



**Innovation In and
Out of Parlour**

Micro M5 Manual

Version - 2.0

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Part Number - 39-3010



Index

Manual Version.....	8
About the Micro M5 Control.....	9
The Micro M5 Front Panel.....	10
Installing the Micro M5 Control	11
Good Practice During the Installation.....	12
Micro M5 Control PCB Wiring Connections.....	13
Micro M5 Control Relay Board Wiring Connections.....	14
Up to 16 Feeders per Side Wiring Diagram with 1 x 396 Watt 12vDC Power Supply.....	17
Up to 16 Feeders per Side Relay Board Wiring Diagram with 1 x 396 Watt 12vDC Power Supply...	18
Up to 16 Feeders per Side Wiring Diagram with 2 x 396 Watt 12vDC Power Supply.....	19
Up to 16 Feeders per Side Relay Board Wiring Diagram with 2 x 396 Watt 12vDC Power Supply...	20
Up to 32 Feeders per Side Wiring Diagram with 1 x 396 Watt 12vDC Power Supply.....	21
Up to 32 Feeders per Side Wiring Diagram with 2 x 396 Watt 12vDC Power Supply.....	22
Wiring Diagram for Non-ATL Feeders and Control Only 60 Watt 12vDC Power Supply.....	23
Feed Mode and Standby Switch Wiring.....	23
Setting the Relay Board Address.....	24
Setting Up the Micro M5 Control.....	25
The Keypad.....	25
The Display.....	25
Entering Setup.....	26
Entering the Access Code.....	26
Navigating Through Menu Items.....	26
The Settings Menu Structure.....	27
The Key Buzzer Setting.....	29
The Attention Buzzer Setting.....	29
Setting the Time.....	30
Setting the Date.....	31
Setting the Animal Type.....	33
SBC (Serial Bus Converter) Board.....	34
Control Printed Circuit Board (PCB) Serial Number.....	35
Micro M5 Control Software Version.....	35
Restore Factory Settings.....	36
Exit Setup.....	37

The Parlour Settings Menu Structure.....	38
Parlour Type Setting.....	40
Number of Stalls Setting.....	41
Milkings Per Day.....	43
Parlour Attentions.....	45
Parlour Status Attentions.....	45
Parlour Flag Attentions.....	47
PowerFlush Setting.....	50
The Milk Pump Control Setting.....	50
The Pulse8 Pulsation Control Setting.....	51
The AirBlast Control Setting.....	52
The Auto Wash Setting.....	52
The RVS (Remote Vacuum Sensor) Setting.....	52
The Parlour Entry / Exit Gate Control Setting.....	53
 The Rotary Parlour Settings Menu Structure.....	 54
Enable Bonker Setting.....	55
Bonker Offset Setting.....	55
Bonker Time Setting.....	55
Rotary Stall Gap Configuration.....	56
Identification Offset.....	56
 The Feeding Settings Menu Structure for All Parlours, Except Rotary Parlours.....	 57
The Feeding Settings Menu Structure for Rotary Parlours.....	59
Enable Feeding Setting.....	60
Feed Control Type Setting.....	60
Setting the Number of Feeders to Run at Once.....	60
Stored Feed Mode Setting.....	61
Fuse Detection Setting.....	61
The PFD (Animal Already Fed Check) Setting.....	61
The Units Value Setting.....	62
Global Calibration Setting.....	62
Individual Feed Calibration.....	63
Feeder Output Reallocation.....	65
Enable Trickle Feeding Setting.....	66
Trickle Feed Value Setting.....	66
Trickle Feed Delay Setting.....	66
Pulsed Feeder On Time Setting.....	67

Pulsed Feeder Off Time Setting.....	67
Bin Level Setting.....	68
Bin Warning Level.....	68
Rotary Feeder Offset Setting.....	69
Rotary Feeder Calibration.....	69
Auto ID Settings Menu Structure for All Parlours, Except Rotary Parlours.....	70
Auto ID Settings Menu Structure for Rotary Parlours.....	70
Auto ID Type Setting.....	71
Setting the Auto ID Feeding Lag.....	72
Setting the Unlinked Tag Error.....	72
Pre-Feed Setting.....	73
Rotary Auto ID Platform Linking.....	74
Rotary Auto ID Single Stall Linking.....	75
The MPC (Milking Point Control) Menu Structure for All Types except Milk Meter Interfaces (MMIF)	76
The MPC (Milking Point Control) Menu Structure for Milk Meter Interfaces (MMIF).....	78
MPC Type Setting.....	79
Milk Meter Interface (MMIF) Pulse Calibration Setting.....	80
MPC Feed On Milk Setting.....	81
MPC Editable Flags Menu.....	81
MPC Alert Flags Menu.....	85
MPC Alert Status' Menu.....	88
MPC Lockup Flags Settings.....	90
MPC Lockup Status' Settings.....	91
MPC Dump Milk Flags Settings.....	92
MPC Dump Milk Status' Settings.....	93
MPC No Milk Flags Settings.....	94
MPC No Milk Status' Settings.....	95
MPC Scan Settings.....	96
MPC Enable Slow Milker ACR Setting.....	97
MPC Slow Milker ACR Setting.....	97
MPC Slow Milker ACR Hold Off Time Setting.....	97
MPC Enable Post Milking Yield Setting.....	98
MPC Post Milking Yield Average Days Setting.....	98
MPC Post Milking Yield Percentage Setting.....	98
MPC Enable Post Milking Conductivity Setting.....	99
MPC Post Milking Conductivity Average Days Setting.....	99

MPC Post Milking Conductivity Percentage Setting.....	99
MPC Enable Post Milking Length Setting.....	100
MPC Post Milking Length Average Days Setting.....	100
MPC Post Milking Length Percentage Days Setting.....	100
Out of Parlour Feeding (OOPF) Settings Menu.....	101
Out of Parlour Type Setting.....	103
Out of Parlour Number of Stalls Setting.....	104
Out of Parlour Attached Feeder Type Setting.....	104
Out of Parlour Feed Delay Setting.....	105
Out of Parlour Feeder Calibration.....	106
Out of Parlour Feed Carry Over Setting.....	108
Out of Parlour Period Maximum Feed Setting.....	108
Out of Parlour Uneaten Feed Warning Level Setting.....	109
Out of Parlour Visits Warning Level Setting.....	109
Out of Parlour Visit Length Warning Level Setting.....	110
Out of Parlour Bin A Level Setting.....	111
Out of Parlour Bin B Level Setting.....	111
Out of Parlour Bin A Warning Level Setting.....	112
Out of Parlour Bin B Warning Level Setting.....	112
Out of Parlour Start Of Day Setting.....	113
Out of Parlour Feed Periods Setting.....	114
Out of Parlour Disabled Schedule.....	115
Out of Parlour Restart Day Menu Item.....	116
Out of Parlour Linking Animals Menu Item.....	117
Out of Parlour Linking the Master Tag Menu Item.....	118
The Sorting Gate Settings Menu Structure.....	119
Sorting Gate Type Setting.....	121
Linking Animals Using the Sorting Gate.....	122
The Quick Sort Clear Setting.....	123
The Quick Sort Gate Setting.....	124
The Heat Alert Gate Setting.....	124
The Health Alert Gate Setting.....	124
The Unlinked Tag Gate Setting.....	124
The Sorting Gate Plan Change Over Setting.....	125
The Quick Sort Gate Priority Setting.....	126
The Quick Sort Gate Output Mask Setting.....	126



The Diagnostics Menu Structure	127
Test Displays Diagnostics.....	129
Test Keyboard Diagnostic.....	130
M2Bus IDS Routines.....	131
Running a M2Bus IDS Routine.....	133
SBC (Serial Bus Converter) Board Communications Diagnostics.....	134
Test Relay Board Diagnostic.....	135
The Auto ID Diagnostics for Install Auto ID Systems (Including Rotary Parlours).....	136
The Auto ID Diagnostics for Portal Auto ID Systems.....	137
The Stall Identification Diagnostics for Rotary Parlours.....	138
The Milk Meter Interface (MMIF) Diagnostics Routine.....	139
The Out of Parlour Diagnostics Routine.....	140
The Sorting Gate Diagnostics Routine.....	141
Ethernet Configuration Menu Struture.....	142
The DHCP Server.....	143
The DHCP Lease.....	143
The IP Address.....	143
The Subnet Mask.....	143
The Gateway IP Address.....	144
The DNS IP Address.....	144
The Cloud Data Status.....	144
Checking the Connection to ATL Servers.....	145
Animal Data.....	146
Creating Animals.....	146
Viewing an Animals Record.....	146
Changing the current display total.....	147
Changing Animal flags.....	151
Key shortcuts to common flags.....	154
Changing Animal Sorting flags.....	155
Setting an animal in a stall.....	157
Viewing animals in the parlour.....	157
Viewing herd totals.....	159
Clearing flags for all animals in the herd.....	160
Altering values for all animals in the herd	164
Setting up sorting plans for the herd.....	167



Standby Feeding.....	170
Electronic Fuse Trip Warning.....	171
Power Supply Failure Warning.....	171
Feed Bin Level Warning.....	172
Feeders Turned Off Warning.....	172
Monthly / Six Monthly / Yearly Routine Maintenance.....	173
Parlour Wash Down.....	173
Troubleshooting.....	174



Manual Versions

Version 1.0 - April 2017.....	FirstVersion of Manual (Control Firmware v2.01)
Version 1.1 - June 2018.....	Updatedfor Control Firmware v2.34
Version 1.2 - December 2018.....	LargeUpdate - feeding, auto-id, change key
Version 2.0 - September 2021.....	Updateto Control Firmware Version 3.44

About the Micro M5 Parlour Control

The Micro M5 is a simple and easy to use parlour control. It uses embedded technology to provide all the functionality and data storage required to run automation systems on herringbone, parallel and rotary milking parlours for cows, goats and sheep.

It connects to a wide range of systems including cluster removers, milk meters, parlour automatic identification, automatic drafting gates, backflush, automatic plant washers and dairy animal management software.

General Features:

- Memory can store up to 5,000 animals;
- 6 digit alphanumeric animal numbers;
- Multiple attentions - milked, fed, hold milk, in heat, mastitis by quarter, test, dry, slow, low yield, manual, high conductivity, damaged teat per quarter, colostrum and antibiotic - optional animal already fed attention;
- Feeding and milking prevention on attentions;
- Optional audible attentions;
- Stainless steel mounting bracket and fixing kit included.

Options:

- Feeding and non-feeding versions available;
- Store milking data using MM range of milk meters;
- Automatically feed and store milk yields without keypad animal number entry using parlour automatic identification;
- Automatically sort animals using the Pegasus drafting system;
- Connect to Cowculator M5 PC software to manage your animals, perform feed to yield and select animals for drafting from the comfort of your farm office;
- Connect to the internet to connect with the ATL App.

Milking Features:

- 2 or 3 milkings per day;
- Connects to the CR35 cluster remover - stores milking start time, milking length and highest conductivity value;
- Connects to the MM range of milk meters - stores milking start time, milking length, milk yield, highest conductivity valve and stall number.

Cowculator 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.

Specifications:

- 12/24vDC switching positive or negative feeders as standard - 12-230vAC feeder switching voltage optional using Feeder Interface
- Drives electric, vacuum or compressed air feeders;
- Electronic fuse detection with power supply failure warning;
- Drives 16 feeders per side as standard - up to 100 feeders per side using Relay Extender Boxes.

Animal Editing Keys

Flags Key : Allows the user to edit the animals flags.

Cursor Key : Moves the cursor to edit the desired value.

Shift + Cursor Key : Creates a new animal with the entered brand.

Number Entry Keys

Setup Functions:

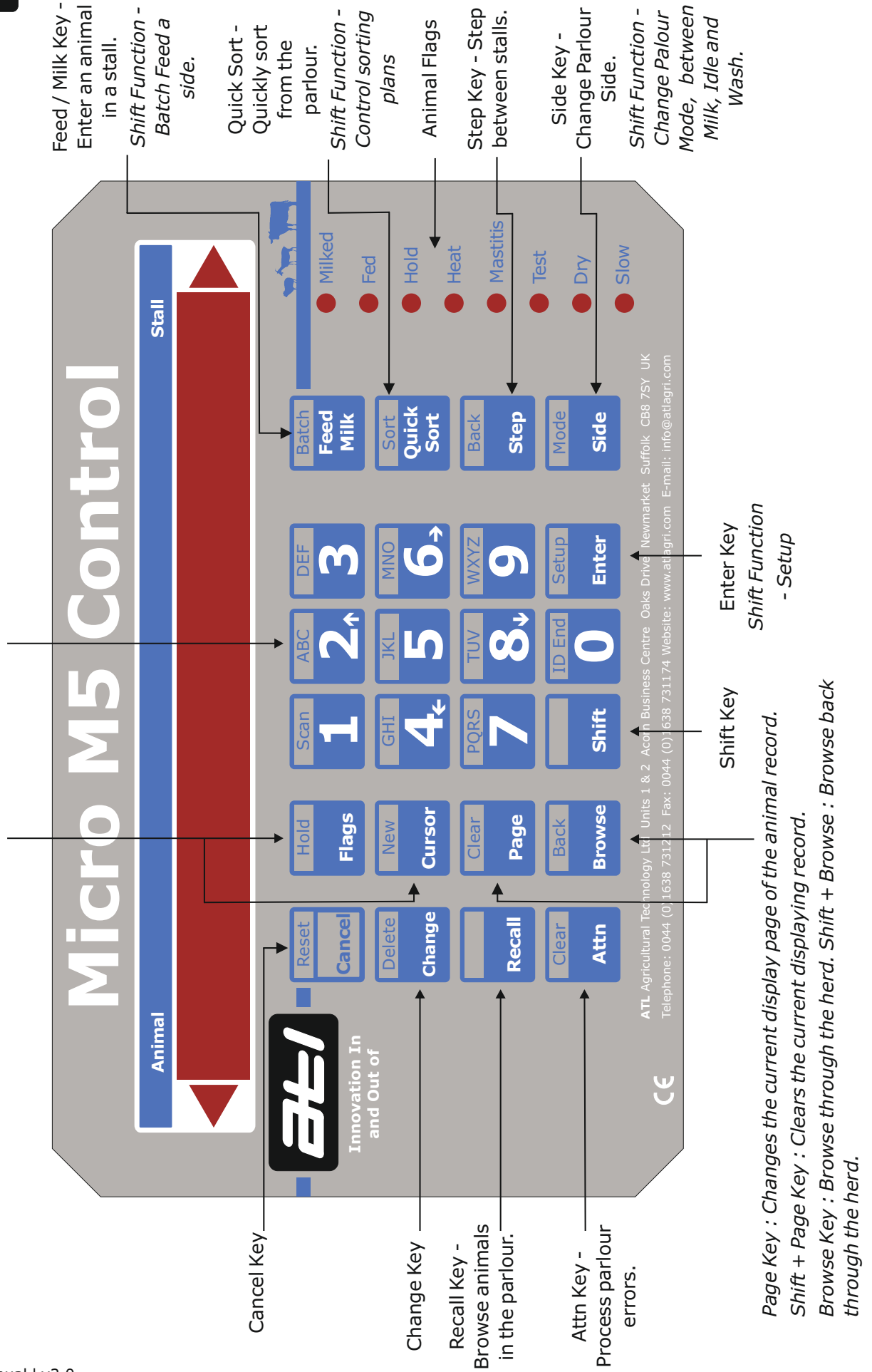
Shift + Key 1 - Start scanning the current side

Key 2 & Key 6 - Move up in any menu

Key 4 & Key 8 - Move down in any menu

Front Cover

Innovation In and Out of Parlour

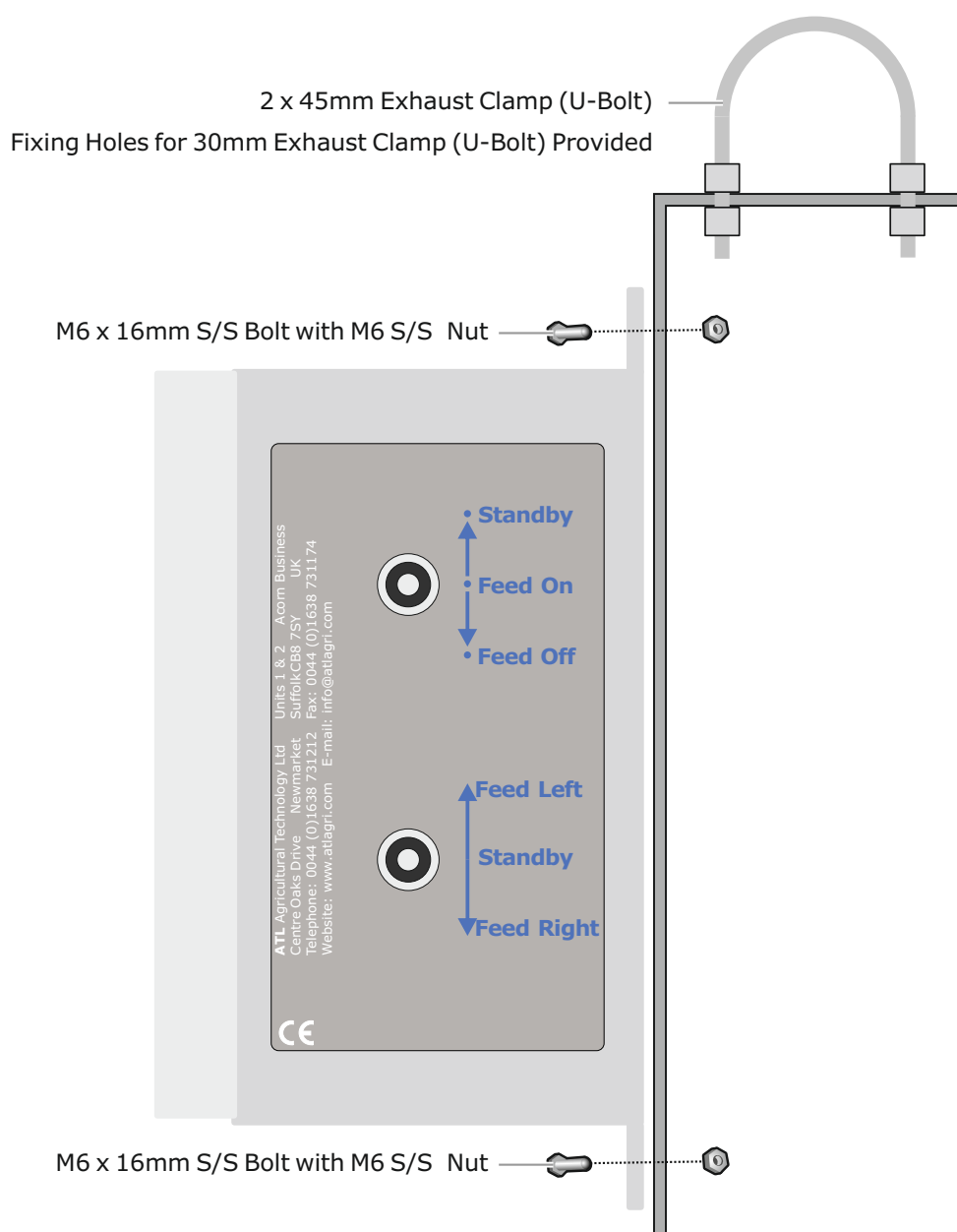


Installing the Micro M5 Control using the Supplied Stainless Steel Bracket

The Micro M5 Control comes with a stainless steel bracket and fixing kit. This should be used to mount the control onto a crossover in the milking parlour pit. It is recommended that the control is mounted at the entry end of the pit, with the control face facing the collecting yard.

IMPORTANT - Feeder Relay Extension boxes should be mounted close to the Micro M5 Control to facilitate the operation of the stand-by feeding.

Mounting the Feeder Relay Extension boxes away from the milking pit and Micro M5 Control will make stand-by feeding difficult and should be avoided.



Good Practice During the Installation

- A separate mains supply and earth running directly from the consumer meter is essential.
- Avoid routing the mains cable to the power supply close to other supplies especially those providing intermittent current motors that are starting and stopping continually or high power heaters with thermostatic control.
- Terminate in a sealed, fused, double pole switched outlet fitted with a 13Amp (Type 1362) fuse or trip. A 3-pin ring main socket is not suitable in parlour conditions. All mains cabling must be contained in a firmly secured durable conduit.

Power Supply: Siting

- Fix the power supply to a wall or suitable brackets in a well ventilated area sufficiently high to avoid physical contact or damage, leaving a gap of at least 250mm (10") between the top of the power supply casing and the ceiling.
- Position the power supply so that the output (low DC voltage) cables are as short as possible even if this means extending the mains supply.

ATL Power Supplies: Output Voltages

- ATL power supply outputs are factory set and should not be adjusted.

396 Watt 12vDC PSU	60 Watt 12vDC PSU
Input: 100 - 240vAC	Input: 100 - 240vAC
Output: Nominal 12vDC	Output: Nominal 12vDC

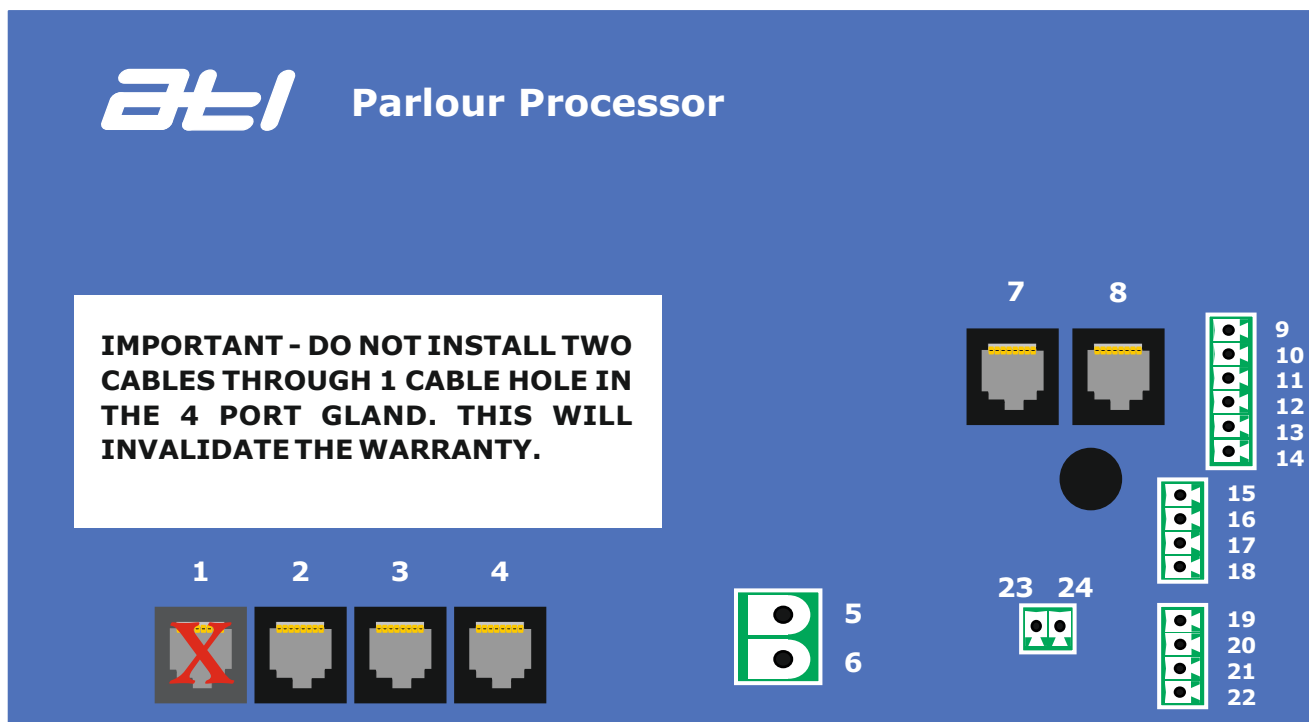
- The 396 Watt 12vDC and 60 Watt 12vDC power supplies have a thermal cutout and overload protection which removes power from the outputs in the event of an overload.
- There are two indicators fitted to the base of the power supply casing; red indicates that the mains is present and green that the output supply is available.

Control and Feeder Cables and Conduit

- Cables must be kept as short as possible running directly from point to point. Cut out any excess cable rather than leaving it coiled.
- Wherever possible cables should be contained in a waterproof conduit using the correct csa cable specified in the diagrams.
- **Entries must be made into the bottom of power supply or control casings but never into the top. This will invalidate the warranty.**
- Strip existing cables back to bright copper before connection.
- Keep multicore cables away from other cables especially those carrying mains or heavy currents. Cross only at 90° where necessary and do not enclose in conduit with other cables.

Micro M5 Control PCB Wiring Connections

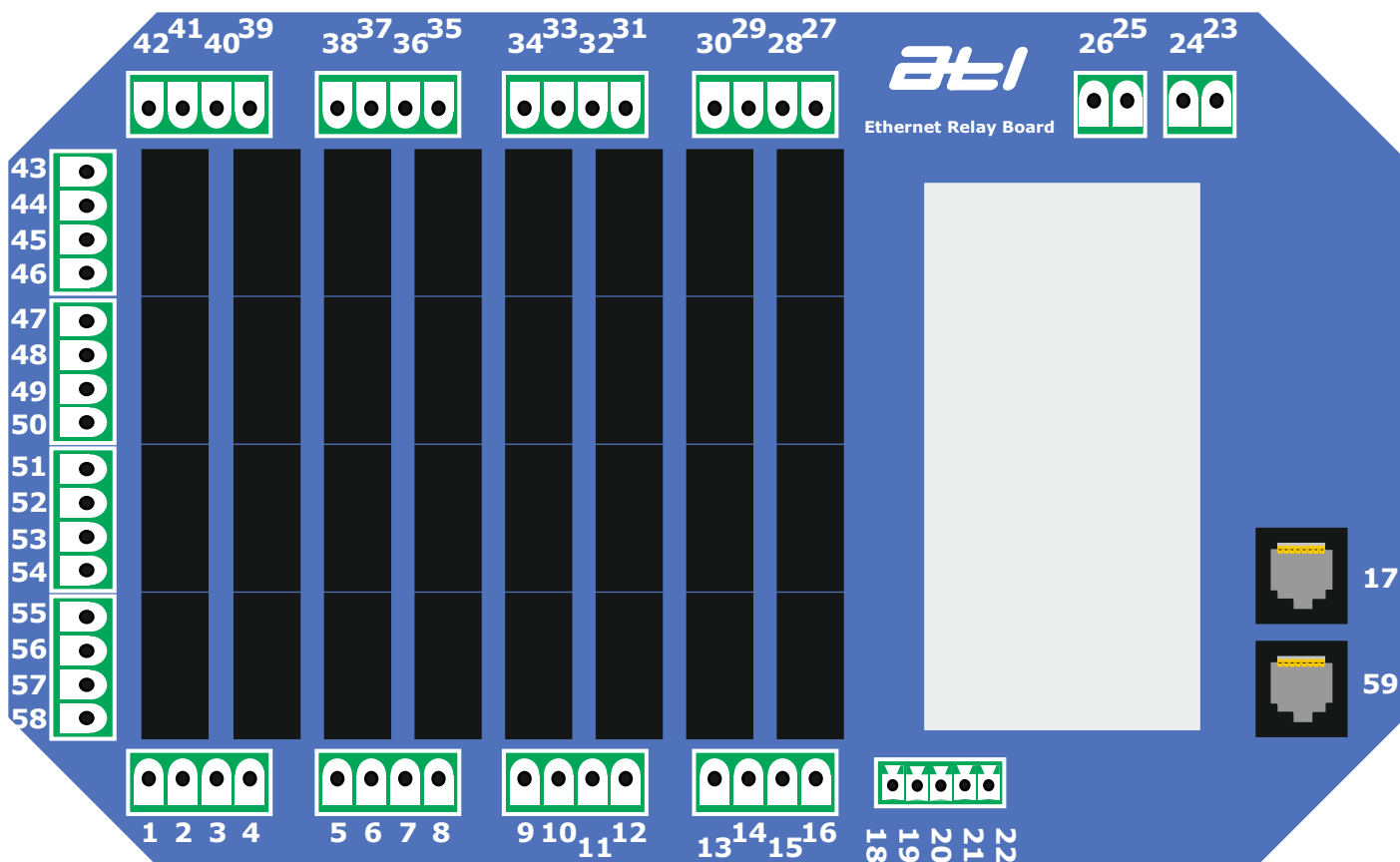
The Micro M5 Control PCB wiring connections are shown in the diagram and table below.



Number	Connects To	Cable Specification
1	Powered Ethernet Cat5e - Plug 1	Only Connect When Instructed by ATL
2	Ethernet Cat5e - Plug 2	Additional Ethernet Connection
3	Ethernet Cat5e - Plug 3	Additional Ethernet Connection
4	Ethernet Cat5e - Plug 4	Use for PC Connection
5	Power In 0vDC	0vDC from Control PSU
6	Power In +12vDC	+12vDC from Control PSU
7	M2Bus Cat5e Connection	M2Bus Cat5e Cable
8	M2Bus Cat5e Connection	M2Bus Cat5e Cable
9	+ve RS485 Power	Only Connect When Instructed by ATL
10	Data A	Twisted Pair - Red
11	Data B	Twisted Pair -Black
12	EOL Link	Only Connect When Instructed by ATL
13	Screen	Twisted Pair Screen
14	-ve RS485 Power	Only Connect When Instructed by ATL
15 - 22	Unused	Only Connect When Instructed by ATL
23	Remote Warning --	Unused
24	Remote Warning ++	Unused

Micro M5 Control Relay PCB Wiring Connections

The Micro M5 Control Relay PCB wiring connections are shown in the diagram and corresponding table below.



Number	Connects To	Cable Specification
1	Feeder 1 Left Hand Side	Minimum 1.5mm ² Red Cable
2	Feeder 2 Left Hand Side	Minimum 1.5mm ² Red Cable
3	Feeder 3 Left Hand Side	Minimum 1.5mm ² Red Cable
4	Feeder 4 Left Hand Side	Minimum 1.5mm ² Red Cable
5	Feeder 5 Left Hand Side	Minimum 1.5mm ² Red Cable
6	Feeder 6 Left Hand Side	Minimum 1.5mm ² Red Cable
7	Feeder 7 Left Hand Side	Minimum 1.5mm ² Red Cable
8	Feeder 8 Left Hand Side	Minimum 1.5mm ² Red Cable
9	Feeder 9 Left Hand Side	Minimum 1.5mm ² Red Cable
10	Feeder 10 Left Hand Side	Minimum 1.5mm ² Red Cable
11	Feeder 11 Left Hand Side	Minimum 1.5mm ² Red Cable
12	Feeder 12 Left Hand Side	Minimum 1.5mm ² Red Cable
13	Feeder 13 Left Hand Side	Minimum 1.5mm ² Red Cable
14	Feeder 14 Left Hand Side	Minimum 1.5mm ² Red Cable
15	Feeder 15 Left Hand Side	Minimum 1.5mm ² Red Cable
16	Feeder 16 Left Hand Side	Minimum 1.5mm ² Red Cable

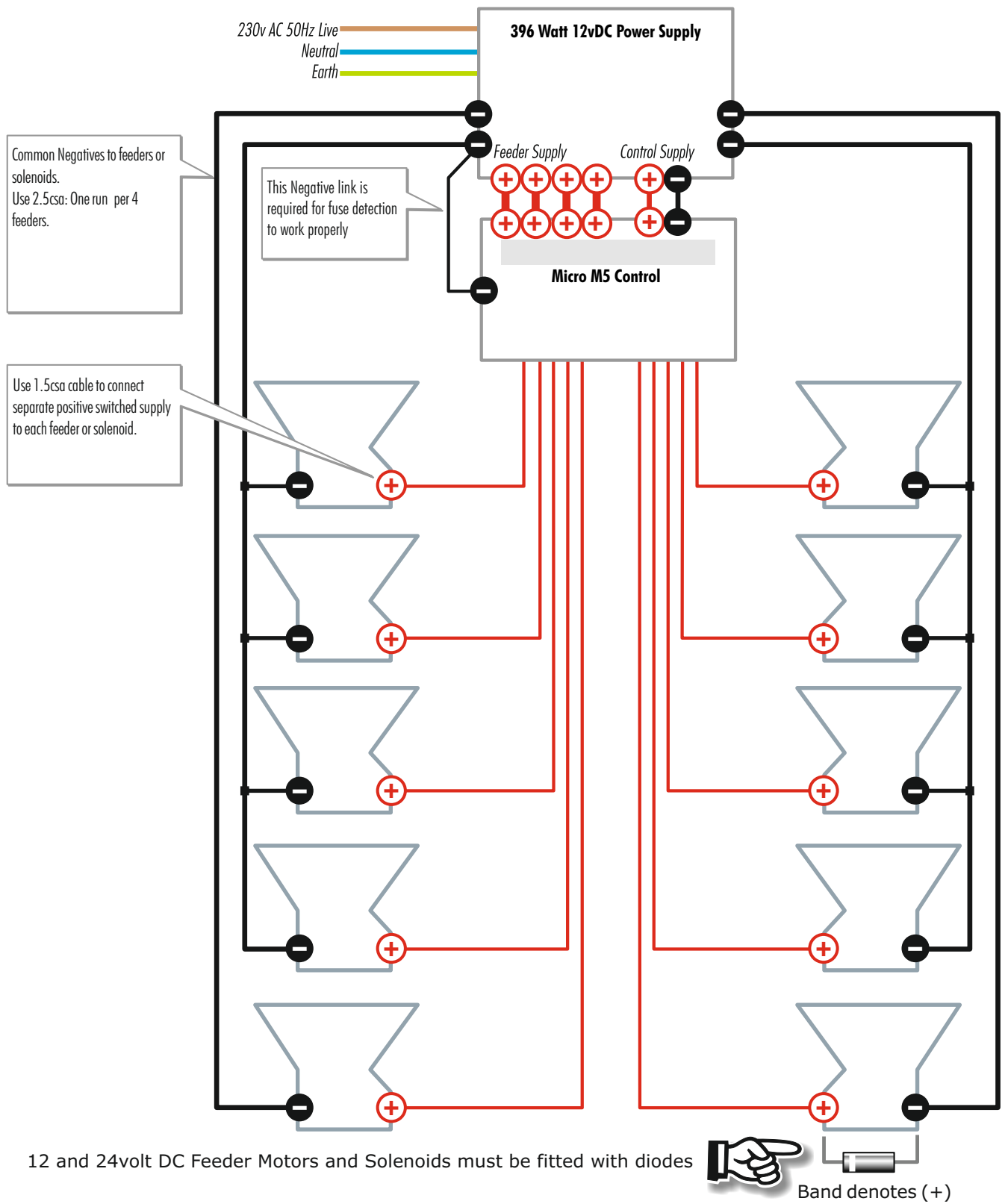
Micro M5 Control Relay PCB Wiring Connections

Number	Connects To	Cable Specification
17	M2Bus - Micro M5 Display PCB	Cat5e Cable
18	Feed Mode and Standby Switches	Factory Fitted (2 x 0.22 Black Cable)
19	Feed Mode Switch	Factory Fitted (0.22 Red Cable)
20	Feed Mode Switch	Factory Fitted (0.22 Yellow Cable)
21	Standby Switch	Factory Fitted (0.22 Green Cable)
22	Standby Switch	Factory Fitted (0.22 Blue Cable)
23	Control +12vDC - Micro M5 Display PCB	Minimum 1.5mm ² Red Cable
24	Control -12vDC - Micro M5 Display PCB	Minimum 1.5mm ² Black Cable
25	Control +12vDC - Power Supply	Minimum 1.5mm ² Red Cable
26	Control -12vDC - Power Supply	Minimum 1.5mm ² Black Cable
27	Feeder 16 Right Hand Side	Minimum 1.5mm ² Red Cable
28	Feeder 15 Right Hand Side	Minimum 1.5mm ² Red Cable
29	Feeder 14 Right Hand Side	Minimum 1.5mm ² Red Cable
30	Feeder 13 Right Hand Side	Minimum 1.5mm ² Red Cable
31	Feeder 12 Right Hand Side	Minimum 1.5mm ² Red Cable
32	Feeder 11 Right Hand Side	Minimum 1.5mm ² Red Cable
33	Feeder 10 Right Hand Side	Minimum 1.5mm ² Red Cable
34	Feeder 9 Right Hand Side	Minimum 1.5mm ² Red Cable
35	Feeder 8 Right Hand Side	Minimum 1.5mm ² Red Cable
36	Feeder 7 Right Hand Side	Minimum 1.5mm ² Red Cable
37	Feeder 6 Right Hand Side	Minimum 1.5mm ² Red Cable
38	Feeder 5 Right Hand Side	Minimum 1.5mm ² Red Cable
39	Feeder 4 Right Hand Side	Minimum 1.5mm ² Red Cable
40	Feeder 3 Right Hand Side	Minimum 1.5mm ² Red Cable
41	Feeder 2 Right Hand Side	Minimum 1.5mm ² Red Cable
42	Feeder 1 Right Hand Side	Minimum 1.5mm ² Red Cable
43	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
44	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
45	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
46	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
47	Power In +12vDC Right Hand Side	Minimum 2.5mm ² Red Cable
48	Power In +12vDC Right Hand Side	Minimum 2.5mm ² Red Cable
49	Power In +12vDC Right Hand Side	Minimum 2.5mm ² Red Cable
50	Power In +12vDC Right Hand Side	Minimum 2.5mm ² Red Cable
51	Power In +12vDC Left Hand Side	Minimum 2.5mm ² Red Cable
52	Power In +12vDC Left Hand Side	Minimum 2.5mm ² Red Cable

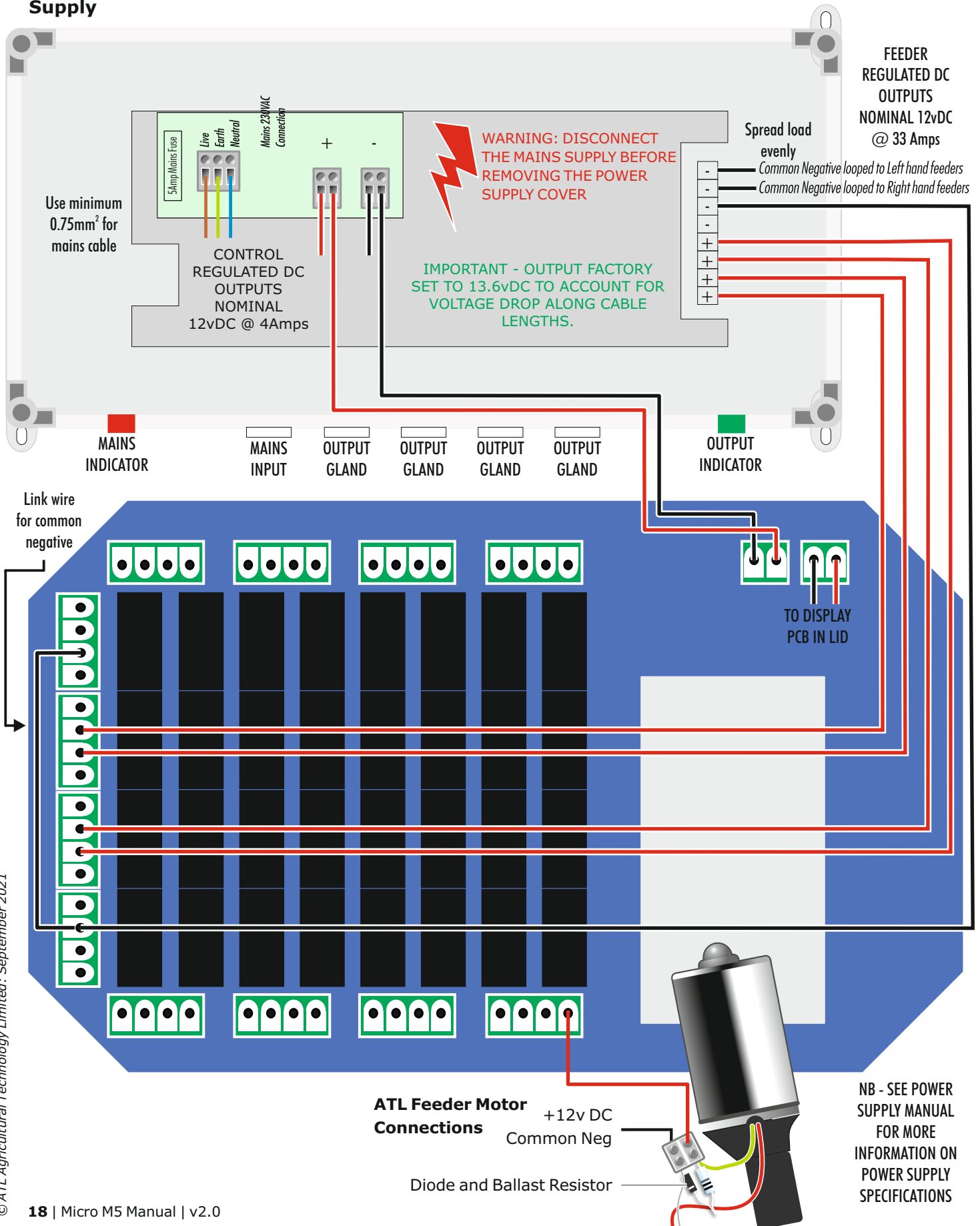
Micro M5 Control Relay PCB Wiring Connections

Number	Connects To	Cable Specification
53	Power In +12vDC Left Hand Side	Minimum 2.5mm ² Red Cable
54	Power In +12vDC Left Hand Side	Minimum 2.5mm ² Red Cable
55	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
56	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
57	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
58	Power In -12vDC Right Hand Side	Minimum 2.5mm ² Black Cable
59	M2 Bus	Cat5e Cable

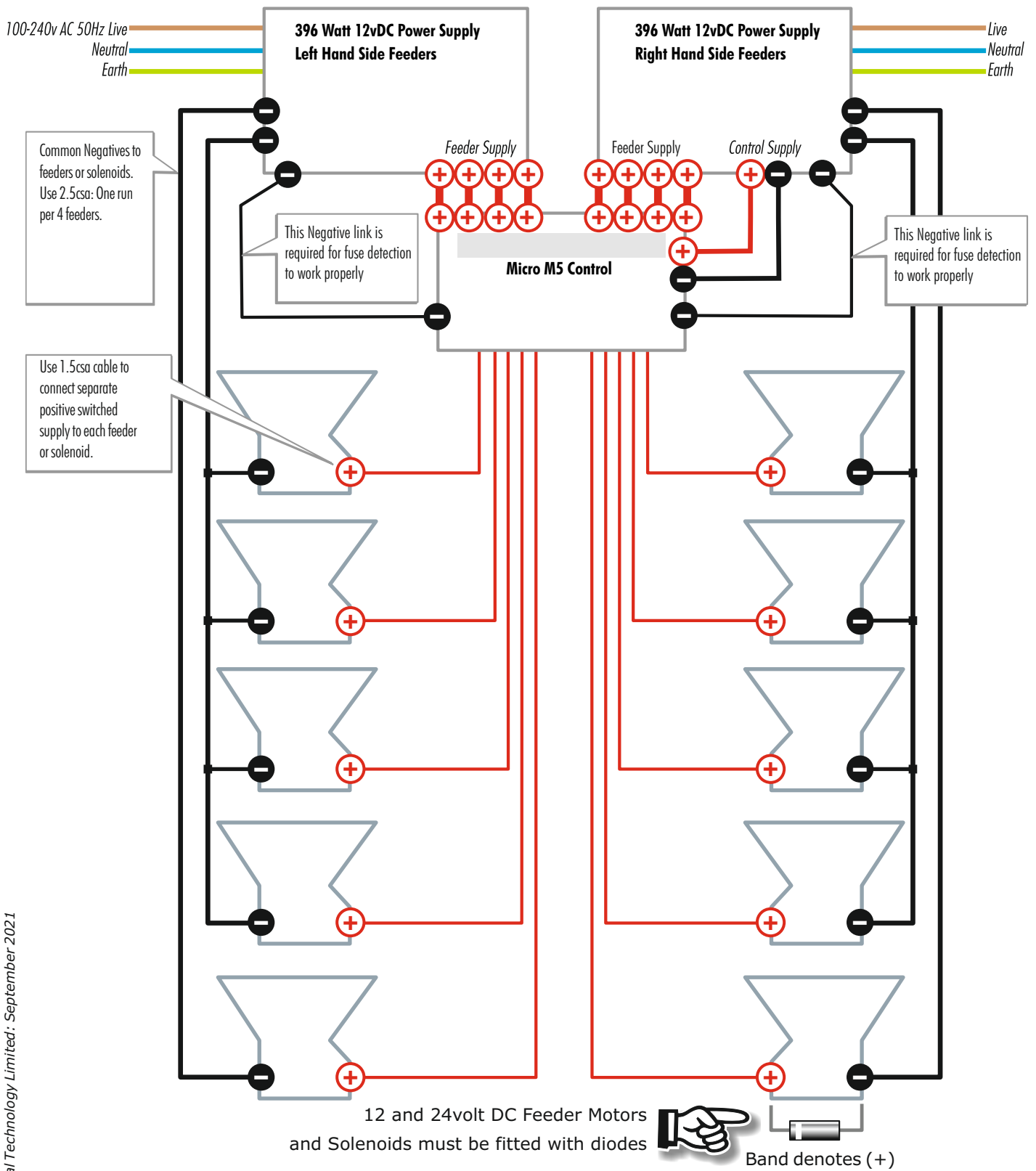
Up to 16 Feeders per Side Wiring Diagram with 1 x 396 Watt 12vDC Power Supply



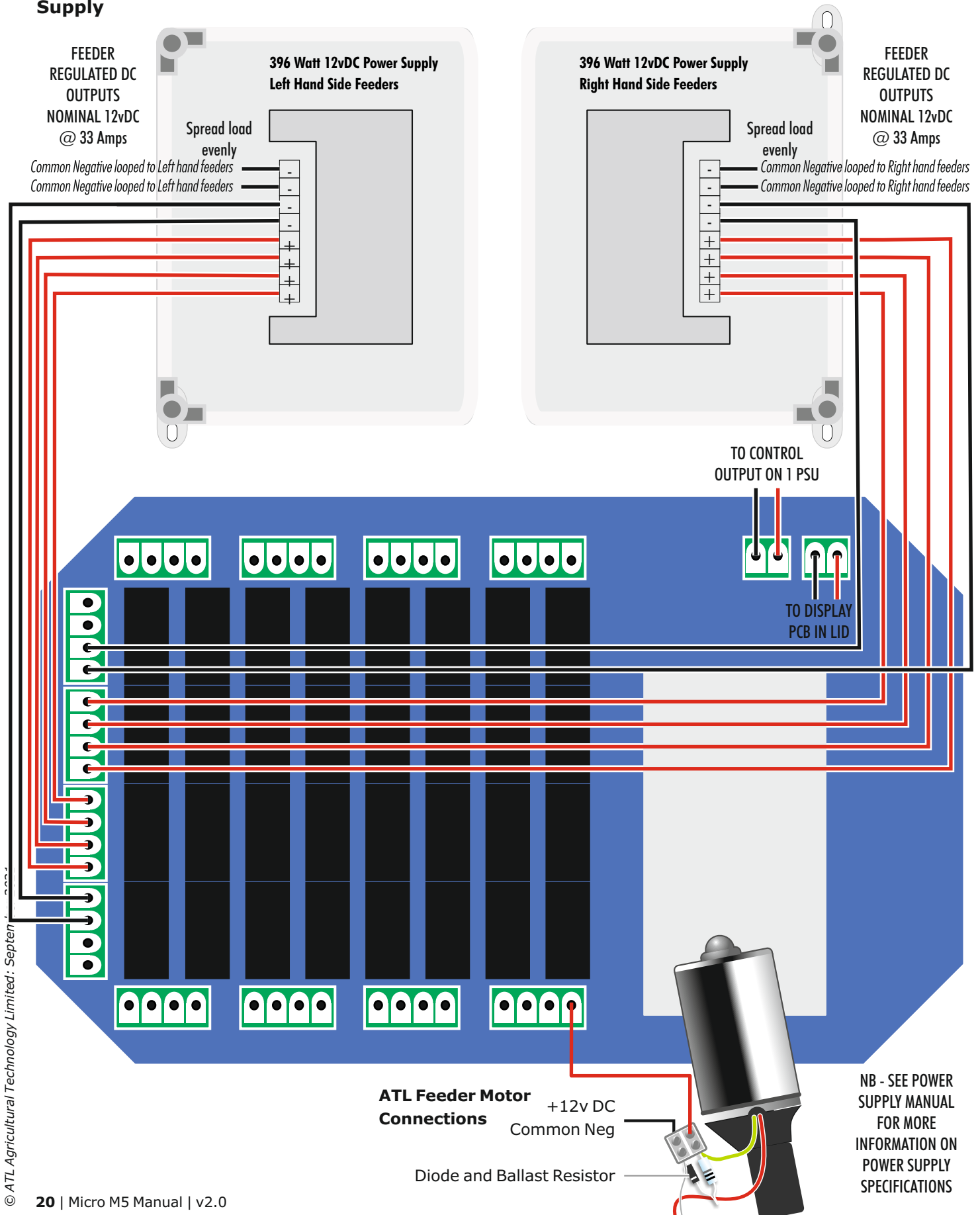
Up to 16 Feeders per Side Relay Board Wiring Connections with 1 x 396 Watt 12vDC Power Supply



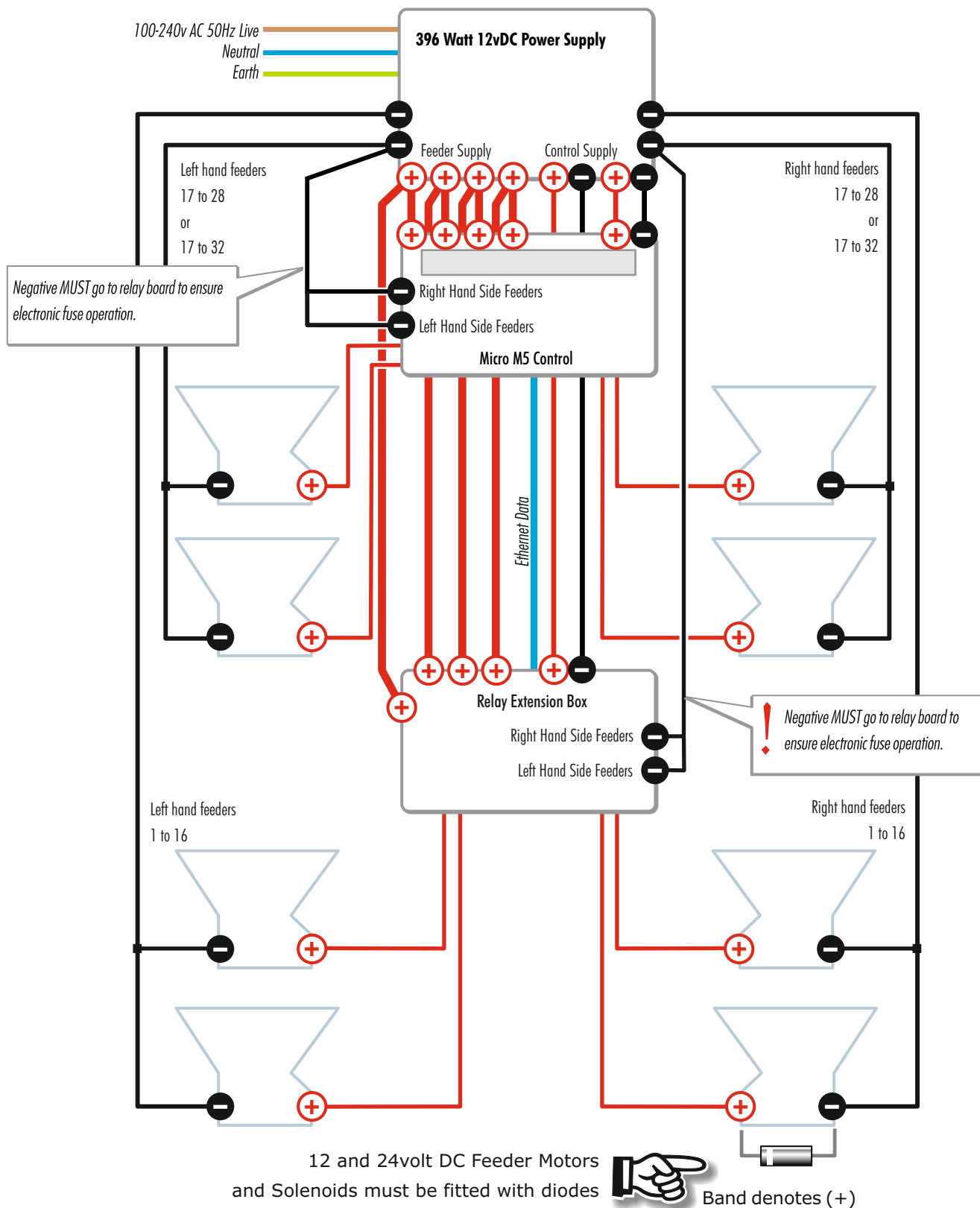
Up to 16 Feeders per Side Wiring Diagram with 2 x 396 Watt 12vDC Power Supplies



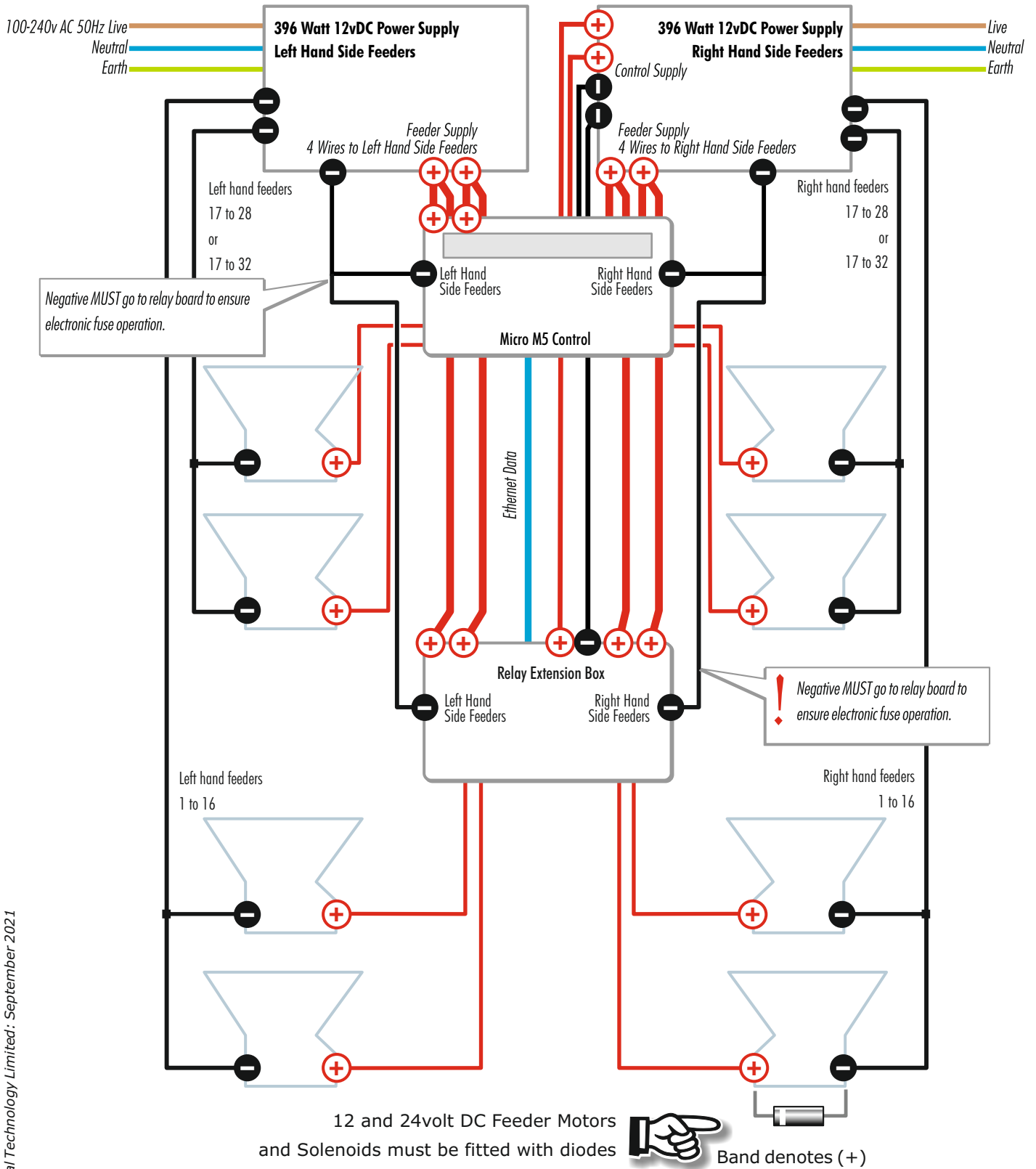
Up to 16 Feeders per Side Relay Board Wiring Connections with 2 x 396 Watt 12vDC Power Supply



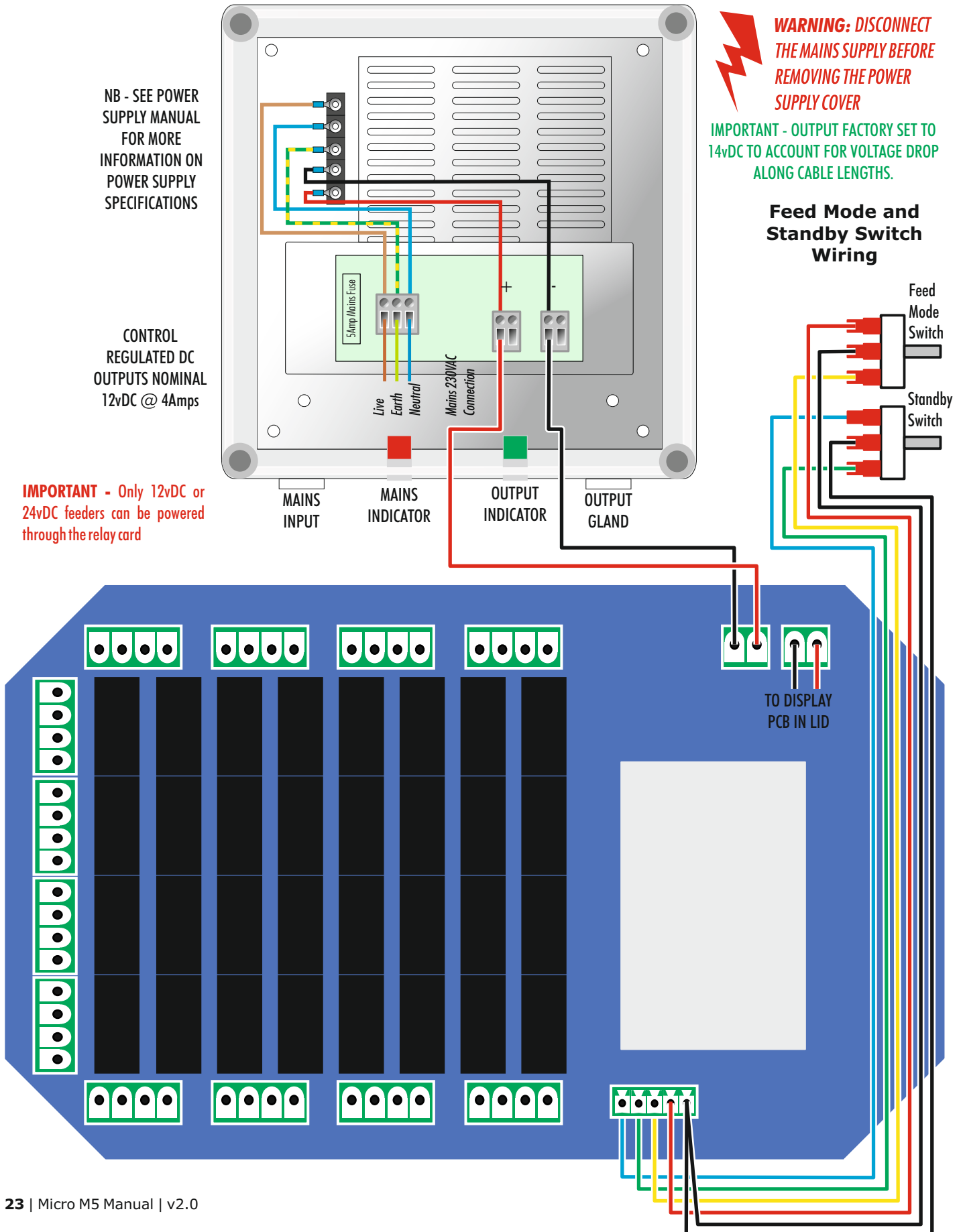
Up to 32 Feeders per Side Wiring Diagram with 1 x 396 Watt 12vDC Power Supply



Up to 32 Feeders per Side Wiring Diagram with 2 x 396 Watt 12vDC Power Supplies



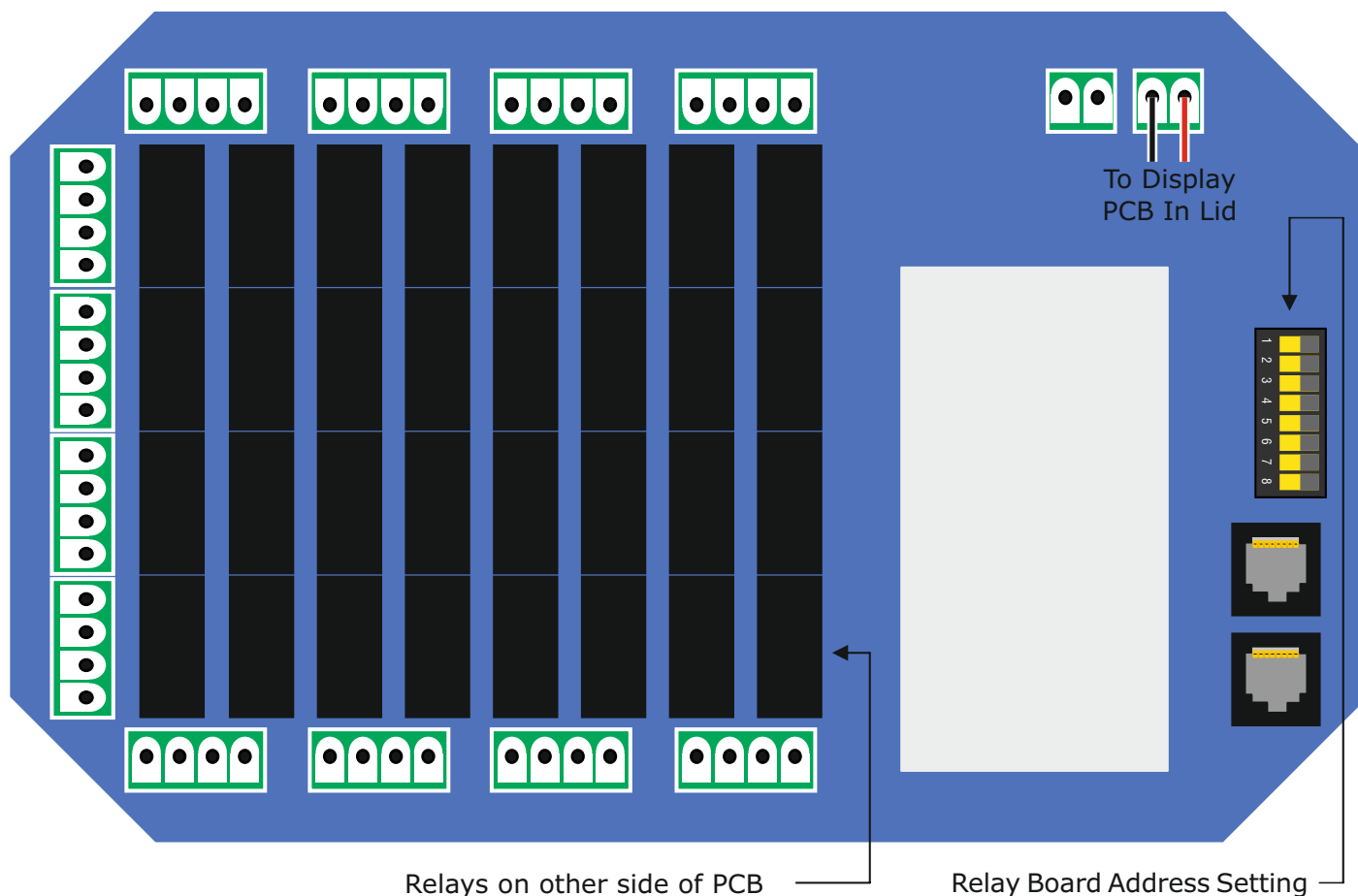
Wiring Diagram for Non-ATL Feeders and Control Only 60 Watt 12vDC Power Supply



Setting the Relay Board Address

The relay board address is set using the DIP switch located on it's right hand side. The address should be set as follows:

Board No.	Feeder No.	DIP Switches	Board No.	Feeder No.	DIP Switches
Relay Board 1	Feeder No.s 1 - 16 LHS & RHS		Relay Board 5	Feeder No.s 65-80 LHS & RHS	
Relay Board 2	Feeder No.s 17 - 32 LHS & RHS		Relay Board 6	Feeder No.s 81-96 LHS & RHS	
Relay Board 3	Feeder No.s 33 - 48 LHS & RHS		Relay Board 7	Feeder No.s 97-112 LHS & RHS	
Relay Board 4	Feeder No.s 49 - 64 LHS & RHS		Relay Board 8	Feeder No.s 113-128 LHS & RHS	



Setting up the Micro M5

Before it can be used, the Micro M5 must be setup. This is outlined in the following pages.

The Keypad

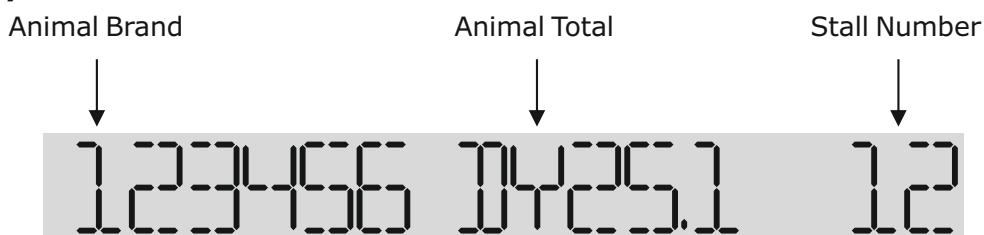
There are 24 keys on the keypad. 5 are for editing animal data - Flags, Cursor, Page, Browse and Quick Sort - the Recall key allows the user to see which animals are in which stalls in the parlour, the Feed / Milk key provides a simple single key which is used to place an animal in a stall. The Attn key allows the user to view attentions from the parlour. The Step and Side keys allow the user to move between stalls in the parlour and enter animals, and the remaining function keys are Cancel, Enter and Shift.

There are a number of keys that are dual function with the use of the Shift key - these provide the user the ability to enter alpha-numeric brand numbers. The other function of the key is shown in the grey box at the top of the key.



The keypad is constructed from a tough membrane overlaying individual key switches. This is a proven, reliable construction which will last for many years provided it is cleaned only with warm soapy water and not hosed down at high pressure.

The Display





The display has three areas. The Animal Brand area shows the current animal brand. Animal Total area shows the currently selected total, the Stall Number area shows the current stall number.

The Micro M5 Control is very energy efficient; power saving was an important element of the design criteria.

Entering Setup

During the setup process, it is necessary to enter and modify data. Before this can be achieved, the Micro M5 Control has to be put into setup using this key sequence:

Press the Shift + Enter keys  +  to enter setup.



If the control is locked the Access Code is requested, if not after 2 seconds the key buzzer setting will be displayed.

Entering the Access Code

The Access Code is 638, this will unlock the control when requested.



Enter the access code (638) by pressing the 6 key  then the 3 key  then the 8 key 

To enter the access code and gain access to the settings press the Enter Key



Once the access code is entered, the setup menu items will be displayed.

Navigating Through Menu Items

To navigate through menu items there are 8 keys which can be used. To navigate forward through a list of menu items press either the Step key, the 2 key or the 6 key.



To navigate backwards through a list of menu items, press the Shift + Step, the 4 key or the 8 key.



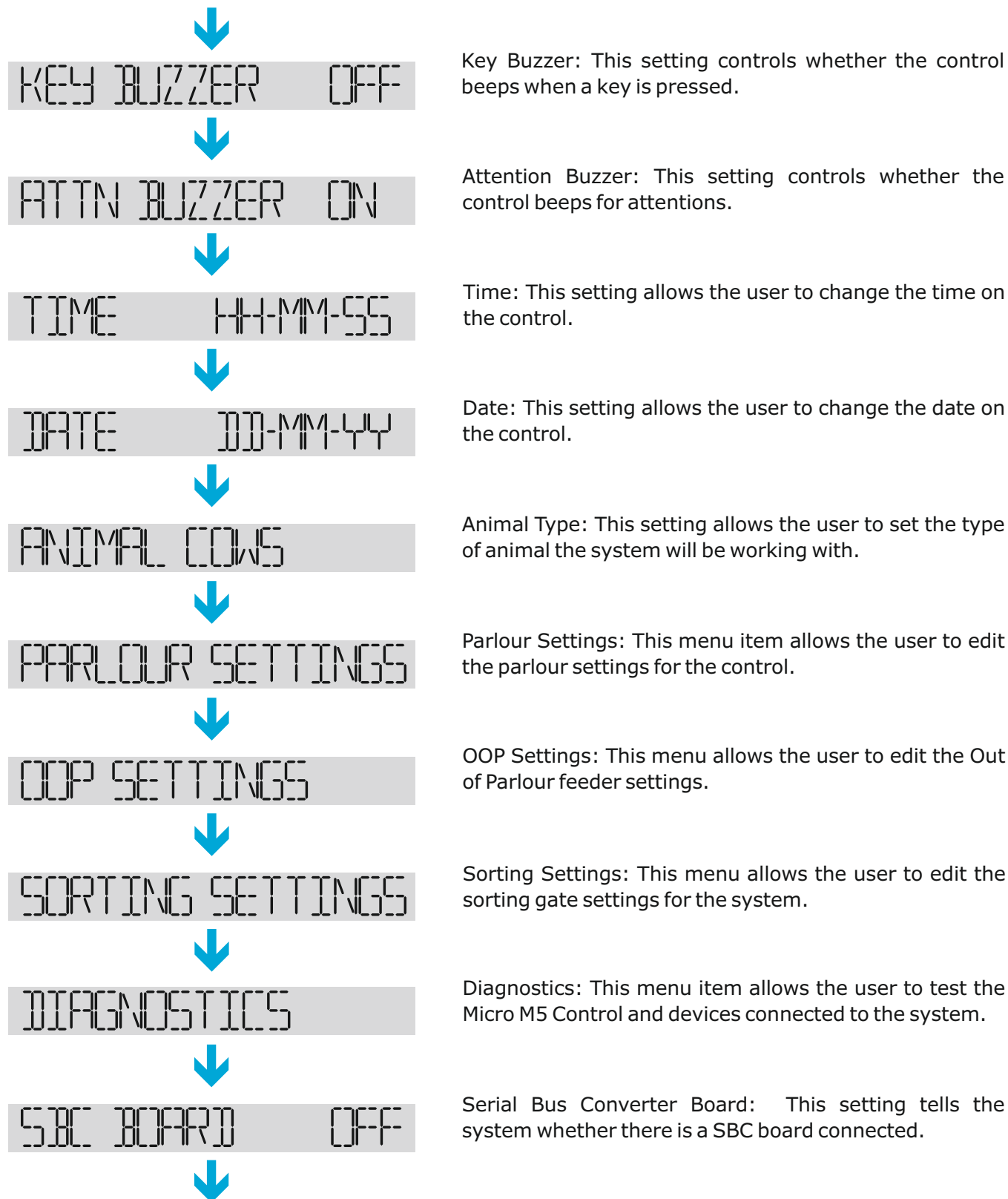
To enter into a menu item press the Enter key, to exit from a menu item press the Cancel key



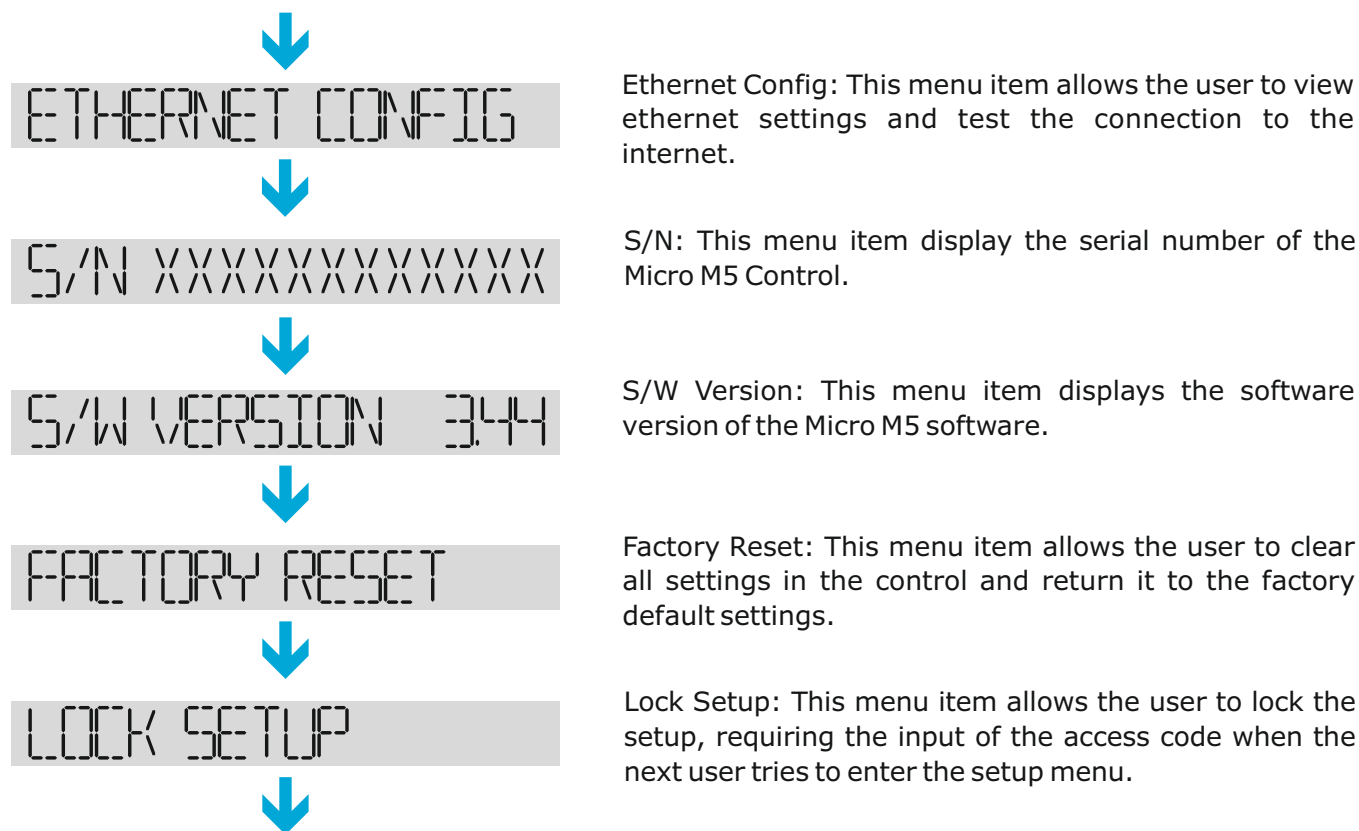
The Settings Menu Structure

The settings menu is structured as shown below;

Entry point into settings menu.



The Settings Menu Structure Continued



The settings menu loops around to the key buzzer setting

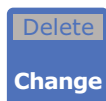
The following pages detail the specifics of each menu item.

The Key Buzzer Setting

KEY BUZZER OFF

This sets whether the key buzzer sounds when the keys are pressed. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the attention buzzer setting.



or

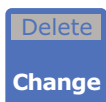


The Attention Buzzer Setting

ATTN BUZZER ON

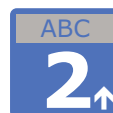
This sets whether the attention buzzer sounds when an error occurs. It is an ON/OFF setting. The factory default is ON.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the time setting.



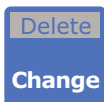
or



Setting the Time

TIME HH-MM-SS

This sets the time on the control unit. Where HH-MM-SS will be the current system time.

Press the Change key  to change the time.

The display will now show 'SET HOUR ___'.



SET HOUR ___

Enter the hour using the number keys.  to  Please Note, the clock is 24 hour.

Press the Enter key  to save or the Cancel key to cancel 

If the Enter key is pressed, the display will now show 'SET MINUTE ___'.

SET MINUTE ___

Enter the minute using the number keys  to 

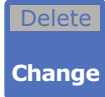
Press the Enter key  to save or the Cancel key to cancel 

The time will now be set, and the Micro M5 Control will return to the Time menu item.

Setting the Date



DATE DD-MM-YYYY



This sets the date on the control unit. Where DD-MM-YYYY will be the current system date.

Press the Change key  to change the date.

The display will now show 'SET DAY ___' for the day of the month.

SET DAY ___

Enter the day of the month using the number keys  to 

Press the Enter key  to save or the Cancel key to cancel 

If the Enter key is pressed, the display will now show 'WDAY DDDDDDD' where DDDDDDD is the current day of the week (i.e. Wednesday).



WDAY DDDDDDD

Pressing the 2 key, 6 key or the Step key will advance the weekday forwards

 or  or 

Pressing the 4 key, 8 key or Shift + Step will advance the weekday backwards

 or  or  + 

Press the Enter key  to save or the Cancel key to cancel 

If the Enter key is pressed, the display will now show 'SET MONTH ___'.

Setting the Date Continued

SET MONTH _ _ _

Enter the month of the year using the number keys



Press the Enter key



to save or the Cancel key to cancel



If the Enter key is pressed, the display will now show 'SET YEAR _ _ _'.

SET YEAR _ _ _

Enter the year using the number keys



Press the Enter key



to save or the Cancel key to cancel



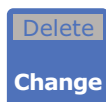
If the Enter key is pressed, the display will return to the menu, showing 'DATE DD-MM-YYYY' where DD-MM-YYYY is the current date.

Animal Type Setting

ANIMAL COWS

This menu item allows the user to change the type of animal which the control will use.

Press the Change key



to toggle through the available animal types.

The routine will enter on the currently selected animal type, the factory default is Cows.



ANIMAL COWS

Animal Cows: Cows are used.



ANIMAL SHEEP

Animal Sheep: Sheep are used.



ANIMAL GOATS

Animal Goats: Goats are used.



The menu will then return to Animal Type: Cows in the loop.

Press the 2 or 6 key to step to the parlour settings menu item.

Parlour Settings

PARLOUR SETTINGS

Press the Enter key



to edit the parlour settings. See separate section.

OOP Settings (Out of Parlour Feeding)

OOP SETTINGS

Press the Enter key



to edit the out of parlour settings. See separate section.

Sorting Setting

SORTING SETTINGS

Press the Enter key



to edit the sorting settings. See separate section.

Diagnostics

DIAGNOSTICS

Press the Enter key

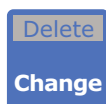


to enter the diagnostics menu. See separate section.

SBC (Serial Bus Converter) Board - This is used on rotary parlour systems and to connect to pre-M2 bus systems.

SBC BOARD OFF

Press the Change Key



to toggle between 'OFF' and 'ON'.

Ethernet Config

ETHERNET CONFIG

Press the Enter key



to edit the ethernet config settings. See separate section.

Control Printed Circuit Board (PCB) Serial Number

S/N XXXXXXXXXXXXXXXX

This displays the control printed circuit board (PCB) serial number.

Press the 2 or the 6 key to move onto the core software version item.



Micro M5 Control Software Version

S/W VERSION 3.44

This displays the Micro M5 Control software version.

Press the 2 or the 6 key to move onto the factory reset function.



Restore Factory Settings

FACTORY RESET

Factory settings can be restored by running this function. This function clears ALL of the settings. The data is lost and is not recoverable so use with caution.

Press the Enter key



to proceed with the factory reset.

ARE YOU SURE?

Press the Enter key



to go to reset settings.

RESET SETTINGS?

Press the Step key



to skip or press the Enter key



to confirm reset settings.

RESET TASKS?

Press the Step key



to skip or press the Enter key



to confirm reset tasks.

CLEAR ANIMALS?

Press the Step key



to skip or press the Enter key



to confirm reset tasks.

FACTORY RESET

Press the 2 or the 6 key to move onto the Lock Setup screen.



or



Exit Setup



This enables to user to lock the setup routine and exit.

Press the Enter key

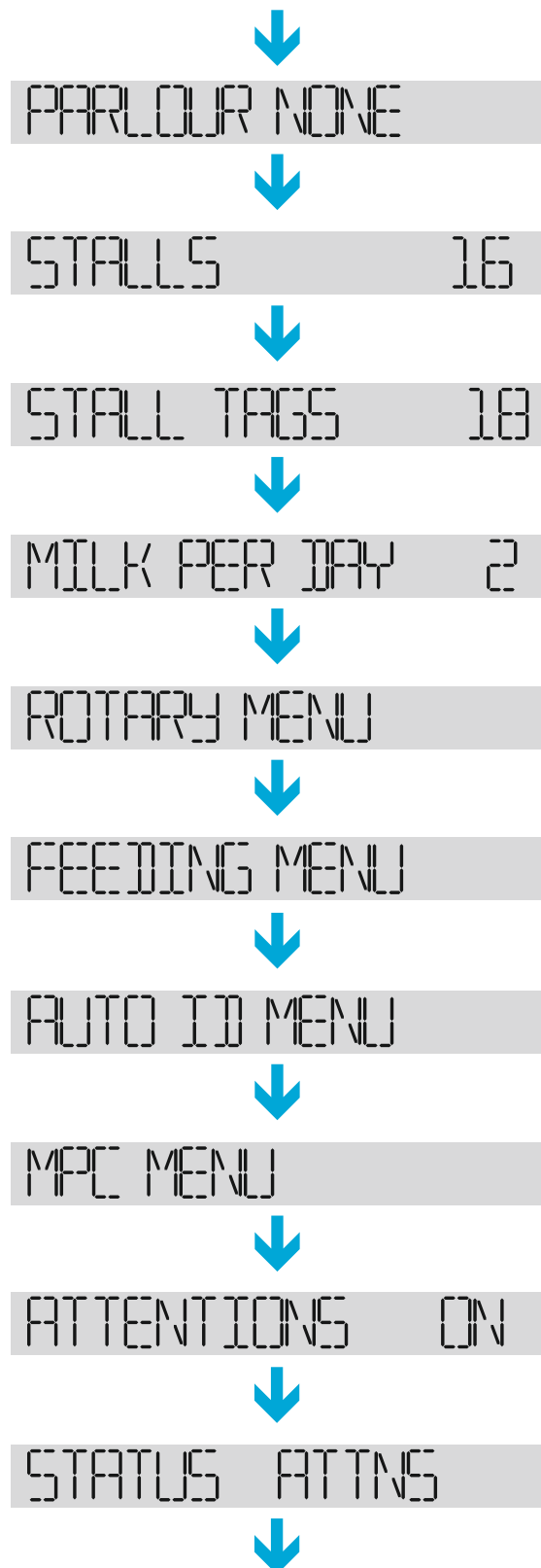


to lock the setup routine and exit.

The Parlour Settings Menu Structure

The Parlour Settings menu is structured as shown below;

Entry point into Parlour Settings menu.



Parlour: The parlour type setting.

Stalls: The number of stalls. **On Trigon Parlours this setting appears as individual settings for each side.**

Stall Tags: **Rotary Parlour Only:** The number of stall identification tags for the rotary parlour.

Milkings Per Day: The number of milkings per day, this setting is used for new animals only, as all animals have a milkings per day value individually.

Rotary Menu: This menu item allows the user to edit the Rotary Parlour specific settings.

Feeding Menu: This menu item allows the user to edit the feeding setup for the parlour.

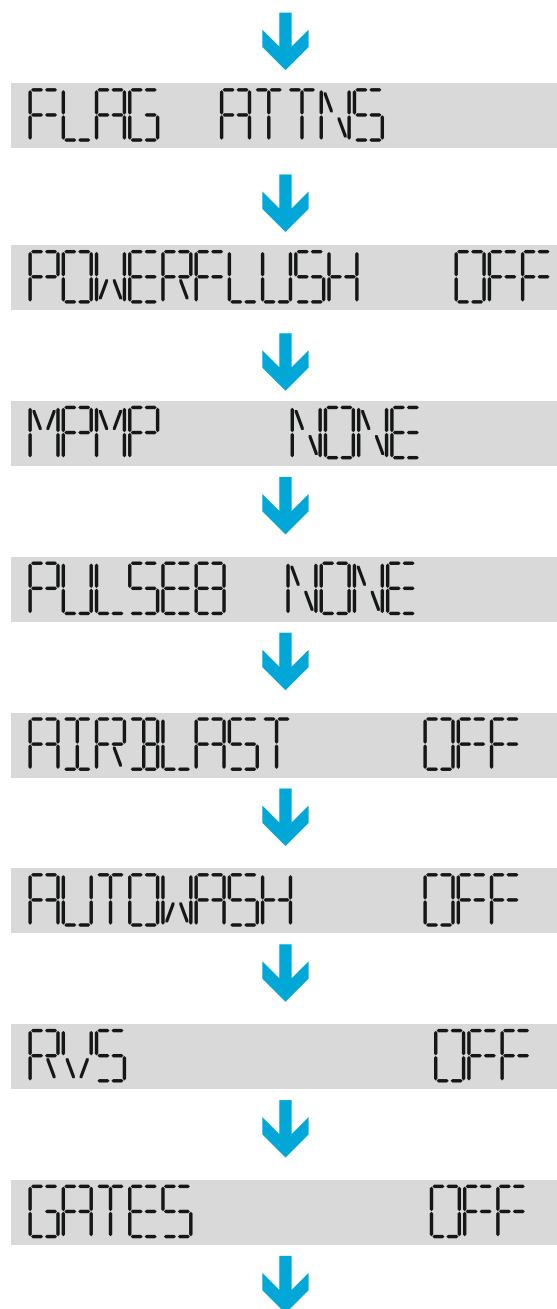
Auto ID Menu: This menu allows the user to edit the Auto ID settings for the parlour.

MPC Menu: This menu allows the user to edit the Milking Point Control settings for the parlour.

Attentions: This setting allows the user to control which attentions cause the control to alert the user using its buzzer.

Status Attentions: This setting allows the user to control which animal status' will cause the control to alert. Only visible when Attentions is set to ON.

The Parlour Settings Menu Structure Continued



Flag Attentions: This setting allows the user to control which animal flags will cause the control to alert. Only visible when Attentions is set to ON.

Powerflush: This setting allows the user to enable or disable communications with the PowerFlush backflush system.

Milk Pump Type: The setting allows the user to change the type of milk pump control connected to the Micro M5 Control.

Pulse8 Type: The setting allows the user to change the type of Pulse8 pulsation control connected to the Micro M5 Control.

AirBlast: The setting allows the user to enable or disable communications with the AirBlast system.

AutoWash: The setting allows the user to enable or disable communications with the AutoWash Control.

RVS: This setting allows the user to enable or disable communications with the RVS Control.

Gates: The setting allows the user to enabled or disabled communications with the Parlour Entry / Exit Gate Controls.

The settings menu loops around onto the parlour type setting

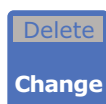
The following pages detail the specifics of each menu item.

Parlour Type Setting

PARLOUR NONE

This menu item allows the user to change the type of parlour which the control will operate.

Press the Change key



to toggle through the available parlours.

The routine will enter on the currently selected parlour, the factory default is None.



PARLOUR NONE

Parlour None: All parlour functionality is disabled.



PARLOUR HB-SO

Parlour HB-SO: The parlour type is set to Herringbone Swing Over (A Milk Meter will swing between left and right milking points).



PARLOUR HB-DU

Parlour HB-DU: The parlour type is set to Herringbone Doubled Up (A Milk Meter for every Milking Point).



PARLOUR ROTARY

Parlour Rotary: A Rotary Milking Parlour.



PARLOUR SS-HB

Parlour SS-HB: The parlour type is set to Single Sided Herringbone.



PARLOUR ABREAST

Parlour Abreast: The parlour type is set to Abreast.



PARLOUR TRIGON

Parlour Trigon: The parlour type is set to Trigon.



The menu will then return to Parlour None in the loop.

Press the 2 or 6 key to step to the stalls setting.



or

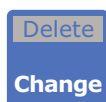


Number of Stalls Setting

STALLS 16

This menu item allows the user to change the number of stalls in the parlour, please note for Herringbone this is the number of stalls on a side. On Trigon Parlours, this setting is separated into individual settings for each side (LHS, RHS and CEN), allowing for a different number of stalls on each side.

Press the Change key



to change the number of stalls.

The display will then change and show Enter Stalls, followed by dashes to allow the user to enter the new number of stalls.

ENTER STALLS _ _ _ _

The user can then type the new number of stalls using the keypad.



Press the Enter key



to store the new number of stalls.

The new number of stalls will be shown.

STALLS 16

To cancel the change at any time, press the Cancel key.



Press the 2 or 6 key to step to the milkings per day menu.

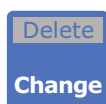


Number of Stall Tags Setting **(Only available when the Parlour Type is Rotary)**

STALL TAGS 18

This menu item allows the user to change the number of stall tags used to identify the position of the rotary parlour, please note this setting is only visible when the parlour type is Rotary. This setting is used when a rotary parlour has gaps, usually these are present on sheep and goat rotaries.

Press the Change key



to change the number of stalls.

The display will then change and show Enter Stalls, followed by dashes to allow the user to enter the new number of stalls.

ENTER TAGS _ _ _ _

The user can then type the new number of stall tags using the keypad.



Press the Enter key



to store the new number of stalls.

The new number of stalls will be shown.

STALL TAGS 18

To cancel the change at any time, press the Cancel key.



Press the 2 or 6 key to step to the milkings per day menu.



Milkings Per Day Setting

MILK PER DAY 2

This menu item allows the user to change the number of milkings per day the system will use in the parlour.


Press the Change key  to change the number of stalls.

The display will then change and show Enter MPD, followed a dash to allow the user to enter the new setting.

ENTER MPD --

The user can then type the new setting using the keypad.

 **to** 

Press the Enter key  to store the new number of milkings per day.

The new number of stalls will be shown.

MILK PER DAY 2

To cancel the change at any time, press the Cancel key.



Press the 2 or 6 key to step to the feeding menu.

 **or** 

Rotary Menu



Press the Enter key



to edit the rotary parlour settings. See separate section.

Feeding Menu



Press the Enter key



to edit the feeding settings for the parlour. See separate section.

Auto ID Menu



Press the Enter key



to edit the Auto ID settings for the parlour. See separate section.

MPC (Milking Point Control) Menu



Press the Enter key



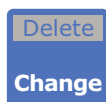
to edit the MPC (Milking Point Control) settings. See separate section.

The Attentions Setting

ATTENTIONS ON

This sets whether Micro M5 Control will alert the user to any attentions set in the Status Attentions and Flag Attentions.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the time setting.

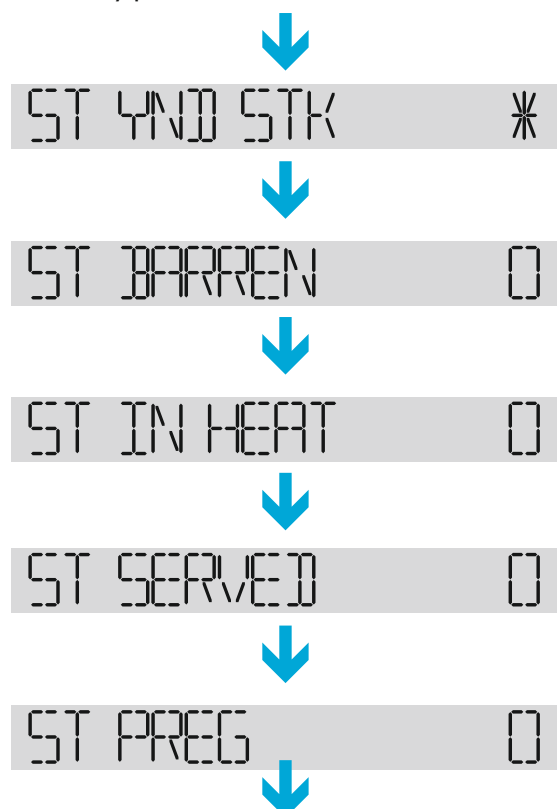


The Status Attentions Menu

STATUS ATTN

This menu allows the user to enable or disable attentions for animals which have the corresponding status. This will cause the control to alert the user when the animal is identified in the parlour, or when the animal is entered into a stall using an MM80 Milk Meter Control or the ATL App.

Entry point into Status Attentions menu.



Young Stock: Alert users to animals with Young Stock status. The factory default is enabled for this setting.

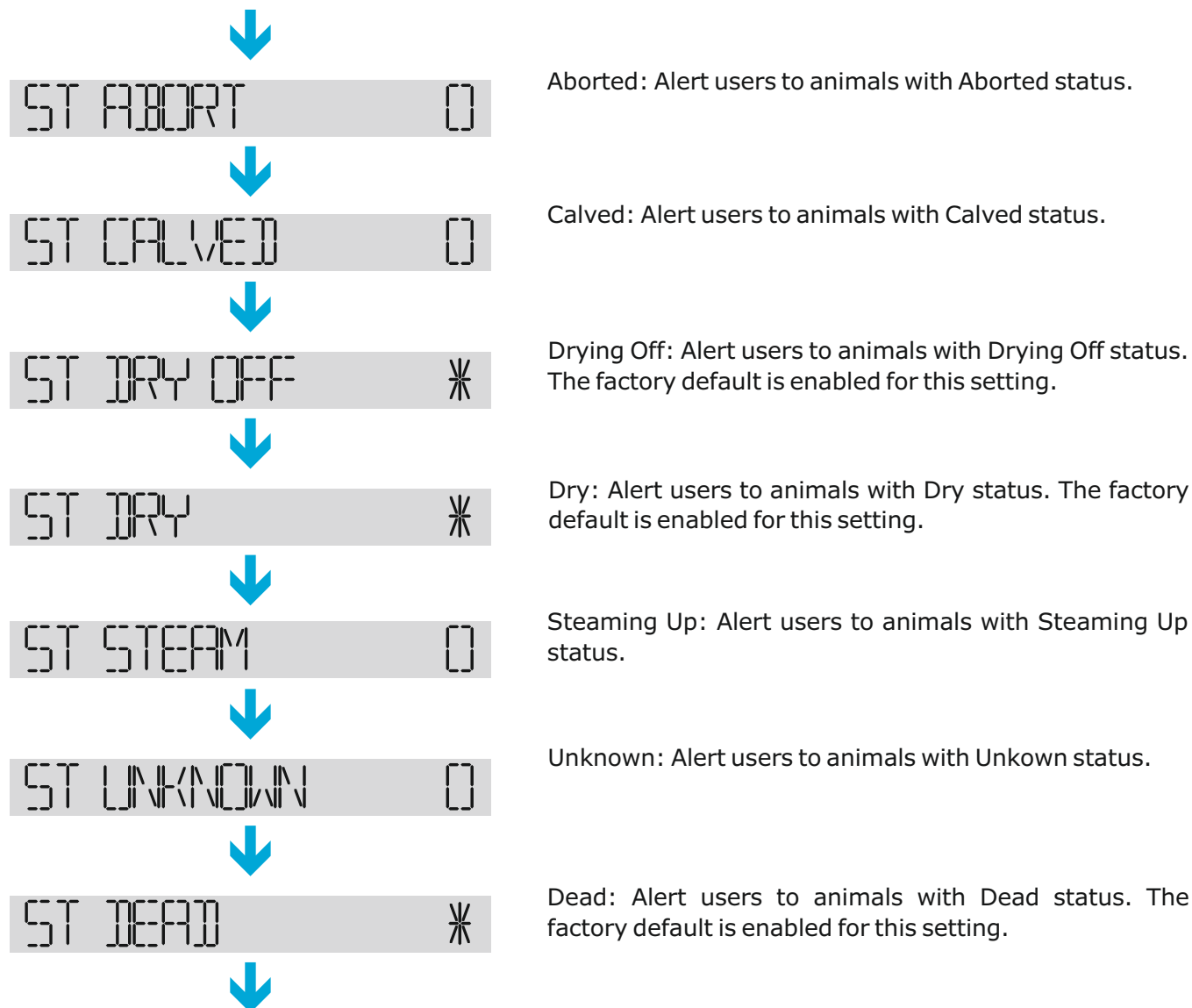
Barren: Alert users to animals with Barren status.

In Heat: Alert users to animals with In Heat status.

Served: Alert users to animals with Served status.

Pregnant: Alert users to animals with Pregnant status.

The Status Attentions Menu Continued



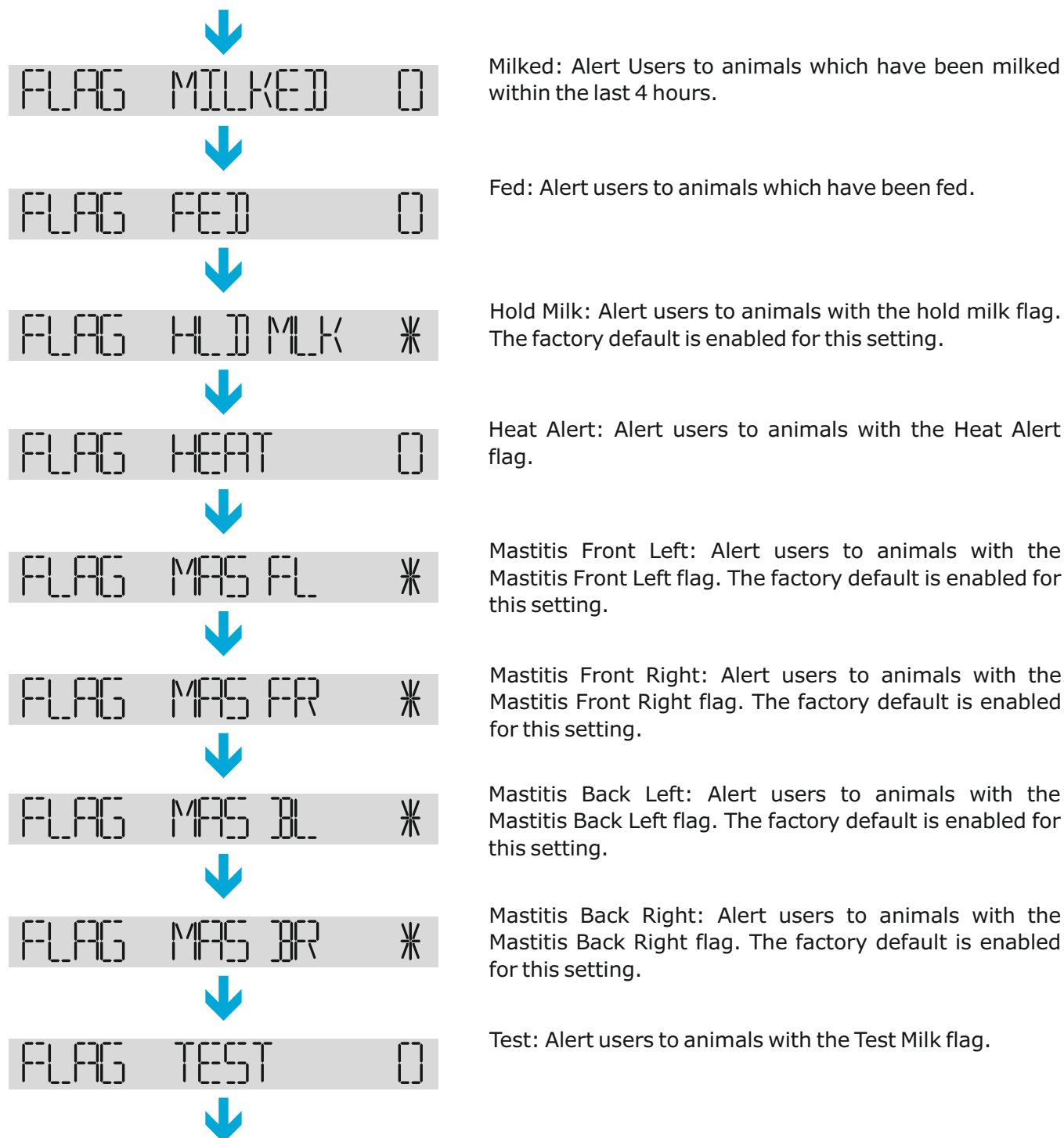
The menu loops back around to Young Stock, to exit press the Cancel Key.

The Flags Attentions Menu

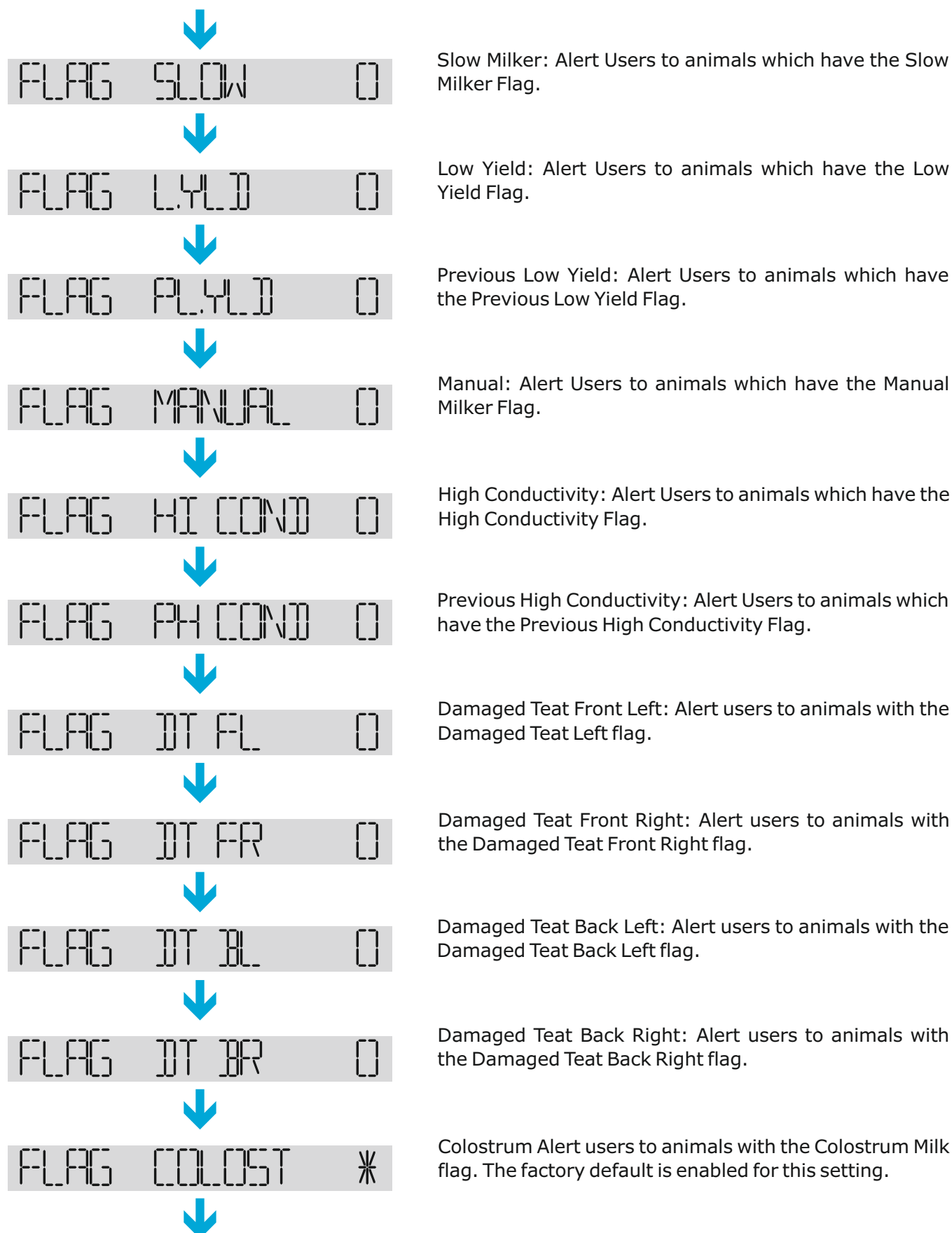
FLAGS ATTN

The Flags Attention menu allows the user to enable or disable attentions for animals which have the corresponding flags set. This will cause the control to alert the user when the animal is identified in the parlour, or when the animal is entered into a stall using an MM80 Milk Meter Control or the ATL App.

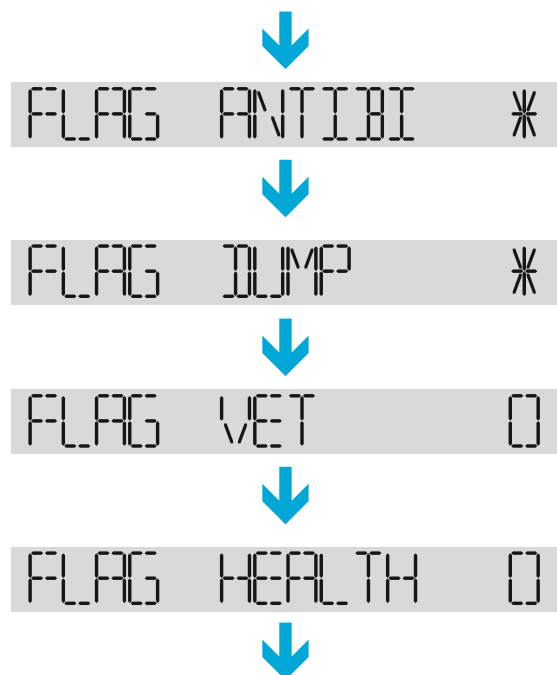
Entry point into Flags Attentions menu.



The Flags Attentions Menu Continued



The Flags Attentions Menu Continued



Antibiotic Milk: Alert Users to animals which have the Antibiotic Milk Flag. The factory default is enabled for this setting.

Dump Milk: Alert Users to animals which have the Dump Milk Flag. The factory default is enabled for this setting.

Veterinary Attention: Alert Users to animals which have the Veterinary Attention Flag.

Health Alert: Alert Users to animals which have the Health Alert Flag.

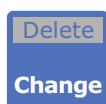
The menu will loop around to the Milked flag, press the Cancel key to exit.

The PowerFlush Setting

POWERFLUSH OFF

This sets whether Micro M5 Control will communicate with the PowerFlush backflush system. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the time setting.

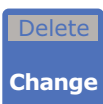


The Milk Pump Control Setting

MPMP NONE

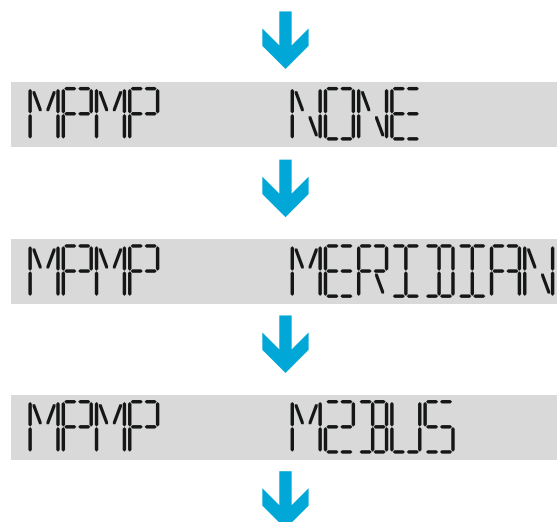
This sets whether the Micro M5 Control is connected to a Milk Pump Control, and the method of communicating with the Milk Pump Control. It is a 3 choice setting. The factory default is None.

Press the Change key



to toggle between options

The routine will enter on the currently selected communications type, the factory default is None.



MPMP None: Milk Pump Control - None, disables the communications to the Milk Pump Control.

MPMP Meridian: Milk Pump Control is enabled, communications is through the SBC Board, onto the Meridian Bus.

MPMP M2Bus: Milk Pump Control is enabled, communications is handled through the M2Bus connection.

The routine will loop back to the None setting.

Press the 2 key or the 6 key to move onto the Pulse 8 setting.

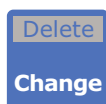


The Pulse8 Pulsation Control Setting

PULSE8 NONE

This sets whether the Micro M5 Control is connected to a Pulse 8 Pulsation Control, and the method of communicating with the Pulse8 Control. It is a 3 choice setting. The factory default is None.

Press the Change key



to toggle between the options.

The routine will enter on the currently selected communications type, the factory default is None.



PULSE8 NONE

Pulse8 None: Pulse8 Control - None, disables the communications to the Pulse8 Control.



PULSE8 MERIDIAN

Pulse8 Meridian: Pulse8 Control is enabled, communications is through the SBC Board, onto the Meridian Bus.



PULSE8 M2BUS

Pulse8 M2Bus: Pulse8 Control is enabled, communications is handled through the M2Bus connection.



The routine will loop back to the None setting.

Press the 2 key or the 6 key to move onto the AirBlast setting.

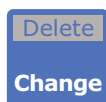


The AirBlast Control Setting

AIRBLAST OFF

This sets whether the Micro M5 is connected to an AirBlast Control. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the Auto Wash setting.

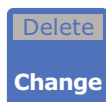


The Auto Wash Setting

AUTO WASH OFF

This sets whether the Micro M5 is connected to an Auto Wash Control. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the RVS setting.

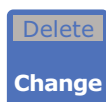


The RVS (Remote Vacuum Sensor) Setting

RVS OFF

This sets whether the Micro M5 is connected to a Remote Vacuum Sensor. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the Gates setting.

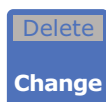


The Parlour Entry / Exit Gate Control Setting

GATES OFF

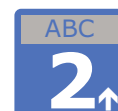
This sets whether the Micro M5 is connected to Parlour Entry / Exit Gate Controls. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to return to Parlour Type setting menu item.



or



The Rotary Settings Menu Structure

The Rotary Settings menu is structured as shown below;

Entry point into Rotary Settings menu.

BONKER ON

Enable Exit Bonker: The enable / disable the bonker system global setting, if set to off, other menu items are blocked from access.

BONKER OFFSET 3

Bonker Offset: The Bonker Offset setting is the number of stalls from the entry stall back around the parlour to where the bonker is located.

BONKER TIME 10

Bonker Time: The time the Bonker will be switched on for.

GAP 1 0000 TO 0000

Gap 1: Stall Gap 1 settings, this is the stall number from to which are not enabled for identification or milk meters, allowing for gaps in the rotary parlour.

GAP 2 0000 TO 0000

Gap 2: Stall Gap 2 settings, this is the stall number from to which are not enabled for identification or milk meters, allowing for gaps in the rotary parlour.

GAP 3 0000 TO 0000

Gap 3: Stall Gap 3 settings, this is the stall number from to which are not enabled for identification or milk meters, allowing for gaps in the rotary parlour.

GAP 4 0000 TO 0000

Gap 4: Stall Gap 4 settings, this is the stall number from to which are not enabled for identification or milk meters, allowing for gaps in the rotary parlour.

GAP 5 0000 TO 0000

Gap 5: Stall Gap 5 settings, this is the stall number from to which are not enabled for identification or milk meters, allowing for gaps in the rotary parlour.

ID OFFSET 0

Identification Offset: This setting allows the identification to be offset, if during setup it needs to be moved in reference to the stalls.

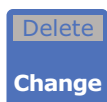
Menu loops around to the Bonker setting, press the Cancel Key to exit.

Enable Bonker Setting

The Bonker Setting is for systems where the animals need encouragement to leave the rotary parlour. The control system takes into account animals which are to be retained, and skips them.

BONKER ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the Bonker Offset setting.

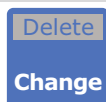


Bonker Offset Setting

This setting allows the user to set where in relation to the entry stall the bonker is located, this allows the system to check which animals are to be retained and skip the activation of the bonker for them.

BONKER OFFSET 3

Press the Change key



to change the offset.

Use the number keys to set the offset and press the Enter key



to save.

Press 2 or the 6 key to step to the Bonker Time setting.

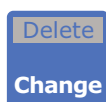


The Bonker Time Setting

This sets the amount of time in Tenths of a Second which the bonker output is activated for.

BONKER TIME 10

Press the Change key



to change the time.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Gap 1 setting.

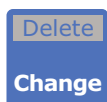


Rotary Gap Settings

The Gap settings for Gaps 1 through 5 allow the user to input up to 5 Gaps in the parlour, these gaps allow the identification, feeding and bonker to remain in sync when the gaps pass the entry.

GAP 1 0000 TO 0000

Press the Change key



to change the setting, the control will then ask for the start offset.

GAP 1 START _ _ _ _

Use the number keys to set the offset and press the Enter key



to save.

The control will then ask for the end offset;

GAP 1 END _ _ _ _

Use the number keys to set the offset and press the Enter key



to save.

Press 2 or the 6 key to step to the ID Offset setting.

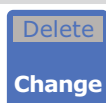


Setting the Identification Offset

The identification offset allows the users to offset the identification entry stall, this is useful when setting up the parlour and allows the entry stall to be moved without having to relink the stall tags.

ID OFFSET 0

Press the Change key



to change the offset.

Use the number keys to set the offset and press the Enter key



to save.

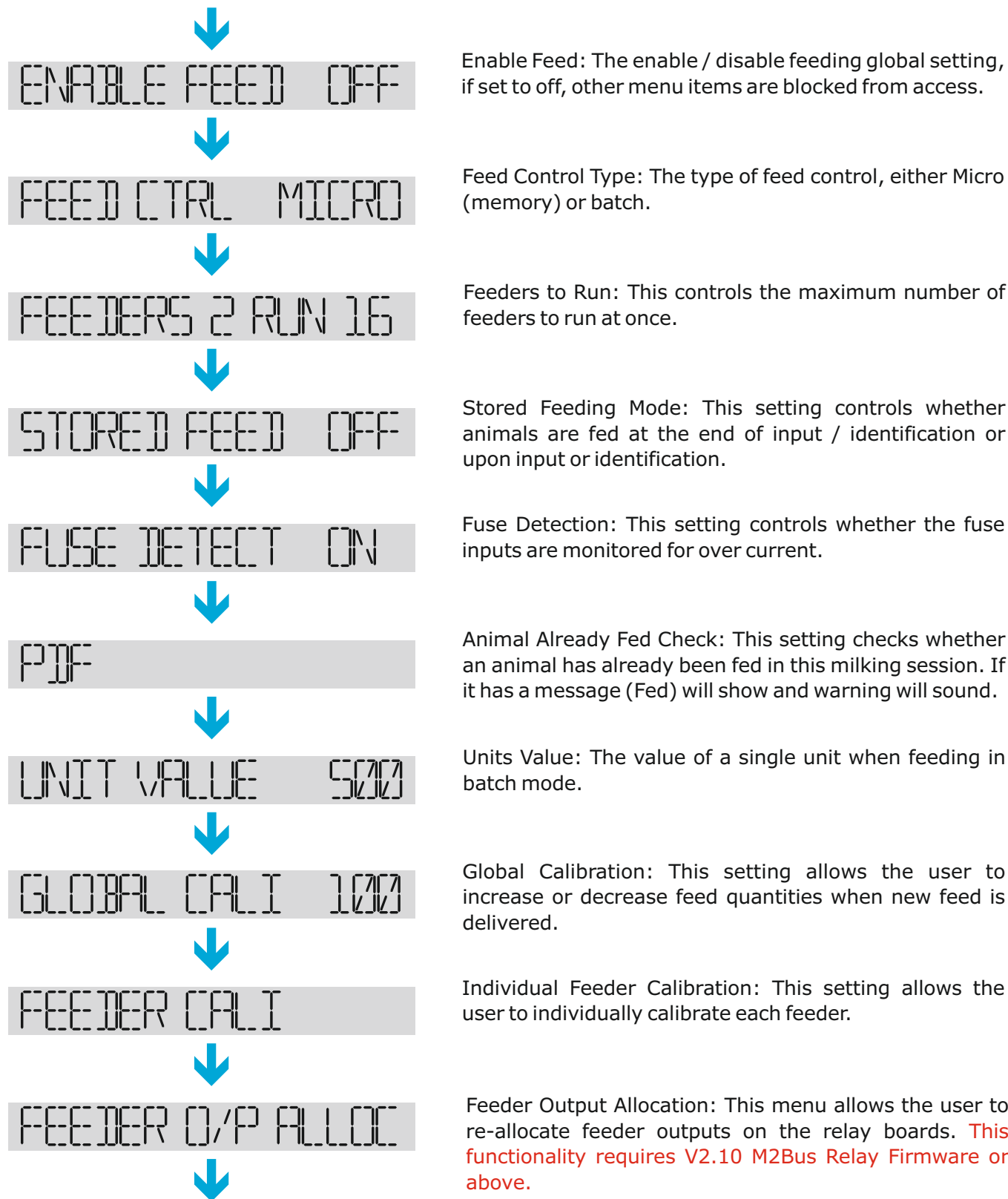
Press 2 or the 6 key to step back to the Bonker setting.



The Feeding Settings Menu Structure for All Parlours, Except Rotary Parlours

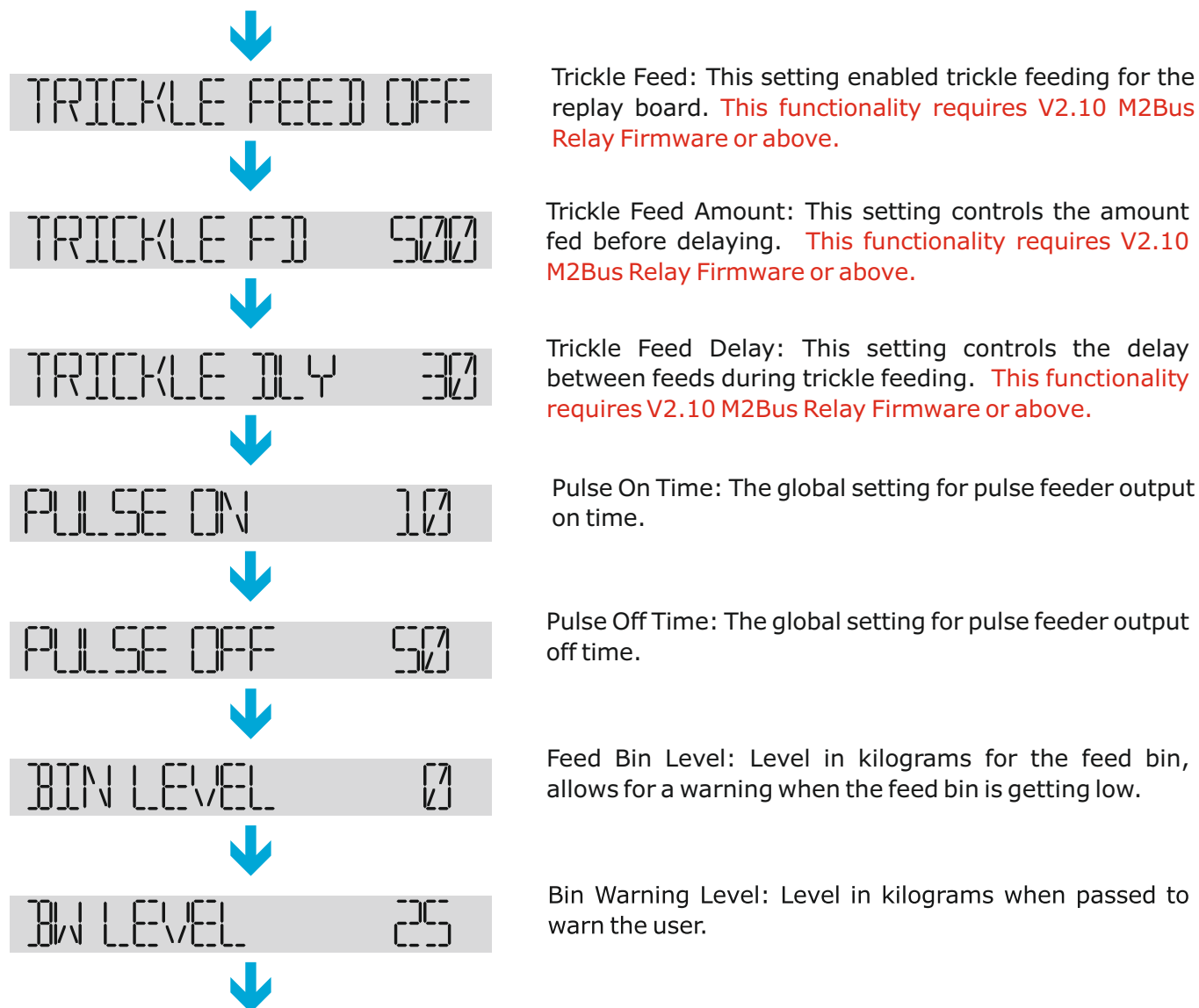
The Feeding Settings menu is structured as shown below;

Entry point into Feeding Settings menu.



Menu continues on next page

The Feeding Settings Menu Structure Continued

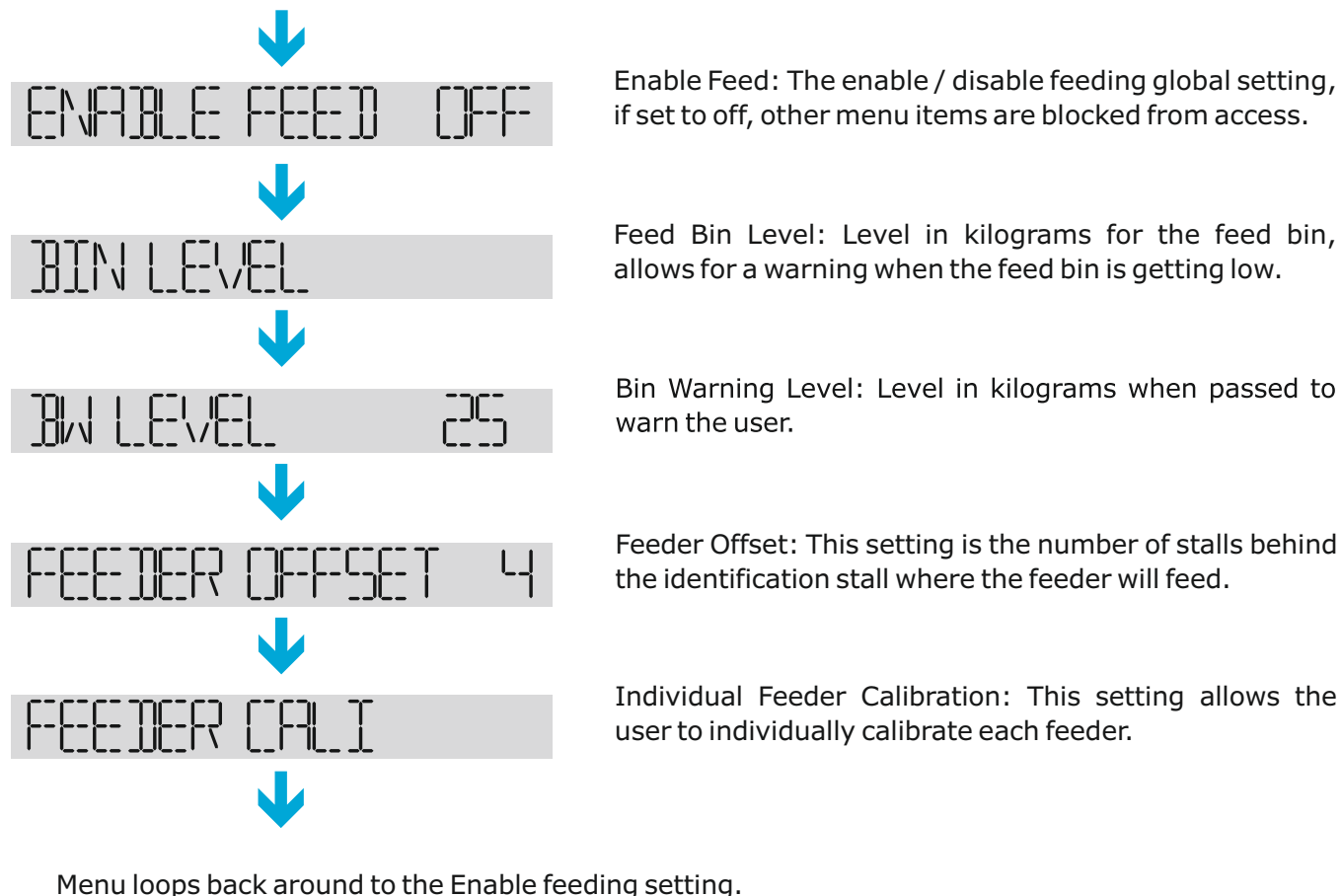


Menu loops back around to the Enable feeding setting.

The Feeding Settings Menu Structure for Rotary Parlours

The Feeding Settings menu is structured as shown below;

Entry point into Feeding Settings menu.

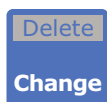


Enable Feeding Setting

The Enable Feeding Setting allows the user to turn off the feeding routines of the control for non-feeding parlours, simple sorting gate installations and out of parlour feeding installations.

ENABLE FEED OFF

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the Feed Control Type setting.

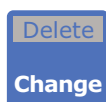


Feed Control Type Setting

This setting allows the user to put the control into simple Batch Feeder Mode, where the keys will simply feed a set ration based on the unit value setting each time they are pressed.

FEED CTRL MICRO

Press the Change key



to toggle the setting, the default factory setting is MICRO.

Press 2 or the 6 key to step to the Feeders to Run setting.

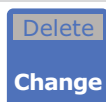


Setting the Number of Feeders to Run at Once

This sets the number of feeders that run together. The number depends upon the power supply, but a 'safe' value is 4. If in doubt consult your dealer. The number can be between 1 and 64. The default setting is 16.

FEEDERS 2 RUN 16

Press the Change key



to change the number of feeders.

Use the number keys to set the number of feeders and press the Enter key



to save.

Press 2 or the 6 key to step to the Stored Feed Mode setting.

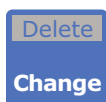


Stored Feed Mode Setting

The stored feed mode changes the control from feeding on identification or user entry of animal information to feeding once a full row of animals has been identified or entered.

STORED FEED OFF

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the Fuse Detect setting.



Fuse Detection Setting

The fuse detection setting allows the user to disable fuse detection on the feeder relay board.

FUSE DETECT ON

Press the Change key



to toggle the setting, the default factory setting is ON.

Press 2 or the 6 key to step to the PDF setting.



The PDF (Animal Already Fed Check) Setting

The PDF (Animal Already Fed Check) setting checks whether an animal has already been fed in this milking session. If it has a message (Fed) will show and warning will sound.

PDF YES

Press the Change key



to toggle between 'YES' and 'NO'.

Press 2 or the 6 key to step to the Units Value setting.

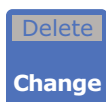


The Units Value Setting

The units value setting is used in batch feed mode, this controls the value of one unit, each key is then a multiple of this value. It is also used as the amount for pre-feed and top up feed.

UNITS VALUE 5000

Press the Change key



to change the units value.

Use the number keys to set the number of stalls and press the Enter key



to save.

Press 2 or the 6 key to step to the Global Calibration setting.

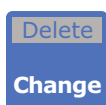


Global Calibration Setting

The Global Calibration setting allows the user to adjust all calibrations at once, allowing for a feed density change.

GLOBAL CALI 1000

Press the Change key



to change the global calibration value.

Use the number keys to set the number of stalls and press the Enter key



to save.

Press 2 or the 6 key to step to the Individual Feeder Calibration.



Individual Feeder Calibration

The individual feeder calibration allows the user to calibrate feeders. The setting requires the user feed a calibration ration through the feeder and then to weigh this ration, all other rations are then calculated from this feed value.

FEEDER CALI

Press the Enter key



to enter the feeder calibration routine.

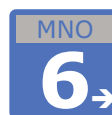
The routine will then display the ALL calibration setting, this allows the user to change all the feeders to be the same, this is used when initially setting up a feeder control.

ALL TI 5000

Press 2 or the 6 key to step forward in the list of stalls, or press 4 or the 8 key to step back in the list of stalls.



or



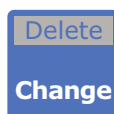
or



or



Press the Change key



to change the value for the feeders.

Use the number keys to set the calibration value and press the Enter key



to save.

Use the Cancel key to exit the routine.

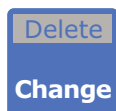


Individual Feeder Calibration Continued

To calibrate an individual feeder, use the 2 key, 4 key, 6 key or 8 key to step to the stall, then press the Feed Milk key to feed the calibration ration, it is recommended that the ration be fed 3 times to gain an average for the motor, the weight of the individual ration should then be calculated and inputted into the control.

ST TI 5000 1

Press the Change key



to change the value for the feeders.

ST TI _ _ _ _ 1

Use the number keys to set the calibration value.



Press the Enter key



to save.

Press the Page key
types.



to change the feeder type, this will toggle through the 4 different feeder

ST TI 5000 1

Feeder Type: Timed, feeder will run continuously.

ST P1 5000 1

Feeder Type: 1 Pulse per drop.

ST P2 5000 1

Feeder Type: 2 Pulses per drop.

ST P4 5000 1

Feeder Type: 4 Pulses per drop.

The feeder type will loop back and return to TI for Timed

Use the Cancel key to exit the routine.



Output Allocation

The output allocation menu allows the user to re-allocate outputs to different feeders, this system is used on Trigon parlours to allocate the outputs for side 3 (CEN).

FEEDER O/P ALLOC

Press the Enter key



to enter the menu.

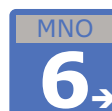
The routine will then display the allocation for Board 1 Output 1L

001-011 STL 1L

Press 2 or the 6 key to step forward in the list of outputs, or press 4 or the 8 key to step back in the list of outputs.



or



or



or



Use the Side key

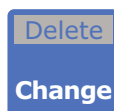


and Step key



To change which physical board and side to allocate.

Press the Change key



to change the feeder the output will control.

Use the number keys to set the stall number for the output.

001-011 STL _ _ _

Use the Side key to toggle the side the output will control.

To disabled the stall, set the side to X using the side key.

001-011 STL _ _ _ X

Press the Enter key



to save.

Use the Cancel key to exit the routine.

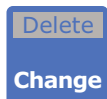


Enable Trickle Feed Setting

Trickle feeding is available on systems with M2Bus Relay boards with firmware version 2.10 and above and solid state relay boards. This setting enables trickle feeding and its subsequent settings.

TRICKLE FEED ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the Trickle Feed value setting.

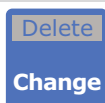


Trickle Feed Value Setting

This setting controls the amount of feed fed, before the trickle delay.

TRICKLE FD 500

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Delay Time setting.

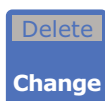


Trickle Feed Delay Time Setting

This sets the amount of time in Tenths of a Second which the trickle feed will delay between feeds.

TRICKLE DLY 10

Press the Change key



to change the time.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Pulse On setting.

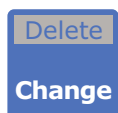


Pulsed Feeder On Time Setting

The Pulsed Feeder On Time setting is used to enter the length of the pulse on time for pulsed feeders, it is entered in tenths of a second. The default value is 10.



Press the Change key



to change the pulse on value.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Pulsed Feeder Off Time.

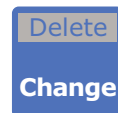


Pulsed Feeder Off Time Setting

The Pulsed Feeder Off Time setting is used to enter the length of the pulse off time for pulsed feeders, it is entered in tenths of a second. The default value is 50.



Press the Change key



to change the pulse off value.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Bin Level setting.

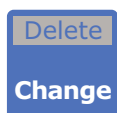


Bin Level Setting

The Bin Level setting allows the user to input a value for the bin, this will then be deducted from when feed is fed by the control, allowing for a warning if the level falls below the bin warning level.



Press the Change key



to change the bin level value.

Use the number keys to set the value and press the Enter key



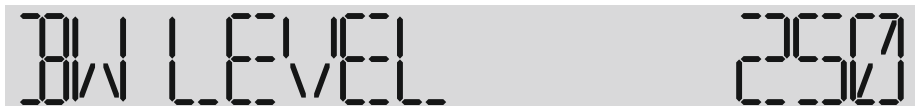
to save.

Press 2 or the 6 key to step to the Bin Warning Level setting.

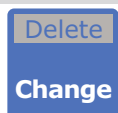


Bin Warning Level

The Feed Bin Warning Level allows the user to set a level which when crossed will cause the control to issue a warning, allowing the user to check the feed bin level. The default value is 25.



Press the Change key



to change the pulse off value.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Relay Diagnostics Routine.

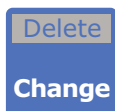


Rotary Feeder Offset Setting

The Rotary Feeder Offset setting allows the user to adjust the stall position of the rotary feeder, this setting is the number of stalls behind the identification stall the feeder will feed into.

FEEDER OFFSET 4

Press the Change key



to change the value.

Use the number keys to set the number of stalls and press the Enter key



to save.

Press 2 or the 6 key to step to the Rotary Feeder Calibration.



Rotary Feeder Calibration

The rotary feeder calibration allows the user to calibrate rotary feeder. The setting requires the user feed a calibration ration through the feeder and then to weigh this ration, all other rations are then calculated from this feed value.

FEEDER CALI

Press the Enter key



to enter the feeder calibration routine.

The routine will then display the calibration setting, this setting is in grams.

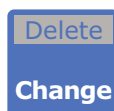
FEEDER CAL 10000

Press the Milk Feed



key to Feed the calibration ration, this should then be weighed.

Press the Change key



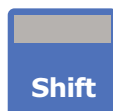
to enter the weight.

Use the number keys to set the calibration value and press the Enter key



to save.

Press the Shift and Feed keys



to feed 1 Kg to test the calibration.

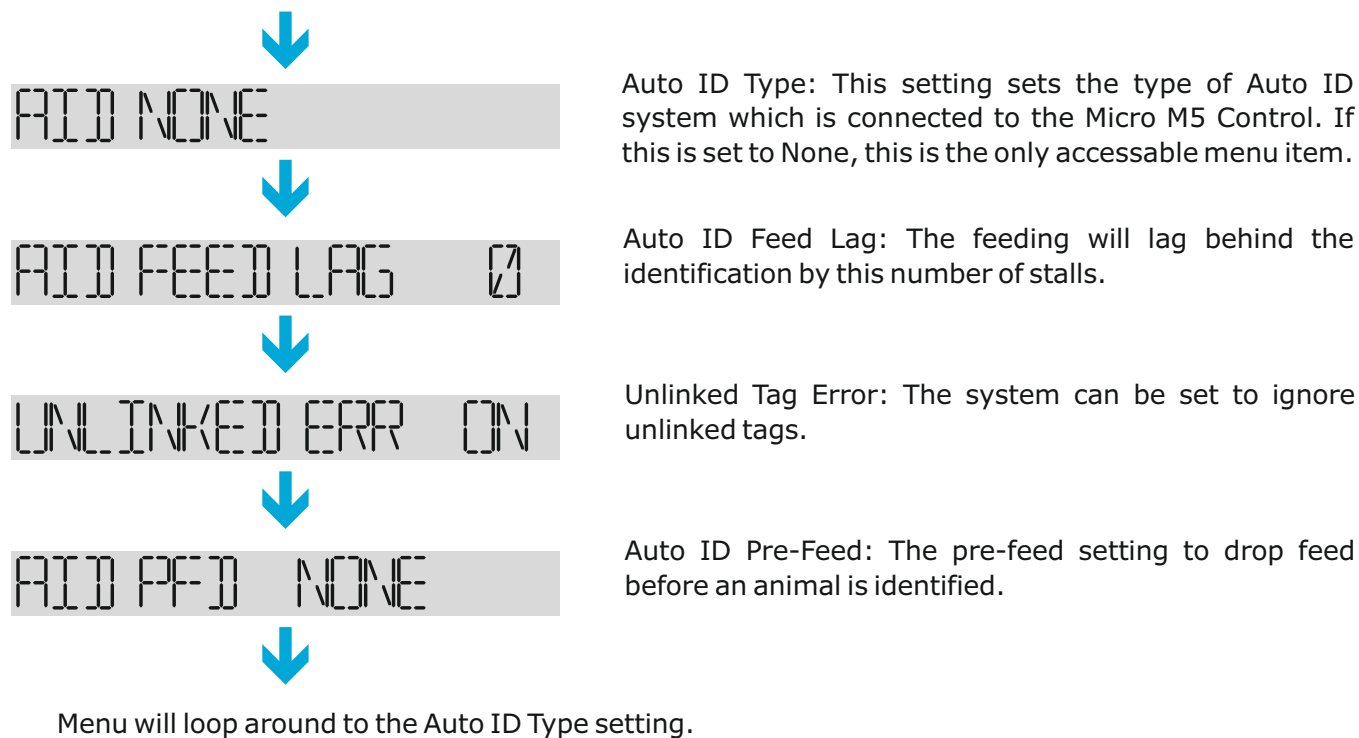
Use the Cancel key to exit the routine.



The Auto ID Settings Menu Structure for All Parlours, except Rotary Parlours

The Auto ID Settings menu is structured as shown below;

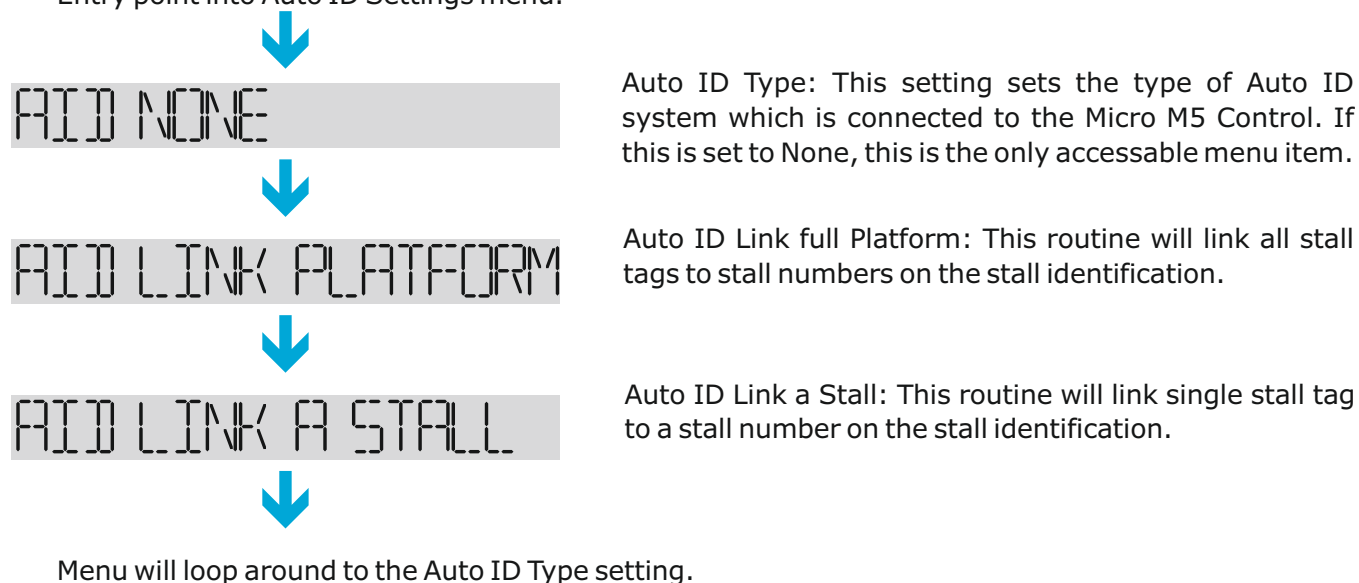
Entry point into Auto ID Settings menu.



The Auto ID Settings Menu Structure for Rotary Parlours

The Auto ID Settings menu is structured as shown below;

Entry point into Auto ID Settings menu.

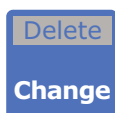


Auto ID Type Setting

The Auto ID Type setting allows the user to configure the type of Auto ID System which is connected to the Micro M5 Control.

AUTO NONE

Press the Change key



to change the type of the Auto ID system.

The following types of system are available:

AUTO NONE

Auto ID Type: None, no auto ID system is connected to the Control.



AUTO M1 INS VX.XX

Auto ID Type: Meridian Bus, Install Auto ID System, Supported firmware versions are V1.00 and V4.00.



AUTO M1 PTL VX.XX

Auto ID Type: Meridian Bus, Portal Auto ID System, Supported firmware versions are V1.00 and V4.00.



AUTO M2BUS INS SR

Auto ID Type: M2Bus, Install Auto ID System, Single Reader per system.



AUTO M2BUS PTL

Auto ID Type: M2Bus, Portal Auto ID System.



AUTO M2BUS PTL SR

Auto ID Type: M2Bus, Portal Auto ID System, Single Portal for both sides.



The Auto ID Type will loop back and return to the None setting.

Press the 2 or the 6 key to step to the Auto ID Feeding Lag Setting.



or

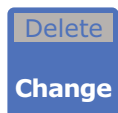


Setting the Auto ID Feeding Lag

This sets the number of stalls which the feeding will lag behind the auto identification.

AUTO FEED LAG 0

Press the Change key



to change the lag number.

Use the number keys to set the lag and press the Enter key



to save.

Press 2 or the 6 key to step to the Pre-Feed Mode setting.

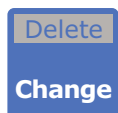


Setting the Unlinked Tag Error

This sets whether unlinked tags show as an error during milking.

UNLINKED ERR ON

Press the Change key



to toggle between 'ON' and 'OFF'.

Press 2 or the 6 key to step to the Pre-Feed Mode setting.

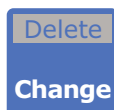


Pre-Feed Setting

The Pre-Feed setting allows the user to control when the Micro M5 will pre-feed animals in the parlour to increase the speed of the identification.

AID PFD NONE

Press the Change key



to change the type of the Auto ID system.

The following types of system are available:

AID PFD NONE



AID PFD LEFT



AID PFD CENTRE



AID PFD RIGHT



AID PFD ALL



Auto ID Pre-Feed: None, no Auto ID Pre-Feed will occur.

Auto ID Pre-Feed: Left, the left of the parlour will be pre-fed, this option is only available on Herringbone and Trigon parlours.

Auto ID Pre-Feed: Centre, the centre of the parlour will be pre-fed, this option is only available on Trigon parlours.

Auto ID Pre-Feed: Right, the right of the parlour will be pre-fed, this option is only available on Herringbone and Trigon parlours.

Auto ID Pre-Feed: All, All sides will be pre-fed.

The pre-feed type will loop back and return to the None setting.

Press the 2 or the 6 key to step to the Auto ID Pre-Feed Delay Setting.



or



Rotary Install Auto ID Platform Linking

AUTO LINK PLATFORM

This routine allows the user to link all stall tags on a rotary platform to the stall numbers, please ensure the number of stalls is set correctly in the parlour settings before entering this routine.

Press the Enter key



to run the linking routine, the table will then need to be aligned to stall 1

ALIGN TO STALL 1

Press the Cancel key



to return to the setup menu at any time.

Press the Enter key



when the table is aligned to stall 1

During the linking the display will show the last stall number found;

ST XX LINKED

When the system has linked all tags, the display will show "Link finished"

LINK FINISHED

Press the Cancel key to exit the routine.



Rotary Install Auto ID Single Stall Linking

AID LINK A STALL

This routine allows the user to link an individual tag on a rotary platform.

Press the Enter key



to go into the linking routine.

LINK STALL

Press the Cancel key



to return to the setup menu at any time.

The table will then need to be aligned to the stall which will be linked.

MOVE TO STALL XXX

Press the Enter key



when the table is aligned to the stall.

When the system has linked the tag, the display will show "Link finished"

LINK FINISHED

Press the Cancel key to exit the routine.



The MPC (Milking Point Control) Settings Menu Structure

The Milking Point Control Settings menu is structured as shown below;

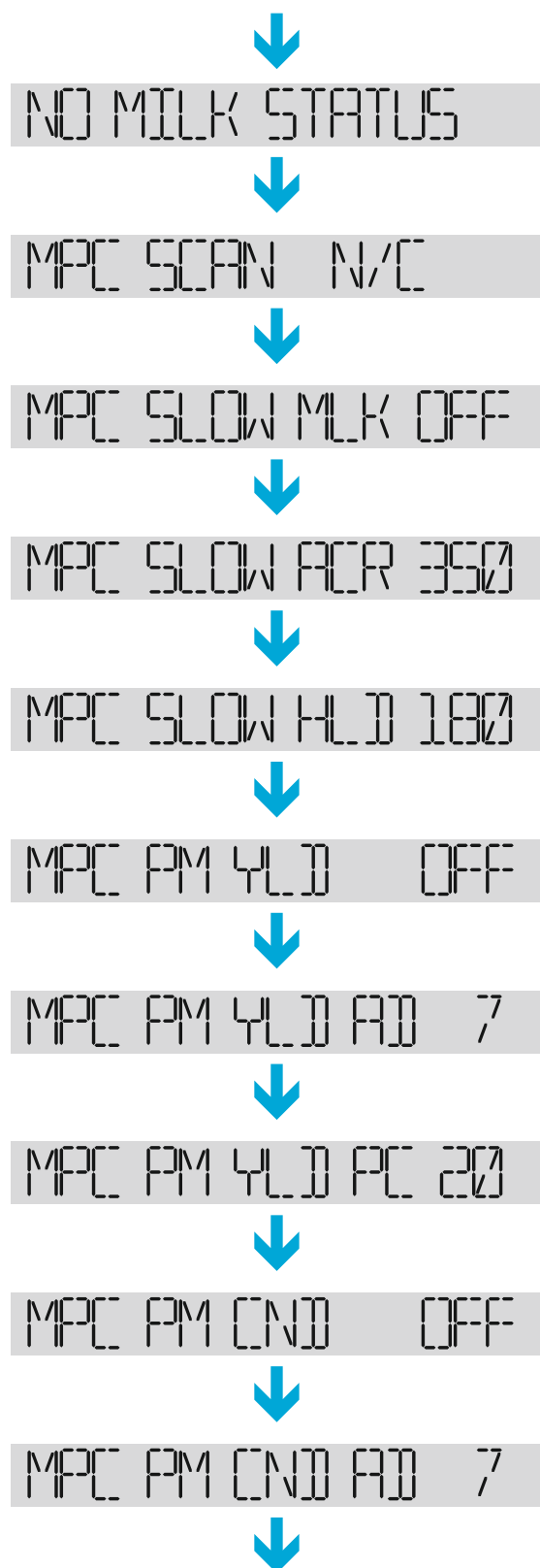
Entry point into Milking Point Control Settings menu.



The menu continues on the next page

The MPC (Milking Point Control) Settings Menu Structure Continued

From previous page.



Edit MPC No Milk Flags: Enable or Disable animal status' which will cause the MPC to display a flashing alert and lockup. Status' set here will not allow the user to milk until a new animal is sent to the milk meter.

MPC Scan: Enable or disabled clearing animals from the meter when a new scan is triggered; Optionally displaying the scanning status on the meter.

MPC Slow Milker Settings: Enable or Disable sending different ACR settings for animals with the slow milker flag.

MPC Slow Milker ACR Setting: This setting is used to override the default ACR setting when an animal with a slow milker flag is sent to the point.

MPC Slow Milker ACR Hold Off Setting: This setting is used to override the default ACR hold off setting when an animal with a slow milker flag is sent to the point.

MPC Post Milking Yield Check: Enable or Disabled the post milking yield check alert.

MPC Post Milking Yield Average Days: This setting is used to generate the average yield value for an animal, this will be used to alert the user if the yield is lower than expected.

MPC Post Milking Yield Average Percent: This setting is used to compare the current yield against the average yield and issue a post milking warning if it is lower by more than this percentage.

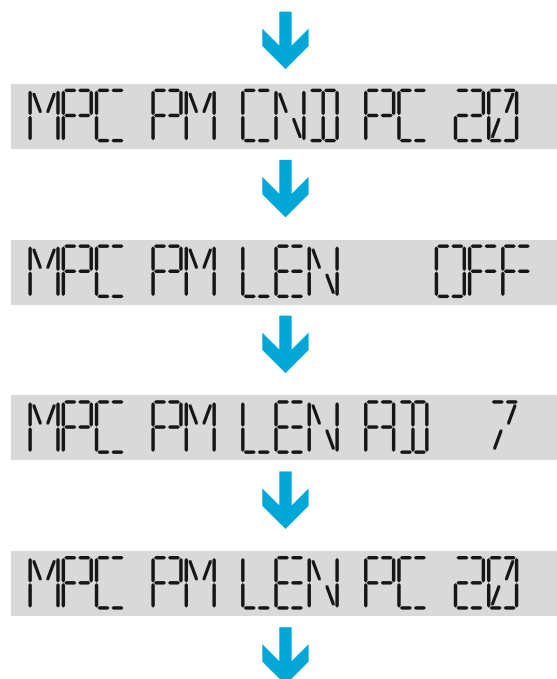
MPC Post Milking Conductivity Check: Enable or Disabled the post milking conductivity check alert.

MPC Post Milking Conductivity Average Days: This setting is used to generate the average conductivity for an animal, this will be used to alert the user if the yield is greater than expected.

Menu will loop around to the MPCType setting.

The MPC (Milking Point Control) Settings Menu Structure Continued

From previous page.



MPC Post Milking Conductivity Average Percent: This setting is used to compare the current conductivity against the average and issue a post milking warning if it is greater than this percentage.

MPC Post Milking Length Check: Enable or Disabled the post milking length check alert.

MPC Post Milking Length Average Days: This setting is used to generate the average milking length for an animal, this will be used to alert the user if the length is greater than expected.

MPC Post Milking Length Average Percent: This setting is used to compare the current milking length against the average and issue a post milking warning if it is greater than this percentage.

Menu will loop around to the MPC Type setting.

The MPC (Milking Point Control) Settings Menu Structure For Milk Meter Interfaces (MMIF)

When a Milk Meter Interface is selected as the MPC Type the Milking Point Control Settings menu is structured as shown below;

Entry point into Milking Point Control Settings menu.



MPC Type: This is the type of milking point control.

Milk Meter Interface (MMIF) Pulse Calibration: This setting allows the user to calibrate how much milk to add per pulse for each input change.

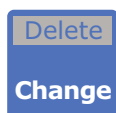
Menu will loop around to the MPC Type setting.

MPC (Milking Point Control) Type Setting

The MPC Type setting allows the user to configure the type of Milk Meter System which is connected to the Micro M5 Control.

MPC NONE

Press the Change key



to change the type of the Milk Meter system.

The following types of system are available:

MPC NONE

MPC Type: None, no MPC or Milk Meter system is connected.



MPC ORIEL

MPC Type: Oriel, an original Oriel system is connected.



MPC MICRO M MTR

MPC Type: Micro Milk Meter, an ATL Micro Milk Meter system is connected.



MPC MM/CR

MPC Type: MM/CR, an MM10/20/30/35/60 milk meter or CR ACR control range system is connected to the Micro M5 Control.



MPC MM80

MPC Type: MM80, an MM80 milk meter system is connected to the Micro M5 Control.



MPC MMIF FUL/AFI

MPC Type: Milk Meter Interface - With Fullwood / Afikim Milk Meters.



MPC MMIF GASCO

MPC Type: Milk Meter Interface - With Gascoigne Milk Meters.



MPC MMIF MEI/VAC

MPC Type: Milk Meter Interface - With Meile/ Vaccar Milk Meters.



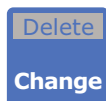
The MPC Type will loop back and return to the None setting.

The Milk Meter Interface (MMIF) Pulse Calibration Setting

The Milk Meter Interface (MMIF) Pulse Calibration Setting allows the user to calibrate the input pulses to the Interface, this lets the user calibrate the system to provide an indication of the yield proessed by a none ATL milk meter.



Press the Change key



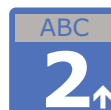
to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to return to the MPC Type setting.



or

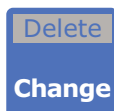


MPC (Milking Point Control) Feed On Milk Setting

FEED ON MILK OFF

This sets whether the milk meter will control when the animal is fed. It is an ON/OFF setting. The factory default is OFF.

Press the Change key



to toggle between ON or OFF.

Press the 2 key or the 6 key to move onto the MPC Lockups setting.



MPC (Milking Point Control) Editable Flags Menu

The MPC Editable Flags menu allows the user to configure the animal flags which the user can edit on the MPC, Milk Meter or Cluster Remover.

EDITABLE FLAGS

Press the Enter key



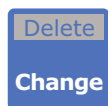
to enter into the MPC Editable Flags menu.

The menu will display a flag, and its setting, for example:

FLAG HOLD MILK O

The Hold Milk Flag is shown, with an 'O' to indicate the flag is not enabled.

Press the Change key



to toggle the flag.

FLAG HOLD MILK X

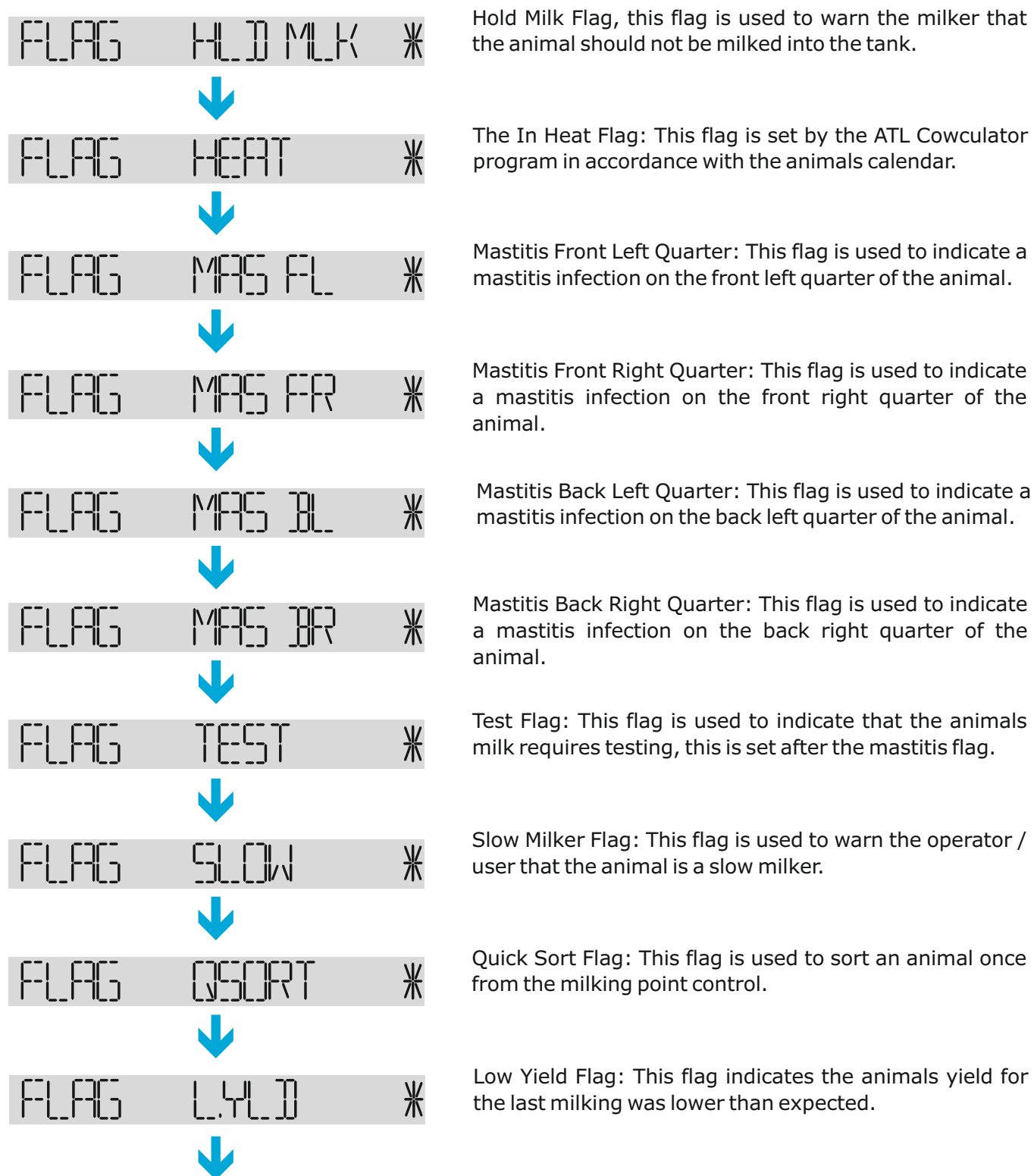
The Hold Milk Flag is shown, with an 'X' to indicate the flag is enabled.

Press the 2 or the 6 key to step to the next flag.



MPC (Milking Point Control) Editable Flags Menu continued

The flags which are available to lock an MPC up are shown below;



Further menu items are shown on the next page;

MPC (Milking Point Control) Editable Flags Menu continued

Flags continued;

FLAG PL YLD *

Previous Low Yield Flag: This flag indicates the animals yield for the previous milking was lower than expected.

FLAG MANUAL *

Manual Milker Flag: This flag allows the user to force the animal to be milked in Manual mode.

FLAG HI COND *

High Conductivity Flag: This flag indicates the last milking conductivity was higher than expected.

FLAG PH COND *

Previous High Conductivity Flag: This flag indicates the previous milking conductivity was higher than expected.

FLAG DT FL *

Damaged Teat Animal Front Left Quarter: This flag is used to indicate that the animals front left quarter should not be milked.

FLAG DT FR *

Damaged Teat Animal Front Right Quarter: This flag is used to indicate that the animals front right quarter should not be milked.

FLAG DT BL *

Damaged Teat Animal Back Left Quarter: This flag is used to indicate that the animals back left quarter should not be milked.

FLAG DT BR *

Damaged Teat Animal Back Right Quarter: This flag is used to indicate that the animals back right quarter should not be milked.

FLAG COLOST *

Colostrum Milk Flag: This flag is used to indicate that the animals milk is colostrum.

FLAG ANTI BI *

Antibiotic Milk Flag: This flag is used to warn the operator / user that the animal has received antibiotics.

Further menu items are shown on the next page;

MPC (Milking Point Control) Editable Flags Menu continued

Flags continued;



FLAG DUMP *

Dump Milk Flag: This flag instructs the user to dump the animals milk; on systems with automatic dump lines, this will cause the milk to be dumped automatically.



FLAG VET *

Veterinary Attention Flag: This flag can be used to flag animals for sorting; and / or inspection when milking..



FLAG HEALTH *

Health Alert Flag: This flag indicates a health alert has been generated externally for the animal.



The routine will loop around to the Hold Milk Flag.

MPC (Milking Point Control) Alert Flags Menu

The MPC Alert Flags menu allows the user to configure the animal flags which will cause the milking point control to flash an alert, but allow the user to milk uninterrupted.

ALERT FLAGS

Press the Enter key



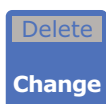
to enter into the MPC Alert Flags menu.

The menu will display a flag, and its setting, for example:

FLAG MILKED O

The Milked Flag is shown, with an 'O' to indicate the flag is not enabled.

Press the Change key



to toggle the flag.

FLAG MILKED X

The Milked Flag is shown, with an 'X' to indicate the flag is enabled.

Press the 2 or the 6 key to step to the next flag.



Available alert flags:

FLAG MILKED X



FLAG FED X



FLAG HOLD MLK X



Continued;

Milked Flag: This flag is used to indicate that the animal has been into the parlour, this will be set when the animal is either identified, or entered manually.

Fed Flag: This flag is used to indicate that the animal has been fed, this will be set when the animal is fed in the parlour.

Hold Milk Flag, this flag is used to warn the milker that the animal should not be milked into the tank.

MPC (Milking Point Control) Alert Flags continued

Flags continued;

FLAG HEAT *

Heat Alert Flag: This flag indicates a heat alert has been generated externally for the animal.

FLAG MAS FL *

Mastitis Front Left Quarter: This flag is used to indicate a mastitis infection on the front left quarter of the animal.

FLAG MAS FR *

Mastitis Front Right Quarter: This flag is used to indicate a mastitis infection on the front right quarter of the animal.

FLAG MAS BL *

Mastitis Back Left Quarter: This flag is used to indicate a mastitis infection on the back left quarter of the animal.

FLAG MAS BR *

Mastitis Back Right Quarter: This flag is used to indicate a mastitis infection on the back right quarter of the animal.

FLAG TEST *

Test Flag: This flag is used to indicate that the animals milk requires testing, this is set after the mastitis flag.

FLAG SLOW *

Slow Milker Flag: This flag is used to warn the operator / user that the animal is a slow milker.

FLAG L.YLD *

Low Yield Flag: This flag indicates the animals yield for the last milking was lower than expected.

FLAG PL.YLD *

Previous Low Yield Flag: This flag indicates the animals yield for the previous milking was lower than expected.

FLAG MANUAL *

Manual Milker Flag: This flag allows the user to force the animal to be milked in Manual mode.

FLAG HI CON *

High Conductivity Flag: This flag indicates the last milking conductivity was higher than expected.

MPC (Milking Point Control) Alert Flags continued

Flags continued;

FLAG PH CON *

Previous High Conductivity Flag: This flag indicates the previous milking conductivity was higher than expected.

FLAG DT FL *

Damaged Teat Animal Front Left Quarter: This flag is used to indicate that the animals front right quarter should not be milked.

FLAG DT FR *

Damaged Teat Animal Front Right Quarter: This flag is used to indicate that the animals front right quarter should not be milked.

FLAG DT BL *

Damaged Teat Animal Back Left Quarter: This flag is used to indicate that the animals back left quarter should not be milked.

FLAG DT BR *

Damaged Teat Animal Back Right Quarter: This flag is used to indicate that the animals back right quarter should not be milked.

FLAG COLOST *

Colostrum Milk Flag: This flag is used to indicate that the animals milk is colostrum.

FLAG ANTI BI *

Antibiotic Milk Flag: This flag is used to warn the operator / user that the animal has received antibiotics.

FLAG DUMP *

Dump Milk Flag: This flag instructs the user to dump the animals milk; on systems with automatic dump lines, this will cause the milk to be dumped automatically.

FLAG VET *

Veterinary Attention Flag: This flag can be used to flag animals for sorting; and / or inspection when milking..

FLAG HEALTH *

Health Alert Flag: This flag indicates a health alert has been generated externally for the animal.

The routine will loop around to the Milked Flag.

MPC (Milking Point Control) Alert Status' Menu

The MPC Alert Status' menu allows the user to configure the animal status' which will cause the milking point control to flash an alert, but allow the user to milk uninterrupted.

ALERT STATUS

Press the Enter key



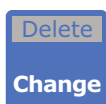
to enter into the MPC Alert Status menu.

The menu will display a status and its setting, for example:

ST YNG STK 0

The Young Stock Status is shown, with an 'O' to indicate the status is not enabled.

Press the Change key



to toggle the flag.

ST YNG STK *

The Young Stock Status is shown, with an 'X' to indicate the status is enabled.

Press the 2 or the 6 key to step to the next status.



Available alert status':

ST YNG STK *

Young Stock Status: Animals with this status are usually not in the milking herd.



ST BARREN *

Barren Status: Used to mark animals which cannot become pregnant.



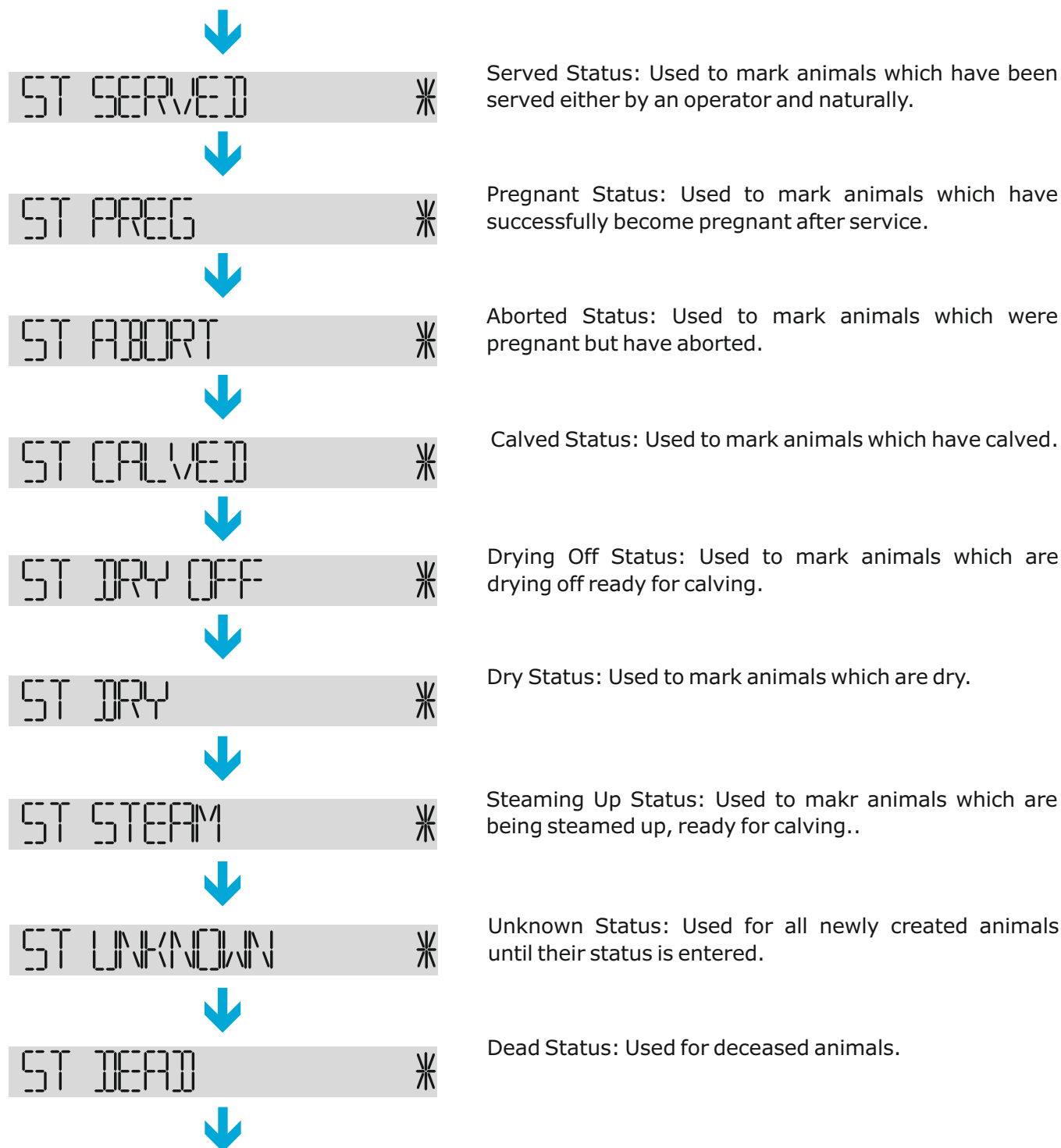
ST IN HEAT *

In Heat: Used to mark animals which are cycling.



Continued;

MPC (Milking Point Control) Alert Status' continued



The routine will loop around to the Young Stock status.

MPC (Milking Point Control) Lockup Flags Menu

The MPC Lockup Flags menu allows the user to configure the animal flags which will cause the milking point control lockup and flash an alert, the user will not be able to milk the animal until the flag is acknowledged.

LOCKUP FLAGS

Press the Enter key



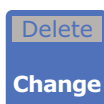
to enter into the MPC Lockup Flags menu.

The menu will display a flag, and its setting, for example:

FLAG MILKED 0

The Milked Flag is shown, with an 'O' to indicate the flag is not enabled.

Press the Change key



to toggle the flag.

FLAG MILKED *

The Milked Flag is shown, with an 'X' to indicate the flag is enabled.

Press the 2 or the 6 key to step to the next flag.



Please see the Alert flags menu for the list of available lockup flags.

MPC (Milking Point Control) Lockup Status' Menu

The MPC Lockup Status' menu allows the user to configure the animal status' which will cause the milking point control lockup, the user will not be able to milk the animal until the flag is acknowledged.

LOCKUP STATUS

Press the Enter key



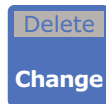
to enter into the MPC Lockup Status menu.

The menu will display a status and its setting, for example:

ST YNG STK 0

The Young Stock Status is shown, with an 'O' to indicate the status is not enabled.

Press the Change key



to toggle the flag.

ST YNG STK X

The Young Stock Status is shown, with an 'X' to indicate the status is enabled.

Press the 2 or the 6 key to step to the next status.



Please see the Alert Status' menu for the list of available lockup status'.

MPC (Milking Point Control) Dump Milk Flags Menu

The MPC Dump Milk Flags menu allows the user to configure the animal flags which will cause the milking point control to automatically dump milk.



Press the Enter key



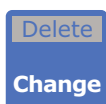
to enter into the MPC Dump Flags menu.

The menu will display a flag, and its setting, for example:



The Hold MilkFlag is shown, with an 'O' to indicate the flag is not enabled.

Press the Change key



to toggle the flag.



The Hold MilkFlag is shown, with an 'X' to indicate the flag is enabled.

Press the 2 or the 6 key to step to the next flag.



Please see the Alert flags menu for the list of available dump milk flags.

MPC (Milking Point Control) Dump Status' Menu

The MPC Dump Milk Status menu allows the user to configure the animal status' which will cause the milking point control to automatically dump milk.



Press the Enter key



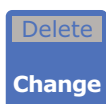
to enter into the MPC Dump Milk Status menu.

The menu will display a status and its setting, for example:



The Young Stock Status is shown, with an 'O' to indicate the status is not enabled.

Press the Change key



to toggle the flag.



The Young Stock Status is shown, with an 'X' to indicate the status is enabled.

Press the 2 or the 6 key to step to the next status.



Please see the Alert Status' menu for the list of available dump status'.

MPC (Milking Point Control) No Milk Flags Menu

The MPC No Milk Flags menu allows the user to configure the animal flags which will cause the milking point control to completely block milking the animal with these flags set.

NO MILK FLAGS

Press the Enter key



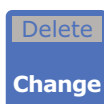
to enter into the MPC No Milk Flags menu.

The menu will display a flag, and its setting, for example:

FLAG HOLD MILK O

The Hold MilkFlag is shown, with an 'O' to indicate the flag is not enabled.

Press the Change key



to toggle the flag.

FLAG HOLD MILK X

The Hold MilkFlag is shown, with an 'X' to indicate the flag is enabled.

Press the 2 or the 6 key to step to the next flag.



Please see the Alert flags menu for the list of available no milk flags.

MPC (Milking Point Control) No Milk Status' Menu

The MPC No Milk Status menu allows the user to configure the animal status' which will cause the milking point control to completely block milking the animal with these status' set.

NO MILK STATUS

Press the Enter key



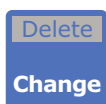
to enter into the MPC No Milk Status menu.

The menu will display a status and its setting, for example:

ST YNG STK 0

The Young Stock Status is shown, with an 'O' to indicate the status is not enabled.

Press the Change key



to toggle the flag.

ST YNG STK X

The Young Stock Status is shown, with an 'X' to indicate the status is enabled.

Press the 2 or the 6 key to step to the next status.



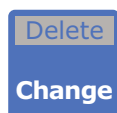
Please see the Alert Status' menu for the list of available no milk status'.

MPC Scan Setting

The MPC Scan setting allows the user to configure what happens to the MPC controls when the user starts scanning a side.

MPC SCAN N/C

Press the Change key



to change the setting.

The following types of system are available:

MPC SCAN N/C

MPC Scan No - Change: The MPC units will not be updated.



MPC SCAN CLR

MPC Scan Clear: The MPC units will be clears and set to No Animal.



MPC SCAN SCAN

MPC Scan Clear: The MPC units will be clears and set to Scanning.



The MPC Scan setting will loop back and return to the No Change (N/C) setting.

Press the 2 or the 6 key to step to the Auto ID Feeding Lag Setting.



or

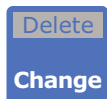


Enable MPC Slow Milker ACR Settings

The MPC Slow Milker ACR Settings can be globally enabled or disabled using this setting, the Slow milker settings allow animals with the slow milker flags set to be milked with different ACR and ACR Hold Off times.

MPC SLOW MLK ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the slow milker ACR setting.

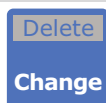


MPC Slow Milker ACR Setting

This setting controls the ACR setting sent when an animal has the slow milker flag set.

MPC SLOW ACR 350

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the slow milker hold off setting.

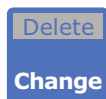


MPC Slow Milker ACR Hold Off Time Setting

This sets the amount of time in Seconds which the MPC will wait for milk for slow milker animals.

MPC SLOW HLD 180

Press the Change key



to change the time.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the post milking settings.

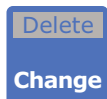


The MPC Post Milking Yield Enable

The MPC Post Milking Yield Alerts can be globally enabled or disabled using this setting, the setting is used to generate warnings when an animal fails to produce the expected yield during a milking.

MPC PM YLD ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the average days setting.

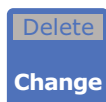


The MPC Post Milking Yield Average Days Setting

The MPC Post Milking Yield Average Days Setting is the number of days to average corresponding milking records to calculate an average yield, its default is 7 days. Range 1-21 days.

MPC PM YLD AD 7

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the percentage setting.

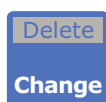


The MPC Post Milking Yield Percentage Setting

The MPC Post Milking Yield Percentage Setting is used to generate warnings when an animal fails to product the expected yield during a milking, its default is 20 percent.

MPC PM YLD PC 20

Press the Change key



to change the percentage.

Use the number keys to set the percentage and press the Enter key



to save.

Press 2 or the 6 key to step to the post milking conductivity settings.

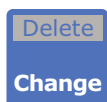


The MPC Post Milking Conductivity Enable

The MPC Post Milking Conductivity Alerts can be globally enabled or disabled using this setting, the setting is used to generate warnings when an animals conductivity is above the average by a percentage.

MPC PM CND ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the average days setting.

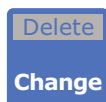


The MPC Post Milking Conductivity Average Days Setting

The MPC Post Milking Conductivity Average Days Setting is the number of days to average corresponding milking records to calculate an average conductivity, its default is 7 days. Range 1-21 days.

MPC PM CND AD 7

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the percentage setting.

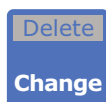


The MPC Post Milking Conductivity Percentage Setting

The MPC Post Milking Conductivity Percentage Setting is used to generate warnings when an animals measured conductivity is above the average by this percentage value, its default is 20 percent.

MPC PM CND PC 20

Press the Change key



to change the percentage.

Use the number keys to set the percentage and press the Enter key



to save.

Press 2 or the 6 key to step to the post milking length settings.

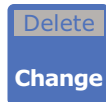


The MPC Post Milking Length Enable

The MPC Post Milking Length Alerts can be globally enabled or disabled using this setting, the setting is used to generate warnings when an animals milking length is below the average by a percentage.

MPC PM LEN ON

Press the Change key



to toggle the setting, the default factory setting is OFF.

Press 2 or the 6 key to step to the average days setting.

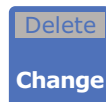


The MPC Post Milking Length Average Days Setting

The MPC Post Milking Length Average Days Setting is the number of days to average corresponding milking records to calculate an average milking length, its default is 7 days. Range 1-21 days.

MPC PM LEN AD 7

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the percentage setting.

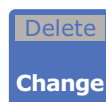


The MPC Post Milking Length Percentage Setting

The MPC Post Milking Length Percentage Setting is used to generate warnings when an animals milking length is below the average by this percentage value, its default is 20 percent.

MPC PM LEN PC 20

Press the Change key



to change the percentage.

Use the number keys to set the percentage and press the Enter key



to save.

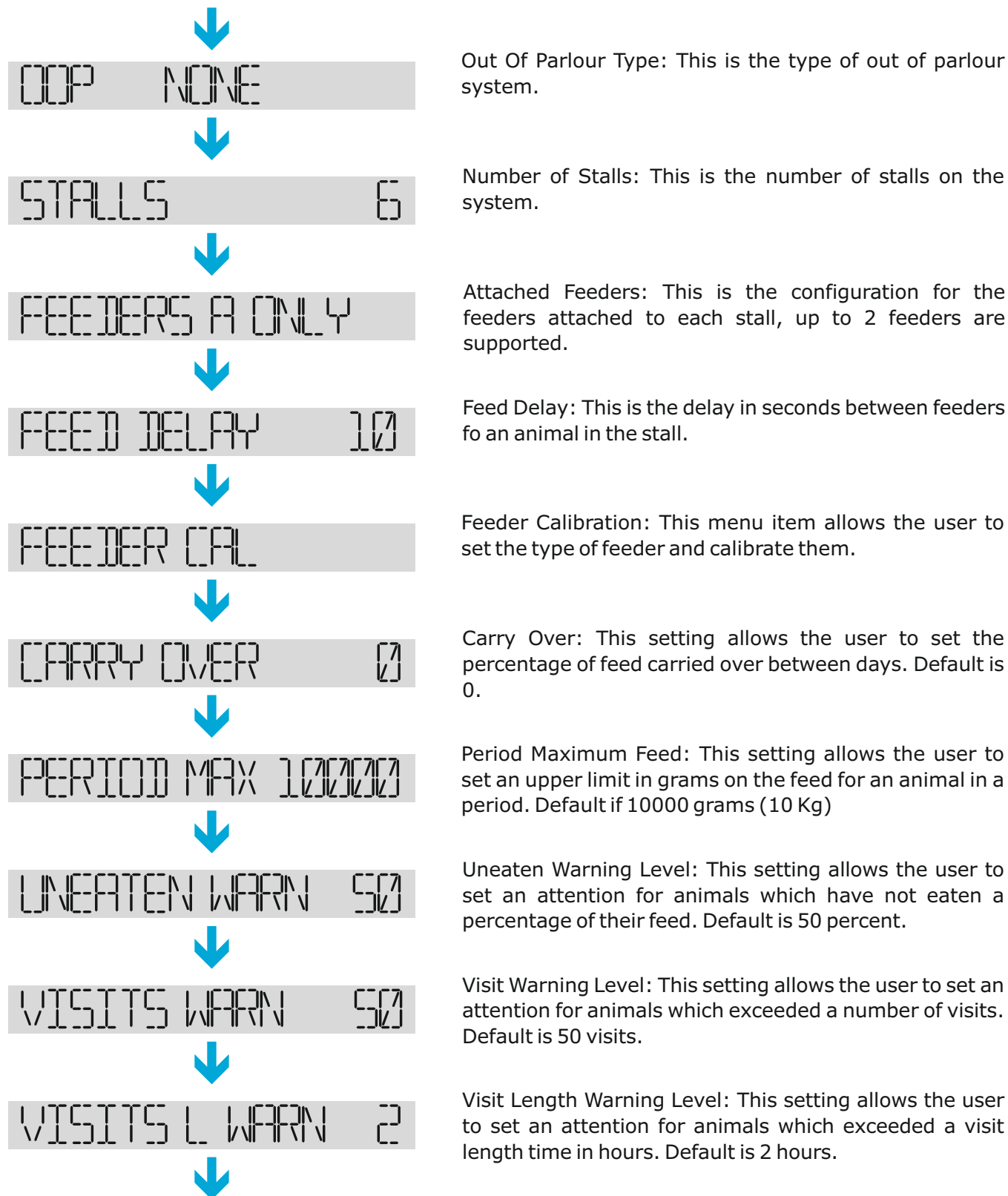
Press 2 or the 6 key to return to the MPC Type setting.



The Out Of Parlour Settings Menu Structure

The Out Of Parlour Settings menu is structured as shown below;

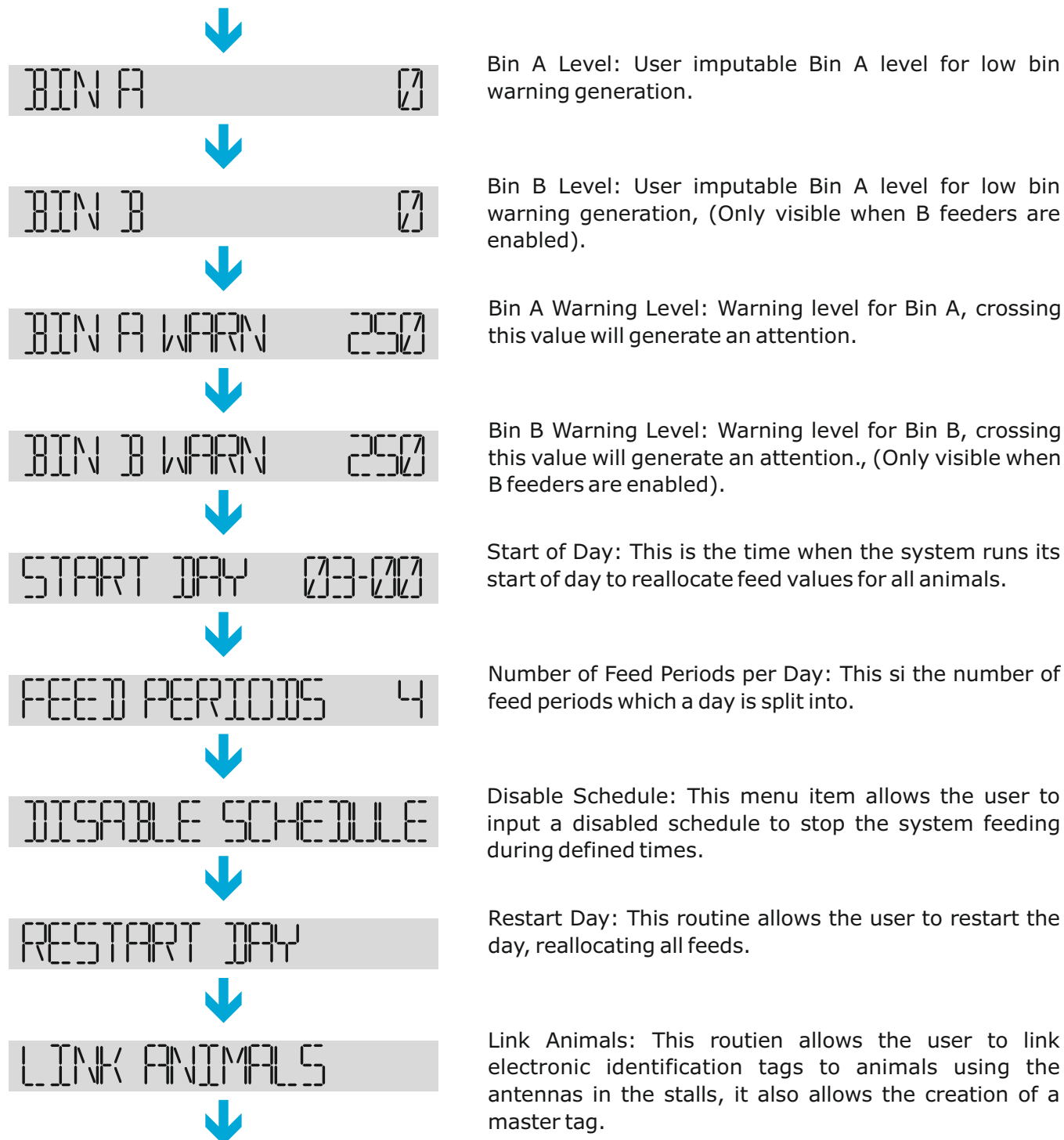
Entry point into Out Of Parlour Settings menu.



Menu continues on the next page.

The Out Of Parlour Settings Menu Structure Continued

Continued from the previous page;.



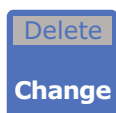
Menu will loop around to the Out of Parlour Type setting.

Out of Parlour Type Setting

The Out of Parlour (OOP) Type setting allows the user to configure the type of Out of Parlour System which is connected to the Micro M5 Control.



Press the Change key



to change the type of the Out of Parlour system.

The following types of system are available:



Out of Parlour Type: None, no OOP system is connected.



Out of Parlour Type: Old Meridian Bus using SBC.



Out of Parlour Type: M2Bus



The Out of Parlour Type will loop back and return to the None setting.

Press 2 or the 6 key to step to the stalls setting.

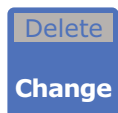


Setting the number of Out of Parlour stalls

This sets the number of stalls which the Out of Parlour system has in operation.

STALLS 6

Press the Change key



to change the number of stalls.

Use the number keys to set the number of stalls and press the Enter key



to save.

Press 2 or the 6 key to step to the attached feeders setting.

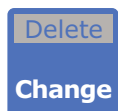


Setting the Attached Feeders setting.

This sets the type of feeder configuration, currently A only, or A and B feeders are supported.

FEEDERS A ONLY

Press the Change key



to changed the attached feeders.

The following types are available:

FEEDERS A ONLY

A Only: Only A feeders are attached to the outputs.



FEEDERS A AND B

A and B: Both A and B feeders are attached to the outputs.



The feeders will loop back to the A Only setting.

Press 2 or the 6 key to step to the Feed Delay setting.

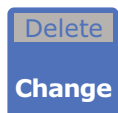


Setting the Feed Delay

This sets the delay in seconds between feeds for an animal occupying a stall.



Press the Change key



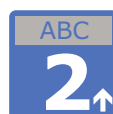
to change the value.

Use the number keys to set the delay and press the Enter key



to save.

Press 2 or the 6 key to step to the feeder calibration setting.



or



Out of Parlour Feeder Calibration

The Out of Parlour feeder calibration allows the user to calibrate feeders. The setting requires the user feed a calibration ration through the feeder and then to weigh this ration, all other rations are then calculated from this feed value.

FEEDER CAL

Press the Enter key



to enter the feeder calibration routine.

The routine will then display the ALL calibration setting, this allows the user to change all the feeders to be the same, this is used when initially setting up a feeder control.

ALL 2000

Press 2 or the 6 key to step forward in the list of stalls, or press 4 or the 8 key to step back in the list of stalls.



or



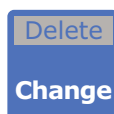
or



or



Press the Change key



to change the value for the feeders.

Use the number keys to set the calibration value and press the Enter key



to save.

Use the Cancel key to exit the routine.



Out Of Parlour Feeder Calibration Continued

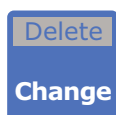
To calibrate a feeder, use the 4 key and the 6 key to step to the stall, and use the 2 and the 8 keys to change between A and B feeders, then press the Feed Milk key to feed the calibration ration, it is recommended that the ration be fed 3 times to gain an average for the motor, the weight of the individual ration should then be calculated and inputted into the control.



Use the 2 key and the 8 key to change between A and B feeders (If enabled)



Press the Change key



to change the value for the feeders.



Use the number keys to set the calibration value.



Press the Enter key



to save.

Use the Cancel key to exit the routine.

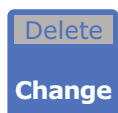


Out of Parlour Feed Carry Over Setting

The Feed Carry Over setting is used to set the percentage of feed which is able to be carried over between days. The default value is 0.

CARRY OVER 0

Press the Change key



to change the percentage.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Period Maximum Feed.

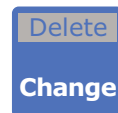


Out of Parlour Period Maximum Feed Setting

The Period Maximum Feed setting allows the user to set a maximum feed value for a period, animals will not exceed this, thus preventing over-feeding due to erroneous rations. The default value is 10000 grams.

PERIOD MAX 10000

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Uneaten Feed Warning setting.

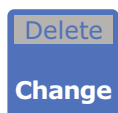


Out of Parlour Uneaten Feed Warning Level Setting

The Uneaten Feed Warning Level is a percentage value, it is used to generate an attention if the animals remaining feed as a percentage of their daily feed exceeds this setting. The default value is 50.

UNEATEN WFRN 50

Press the Change key



to change the percentage.

Use the number keys to set the percentage and press the Enter key



to save.

Press 2 or the 6 key to step to the Visits Warning Level.

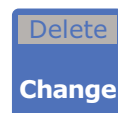


Out of Parlour Visits Warning Level Setting

The Visits Warning Level is the number of visits at which an attention is generated. The default value is 50 visits.

VISITS WFRN 50

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Visits Length Warning setting.

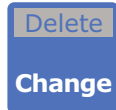


Out of Parlour Visit Length Warning Level Setting

The Visit Length Warning Level is used to generate an attention if an animals total visit time during the day exceeds this setting. The default value is 2 Hours.



Press the Change key



to change the setting.

Use the number keys to set the time and press the Enter key



to save.

Press 2 or the 6 key to step to the Bin A Level.

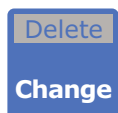


Out of Parlour Bin A Level Setting

The Bin A level setting is used to keep track of the amount of feed in the feed bin supplying the A feeders. Working with the Bin A Warning level, when the feed crosses the warning level an attention is generate to refill the bin.



Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Bin B level setting.

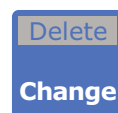


Out of Parlour Bin B Level Setting (Only visible when Feeders A and B are enabled)

The Bin B level setting is used to keep track of the amount of feed in the feed bin supplying the B feeders. Working with the Bin B Warning level, when the feed crosses the warning level an attention is generate to refill the bin.



Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Visits Length Warning setting.

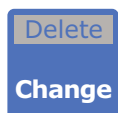


Out of Parlour Bin A Warning Level Setting

The Bin A Warning level setting is used to generate an attention when the Bin A level crosses this value.



Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Bin B level setting.

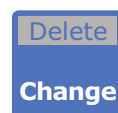


Out of Parlour Bin B Warning Level Setting (Only visible when Feeders A and B are enabled)

The Bin B Warning level setting is used to generate an attention when the Bin B level crosses this value.



Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

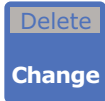
Press 2 or the 6 key to step to the Start of Day setting.



Out of Parlour Start Of Day Setting

START DAY HH-MM

This sets the time at which the Out of Parlour will restart the day, reallocating the feeds for the herd.

Press the Change key  to change the time.

The display will now show 'ENTER HOUR ___'.



ENTER HOUR ---

Enter the hour using the number keys.  to  Please Note, the clock is 24 hour.

Press the Enter key  to save or the Cancel key to cancel 

If the Enter key is pressed, the display will now show 'ENTER MINUTE ___'.

ENTER MINUTE ---

Enter the minute using the number keys  to 

Press the Enter key  to save or the Cancel key to cancel 

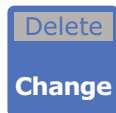
The start of day time will now be set.

Out of Parlour Feed Periods Setting

The Feed Periods setting is the number of periods which each day is split into, this allows the feed to be split equally between each period to enable little and often feeding.

FEED PERIODS 4

Press the Change key



to change the value.

Use the number keys to set the value and press the Enter key



to save.

Press 2 or the 6 key to step to the Disable Schedule.



Out of Parlour Disable Schedule

The Disable Schedule menu item allows the user to set times when the system is disabled, the settings menu allows the user to input a start time, end time and the days of the week, this allows the user to schedule the operation of the system around milking and weekly farm changes.

DISABLE SCHEDULE

Press the Enter key



to enter the disable schedule routine.

The routine will then display the first entry, (there are a maximum of 10 entries available), showing its start time, but default all entries are set to start and end at midnight, and be disabled on none of the days of the week.

1 START 00-00

Press 2 or the 8 key to navigate up and down the list of disabled entries.



or



Press the 4 or the 6 key to step through the disabled entries parameters;



or



The parameters for each entry are shown below:

1 START 00-00

Start: This is the start time when the system will be disabled.



1 END 00-00

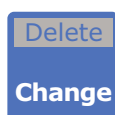
End: This is the end time when the system will re-enable.



1 DAYS -----

Days: These are the days on which the disabled schedule is active, this can be edited using the 1 to 7 keys representing each day.

Press the Change key



to change the value for the setting.

Use the number keys to set the value and press the Enter key



to save.

Use the Cancel key to exit the routine.



Out of Parlour Restart Day Menu Item

RESTART DAY

The Restart Day menu item allows the user to force a start of day, this is used for initially starting the day when starting up the system, or when feeds have been changed and need allocating to the animals.

Press the Enter key



to proceed with the restart.

ARE YOU SURE?

Press the Enter key



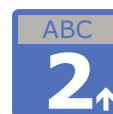
to restart the day. Press the cancel



key to abort.

DAY STARTED

Press the 2 or the 6 key to move onto the Link Animals menu item.



or



Out of Parlour Linking Animals

LINK ANIMALS

The Link Animals menu item allows the user to link animals (Or just an ear tag ready for the animal) by scanning it in a stall, the routine also allows for linking a master tag which allows the user to test the feeders and system at any point.

Press the Enter key



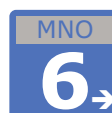
to enter the routine.

OOP LINK ST 1

When entering the routine, the user can select the stall to use for linking, this is done by using the 2 and 6 keys to step up the stalls and the 4 and 8 keys to step down.



or



or



or



Once the desired stall is selected, press the Enter key to link an animal.



LTG

The Micro M5 control will then ask for the animals brand, use the number keys to enter, use the Shift key and number keys to input letters. Press the Enter key to proceed, or press the Cancel key to abort.



XXXXXXXX SCAN

The control will then display `XXXXXXXX SCAN` where XXXXXX is the animals brand, the system will stop scanning the stalls, and scan only the antenna selected, when a tag is read it will link it to the animal entered and display linked.

LINKED

The control will then wait a second and return to the brand entry allowing for another animal to be linked. Pressing the Cancel key will exit the routine.



Out of Parlour Linking a Master Tag

LINK ANIMALS

The Link Animals menu item allows the user to link animals (Or just an ear tag ready for the animal) by scanning it in a stall, the routine also allows for linking a master tag which allows the user to test the feeders and system at any point.

Press the Enter key



to enter the routine.

OOP LINK ST 1

When entering the routine, the user can select the stall to use for linking, this is done by using the 2 and 6 keys to step up the stalls and the 4 and 8 keys to step down.



or



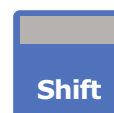
or



or



Once the desired stall is selected, press and hold the Shift key and then press the Enter key.



MASTER SCAN

The control will then display `MASTER SCAN`, the system will stop scanning the stalls, and scan only the antenna selected, when a tag is read it will link it to the master tag and display linked. Press the Cancel key to abort.

MASTER LINKED

The control will then wait a second and return to the stall selection step. Pressing the Cancel key will exit the routine.



The Sorting Gate Settings Menu Structure

The Sorting Gate Settings menu is structured as shown below;

Entry point into Sorting Gate Settings menu.



Menu continues on the next page.

The Sorting Gate Settings Menu Structure Continued

Continued from the previous page.



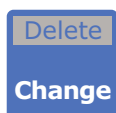
Menu will loop around to the Gate Type setting.

Sorting Gate Type Setting

The Sorting Gate Type setting allows the user to configure the type of Sorting Gate System which is connected to the Micro M5 Control.

GATE NONE

Press the Change key



to change the type of the Gate system.

The following types of system are available:

GATE NONE

Gate Type: None, no Sorting Gate system is connected.



GATE M1 V1.00

Gate Type: Meridian Bus V1.00 Firmware using an SBC.



GATE M1 V4.00

Gate Type: Meridian Bus V4.00 Firmware using an SBC.



GATE M2BUS

Gate Type: M2Bus



The Gate Type will loop back and return to the None setting.


Press 2 or the 6 key to step to the link gate setting.




Linking animals using the Sorting Gate

LINK GATE

This routine allows the user to link electronic tags to animals using the sorting gate.


Press the Enter key  to run the linking routine. The user will need to specify which gate to use.

GATE LINK IF 1

Press the Cancel key  to return to the setup menu at any time.

Press the 2, 6 to increment the interface, and 4 or 8 to decrement.



Press the Enter key  to select the interface and enter the first animals brand.

----- LTG

Enter the animals brand using the keypad. Press the Enter key to accept.



Whilst the system is waiting for the tag to be read, it will display the entered brand number, and "SCAN";

XXXXXXXX SCAN

Press the Cancel key to exit the routine.



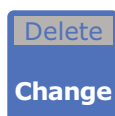
Press 2 or the 6 key to step to the quick sort clear settings.



The Quick Sort Clear Setting

The Quick Sort Clear setting allows the user to select how the quick sort flag is cleared by the system;

Press the Change key



to change the setting.

The setting has the following options;



QS CLEAR ON SORT

Quick Sort Clear On Sort: The flag is cleared immediately when the animal is read by the sorting gate.



QS CLEAR ON WASH

Quick Sort Clear On Wash: The flags for all animals are cleared when the system is put into wash.



QS CLEAR 4 HOURS

Quick Sort Clear After 4 Hours: The flags for an animal will be cleared 4 hours after it is last seen by the shedding gate. This is the default option.



QS CLEAR MANUAL

Quick Sort Clear Manual: The flags are not automatically cleared by the system. The user will need to clear them manually.

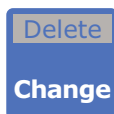


Setting will return to Clear on Sort.

The Quick Sort Gate Setting

The Quick Sort Gate setting controls which gate is used as the Quick Sort gate.

Press the Change key



to change the setting.

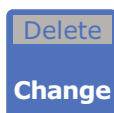
QUICK SORT GATE A

The selected gate can be changed by pressing the Enter key, the system allows the use of all gate outputs, A through F.

The Heat Sort Gate Setting

The Heat Flag Sort Gate setting controls which gate is used as the Heat Flag Sort gate.

Press the Change key



to change the setting.

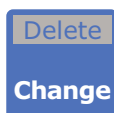
HEAT GATE A

The selected gate can be changed by pressing the Enter key, the system allows the use of all gate outputs, A through F, and a disabled option using the '-' dash.

The Health Sort Gate Setting

The Health Flag Sort Gate setting controls which gate is used as the Health Flag Sort gate.

Press the Change key



to change the setting.

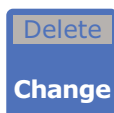
HEALTH GATE A

The selected gate can be changed by pressing the Enter key, the system allows the use of all gate outputs, A through F, and a disabled option using the '-' dash.

The Unlinked Tag Sort Gate Setting

The Unlinked Tag Sort Gate setting controls which gate is used to sort out unlinked tags, by default this is disabled.

Press the Change key



to change the setting.

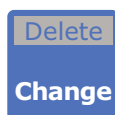
UNLINKED GATE A

The selected gate can be changed by pressing the Enter key, the system allows the use of all gate outputs, A through F, and a disabled option using the '-' dash.

The Sorting Plan Change Over Setting

The Plan Changed Over (C/O) setting controls how the system changes the shedding gate outputs when a new plan becomes active or a current plan becomes in-active. Care should be taken as when a plan changes the gates may move.

Press the Change key



to change the setting.

The setting has the following options;

PLAN C/O ON SORT

Plan Change On Sort: The new plan is implemented when an animal is identified in the antenna. This is the default setting.

PLAN C/O ON MILK

Plan Change On Milk: The new plan is implemented when the system is put into milking mode.

PLAN C/O ON TIME

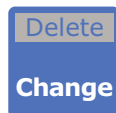
Plan Change On Time: The new plan is implemented when immediately when its time is active. Please note this may cause the gates to move when becoming active.

Setting will return to Plan Change On Sort.

The Quick Sort Gate Priority Setting

The Quick Sort Gate Priority setting controls the order of priority of sorting gates when two or more sorting flags are enabled, each gate has a priority, from 1 to 6, where 1 is the highest.

Press the Change key



to change the setting.

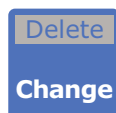
GATE X PRIOR N

Pressing Change will reduce the selected gate (X)'s priority, the priority is show as 'N', a lower number is a higher priority.

The Quick Sort Gate Output Mask Setting

The Quick Sort Gate Output Mask setting controls which gates have which outputs on, this allows lower priority outputs to be implemented on different gates, each gate has a mask which allows all outputs or a single output to be used.

Press the Change key



to change the setting.

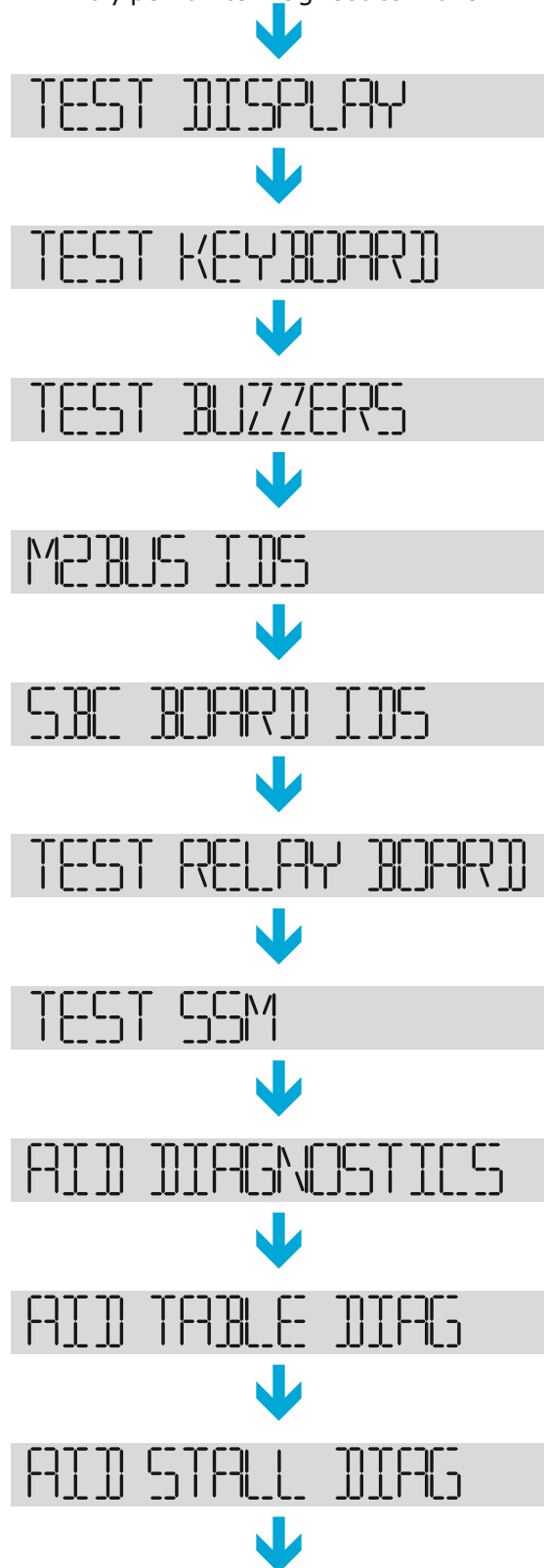
GATE X BOARD ALL

Pressing Change will select either ALL outputs or an individual output for a gate

The Diagnostics Menu Structure

The Diagnostics Menu allows the user to test the system for errors, during installation and operation. The menu allows the user to test function on the Micro M5 Control and connected devices. The menu structure is shown below;

Entry point into Diagnostics menu.



Test Display: This menu item will turn on all display leds to allow the user to check all display elements are working correctly.

Test Keyboard: This menu item allows the user to check individual keys work correctly.

Test Buzzers: This menu item allows the user to check both the attention buzzers and key buzzers are working.

M2Bus IDS: This menu item allows the user to poll individual M2Bus devices to check the can communicate with the control.

SBC Board IDS: This menu item allows the user to check the SBC Board can communicate with the Micro M5 Control.

Test Relay Board: Factory test item, it is not recommended that this is used as it will feed continuously. This item is only visible if feeding is enabled and the parlour type is not a rotary.

Test SSM: Factory test item which will turn on each Stall Select Module output sequentially, it is not recommended that this is used. This item is only visible if Auto ID is enabled and the parlour type is not a rotary.

AID Diagnostics: This menu item allows the user to test the Auto ID system. This item is only visible if Auto ID is enabled and the parlour type is not a rotary.

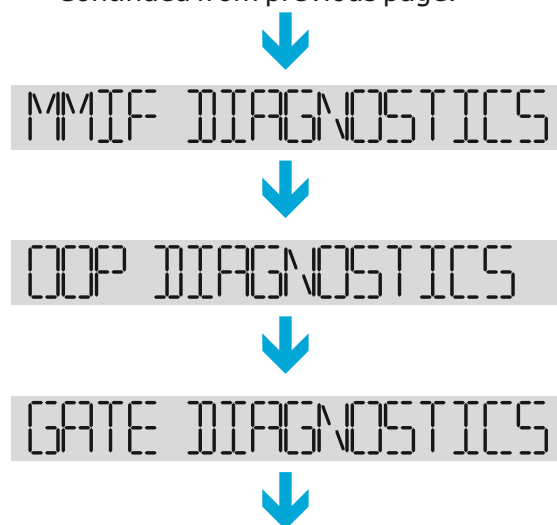
AID Table Diagnostics: This menu item allows the user to test the Auto ID system on a rotary table. This item is only visible if Auto ID is enabled and the parlour type is a rotary.

AID Stall Diagnostics: This menu item allows the user to test the Stall Identification system for a rotary table. This item is only visible if Auto ID is enabled and the parlour type is a rotary.

This menu continues on the next page

The Diagnostics Menu Structure Continued

Continued from previous page.



Milk Meter Interface (MMIF) Diagnostics: This menu item allows the user to test a Milk Meter Interface PCB. This item is only visible if a milk meter interface is selected as MPC Type.

Out Of Parlour (OOP) Diagnostics: This menu item allows the user to test the Out of Parlour Feeding system. This item is only visible if the Out of Parlour is enabled.

Gate Diagnostics: This menu item allows the user to test the Drafting Gate system.

The routine will loop around to the Test Display menu item.

Test Displays Diagnostic

TEST DISPLAYS

This turns on all the display LEDs so faulty LEDs can be diagnosed.

Press the Enter key



to go into the test routine.

XX

Press the Cancel key



to return to the setup menu.

TEST DISPLAYS

Press the 2 key or the 6 key to move onto the test keyboard item.



or



Test Keyboard Diagnostic

TEST KEYBOARD

This enables the user to press each key individually to check they are functioning correctly.

Press the Enter key



to go into the diagnostic routine.

KEY



Press any of the keys and the display will show the key pressed. If a key does not show on the display, the key is more than likely faulty. The display below shows what happens if the Enter key is pressed.

KEY ENTER

Press the Cancel key



to return to the setup menu.

TEST KEYBOARD

Press the 2 key or the 6 key to move onto the M2Bus IDS item.



M2Bus IDS Routines

The M2Bus IDS routines allow the user to test communications to devices connected on the M2Bus and view their software version.

Press the Enter key



to enter the menu.

The following routines are available:

Relay Board IDS: Test the connection to a feeder relay board.



Auto ID IDS: Test the connection to an Auto ID interface or Gate Interface.



Stall Select Module IDS: Test the connection to an Stall Select Module.



MPC Unit IDS: Test the connection to a Milking Point Control.



MM Hub IDS: Test the connection to a MM Hub unit.



Milk Meter Interface (MMIF) IDS: Test the connection to a Milk Meter Interface.



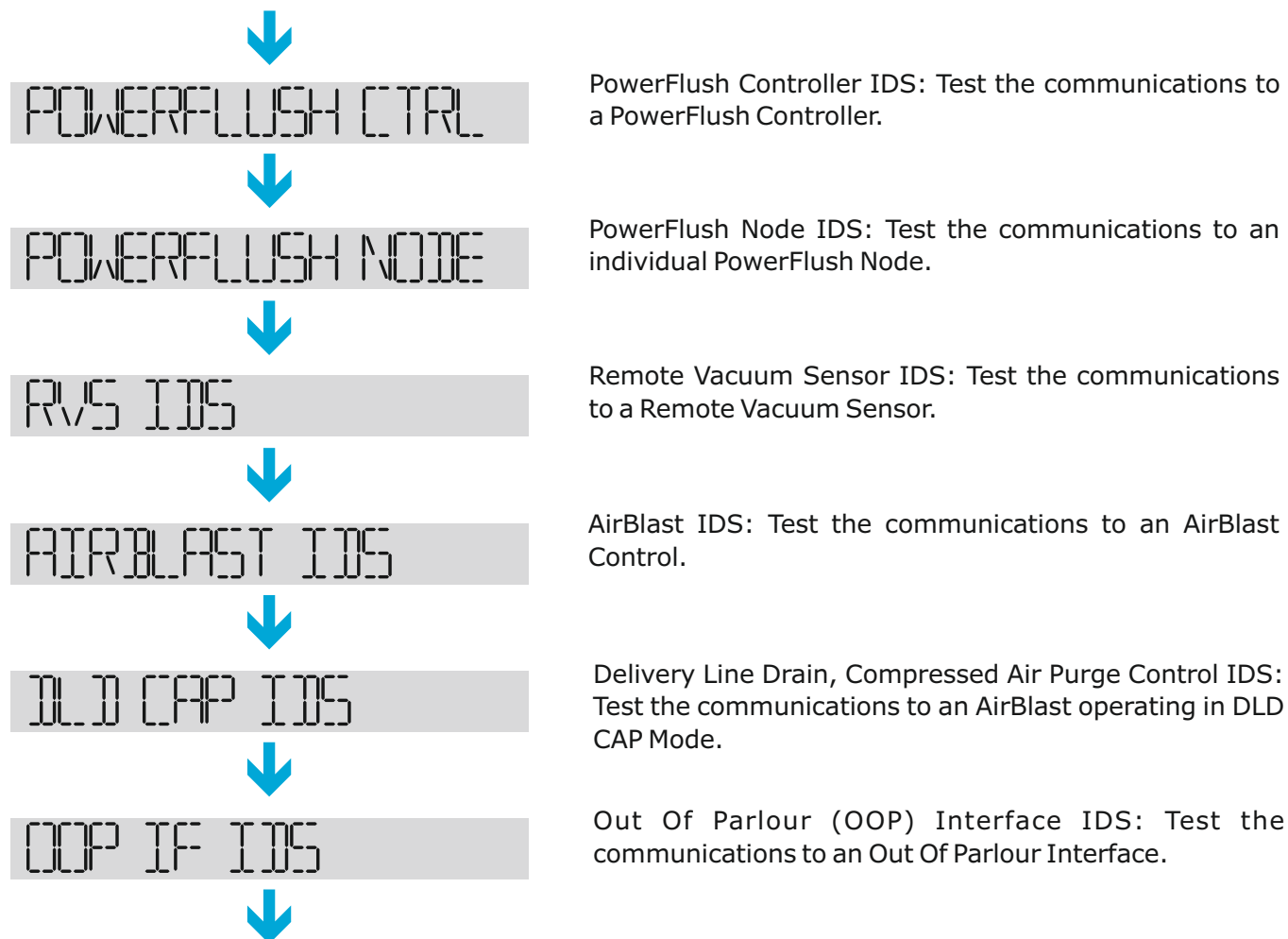
Milk Pump IDS: Test the connection to a Milk Pump Control.



Pulse8 IDS: Test the connection to a Pulse8 Pulsation Control.



M2Bus IDS menu items continued



Menu will loop around to the Relay Board IDS menu item.

Running an IDS menu item

Each IDS menu item functions in an identical manner, the display will show a short code for the device type being tested. If multiple units are supported, the unit number is shown and the step key is enabled. If a device can function on either side of the parlour the side key allows the user to change the side.

If the unit is present and responds to the IDS request, the software version will be shown, for example, a MPC unit:



MPC 1 OK V1.25

Here we can see the unit is present, and has version 1.25 software installed. If the control is not present, "Error" will be shown, for example:



MPC 1 ERROR

Pressing the Cancel key will exit the routine.



SBC (Serial Bus Converter) Board Communications Diagnostics

SBC BOARD IOS

The SBC Board is used to communicate with old Meridian Bus devices and to send data wirelessly to devices situated on Rotary Parlour Tables.

Press the Enter key



to go into the diagnostic routine.

If there is only 1 SBC board connected to the Micro M5 Control, the display will show:

SBC OK 1 BRDS

If there are 2 SBC boards connected to the Micro M5 Control, the display will show:

SBC OK 2 BRDS

If there is a communications error with the SBC board, the display will show:

SBC ERR 0 BRDS

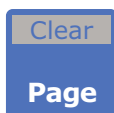
Press the 1 key



to display the software version of SBC board 1.

SBC 1 V1.000

Press the Page key



to display the hardware serial number of relay PCB 1.

S/N 00004F3E27FE

Press the Cancel key



to exit the routine.

Test Relay Board Diagnostic

TEST RELAY BOARD

This turns on all the feeder outputs set on the system sequentially to test they are all functioning correctly. Please note that one unit of feed will be dropped by each feeder in turn and is a continuous cycle.

Press the Enter key



to go into the diagnostic routine.

RLY TEST 1

RLY TEST 2

RLY TEST 3

etc

Press the Cancel key



to return to the setup menu.

IMPORTANT - If upon exiting, the feeders are still running, reset the feeders by turning them off using the feed switch on the side of the control.

◀ TEST RELAY BOARD ▶

Press the 2 or the 6 key to return to the Enable Feeding Setting.



The Auto ID Diagnostics Routine for Install Auto ID Systems (including rotary parlours)

AID DIAGNOSTICS

or

AID TABLE DIAG

The diagnostics routine allows the user to test the install antennas in the parlour.

ANT ST01 XXX.XFV

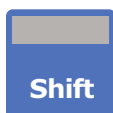
After entering the routine, the system will select stall 1 on the left hand side, turn on its antenna, and display the voltage on the antenna. The user should look for a voltage of 100 volts or more, but this may vary on individual systems.

Pressing the Step key



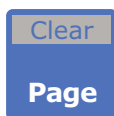
will increment the stall number.

Pressing the Shift + Step keys



will decrement the stall number.

Pressing the Page key



will show the voltage and temperature of the stall select module.

Pressing the Side key



will change sides.

When an electronic identification tag is read by the reader and sent to the Micro M5 control via the Auto ID Interface it will be displayed here, the display will switch between the full 16 digit tag number and the stall number display.

AID TEST IF 1

or

00000000000012345678

If an input changes state during diagnostics the display will also show its current state, for example, if input B1 changes state the display will show the following:

INPUTS 00000001

Pressing the Cancel key will exit the routine, and return to the diagnostics menu.



The Auto ID Diagnostics Routine for Portal Auto ID Systems

The diagnostics routine allows the user to test the portal antenna(s). Displays only if portal ID system selected.

AID TEST ANT

When an electronic identification tag is read by the reader and sent to the Micro M5 control via the Auto ID Interface it will be displayed here, the display will switch between the full 16 digit tag number and the response to the last ping request.

AID TEST IF1

or

00000000000027653534

If an input changes state during diagnostics the display will also show its current state, for example, if input B1 changes state the display will show the following:

INPUTS 00001

For doubled sided parlours use the Side key to change side to the other portal antenna.



Pressing the Cancel key will exit the routine, and return to the diagnostics menu.



AID DIAGNOSTICS

Note: If at any point "MODE SW ERR" is displayed on the control, the Mode switch on the Auto ID Interface PCB is set wrongly to Gate mode, this will result in the system incorrectly processing tags from this interface as requiring sorting, and not parlour identification.

The Stall Identification Diagnostics Routine for Rotary Stall Auto ID Systems

The diagnostics routine allows the user to test the stall identification antenna in the parlour.

STALL ANT TEST

When an electronic identification tag is read by the reader and sent to the Micro M5 control via the Auto ID Interface it will be displayed here, the display will switch between the full 16 digit tag number and the response to the last ping request.

000000000000000027653534

If an input changes state during diagnostics the display will also show its current state, for example, if input B1 changes state the display will show the following:

INPUTS 00001

Pressing the Cancel key will exit the routine, and return to the diagnostics menu.



AID STALL DIAG

The Milk Meter Interface (MMIF) Diagnostics Routine

The diagnostics routine allows the user to test the Milk Meter Interface.



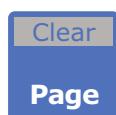
When an input changes on the milk meter interface the hex input number will be displayed, the control will also give 1 beep allowing the user to test milk meters and make sure they all cause a beep.



or



Pressing the Page key



will show the control input voltage of the interface.

Pressing the Cancel key will exit the routine, and return to the diagnostics menu.








The Out of Parlour Diagnostics Routine

OOP DIAGNOSTICS

The diagnostics routine allows the user to test the install antennas and feeders of the out of parlour system.

ANT ST01 XXX.XFV

After entering the routine, the system will select stall 1 on the system, turn on its antenna, and display the voltage on the antenna. The user should look for a voltage of 60 volts or more, but this may vary on individual systems.


- Pressing the Step key  will increment the stall number.
- Pressing the Shift + Step keys  +  will decrement the stall number.
- Pressing the Page key  will show the control input voltage of the interface.
- Pressing the Feed Milk key  will run the feeder.

When an electronic identification tag is read by the reader and sent to the Micro M5 control via the Auto ID Interface it will be displayed here, the display will switch between the full 16 digit tag number and the stall number display.

ANT ST01 XXX.XFV or 000000000000000012345678

If an fuse fail occurs when testing the feeder, for example on board1 output 1A, the control will show the following message:

OOP FUSE 001 51A

- Pressing the Cancel key will exit the routine, and return to the diagnostics menu. 

The Sorting Gate Diagnostics Routine

The diagnostics routine allows the user to test the sorting gate.

GATE DIAGNOSTICS

When an electronic identification tag is read by the reader and sent to the Micro M5 control via the Auto ID Interface it will be displayed here, the display will switch between the full 16 digit tag number and the response to the last ping request.

GATE TEST IF1

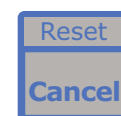
or

0000000000000000/653534

Note: If at any point "MODE SW ERR" is displayed on the control, the Mode switch on the Auto ID Interface PCB is set wrongly to Gate mode, this will result in the system incorrectly processing tags from this interface as requiring sorting, and not parlour identification.

MODE SW ERR

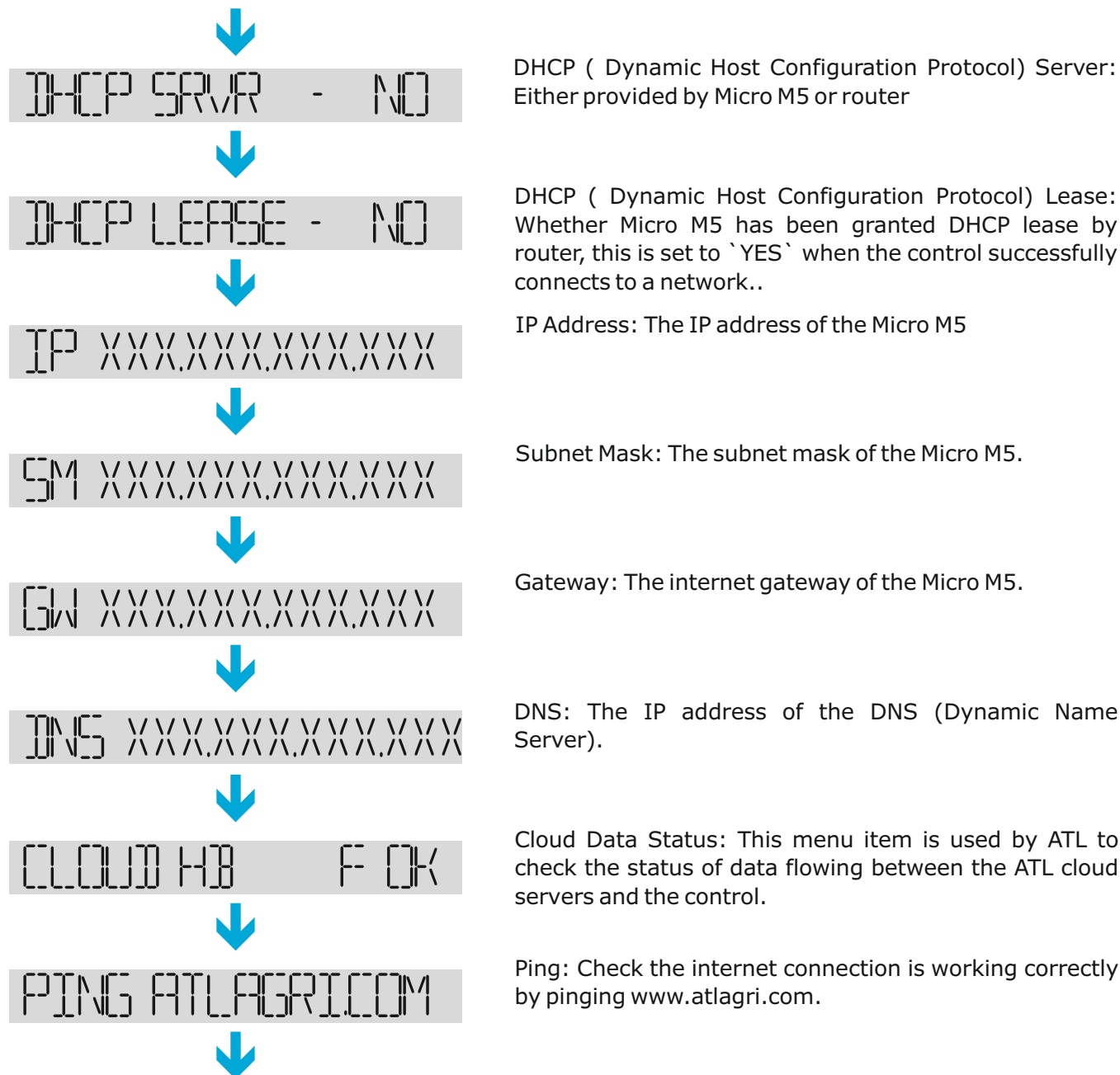
Pressing the Cancel key will exit the routine, and return to the diagnostics menu.



The Ethernet Configuration Menu Structure

The Ethernet Configuration menu is structured as shown below;

Entry point into Ethernet Configuration menu.



The settings menu loops around onto the DHCP Server setting.

The following pages detail the specifics of each menu item.

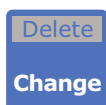
IMPORTANT: By connecting the Micro M5 to the internet, the user is allowing the Micro M5 settings and animal data to be sent to ATL servers, and giving their permission for ATL to use this data for purposes that it sees fit (i.e. research and development). The by-product of this is the user will have available an automatic backup of the their settings and animal data available at any time they require.

The DHCP Server

DHCP SERVER - NO

This menu item allows the user to select whether the DHCP (Dynamic Host Configuration Protocol) server is provided by the Micro M5 or an external router. If there is one computer connected to the Micro M5, this should be set to YES. If the Micro M5 is connected to a router / broadband modem, then this should be set to NO.

Press the Change Key



to toggle between 'YES' and 'NO'.

The DHCP Lease

DHCP LEASE - NO

This menu item displays whether the Micro M5 has been given a lease by the router / broadband modem DHCP (Dynamic Host Configuration Protocol) server. The display will show 'YES' or 'NO'. If the router / broadband modem is not providing a lease or the Micro is providing the DHCP server, it will display 'NO'. If a lease has been successfully provided by the router / broadband / modem, it will display 'YES'.

The IP Address

IP 169.254.1.1

This menu item displays the IP (Internet Protocol) address of the Micro M5.

The Subnet Mask

SM 255.255.255.0

This menu item displays the subnet mask of the Micro M5.

The Gateway IP Address




This menu item displays the gateway IP (Internet Protocol) address of the Micro M5.

The DNS IP Address



This menu item displays the DNS (Dynamic Name Server) IP (Internet Protocol) address of the Micro M5.

Cloud Data Status



This menu item is used by ATL to check the flow of data to and from the control with the ATL cloud data servers. It will show different codes as to which data is being sent and received and this can be used for technical support if required.

Checking the Connection to the ATL Servers



This menu item allows the user to check the connection via the internet to ATL servers for backing up the Micro M5 settings and animal data.



If the connection is OK, OK and then a timing in milliseconds will be displayed. The above example shows the ping time at 74 milliseconds.



If there is a problem with the connection, either or both of the two errors above will be displayed. 'PING DNS ERROR' means there is a DNS error with the network and the DNS server is not functioning. 'PING ERROR' means there is a network error and check all the connections on the network and the router / modem is turned on.

Creating Animals

To create a new animal on the Micro M5 Control, simply enter the brand number using the number keys, the control supports up to 6 digit alphanumeric animal numbers.

123456

Then press the shift key and Cursor keys



and



together, this will create a new animal record in the control.

The Micro M5 Control will then display the animals record.

123456 04 0.00 1

Animal Number Current Display Total Type Current Stall Number

Current Display Total Value

Viewing an animals record

To view an animals record, simply type the brand and press enter.

123456

Press the Enter key



to show the animals record.

The screen will then update with the record;

123456 04 0.00 1

If the animal is not found, the screen will show "Error";

123456 ERROR

Alternatively, press the Browse key to step forward through all the animal records.

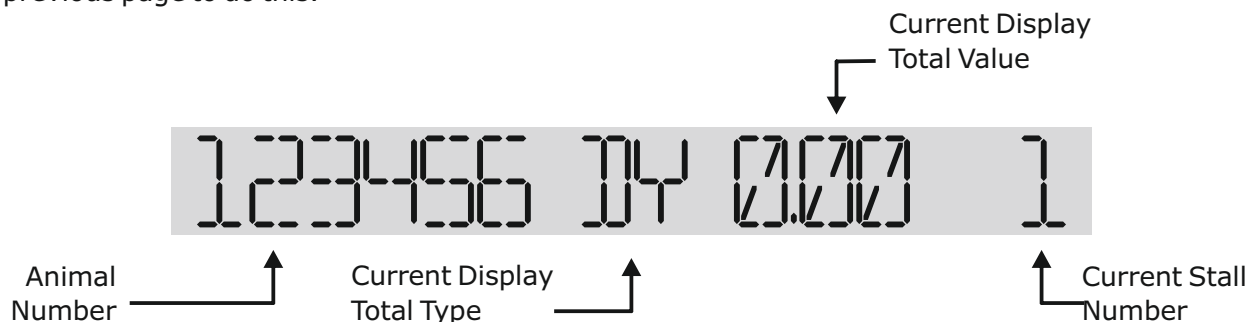
NB - Shift + Browse steps backwards.



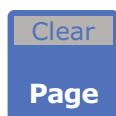
Changing the current display total

The Micro M5 Control supports a number of different totals based on the configuration currently selected, the currently displaying total can be change at any time by pressing the page key.

To change the total, the Micro M5 Control will need to be displaying an animal's record, please see the previous page to do this.



Press this Page key below;



to change the current display total, the available totals are show

123456 DF 0000 1



123456 STATUS



123456 G 1



123456 M 2



123456 DY 0000 1



123456 YY 0000 1



Daily Feed: This is the daily feed in kilograms to be fed to the animal. Press the Change key to edit this value. This will only show if a parlour type is selected and feeding enabled.

Animal Status: This is the animals status in the lactation cycle in ATL Cowculator M5. Press the Change key to step through the available status'. See the end of this section for a list of status'. Press the Change key to alter this value.

Group: This is the animals group number in ATL Cowculator M5. Press the Change key to edit this value.

Milkings Per Day: This is the number of milkings per day this animal will have, this is used to divide feed per milking and in total calculations. This will only show if a parlour type is selected. Press the Change key to edit this value.

Daily Yield Total: This is the total milk yield for today. This will only show if a parlour type is selected and MPC Type is selected.

Yesterdays Yield Total: This is the total milk yield for yesterday. This will only show if a parlour type is selected and MPC Type is selected.

Display totals continue on the next page.

Changing the current display total continued

Continued from the previous page;

1.23456 NY 0000 1

Newest Yield: This is the newest milking yield.

1.23456 AY 0000 1

Average Yield: This is the average milk yield for this animal over the previous 21 milkings for the corresponding milking. This will only show if a parlour type is selected and MPC Type is selected.

1.23456 NC 0000 1

Newest Conductivity: This is the newest conductivity value from the newest yield. This will only show if a parlour type is selected and an MPC Type with conductivity is selected.

1.23456 AC 0000 1

Average Conductivity: This is the average milk conductivity for this animal over the previous 21 milkings for the corresponding milking. This will only show if a parlour type is selected and an MPC Type with conductivity is selected.

1.23456 OFA 0000 1

Out Of Parlour Daily Feed A: This is the Daily Feed A for the animal in the Out of Parlour system. This will only show if an out of parlour type is selected. Press the Change key to edit this value.

1.23456 PFA 0000 1

Out Of Parlour Period Feed A: This is the Feed A amount for the current period in the Out of Parlour system. This will only show if an out of parlour type is selected.

1.23456 UFA 0000 1

Out Of Parlour Uneaten Feed A: This is the uneaten Feed A amount for the current day in the Out of Parlour system. This will only show if an out of parlour type is selected.

1.23456 TFA 0000 1

Out Of Parlour Total Feed A: This is the Total Feed A amount for the animal in the Out of Parlour system. This will only show if an out of parlour type is selected.

1.23456 ODB 0000 1

Out Of Parlour Daily Feed B: This is the Daily Feed B for the animal in the Out of Parlour system. This will only show if an out of parlour type is selected and B feeders are enabled. Press the Change key to edit this value.

1.23456 PDB 0000 1

Out Of Parlour Period Feed B: This is the Feed B amount for the current period in the Out of Parlour system. This will only show if an out of parlour type is selected and B feeders are enabled.

Display totals continue on the next page.

Changing the current display total continued

Continued from the previous page;

123456 U3 0000 1

123456 T3 0000 1

123456 V 0 1

123456 VT H-MM 1

XXXXXXXXXXXXXXXXXXXX

or

123456 NO TAG 1

Display totals will loop back to the Daily Feed Total.

Out Of Parlour Uneaten Feed A: This is the uneaten Feed A amount for the current day in the Out of Parlour system. This will only show if an out of parlour type is selected and B feeders are enabled.

Out Of Parlour Total Feed A: This is the Total Feed A amount for the animal in the Out of Parlour system. This will only show if an out of parlour type is selected and B feeders are enabled.

Out Of Parlour Visits: This is the number of visits for this day for the animal in the Out of Parlour system. This will only show if an out of parlour type is selected.

Out Of Parlour Visit Time: This is the total visit time for this day for the animal in the Out of Parlour system, displayed in hours and minutes. This will only show if an out of parlour type is selected.

Electronic Identification: This is the electronic identification tag number. This will only show if either an Auto ID system is enabled or an out of parlour type is selected.

If the tag number is all zeros it will display `NO TAG`.

Press the Change to manually edit the number.

Animal Status'

The following animal status' are available;

123456 YNG STK

123456 BARREN

123456 IN HEAT

Continued on the next page.

Young Stock Status: Animals with this status are usually not in the milking herd.

Barren Status: Used to mark animals which cannot become pregnant.

In Heat: Used to mark animals which are cycling.

Animal Status' continued



The routine will loop around to the Young Stock status.

Changing animal flags

The Micro M5 Control allows the user to input flags against each animal, which can be shown on the milking point when the animal is identified.

To edit an animals flags, the Micro M5 Control will need to be displaying an animal's record, please see page 144 to do this.

1 2 3 4 5 6 04 00.00 1

Press the Flags key to enter the Flags editing routine, the display will then will show the first flag, which is the Hold Milk Flag, if the flag is set the display will show a * as shown below:



1 2 3 4 5 6 HLD MLK *

If the flag is not set, the display will show an O;

1 2 3 4 5 6 HLD MLK O

To toggle the flag, press the Change key or the Enter key.



To step through the available flags press the 2, 6 or the Flags key.



To step backwards in the list press the 4 or the 8 key.



To exit the routine, press the Cancel key.



The list of available flags are shown below and on the next page;

Entry into the flags list routine:

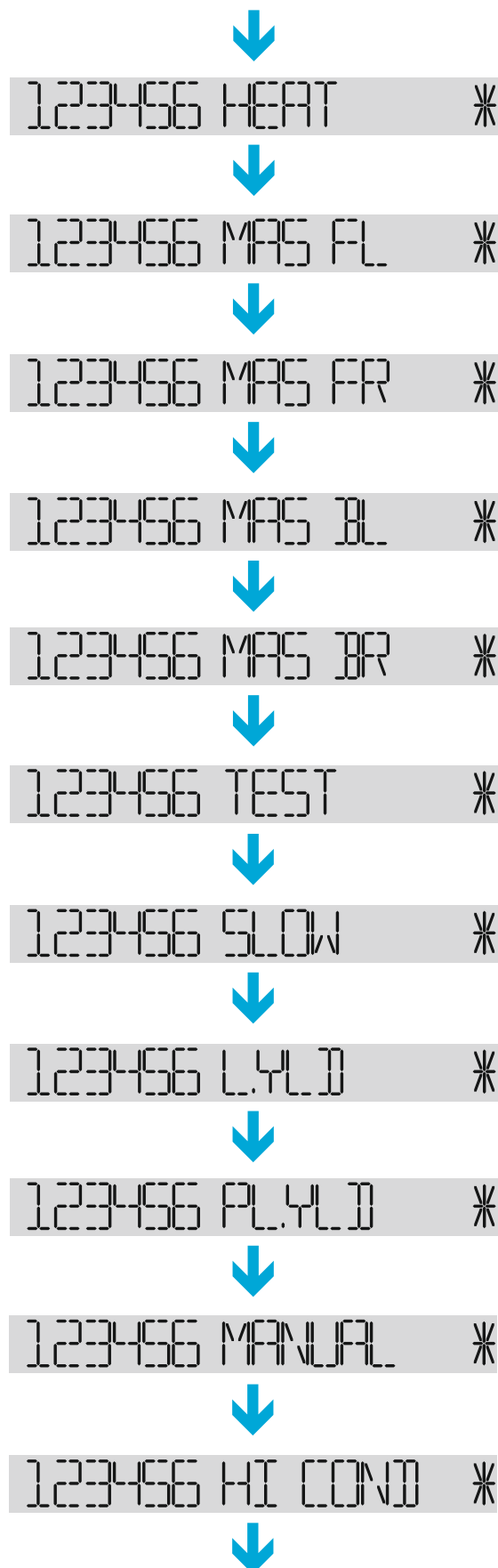


1 2 3 4 5 6 HLD MLK *



Hold Milk Flag, this flag is used to warn the milker that the animal should not be milked into the tank.

Changing animal flags continued



The Heat Alert Flag: This flag is a standard flag as well as a flag that can be set by external heat detection systems for sorting based on heat alerts.

Mastitis Front Left Quarter: This flag is used to indicate a mastitis infection on the front left quarter of the animal.

Mastitis Front Right Quarter: This flag is used to indicate a mastitis infection on the front right quarter of the animal.

Mastitis Back Left Quarter: This flag is used to indicate a mastitis infection on the back left quarter of the animal.

Mastitis Back Right Quarter: This flag is used to indicate a mastitis infection on the back right quarter of the animal.

Test Flag: This flag is used to indicate that the animals milk requires testing, this is set after the mastitis flag.

Slow Milker Flag: This flag is used to warn the operator / user that the animal is a slow milker.

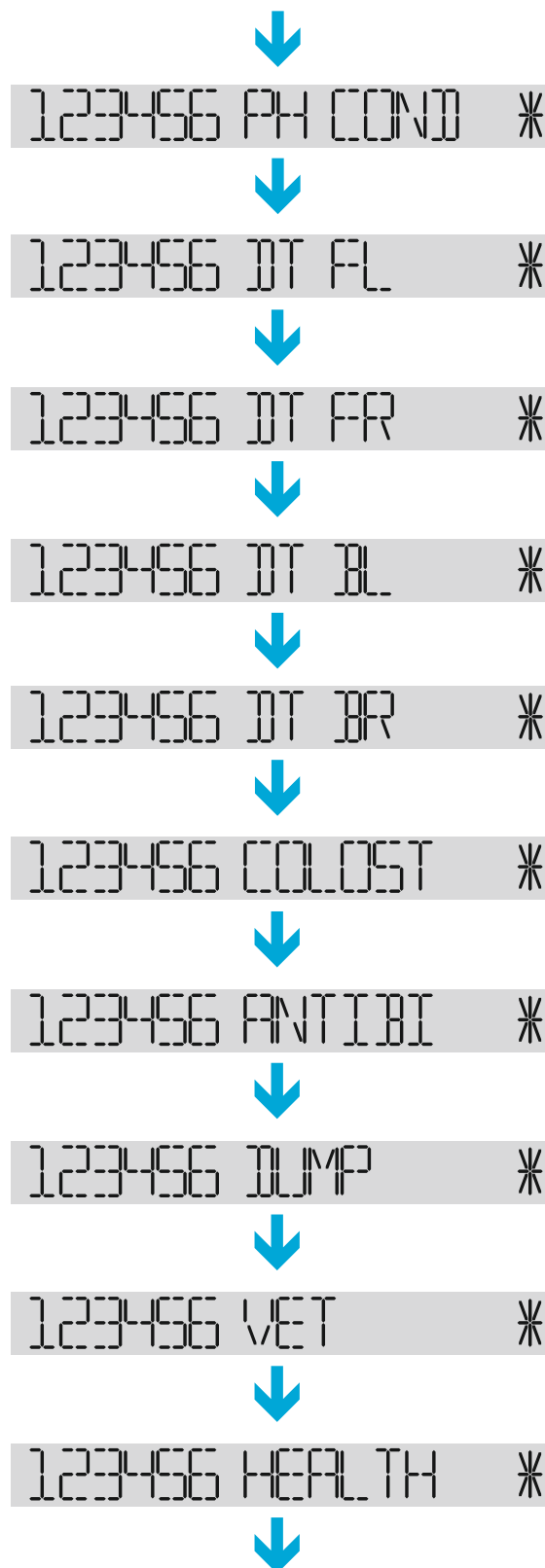
Low Yield Flag: This flag indicates the animals yield for the last milking was lower than expected.

Previous Low Yield Flag: This flag indicates the animals yield for the previous milking was lower than expected.

Previous Low Yield Flag: This flag indicates the animals yield for the previous milking was lower than expected.

High Conductivity Flag: This flag indicates the last milking conductivity was higher than expected.

Changing animal flags continued



Previous High Conductivity Flag: This flag indicates the previous milking conductivity was higher than expected.

Damaged Teat Animal Front Left Quarter: This flag is used to indicate that the animals front left quarter should not be milked.

Damaged Teat Animal Front Right Quarter: This flag is used to indicate that the animals front right quarter should not be milked.

Damaged Teat Animal Back Left Quarter: This flag is used to indicate that the animals back left quarter should not be milked.

Damaged Teat Animal Back Right Quarter: This flag is used to indicate that the animals back right quarter should not be milked.

Colostrum Milk Flag: This flag is used to warn the operator / user that the animal has colostrum milk.

Antibiotic Milk Flag: This flag is used to warn the operator / user that the animal has antibiotic milk, and should not be milked into the tank.

Dump Milk Flag: This flag is used to warn the operator / user that the animal milk must be dumped, and should not be milked into the tank.

Veterinary Flag: This flag is used to mark the animal for veterinary attention.

The Health Alert Flag: This flag is a standard flag as well as a flag that can be set by external health detection systems for sorting based on health alerts.

The routine will loop around to the Hold Milk Flag.

Key shortcuts to common flags

There are two flags which have key shortcuts, they are the Hold Milk flag and the Quick Sort flag, to toggle these flags enter the animal number so that the Micro M5 control is displaying the animals record.

123456 04 0.00 1

To toggle the Quick Sort Flag, press the Quick sort key.



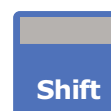
The display will then show the value of the flag;

123456 QSORT ON

If the flag is off, the display will show:

123456 QSORT OFF

To toggle the Hold Milk Flag press the Shift key and the Flags key together.



The display will then show the value of the flag;

123456 HOLD MILK

If the flag is off, the display will show:

123456 NO HOLD

Changing animal sorting flags

The Micro M5 Control allows the user to input upto 6 permanent sorting flags for each animal.

To edit an animals sorting flags, the Micro M5 Control will need to be displaying an animal's record, please see page 144 to do this.

Press and hold the Shift key and press the Quick Sort key to enter the Sorting Flags editing routine, the display will then will show the first sorting flag, which is the Sort Flag A, if the flag is set the display will show a * as shown below:

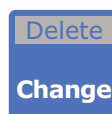


and



If the flag is not set, the display will an O;

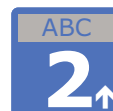
To toggle the flag, press the Change key or the Enter key.



or



To step though the available flags press the 2 or the 6 key.



or



To step backwards in the list press the 4 or the 8 key.



or



To exit the routine, press the Cancel key.



The list of available sorting flags are shown below and on the next page;

Entry into the sorting flags routine:




Sort Flag A: Corresponding to output A on the system.

Changing animal sorting flags continued



Sort Flag B: Corresponding to output B on the system.

Sort Flag C: Corresponding to output C on the system.

Sort Flag D: Corresponding to output D on the system.

Sort Flag E: Corresponding to output E on the system.

Sort Flag F: Corresponding to output F on the system.

The routine will loop around to Sort Flag A.

Setting an animal in a stall

Animals can be set into stalls manually by using the step, side and Feed / Milk keys.

To set an animal into a stall, use the side and step keys to step to the stall.



Enter the animals brand, and press the Feed / Milk key.



The display will then show the animals record along with the stall number, the Micro M5 will send the animal to any connected devices as well. If the animal has any daily feed allocated, this will be fed as well.



Viewing animals in the parlour

Animals in the parlour can be viewed at any time by using the recall facility. This routine allows the user to view, edit and link animals in the parlour.

To enter the Recall routine, press the Recall key.

The display will then show the word Recall;



After 1 second, the screen will show the animal in stall 1 on the current side;



To step through the stalls, press the Browse, 2 or 6 key.



or



or



Viewing animals in the parlour continued

There are 3 status' which the recall routine will display for a stall, the first is when there is an animal in the stall, the screen will show the animals brand number, current display total and stall number, as shown below;

123456 04 0.00 1

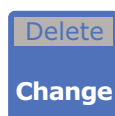
If the stall is empty, the display will show "No Animal";

NO ANIMAL 2

If a tag is read in the stall which is unknown, the recall will display "Unlinked Tag"

UNLINKED TAG 3

To link an unlinked tag, press the Change key.



The display will then show the brand number entry and LTG, to indicate to Link Tag the tag;

LTG 3

To link the tag, enter the animals brand number, then press the Enter key.



Press the Attn Key to see attentions for animals on the current parlour side.



Viewing Herd Totals

Herd totals provide a quick look at animal data for the herd as a whole.

ATL MICRO M5

Press the Cancel key to ensure that no animal records are being displayed and the display shows `ATL Micro M5`.



Press the Page key to access the totals.



The following totals are available:

ANIMALS XXXX



MILKED XXXX



SESSIONS XXXX



IDENT XXXX



DLY FID XXXXXXXX



AV DLY FID XXXX.X



DLY MY XXXXXXXX



The totals continue on the next page.

Number of Animals: This is the total number of animals in the control.

Number of Milked Animals: This is the total number of animals milked within the last 4 hours. This total is only shown when a parlour is enabled and an MPC type selected.

Number of Milking Sessions: This is the total number of milking sessions since the control was put into milking mode. This total is only shown when a parlour is enabled and an MPC type selected.

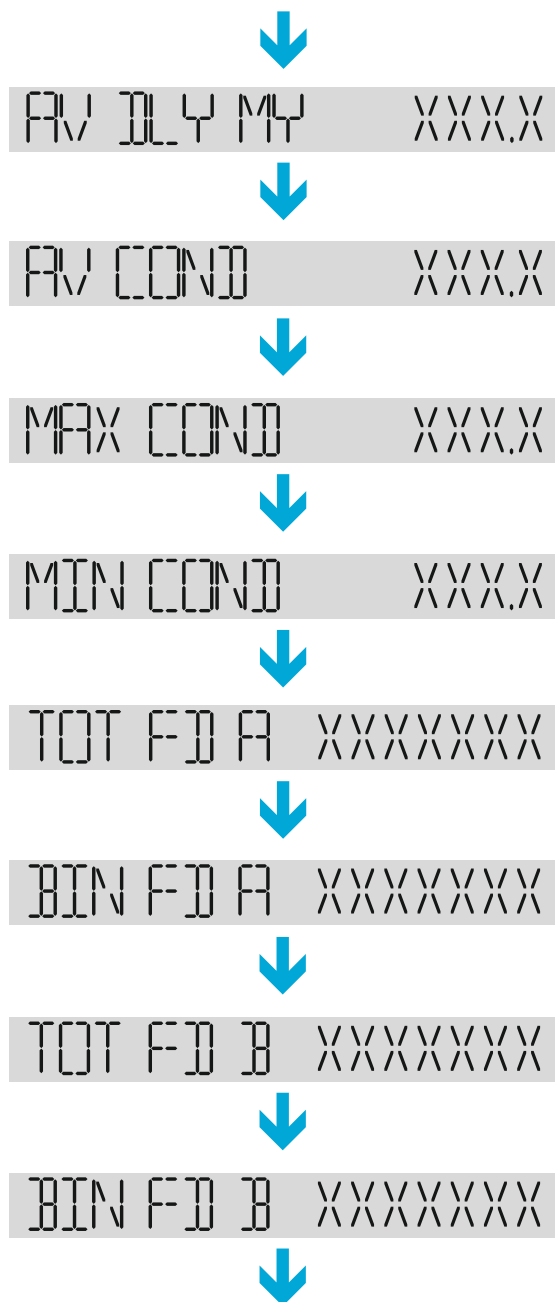
Number of Identifications: This is the total number of animals identified since the control was put into milking mode. This total is only shown when a parlour is enabled and an Auto ID type selected.

Total Daily Feed for All Animals: This is the total daily in parlour feed for all animals. This total is only shown when a parlour is enabled and feeding is enabled.

Average Daily Feed for All Animals: This is the average daily in parlour feed over all animals. This total is only shown when a parlour is enabled and feeding is enabled.

Total Daily Milk Yield for All Animals: This is the total daily milk yield for all animals. This total is only shown when a parlour is enabled and an MPC type is selected.

Herd Totals continued



Average Daily Milk Yield for All Animals: This is the average daily milk yield for all animals. This total is only shown when a parlour is enabled and an MPC type is selected.

Average Conductivity for All Animals: This is the average daily conductivity for all animals. This total is only shown when a parlour is enabled and an MPC type with conductivity is selected.

Maximum Conductivity measured: This is the maximum conductivity measured during the last milking. This total is only shown when a parlour is enabled and an MPC type with conductivity is selected.

Minimum Conductivity measured: This is the minimum conductivity measured during the last milking. This total is only shown when a parlour is enabled and an MPC type with conductivity is selected.

Total Out of Parlour Feed A: This is the total daily feed A for the herd. This total is only shown when the out of parlour system is enabled.

Bin Out of Parlour Feed A: This is the amount of feed A in the bin. This total is only shown when the out of parlour system is enabled.

Total Out of Parlour Feed B: This is the total daily feed B for the herd. This total is only shown when the out of parlour system is enabled.

Bin Out of Parlour Feed B: This is the amount of feed B in the bin. This total is only shown when the out of parlour system is enabled.

The routine will loop around to the number of animals total.

Clearing flags for all animals in the herd

If a flag must be cleared from all animals in the herd it can be done using the herd clear flags functionality.

ATL MICRO M5

Press the Cancel key to ensure that no animal records are being displayed and the display shows `ATL Micro M5`.



Press the Flags key to access the clear herd flags function.



To step through the available flags press the 2 or the 6 key.



To step backwards in the list press the 4 or the 8 key.



Once the desired flag is found, press the Enter key to clear the flag on all animals in the herd.



The following flags are available for clearing:

C FLAG FED

Clear the Fed flag for the herd.

C FLAG HLD MLK

Clear the Hold Milk flag for the herd.

C FLAG HEAT

Clear the Heat Alert flag for the herd.

C FLAG MAS FL

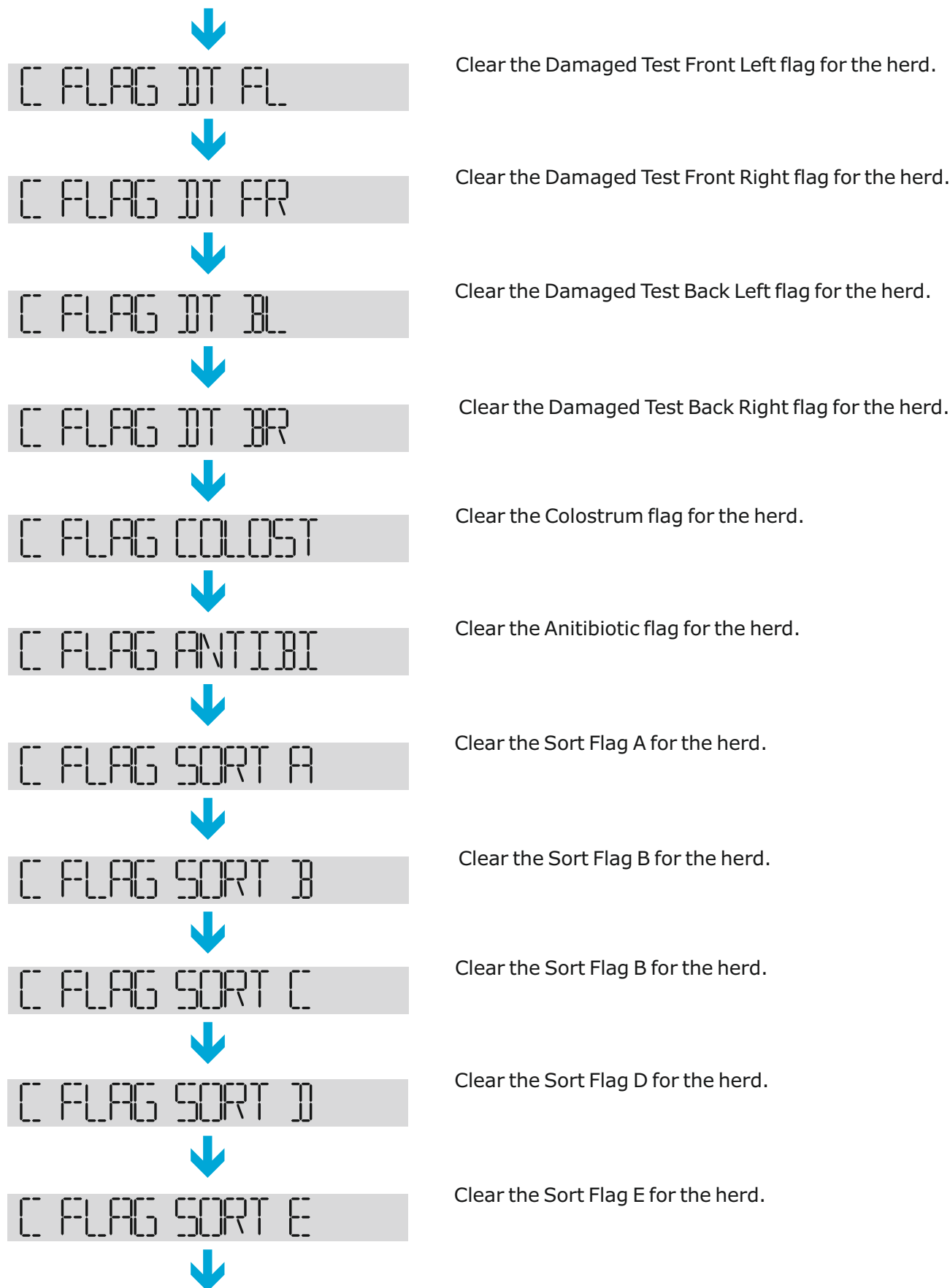
Clear the Mastitis Front Left flag for the herd.

The totals continue on the next page.

Clearing flags for all animals in the herd continued



Clearing flags for all animals in the herd continued



Clearing flags for all animals in the herd continued



C FLAG SORT F

Clear the Sort Flag F for the herd.



C FLAG DUMP

Clear the Dump flag for the herd.



C FLAG VET

Clear the Veterinary flag for the herd.



C FLAG HEALTH

Clear the Health Alert flag for the herd.



The routine will loop around to the clear Fed flag item.

Altering values for all animals in the herd

If a value for all animals in the herd must be changed the user can use the alter value functions. These allow for a number of values to be incremented, decremented or set to a value.

ATL MICRO M5

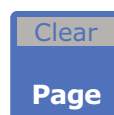
Press the Cancel key to ensure that no animal records are being displayed and the display shows `ATL Micro M5`.



Press the Cursor key to access the set herd value function.



To step through the available changes press the Page key.



Use the numeric keys to enter the increment, decrement or value to set. Then press the enter key to action the change.



The following values and functions are available:

SET FEED

Set the in parlour feed to the entered value. This function is only shown if a parlour and feeding are both enabled.



INC FEED

Increment the in parlour feed value by the entered percentage. This function is only shown if a parlour and feeding are both enabled.



DEC FEED

Decrement the in parlour feed value by the entered percentage. This function is only shown if a parlour and feeding are both enabled.



SET FEED A

Set the Out of Parlour Feed A to the entered value. This function is only shown if the out of parlour system is enabled.



INC FEED A

Increment the Out of Parlour Feed A by the entered percentage. This function is only shown if a parlour and feeding are both enabled.



DEC FEED A

Decrement the Out of Parlour Feed A by the entered percentage. This function is only shown if a parlour and feeding are both enabled.



The available values and functions continue on the next page.

Altering values for all animals in the herd continued



SET FEED B ----'

Set the Out of Parlour Feed B to the entered value. This function is only shown if the out of parlour system is enabled and B feeders are enabled.



INC FEED B ----

Increment the Out of Parlour Feed B by the entered percentage. This function is only shown if a parlour and feeding are both enabled and B feeders are enabled.



DEC FEED B ----

Decrement the Out of Parlour Feed B by the entered percentage. This function is only shown if a parlour and feeding are both enabled and B feeders are enabled.



The routine will loop around to the In Parlour Feed items.

Setting up Sorting Plans for the herd

Sorting plans enable the user to configure different routines for sorting during the day and week. The system can sort animals using all flags, status' and group number based on the time of day and day of week.

ATL MICRO M5

Press the Cancel key to ensure that no animal records are being displayed and the display shows `ATL Micro M5`.



Press and hold the Shift key and then press the Quick Sort key to access the sorting plans.



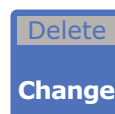
There are 15 plans that can be activated, press the 2 key to step forward though the and press the 8 key to step backwards through the list.



Press the 4 key or the 6 key to step through the options for a plan.



Press the Change key to change a setting of the plan.



The following settings are available, where `XX` is the plan number:

PXX ENABLED

Plan Enabled or Disabled: This setting controls if the plan item is enabled or disabled.



PXX START HH-MM

Plan Start Time: This is the time of day when the plan will become active.



PXX END HH-MM

Plan End Time: This is the time of day when the plan will become inactive.



PXX DAYS SMTWTFS

Plan Active Days: This is the days of the week when the plan is active.



PXX TYPE XXXXXX

Plan Type: This is the type of item which is used to sort the animal, options include animal flags, status' and group or a locked setting to disabled the gate.

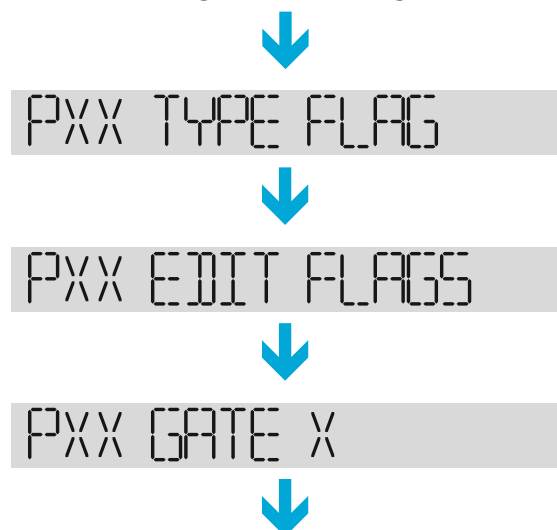


The settings continue on the next page.

Setting up Sorting Plans for the herd continued

Based on the type setting the menu now changes configuration, the different items are listed in their sections below;

Menu configuration for Flag based sorting;



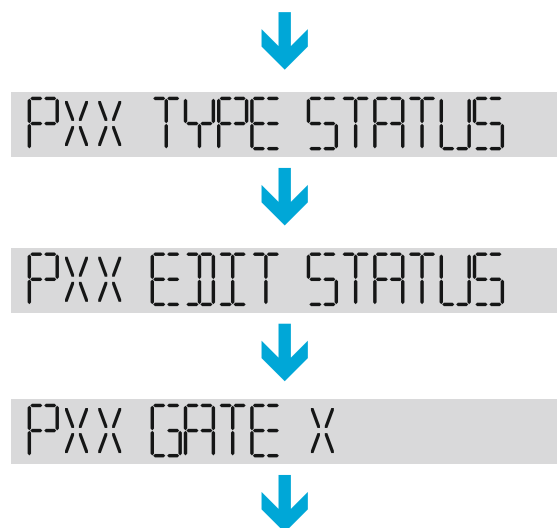
Sorting Plan Type: The Flag type is selected, this controls the next items shown.

Sorting Plan Flags: This menu item allows the user to select the flags which will open the shedding gate. Press the Enter key to edit the flags. For a list of flags please see the Animal Flags on page 151.

Sorting Plan Gate: The selected gate can be changed by pressing the Change key, the system allows the use of all gate outputs, A through F, and a disabled option using the ` - ` dash.

The menu will loop around to the Enable / Disable setting.

Menu configuration for Status based sorting;



Sorting Plan Type: The Status type is selected, this controls the next items shown.

Sorting Plan Status': This menu item allows the user to select the status' which will open the shedding gate. Press the Enter key to edit the status'. For a list of status' please see the Animal Status' on page 149.

Sorting Plan Gate: The selected gate can be changed by pressing the Change key, the system allows the use of all gate outputs, A through F, and a disabled option using the ` - ` dash.

The menu will loop around to the Enable / Disable setting.

Options continue on the next page.

Setting up Sorting Plans for the herd continued

Menu configuration for Group based sorting;



PXX TYPE GROUP

Sorting Plan Type: The Group type is selected, this controls the next items shown.



PXX GROUP X

Sorting Plan Group: This menu item allows the user to select the group number which will open the shedding gate. Press the Change key to edit the group number.



PXX GATE X

Sorting Plan Gate: The selected gate can be changed by pressing the Change key, the system allows the use of all gate outputs, A through F, and a disabled option using the '-' dash.



The menu will loop around to the Enable / Disable setting.

Menu configuration for Locked type;



PXX TYPE LOCKED

Sorting Plan Type: The Locked type is selected, this type locks the gate in a position during the active period, identifications will be registered, but not actioned.



PXX GATE X

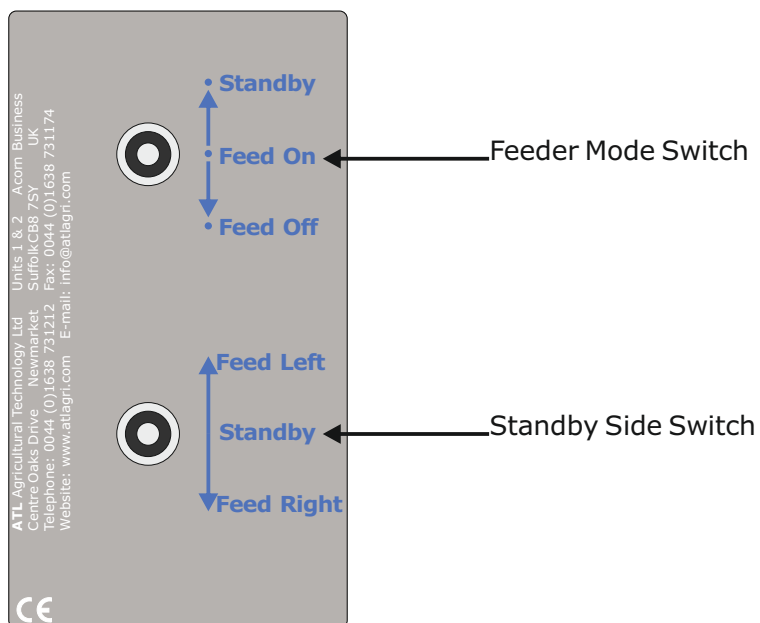
Sorting Plan Gate: The selected gate can be changed by pressing the Change key, the system allows the use of all gate outputs, A through F, and a disabled option using the '-' dash.



The menu will loop around to the Enable / Disable setting.

Standby Feeding

The standby feeding controls should be used if the Auto Control front panel develops a fault and will not operate the feeders.



To use the standby feeding mode, switch the feeder mode switch to standby and then flick the standby side switch to either the left or the right depending upon which side you would like to feed. This will then deliver a calibrated ration of 1 unit of feed to be delivered through all the feeders on the parlour side selected. Flick the switch to deliver as many units of feed as required.

Post milking call your local dealer and rectify the problem with the front panel. This is a temporary solution and should not be used long-term.

Electronic Fuse Trip Warning

The automatic electronic fuses will trip and cut off power to a feeder motor or solenoid if it draws too much current. The buzzer will sound and the display will show the stall with the problem.



Press the Batch (Enter) key

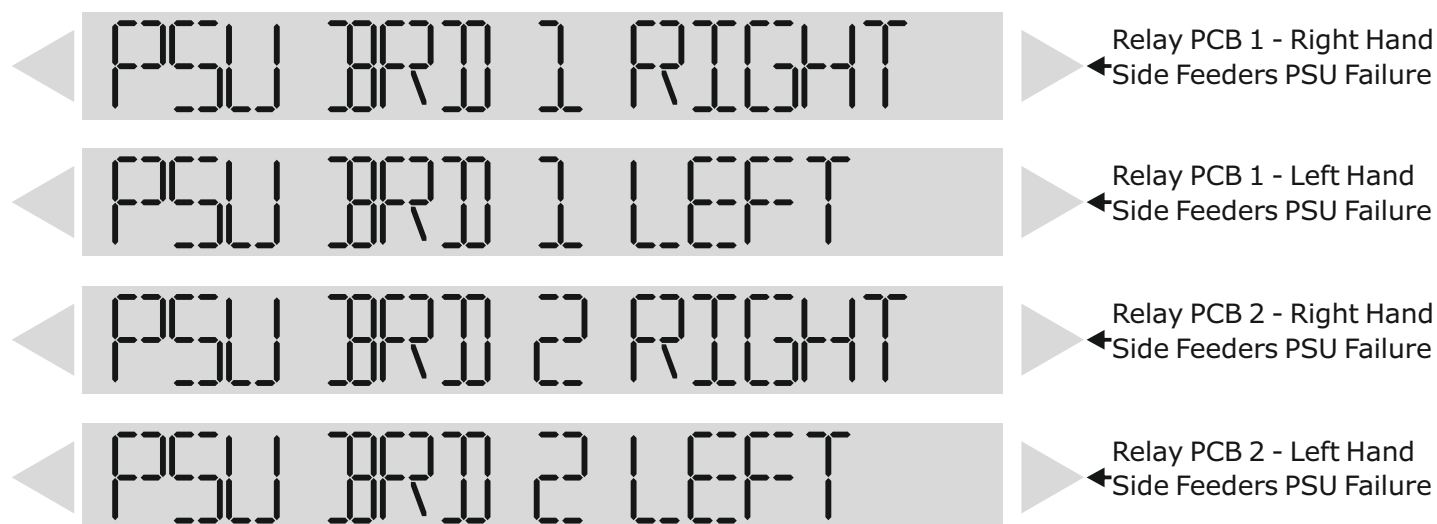


to reset the electronic fuse.

Locate and rectify the fault before proceeding.

Power Supply Failure Warning

If there is a fault with the power supply, the buzzer will sound and the display will show which relay PCB has encountered the problem.



Press the Batch (Enter) key



to acknowledge the warning.

Locate and rectify the fault before proceeding.

Feed Bin Level Warning

The bin warning level setting allows a feed bin total in kilograms to be set, whereby a warning displays on the Micro M5 Control during parlour feeding, when the total feed left in the feed bin crosses the warning level. the warning only appears once.



Press the Enter key



to acknowledge the warning.

Feeders Turned Off Warning

If the feed switch on the side of the Micro M5 Control is set to feeders off, the buzzer will sound and the following will be shown on the display.



Press the Enter key



to acknowledge the warning.

To rectify this warning, turn the feed switch on the side of the Micro M5 Control to the feeders ON position.



Monthly / Six Monthly / Yearly Routine Maintenance

- Visually inspect the Micro M5 Control box for damage. Any damage will admit water causing the premature failure of the electronics and should be fixed as soon as possible.

Parlour Wash Down

- The Micro M5 Control enclosure is IP65 rated. However, no indirect or direct pressure washing should be used to wash the Micro M5 Control, as this will cause the seals to fail and water to ingress and damage the electronic components. Please note that water damage is not covered under warranty.

Troubleshooting Attention Messages

The Micro M5 reports errors to the user, when a error occurs the control will 'Beep', pressing the Attn key will show the user what the error is.

Below is a list of the errors which may occur on the Micro M5 Control, with possible resolutions.

Error

Fault Information

FUSED STALL XX Y

An in parlour feeder has had an electronic fuse fail, where XX is the stall number and Y is the side. Check the feeder motor and feed for blockages.

RLY BXX Y PSU ERR

The Relay Board XX has detected that the PSU for side Y is not present, check the feeder PSU, its mains supply and wiring.

RLY BXX FEED OFF

The Relay Board XX has its switch set to feed off. Change the switch position to feed on to feed.

FEED BIN LOW

The in parlour feed bin is low, check its level, refill and reset the bin level accordingly.

RLY SYY COM ERR

The Relay Board which is responsible for feeding stall YY failed to respond to a feed request, check the communications cable and the PSU for the relay board.

MILK PMP COM ERR

The system failed to communicate to the Milk Pump Control, check the communications cable and power to the Milk Pump Control.

AIR BLST COM ERR

The system failed to communicate to the Air Blast Control, check the communications cable and power to the Air Blast Control.

PULSE8 COM ERR

The system failed to communicate to the Pulse8 Control, check the communications cable and power to the Pulse8 Control.

UNLINKED TAG YY

An unlinked Auto ID tag has been read in a stall in the parlour, press enter to link to an animals brand number.

OUT FUSED STL YY

An out of parlour feeder has had an electronic fuse fail, where YY is the stall number. Check the feeder motor and feed for blockages.

Troubleshooting Attention Messages Continued;

Error

OOP BXX PSU ERR

OOP LOW FEED A

OOP LOW FEED B

SD CARD FULL

SD CARD LOCKED

SD CARD REMOVED

SD CARD FAIL

SD CARD FILE ERR

SD CARD INIT ERR

Fault Information

The Out of Parlour Interface XX has detected that the feeder PSU is not present, check the feeder PSU, its mains supply and wiring.

The out of parlour feed bin for feed A is low, check its level, refill and reset the bin level accordingly.

The out of parlour feed bin for feed B is low, check its level, refill and reset the bin level accordingly.

The SD Card in the control has reported that it is full and has no space, call ATL for technical support.

The SD Card in the control has reported that its switch is set to lock, check the card and reset the switch, call ATL for technical support.

The control cannot detect the SD Card, check the card is present, check the card is inserted correctly, call ATL for technical support.

The SD Card has failed, check the card is present, check the card is inserted correctly, call ATL for technical support.

The SD Card has failed to save a file, check the card is present, check the card is inserted correctly, call ATL for technical support.

The SD Card has failed to initialise, check the card is present, check the card is inserted correctly, call ATL for technical support.