MK3 OUT OF PARLOUR FEEDING OPERATING

Version - August 2016
For Software Version V2.09

Part Number - 39-0290

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MK3 OUT OF PARLOUR FEEDING: OPERATING: **1**

CURRENT SUBROUTINES IN SOFTWARE V2.03:

Below is the complete list of subroutines for easy reference:

Use with caution - deletes all cow data permanently and/or then writes 'dummy' data over the top.

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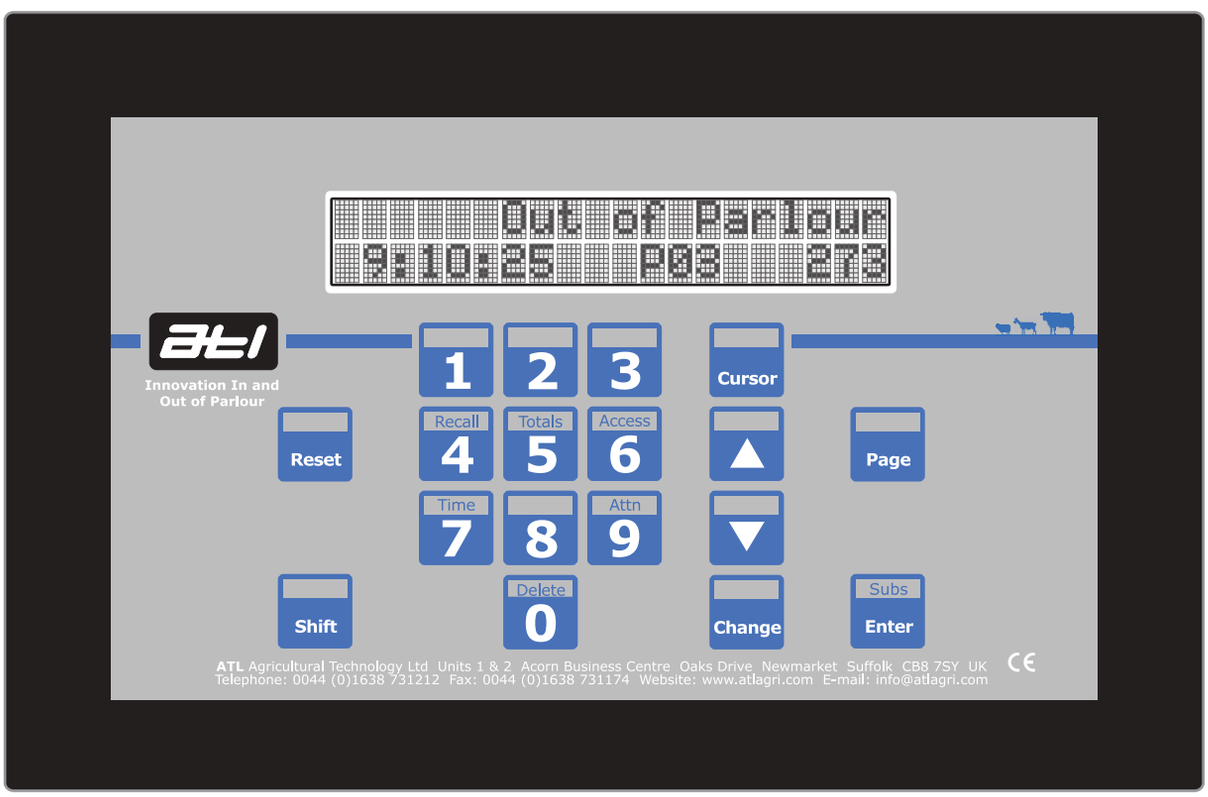
The Out Of Parlour Feeding System Console

The Out Of Parlour Feeding System Console is simple and easy-to-use. The keys and display are shown in the illustration below:



Out Of Parlour Feeding System Features:

- Open 24 hours.
- Simple calibration.
- Automatic resettable fuses.
- High feed accuracy due to ATL auger driven feeder.
- Link to ATL Cowculator Feed-To-Yield Software.
- Up to 999 cow memory.
- 16 feed groups.
- Unconsumed feed averaging (UFA).
- Ration boost facility for steaming up.
- Battery memory backup.
- Detailed reporting.
- Up to 12 feed periods during each 24 hour cycle.
- Up to 3 no-feed periods.
- User adjustable start time for each cycle.
- User adjustable maximum feed per period for each cow.
- Uneaten feed can be carried over to next cycle.
- Percentage feed remaining warnings for each cycle.
- Maximum visits warning.
- User adjustable intervals between feed drops.

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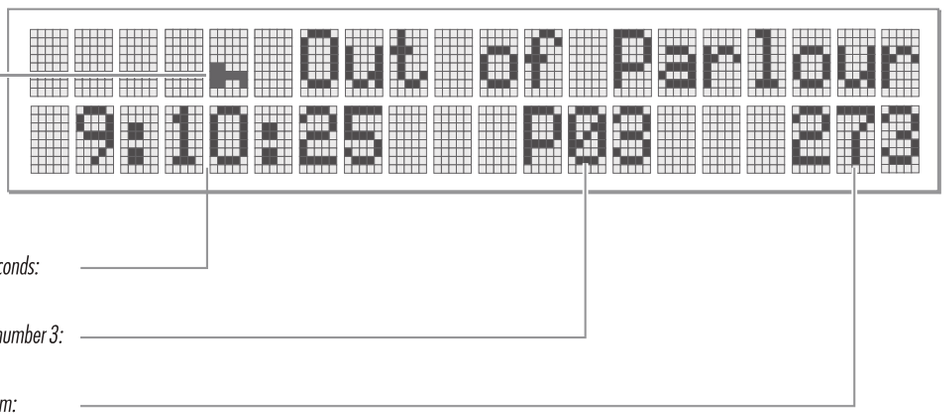
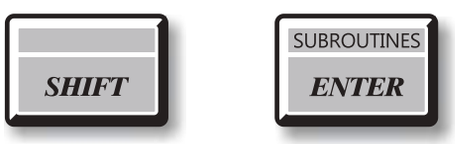
Console 'Power up' and Reset Display:



SHIFT FUNCTIONS

There are many features of the Out of Parlour Console which are accessed either as Functions- simple 'one-shot' actions that produce an immediate result such as displaying the cows fed, or Subroutines which require a degree of interactivity to configure the machine or access specific information.

The Shift key in combination with another key is used to run Subroutines and Functions. The procedure is always:



Press and ***Hold*** the Shift key

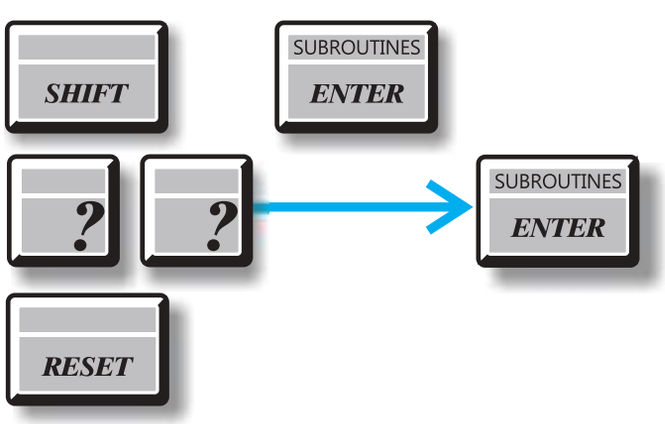
Press the Combination key: The functions are shown as small labels along the top edge of some keys; SUBS for example.

Release the Combination key.

Release the Shift key.

RUNNING A SUBROUTINE

Subroutines are 'miniature' programs that carry out a specific task, usually to configure the system, set up feed dispensing or establish data parameters. To run a subroutine:



Check that Program Mode is selected.

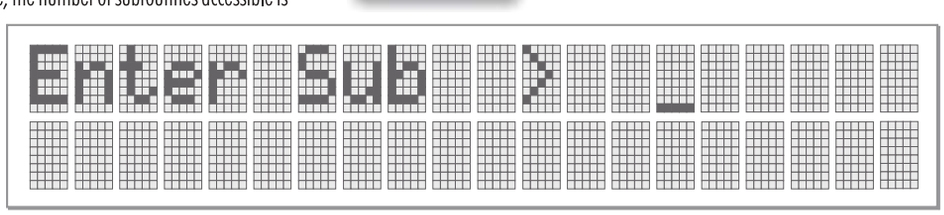
Press the Shift + Enter(SUBS) combination. The 'Sub' message will appear with the entry prompt ___ .

Key the subroutine number. This may be either 1, 2 or 3 digits.

Press Enter. The subroutine will now run.

Press Reset to exit the subroutine.

NB - If Out of Parlour Console in 'Locked' mode, the number of subroutines accessible is limited.



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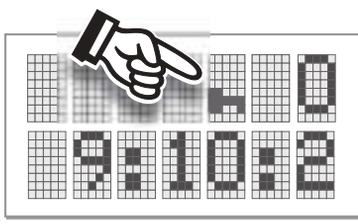
UNLOCKED & LOCKED MODES: Shift + 6

The Out of Parlour Console operates in 2 modes:

Unlocked Mode allows system data and setup parameters to be changed.

Locked Mode allows cows to be fed and flags set but prevents alterations to the system setup. This mode is provided to avoid vital data being changed inadvertently. Locked mode is active when a key symbol is present on the LCD display.



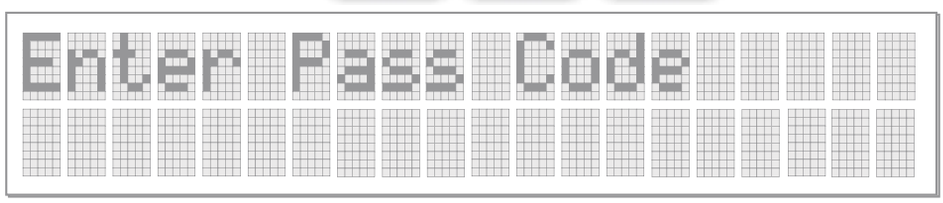
This function operates as a 'toggle'; each time it runs, the mode alternates.

Press SHIFT + 6.

Enter 638 and press ENTER.

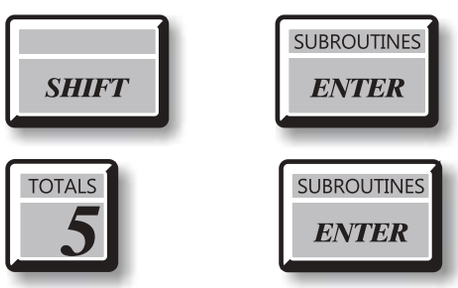
Locked or unlocked mode will be enabled.

Press Reset to exit the subroutine.



Change the Time and Date:

Subroutine 5 allows both the time and date to be set. The out of parlour software program checks feed periods against the real time so it is essential that it is accurate.



Press SHIFT + ENTER (Subroutines).

Key 5, the subroutine number for time/date change and press ENTER. The 'Set Real Time Clock' message appears on the display with the prompt.

Key the minutes value in the range 1 to 59) and press ENTER.

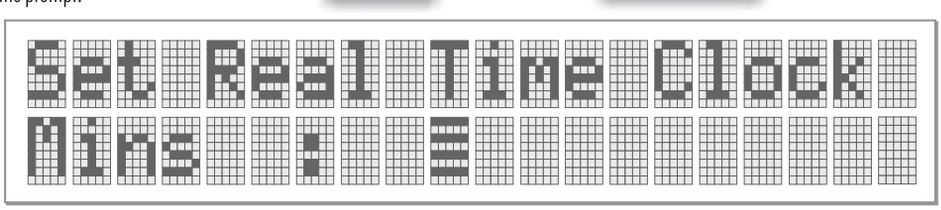
Key the new hour value in the range 1 to 24 (24 hour clock) and press ENTER.

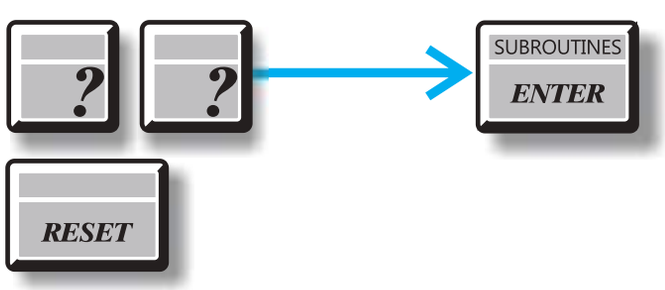
Key in the new day value in the range 1 to 31 and press ENTER.

Key in the new month value in the range 1 to 12 and press ENTER and finally...

Key in the new year value in the range 00 to 99 and press ENTER.

The display will clear to show the new settings- time to the left and date to the right.





Press RESET to exit the subroutine.

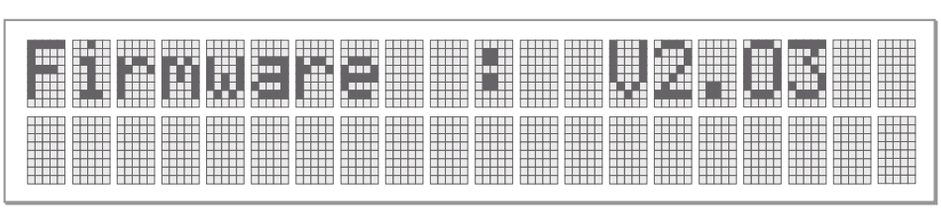
Displaying the Console Software Version:

Subroutine 2 allows the software version to be displayed.

Press SHIFT + ENTER (Subroutines).

Key 2, the subroutine number for displaying the software version and press ENTER. The 'Firmware : V2.03' message appears on the display.

Press RESET to exit the subroutine.



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The Master Tag.

The system is designed to respond to the Master Tag by automatically dropping one portion of feed (a single motor revolution) whenever it is read. This makes feeder calibration and operation checks simple to carry out because a cow record is not required. Only one Master Tag is allowed for the system but any HDX tag is suitable.

Creating the Master Tag: Subroutine 950:

Write 'Master' on a tag using an indelible marker.

Place the tag on the antenna in Stall 1.

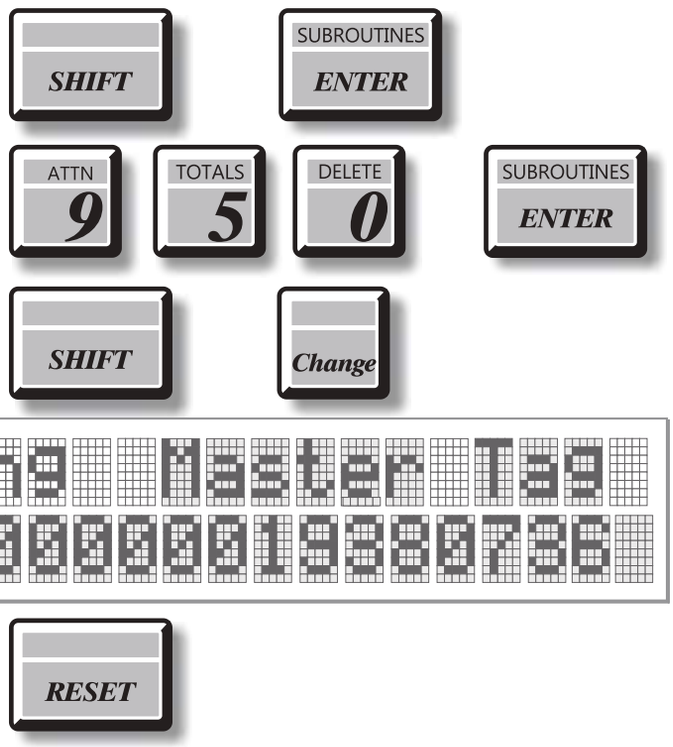
Press Shift + Enter(Subroutines).

Type 950 and press Enter. The console will display 'Reading Tag ????'. The question marks indicate that the tag is not linked to a cow record. The sixteen digit tag number is displayed on line 2.

Press Shift + Change. The console will display 'Reading Master Tag' with the tag number on line 2.

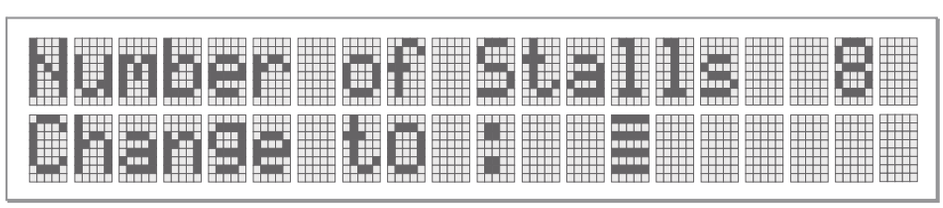
Remove the Master Tag otherwise the system will continue to read it and continue to feed!

Press Reset to exit the subroutine.



Set Number of Stalls (Feeders): Subroutine 982:

The default number of Stalls in the installation is 4 but this figure may be changed as follows:



Press SHIFT + ENTER (Subroutines)

Key 982 which is the subroutine number for Number of Stalls. The display shows the current setting together with the option to change it.

Key the new value.

Press ENTER to store the new value. That value will be displayed on the top line and the prompt will reappear to allow a further change if necessary.

Press RESET to exit from the subroutine.

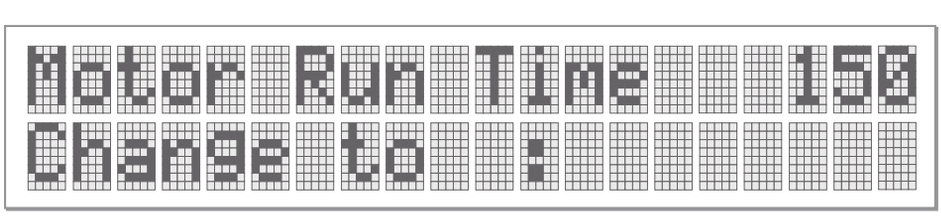
Change Motor Run Time: Subroutine 985

Subroutine 985 allows the motor run time to be changed from the default setting of 150.

Press SHIFT + ENTER (Subroutines).

Key 985, the subroutine number for changing the motor run time and press ENTER. The 'Motor Run Time' message appears on the display.

Press RESET to exit the subroutine.



This setting should not be altered without speaking to ATL first!

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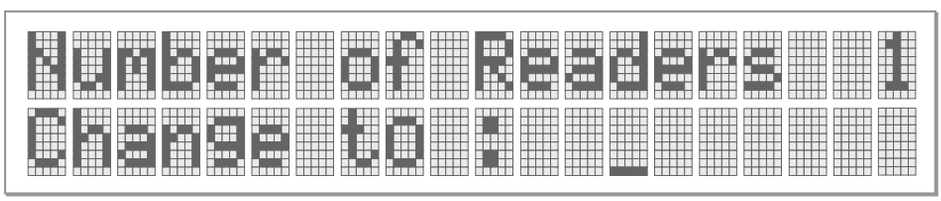
Set Number of Readers.

The cows' ear tags are detected by an electronic device called a Reader which provides the radio frequency power for the tags and receives and interprets the data received. The number of readers fitted to a system depends upon the number of stalls and the installation layout. The system software needs to 'know' if there is more than the usual single reader fitted

For a system with just 1 reader the value entered is '1'- the default- and for 2 or more readers the value entered is '2'. The correct value is set at the factory.



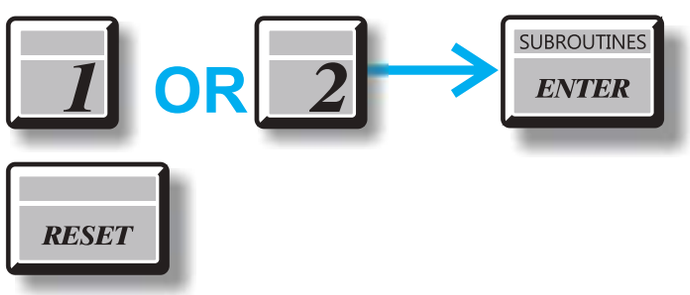
Press SHIFT + ENTER (Subroutines)

Key 983 which is the subroutine number for Number of Readers. The display shows the message 'Number of Readers with the current setting and the option to change it.

Key the new value; either '1' or '2'.

Press ENTER to store the new value. That value will be displayed on the top line and the prompt will reappear to allow a further change if necessary.

Press RESET to exit from the subroutine.



Cycles and Periods: The Out of Parlour Day

A 24 hour day is called a Cycle and is divided into Feed Periods. The number of Feed Periods in a single Cycle is set by the farmer in the range 1 to 12; each has the same duration.

The starting time of the Cycle is also set by the farmer and may be to the nearest minute although it is usual to start on an hour or half-hour boundary.

Most farmers find it convenient for the Cycle start to correspond with the first milking. In Figure (1), the Cycle has been set to start at 13.00hrs (24 hour clock) and is divided into 8 Feed Periods. Therefore, each Period is 3 hours in duration:

Period 1 starting at 13.00hrs
Period 2 starting at 16.00hrs
Period 3 starting at 19.00hrs
Period 4 starting at 22.00hrs
Period 5 starting at 01.00hrs
Period 6 starting at 04.00hrs
Period 7 starting at 07.00hrs and
Period 8 starting at 10.00hrs.

Overlaid on the Feed Periods are up to 3 No-Feed Periods. The farmer sets the start time and duration of each No-Feed Period. All cows will be denied feed during a No-Feed Period, the object being to discourage them from entering the stalls just before milking.

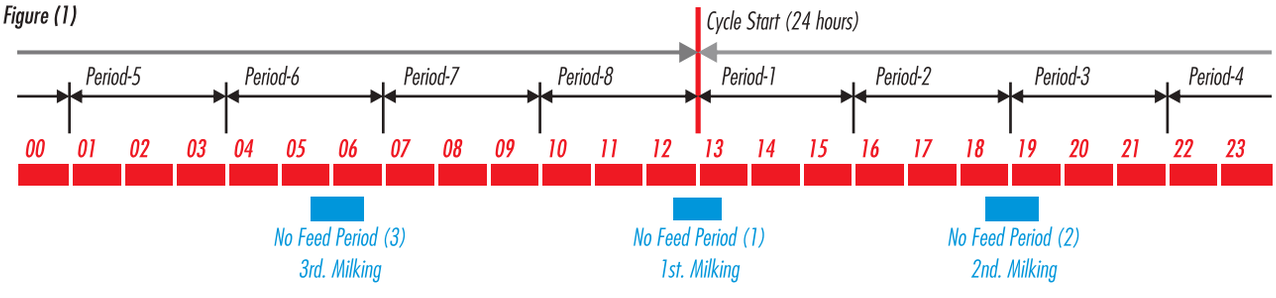
In the example, the No-Feed Periods have been arranged to start 30 minutes before milking and last for 1 hour. The maximum duration is 99 minutes.

No Feed Period (1) starts at 12.30hrs
No Feed Period (2) starts at 18.30hrs and
No Feed Period (3) starts at 05.30hrs.

General Advice on Periods

If the cows have 24 hour access to the feed stations, set the number of periods in the cycle to 8, 10, or 12. This ensures that the daily ration of feed is split up evenly over the entire 24 hour cycle. At times when the cows only have limited access to the feed stations, such as when they are out at grass, lower the setting for the number of periods to 2. This is ensures they get half their days ration in one go (i.e. after milking).

Figure (1)



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Antenna Testing: Subroutine 305

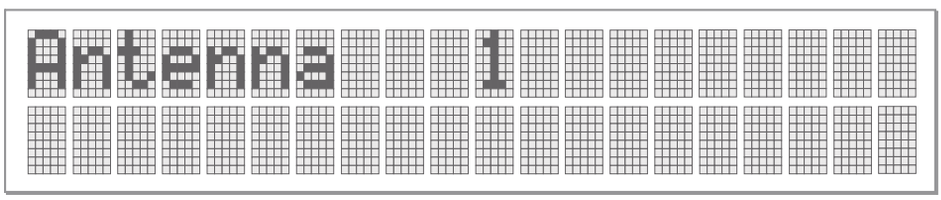
Subroutine 305 allows the antennae at each feed station to be tested.

Press SHIFT + ENTER (Subroutines).

Key 305, the subroutine number for testing the antennae and press ENTER. The 'Antenna 1' message appears on the display.

Press (▲) or (▼) to step through each feed station.

Press RESET to exit the subroutine.



IDS Status Codes: Subroutine 600

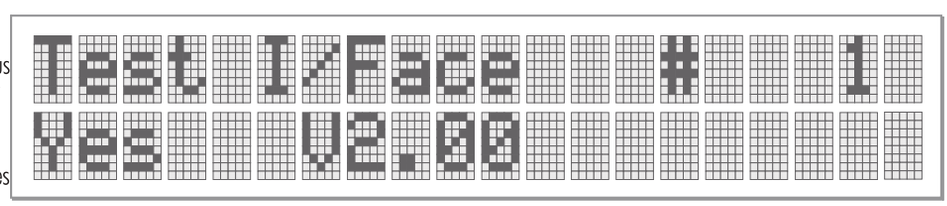
Subroutine 600 allows various devices on the Out-Of-Parlour system to be checked for faults.

Press SHIFT + ENTER (Subroutines).

Key 600, the subroutine number for the IDS status check and press ENTER. The 'Test I/Face # 1' message appears on the display.

Press (▲) or (▼) to step through the interfaces on the system.

Press RESET to exit the subroutine.



If there are problems with any of the devices on the Out-Of-Parlour system the following error codes will be displayed:

Err 2 - Meridian 6850 failure;

Err 3 - Reader 6850 failure;

Err 4 - Reader not responding;

Err 5 - Reader incorrect response.

Err 6 - Beam fault. Must be a beam on one of the four stalls on this interface. This may flash on and off as cows use the system (this is not a fault).

Err 7 - Fuse input error. Electronic fuse on interface has tripped. The stall number is shown.

Initialise Memory and Fill with Dummy Cows: Subroutine 888

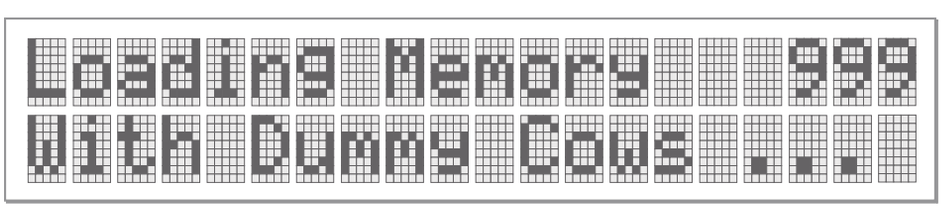
Subroutine 888 allows the memory of the Out-Of-Parlour system to be filled with dummy cows.

Press SHIFT + ENTER (Subroutines).

Key 888, the subroutine number for initialising and filling the memory with dummy cows and press ENTER. The 'Clearing Memory' message appears on the display.

Following this, the message loading memory with dummy cows appears on the display.

Press RESET to exit the subroutine.



This procedure cannot be reversed. Use with care!

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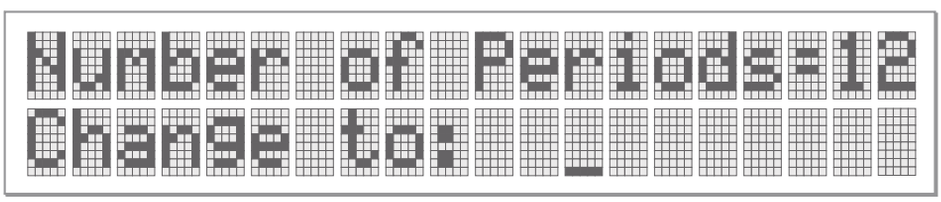
Cycle and Period Set-up: Set Number of Periods per Cycle: Subroutine 900:

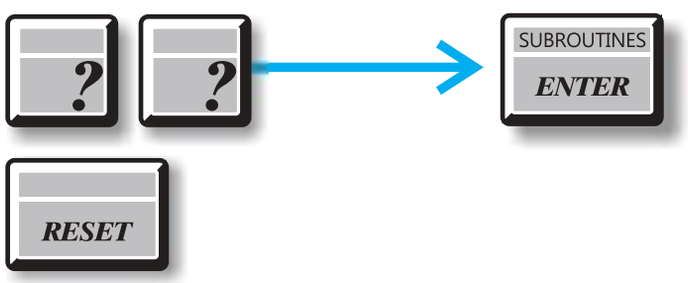
The number of Periods into which the Cycle (24 hours) can be divided, may be set in the range 1 to 12. Proceed as follows:



Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 900, the subroutine number to set the Periods.

Press ENTER. The display will show the current number of Periods and the option to change.



Key the number of Periods required in the range 1 to 12. Values outside this range will be ignored.

Press ENTER to store the data. The new value will be displayed on the top line with the option to change again.

Press RESET to exit the subroutine or press the Change key to re-enter the value.

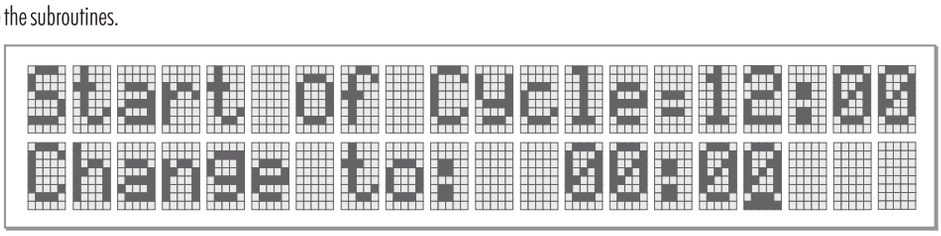
Cycle and Period Set-up: Set the Cycle Start Time: Subroutine 901:

The start of the Cycle (24 hours) is set using the 24 hour clock format in subroutine 901:

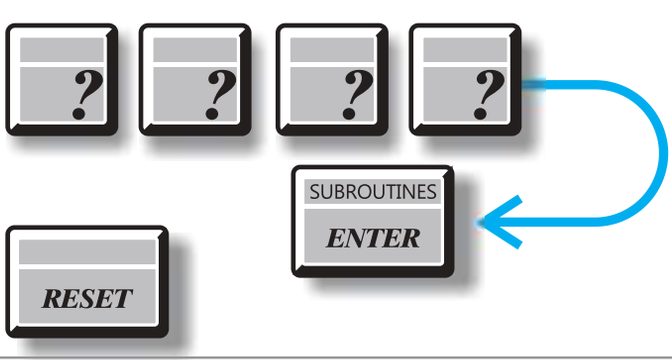
Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 901, the subroutine number to set the Cycle Start Time.

Press ENTER. The display will show the current Cycle Start Time setting and the option to change it.



Key in the new Cycle Start Time using the 24 hour clock format and all 4 digits. Exceeding hour or minute values will cause a rollover to the 'correct' time. So, for example if '1465' is keyed- being 1400 hours and 65 minutes-, after ENTER is pressed the time will show '15:05' with the minutes converted to hours and minutes and added to the original hours.



Press ENTER to store the data. The display shows the new value and the option to change it is presented again.

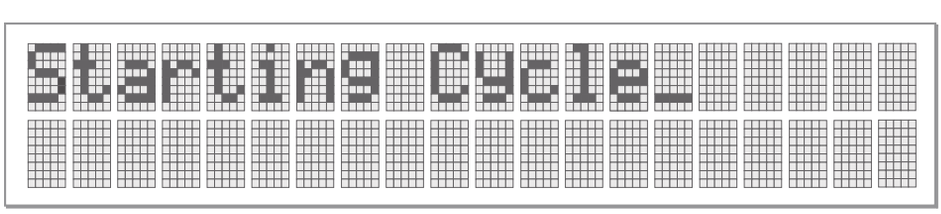
Press RESET to exit from the subroutine or Change to re-enter the data.

Force Start of Cycle: Subroutine 995

Subroutine 995 forces the start of a cycle and allows the calculation of rations now instead of waiting until the start of a cycle.

Press SHIFT + ENTER (Subroutines).

Key 995, the subroutine number for forcing the start of a cycle and press ENTER. The 'Starting Cycle' message appears on the display.



Press RESET to exit the subroutine.

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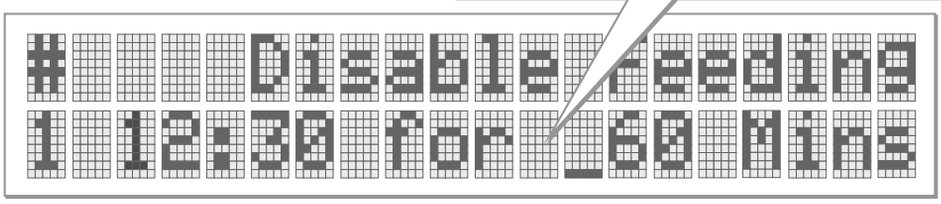
Cycle and Period Set-up: Configuring the No-Feed Periods: Subroutine 904:

Up to three No-Feed Periods are available. They may each be set to start at any time during the 24 hour Cycle and have a duration of between 1 and 99 minutes.

The display shows No-Feed Period #1 starting at 12.30hours and lasting for 60 minutes. The cursor indicates which item is being changed- in this case it is the duration.



Setting up the No-Feed Periods is a two stage operation- setting the Start Time and keying the Duration value.

Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 904, the subroutine number for setting the No-Feed (Feed disabled) Periods.The display will show the No-Feed Period Number (1, 2 or 3), the Start Time and the Duration.

Use the Cursor key to select either the Start Time or Duration. The prompt underscore will move to indicate which item is to be changed.

Press the Change key. The selected item will clear awaiting a new entry.

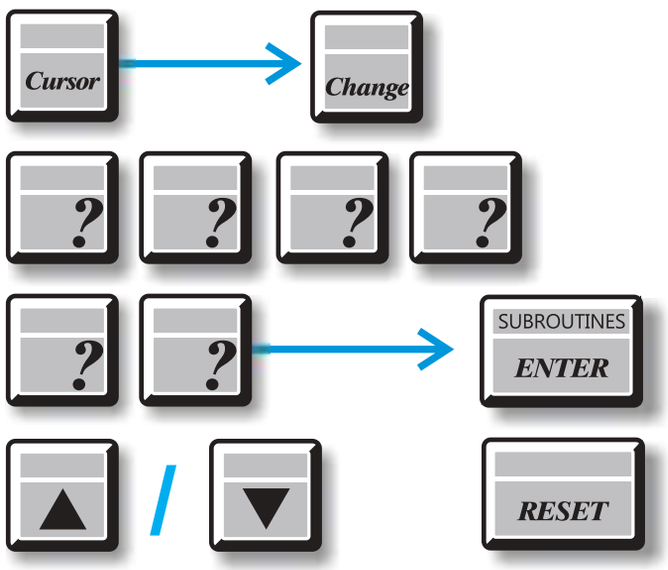
Key 4 digits to enter the Start Time in 24 hour clock format.

Key two digits in the range 1 to 99 (minutes) for the Duration.

Press ENTER to store the setting. The Cursor key/Change may then be repeated to alter the other setting.

Press (▲) or (▼) to move between the 3 No-Feed periods and alter the settings as above.

Press RESET to exit the subroutine.



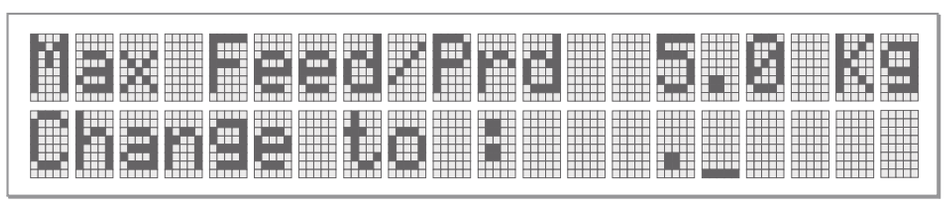
Set Maximum Feed per Period: Subroutine 903:

Uneaten ration is averaged over the remaining periods in a day, but to avoid an unacceptable accumulation and the possibility of a cow gorging itself, a limit may be set for a period beyond which the total accumulated feed cannot go.

To set the Maximum Feed per Period:

Press SHIFT + ENTER (Subroutines)

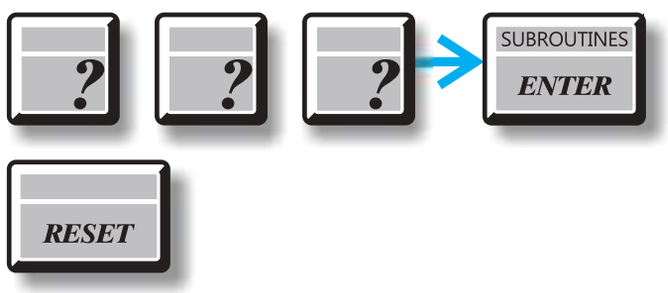
Key 903 which is the subroutine number for Maximum Feed per Period. The display shows the current setting together with the option to change it.



Key the new value in the range 0.1 to 30.0 kilograms.

Press ENTER to store the new value. That value will be displayed on the top line.

Press RESET to exit from the subroutine.



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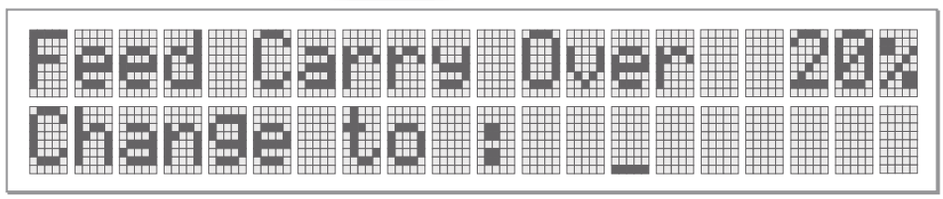
Set % of Uneaten Feed to Carry Over: Subroutine 907:

Uneaten ration may be carried over to the following day; the actual amount is represented as a percentage.

To set the carry over percentage run the subroutine 907 (follow the usual subroutine procedure) and the display will show the message 'Feed Carry Over' together with the current setting.



Key the new value % in the range 1 to 100.

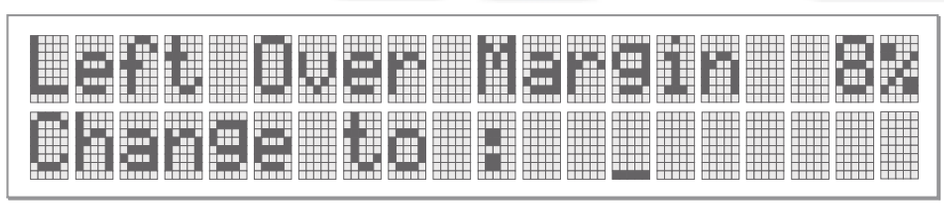
Press ENTER to store the new value.

Press RESET to exit the subroutine.

Set % Feed Remaining Warning Level: Subroutine 905:

Uneaten rations may be used to trigger a warning (*) on the Console display and the herd list as well as an entry on the 24 hour attention printout. The level of feed remaining is expressed as a percentage of the daily ration and only when this value is reached or exceeded will the warning be triggered.

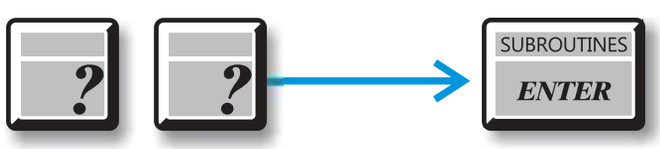
To set the percentage level run subroutine 905; the message 'Left Over Margin' will appear with the current percent value to the right and the entry cursor on the bottom line:



Key in the new value in the range 1 to 100 and press ENTER. The new value will appear on the top line.

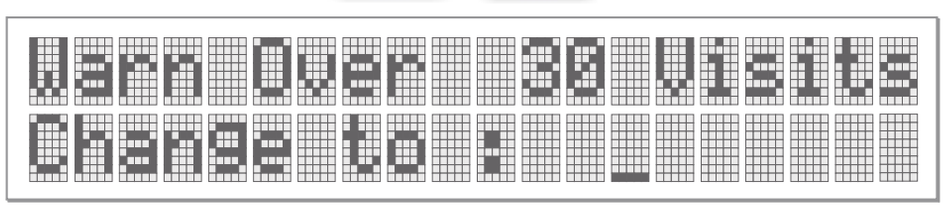
Press RESET to clear the display and store the new value.

Set Maximum Visits Warning: Subroutine 906:



Every time a cow visits a stall the event is recorded because excess visits can be a pointer to health or physiological problems. Cows making above normal visits are shown on the 24 hours attention list if the number is greater than a set breakpoint.

The breakpoint number is set using this subroutine. Run the subroutine sequence using number 906. The display shows the message 'Warn Over ?? Visits' with the current setting.



Key the new visits breakpoint value in the range 1 to 99.

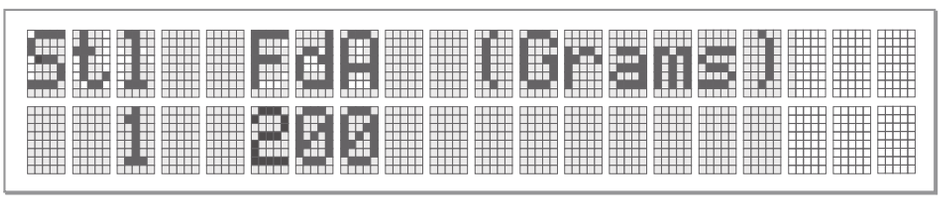
Press ENTER to store the new value.

Press RESET to exit the subroutine.

MK3 OUT OF PARLOUR FEEDING OPERATING: **10**

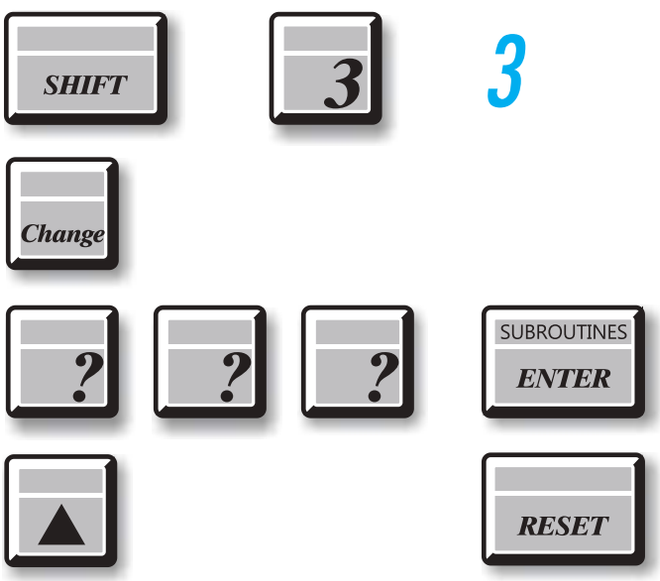
Feeder Calibration: Setting the Feed Time (Feeders A and B): Subroutines 120/121:

The feeder motors are designed to make one complete revolution in response to a 'command' from the control. In order that precise rations may be calculated, the amount of cake delivered by each feeder in one revolution needs to be stored in the system memory.



There are two subroutines for feeder calibration: Subroutine 120 calibrates the front feeders (A) and 121 calibrates the rear feeders (B) where fitted. Both use the average of *three* drops to determine the setting (in grams).

Run the appropriate subroutine. The screen will display stall number (Stl), the Feeder type (FdA or FdB) and the current Grams per Drop setting.In the example stall 1, feeder type A and grams per drop set to 200 grams.



Press SHIFT + 3. The feeder will make a single revolution.

Press SHIFT + 3 again.

Press SHIFT + 3 again. This will provide 3 averaging samples

Weigh the cake delivered and divide the result by 3 to find the average.

Press the Change key. The old value will disappear to be replaced by a flashing cursor.

Key in the new average value and press Enter.

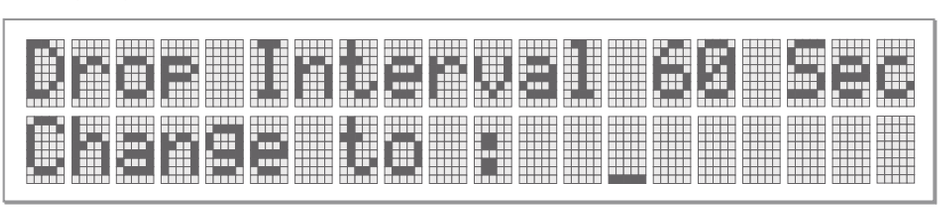
Select the next feeder by pressing the Up Arrow key and repeat the process for that feeder, or press Reset to exit the subroutine.

.

Drop Interval: Subroutine 908:

The time interval between one drop of feed and the next can be pre-set. The interval should be set to approximately the amount of time it takes for the cow to consume the amount of feed dropped. This would normally be approximately 20 seconds. Setting this value too low can cause feed to be dropped too quickly, causing wastage whereas a value that is too high can mean that the animal leaves the stall before the next drop is dispensed.

To set the drop interval run the subroutine 908 (follow the usual subroutine procedure) and the display will show the message 'Drop Interval' together with the current setting.



Key the new drop interval in the range 1 to 60.

Press ENTER to store the new value.

Press RESET to exit the subroutine.

MK3 OUT OF PARLOUR FEEDING OPERATING: **11**

Creating a Cow Record.

A cow must have a record in memory before it can be linked to an ear tag and fed. To program a cow and create a record:

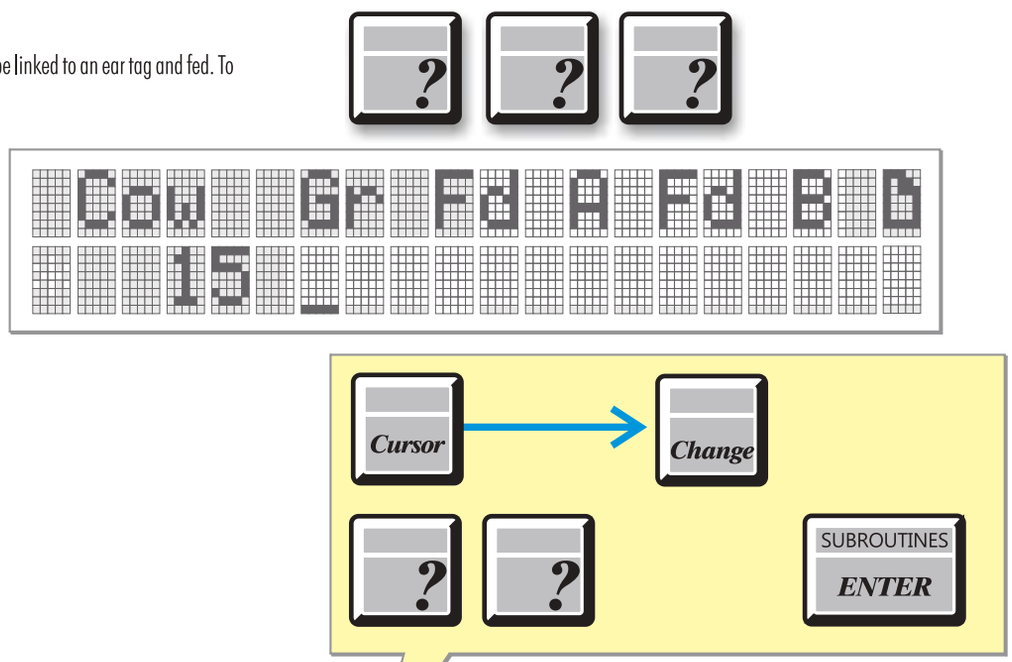
Key in the new cow number. Do NOT press ENTER

Press the Cursor key until the cursor is positioned beneath the Gr(oup) heading.

Press the Change key.

Key the group number to which the cow will be allocated. Two digits maximum.

Press ENTER.



Press the Cursor key. The cursor will move to the 'Fd-A' field.

Press the Change key. The 'Fd-A' field will clear to the flashing entry cursor.

Key in the cow's daily ration in the range 0.0 to 30.0 kilograms including the decimal place (0.1kilograms).

Press ENTER.

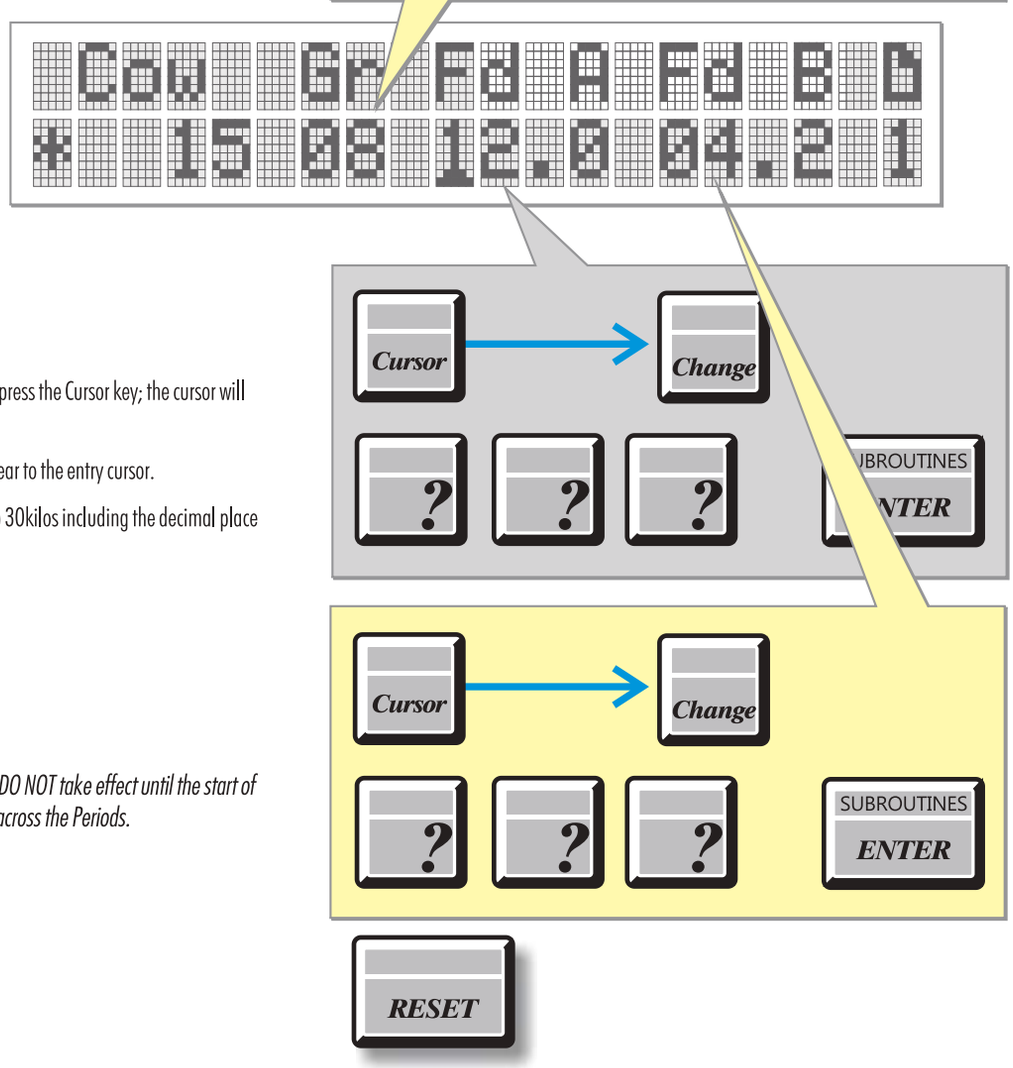
If a second feeder (B) is fitted to the system, press the Cursor key; the cursor will move to the 'Fd-B' field.

Press the Change key. The 'Fd-B' field will clear to the entry cursor.

Key in the cow's daily ration in the range 0 to 30kilos including the decimal place to 0.1kilograms.

Press ENTER.

Press RESET.



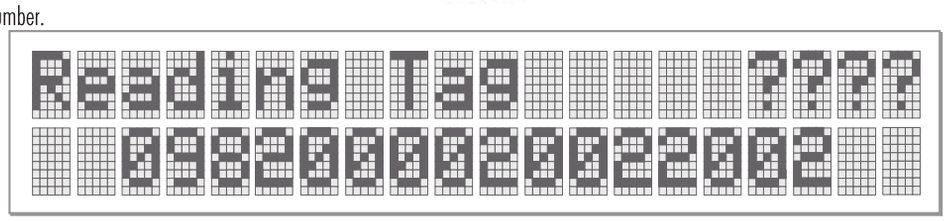
New records or changes to existing records DO NOT take effect until the start of the next Cycle when the ration is allocated across the Periods.

MK3 OUT OF PARLOUR FEEDING OPERATING: **12**

Linking an Ear Tag to a Cow Record: Subroutine 950:

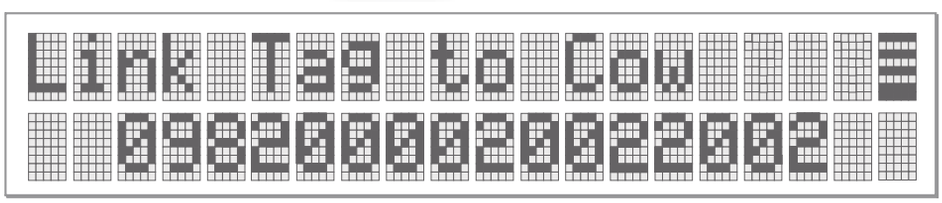
The process of 'recognising' a cow depends upon the number contained electronically within the ear tag being *linked* to a specific cow number. The linking consists of automatically reading a tag and then manually keying the cow number.

Connect the Console to the local socket on the Control Module and start subroutine 950. This routine reads the ear tag at stall 1 and displays it on the Console. If it is already linked to a cow, that cow's number will be displayed also.

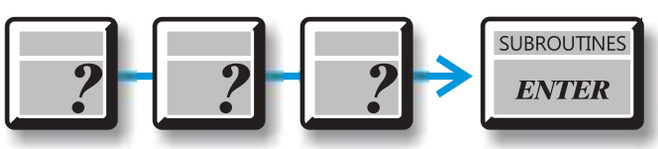


If the tag has not been linked, the cow number may be keyed in at the Console to complete the linking process. Before the Ear Tag(s) are fitted to the cow(s), write the cow number on the flat face of each tag. Use a permanent marker.

Place the ear tag on the antenna cover in Stall (1). This subroutine only scans Stall (1). The display should show the tag number and the message 'Reading Tag'.



If the tag is already linked to a cow the cow number will be displayed to the right of the window. Otherwise the display will show '????'.



Link the tag to a cow by pressing the Change key. The display will show 'Link Tag to Cow' together with the flashing cursor.

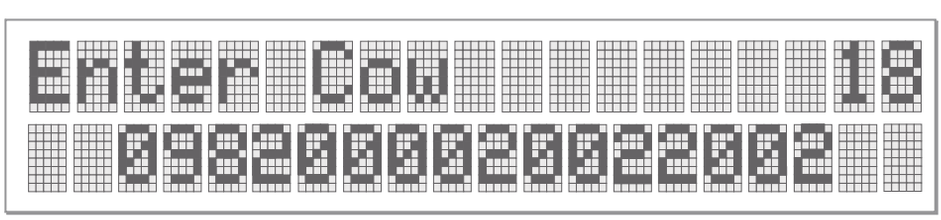
Key the cow number and press ENTER. The cow and tag are now linked.

Remove the tag from the antenna cover and place the next tag in position. The new tag will be read with the option to link it. There is no need to start the subroutine for every tag.

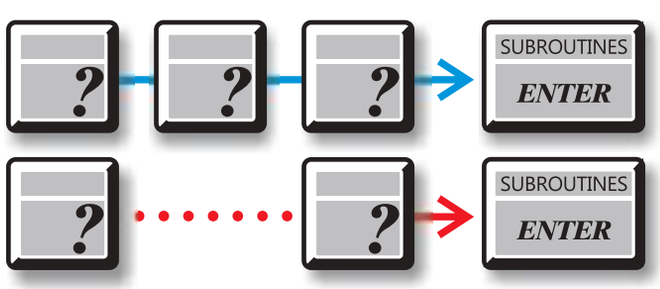
Press RESET to exit the subroutine.

Linking an Ear Tag to a Cow Record: Manual Method: Subroutine 951:

If a cow's record is accidentally deleted its ear tag will have to be re-linked to create a new record. It is impractical to 'force' the cow into a stall or remove the tag to carry out a conventional link, so subroutine 951 allows the tag number to be entered manually.



The number printed on the face of the ear tag is not complete and cannot be used as a link; the number must be taken from a printout or if re-usable tags are being used, prefix the number with '00000000' (8-zeros); if tamper-proof tags are used prefix the number with '09820000'. Run the subroutine; the message 'Enter Cow' is displayed:



Key the cow number and press ENTER. A row of zeros with a flashing cursor will appear on the lower line.

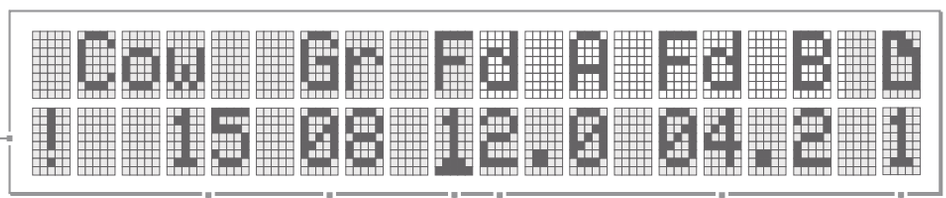
Key the ear tag number- 16 digits (see note above) and press ENTER. The cow and tag numbers are now linked.

Press RESET to exit the subroutine.

MK3 OUT OF PARLOUR FEEDING OPERATING: **13**

Accessing a Cow Record.

Key in the cow number and press ENTER. If the cow has not been programmed into memory the 'No such cow' message appears, otherwise for a valid cow Page(1) of her record appears with data as follows:



Cow has made no visits during previous cycle

Cow Number: Up to 4 digits

Group Number: Up to 16 Groups are available including the 'null' Group '00'.

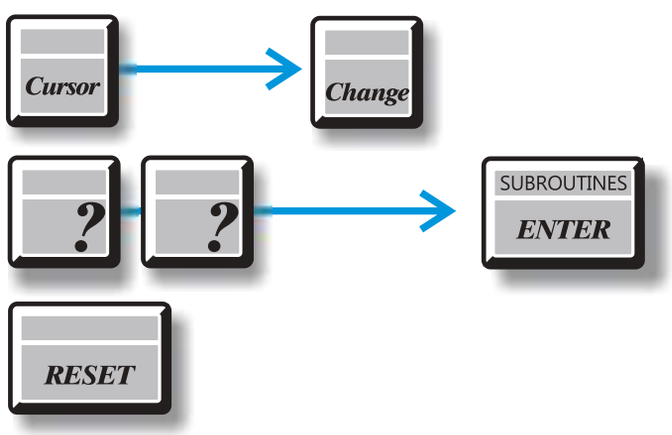
Select Cursor: Indicates the item currently selected for changing. Use the Cursor key to move between the items.

Ration Feed (A): Represents the cows entire daily ration in Kilograms for this feed. The system will allocate the ration across the set number of periods.

Ration Feed (B) where fitted: The cow's entire daily ration in Kilograms for this feed. The system will allocate the ration across the set number of periods.

Current Page: Press the PAGE key to move between data pages.

Both Group Number and the Daily Feed Ration(s) may be changed whilst Page 1 is being displayed:



Press the Cursor key if necessary to select the item for change. The cursor will toggle between the items.

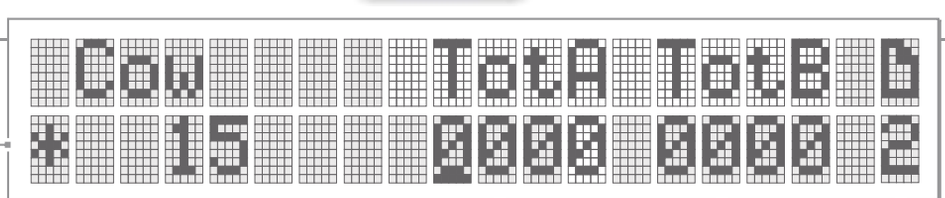
Press the Change key. The displayed item will clear to a flashing 'block' cursor awaiting the new entry.

Key in the new value. For the Group, only the range 0 to 16 is allowed; For the Feed Ration a value of 0.0 to 30.0kilos is valid. Any values greater than those specified will be ignored and the prompt will clear awaiting a valid entry.

Press ENTER to store the new data.

Press RESET to exit.

Cow Record: Page 2:



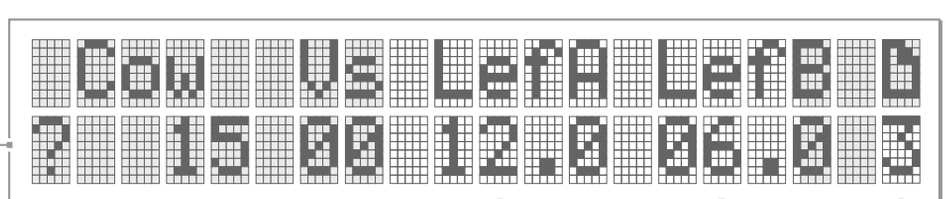
Cow has excess feed remaining from previous cycle

Total Feed (A) Consumed since start of lactation (or reset)

Total Feed (B) Consumed since start of lactation (or reset)

Page 2 Indicator:

Cow Record: Page 3



Cow does not have a valid tag number (unlinked cow)

Number of Visits During Previous Cycle:

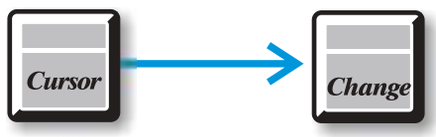
Ration Unconsumed Feed (A) during last full cycle. Calculated at the end of the cycle

Ration Unconsumed Feed (B) during last full cycle. Calculated at the end of the cycle

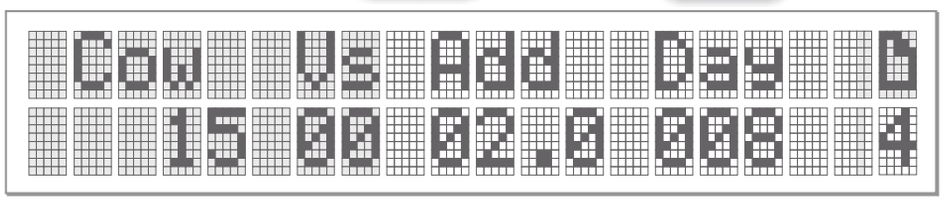
Page 3 Indicator:

MK3 OUT OF PARLOUR FEEDING OPERATING: **14**

Cow Record: Page 4: Ration Boost



A cow's ration may be increased (boosted) over a number of cycles of your choice by an amount of your choice. The ration is measured in kilograms and the period in days. After the number of cycles have passed and the ration has reached its maximum, it stays at the new value



Use the Cursor key to move the cursor to the 'Add' column.

Press the Change key. The cursor will change and flash.

Key in the value of the Boost ration (maximum 2.0kg. additional to the daily Feed (A) ration) and press ENTER.

Move the Cursor to the 'Day' column.

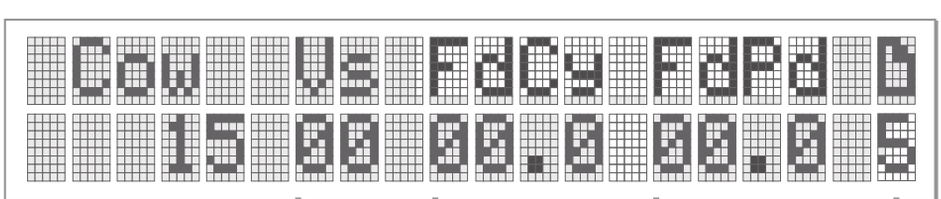
Press the Change key. The cursor will change and flash.

Key the number of days over which the ration will be added. Maximum boost days are 20; the ration value is added *every* day during the Boost.

Press ENTER.

Press RESET. The boost feed will be added to the normal daily ration commencing with the next period.

Cow Record: Page 5



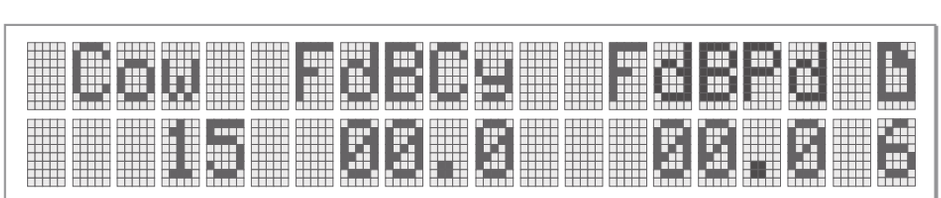
Number of Visits During Current Cycle:

Feed A Remaining in Current Cycle:

Feed A Remaining for Current Period: in kilograms calculated after *the first feed drop:*

Page 5 Indicator:

Cow Record: Page 6



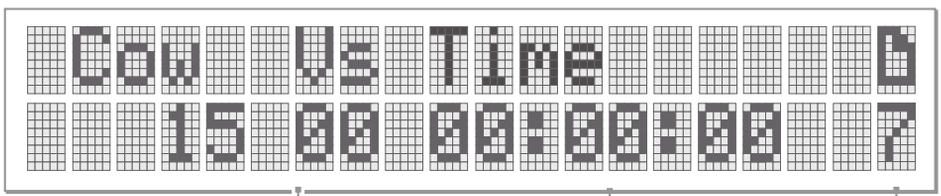
Feed B Remaining in Current Cycle:

Feed B Remaining for Current Period: in kilograms calculated after *the first feed drop:*

Page 6 Indicator:

MK3 OUT OF PARLOUR FEEDING OPERATING: **14A**

Cow Record: Page 7



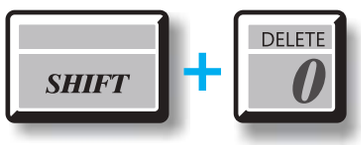
Number of Visits During Current Cycle:

Total time spent in a feeding stall:

Page 7 Indicator:

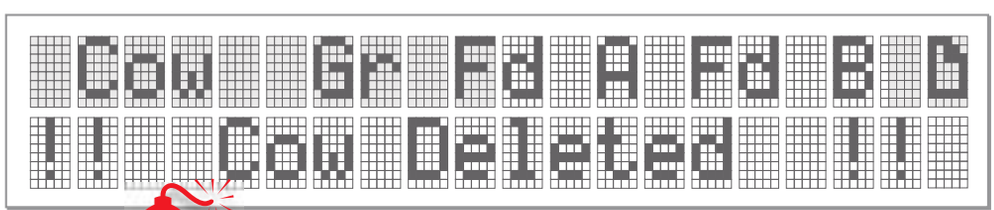
Deleting a Cow.

A cow may be deleted from the system by using the SHIFT + 0(DELETE) key combination. Proceed as follows:



Key the number of the cow to be deleted and press ENTER. If it is a valid cow Page (1) of its record will appear.

Press SHIFT + 0(DELETE). The message '!! Cow Deleted !!' will appear on the display.



This procedure cannot be reversed. Use with care!

MK3 OUT OF PARLOUR FEEDING OPERATING: **15**

Changing a Cow's Group or Ration: Existing Record Only.

A group or ration value may be changed by positioning the cursor on the appropriate field (Gr or Fd), pressing the Change key and then keying in the new value. Proceed as follows:

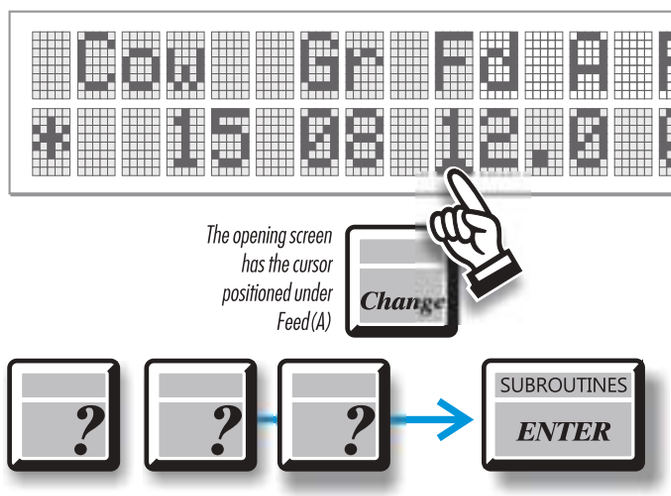
Key in the cow number and press ENTER. The cow data will appear with the cursor positioned under the first digit in the 'Fd-A' field. If the cow does not exist (no record established) the message 'No Such Cow' will appear. Press RESET and enter a new number.

To change the ration for feed (A):

Press the Change Key. The field will clear to the flashing entry cursor.

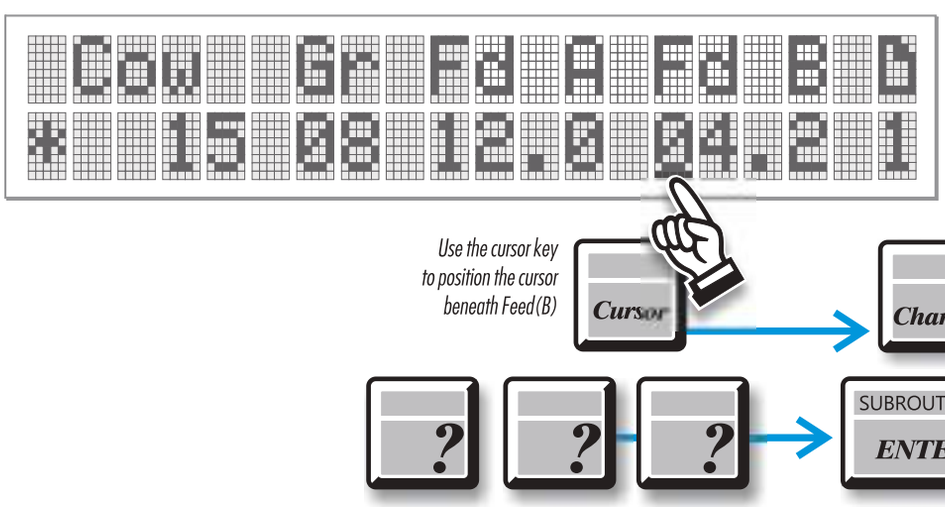
Key in the new value including the decimal place (0.1kilograms) in the range 0.0 to 30.0kilograms.

Press ENTER.



To change the ration value for feed (B):

Press the Cursor key to position the cursor beneath the first digit under the 'Fd-B' column. Repeat the data entry process above.



To change the cow's group number:

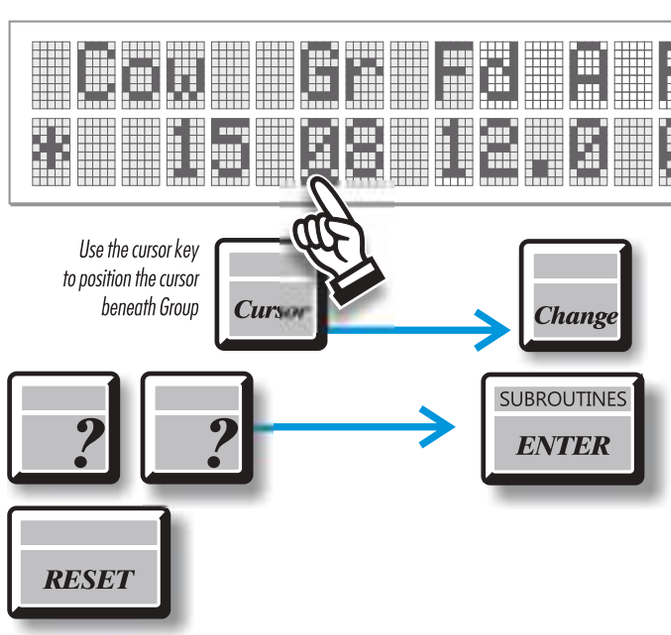
Press the Cursor key to position the cursor beneath the Gr(oup) field.

Press the Change key. The field will clear to the flashing entry cursor.

Key in the new group number in the range 0 to 16. No need to key a leading zero.

Press ENTER.

Press RESET to exit and store the new data.

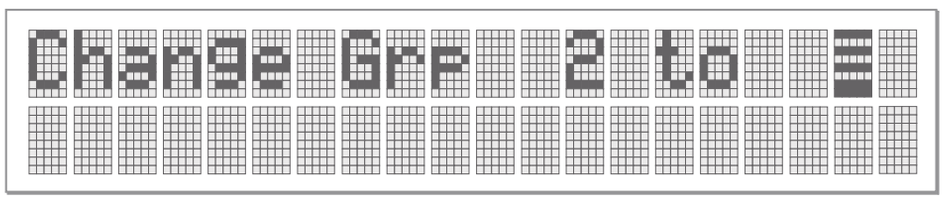


MK3 OUT OF PARLOUR FEEDING OPERATING: **16**

Move Cows to New Group: Subroutine 100:

It is an easy operation to move all of the cows in a specified group to another group.

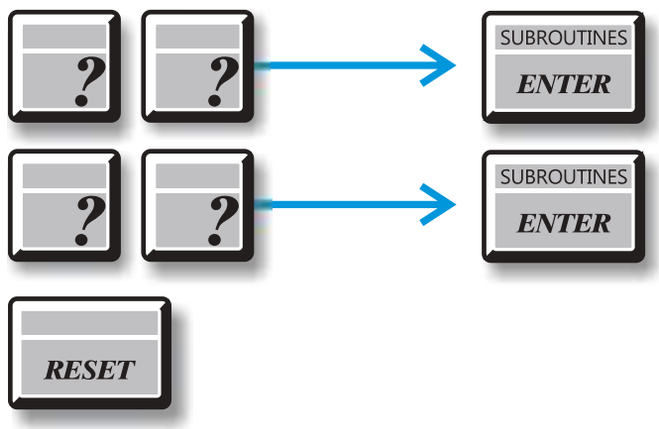
Run subroutine 100. The display will clear to the message 'Change Grp' with the cursor flashing.



Key the number of the existing group and press ENTER. The flashing cursor will move to the right hand field.

Key in the number of the new group and press ENTER. All cows in the existing group will be automatically moved to the new destination group and their records updated.

Press RESET to exit the subroutine.



Change Group Feed Ration: Subroutine 102(Feeder A)/104(Feeder B):

All of the cows in a group may be given the same feed ration through this subroutine. Their existing ration will be overwritten in the records by the new value:

Run either subroutine 102 (For Feeder A) or 104 (For Feeder B). The display will clear to the message 'Set Feed X for group' with the cursor Flashing to prompt for group number entry.

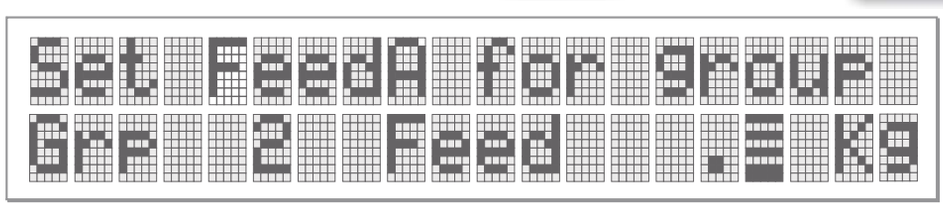
Key the group number.

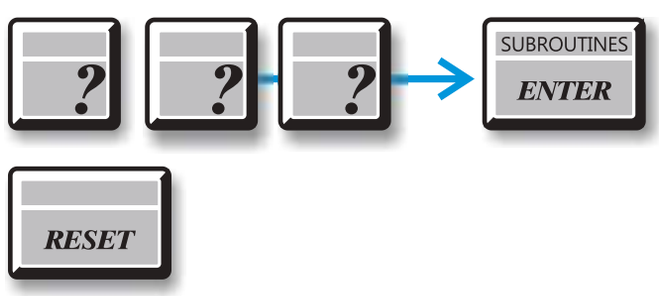
Press ENTER. The flashing cursor will move to the right hand field for the ration entry.

Key in the feed ration value taking account of the decimal place.

Press ENTER. All cows in the group will be given the entered ration value automatically and their records updated.

Press RESET to exit the subroutine.



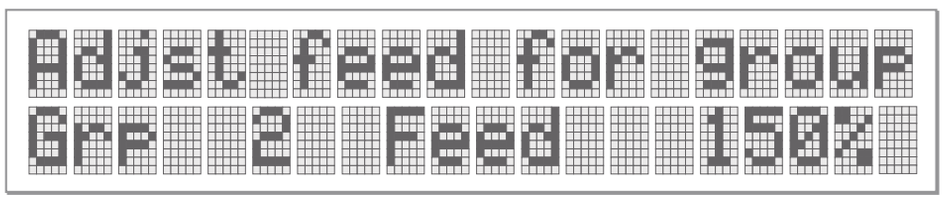


MK3 OUT OF PARLOUR FEEDING OPERATING: **17**

Increase/Decrease Group Feed Ration by n%: Subroutine 103 (Feeder A)/105 (Feeder B):

A group ration may be increased or decreased by using subroutine 103 for Feeder(A) or 105 for Feeder(B). The actual amount of the increase or decrease is measured as a percentage (%) of the existing ration. So, if it is necessary to increase the existing ration of (say) 10kg, keying a value of 110% will result in the group ration becoming 11kg (the original 10kg + 10% of 10kg = 11kg).

In a similar manner decreasing the group ration is achieved by keying in a value less than 100%. To decrease a ration by 10%, key in 90% which for an existing ration of 10kg will mean a reduction of 10% to 9kg.



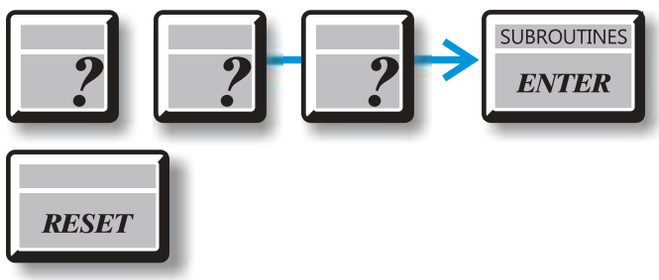
Run Subroutine 103 and press ENTER. The display will clear to the message 'Adjst feed for group' with the cursor flashing to prompt for group number entry.

Key the group number and press ENTER. The flashing cursor will move to the right hand field for the ration percentage (increase or decrease) entry.

Key in the feed ration percentage using the existing ration as 100% .

Press ENTER. All cows in the group will be given the existing ration increased or decreased by the difference in the entered percentage. Their records are automatically updated.

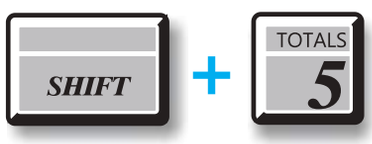
Press RESET to exit the subroutine.



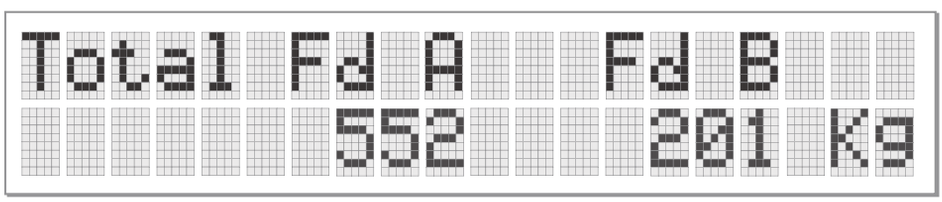
Feed Remaining in Bin: Function Shift + 5:

This facility is only applicable to installations which have a single main storage bin serving a single block of out of parlour stalls. The control console cannot keep track of feed consumed from several bins.

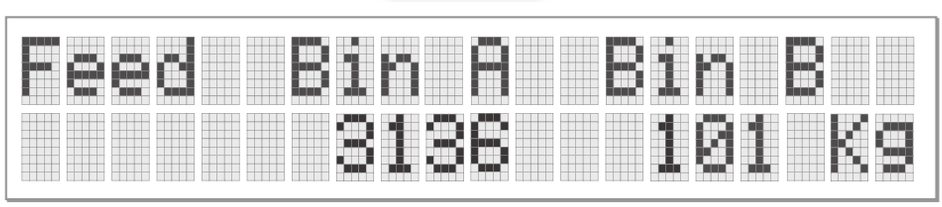
Feed remaining is calculated by the system as cows consume their rations. It is an ongoing process running continually and may be accessed by:



Press SHIFT + 5(Totals). The display will show the amount of feed consumed to date under 'Feed A' and 'Feed B' headings. If Feed(B) is not used the value will be '0'.



Press PAGE to display the Feed Remaining in the Bin. Totals are displayed in Kilograms for both feed bins but Bin (B) will return '0' if the second feed facility is not being used.



MK3 OUT OF PARLOUR FEEDING OPERATING: **18**

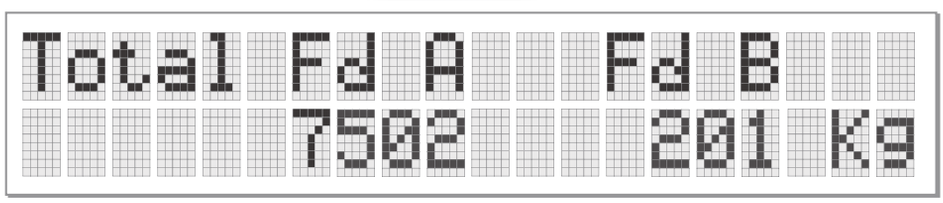
Bin Nearly Empty Warning:

The system also calculates how much feed will be required for each day as an average, and when only 5 days supply is remaining in the bin will print a warning on the Attention List.

Re-Stocking the Feed Bins: Function Shift + 5:

To load a new feed delivery into the system:

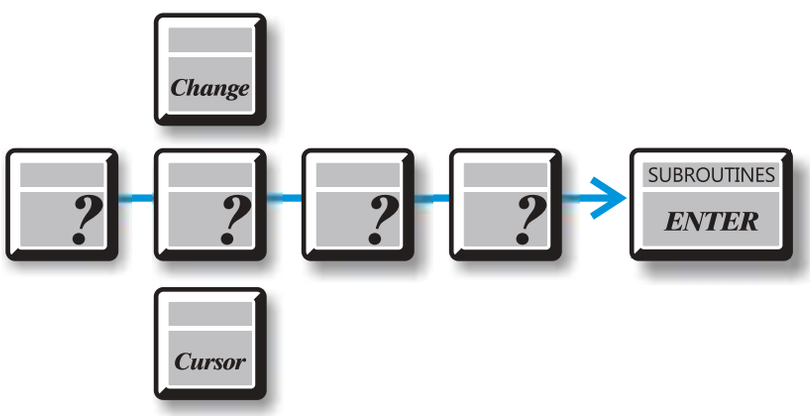
Run Function Shift + 5 and make a note of the amount actually remaining in the bin(s).



Press the Change key. The value under 'Bin A' will clear to the entry cursor.

Key in the total of the Feed Remaining ADDED to the New Delivery. The maximum allowable value is '9999'

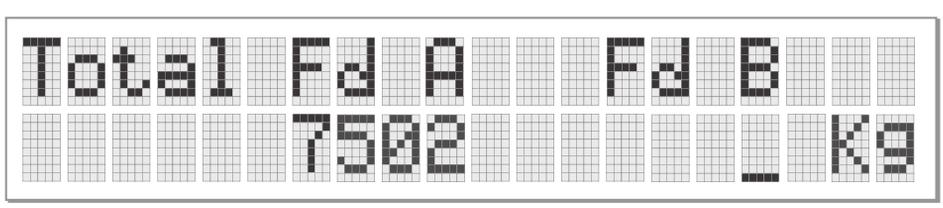
Press Enter to store the new value.

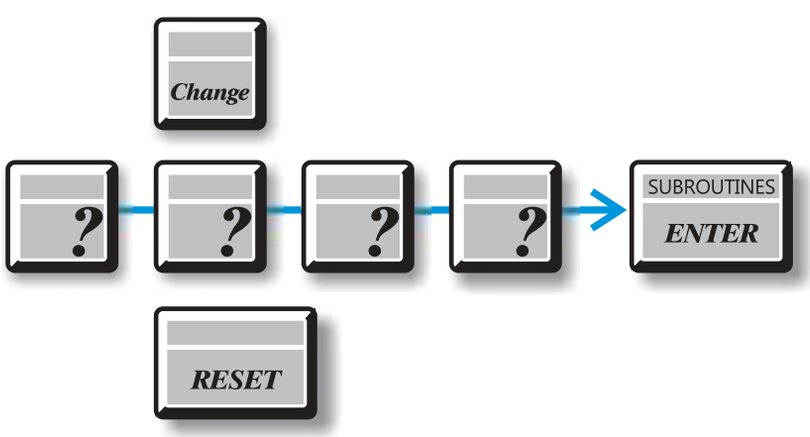


To load a new value to Bin B:

Press the Cursor key to move across to the 'Bin B' column.

Press the Change key and proceed as for Bin (A).

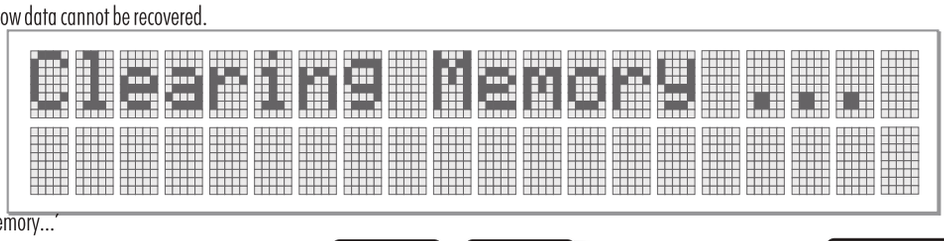




MK3 OUT OF PARLOUR FEEDING OPERATING: **19**

Clear Herd Memory: Delete All Cows: Subroutine 281

All cows can be deleted from the Out-Of-Parlour console memory. Please use caution when running this subroutine as once deleted, the cow data cannot be recovered.



Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 281, the subroutine number to delete all cows from memory.

Press ENTER. The display will show 'Clearing Memory...'

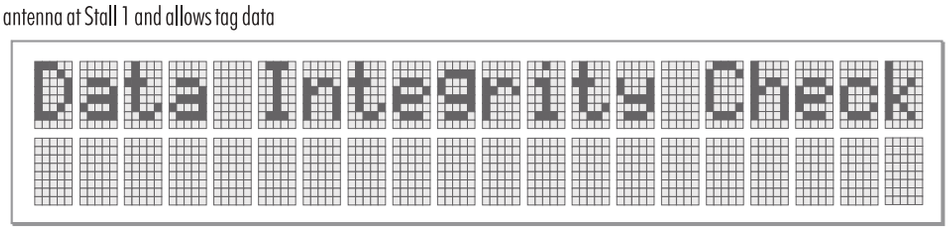
A cursor will appear in the top-left of the display and a zero (0) will display when the subroutine has finished running.

Press RESET to exit the subroutine.

This procedure cannot be reversed. Use with care!

Data Integrity Check: Subroutine 997

The data being received by the Out of Parlour System can be checked using this subroutine. This subroutine continuously scans the antenna at Stall 1 and allows tag data to be manually checked.



Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 997, the subroutine number to perform a data integrity check.

Press ENTER. The display will show 'Data Integrity Check.'

Place a tag into Stall 1 and manually check the tag number that is displayed.

Press RESET to exit the subroutine.

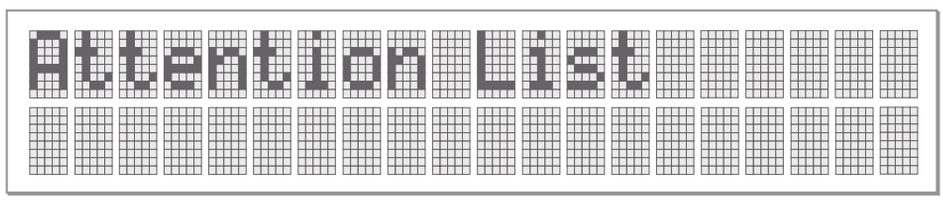
MK3 OUT OF PARLOUR FEEDING OPERATING: **20**

Display Daily Attention List: Shift + 9

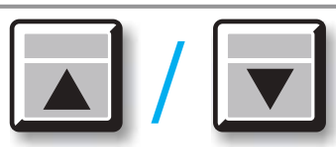
To view the Daily Attention List on the Console:

Press SHIFT + 9(ATTN)

Use the ▲ and ▼ keys to scroll through the list.



This is a complete list of items being brought to the users attention. It must be stressed that these are points from the last COMPLETE cycle.

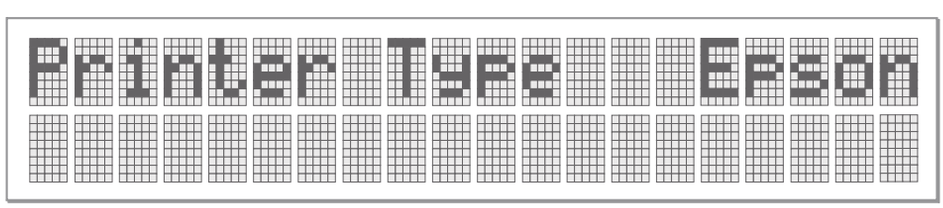


The attentions are listed in priority order with more important points being placed higher up the list. The new attention list, for the last complete 24 hour cycle, is created at the start of the next cycle.

Up to 100 attention list entries are available on the list which represents messages from the last complete cycle.

Set Printer Type: HP or EPSON: Subroutine 984

The printer type can be altered between HP or EPSON to match the users printer (only applicable if printing using printer interface).



Press SHIFT + ENTER (Subroutines) to invoke the subroutines.

Key 984, the subroutine number to set printer type.

Press ENTER. The display will show 'Printer Type EPSON'

Use the CHANGE key to alternate between EPSON or HP printer types.

Press RESET to exit the subroutine.

NB - This is only for older systems with a 'Printer Interface'.

MK3 OUT OF PARLOUR FEEDING OPERATING: **21**

Print Daily Attention List: Subroutine 21:

With the Console connected to a printer (Centronics compatible) via a Meridian Printer Interface, run subroutine 21 to print the Attention List.

IMPORTANT - Printer adaptors are now obsolete. In order to print data on your herd from the Out-Of-Parlour system please use ATL Cowculator PC software.

ATL Agricultural Technology Limited Date 10-05-2002
Meridian- Out of Parlour System Time 14:30

24 HOUR ATTENTION LIST

Cow	Attention Message	Time
	Stall 03 Not Visited	
0040	Has Made No Visits	
0032	Has Made No Visits	
0012	Has Made No Visits	
0087	Has Made No Visits	
	Interface Reset	10:21
0121	Has Made No Visits	
0229	Made 51 Visits	
0003	Made 51 Visits	
0067	Has Made No Visits	
0056	Has 2kg of Feed Left	
0094	Has Made No Visits	
0011	Has Made No Visits	
	Unlinked Cow at Stall 03	
0009	Made 54 Visits	
0787	Has Made No Visits	
0011	Has Made No Visits	
0324	Has Made No Visits	
0617	Has Made No Visits	
	Feeder Jam at Stall 04	18:26
0209	Made 51 Visits	

This information was recorded during the 24 hours prior to the above date

Feed Left Warning Level : 10%
Many Visits Warning Level : 50

Up to 100 entries are available on the list which represents messages from the last complete cycle.

As a shortcut, press the button on the printer interface box to automatically print the attention list.

MK3 OUT OF PARLOUR FEEDING OPERATING: **22**

Print Herd List: Subroutine 20:

With the Console connected to a printer (Centronics compatible) via a Meridian Printer Interface, run subroutine 20 to print the Herd Statistics List.

IMPORTANT - Printer adaptors are now obsolete. In order to print data on your herd from the Out-Of-Parlour system please use ATL Cowculator PC software.

ATL Agricultural Technology Limited — Date 10-05-2002
Meridian- Out of Parlour System — Time 14:30

HERD LIST

Cow	Gr	Feed A Totl	Feed A Left	Feed B Totl	Feed B Left	Add	Day	Tag Number
0010	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000034713
0012	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000034813
0013	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000034913
0019	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000038713
? 0023	02	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 Not Linked
0024	02	15.0	15.0	00.0	02.0	02.0	00.0	00.0 000 08000358000097713
0027	01	12.0	12.0	00.0	02.0	02.0	00.0	00.0 000 08000358000011425
0028	01	12.0	12.0	00.0	04.0	04.0	00.0	00.0 000 08000358000034623
0030	01	12.0	12.0	00.0	04.0	04.0	00.0	00.0 000 08000358000078703
0032	02	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000030813
0033	02	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000038167
0040	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000053723
* 0056	02	12.0	11.0	01.0	04.0	03.0	01.0	00.0 000 08000358000037000
0057	03	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000039003
0058	03	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000033303
0072	03	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000039013
* 0079	01	10.0	09.0	01.0	04.0	02.0	02.0	00.0 000 08000358000012771
0080	02	12.0	11.0	01.0	03.0	03.0	00.0	00.0 000 08000358000035253
0086	01	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000039853
0087	12	10.0	09.0	01.0	02.0	02.0	00.0	00.0 000 08000358000039181
0092	12	10.0	09.0	01.0	02.0	02.0	00.0	00.0 000 08000358000033232
! 0094	08	10.0	00.0	10.0	04.0	00.0	04.0	00.0 000 08000358000034443
* 0095	08	15.0	09.0	06.0	02.0	00.0	00.0	00.0 000 08000358000034323
0097	03	10.0	09.0	01.0	04.0	04.0	00.0	00.0 000 08000358000032353
0098	02	12.0	12.0	00.0	03.0	03.0	00.0	00.0 000 08000358000031127
0108	02	12.0	11.0	01.0	03.0	03.0	00.0	00.0 000 08000358000031123

The instant warnings which also appear on the left of the console display are:

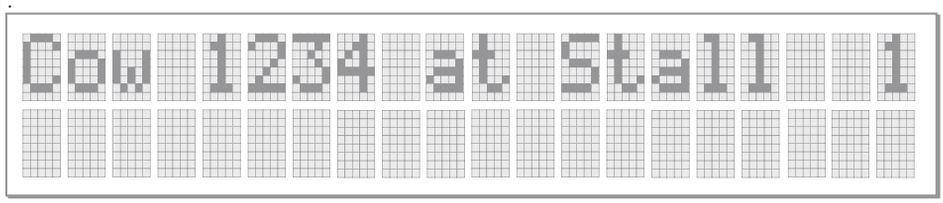
- **?** *Not Linked*
- **!** *No visits in last Cycle*
- ***** *Excess Feed Remaining.*

MK3 OUT OF PARLOUR FEEDING OPERATING: **23**

Recall Cow currently at each Stall: Function Shift + 4:

This facility displays the number of the cow currently at each stall or the last cow if the stall is now empty.

Press SHIFT + 4(Recall). The display will show the cow number at Stall 1. If there is no cow at stall 1, the display will state 'No Cow at Stall 1'.



Set Time: Function Shift + 7:

This facility is obsolete. Use Subroutine 5 instead.