




T023 – Fault Finding MR2000 Display Box

Ver3.0 Jan 2020



Error messages are displayed as codes. All possible codes are described in the following summary. Once an error code is displayed, for example "E13", the display can be cleared by pressing the down arrow twice. 

ERROR NO.	ERROR	SOLUTION
1	Cow number/transponder number unknown	>Input cow number/transponder number
4	Faulty input	>Input must be between limits
5	Entered cow/transponder number unknown	>Enter correct cow/transponder number
6	Subject of cow unknown	>Enter correct code
7	Chosen subject cannot be changed	>Connect security box
8	Calendar input error	>Check calendar data of cow
9	Reading error fixed display box error	>Enter all settings again
10	No authorisation code entered	>Enter authorisation code
11	Milkmeter still working after instruction to open gate	>Wait until milk claw is removed
13	Exit of milkstand stays closed	>Clean reflector in milk parlour gangway
14	Error in cow milk data	>Check data and change if necessary
15	Error in cow feed data without ID2000	>Check data and change if necessary
17	Error in milkstand data	>Check data and change if necessary
18	Communication error with ID2000	>Check communication to ID2000
19	Cow number difference between MR2000 and ID2000; MR2000 takes over number	>Check cow/transponder number and change if necessary
21	Same cow number exists more than once	>Enter correct cow number
100	Error central identification: side already filled	>Release cow from side
101	Error central identification: side not filled	>Fill side, when desired



102	Error central identification: more than one gate open	>Take care that only one gate at a time is open
103	Error central identification: identification halted	>Open and close milk parlour entrance gate
104	Error central identification: end of milking before side is filled	>Open and close milk parlour entrance gate
128	Hallswitch error Leaking milkmeter membrane Nonfunctioning MR2000 TL pulsator No vacuum in milkmeter	>Replace hallswitch >Replace membrane >Replace pulsator
129	Interruption on communication between MR2000 display box and milkmeter connection box	Check cables and connections; replace display from display box; replace mm. print of connection box (milkmeter)
130+131	Interruption in hardware communication between display box and milkmeter connection box	
132	Interruption in alternating voltage probes	>Turn voltage on and off once
134	Probe conductivity is not correct during milking, due to polluted electrodes	>Clean once extra with acid
135	Hallswitch error	>Replace hallswitch
136	Conductivity of milk outside range 4-8mS/cm	>Check cow for health problems
150	Internal system error	>Replace MR2000 display box
250	Communication error: collision of data	>Check communication to ID2000
251	Communication error: unit does not exist	
252	Communication error: protocol error	
253	Communication error: framing error	
254	Communication error between MR2000 display box and controller, no answer	>Check parlour cables; replace controller; replace display box
255	Communication error: no current source	>Connect a 12 volt power source

Error message E4 can also be displayed alternated with a S-code. The following S-codes can be displayed in combination with E4:

CODE	MEANING
S 10	RESET BUTTON PUSHED IN OR EXTERNAL RESET, WHILE MILK METER IS STILL MEASURING
S 11	LIFTING THE CLUSTER, WHILE ACR BLOCKAGE IS SET
S 12	ACR BUTTON IS PUSHED IN WHILE NO ACR IS SET OR MILK METER IS NOT IN MILKING PHASE



If error code **E7** is displayed on Display Box (value cannot be changed) check the following:

A Security box is correctly plugged in.

Check that the display boxes were not in test before the security box was plugged in.

Remove the display box lid and check the communication voltage at pins 6 and 7. This should be a minimum of 10 volts DC.

If this voltage is less than 10 volts DC check the wash reset box PCB input/output voltage at follows pins 1 and 2 (input voltage) 12/14 volt DC, pins 8 and 9 or 11 and 12 (output voltage) 12 volts DC.

If the input voltage is ok but the output voltage is less than 8 volts the PCB needs replacing.

If the output voltage pins 8, 9 and 11, 12 is ok start to check each display box communication voltage pins 6 and 7. The quick way to do this is to put each box in test starting from the wash reset box end of the parlour and try to make a change. If you do not get an error E7 then move to the next box and so on until you find a box showing E7 this means there is a breakdown of communication between that box and the previous one. In this case check pins, wires and the cable between the 2 boxes.

