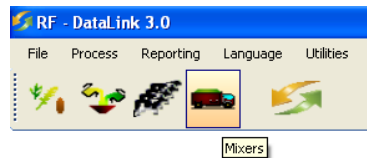
Open the end cover of the Black Box and install the wires as follows:

WIRE COLOR	CONVERTER TERMINAL BLOCK
BLACK	EITHER GND
GREEN	TDA-
WHITE	RDA-
ORANGE	RDB+
YELLOW	TDB+

**Entering Mixer Data**

**Adding Mixers**

To access the Mixers screen, select Mixers from the Menu. This will display the Mixers screen. In a new installation, the Mixer screen will be blank.



Select the New button to add a new mixer. Enter the Mixer number 1-24 (this number should match the Channel Number).

**Mixer Number** – a two-digit number to identify the Mixer.

**Description** – a detailed Mixer description. The first letter of this may be displayed on the Process Screen.

**Cu Ft** – Enter the lbs/Kg per cubic foot/Meter.

**Active** - to signify that the Mixer is available for feeding, click on [Yes] in the Active box. Clicking on [No] will make the Mixer un-available for loads or feeding.

**Acknowledge** – At Mixer – This option is used to send a message to the scale if the operator would like to receive another load. If the operator does not press the Tare key within 10 seconds at the scale, Datalink will continue to other mixers. – At Computer – The operator at the computer will be notified to send a new load to an available mixer.

**Radio Channel** – the radio number will be set on the EZ indicator. To view or change the number, use the direct access number (231). Press (Select) to change the number, and press (On) to save. Make sure if you are using two or more mixers that you don't use the same radio ID.

**Type** – Select method of how ingredients or pens are being sent to the Mixer/Feeder, Static mixer/Batch box or the delivery truck.

**Indicator** – Select the model of EZ indicator on the equipment.

**Size by Recipe** – This number is used to determine the four sizes of capacity in each recipe, this number is normally sent by the bunk reader software.

**Zones** – After selecting OK, you will be prompted to select zones for this Mixer. The Zone Control allows you to split your pens into separate Zones and to assign specific feed mixers to those Zones. If you set this, you must include the Zone field in the pen data being sent.

By setting up Zones, you limit the pens assigned to a Mixer to only those assigned to its Zone. You can override this setting by sending a load outside of the Mixer's Zone manually. The RF Datalink will ask you to verify that you want to send a load outside of the Mixers Zone. If you select [Yes], the load will be sent. Select the correct zone number, the select OK

**Trucks for Mixers** – This setting is used when setup with a stationary mixer/batch box. You can designate a delivery truck to only go to a specific mixer.

**Recipe Info** – Restrictions setting allows you to restrict what recipe can go to a specific truck/mixer/batch box. Sorting setting allows you to set a recipe order depending on each mixer. Example: Mixer one sort's recipes in this order R3, R2, R1. Mixer two sorts in this order R1, R2, R3

### **Load Wait - Timing**

The Timing Settings allow you to optimize the efficiency of the radio communications within the RF Datalink program.

The RF Datalink continuously searches for Mixers. To optimize this process you can take into consideration the time required for a Mixer to service the pens.

**Example:** It takes your operator 10 minutes to load the ration, 5 minutes to mix and another 5 minutes to drive to pen 3. That being the case, you can tell the RF Datalink program to ignore the Mixer for the initial 20 minutes that it will take just to get to the pen.

**Re-Use** – This setting is very specific in how you load feed and how often you reuse the same data, day-to-day. This option allows you to send all your feeding information to the scale indicator with the intention to reuse the data for more than one day. When Datalink sends the data to the indicator, Datalink will only receive completed data when the operator completes each load. The indicator will keep the loads active to reuse over again and this allows the Datalink program to only communicate when necessary to receive completed loads. When new data is needed to update the indicator, send the new data to Datalink.

Datalink will then receive any completed data from the indicator and send the new data to the indicator.

The indicator will need the Re-Use feature activated in order for this to work. At the indicator, key in numbers 466 and then press [Select]. The indicator will display RE-USE then OFF. Press [Select] again to display ON. Press [ON] to save.

## **Defaults**

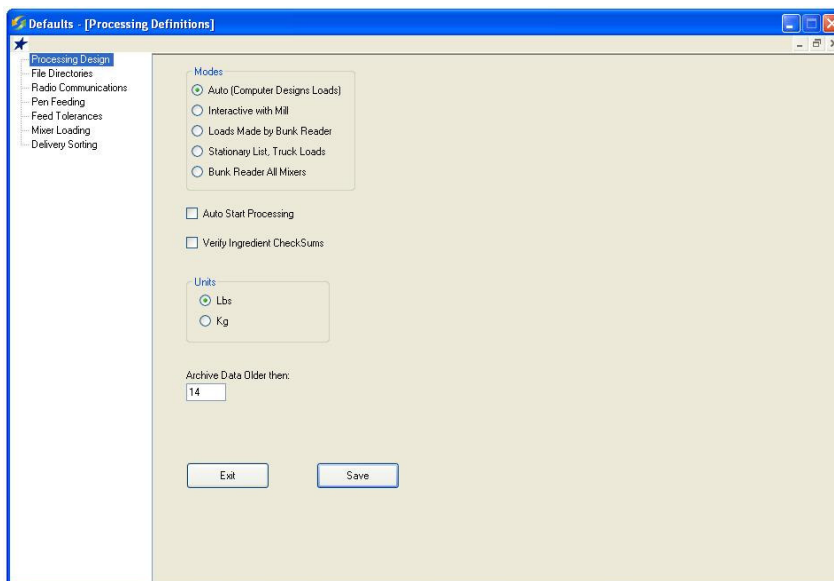
### ***Determining the System Defaults.***

The system defaults control how you process your feedings. These settings can help to further optimize your feeding process. Please take some time to read and understand these settings and their affect on your feeding process.

To set the System Default Settings, from the main menu select [File] then [Defaults].

The system defaults screen contains all the choices available to change the manner in which the RF Datalink processes your feedings.

### ***Defaults – Processing Design***



### ***Modes***

#### ***Auto***

Auto mode is the standard format the pen and recipe data is sent from the 3<sup>rd</sup> party software.

#### ***Interactive with Mill***

Interactive with mill option waits to send out pen feeding information until the mill software indicates to Datalink what batch was created, then Datalink will send out the correct size load to a delivery truck.

***Loads Made by Bunk Reader***

Loads Made by Bunk Reader option allows the bunk reader software to create a specific load to be built, then Datalink sends out the load information to the correct mixer/delivery truck, one at a time.

***Stationary List, Truck Loads***

This option is used with a stationary mixer/batch box. This option sends out the recipe list to the mixer/batch box. The operator at the mixer/batch box selects a recipe to build. When the recipe is built, Datalink will evaluate the type/size of the recipe and then send out the correct load of pens to a delivery truck.

***Bunk Reader All Mixers***

This option is like Loads Made by Bunk Reader. This option will send out all the loads at one time to specific or all mixers. This option cannot be used with a stationary mixer/batch box.

***Auto Start Processing***

This option allows the Datalink software enter the Processing screen immediately. This option is useful when Datalink is set-up in the startup menu of Windows and in case of a power outage.

***Verify Ingredient Checksum***

This option double checks all the data being sent from the scale indicator to Datalink. This option is normally not selected. It is only selected if the Datalink program is experiencing errors in the data being collected by the 3<sup>rd</sup> party bunk reader software.

***Weigh Units***

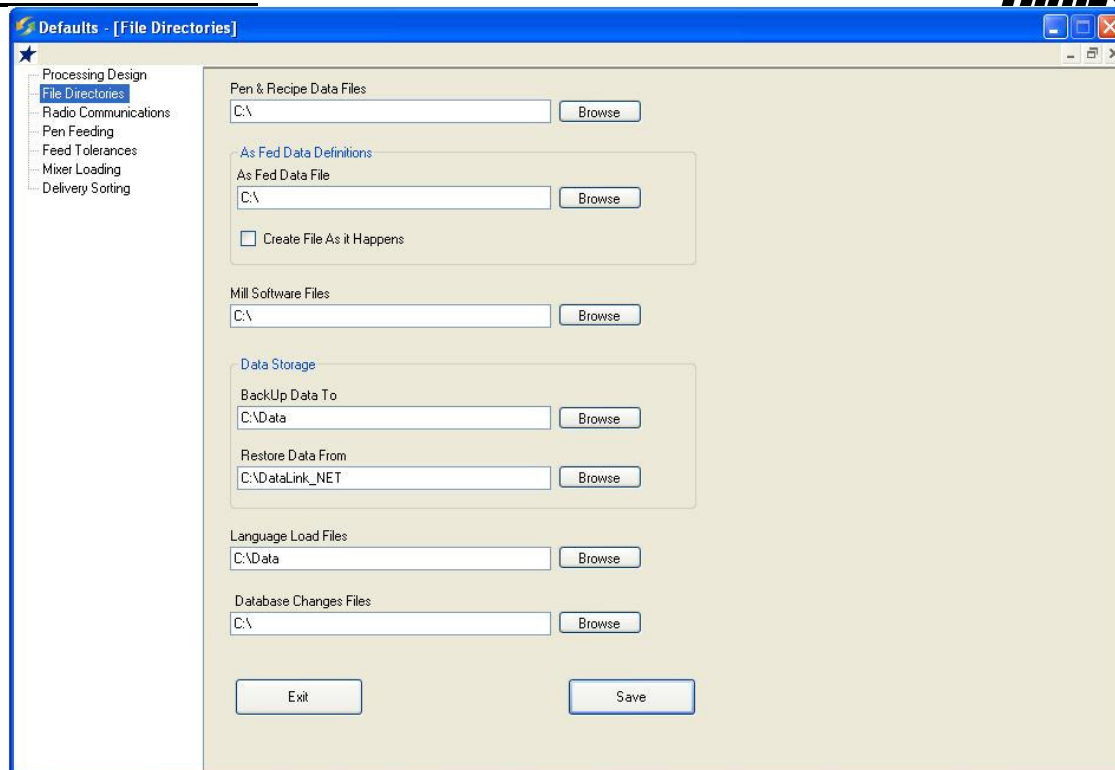
This selection sets the weigh units of the RF Datalink to either pounds or kilograms. Be sure that the EZ indicator is set to the same weigh units.

***Archive Data***

This option allows you to have Datalink store all the pen feeding data into an backup archive. This options is normally set to 14 day.

***Defaults - File Directories***

RF Datalink shares files with other software. As such, each program must know where to send and where to look for these files.



To set the File Paths, from the main menu select [File], [Defaults] and [File Directories]. This will display the File Directories screen.

**Path to Pen and Ration Data Files** - this is the data that is transferred from the third party software or TMR Tracker. Ration mixes and pen calls.

**Path to As Fed File** - this is the data that is transferred from the RF Datalink to the third party software. Completed Ration mixes and pen feedings.

### ***Make As Fed Data File***

The As Fed Data File is the completed loading and feeding data that is transferred to third party software. This file can be sent in two ways;

**On Demand** – this selection sends the data file on a demand basis. When the RF DataLink program receives a completed load, the file is stored until a demand for the file is received. The file is then written to the file path set for the As Fed File. The demand is triggered by selecting Make As Fed File from the Process dropdown menu.

**As it Happens** – this selection writes the data file as it is received. When the RF DataLink program receives a completed load, it is immediately written to the file path set for the As Fed File.

**Path to Mill Software File** - this option will send a file out to a mill demand to show the total load size of the next load sent to the mixer.

**Backup Data to** – this option will create a duplicate of your data and default to C:\Data. This folder is created for you. It is recommended you backup your data on a different drive than the local disk.

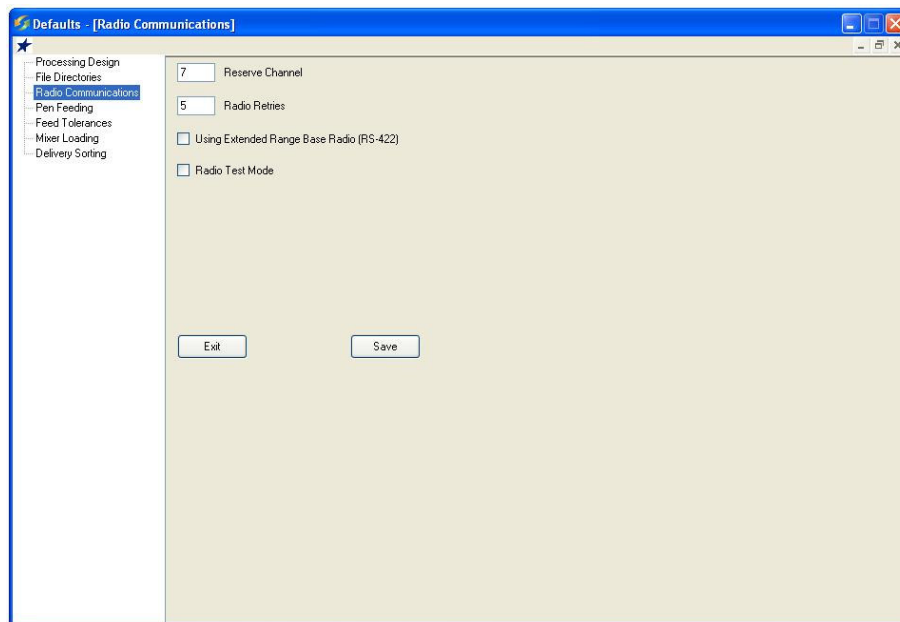
**Restore Data From** – this option allows you to import new databases or restore lost data for a new installation.

**Language Load Files** – this option allows user to update Datalink with the newest language for a specific country.

If you were not using a network, the path settings would be set to C:\. If you are using a network, set the paths to whatever your network drives have been set too.

When complete, click [Save].

## ***Defaults - Pen Feeding***



**Reserve Channel** – The radio channel will normally be set to 7. This number can be changed incase you have neighboring sites causing interference.

**Radio Retries** – This number is used to by the base radio recheck the EZ indicator to make sure that the feed data sent is correctly.

### ***Base Radio Type***

**Standard Range Base Radio (RS-232)** – Leave the box unchecked. Standard uses the rubber antenna that is attached at the bottom of the radio box.

**Extended Range Base Radio (RS-422)** – Check the box for this option The PC will have the “Black Box” signal converter and a large antenna separate from the radio box.

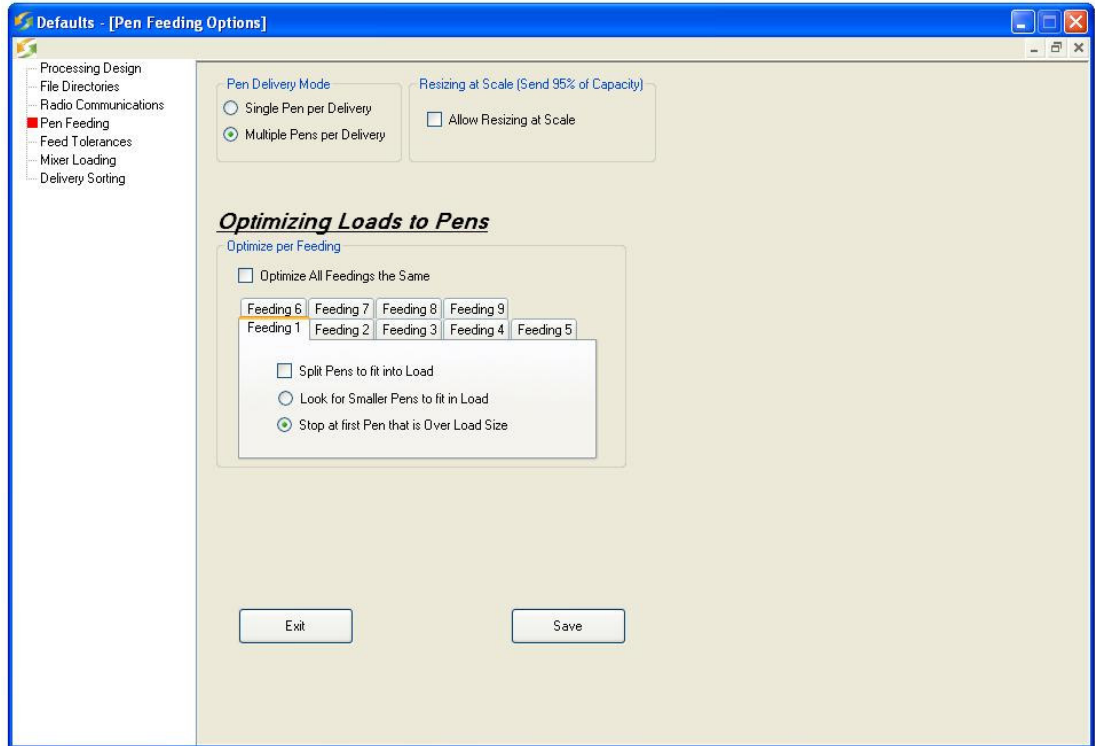
### ***Radio Test Mode***

This option is useful when testing the range of the radio system. To use this option set option to YES and save it.



Next set the scale to test mode, to change this enter short cut number (457) and press (Select). Change the option to (Yes) by pressing (Select) and then press (ON) to save.

### ***Defaults – Pen Feeding***



### ***Pen Delivery Mode***

**Single Pen** – this mode will send a single pen load at a time to your mixer. One pen, one load. This mode can be used if your mixer is undersized for your operation and cannot hold enough feed to process more than one pen at a time.  
(This mode is the least efficient.)

**Multiple Pens** – this mode will send multiple pens to your mixer based on your vehicles size and how much of a particular ration it can hold. Multiple pens, one load.  
(This mode is the most efficient and is the typical setting for most installations.)

### ***Resizing at Scale (Send 95% of Capacity)***

When this option is selected, it reduces the total capacity of the resize weight 5% lower then the actual capacity of the total load. This option does not control the option to resize at the scale indicator. This option is normally selected.

### ***Optimize Load to Pens/Optimize-Split Pens***

This setting determines whether the RF Datalink will split pens in order to fill your mixer to capacity. When you select [Yes], the RF Datalink program will maximize the load in your feed mixer and split pens as needed.

**Example;**

Maximum load size is 8,000 of Ration 1

Pens and call weights: Pen 1 2,000

Pen 2 2,000

Pen 3 2,000

Pen 4 3,000

Pen 5 1,000

If you select [Yes], the load would total 8,000 and would feed pens 1, 2, 3 and 1,000 of the call weight for pen 4. The next load that is built would feed the remaining 2,000.

This setting is typically set at [Yes].

***Find Pens to Fit***

To set the Find Pens to Fit Selection, from the main menu select Systems, Defaults, and then the Pen Feeding tab.

This setting is only available if you have selected [No] at the Optimize Split Pens selection.

This setting determines how the RF Datalink will optimize your feeding when you elect not to maximize the load in your feed mixer. The system can search the pen list to find smaller pens to get the load as close to the maximum as possible or can be set to stop at the first pen that will exceed the maximum load size.

**Example;**

Maximum load size is 8,000 of Ration 1

Pens and call weights:

Pen 1 2,000

Pen 2 2,000

Pen 3 2,000

Pen 4 3,000

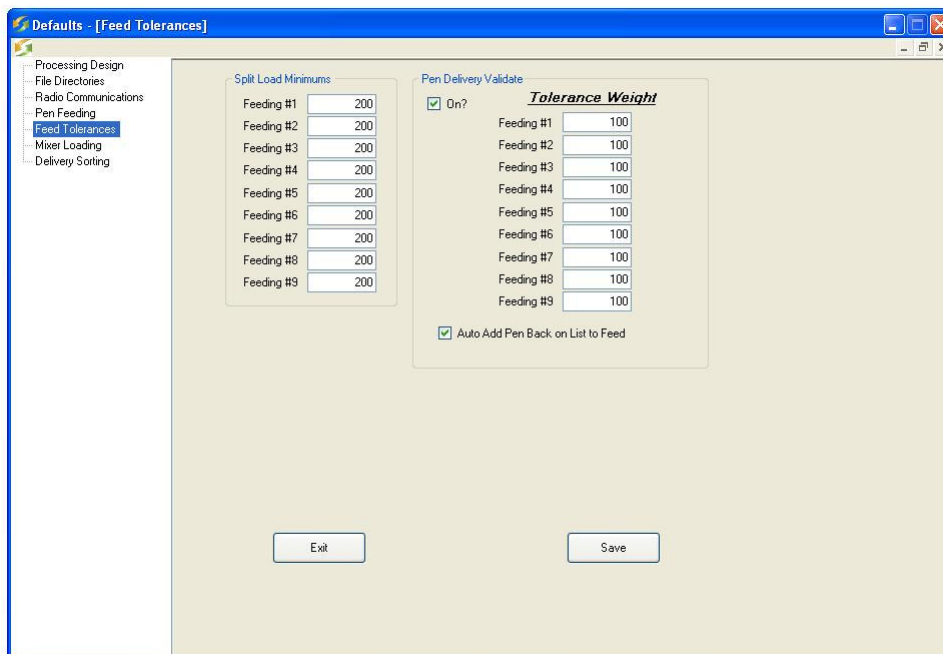
Pen 5 1,000

With the option set to **Look for smaller Pens that Fit**, the load would total 7,000 and would feed pens 1, 2, 3 and 5.

With the option set to **Stop at first pen that is over**, the load would total 6,000 and would feed pens 1, 2 and 3.

When you have completed your entries, click [Save].

## **Defaults – Feed Tolerances**



The weight tolerance settings allow you to establish an accuracy level for the loading and feeding of your rations and pens.

### ***Split Load Minimum Balance***

The Split Load Minimum Balance determines whether the remaining amount of a split load will be built

**Example:** You had a 4000-call weight to deliver to pen 1 and a split load occurred that left 200 to be fed to pen 1. You could set the split load minimum balance to 300. In this case, the remainder of the call for pen 1 would not be fed.

This setting is typically set to 50.

To set this, enter the amount that you want to set as your split load minimum. This setting is feeding specific. Repeat as needed for each feeding. Each feeding can have different settings.

### ***Pen Delivery Validate Tolerances***

To set the Pen Delivery Tolerances, first set the Pen Delivery Validate to [On].

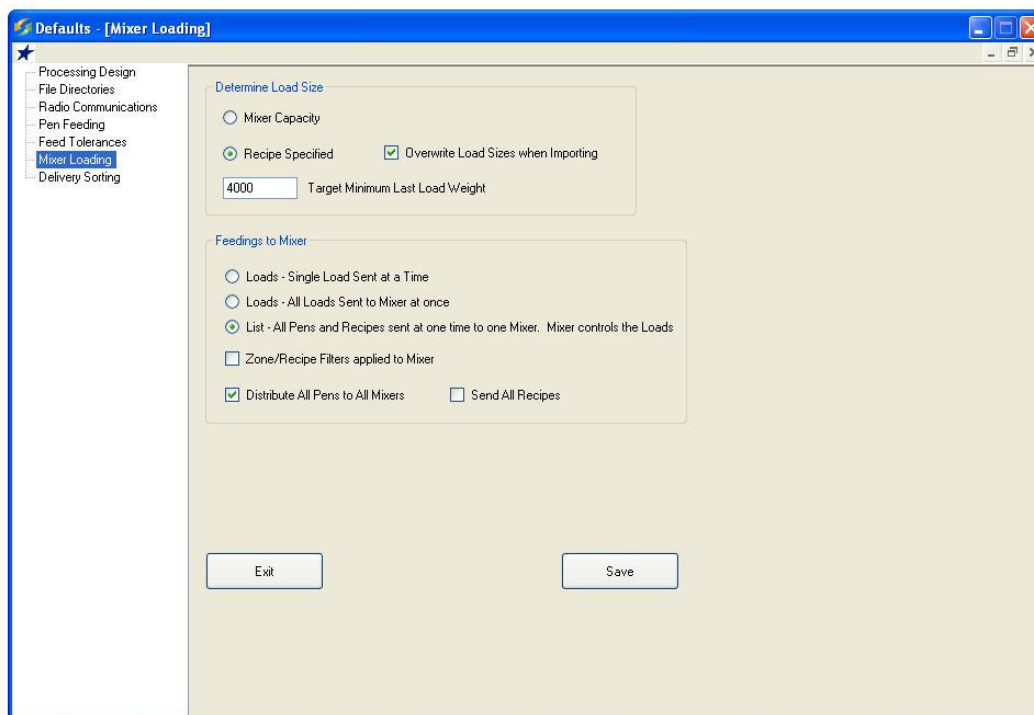
To set the Tolerance Weight for the pen deliveries, select the feeding number and enter a tolerance. You can set different tolerance weights for each feeding.

**Example:** You can have a relatively large window (tolerance) for the 1<sup>st</sup> feeding of the day when the goal is to get feed in front of the animals, where you may have a much tighter window (tolerance) in the afternoon when the goal is to get as close to the total amount for the day as possible.

## ***Auto Add Pen Back on List to Feed***

This setting allows Datalink to place a pen back in the feeding order when outside the tolerance weight.

## ***Defaults – Mixer Loading***



## ***Determining Load Size for the Mixer***

This setting is used by RF Datalink to determine how much of a particular ration can be loaded into your feed mixer.

Mixer capacity is determined in the Mixers screen. Use Lbs/Cu. Ft. or Kg/M<sup>3</sup>

Recipe specified is used in the recipe screen. The recipe is set for four different load sizes.

Target Minimum Last Load Weight is used to keep the last load at a decent size. Example:

The remaining balance is 10,000. The mixer can hold 9,000. To keep the last load from only being 1,000. Enter a value to make the last load at a decent size, i.e. 3,000 will be the last load size.

## ***Feedings To Mixer***

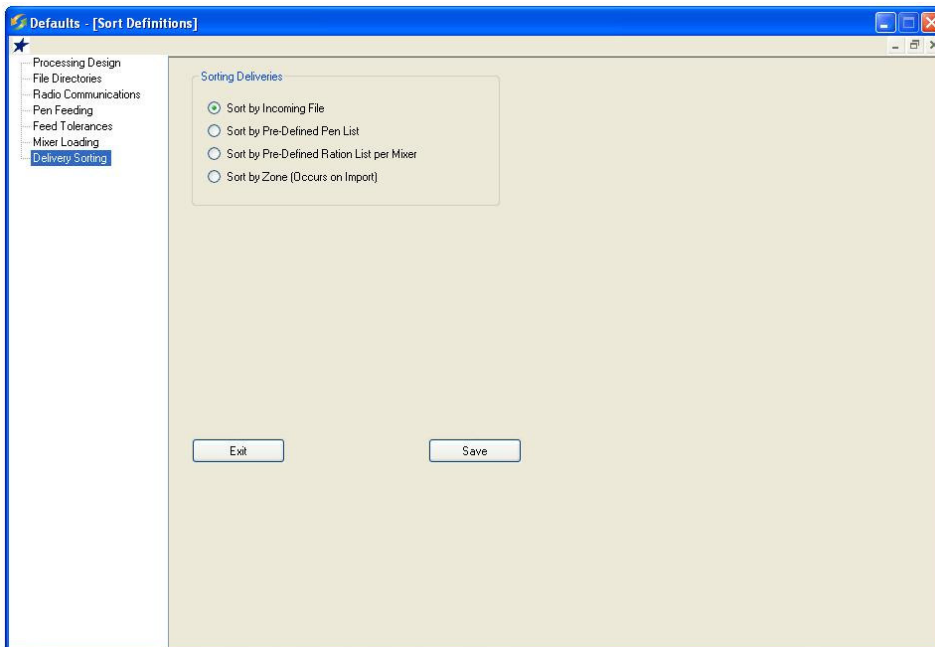
This option allows the PC operator to either send one load to the mixer at a time, send the entire feeding or feedings for the day to the mixer and allow the PC to only send the pens for that load, or send the entire feeding or feedings for the day to the mixer and have the scale operator control what pens get the ration. This option is most useful if the ration is most likely not to change over the course of the feeding period. Or the feed mixer is out of range of the base radio for more than 2 loads.

When you select, [All Loads at one time. PC controls loads] or [All pens and Recipes at one time to the mixer. Mixer controls the loads]. The “Distribute All Pens to All Mixers” option will appear. This option is set to [No] if the mixers have zones assigned to them. It will only send the correct zone to the correct mixer if the option is set to [NO].

***Full Load Delay***

This option is used with a bunk reader program. If the bunk reader program sends pens to Datalink when new pens are available, Datalink will wait until there are pens to make a complete load to send to a mixer.

***Defaults – Delivery Sorting***



Sort by Incoming File – This setting will allow Datalink to send the pen data out in the same order as sent by the third party software.

Sort by Pre-Defined Pen List – This setting allows you to set a predefined pen list. Datalink will always send out the pen list in the same order, no matter how the file is sorted by the third party software.

Sort by Pre-Defined Recipe per Mixer – This setting allows you to set a recipe order depending on each mixer. Example: Mixer one sort’s recipes in this order R3, R2, R1. Mixer two sorts in this order R1, R2, R3.

Sort by Zone – This setting will send out the pens in the order of the zone number: Zone 1-9

***Print Mixer Load Sheet***

To set the Print Load Sheet Selection, from the main menu select Systems, Defaults, and then the mixer loading tab.

This selection determines whether a Load Sheet will be printed for each load sent to the EZ Indicator in your mixer. The Load Sheet contains the ration loading and pen feeding information as loaded into the EZ Indicator.

This setting is typically set to [No].

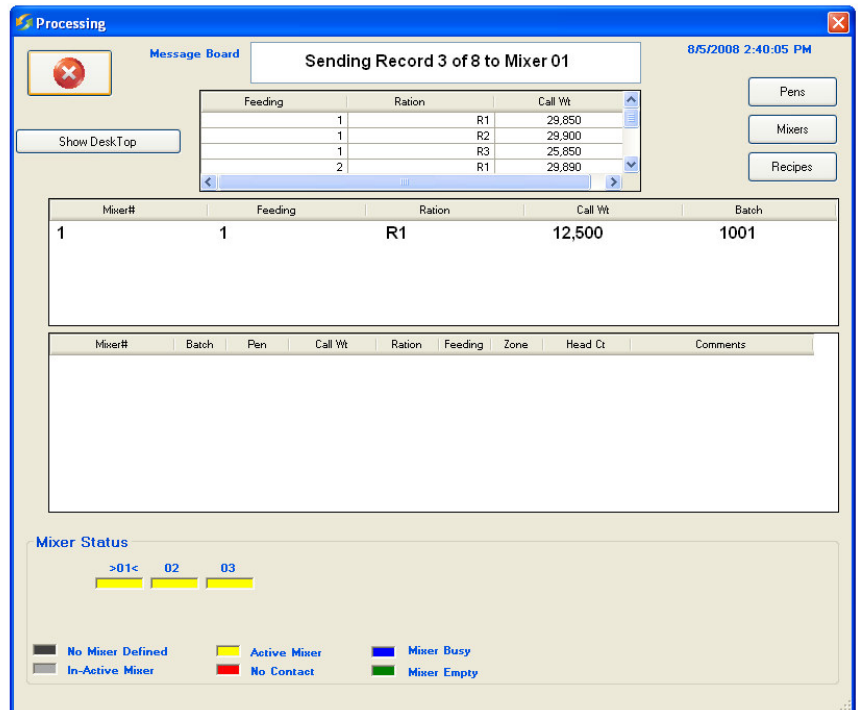
*Note: You must have a printer connected to the PC running the RF DataLink in order to use this setting. If you select [Yes] and do not have a printer connected, the RF DataLink program will not process another load until you either connect the printer or change the setting to No.*

# Operating the RF DataLink

Now send feedings to DataLink and start the process. DataLink will send feeding data to the scale. and then press the (Recipe) key to send the data back to the PC. This will repeat until the number of feeding are gone.

## Importing the Feeding Data

To import the feeding data, select Process from the main menu of the RF Datalink program. The program will automatically read the feeding data. A screen called Importing Pen File will be displayed while the feeding data is being read. When the file has been completed, the Importing Pen File box will be removed from the screen. The second window will now display the Feeding Number, Ration, Zone, Call Weight, Millmix and Externally Loaded amounts as shown:

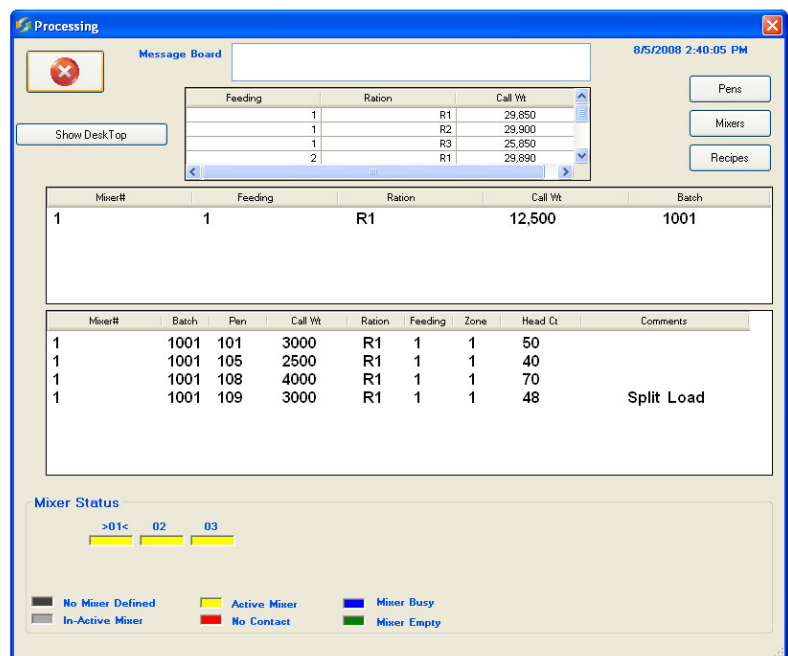


The Call Weight is the total amount of that ration to be fed for that feeding.

Millmix refers to the amount of that ration that is mixed at a mill.

Ex. Loaded is the amount of that ration that will be loaded at the Mixer.

If the RF Datalink program is already running in the Process mode, the program will automatically read any new feeding data sent from third party software. The RF Datalink program looks for feeding updates between each conversation with the EZ Indicator.



## Starting the Process

Once the feeding data has been read into the RF DataLink program, you can start the actual

feeding process by clicking on the Start button on the Process screen. The feeding process will not begin until you click on the Start button.

### **How the Process Works**

The feeding process in the RF DataLink program begins with a check of all available Mixers. The program initiates radio communication with each Mixer. It determines the status of the Mixer by reading the memory of the EZ Indicator. If the memory contains any loading or feeding data, then the RF DataLink program will not attempt to send a load to that Mixer. If the memory is empty, the RF DataLink will send a load to that Mixer.

After all the Mixers have been checked, the RF DataLink program will begin making loads. It will begin servicing the pens in the order sent from the third party software.

As the data is being transferred to the EZ Indicator at the Mixer, the upper window in the Process screen will show the status of the communication. The third window will also display the load information for this specific load.

This information includes the Mixer Number and Description, the Batch Number, Ration, Total Call Weight, Mill Weight and Externally Loaded amount.

Feeding		Ration	Call Wt
	1	R1	29,850
	1	R2	29,900
	1	R3	25,850
	2	R1	29,890

The L refers to Loaded and the F refers to Feeding Number. Each of these fields are updated when the communication is complete.

Once the communication is complete, the bottom window will display the Pen Numbers and the Call Weights for each pen in this specific load. The L and F fields will be updated in the third window as well. An X signifies that the load is complete.

The RF Datalink will now move to the next Mixer and make/send another load. Once all the Mixers have been loaded, it will then begin to search for each of the loaded Mixers. When it contacts a loaded Mixer that has completed its load, it will download that data from the EZ Indicator and send another load.

This process will repeat until all the pens have been fed and no loading or feeding data remains.



**Modifying Ration Data**

To access the Ration data, from the Process screen, click on Rations or select Rations from the File menu. This will display the Ration Library screen.

Listed here will be all the loaded rations in the RF DataLink program. Listed are the following:

**Recipe** – this is the ration code as assigned by third party software program.

**Lbs/cu.ft.** – This is the pounds per cubic foot rating of this ration. This value is set in the third party software program and is used to determine how large a load can be placed into your feed mixer.

**Ingredient** – this lists the individual ingredients that make up the ration.

**Call %** – is the load percentage of each ingredient.

**Type** – refers to whether the ingredient is mill loaded or Mixer loaded. The other option is to add a mix timer or rotation counter. To use this option, create a new ingredient in the recipe, then select what type of mixer timer/counter.

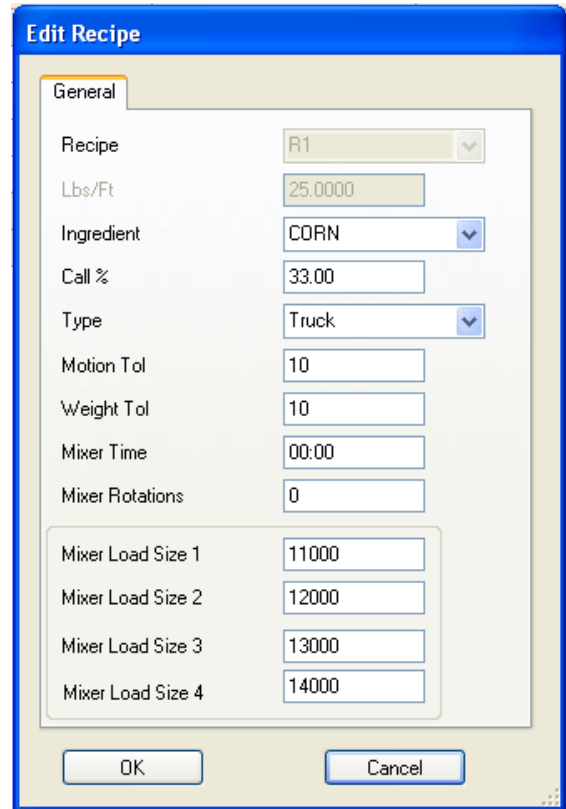
**Motion Tolerance** - This setting prevents the ingredient to advance if the weight is unstable or moving. The motion weight is the amount of weight the display changes by for the “Motion” Arrow to begin flashing. This allows the "Motion Weight Value" to be adjusted for each feedline. The indicator uses the motion weight value to determine when the weight on the scale is changing rapidly. Motion detection will activate when the weight displayed has moved more than "Motion Weight" (ex. 20) in less than "2 seconds".

This is different than the standard motion detection which activates when the weight displayed has moved more than "2 display counts" in less than "2 seconds". The standard motion detection is selected whenever the indicator is first turned ON or the "Motion Weight" value is set to "0". The "Motion Weight Value" has a range from 000(OFF) to 999. The weight value is either lb or kg depending on setting for Display Units in Long Form Setup.

To access this option: Enter short cut number 103 and press the [Select] key. Press [Select] key to toggle on/off. Press the [On] key to save.

**Weight Tolerance** – This option is useful if you need to set different tolerance weights for individual ingredients. The tolerance weight determines when the delay timer will begin. For example: if your tolerance weight is 100 lbs/Kg on corn silage, when you reach 100 remaining to load the “delay time” will begin to count down.

This tolerance weight will over ride the tolerance set at the indicator for only ingredients that have a tolerance weight entered from the software.



The auto-advance resets the "delay time" counter every time the weight moves out of the tolerance window. If enabled, "motion detection" also resets the "delay time" counter

Modifying rations in the Datalink program should only be done on a short-term fix basis. Rations should always be created within third party software. The ability to change rations is available in the Datalink program, as a means of quickly addressing problems not accounted for prior to the ration being built in third party software. These problems can be running out of a particular ingredient, having to skip an ingredient for a feeding, etc.

Any changes made to a ration in the Datalink program will be overwritten by third party software when the next feeding data is sent. This will occur only if the ration has the same name as the ration you edited.

*Note: If you access the ration data from the process screen, the process will be halted until you are done making your changes. appear asking you to verify that you want to save the ration. Choose [Yes] to save the ration, [No] to exit without saving.*

### **Adding Ingredients**

To add an Ingredient to a ration, highlight the Ration you want to add an ingredient to by clicking on it with the mouse. Click on the [Add] button. This will display the add ingredient screen.

Enter the Ingredient Name, Load Percentage of the new ingredient and whether the ingredient will be loaded at the Mixer or at the mill.

Click on [OK] to save your changes.

*Note: If your change results in making the overall percentage of the ration less than or greater than 100%, an error message will appear asking you to verify that you want to save the ration.*

### **Modifying Pen Data**

Listed here will be all the loaded pens in the Datalink program. The pens will be in the order sent from the third party software. Pens can be marked in three ways:

**Sent** –This signifies that the pen is in the process of being fed. It has been loaded into the EZ Indicator.

**Split Load** - This signifies that the pen has been split into two loads to optimize the Mixer load.

**Not Sent** – This signifies that the pen was not sent to the EZ Indicator.

**Pen** – this field displays the pen number.

**Ration** – shows the ration code or ration to be fed to the pen.

**Feeding** – displays the feeding number of this pen.

**Zone** – displays the zone assigned to the pen.

**Call Weight** – is the amount of ration to be fed to the pen.

*Note: Changes to pens should only be done as a quick fix solution to a problem. Pen feeding data should always be created in the third party software.*

*If you access the pen data from the process screen, the process will be halted until you are done making your changes.*

### **Changing Pen Rations**

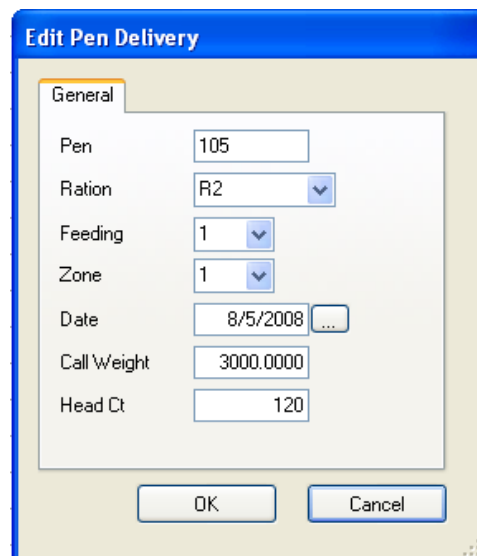
To change a ration fed to pen, click on the pen you want to change.

Click on [Edit].

This will display the Pen Delivery – View/Modify screen.

To change the ration, highlight the current entry and enter the new ration. The new ration must be in the current ration list.

Click [Save] to save your changes.



### **Deleting Pens**

To delete a pen, click on the pen you want to delete.

Click [Delete].

The Datalink program will ask you to verify that you want to delete the pen. Choose [Yes] to delete the pen, [No] to exit without deleting.

*Note: Once a pen has been deleted, it cannot be recovered. It would have to be re-created if deleted by mistake.*

### **Adding Pens**

To add a pen, click on the Add button. This will display the Pen Delivery – Add screen.

Enter the Pen Number, Feeding Number, Ration and Call Weight and Zone for the new pen.

*Notes: All added pens are added to the end of the feeding list. If you add a pen for feeding 1 and there are still pens in feeding 1 to be processed, the new pen will be fed last unless moved in the feeding order.*

*If an added pen is assigned a feeding number 1 and no feeding number 1s are in process, the added pen will have priority and will be fed on the next load processed by the Datalink program.*

### **Changing the Pen Order**

To access the Pen data, from the Process screen, click [Pen List] or select [Pen List] from the File menu. This will display the Pens to Delivery screen.

Pen	Ration	Feeding	Zone	Date	Call Wt	Head Ct	Sort	Status
101	R1	1	1	08/06/2008	2,000	80	1	Not Sent
102	R1	1	1	08/06/2008	1,800	72	2	Not Sent
104	R1	1	1	08/06/2008	1,200	48	3	Not Sent
109	R1	1	1	08/06/2008	3,000	120	4	Not Sent
111	R1	1	1	08/06/2008	4,000	160	5	Not Sent
112	R1	1	1	08/06/2008	4,000	160	6	Not Sent
125	R1	1	1	08/06/2008	2,400	96	7	Not Sent
201	R1	1	2	08/06/2008	3,150	126	8	Not Sent
202	R1	1	2	08/06/2008	1,900	126	9	Not Sent
203	R1	1	2	08/06/2008	2,200	88	10	Not Sent
304	R1	1	3	08/06/2008	2,600	126	11	Not Sent
306	R1	1	3	08/06/2008	1,600	64	12	Not Sent
103	R2	1	1	08/06/2008	2,000	80	13	Not Sent
105	R2	1	1	08/06/2008	3,000	120	14	Not Sent
106	R2	1	1	08/06/2008	2,350	94	15	Not Sent
107	R2	1	1	08/06/2008	3,500	140	16	Not Sent
108	R2	1	1	08/06/2008	2,200	88	17	Not Sent
110	R2	1	1	08/06/2008	1,900	76	18	Not Sent
401	R3	1	4	08/06/2008	2,000	80	19	Not Sent
402	R3	1	4	08/06/2008	1,800	72	20	Not Sent
404	R3	1	4	08/06/2008	1,200	48	21	Not Sent
409	R3	1	4	08/06/2008	3,000	120	22	Not Sent
411	R3	1	4	08/06/2008	4,000	160	23	Not Sent
425	R3	1	4	08/06/2008	2,400	96	24	Not Sent
501	R3	1	5	08/06/2008	3,150	126	25	Not Sent
502	R3	1	5	08/06/2008	1,900	76	26	Not Sent
503	R3	1	5	08/06/2008	2,200	88	27	Not Sent
604	R3	1	6	08/06/2008	2,600	104	28	Not Sent

Total: 259,930

Buttons: New, Edit, Delete, Import, Change Status, Delete All, Close

Pens are given priority based on the Feeding Number and the Pen Order sent from the third party software. A Feeding 1 always has priority over any other feeding. If no feeding number 1s are in process, then the next priority would be feeding 2. The priority then goes to the pen order.

**Example:** If the pen list contained:

- Pen 100 Feeding 1
- Pen 200 Feeding 1
- Pen 300 Feeding 2
- Pen 400 Feeding 2
- Pen 500 Feeding 3

Pens 100 and 200 would be fed first, in that order. If you changed the feeding order to:

- Pen 500 Feeding 3
- Pen 100 Feeding 1
- Pen 200 Feeding 1
- Pen 300 Feeding 2
- Pen 400 Feeding 2

Pens 100 and 200 would still be fed first. This is because those pens are assigned a feeding 1 and therefore have priority over Pen 500, which is a feeding 3.

To change the pen feeding order, highlight the pen you want to move by clicking on it with the mouse, this will make the Up and Down arrow buttons selectable.

To move this pen in the feeding order, click the Up arrow to move it up in the order or the Down arrow to move it down in the order.

If you have a pen scheduled for a feeding number 2 that you want to feed immediately, change the Feeding Number to 1 and use the Up arrow button to move the pen to the beginning of the list.

### **Putting an In-Process Pen back in the Feeding**

Pens that are InProcess, shows a status of Sent. To place these pens back into the feeding order, click on the pen you want to change.

Click on the Change Status button.

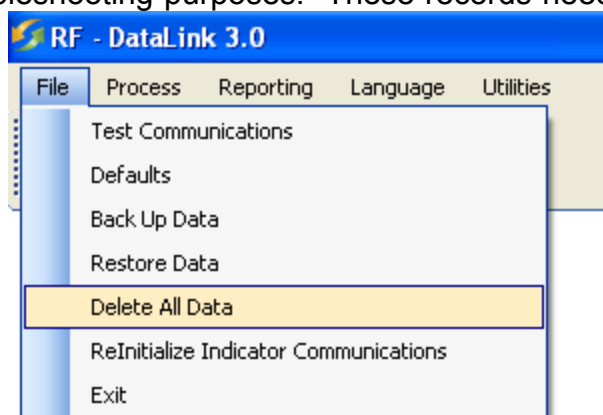
### **Deleting Records**

The RF DataLink program retains a copy of all data sent to and from the program. This includes the data sent from third party software and all communications with the EZ Indicator. This data is kept for backup and troubleshooting purposes. These records need to be periodically deleted.

To delete these records, select Delete All Data from the File menu.

**All** – will delete the entire currently loaded pen and ration files. This should not be done unless you are going to re-send the entire feeding from third party software.

*Note: this only clears incomplete data not sent to the scale indicators. Datalink will still retain a backup of all the complete data for the last 14 days.*

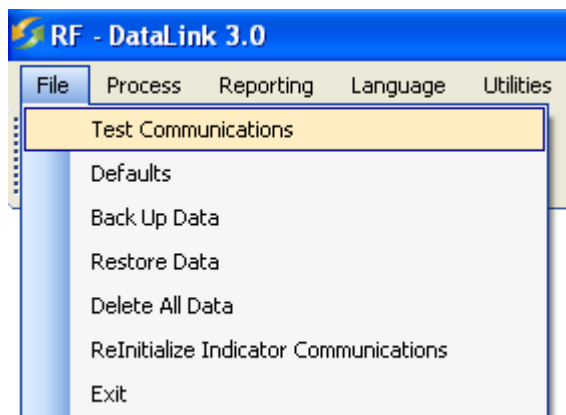


### ***Test Communications***

To access this screen select File, and then Test Communications.

The option will allow you to test communications with the EZ indicator.

In this screen you can select the EZ indicator to communicate with and view that status of the indicator.



### ***Indicator Status***

The status of the indicator is what information is in the scales internal memory.

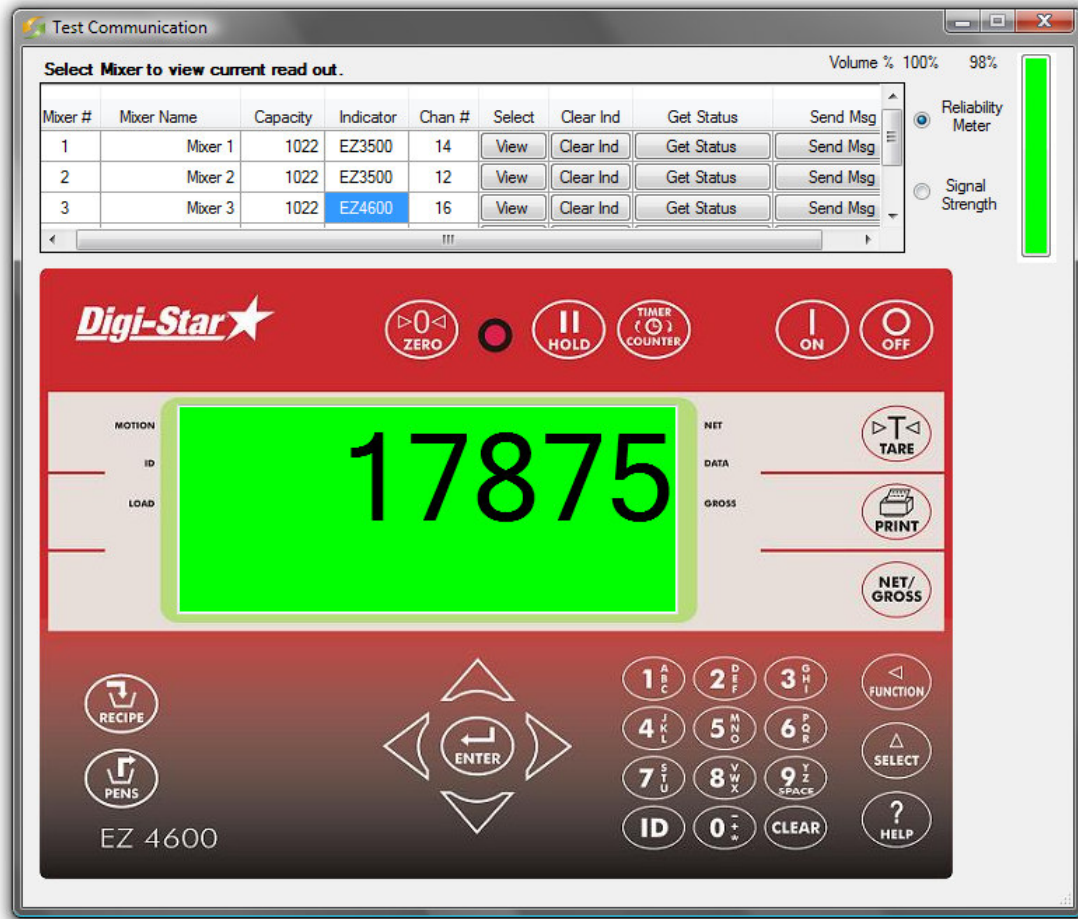
Example: If you send one load of 6 ingredients and 2 pens the status will show: **U0008D0000** This shows that there are 8 records in the scale memory of undone information. As the operator completes each ingredient and pen the undone records will then move to the done side. In order for the scale to send back complete data to RF Datalink there cannot be any undone records in the memory. The status must show: Example: **U0000D0008** at this time the scale will then start to send back the completed data.

If a load was sent to the EZ indicator that needs to be removed you have the ability to clear the batches in that indicator by clicking on the "Clear Mixer" button. If the status is: D9999U9999 this means that the scale is not in range or the scale is scrolling a message. The scale must be in weighing mode: Net or Gross for the scale to be cleared. Select the Get Feeding Status to refresh the status screen. Then select Clear Mixer.

You will have the same control in this screen as you would have at the indicator. You can click on the keys and also send a text message to the indicator. The indicator will continue to display the message until a key is press.

### Reliability Meter

This meter will show how well the scale and the base radio is communicating. The Good Data and Missed Data show how many times the base radio has received an “OK” message from the scale. Excellent reliability would be over 95%. If you are dropping below into Good refer to the front section about maximizing radio range.

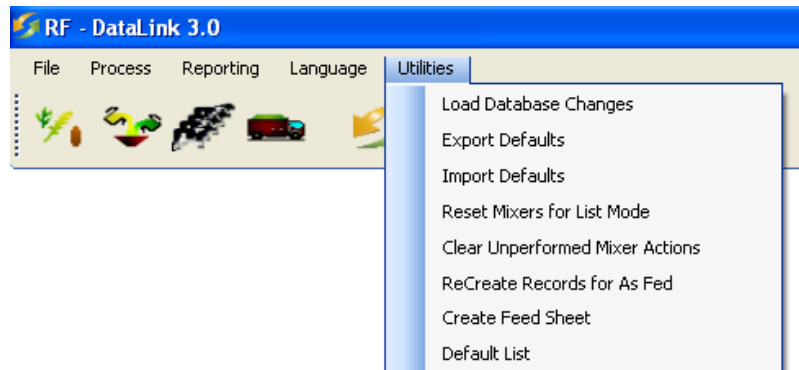


### Utilities

The utilities are used to repair or reset options used in Datalink software. Do not perform any of the utility options unless instructed by a Digi-Star technician.

**Load Database Changes** – Use this option when Digi-Star has repaired or modified your Datalink software.

**Export Defaults** – This is used to send a Digi-Star technician for troubleshooting or when installing on a different PC to transfer the settings.



**Import Defaults** – This is used to replace the current default settings when transferring to a different PC.

**Reset Mixers for List Mode** – This option is used for when switching from “Loads Mode” to “List mode”. Use this option to update Datalink.

**Clear Unperformed Mixer Actions** – When a load is sent to a scale indicator and is then deleted at the scale indicator, use this option to reset communications to allow a new load to be sent to the scale indicator.

**Recreate Records for As Fed** - This option will allow you to recreate the as fed file for a past day.

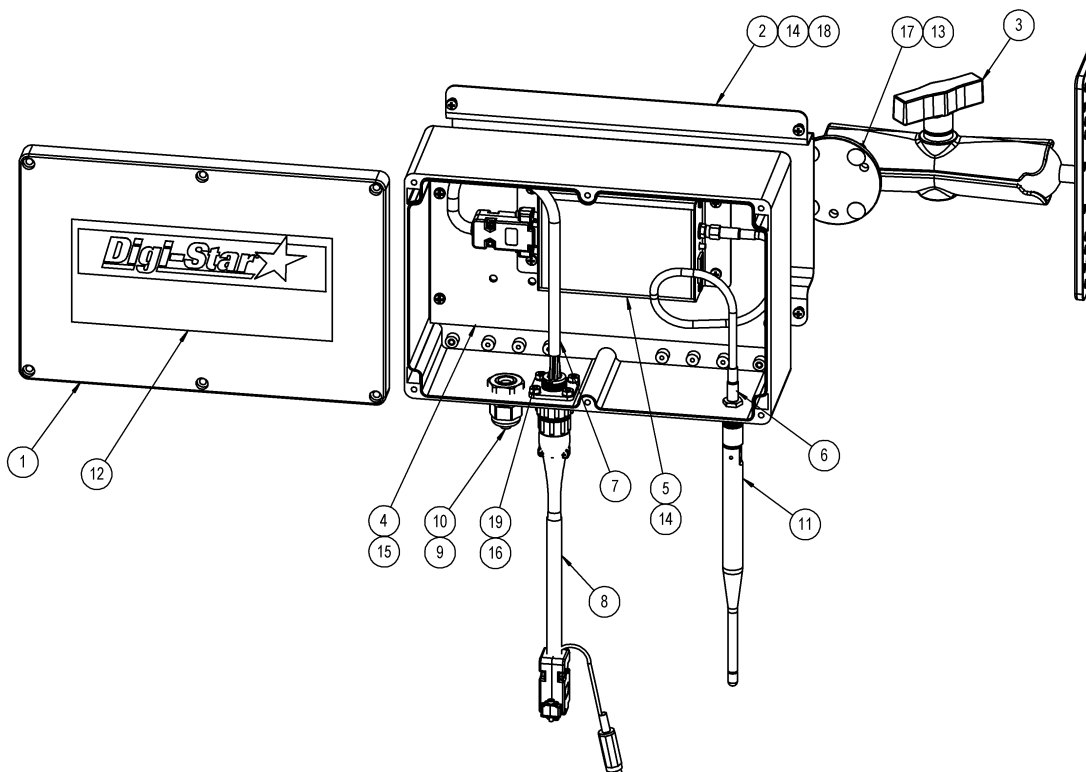
**Create Feed Sheet** – This option will generate feed sheets for ingredient loading and pen feeding.

**Default List** – This option will print a report of your current Default settings.



**Repair Parts – Std. Antenna**

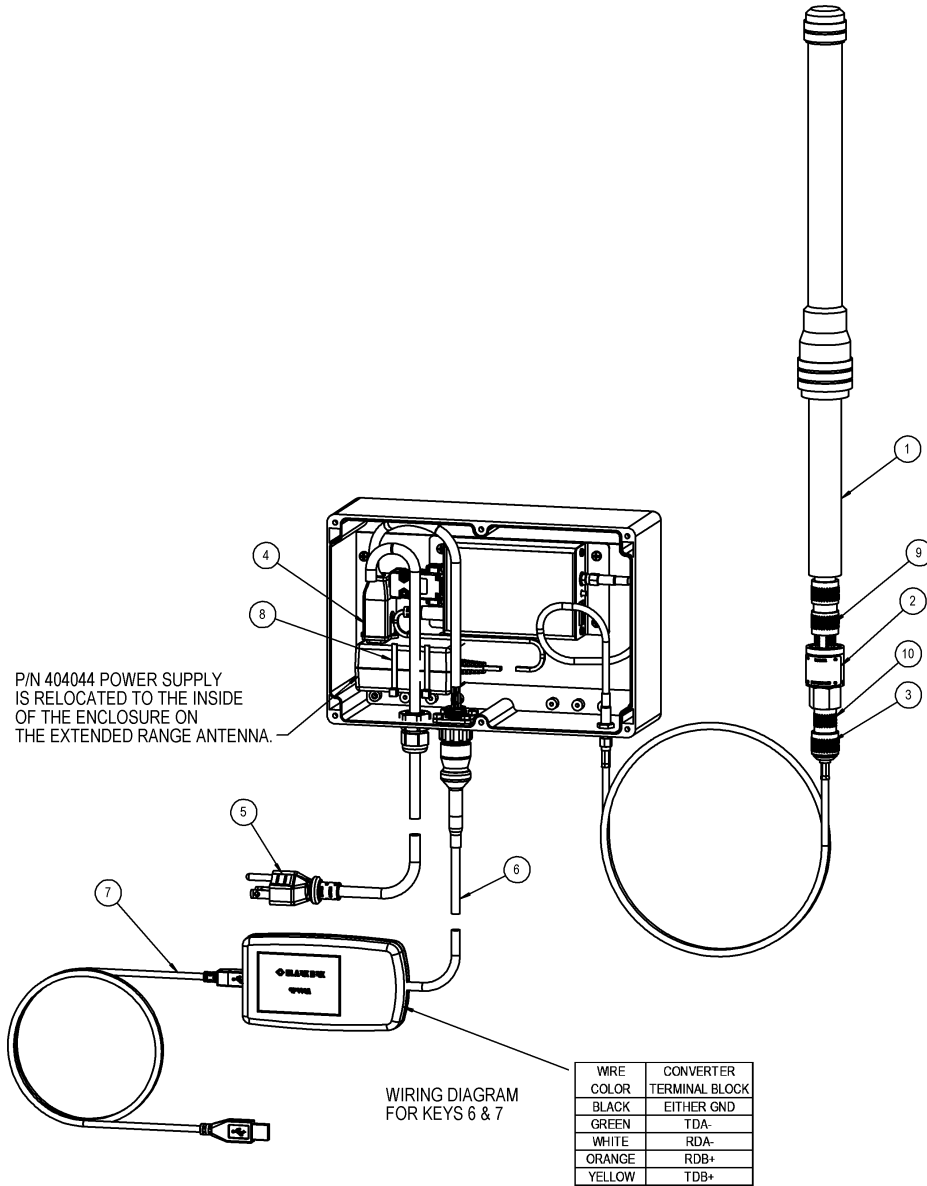
(P/N 403965 KIT-DATA LINK STANDARD BASE)



KEY	QTY.	PART NO	DESCRIPTION
1	1	404007	HOUSING-DATALINK BASE RADIO
2	1	403987	BRKT-DATALINK BASE RAM MOUNT
3	1	403314	MOUNT-RAM-111 1.5" BALL 7.3"LG
4	1	403986	PLATE-RADIO MOUNTING
5	1	403967	RADIO ASSY-2.4GHZ BASE,RS232
6	1	403988	CABLE-COAX 12" RPSMA M TO F
7	1	403989	CABLE-DATALINK RS232/RS422
8	1	403990	CABLE, DATALINK RS 232 W/POWER
9	1	141885	RELIEF - STRAIN HEYCO
10	1	146724	ROD-PLASTIC 1/4"
11	1	403972	ANTENNA-DATALINK BASE
12	1	403991	DECAL-DATALINK BASE
13	4	403495	SCR- #10-24 X .5 CRG ZP GR2
14	8	145339	SCR-#6-32 x 1/4 PHMS
15	4	403774	SCR-#6x5/16 PHSTS 48-2 ZP
16	4	141967	SCR-#4-40 x 3/8 PHMS PHL
17	4	403501	NUT-#10-24 KEPS ZP
18	4	834109	NUT-#6-32 KEPS
19	4	141966	NUT-#4-40 KEP SS
20	(not shown)	404044	POWER SUPPLY-UNIVERSAL 12V, .42AMP
21	(not shown)	403975	CONVERTER-USB TO RS232
22	(not shown)	404045	PLUGS-AC R-SERIES KIT

**Repair Parts – Extend Range Antenna**

(P/N 403966 KIT-EXTENDED RANGE ANTENNA)



KEY	QTY	PART NO	DESCRIPTION
1	1	404010	ANTENNA-2.4GHZ, 6 DB
2	1	404012	SURGE PROTECTOR
3	1	404013	CABLE-COAX N-MALE TO RPSMA 36"
4	1	404014	POWER PLUG-2 TERMINAL, SCREW
5	1	404015	POWER CORD-18 AWG, 3 COND 6 FT
6	1	404016	CABLE-DATALINK RS422 150 FT
7	1	404017	CONVERTER-USB TO RS422
8	2	PS2144-	CABLE TIE-.14x11.625" BLACK
9	1	404011	ADAPTOR-COAX N-MALE TO N-MALE
10	1	404018	ADAPTER-COAX N-FEMALE-N-FEMALE