

# HEATEC TEC-NOTE

Publication No. 5-04-120 Revised 10-11-04

## Setting Honeywell controllers used with Heatec vertical asphalt tanks

This document provides information for setting Honeywell controllers DC230B-EE-20-10-0A00000-00-0 (**Figure 1**) when used to indicate levels in Heatec asphalt tanks. It applies to six sizes of Heatec vertical tanks equipped with VEGA PULS 65 radar sensors.

The controller indicates levels of asphalt in the tank. Levels are shown in feet, measured from the bottom of the tank. The controller automatically shuts off pumps used to fill the tank when the tank reaches a preset “full” level. It also activates an alarm when the tank is “full.”

When the asphalt level reaches its low-level setting, the controller shuts off the valve that allows hot oil to heat the tank. The low-level setting prevents heating the asphalt when its level is below the heating coils and avoids coking the coils.

Honeywell controllers purchased from Heatec are normally set at our factory and require no further setup. However, the controller can be reset in the field using the information shown in **Figure 2**.

*Honeywell UDC 2300 Universal Digital Controller User Manual* is furnished with each controller. Please refer to this manual for instructions on using the buttons to set the controller.

### COORDINATION OF SETTINGS

Certain settings of the Honeywell controller should be coordinated with the settings on the radar sensor. Thus, when you change settings on

the radar sensor, you should also change settings on the Honeywell controller.

The latest changes to the radar settings are made in Heatec Tec-Note 5-04-116, Revised 10-11-04: *Setting up Vega radar sensors for Heatec vertical asphalt tanks*.

***So it is extremely important for you to change the settings of the Honeywell controller when you make the changes shown in that Tec-Note. Failure to change these settings will result in erroneous level indications and improper shutdown control!***

New settings on the Honeywell controller are highlighted in yellow.



Figure 1. Honeywell Controller DC230B-EE-20-10-0A00000-00-0.

**Figure 2. Settings for Honeywell Controller DC230B-EE-20-10-0A00000-00-0 used with Heatec vertical asphalt tanks.**

Group Prompt	Function Prompt	Capacity (gallons) of Heatec vertical asphalt tanks					
		10,000	15,000	20,000	25,000	30,000	35,000
TIMER	TIMER	DIS	DIS	DIS	DIS	DIS	DIS
TUNING	CYCT1 or CT1 X3	1	1	1	1	1	1
	SECUR	0	0	0	0	0	0
	LOCK	NONE	NONE	NONE	NONE	NONE	NONE
	A TUNE	DIS	DIS	DIS	DIS	DIS	DIS
	RN HLD	DIS	DIS	DIS	DIS	DIS	DIS
	SP SEL	DIS	DIS	DIS	DIS	DIS	DIS
SPRAMP	SPRAMP	DIS	DIS	DIS	DIS	DIS	DIS
ATUNE	FUZZY	DIS	DIS	DIS	DIS	DIS	DIS
	TUNE	DIS	DIS	DIS	DIS	DIS	DIS
ALGOR	CTRALG	ONOF	ONOF	ONOF	ONOF	ONOF	ONOF
	OUTALG	RLY	RLY	RLY	RLY	RLY	RLY
	RLY TY	MECH	MECH	MECH	MECH	MECH	MECH
INPUT1*	DECIMAL	888.8	888.8	888.8	888.8	888.8	888.8
	UNITS	NONE	NONE	NONE	NONE	NONE	NONE
	IN1TYP	4-20	4-20	4-20	4-20	4-20	4-20
	XMITR1	LIN	LIN	LIN	LIN	LIN	LIN
	IN1 HI	14.50	22.50	28.50	36.50	42.50	48.50
	IN1 LO	0.00	0.00	0.00	0.00	0.00	0.00
	RATIO1	1.0	1.0	1.0	1.0	1.0	1.0
	BIAS 1	0.0	0.0	0.0	0.0	0.0	0.0
	FILTR1	1	1	1	1	1	1
	BRNOUT	NONE	NONE	NONE	NONE	NONE	NONE
	FREQ	60	60	60	60	60	60
	DISPLY	PR N	PR N	PR N	PR N	PR N	PR N
	LNGUAG	ENGL	ENGL	ENGL	ENGL	ENGL	ENGL
CONTRL	LSP'S	ONE	ONE	ONE	ONE	ONE	ONE
	SP TRK	NONE	NONE	NONE	NONE	NONE	NONE
	PWR UP	ALSP	ALSP	ALSP	ALSP	ALSP	ALSP
	SP Hi	0.00	0.00	0.00	0.00	0.00	0.00
	SP Lo	0.00	0.00	0.00	0.00	0.00	0.00
	ACTION	REV	REV	REV	REV	REV	REV
	HYST	100.0	100.0	100.0	100.0	100.0	100.0
	FAILSF	0.0	0.0	0.0	0.0	0.0	0.0
OPTION	AUXOUT	IN1	IN1	IN1	IN1	IN1	IN1
	0 PCT	0.0	0.0	0.0	0.0	0.0	0.0
	100 PCT	14.5	22.5	28.5	36.5	42.5	48.5
ALARMS	A1S1VA	1.00	1.00	1.50	1.50	1.50	1.50
	A2S1VA	13.70	21.70	27.70	35.70	41.70	47.70
	A1S1TY	IN 1	IN 1	IN 1	IN 1	IN 1	IN 1
	A1S2TY	NONE	NONE	NONE	NONE	NONE	NONE
	A2S1TY	IN 1	IN 1	IN 1	IN 1	IN 1	IN 1
	A2S2TY	NONE	NONE	NONE	NONE	NONE	NONE
	A1S1HL	LOW	LOW	LOW	LOW	LOW	LOW
	A2S1HL	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
	ALHYST	0.1	0.1	0.1	0.1	0.1	0.1
	ALARM1	NO L	NO L	NO L	NO L	NO L	NO L
	BLOCK	DIS	DIS	DIS	DIS	DIS	DIS

**Make settings in the following order: ALGOR, INPUT1, CONTROL, OPTION, ALARMS, TIMER, TUNING, SPRAMP, ATUNE.**

**\*Make sure group prompt INPUT1 is in SET Up mode (not CAL mode).**