

Instruction Manual

RDK-100/110/200/300 Supplementary Manual

Version 1.4 (June, 2015)

1. Introduction

Our RDK-100/110/200/300 controller can be used to control coil heaters that draw less than 5A current. But parameters should be optimized for each type of coil heaters with different power ratings. For two commonly seen coil heaters on the market, 250W and 100W coil heaters, the recommended parameters settings are given in this manual.

2. RDK-100/110 Controller

Press SET key once, enter access code "0036", then press SET again to enter the control parameter setting mode. Please see Table 1 for the value of each parameter. Please see Figure 1 for a flow chart of how to set parameters. **For a 100W coil, please set P = 2.0; for a 250W coil, P = 5.0. Other settings are the same.**

Table 1. Control parameters in RDK-100/110 under access code "0036".

Symbol	Display	Description	Range	250W Coil	100W Coil
P	p	Proportional band (in 0.1 degree)	0-999	5.0	2.0
I	I	Integral constant (second)	0-999	40	40
d	d	Derivative constant (second)	0-999	10	10
SouF	SouF	Damp Constant	0.1~1.0	0.4	0.4
ot	ot	Cycle Rate	2-199(sec)	2	2
FILT	FILT	Digital Filter Strength	0-3	0	0
End	End	Exit			

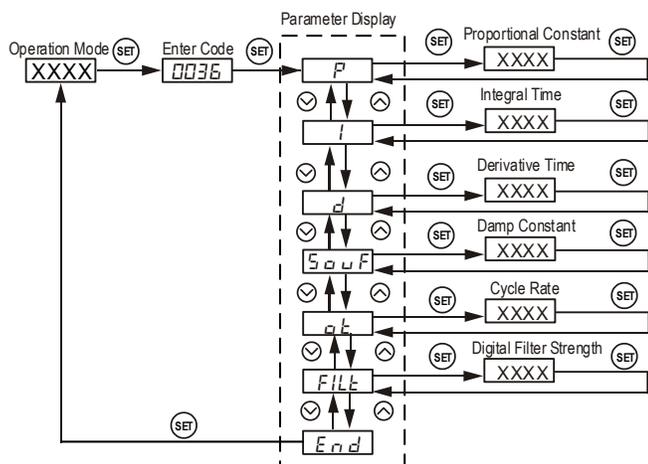


Figure 1. Flow chart of how to change parameters under code 0036.

3. RDK-200/300 Controller

Press down and hold the knob down for 5s, turn the knob to change the access code to "166", then press knob once again to confirm. You will enter parameter setting mode. Please see Table 2 for the value of each parameter. Please see

Figure 2 for a flow chart of how to set parameters. **For a 100W coil, set OTH = 100%; for a 250W coil, set OTH = 40%. Other settings are the same for these two coil heaters.**

Table 2. Parameters in RDK-200/300 under access code "166".

Symbol	Display	Description	Range	250W Coil	100W Coil
P	p	Proportional band (in 0.1 degree)	0-999	125	125
I	I	Integral constant (second)	0-999	60	60
d	d	Derivative constant (second)	0-999	10	10
o t H	OTH	Output high limit	0-100	40%	100%

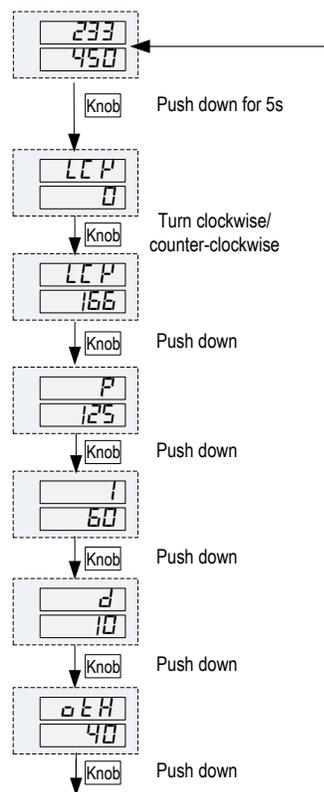


Figure 2. Flow chart of how to change the parameters under code 166. This is an example of RDK200/300 controller.

Auber Instruments Inc.

5755 North Point Parkway, Suite 99,
Alpharetta, GA 30022
www.auberins.com

E-mail: info@auberins.com Tel: 770-569-8420

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