JPC-100 manual

Pump controllers for JFC-100 FarmCat.

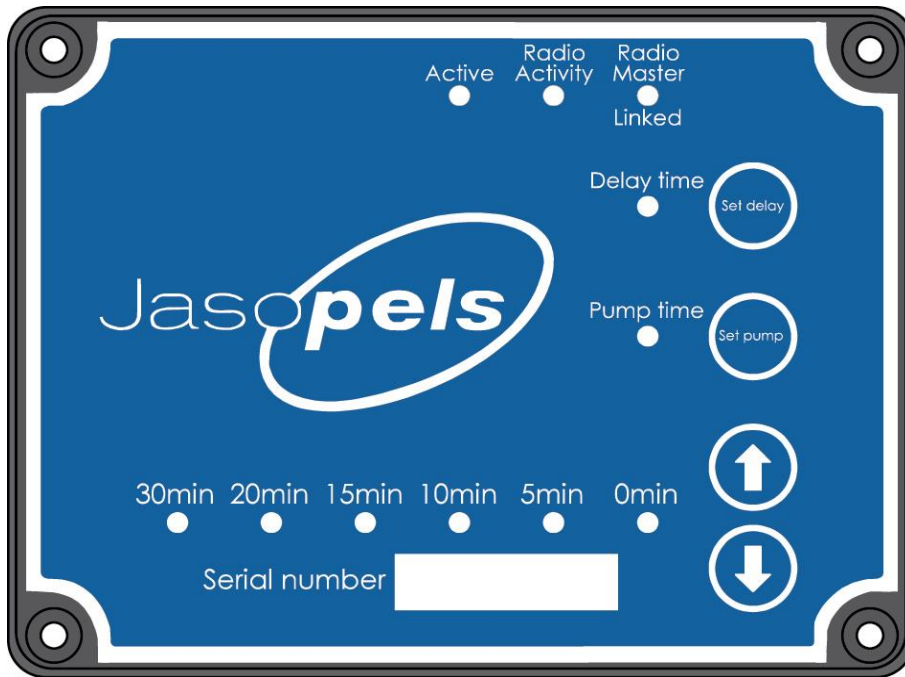Date: 2013-08-20

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1)   FarmCat pump controller

JPC-100 is a controller for starting/stopping the pump for manure removal. The controller has 1 relay output, which is activated in a selectable period from 5 seconds to 30 minutes.

A start time for FarmCat JFC-100 is synchronized via radio signal. It can be delayed by 0..30 minutes comparing with the start of JFC-100.

2)   Operation
2.1) Font label

2.2) LED

a)   "Active" LED light blinks once per second during normal operation.
"Active" LED light flashes constantly while setting the delay time or pump time.

b)   "Radio activity" LED light blinks shortly when JFC-100 Master sends radio signals.

c)   "Radio Master / Linked":
- Blinks shortly once per second when there is a radio connection to JFC-100 "Radio Master".

d)   "Delay time":
- On when the manure removal has started, but waiting for the set delay of the pump.

e)   "Pump time":
- On when the pump relay is active.

f)   30min, 20min, 15min, 10min, 5min, 0min:
- During the manure removal the remaining delay/pump time is shown.

2.3) Keys

a)   "Set delay"
- Switches to setting the delay from start of JFC-100 "Radio Master" to start of the pump.
- The delay can now be set using the arrow keys.
- 5 seconds after the last change the settings are saved permanently and the system goes back to the regular operation mode.

b)   "Set pump"
- Switches to setting the pump time.
- The pump time can now be set using the arrow keys.
- 5 seconds after the last change the settings are saved permanently and the system goes back to the regular operation mode.

- If 0 min. is chosen as the pump time, a short 5-second pulse will appear.

3)   JFC-100 "Radio Master" setup

JPC-100 pump controller is designed to synchronize against JFC-100 FarmCat "Radio Master". It is therefore necessary to change the settings of the JFC-100 to "Radio Master" mode.

Important: There can only be one JFC-100 set to "Radio Master" mode in every shed.

Setup of JFC-100 Radio Master:

1.   Activate the operation:
- Hold both arrow keys down for 1,5 seconds.
- "Active" LED light will flash constantly now.

2.   Hold "Setup" keys down for 1,5 seconds.

- LED light which indicates the value of a set interval between manure removals will now blink.

3.   Press "Manual Start/Stop" untill "Radio Master" LED light flashes constantly.

4.   Press "Setup" again (the settings are saved).

5.   "Radio Master" LED light will always flash constantly from now on and "Radio Activity" LED light will blink shortly once in every 5 seconds.

4) JPC-100 firmware version history

Date	Init	Ver.	Description
2013-08-19	KT	0.4	First version. Approved by Kurt Pedersen 2013-08-16 (at Jokertech) Revision reg. Pump LED (Esben Kristensen / Knud Tangsgaard).

Technical data :

Power supply	:	24VDC
Relay output	:	24V ac/dc – 8A
Dimensions	:	Height 60 mm
		Width 90 mm
		Length 120 mm
Connection	:	2x Pg7 fitting
Tightness class	:	IP65
Accessories	:	100-240Vac to 24VDC DIN Power supply
		Part number: DR-15-24

5) Connection scheme – Diagram

Pumpestyring tilslutningsskema.
JPC-100 V.4.00 - 10102013

Pumpestyring JPC-100

Pumpe kontrol Relæ, soft starter

Pumpe

Powersupply DR-15-24

N
F
230VAC

* Når JPC-100 er aktiv (Skal aktivere pumpen) skifter relæet og aktiverer pumpestyringen.