

Technical Bulletin



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Product: SWIFTFLO MILK METER SYSTEMS

Description: MILK METER PCB TYPE 1 NOTIFICATION OF DISCONTINUATION



TECH B:12135

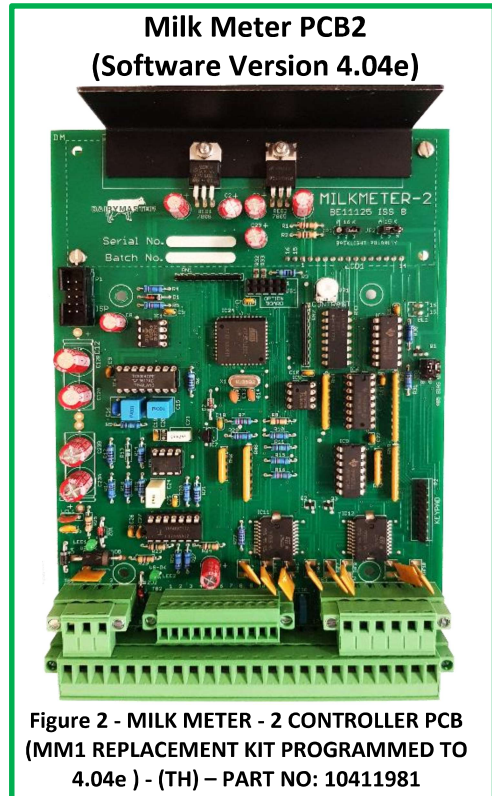
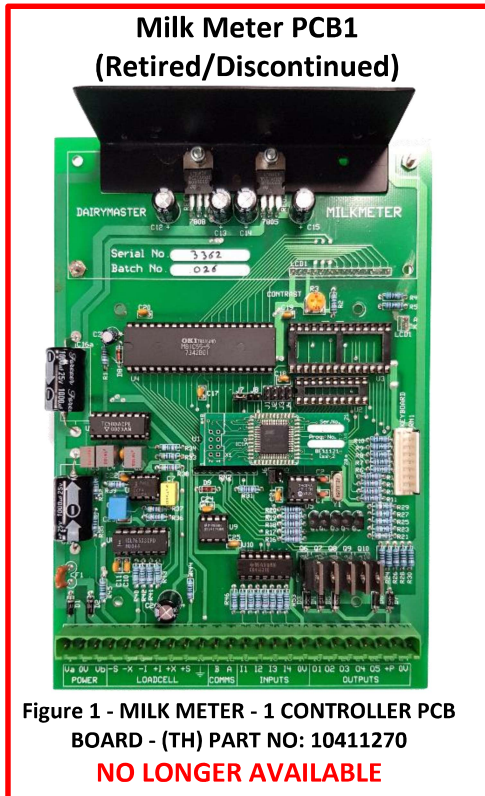
Issued By: Global Technical Support

Date: 01/03/2018

The Milk Meter PCB 1 has been discontinued. All replacement part orders for Milk Meter PCB's 1 will be fulfilled using Milk Meter PCB's 2.

These Retrofit Boards will come preprogrammed with Version 4.04e.

Topics covered in this document do not include general installation practices i.e. the installation engineer is assumed to have the technical skill and knowledge to perform the installation neatly and safely and in accordance with local regulations



MILK METER - 2 CONTROLLER PCB (MM1 REPLACEMENT KIT WILL ALSO INCLUDE)	
10932747	TERMINAL BLOCK - 5.0MM PITCH - FLANGED PLUG IN - 3 WAY
10932754	TERMINAL BLOCK - 5.0MM PITCH - FLANGED PLUG IN - 6 WAY
10932762	TERMINAL BLOCK - 5.0MM PITCH - FLANGED PLUG IN - 24 WAY
10932788	TERMINAL BLOCK - 3.5MM PITCH - FLANGED PLUG IN - 11 WAY

Milk Manager/Automation Compatibility Chart

Table 1 – Milk Manager & Microcontroller Comptability check

Milk Manager Version	Microcontroller Version & Code
VERSIONS UP TO VERSION 1.12	UPGRADE TO MICROCONTROLLER 40WAY - 0.6" PITCH - (MILK METER CHIP) TO VERSION 4.04E. PART NO: 10411973
VERSIONS ABOVE 1.12 MUST UPGRADE TO VERSION 1.18	PROGRAMMED MICROCONTROLLER 40WAY - 0.6" PITCH - (MILK METER CHIP) V4.00 TO CURRENT VERSION. PART NO: 10411296



Important Notice: ONLY Milk Meter Equipped parlours, using MILK METER PCB1 that incorporates Auto ID or Milk Manager/PC Connections **MUST** have **ALL** existing microcontrollers on Existing Milk Meter Version 1 boards Upgraded to comply with Table 1. A Milk Manager Update may also be required.

Please Note: The correct quantity of these updated Microcontroller must be ordered with any replacement boards.

Milk meter PCB1 Microcontroller EPROM update

Installation Note:

When placing the microcontroller Ensure the cut out on the microcontroller is on the same side as cut out on the board.

Always the ensure all pins are aligned before pushing the microcontroller onto its mount.

Older Installations will also need to have the chips in U3 & U2 Removed.

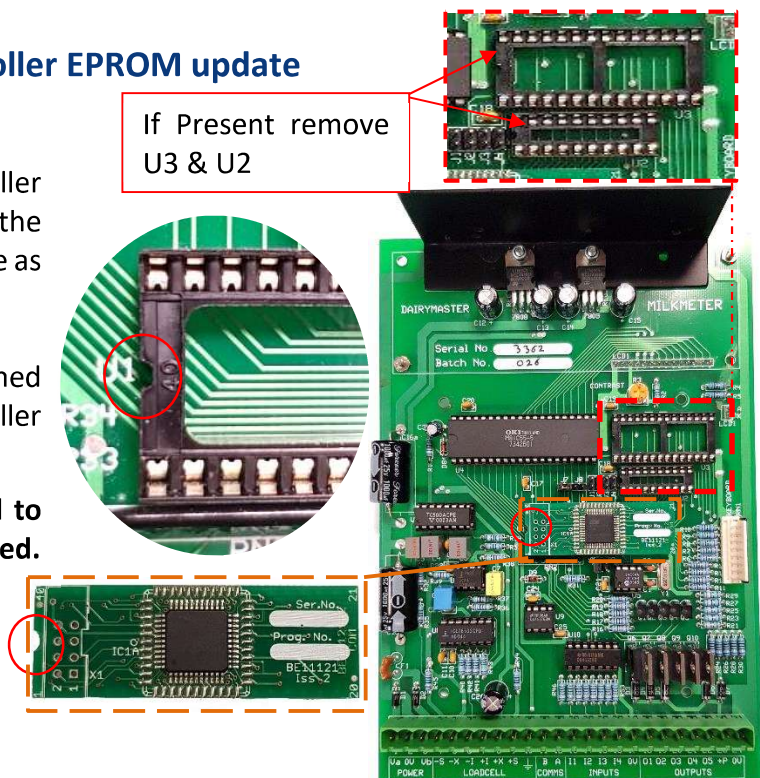


Figure 3 – Installing the Microcontroller

Upgrade EPROM Milk Meter board 1 to support single upgraded microcontroller:

To upgrade Weighall Milk Meter PCB1 the following changes are required:

- Link jumpers: J1, J6 and J7.
- Unlink jumpers: J2 (Cut track linking pin of J2 if present)
- Unlink jumpers: J8 (Cut track linking pins of J8 if present).
- 81C55 CHIP @ U4 which should already be there, no need to do anything with this.

Additional Wiring Information for installers:

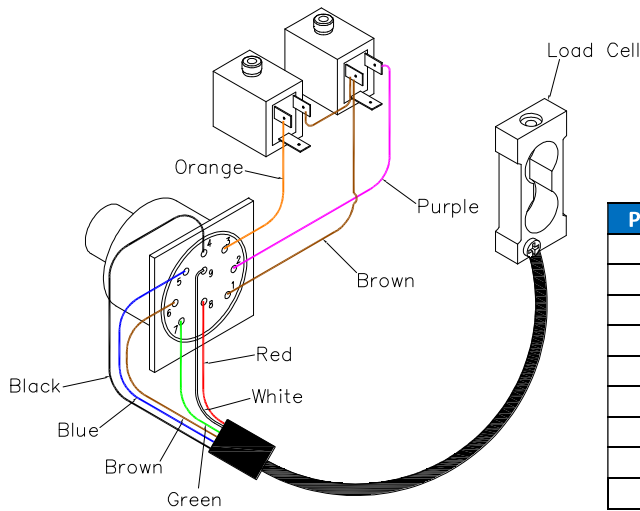


Table 2– Milk Meter Plug Wiring Connections

Plug Number	Wire Colour	Function
1	Brown	Positive
2	Purple	Negative top valve
3	Orange	Negative bottom valve
4	Black	Sense [-]
5	Blue	Excitation [-]
6	Brown	Output [-]
7	Green	Output [+]
8	Red	Excitation [+]
9	White	Sense [+]

Load Cell

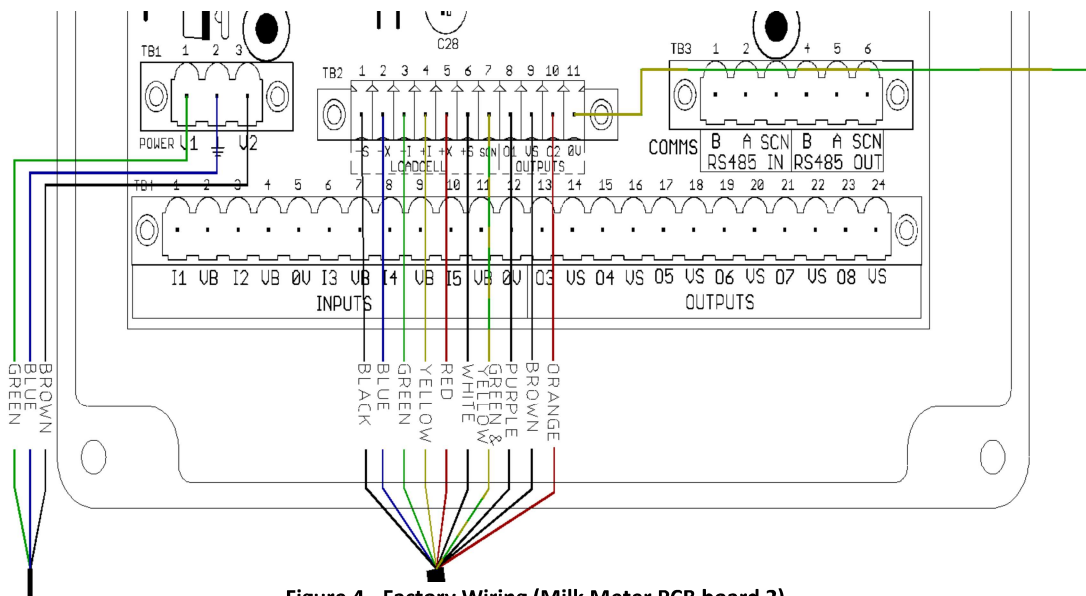


Figure 4 - Factory Wiring (Milk Meter PCB board 2)

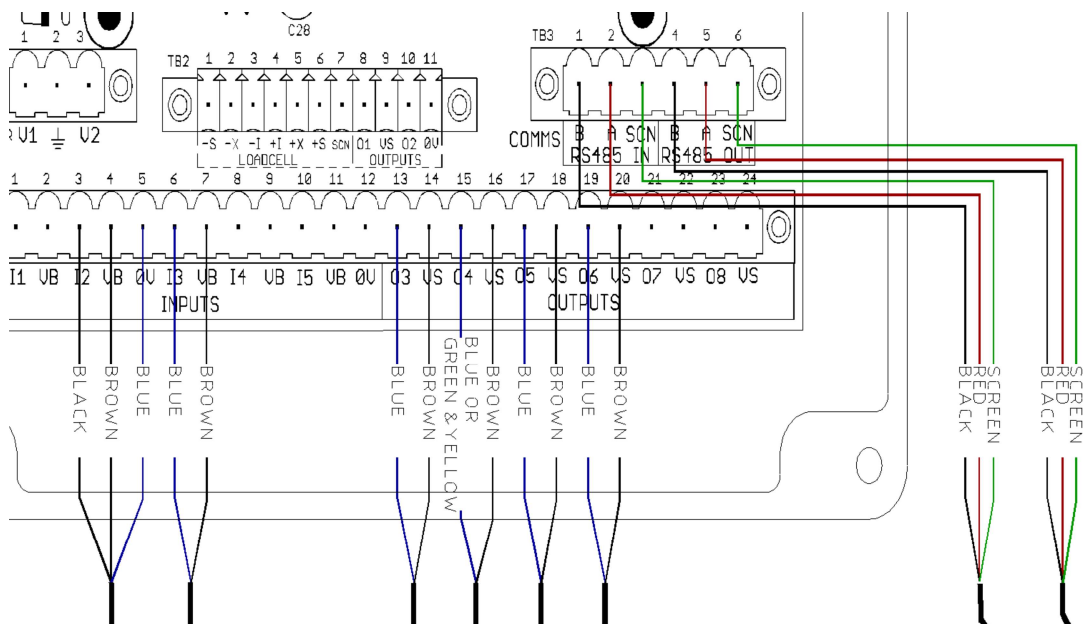


Figure 5 - Installation Wiring (Milk Meter PCB Board 2)

Table 3 – Milk Meter PCB board 2 connections (TB1)

Connection Number [TB1]	Wire Colour	Function
1 (V1)	Green/Yellow	Positive [+] Board supply from transformer
2	Blue	Negative [-] (common) from transformer
3 (V2)	Brown	Positive [+] Solenoid supply from transformer

Table 4 - Milk Meter PCB board 2 connections (TB2)

Connection Number [TB2]	Wire Colour	Function
1 (-S)	Black	Sense [-]
2 (-X)	Blue	Excitation [-]
3 (-I)	Green	Output [-]
4 (+I)	Yellow	Output [+]
5 (+X)	Red	Excitation [+]
6 (+S)	White	Sense [+]
7 (SCN)	Green & Yellow	Screen wire from Milk Meter cable
8 (O1)	Purple	Negative [-] top valve
9 (VS)	Brown	Meter solenoids [+]
10 (O2)	Orange	Negative [-] bottom valve
11 (0V)	Green/Yellow	Earth

Table 5 - Milk Meter PCB board 2 connections (TB3)

Connection Number [TB3]	Wire Colour	Function
1 (B)	Black	Comms
2 (A)	Red	Comms
3 (SCN)	Screen	Screen
4 (B)	Black	Comms
5 (A)	Red	Comms
6 (SCN)	Screen	Screen

Table 6 - Milk Meter PCB board 2 connections

Connection Number [TB4]	Wire Colour	Function
1 (I1)		
2 (VB)		
3 (I2)	Black	Proximity switch / Limit switch left / ACR Smart Start Reed switch
4 (VB)	Brown	Proximity / Limit switch / ACR Smart Start Reed switch [+]
5 (0V)	Blue	Proximity switch [-]
6 (I3)	Blue	ACR float Switch
7 (VB)	Brown	ACR Float switch [+]
8 (I4)		
9 (VB)		
10 (I5)		
11 (VB)		
12 (0V)		
13 (O3)	Blue	ACR RAM [-]
14 (VS)	Brown	ACR RAM [+]
15 (O4)	Green/Yellow or Blue	Diversion valve [milk mode] or Main Line Vacuum Shutoff [-]
16 (VS)	Brown	Main Line Vacuum Shutoff [+]
17 (O5)	Blue	Diversion valve [divert mode] / Diversion line Vacuum Shutoff [-]
18 (VS)	Brown	Diversion line Vacuum Shutoff [+]
19 (O6)	Blue	Cow Retention [-]
20 (VS)	Brown	Cow Retention [+]
21 (O7)	Blue	Cluster Cleanser Rinse [-]
22 (VS)	Brown	Cluster Cleanser Rinse/Air [+]
23 (O8)	Green/Yellow	Cluster Cleanser Air [-]
24 (VS)	Brown	Secondary Line [+]/Platform Teat Sprayer [+]

Where Present the Push Button must be wired into **input 2**.
The Prox switch must be wired into **input 2** also.

For further information on this bulletin or any other issue please contact our technical support team at technicalsupport@dairymaster.com or by phone +353 66 7131124.