ATL

Innovation In and Out of Parlour

Micro M3S Memory Control Operation

Manual Version - v3.0

Software Version - v4.63

Date - January 2016

Part Number - 39-0115

Current Subroutines:

Not all of the MicroM3S subroutines are detailed in this manual; some are specific to system options (i.e. Auto-ID) and are described in the publications that accompany that equipment. Below is the complete list for easy reference:

💣 *Use with caution; restores factory settings and / or deletes existing animal records permanently!*

*Indicates software version where subroutine available from (i.e. V4.01 means available from v4.01 onwards).

	Subroutine	Installation Manual Page Number	Operation Manual Page Number
Display Software Version:	2	26	12
Auto-ID/Pegasus Sorting Gate System: Link Tag Number to animal Record:	3	-	-
Buzzer: Enable/Disable:	4		12
Set the Real Time Clock:	5	27	12
Display the Real Time Clock:	6	27	12
Change 3AM Housekeeping Time (v4.28) :	7		32
Change 11AM Housekeeping Time (v4.28) :	8		33
Change 8PM Housekeeping Time (v4.28):	9		33
Browse the Animals NOT Fed:	10		31
Browse the Animals with a Variation in Milk Yield:	11		51
Browse Animals Due for Artificial Insemination (AI):	12		14
Add X (user defined) Units to ALL Animal Rations:	100		20
Take Away X (user defined) Units from ALL Animal Rations:	101		20
Feed Key Repeat (v4.45*):	102		22
Clear Daily Milk Yield: 💣	110		24
Clear Cumulative Yield of all Cows in Herd: 💣	111		22
Clear ALL Animal Records: 💣	281	47	15
Auto-ID: Enable/Disable:	300	38	
Milk Meter Interface: Enable/Disable:	301	34 / 37	
Auto-ID: Pre-Feed for LHS of Parlour: Enable/Disable (v4.14*):	302	38	
Auto-ID: Pre-Feed for RHS of Parlour: Enable/Disable (v4.14*):	303	39	
Auto-ID: Pre-Feed: Enable/Disable:	304	38	
Auto-ID: Antenna Selection Test:	305	-	-
Auto-ID: In-Stall Antenna Lag Setup:	306	39	
Portal/Walkthrough ID: Enable/Disable:	307	40	
Auto-ID: Create animal Record during In-Stall Auto-ID Tag Linking Process (v4.29*):	308	-	-
Auto-ID: Scan End Buzzer: Enable/Disable (v4.29*):	309	39	
Milk Meter System: Enable/Disable (v4.09*):	311	34	
Swingover Parlour: Enable/Disable (v4.09*):	312	34	
Milk Meter System: Wash Mode: Enable/Disable (v4.09*):	313	36	23
Milk Meter System: Enable/Disable Milk Meter Lockout (v4.18*):	317	35	22
Milk Meter System: Warning Flag Lockout Setup (v4.18*):	318	35	23
Milk Meter System: Swing-to-Start: Enable/Disable (v4.18*):	319	36	
Pegasus Sorting Gate System: Enable/Disable (v4.09*):	320	41	
Pegasus Sorting Gate System: Gate Terminal Display: Enable/Disable (v4.20*):	322	41	
Pegasus Sorting Gate System: Gate Close Delay: Enable/Disable (v4.24*):	323	41	
Pegasus Sorting Gate System: Gate Close Delay Value Setup (v4.24*):	324	42	
Pegasus Sorting Gate System: Enable Gate Close Sensor (v4.27*):	325	42	

Current Subroutines Continued:

		Installation Manual Page Number	Operation Manual Page Number
Pegasus Sorting Gate System: Test Shedding Gate (v4.27*):	*326*	51	
Pegasus Sorting Gate System: Gate Show Tag	*327*	43	
Pegasus Sorting Gate System: Enable Gate Close Sensor Warning Flags (v4.36*):	*329*	42	
Auto-ID: Enable/Disable V4 Auto-ID Interface (v4.44*):	*330*	42	
Milk Meter System: Enable V2.00 Milk Meters (v4.23*):	*331*	35	
Milk Meter System: Enable V3.00 Milk Meters (v4.34):	*332*	35	
Oriel System: Enable/Disable Oriel Stall Displays (v4.43*):	*333*	38	
Pegasus Sorting Gate System: Enable/Disable V4 Gate Interface (v4.44*):	*334*	47	
Milk Meter System: Feed when Milk Meter Starts Milking (v4.47*):	*350*		23
Auto-ID: Force Auto-ID System to Feed Warning Animals (v4.62*):	*360*		22
Enable / Disable Pulse-8 (v4.29*):	*400*	45	
Enable/ Disable Milk Pump Control:	*420*	46	
Display Milk Meter Total Yield on Wash Box (v4.63*):	💣 *440*	36	
Clear Animal Fed Flags:	*581*		21
Clear Subroutine Setting (v4.01*):	💣 *582*	47	
Clear Warning Flags For Entire Herd (v4.01*):	*585*		14
Auto-ID: Test Interface:	*600*	50	
Milk Meter Interface: Test:	*601*	50	
Test Display Board:	*602*	50	
Pegasus Sorting Gate System: Interface Software Version:	*604*	51	
Milk Meter System: Test Communications (v4.13*):	*605*	51	
Test Relay PCB Communications (v4.13*):	*606*	49	
Wash Box Communications (v4.40*):	*607*	51	
Pulse-8 Communications Test (v4.45*):	*608*	52	
Mlik Pump Control Communications Test (v4.52*):	*609*	52	
Digital Feeder Control Communications Test (v4.59*):	*610*	53	
Program/Feed Modes:	*638*	25	11
Select Animal Type (v4.63*):	*700*	27	
Select Parlour Type (v4.63*):	*701*	28	
Display Serial Number:	*777*	47	
Factory Reset to Default Settings:	💣 *888*	48	
Factory Reset and Load Entire Memory with Dummy animals:	💣 *889*	48	
Display Number of animals Programmed In Memory (v4.01*):	*974*		14
Fuse Detection: Enable/Disable:	*975*	30	29
Set the Number of Milkings per Day:	*977*	28	
Set the Default Parlour Side:	*978*	28	
Milk Meter Interface: Set Discharge Volume (litres per pulse):	*979*	37	
Select the Feeding Mode:	*981*	29	18
Set the Number of Stalls (per side):	*982*	29	
Set the Number of Feeders to Run:	*983*	29	

💣 *Use with caution; restores factory settings and /or deletes existing animal records permanently!*

*Indicates software version where subroutine available from (i.e. V4.01 means available from v4.01 onwards).

Current Subroutines Continued:

	Installation Manual Page Number	Operation Manual Page Number
Select the Type of Feeder:	984	29	
Set Up Milk Yield Error Percentage:	986	37	23
Calibrate Feeders Individually:	987	31	
Double Feed Flag: Enable/Disable:	992		21
Warning Flags: Enable/Disable:	995		21
Entering and Clearing Once Only Warning Flags (v4.28*):	996	43	26
Set Number of Extra Parlour Controls:	997	44	
Test Displays:	998	49	
Test Keyboard (v4.13*):	999	49	

Use with caution; restores factory settings and /or deletes existing animal records permanently!

*Indicates software version where subroutine available from (i.e. V4.01 means available from v4.01 onwards).

Manual Versions

About the Micro M3S Control

The Micro M3S is a simple and easy to use memory feeder control which can be connected to a wide range of optional extras including parlour auto-id, automatic drafting gates, milk meters and animalculator dairy animal management software. It can be used on herringbone, parallel or abreast parlours.

Using the Control

As the animals enter the parlour, you just key in the animal number and press feed, the correct ration is delivered to the next available stall on the current parlour side. When that side is full the opposite side is automatically selected and the stall reset to '1'.

Features

- Memory can store up to 999 animals
- 4 digit numeric animal numbers
- 6 health attentions - AI, vet, mastitis, dry, test, bulling and slow - optional animal already fed attention
- Feeding and milking prevention on health attentions
- Optional audible attentions
- Stainless steel mounting bracket and fixing kit included

Options

- Feeding and non-feeding versions available
- Store milk yields using the ATL milk meter
- Store milk yields from Fullwood Afikim, Gascoigne Melotte, Nedap and other milk meters
- Automatically feed and store milk yields without keypad animal number entry using auto-id
- Automatically sort animals using the Pegasus drafting system
- Connect to Cowculator dairy animal management PC software to manage your animals, perform feed to yield and select animals for drafting from the comfort of your farm office

Milking Features

- 2 or 3 milkings per day
- Connects to either ATL milk meters or other manufacturers milk meters using Milk Meter Interface
- Milking totals available - current day yield for animal, previous day yield for animal, current day yield for herd/flock and animals with percentage milk yield variation

animalculator PC Software Additional Features

- Manage your animals using feed and yield history over multiple lactations
- Monitor animals health and medicine use
- Feed to yield and feeding based on days in milk

Extra Parlour Control

- Access animal records from another terminal in the parlour using the Extra Parlour Control

Specifications

- 12/24vDC switching positive or negative feeders as standard
- 12-230vAC feeder switching voltage optional using Feeder Interface
- Drives electric or vacuum feeders
- Electronic fuse detection with power supply failure warning
- Drives 12 feeders per side as standard
- Expandable to 48 feeders per side using Feeder Relay Extender Box

animal	Program	Ration	Yield/Flags	◄ Stall/Side ►

Cumulative Totals

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Micro M3S Control

Reset **Cancel**	Cal **Ration**	AI **1**	Vet **2**	Mas **3**	Fuse **Feed**
Delete **Change**	Clear **Yield**	Dry **4**	Test **5**	Bull **6**	All **Batch**
Recall	**Totals**	Slow **7**	**8**	**9**	Back **Step**
Attn	Back **Browse**	**Shift**	**0**	Subs **Enter**	**Side**

Fed ●
AI ●
Vet ●
Mas ●
Dry ●
Test ●
Bull ●
Slow ●

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KEYS AND DISPLAY.

The keypad is divided into three parts:

The Management keys are used to browse animal numbers, totals, yields, attentions, and reset the control;

The Numeric keys are used to enter animal numbers, subroutine numbers and access many of the Shift functions;

The Control keys which initiate feeding, set the parlour side, check fuse and power problems and reset the machine.
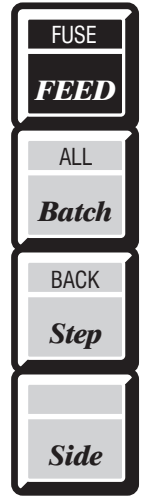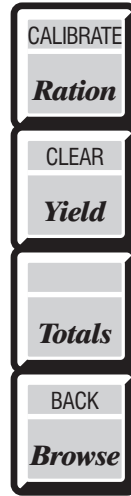
The keypads are constructed from a rugged membrane which overlays individual switches. This construction is very durable and provides a positive feedback click to the operator. Wash the membrane with warm, soapy water only- do not hose down or pressure wash. Turn the control off first.

The display area comprises five windows and a Status bar:

The Cow Number window displays the current animal number, the machine mode, function and subroutine messages.

The Ration window in the centre section of the display will show numeric information such as ration values.

The Yield/Flags window displays milk yields, totals messages and flag information.

The Stall/Side window at the right hand end of the display shows the current stall number, 1 to maximum stall count.

The indicator on the left of the Status Bar shows the control is in Program Mode when lit.

The Cumulative Totals window displays totals for both individual animals and all the animals in the herd/flock.

The active parlour side is shown by either the left or right arrows at the right hand end of the bar.

The MicroM3S is very energy efficient and every effort has been made to keep power consumption to a minimum when the machine is running. If it is left unused for a short period, the displays will blank to conserve even more energy. Simply press any key to reactivate the display.

Keypad keys:

RESET / Cancel	CALIBRATE / Ration	A.I. 1	VET 2	MASTITIS 3	FUSE / FEED
DELETE / Change	CLEAR / Yield	DRY 4	TEST 5	BULLING 6	ALL / Batch
Recall	Totals	SLOW 7	8	9	BACK / Step
Attn	BACK / Browse	Shift	0	SUBS / Enter	Side

Indicator when lit denotes control is in Program Mode. When off the machine is in Feed Mode.

Milk yield display or totals type message.

Parlour Side Arrows

Cumulative totals display for both individual Animals and herd. This example shows 'Total Feed Consumed' by animal 148, the current animal record.

Status Bar

Cow	Program	Ration	Yield/Flags	Stall/Side
148		12	tFd	12

Cumulative Totals: 108
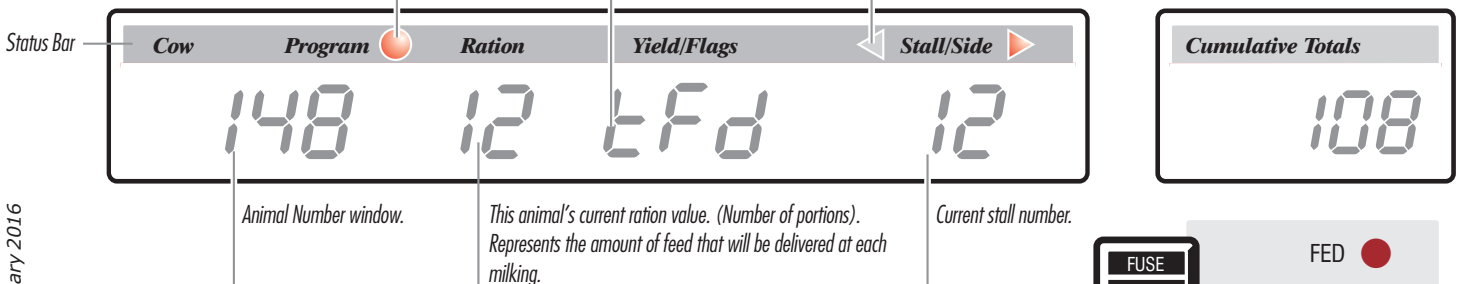
Animal Number window.

This animal's current ration value. (Number of portions). Represents the amount of feed that will be delivered at each milking.

Current stall number.

Eight warning indicators - Fed, A.I., Vet, Mastitis, Dry, Test, Bulling, and Slow - are just to the right of the keypad and will light when the appropriate flag is set for a Animal.

FUSE / FEED	FED ●
ALL / Batch	A.I. ●
	VET ●
BACK / Step	MASTITIS ●
	DRY ●
Side	TEST ●
	BULLING ●
	SLOW ●
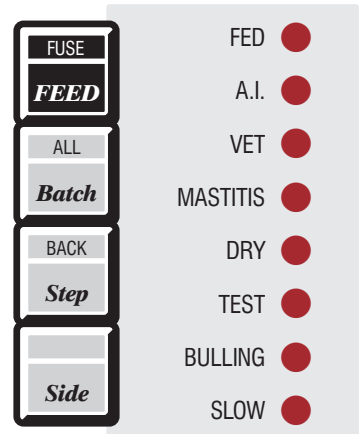
USING THE MICROM3S: General Features:

SHIFT FUNCTIONS

There are many features of the MicroM3S which are accessed either as Functions- simple one-shot actions that produce an immediate result such as displaying the animals 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.

PROGRAM & FEED MODES: Subroutine 638

The MicroM3S operates in 2 modes:

Program Mode allows system data and setup parameters to be changed. Program Mode is active when the red Program indicator on the display bar is lit.

Feed Mode allows Animals to be fed and flags set but prevents alterations to the system setup. This mode is provided for relief milking to avoid vital data being changed inadvertently.

This subroutine operates as a toggle; each time it runs, the mode alternates. No further operator input is required.

Press Cancel to exit the subroutine.

Cow	Program	Ration	Yield/Flags

Pro9

Cow	Program	Ration	Yield/Flags
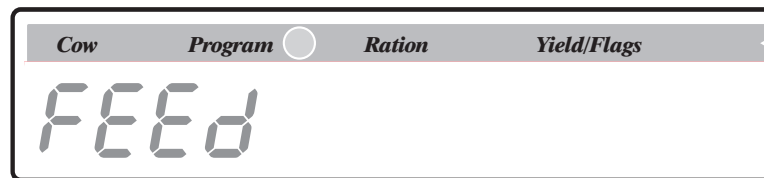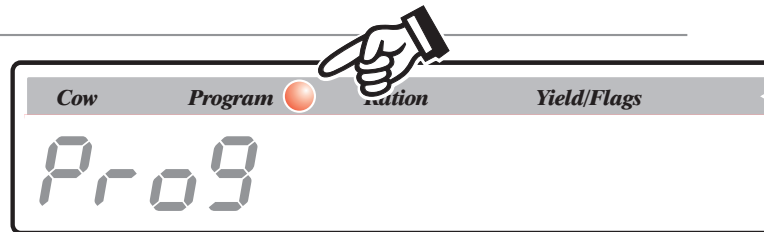
FEEd

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. (See below).

Press the Shift + Enter (SUBS) combination. The Sub message will appear with the entry prompt _ _ _ in the Yield/Flags window.

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

Press Enter. The subroutine will now run.

Press Cancel to exit the subroutine.

NB - If an unknown subroutine is entered, Err will flash for 2 seconds in the Yield/Flags window, and then _ _ _ will re-appear, so another subroutine can be entered (only available in software version v4.29 or above).

Cow	Program	Ration	Yield/Flags

Sub
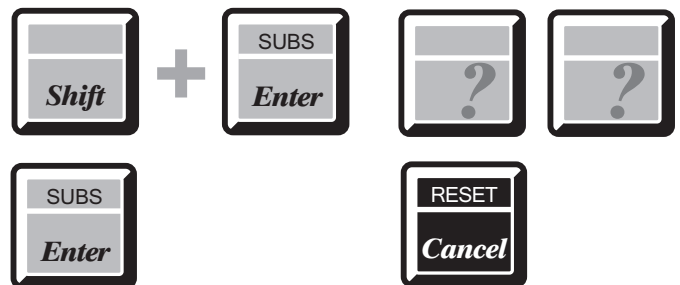
USING THE MICROM3S: General Features Continued:

DISPLAY SOFTWARE VERSION: Subroutine 2:

This subroutine displays the Main PCB software version of the MicroM3S:

> This subroutine will run in either Feed or Program modes..
> Run the subroutine. The message SoFt is displayed.
> The current software version is displayed in the Yield/Flags window.
> Press Cancel to exit the subroutine.

Cow	Program ●	Ration	Yield/Flags
SoFt			463

SUBS **Enter** RESET **Cancel**
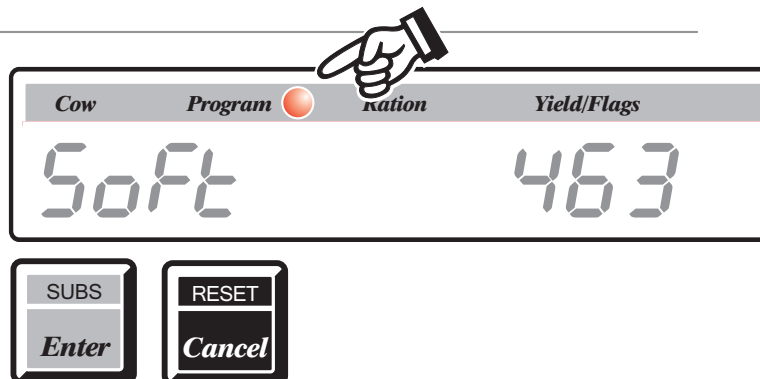
DISPLAY REAL TIME: Subroutine 6.

To check the real time clock settings in either program or feeding mode, run subroutine 6 which displays the time and date (day number and month number) in the format below:
> Press Cancel to exit the subroutine.

RESET **Cancel**

Cow	Program ○	Ration	Yield/Flags	◁ Stall/Side ▷
t IME		18	45	1

Hour: 24 hour clock	Minutes

Cumulative Totals
23   08

Day Number	Month

SET REAL TIME CLOCK: Subroutine 5.

The MicroM3S has a built-in real time clock and calendar which is used to perform automatic housekeeping operations.

During the clock setup, the message prompt appears in the Animal Number window and the value in the Yield/Flags window. There is no need to key leading zeros for single digits. With either program or feeding mode selected, the prompt sequence is:

Cow	Program ●	Ration	Yield/Flags
hOUr			_ _

SUBS **Enter**

RESET **Cancel**

Hour: hOUr :	Range 0 to 23: 24 hour clock format.
Minutes: MIn	Range 0 to 59
Date: dAY	Range 1 to 31: No month check.
Month: Mont	Range 1 to 12
Year: YEAr	Range 0 to 99: 00 is acceptable.

Press Enter to store each value.
Press Cancel when the display clears (subroutine finished).
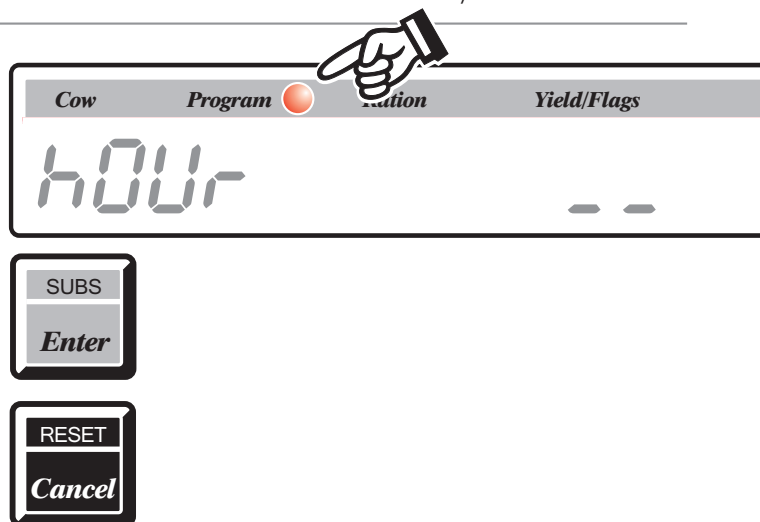
TURN BUZZER ON/OFF: Subroutine 4. Default = On (Yes)

The warning buzzer which sounds upon a warning flag being present against a Animal can be turned on and off using this subroutine.

> Run the subroutine. The message bUZZ YES is displayed.

> Press the Change key to toggle between buzzer on YES and buzzer off no .

> Press Cancel to exit the subroutine.

Cow	Program ●	Ration	Yield/Flags
bUZZ			YES

? ? SUBS **Enter** DELETE **Change** RESET **Cancel**
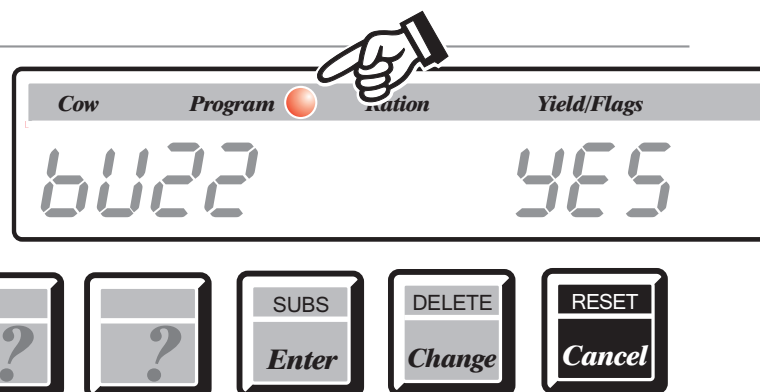
USING THE MICROM3S: Animal Records:

CREATING AN ANIMAL RECORD AND ALLOCATING A RATION.

Before an animal can be fed, milked or sorted, she has to have a Record in the MicroM3S memory. For each new Animal proceed:

Check that Program mode is selected.

Key in the Animal Number in the range 1 to 999. The example shows new Animal 375. If you make a mistake, key the first digit only until the Animal Window clears and then continue to type the number.

Press the Ration key. The display area beneath the Ration window will clear to the entry underscore (_ _)

Type the ration value for this animal in the range 0 to 99. This figure represents the ration units to which the feeders have been calibrated. If the feeders have been set up to deliver 500grams as a ration unit, then in our example the ration for 375 is:

12 x 500grams = 6kilos (13.25pounds).

NB - Please note that if the MicroM3S is not being used to control feeding, a ration of zero should be entered.

Press Enter. The record is committed to the MicroM3S memory.

Press Cancel to clear the display or key the next animal number.

Cow	Program	Ration	Yield/Fl
375		12	0

RESET — Cancel

MASTITIS 3 | SLOW 7 | TEST 5

CALIBRATE — Ration | A.I. 1 | VET 2 | SUBS — Enter

RESET — Cancel

! *In this example a new Animal, number 375 is being given a record with a ration of 12 feed units.* **This is the amount she will be fed at EVERY milking**

CHANGING AN ANIMAL S RATION.

Check that Program mode is selected (Subroutine 638).

Key the animal number.

Press the Ration key. The ration window will clear for entry.

Key the new ration in the range 0 to 99 feed units.

Press Enter. The ration is changed and written to memory.

MASTITIS 3 | SLOW 7 | TEST 5

CALIBRATE — Ration | ? | SUBS — Enter

DELETING AN ANIMAL.

Check that Program mode is selected.

Key the animal number.

Press Shift + Change (DELETE). The message dELEtEd will be displayed.

Press Cancel. The animal record has been removed and cannot be reclaimed.

💣 *Handle with Care. Data cannot be retrieved.*

MASTITIS 3 | SLOW 7 | TEST 5

Shift + DELETE — Change | SUBS — Enter

BROWSE: Key Function

The Browse key will display animal records in sequence; each press of the key displays the next animal.

Press Browse. Each successive key press displays the next animal record incrementally from the animal currently displayed or from the lowest animal number if Cancel is pressed first.

Press Shift + Browse(BACK) to move backwards from the current record.

BACK — Browse

Shift + BACK — Browse

USING THE MICROM3S: Animal Records Continued:

WARNING FLAGS: Set and Clear: Key Functions

Any or all of the Warning Flags may be set against an animal. When a flag is set, the appropriate Warning Indicator will illuminate.

To set a flag:

Key the animal number and press Enter. The animal record details will be displayed.

Press Shift + (Flag required: Numeric key 1 to 7). The flag will be set and the warning indicator will illuminate.

To clear a flag:

Repeat the procedure above which is a toggle action and the flag will be cleared and the indicator extinguished.

NB - The FED flag cannot be set or cleared using this method. It is automatically set by the MicroM3S when the animal is fed and cleared during housekeeping or by subroutine 581.

FED ○
A.I. ○
VET ●
MASTITIS ○
DRY ○
TEST ○
BULLING ○
SLOW ○

Shift + **?**

CLEAR SPECIFIED WARNING FLAGS FROM ALL ANIMALS: Subroutine 585.

This subroutine enables specified warning flags to be cleared from all animals in the MicroM3S.

Run the subroutine. The message cFLA is displayed.

Press Shift + (Flag required: Numeric key 1 to 7) to select the warning flags to be cleared from all cows. Multiple warning flags can be selected.

Press the Enter key to run the routine.

Press Cancel to exit the subroutine.

NB - The FED flag cannot be cleared using this subroutine - see Subroutine 581.

💣 *Handle with Care. Data cannot be retrieved.*

| Cow | Program ● | Ration | Yield/Flags |

cFLA

? | **?** | SUBS **Enter** | DELETE **Change** | RESET **Cancel**
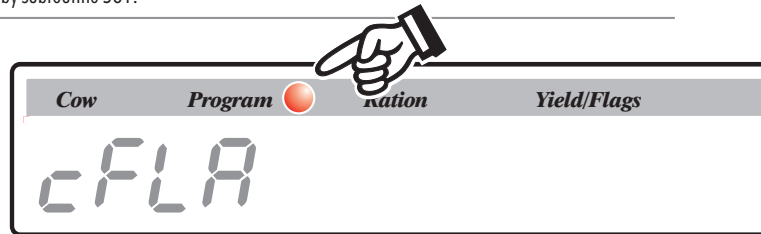
DISPLAY ANIMALS DUE FOR A.I: Subroutine 12.

Each animal due for artificial insemination together with its basic record data may be displayed in sequence using this subroutine.

Run the subroutine. The message LISt dUE is displayed.

Press Browse to display the animals in numerical order.

Press Shift + Browse(BACK) to display previous animal records.

Press Cancel to exit the subroutine.

| Cow | Program ● | Ration | Yield/Flags |

L ISt   dUE

BACK **Browse** *OR* **Shift** + BACK **Browse** | RESET **Cancel**
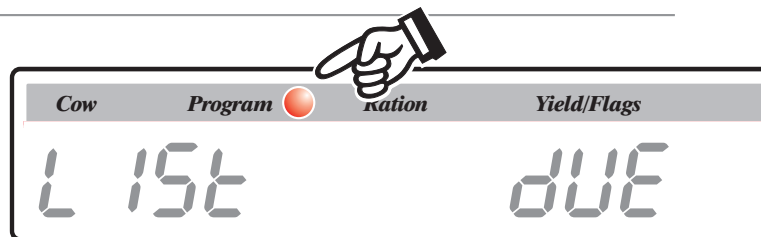
DISPLAY NUMBER OF ANIMAL RECORDS IN MEMORY: Subroutine 974.

This subroutine shows how many animal records are in the memory of the MicroM3S.

Run the subroutine.

The message coWS   450 is displayed, with 450 representing the number of animals in the MicroM3S memory.

If the animal type is set to sheep or goats, the displays will show that animal name instead of cows.

Press Cancel to exit the subroutine.

| Cow | Program ● | Ration | Yield/Flags |

coWS   450

? | **?** | SUBS **Enter** | RESET **Cancel**
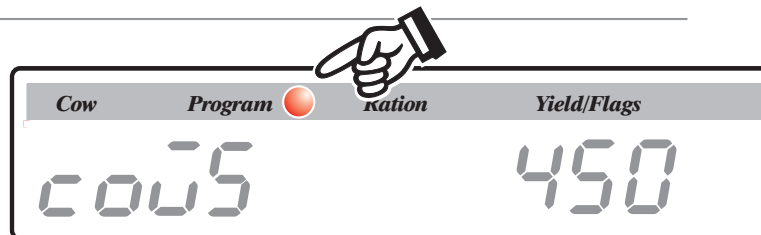
USING THE MICROM3S: Animal Records Continued 1:

CHANGING AN ANIMALS GROUP: Key Function: Shift＋9.

This key function enables an animal s group to be changed, with a valid animal number on the display.

> Press Shift＋9.
>
> The message 349 12   g 13 is displayed, with 375 representing the animal number, 12 representing the ration and g 13 representing the animals current group.
>
> Press Change and type in the animals new group (1-16).
>
> Press Enter to save the new group.
>
> Press Cancel to exit.

NB - This is only available on MicroM3S software v4.29 or above. Please run subroutine 2 to check.

Cow	Program	Ration	Yield/Flags
375	12		913

MASTITIS **3** SLOW **7** TEST **5**

Shift ＋ **9**

DELETE **Change** **?** **?** SUBS **Enter**
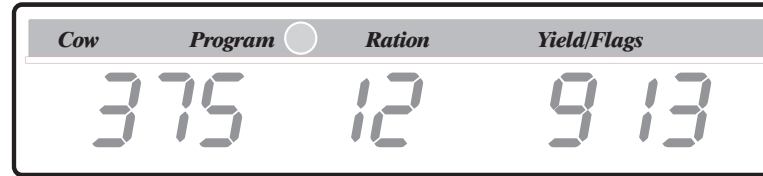
CLEAR ALL ANIMAL RECORDS: Subroutine 281.

This subroutine clears ALL animal records. The data is lost and is not recoverable so use with caution.

> Run the subroutine.
>
> The message cLr is displayed in the animal number window.
>
> Press Cancel to exit the subroutine.
>
> 💣 *Handle with Care. Data cannot be retrieved.*

Cow	Program	Ration	Yield/Flags
cLr			

? **?** SUBS **Enter** RESET **Cancel**
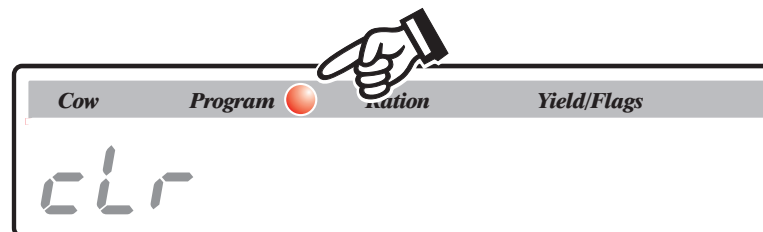
USING THE MICROM3S: Animal Records Continued 2:

TOTALS FOR INDIVIDUAL ANIMAL: Display and change: Key Function

■ Key the animal number and press Enter.

Cow	Program ○	Ration	Yield/Flags	◁ Stall/Side ▷		Cumulative Totals
42	10		tFd	1		294
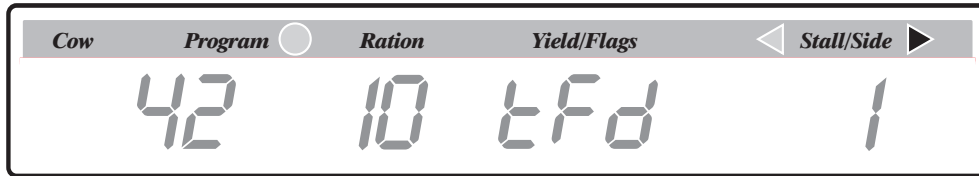
Press the Totals key repeatedly to move through the totals. The total type is shown in the Yield/Flags window and the actual value is shown in the Cumulative totals window.

Totals

In the example above, animal number 42 with a current daily ration of 10 units, has consumed 294 units of feed to date (tFd).

tFd* Total Feed consumed to date by this animal

tYd* Total Milk Yield to date for this animal

cFD Total Number of animals Fed during this/last milking

dUE* Days remaining before A.I. is due for this animal

PYd Previous Milk Yield for this animal

nAS Number of days remaining before Mastitis Flag is automatically cleared and Test Flag is set (On)

LAc* Number of days into current lactation

LnS* Number of last stall animal was last milked in

! *Totals marked with an asterisk (*) may be altered or cleared.*

Press Cancel to clear the display and exit. *The total category being displayed when Cancel is pressed, will be the first to appear when the Totals or Browse function is next used.*

To alter or clear a total:

Repeat the procedure above pressing the Totals key until the value to be altered is displayed.

Press Shift + Totals. The Cumulative Totals window will clear ready for entry.

Shift + **Totals**

? **?** **?**

SUBS Enter

Key the new value or zero (0) to clear and press Enter to store it.

Press Cancel to exit.
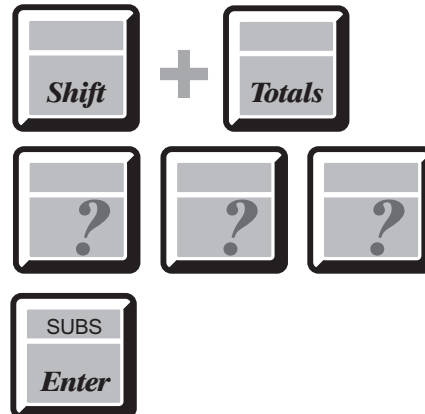
USING THE MICROM3S: Animal Records Continued 3:

TOTALS FOR HERD/FLOCK: Key Function

Display the totals for the herd/flock:

Press Shift + Cancel

Cow	Program ◯	Ration	Yield/Flags	◁ Stall/Side ▷		Cumulative Totals
bAtF				1		294
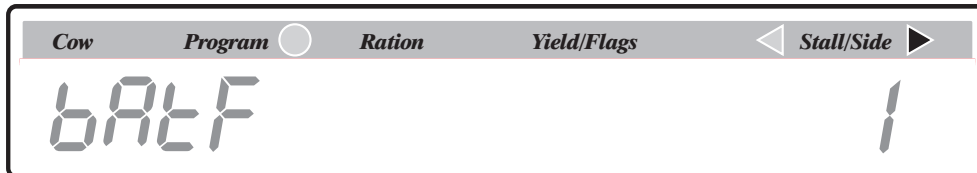
Press the Totals key. Each key press displays a new totals category. The categories available are:

cFEd*	Animals Fed during this milking
dAYF*	Daily Consumed Feed Total
dAYY*	Daily Milk Yield Total
nLKY*	Total Milk Yield during this milking (software v4.29 or above)
nnT	Total Milk Meter Yield
totF	Total Feed Consumed to Date
totY	Total Milk Yield to Date
bAtF	Total Feed dispensed using Batch Mode
gnc	Animals seen by Drafting Gate
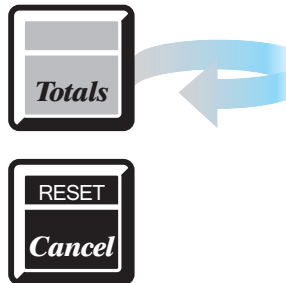
Press Cancel to clear the display and exit.

The items marked with an asterisk (*) are cleared to zero automatically every day by the automatic housekeeping program.

Clear Herd Total: Key Function.

Herd Totals cannot be altered but each may be cleared to zero. To clear a Total:

Press the Total key until the value to be cleared is displayed.
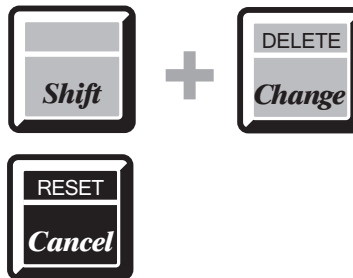
USING THE MICROM3S: Feeding Settings:

STORED FEEDING MODE: ON/OFF: Subroutine 981. *Default = Sequential*

The MicroM3S has two feeding modes:

Sequential, in which each animal is fed as it reaches the stall, or

Stored mode in which feeding is suspended until an entire parlour side is filled and then all of the animals are fed simultaneously.

To select the required feeding mode:

Check that Program Mode is selected. .

Run the subroutine. The message Stor is displayed with the current setting Yes (Stored mode = On) or no (Stored mode = Off) displayed in the Yield Flags window.

Press the Change key to toggle between the two states; each press alternates the setting.

Press Enter to store the mode setting.

Press Cancel to exit the subroutine.

Cow	Program	●	Ration	Yield/Flags

Stor   **YES**

DELETE / *Change*   SUBS / *Enter*

RESET / *Cancel*

INCREMENT RATIONS FOR ALL ANIMALS: Subroutine 100.

This subroutine increases the ration for all animals by the keyed amount.
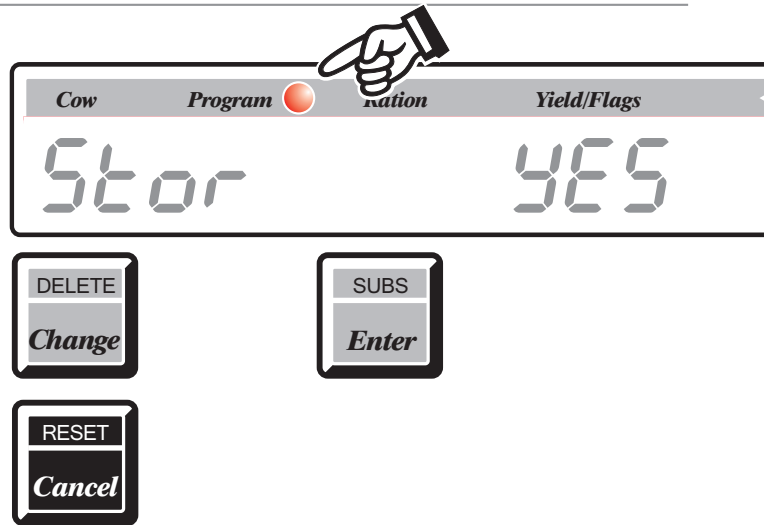
Check that Program Mode is selected.

Run subroutine 100. The message Add is displayed with the entry prompt _ _ in the Ration window.

Key the amount by which to increase the rations in the range 1 to 99.

Press Enter. The control will scan all animal records, displaying the animal number in the Yield/Flags window and the new ration- existing plus additional- in the Ration window. Rations will not be increased to a value greater than 99 .

Press Cancel when the display clears (subroutine finished).

Cow	Program	●	Ration	Yield/Flags

Add   **5**

?   ?   SUBS / *Enter*   RESET / *Cancel*
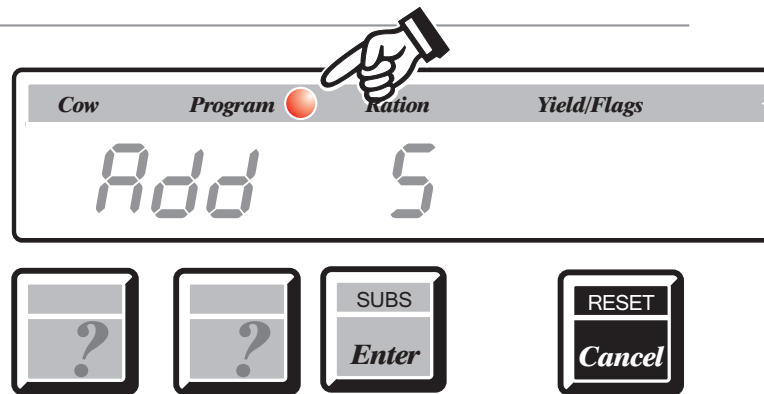
DECREMENT RATION FOR ALL ANIMALS: Subroutine 101.

This subroutine decreases the ration for all animals by the value keyed in.

Check that Program Mode is selected.

Run the subroutine. The message dEc is displayed with the entry prompt _ _ in the Ration window.

Key the amount by which to decrease the rations.

Press Enter. The control will now scan through all animals records, displaying the animal number in the Yield/Flags window and the new ration- existing minus additional ration- in the Ration window. No ration will be lower than 1 .

Press Cancel when the display clears (subroutine finished).

Cow	Program	●	Ration	Yield/Flags

dEc   **4**

?   ?   SUBS / *Enter*   RESET / *Cancel*
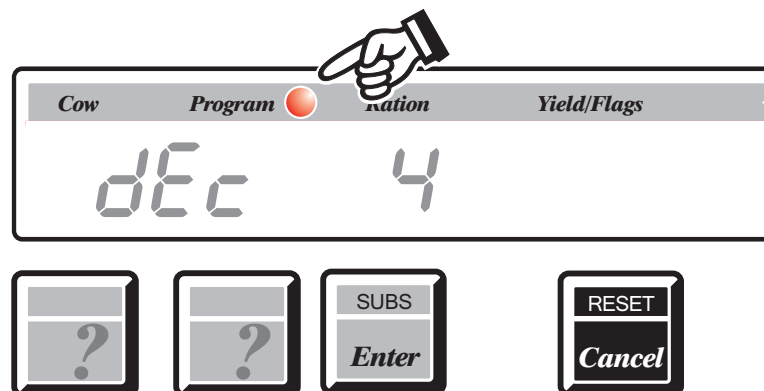
USING THE MICROM3S: Feeding Settings Continued:

CLEAR ANIMAL ALREADY FED MARKER: Subroutine 581.

During each milking session as an animal is fed, it is flagged so that if an attempt is made to feed it again a warning will show. These Already Fed Markers are usually cleared automatically by the system housekeeping functions, but they may be cleared manually by running this subroutine.

Check that Program Mode is selected.

Run the subroutine. The message cdFd will appear and each animal number will be displayed in sequence in the Yield/Flags window.

Press Cancel when the display clears (subroutine finished).

Cow	Program	Ration	Yield/Flags
cdFd			487
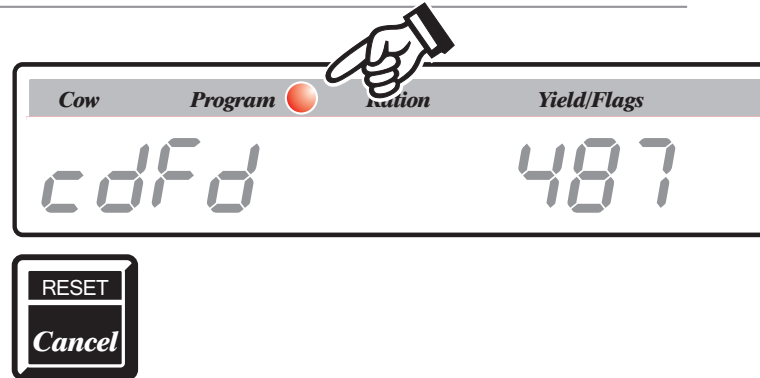
WARNING FLAG FEED INTERRUPT On/Off: Subroutine 995: *Default = All ON*

The MicroM3S can be programmed to halt feeding if an animal has a particular warning flag set against it. This interrupt feature is available for any or all of the flags and they are enabled or disabled individually using this subroutine.

Check that Program Mode is selected.

Run the subroutine. The message FLAg will be displayed and the warning flag indicators will show the current settings. If an indicator is lit then that warning interrupt is enabled.

Press Shift + (Key 1 through 7) to toggle an indicator on (interrupt enabled) or off (interrupt disabled). Each time the combination is pressed the flag setting alternates and this is reflected by the indicator.

Press Enter to store the settings.

Press the Cancel key to exit the subroutine.

Cow	Program	Ration	Yield/Flags
FLAg_			

FED ◯
A.I. ◯
VET ●
MASTITIS ◯
DRY ◯
TEST ◯
BULLING ◯
SLOW ◯
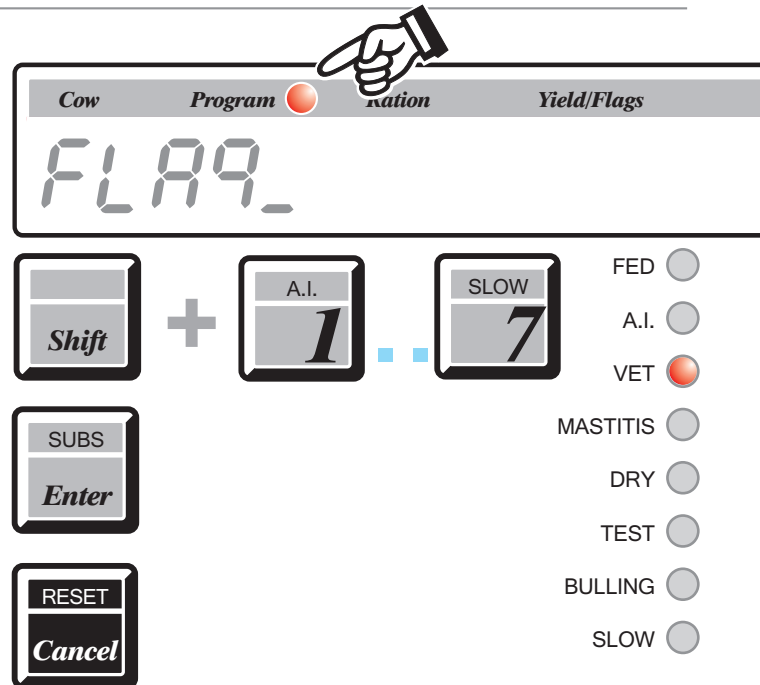
ANIMAL ALREADY FED CHECK: Enable/Disable: Subroutine 992: *Default = ON*

The MicroM3S can check if a Animal has already been fed during this milking session and if it has will flash a message (FEd) and sound a warning. The Animal Already Fed Check may be enabled or disabled using this subroutine.

Check that Program Mode is selected.

Run the subroutine. The message PdF will appear with the current setting (Yes/no) in the Yield/Flags window.

Press the Change key to toggle between Yes (Fed check on) and no (Fed check off).

Press Enter to store the setting.

Press Cancel to exit the subroutine.

Cow	Program	Ration	Yield/Flags
PdF			YES
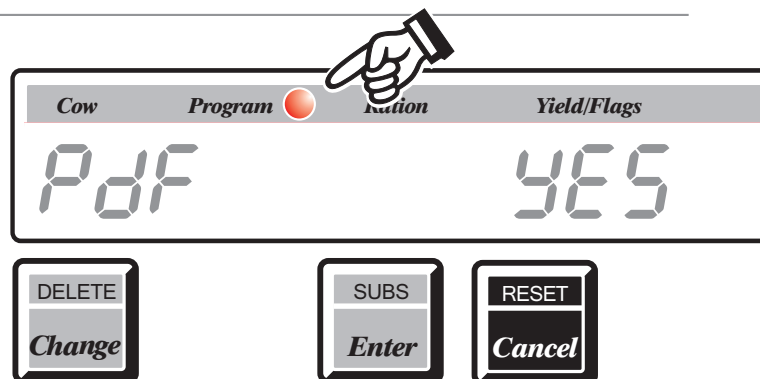
USING THE MICROM3S: Feeding Settings Continued 1:

FEED KEY REPEAT: Enable/Disable: Subroutine 102: *Default = OFF*

This subroutine allows the same ration to be delivered again if the manual feed key is pressed again within 5 seconds.

> Check that Program Mode is selected.
>
> Run the subroutine. The message Fkr no is displayed.
>
> Press the Change key to toggle between feed key repeat off no and feed key repeat on yES .
>
> Press Cancel to exit the subroutine.

Cow	Program ●	Ration	Yield/Flags

Ftr   **YES**

?	?

DELETE	SUBS	RESET
Change	*Enter*	*Cancel*
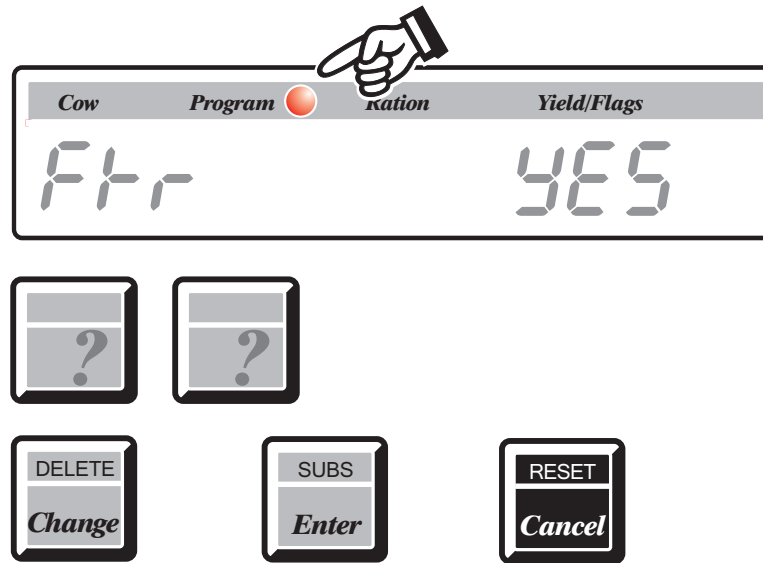
FORCE AUTO-ID SYSTEM TO FEED WARNING ANIMALS : Enable/Disable: Subroutine 360: *Default = OFF*

This subroutine enables the MicroM3S to feed animals with warnings set against them when an In-Stall Auto-ID system is identifying the animals.

> Check that Program Mode is selected.
>
> Run the subroutine. The message AAF no is displayed.
>
> Press the Change key to toggle between off no and on yES .
>
> Press Cancel to exit the subroutine.

Cow	Program ●	Ration	Yield/Flags

AAF   **YES**

DELETE	SUBS	RESET
Change	*Enter*	*Cancel*
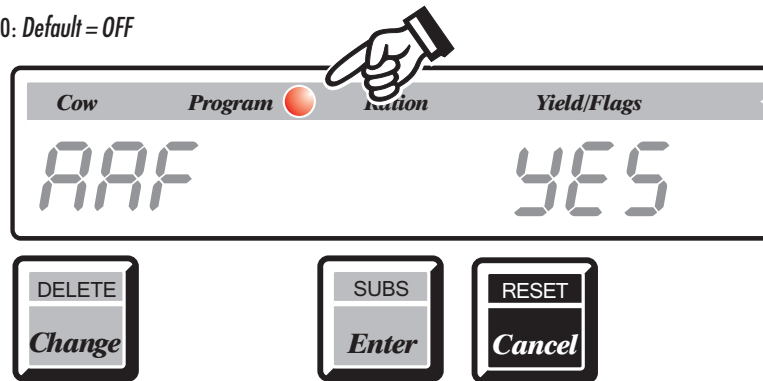
USING THE MICROM3S: Milking Settings:

MILK YIELD ENTRY: Key Function (NB - This process can be automated using the ATL Milk Meter System or a Milk Meter Interface with Automatic Identification)

The Yield key allows a milk yield value to be added to the existing yield total in the animal record currently being displayed. The machine may be in either Program or Feed mode.

Key the animal number.

Press Enter. The animal s record will appear.

Press the Yield key. The yield window will clear to the input prompt _ _ _

Key the new yield. Values are in 0.1 litre increments as indicated by the decimal point on the display. Whole numbers require a trailing zero so for example, to enter the value 13 :

> Type 130 which will be interpreted as 13.0 . *The value '13' will be interpreted as '1.3'*

Press Enter. The new value will be added to the existing value to provide a cumulative total.

Press Reset to clear the display or enter the next animal number.

| MASTITIS 3 | SLOW 7 | TEST 5 | SUBS *Enter* |
| CLEAR *Yield* | | | |

Cow	Program	Ration	Yield/Flags
148	8		13.0

| SUBS *Enter* | | RESET *Cancel* | |

SET % VARIATION IN MILK YIELD: Subroutine 986: *Default = 10%*

For farmers using milk recording it is possible to display animals that have a significant yield variation from milking session to session. This variation is measured as a percentage of the original yield and may be set up to suit the farmer.
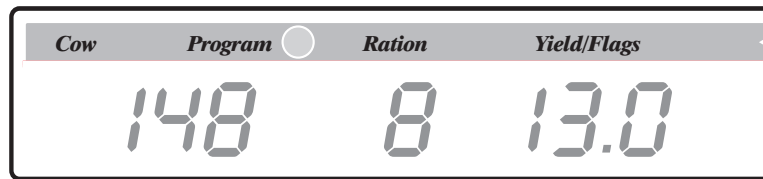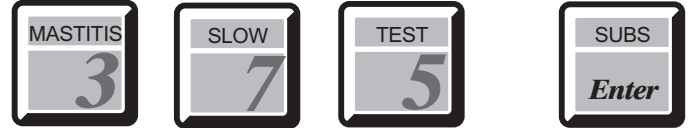
Check that Program Mode is selected.

Run the subroutine. The message PErc is displayed with the current setting in the Yield/Flag window.

Press Change to alter the value. The display will clear to the entry prompt _ _.

Key the new value in the range 0 to 99.

Press Enter to store the value.

Press Cancel to exit the subroutine.

NB - To view these variation animals please see Subroutine 10.

Cow	Program	Ration	Yield/Flags
PErc			10

| DELETE *Change* | ? | ? | SUBS *Enter* |
| RESET *Cancel* | | | |
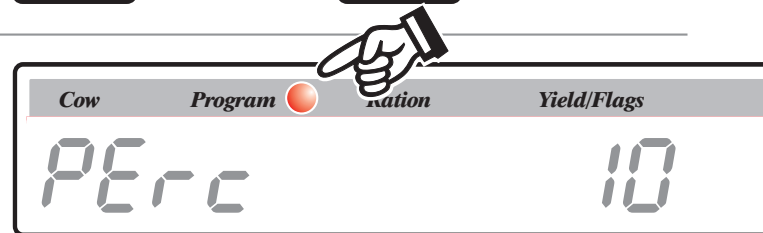
MASTITIS FLAG: DAYS TO WITHHOLD MILK.

When the MAS flag is set against an animal, the days to withhold milk have to be entered. The message d___ is displayed beneath the Yield/Flags window.

Key the number of days to withhold milk. Enter 0 to put the MAS flag on indefinitely.

Press Enter. The value will be stored against that animal.

! *The automatic housekeeping functions will decrement the withholding days until zero is reached. The 'TEST' flag will then be set automatically and the 'MAS' flag turned off.*

| *Shift* | + | MASTITIS 3 |

Cow	Program	Ration	Yield/Flags
329			d _ _

| ? | ? | SUBS *Enter* |

USING THE MICROM3S: Milking Settings Continued:

DAILY MILK YIELD CLEAR: Subroutine 110.

Several areas of an animal record are used to store milk yield data. These areas are called the *current* yield, *previous* yield and *cumulative* yield. This subroutine moves the data stored in the current milk yield, into the previous milk yield area and clears the value in the current yield ready for new data. Normally, this procedure is carried out by the automatic housekeeping facility.

Check that Program Mode is selected.

Run the subroutine. The cdYd message is displayed. Each animal record is amended automatically and the animal number appears in the Yield/Flags window.

Press Cancel when the display clears (subroutine finished).

Cows	Program	Ration	Yield/Flags
cdYd			435

RESET / Cancel
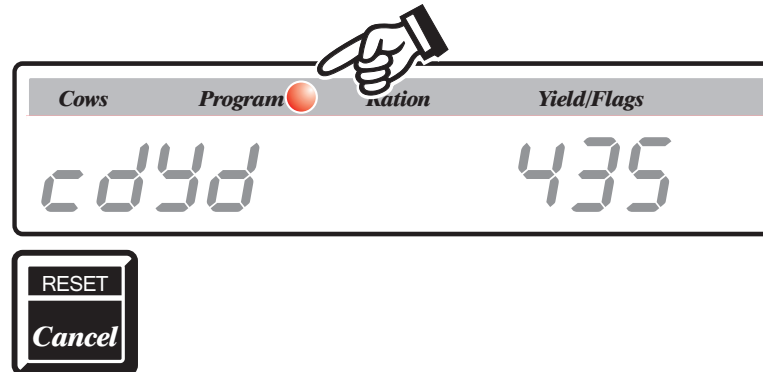
CUMULATIVE (ALL ANIMALS IN HERD/FLOCK) MILK YIELD CLEAR: Subroutine 111. Default = Off (Disabled)

This subroutine tells the micro control to communicate using version 3 protocols.

Check that Program Mode is selected.

Run the subroutine. No message is displayed and the Micro returns to the default screen.

Cows	Program	Ration	Yield/Flags
AtL			

RESET / Cancel
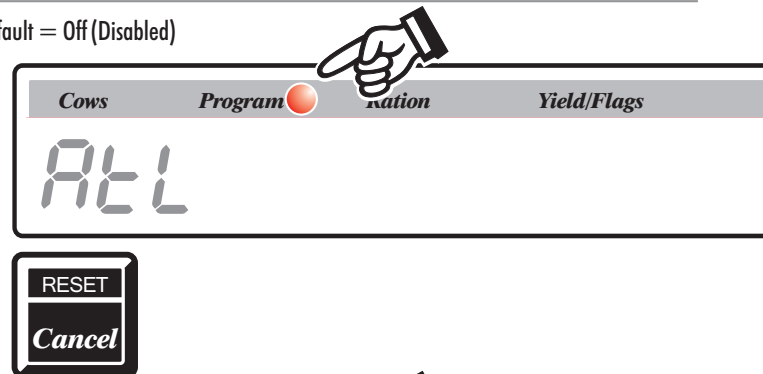
ENABLE/DISABLE METER LOCKOUT : Subroutine 317 : DEFAULT = NO(OFF)

This routine enables or disables the meter lockout function, this function will lockout a Milk Meter if a animal has the selected warnings from subroutine 318.

Check that Program Mode is selected.

Run the subroutine. The message ENLK is displayed with yES or no in the Yield/Flags window.

Press Change to toggle between yES and no .

Press Enter to store the new setting.

Press Cancel to exit the subroutine.

NB. This is only available on MicroM3S software v4.17 or above. Please run subroutine 2 to check.

💣 *Use with caution; milk meter lockout is not a 'fool proof' method of preventing cross infection or milking of animals treated with antibiotics!*

Cow	Program	Ration	Yield/Flags
ENLt			YES

DELETE / Change

SUBS / Enter   RESET / Cancel
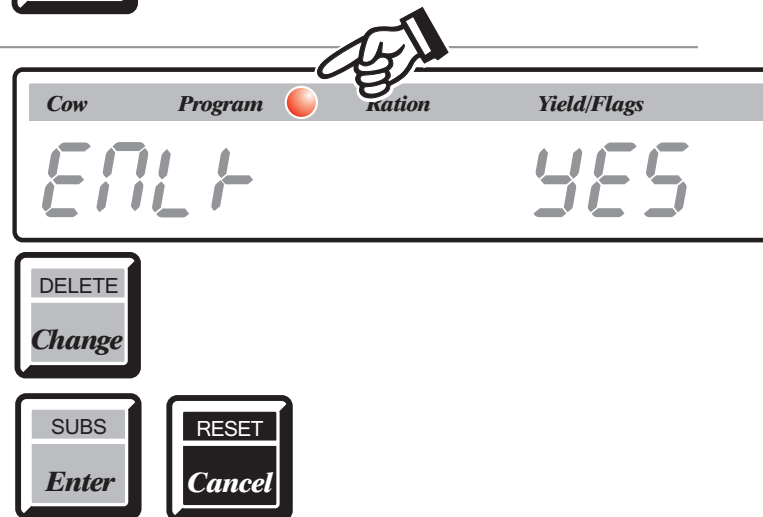
ENABLE/DISABLE METER LOCKOUT FLAGS: Subroutine 318: Default = All Off

The lockout flags setting enables which flags will lockup the Milk Meter if they are selected against a animal.

Check that Program mode is selected.

Run the subroutine. The message OLCK will be displayed and the warning flag indicators will show the current settings. If an indicator is lit then that warning flag is enabled to lockup the milk meter if an animal has them and the operator attempts to milk them.

Press Shift + (Key 1 through 7) to toggle an indicator on (enabled) or off (disabled). Each time the combination is pressed the flag setting alternates and this is reflected by the indicator.

Press the Cancel key to exit the subroutine.

NB. This is only available on MicroM3S software v4.17 or above. Please run subroutine 2 to check.

| Cow | Program | ● | Ration | Yield/Flags |

OLCt

Shift + A.I. 1 .. SLOW 7

RESET Cancel

FED ○
A.I. ●
VET ○
MASTITIS ○
DRY ○
TEST ○
BULLING ○
SLOW ○

WASH MODE IDLE/WASH : Subroutine 313

This routine provides a backup to the wash control, enabling the user to select either idle or wash mode from the MicroM3S.

Check that Program Mode is selected.

Run the subroutine. The messages IdLE or wASh are displayed depending on the current mode of the Milk Meter System, with NEt in the Yield/Flags window.

Press Change to toggle between IdLE and wASh.

Press Enter to store the new setting.

Press Cancel to exit the subroutine.

NB - If a Pulse-8 is connected to the Mk3S and subroutine 400 is turned ON, toggling between IdLE and wASh will turn the pulsators OFF and ON respectively.

NB - Software version 4.52: Updated so that wash box goes into wash countdown - requires v2.12 of wash box software.

| Cow | Program | ● | Ration | Yield/Flags |

IdLE   nEt

DELETE Change

SUBS Enter   RESET Cancel

FEED WHEN MILK METER STARTS MILKING: Subroutine 350: Default = No

This routine allows the operator to delay feeding an animal until the milk meter starts milking the animal.

Check that Program Mode is selected.

Run the subroutine. The messages Mfd is displayed with yES or no in the Yield/Flags window.

Press Change to toggle between yES and no.

Press Enter to store the new setting.

Press Cancel to exit the subroutine.

NB - This is only available on MicroM3S software v4.47 or above. Please run subroutine 2 to check. Also requires v3.21 or above Milk Meter software.

| Cow | Program | ● | Ration | Yield/Flags |

MFd   YES

DELETE Change

SUBS Enter   RESET Cancel

USING THE MICROM3S: Using the Pegasus Sorting Gate:

For information on the setting up of the Pegasus Sorting Gate, please refer to the Pegasus Sorting Gate manual.

WARNING FLAGS: Set and Clear: Key Functions

Any or all of the Warning Flags may be set against an animal. When a flag is set, the appropriate Warning Indicator will illuminate on the MicroM3S. If the warning flags match those set on the Pegasus Gate Interface (see Pegasus Sorting Gate Manual), the animal will be sorted accordingly.

Feed an animal with an active warning flag set will cause the MicroM3S to display a message and sound a warning. Feeding will require acknowledgement of the warning flag.

To set a flag:

Key the animal number and press Enter. The animal record details will be displayed.

Press Shift + (Flag required: Numeric key 1 to 7). The flag will be set and the warning indicator will illuminate.

To clear a flag:

Repeat the procedure above which is a toggle action and the flag will be cleared and the indicator extinguished.

Shift + ? → FED ○ / A.I. ○ / VET ● / MASTITIS ○ / DRY ○ / TEST ○ / BULLING ○ / SLOW ○

ONCE ONLY FLAGS AND CLEARING: Subroutine 996: Default = None and Clear During House Keeping.

This subroutine controls when attention flags are cleared from the animal - there are 2 options - either as the animal goes through the sorting gate system or at house keeping.

Check that Program mode is selected.

Run subroutine 996.

MicroM3S display shows message oFlg and cdh (clear daily house keeping) or cas (clear after sorting).

Press Change key to change the setting.

The warning flag indicators will show the current settings. If an indicator is lit then that warning flag is enabled to be once only.

Press Shift + (Key 1 through 7) to toggle an indicator on (enabled) or off (disabled). Each time the combination is pressed the flag setting alternates and this is reflected by the indicator.

Press Enter to store the settings.

Press Cancel to exit the subroutine.

NB. This was introduced in MicroM3S software version v4.28. In this version it removes the flags when the animal is seen by the sorting gate. It was changed in v.4.44 to only clear them at the house keeping times. It was further updated in v4.53 to give the option or either removing the flag when the animal is seen by the sorting gate or at the house keeping times. Please run subroutine 2 to check. This function requires v4.00 or above Pegasus Gate Interface software.

Display panel: | Cow | Program ● | Ration | Yield/Flags |

oFL9   cdh

Shift + SUBS Enter + ? + ?

DELETE Change

Shift + 1 .. 7 → FED ○ / A.I. ○ / VET ● / MASTITIS ○ / DRY ○ / TEST ○ / BULLING ○ / SLOW ○

*SUBS Enter*

USING THE MICROM3S: During Milking:

MILKING: START UP

Press Shift + Cancel to clear any existing display data and reset the stall number to 1 on the default side. There is no need to use Cancel between animal numbers.

MILKING: ENTERING ANIMAL NUMBERS

As each animal passes the control point, its number is keyed into the MicroM3S and the Feed key pressed. NB - If linked to a Parlour Auto-ID system, operate Scan Switch on base of MicroM3S to automate entry of animal numbers and feeding. Automatic recording of milk yields available using either the ATL Milk Meters or a Milk Meter Interface.
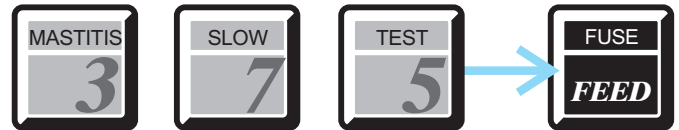
Check that Feed Mode is selected. Although feeding will operate with the control in Program Mode, data could be inadvertently changed.

Key the animal number.

! Press Feed. If the animal has a record, its ration and selected Totals data will appear, the feeder will be turned on to deliver the ration to the current stall and the stall number will be incremented.

When the last feeder on that side has fed, the control will automatically change sides.

Feeding will be withheld if:

◼ **The Animal does *not* have a record:**

The Err (Error) message will flash in the Yield/Flags window and no feed will be delivered.

Press Cancel alone to clear the entry. The animal number will disappear but the stall and side will remain unaltered.

To create the animal record and feed:

Re-key the animal number.

Press Ration and key a ration value in the range 0-99.

Press Enter to create the record.

Press Feed to feed the Animal.

◼ **The animal has already been fed:**

If the Already Fed Check (Subroutine 992) is enabled the machine will sound a warning and halt. No feed will be delivered.

Press Cancel alone to clear the entry and skip feeding.

To feed the animal:

Press Feed again. The ration will be dispensed and the stall incremented.

◼ **The animal has a Warning Flag set:**

If the Warning Flag Check (Subroutine 995) is enabled for that flag, the machine will sound a warning and halt. The flag code is displayed and the flag indicator lit.

Press Cancel alone to clear the entry and avoid feeding.

To feed the animal:

Press Feed again. The ration will dispensed and the stall incremented.

| Shift | + | RESET / Cancel |

| MASTITIS 3 | SLOW 7 | TEST 5 | → | FUSE / FEED |

Cow	Program ◯	Ration	Yield/Flags
375			Err

Cow	Program ◯	Ration	Yield/Flags
375	8		FEd

Cow	Program ◯	Ration	Yield/Flags
375			UEt

USING THE MICROM3S: During Milking Continued:

BATCH: Routine Batch Feeding

The Batch routine allows some or all of the animals along a parlour side to be fed the same ration. The Batch ration value is not added to the animal records cumulative total. It is however, stored as a separate cumulative value that can be displayed using the Herd Totals Key Function.

The Batch routine feeds all the animals from the current stall number to the maximum stall number on the current side, so use the Step and Side keys to select the starting stall and side if necessary.
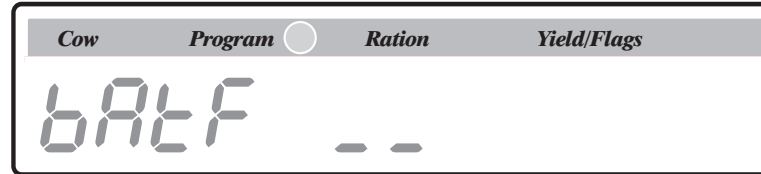
> Use Step/Shift + Step/Side to select the starting stall if necessary.
>
> Press the Batch key. The display will show the bAtF message and entry prompt (_ _).
>
> Key the ration value in the range 1 to 99
>
> Press Feed. Cake will be dispensed in sequence.
>
> Press Cancel to exit.

Cow	Program	Ration	Yield/Flags

bAtF _ _

STEPPING STALLS: Key Function.

To step up to the next stall:

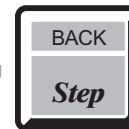> Press Step. The stall number will increment and when it reaches the highest number will roll over to 1 again.

To step down to the previous stall:

> Press Shift + Step(BACK). The stall number will decrement rolling over at 1 to the highest stall number.

NB - When Herringbone In-Stall Auto-ID is enabled (SUB 300 = YES) and the system is not scanning, the STEP key enables stalls to be stepped without setting the animal number to 0. If Auto-ID is still scanning or not enabled (SUB 300 = NO), the STEP key sets the animal number to 0.

GIVING AN ANIMAL A LITTLE BIT OF EXTRA FEED:

> Press Step or Shift + Step (BACK). The stall number will increment or decrement to the stall the animal you would like to give some extra feed to is occupying.
>
> Press Feed.
>
> Key the ration value in the range 1 to 99.
>
> Press Feed and the animal will be fed the extra ration.
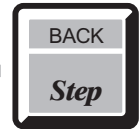
SKIPPING STALLS DURING THE LAST SIDE OF MILKING (Software Version 4.21 and above): Key Function (only for MicroM3S with Parlour Auto-ID system)

> For the last row/side of animals where the end stalls are unoccupied.
>
> Once the Auto-ID system has identified all the Animals that are present (the stall number window on the MicroM3S is showing the first unoccupied stall number), hold down the SHIFT key and press 0.
>
> This will cause the Auto-ID system to skip immediately to SCANEND thus avoiding having to step the unoccupied stalls and potentially dropping pre-feed ration in those stalls.

USING THE MICROM3S: During Milking Continued 1:

ELECTRONIC FUSES (See also Subroutine 975: Enable/Disable Fuses)

The MicroM3S has been fitted with electronic fuses. These replace the conventional glass-and-wire fuse and do not need changing if they trip. If there is a large current draw by a feeder- because of a cake jam or wiring fault- the electronic fuse to that feeder will trip , removing the power. When the fault is located and cleared the fuse will automatically reset itself. There is no need to remove the control lid to repair or reset a fuse.

The MicroM3S electronic circuitry is designed to detect a fuse trip, sound a warning and flash the appropriate stall number. When the warning sounds:

> Press the Attn (Attention) key. This will reveal the actual fault. For a tripped fuse the display will show FUSE trIP and the stall (feeder) number will continue to flash.

> Press Shift + Feed(FUSE). The display message will change to Attn End to indicate that the fault has been acknowledged.
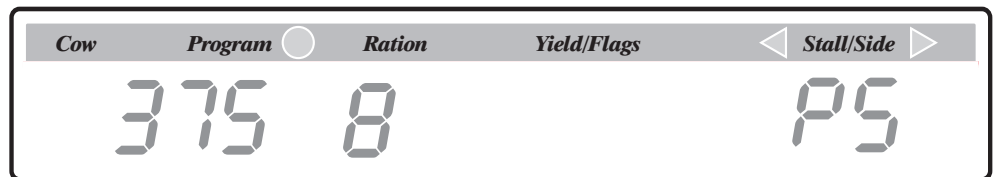
💣 Simply acknowledging the fault does not effect a cure. As soon as possible the problem must be located and cured. A feeder with a tripped fuse will not deliver cake.

! The fuses protect both left- and right hand feeders at the same time. This means that a trip at stall 7 for example, could mean stall 7 on the left or the right. Check it out.

Attn

Shift + **FUSE FEED**

Cow	Program ○	Ration	Yield/Flags	◁ Stall/Side ▷
FUSE		trIP		5
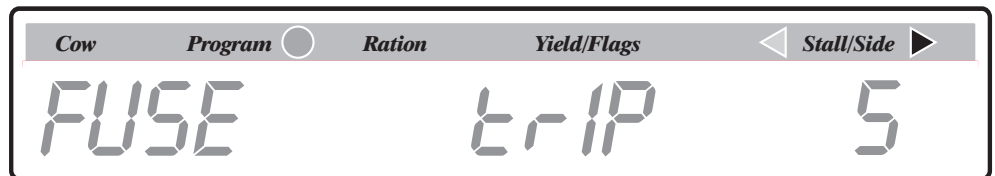
Feeder Supply Failure Warning:

If the feeder supply linked to the MicroM3S parlour control fails during feeding , PS   will flash in the stall side window and the MicroM3S will bleep. the power supply will need to be examined to see if there is a fault.

Cow	Program ○	Ration	Yield/Flags	◁ Stall/Side ▷
375	8			PS

Pulse-8 Channel Overload Trip Warnings:

If the Pulse-8 is linked to the MicroM3S parlour control, this enables a PULS FAIL attention to be displayed on the aforementioned parlour control if the channel overload protection routine runs on any of the Pulse-8 channels. This allows for quicker diagnosis of problems with pulsators and removes the reliance on operators detecting pulsator failures.

> Press the Attn key on the MicroM3S control;

> PULS FAIL will be displayed;

> Go to the Pulse-8 to check which channel(s) has switched off due the channel overload protection routine running.

Attn

💣 Simply acknowledging the fault does not effect a cure. As soon as possible the problem must be located and cured.

Cow	Program ○	Yield/Flags
PULS FAIL		

CHANGING PARLOUR SIDES: Key Function

> Press the Side key to toggle the parlour sides. The arrow indicator in the status bar will illuminate to indicate the current side.

Side

USING THE MICROM3S: During Milking Continued 2:

RECALL: Key Function

This facility provides access to the records for animals last occupying the parlour. Left or right sides may be recalled.
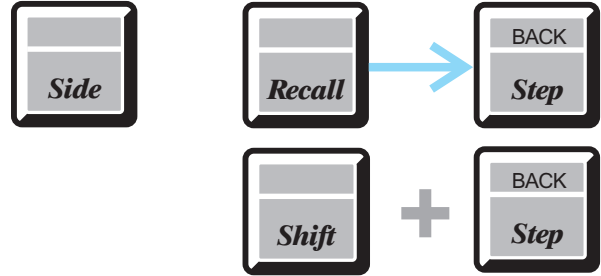
Use the Side key to select the required parlour side.

Press the Recall key.

Press the Step key: Each successive press displays the next Animal record.

Use Shift + Step(BACK) to display in reverse order.

Press Cancel to exit.

NB - If Shift + Cancel is pressed, the end of milking routine or automatic housekeeping run, this will cause the Recall data to be lost.

USING THE MICROM3S: End of Milking:

MILK METER INTERFACE: STORING MILK YIELDS: Key Function.

On systems where the MicroM3S is linked to the Milk Meter Interface it is very important that Shift + Yield Clear is pressed after the last animals have finished milking but before the wash routine is started. If this is not pressed, the wash water will be counted and added onto the milk yields of the last animals milked. Therefore, very high yields could be recorded against the last side of animals on a swingover parlour or the last right-hand and left-hand sides of animals of a doubled up parlour.

Press Shift + Yield. The message YLd cLEAr will display.

Cow	Program	Ration	Yield/Flags

YLd   cLEAr
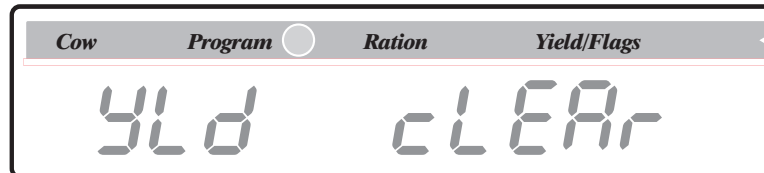
DISPLAY ANIMALS WITH MILK YIELD VARIATIONS: Subroutine 11.

Each animal that has yielded either below or above the percentage variation set in subroutine 986 may be displayed using this subroutine.
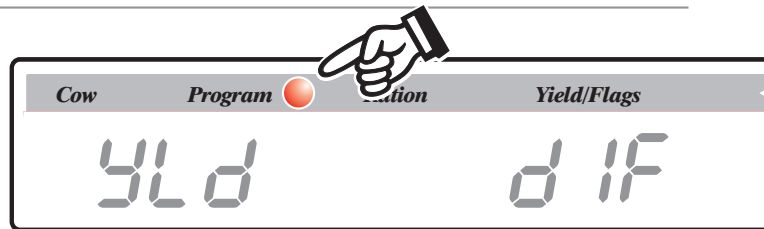
Run the subroutine. The message YLd dIF is displayed.

Press the Browse key to view records in numerical order.

Press Shift + Browse(BACK) to view previous animal records.

Press Cancel to exit the subroutine.

NB - The control checks the last current milking yield against the previous equivalent yield - i.e. a morning against a morning milking or an afternoon against an afternoon milking.

Cow	Program	Ration	Yield/Flags

YLd   dIF

BACK **Browse** *OR* **Shift** + BACK **Browse** RESET **Cancel**

DISPLAY AnimalS NOT FED: Subroutine 10.

This subroutine will display, in sequence, the records for each of the animals NOT fed during the last milking session. The subroutine will run in both Program and Feed Modes.

Run subroutine 10. The message not FEd is displayed.

Press the Browse key to display each animal not fed in numerical order.

Press Shift + Browse(BACK) to display previous animal record.

Press Cancel to exit the subroutine.

Cow	Program	Ration	Yield/Flags

not   FEd

BACK **Browse** *OR* **Shift** + BACK **Browse** RESET **Cancel**
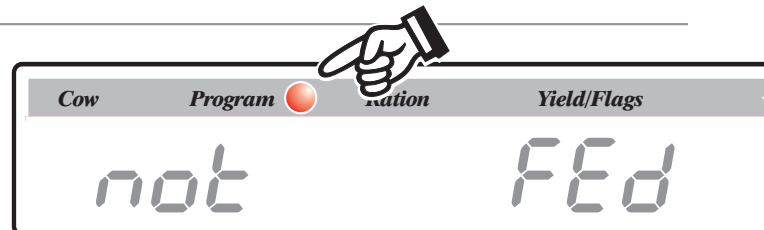
USING THE MICROM3S: Post Milking:

AUTOMATIC HOUSEKEEPING.

The Real Time Clock built in to the MicroM3S, triggers housekeeping functions at the appropriate time. There are three factory set housekeeping periods- at 3.00am, 11.00am and 8.00pm- which have been chosen to fit between normal milking times. To change the factory set times, see Subroutines 7, 8 and 9.It is good practice to check the clock occasionally to make sure it is accurate and ensure that housekeeping occurs at the right time. (Subroutine 6 reads the clock). The procedures carried out during the housekeeping periods are:

At 3.00am:

Number of animals fed during last milking set to zero.
Animal fed marker cleared for each animal.
Days due before A.I. is decremented.
Mastitis days to withhold milk is decremented.
Lactation days is incremented.
Total milk yield for last milking set to zero*.
Once only setting flags set to zero**.

At 11.00am:

Animal cumulative milk yield updated.
Herd daily milk yield updated.
Number of animals fed set to zero.
Daily feed total is set to zero.
Batch feed total is set to zero.
Animal fed marker cleared for each Animal.
Lead feed calculations performed.
Total milk yield for last milking set to zero*.
Once only setting flags set to zero**.

At 8.00pm:

Number of animals fed set to zero.
Animal fed marker cleared for each Animal.
Total milk yield for last milking set to zero*.
Once only setting flags set to zero**.

*This is only available on MicroM3S software v4.29 or above. Please run subroutine 2 to check.

**Only available 4.44 onwards - changed in v4.53 to make this outlined using subroutine 996.

CHANGING THE AUTOMATIC HOUSEKEEPING TIMES: Subroutines 7, 8 and 9.

If your milking times clash with the housekeeping times, or your milk pick-up occurs in the evening, the housekeeping times can be altered using Subroutines 7, 8 and 9. Subroutine 7 allows the 3am, Subroutine 8 the 11am and Subroutine 9 the 8pm housekeeping times to be altered respectively.

Example 1: If your milk is picked up in the evening, the 11am housekeeping time should be changed to 8pm, and the 8pm housekeeping time should be changed to 11am.

Example 2: If your milking time(s) clashes with one of the housekeeping times, the housekeeping in question should be moved to a time that is later than the finish time of the milking. I.E. If you finish milking at 11am, the 11am housekeeping time should be moved to 12pm.

NB - This is only available on MicroM3S software v4.27 or above. Please run subroutine 2 to check.

CHANGING THE 3AM HOUSEKEEPING TIME: Subroutine 7.

This subroutine changes the 3AM housekeeping time.

> Run the subroutine.
>
> The message 3AM 3 is displayed, with 3 representing 3AM in the yield/flags window.
>
> Press Change to enter a new value between 1 and 23.
>
> NB - The housekeeping uses a 24hour clock.
>
> Press Enter to save the time and exit the subroutine.

Cow	Program	Ration	Yield/Flags
3AM			3

Continued Overleaf.....

USING THE MICROM3S: Post Milking Continued:

CHANGING THE 11AM HOUSEKEEPING TIME: Subroutine 8.

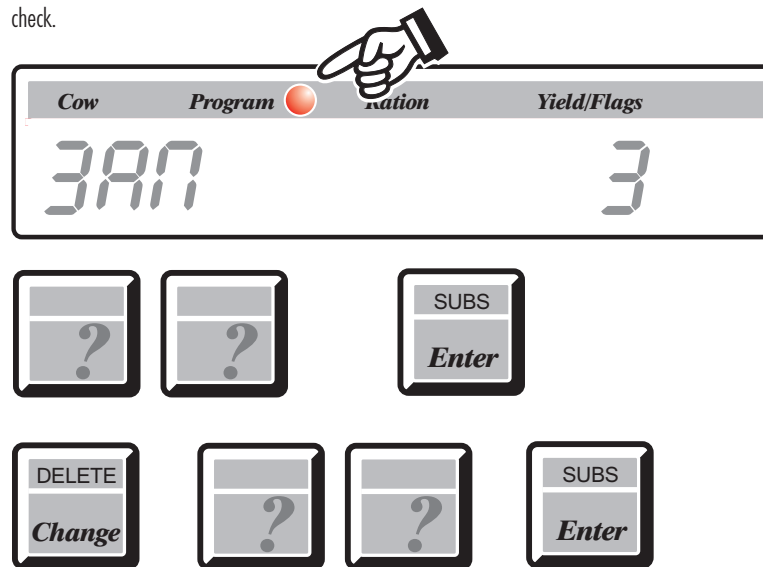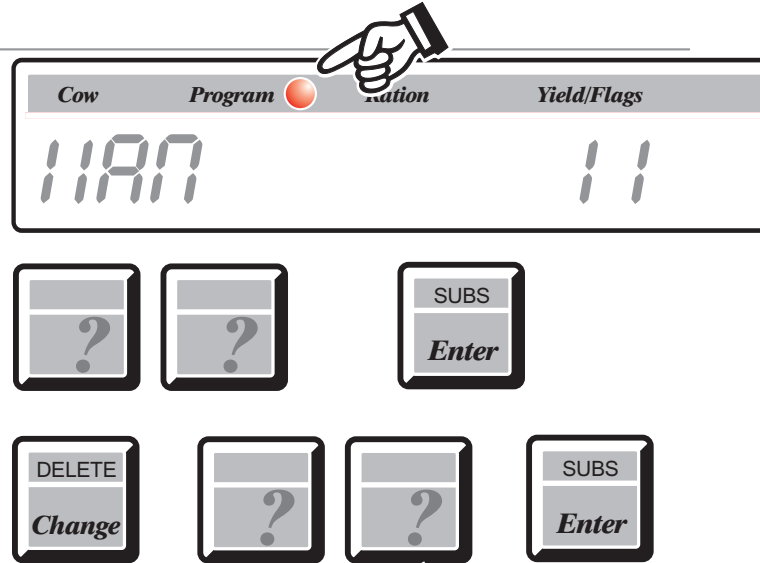This subroutine changes the 11AM housekeeping time.

Run the subroutine.

The message 11AM 11 is displayed, with 11 representing 11AM in the yield/flags window.

Press Change to enter a new value between 1 and 23.

NB - The housekeeping uses a 24hour clock.

Press Enter to save the time and exit the subroutine.

Cow	Program	🔴	Ration	Yield/Flags
11AM				11

?	?		SUBS Enter

DELETE Change	?	?	SUBS Enter

CHANGING THE 8PM HOUSEKEEPING TIME: Subroutine 9.

This subroutine changes the 8PM housekeeping time.

Run the subroutine.

The message 8PM 8 is displayed, with 8 representing 8PM in the yield/flags window.

Press Change to enter a new value between 1 and 23.

NB - The housekeeping uses a 24hour clock.

Press Enter to save the time and exit the subroutine.
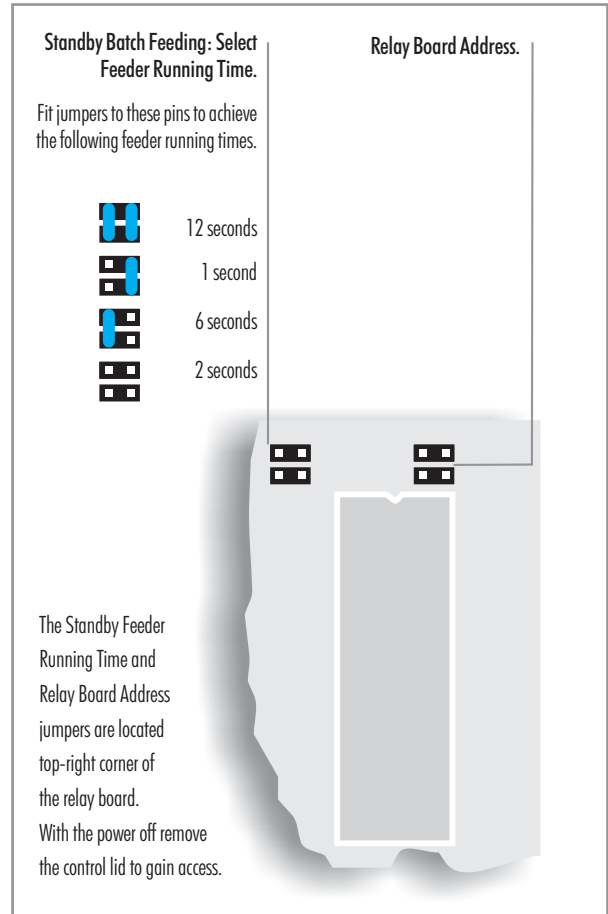
Cow	Program	🔴	ation	Yield/Flags
8PM				20

?	?		SUBS Enter

DELETE Change	?	?	SUBS Enter
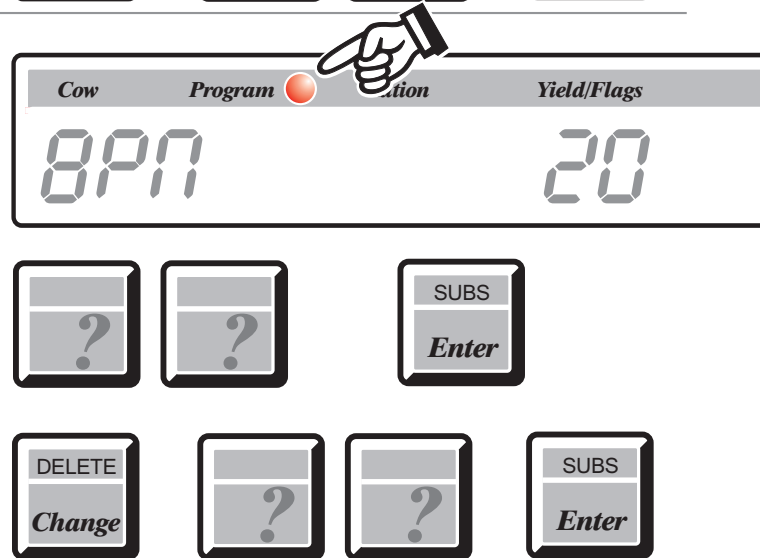
USING THE MICROM3S: Stand-By Feeding:

STAND-BY FEEDING:

In standby batch mode the feeders will run for a pre-determined time- either 1, 2, 6 or 12 seconds- depending upon the settings of the running time jumpers. The default time is 2 seconds (no jumpers fitted). Set the jumpers to suit your feeders according to the diagram opposite.

Standby Batch Feeding: Select Feeder Running Time.

Relay Board Address.

Fit jumpers to these pins to achieve the following feeder running times.

12 seconds

1 second

6 seconds

2 seconds

The Standby Feeder Running Time and Relay Board Address jumpers are located top-right corner of the relay board. With the power off remove the control lid to gain access.

STANDBY: VARIABLE RATION TO INDIVIDUAL STALLS

Turn the Mode Selector to STANDBY STALL.

Turn the Stall Selector to the required stall.

Press the SIDE Switch to the required side- L or R. Cake will be delivered to the selected stall for as long as the switch is held over.

STANDBY: BATCH RATION TO ALL STALLS.

Turn the Mode Selector to STANDBY BATCH.

Press the SIDE Switch to the required side- L or R- and release it. The feeders will run for the time set up on the jumpers (see above) but to prevent overloading the power supply, will start in blocks of four.

STANDBY STALL   STANDBY BATCH

FEED OFF

FEED ON

Mode Selector Switch

Stall Selector Switch

Side Switch

L   R