




IR33 Platform – Technical tips


- IR33S / DN33S / MD33A are defaulted to enable "off cycle" defrost. To make the controller cooling only r3 must be equal to 1 (H1 is now not used for this purpose).
- Any of the sensors can be programmed to be continually shown on the controllers LED display. If the temperature shown is not correct check that parameter "/tI"=1 or 2. Other options are 3=Probe 2, 4=Probe 3 etc.
- The temperature alarm can now be programmed to be relative or absolute. Default is relative (A1 = 0) meaning if AH = +5 then the high alarm is Set point + 5 deg C. If A1 = 1 and AH = +5 then no matter what the set point I, the high alarm point is +5 deg C.
- It is important to note that when saving parameter changes that the "PRG" key must now be pressed for **approx 5 seconds** (until the temperature comes onto the display).
- For existing IR32 users the main parameters have basically remained unchanged. Differential is still rd, defrost interval is still dI etc. With the addition of the option to manage a second evaporator, dP (defrost duration) and dt (defrost terminate temperature) have been replaced by dP1, dP2 and dt1, dt2 respectively. For normal operation the customer only needs to set dP1 and dt1. (d_2 is only used when second evaporator management is enabled).
- Real time defrost and HACCP functions are only available in models with Real Time Clock. Models without RTC will not permit the associated parameters to be adjusted.
- On the "cheat sheet" we have highlighted in bold the main parameters that need adjusting for basic operation.
- For IR33C with only one sensor (no evaporator sensor), the alarm E1 (faulty evap sensor) is disabled by setting /A2 = 0 (probe 2 not present). Parameter d0 does not disable this alarm.

IR33 Platform – Programming

Set Point (cut out temp)

PRESS & hold for 2 sec  Set point value will be displayed



PRESS  or  To display required Set Point

PRESS  To confirm and save Set Point


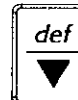
(Or adjust parameter "St")

HACCP Parameters

To view HACCP alarm details

PRESS  &  "HAn" will be displayed (Follow normal prog. steps to view parameters)

To clear HACCP alarm (HACCP Flashing with HA) when in HACCP Menu

After 5 seconds **PRESS & hold for 5 sec**  &  "rES" will be displayed to indicate the alarm is reset


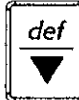
Parameter Access

"F" (frequent parameters)

PRESS & hold for 5 sec  "St" will be displayed

"C" (configuration parameters)

PRESS & hold for 5 sec  &  "0" will be displayed



PRESS  or  To display "22" (This is the Password)

PRESS  To confirm password entry



See steps below for parameter modification


Parameter Modification

Once level "F" or "C" has been accessed


PRESS  or  To display the parameter to be modified (eg rd = diff)

PRESS  To display the value the parameter is set to

PRESS  or  To adjust the value of the parameter (eg rd = 2.0)

PRESS  To display code of the parameter modified (eg rd)

Repeat above steps until all required parameters have been programmed



PRESS & hold for 5 sec  This is **IMPORTANT**. Without this step your parameters will not be saved!

Block Level Access

Block programming access allows the user to scroll between menu blocks rather than scrolling through the complete parameter list

Once level "F" or "C" has been accessed and a parameter code is displayed,

PRESS for 1 sec  To display block code eg Pro for Probes, dEF for defrost

PRESS  or  To display the next block code (eg FAn for fan)

PRESS 

Follow these steps to adjust individual parameters

PRESS  **IMPORTANT:** Press and hold PRG for 5 sec when programming is completed (At any time to go back to block programming and repeat above)

IR33 Platform – Parameters

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
/2	Pro	Measurement stability	MSC	-	C	1	15	4	
/3	Pro	Probe display speed	MSC	-	C	0	15	0	
/4	Pro	Virtual probe (averaging on room & evap) 0 = not active	MSC	-	C	0	100	0	
/5	Pro	Select °C or °F (0 = °C)	MSC	flag	C	0	1	0	
/6	Pro	Decimal point (0 = decimal point between -19.9 & +19.9)	MSC	flag	C	0	1	0	
/11	Pro	Sensor displayed on controller (1 or 2 = Control sensor)	MSC	-	C	1	7	1	
/1E	Pro	Sensor shown on remote display	MSC	-	C	0	6	0	
/P	Pro	Type of probe (0=standard Carel NTC, 1=High Temp NTC)	MSC	-	C	0	2	0	
/A2	Pro	Probe 2 configuration (eg 2=evap,3=cond, 4=low T cut out)	MSC	-	C	0	4	2	
			-S-	-	C	0	4	0	
/A3	Pro	Probe 3 configuration (eg 0 = absent 2=evap,3=cond)	MSC	-	C	0	4	0	
/A4	Pro	Probe 4 configuration (eg 0=absent,2=evap,3=cond)	MSC	-	C	0	4	0	
/A5	Pro	Probe 5 configuration (eg 0=absent,2=evap,3=cond)	-SC	-	C	0	4	0	
/c1	Pro	Calibration of probe 1	MSC	°C/°F	C	-20	20	0.0	
/c2-5	Pro	Calibration of probe 2-3-4-5 / c2=probe 2, / c3=probe 3	MSC	°C/°F	C	-20	20	0.0	
St	Ctl	Temperature set point	MSC	°C/°F	F	r1	r2	0.0	
rd	Ctl	Controller differential	-SC	°C/°F	F	0.1	20	2.0	
m	Ctl	Dead Zone (when used in 1 Heat 1 Cool mode)	-SC	°C/°F	C	0	60	4	
rr	Ctl	Reverse (heat) diff in dead zone control	-SC	°C/°F	C	0.1	20	2	
r1	Ctl	Minimum Set Point allowed	MSC	°C/°F	C	-50	r2	-50	
r2	Ctl	Maximum Set Point allowed	MSC	°C/°F	C	r1	200	60	
r3	Ctl	Mode 0 = cool with defrost, 1 = cool only, 2 = heating	-SC	flag	C	0	2	0	
r4	Ctl	Value to increase Set Point by from Digital Input (see A4..)	MSC	°C/°F	C	-20	20	3.0	
r5	Ctl	Enable temperature monitoring (1 = yes)	MSC	flag	C	0	1	0	
rt	Ctl	Temperature monitoring interval (display only parameter)	MSC	hours	F	0	999	-	
rH	Ctl	Max temperature recorded during period rt (display only)	MSC	°C/°F	F	-	-	-	
rL	Ctl	Min temperature recorded during period rt (display only)	MSC	°C/°F	F	-	-	-	
c0	CnP	Compressor and fan start delay at power up	-SC	min	C	0	15	0	
c1	CnP	Minimum time between 2 compressor starts	-SC	min	C	0	15	0	
c2	CnP	Minimum compressor OFF time	-SC	min	C	0	15	0	
c3	CnP	Minimum compressor ON time	-SC	min	C	0	15	0	
c4	CnP	Duty setting (in case of control probe failure)	-SC	min	C	0	100	0	
cc	CnP	Duration of continuous cycle (manual activation)	-SC	hours	C	0	15	0	
c6	CnP	Alarm bypass after continuous cycle	-SC	hours	C	0	15	2	
c7	CnP	Maximum Pump-Down (PD) time	-SC	sec	C	0	900	0	
c8	CnP	Compressor start delay after opening Pump Down valve	-SC	sec	C	0	60	5	
c9	CnP	Enable autostart with Pump Down operation	-SC	flag	C	0	1	0	
c10	CnP	Select Pump-Down by time or pressure switch	-SC	flag	C	0	1	0	
c11	CnP	Second compressor start delay	-SC	s	C	0	250	4	
d0	dEF	Defrost type (0= elec / temp term, 1= H.Gas / temp term 2 = elec / time term, 3 = hot gas / time term 4 = pulse)	-SC	flag	C	0	4	0	
dl	dEF	Interval between defrosts (if not using real time)	-SC	hours	F	0	250	8	
dt1	dEF	End defrost temperature, (if d0 = 0 or 1)	-SC	°C/°F	F	-50	200	4.0	
dt2	dEF	End defrost temperature, 2nd evaporator (if selected)	-SC	°C/°F	F	-50	200	4.0	

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
dP1	dEF	Maximum defrost duration	-SC	min	F	1	250	30	
dP2	dEF	Maximum defrost duration, 2 nd evap (if selected)	-SC	min	F	1	250	30	
d3	dEF	Delay starting defrost after stopping comp	-SC	min	C	0	250	0	
d4	dEF	Defrost at power up (0 = no, 1 = yes)	-SC	flag	C	0	1	0	
d5	dEF	Defrost delay at power up (if d4=1)	-SC	min	C	0	250	0	
d6	dEF	Display during def.(0=dF (flash),1=locked,2=dEF)	-SC	-	C	0	2	1	
dd	dEF	Dripping time after defrost	-SC	min	F	0	15	2	
d8	dEF	Bypass alarms after defrost	-SC	hours	F	0	15	1	
d8d	dEF	Alarm delay after door open - from dig in	-SC	hours	C	0	250	0	
d9	dEF	Defrost priority over compressor protection	-SC	flag	C	0	1	0	
d/1/d/2	dEF	Display defrost probe temp d/1=def P1,d/2=def P2)	MSC	°C/°F	F	-	-	-	
dC	dEF	Time basis for defrost (0 = hr/min, 1 = min/sec)	-SC	flag	C	0	1	0	
d10	dEF	Compressor run time for demand defrost	-SC	hours	C	0	250	0	
d11	dEF	Compressor run time temp set for demand defrost	-SC	°C/°F	C	-20	20	1.0	
d12	dEF	Advanced defrost enable	-SC	-	C	0	3	0	
dn	dEF	Nominal defrost duration (smart defrost)	-SC	-	C	1	100	65	
dH	dEF	Proportional factor for variation in 'dI' (smart DF)	-SC	-	C	0	100	50	
A0	ALn	Alarm and fan differential	MSC	°C/°F	C	0.1	20	2.0	
A1	ALn	Type of alarm for AL and AH (0=relative 1=absolute)	MSC	flag	C	0	1	0	
AL	ALn	Low alarm temp (see A1 for absol. or relative)	MSC	°C/°F	F	-50	200	0.0	
AH	ALn	High alarm temp (see A1 for absol. or relative)	MSC	°C/°F	F	-50	200	0.0	
Ad	ALn	Low and high temperature alarm delay	MSC	min	F	0	250	120	
A4	ALn	Configuration of digital input 1	-SC	-	C	0	14	0	
A5	ALn	Configuration of digital input 2	MSC	-	C	0	14	0	
A6	ALn	Duty setting for comp from digital in alarm	-SC	min	C	0	100	0	
A7	ALn	External alarm delay if using digital input	-SC	min	C	0	250	0	
A8	ALn	Enable alarms 'Ed1' and 'Ed2' (defrost end on time)	-SC	flag	C	0	1	0	
A9	ALn	Configuration of digital input 3	-SC	-	C	0	14	0	
Ado	ALn	Door switch light management mode	MSC	flag	C	0	1	0	
Ac	ALn	High condenser temperature alarm set point	-SC	°C/°F	C	0.0	200	70.0	
AE	ALn	High condenser temp. alarm differential	-SC	°C/°F	C	0.1	20	10.0	
Accd	ALn	High condenser temp. alarm delay	-SC	min	C	0	250	0	
AF	ALn	Light sensor off time	-SC	s	C	0	250	0	
ALF	ALn	Antifreeze alarm set point	MSC	°C/°F	C	-50	200	-5	
AdF	ALn	Antifreeze alarm delay	MSC	min	C	0	15	1	
F0	Fan	Fan management (0=according to F2,F3,Fd 1 = room - evap, 2 = evap temp (F1 - A0)	---C	flag	C	0	2	0	
F1	Fan	Fan start temperature	---C	°C/°F	F	-50	200	5.0	
F2	Fan	Fans cycle with comp (0 = no, 1 = yes)	---C	flag	C	0	1	1	
F3	Fan	Fans in defrost (0 = on, 1 = off)	---C	flag	C	0	1	1	
Fd	Fan	Fans delay after dripping	---C	min	F	0	15	1	
F4	Fan	Condenser fan off temperature (on aux relay if enabled)	MSC	°C/°F	C	-50	200	40.0	
F5	Fan	Condenser fan differential	MSC	°C/°F	C	0.1	20	5.0	
H0	CnF	Serial address	MSC	-	C	0	207	1	

Code	Block	Parameter	Model	Unit	Type	Min.	Max.	Def.	New
H1	CnF	Function of relay 4 (0,1=alarm,2=aux,3=light,6=cond fan)	MSC	flag	C	0	13	1	
H2	CnF	Keypad and IR locking	MSC	flag	C	0	6	1	
H3	CnF	Remote control enabling code	MSC	-	C	0	255	0	
H4	CnF	Disable buzzer (0=enabled, 1 = disabled)	MSC	flag	C	0	1	0	
H5	CnF	Function of relay 5 – Model specific (refer H1)	MSC	flag	C	0	13	0	
H6	CnF	Buttons to lock when keypad locked	MSC	-	C	0	255	0	
H8	CnF	Select output to activate with time band	MSC	flag	C	0	1	0	
HPr	CnF	Print profile	MSC	-	C	0	15	0	
H9	CnF	Enable set point change with time	MSC	flag	C	0	1	0	
Hdn	CnF	Number of default parameter sets	MSC	flag	C	0	6	0	
Hdh	CnF	Anti-sweat heater control offset	MSC	°C/°F	C	-50	200	0	
HrL	CnF	Enable remote ind. of light status	MSC	flag	C	0	1	0	
HrA	CnF	Enable remote ind. of aux status	MSC	flag	C	0	1	0	
HsA	CnF	Enable alarms on network devices	MSC	flag	C	0	1	0	
In	CnF	Standard control or master or slave	MSC	flag	C	0	6	0	
HAn/HFn	HcP	Number of events HA/HF occurred	MSC	-	C	0	15	-	
HA/HF	HcP	Date/time of most recent HA/HF	MSC	-	C	-	-	-	
y__	HcP	Year	***	years	*	0	99	-	
M__	HcP	Month	***	months	*	1	12	-	
d__	HcP	Day	***	days	*	1	7	-	
h__	HcP	Hour	***	hours	*	0	23	-	
n__	HcP	Minute	***	min	*	0	59	-	
t__	HcP	Duration	***	hours	*	0	99	-	
Htd	HcP	HACCP alarm delay	MSC	min	C	0	250	0	
td1-td8	rtc	Defrost time band 1/8	-SC	-	C	-	-	-	
d__	rtc	Day	***	days	*	0	11	0	
h__	rtc	Hour	***	hours	*	0	23	0	
n__	rtc	Minute	***	min	*	0	59	0	
ton	rtc	Light/aux ON time setting	-SC	-	C	-	-	-	
d__	rtc	Day	***	days	*	0	11	0	
h__	rtc	Hour	***	hours	*	0	23	0	
n__	rtc	Minute	***	min	*	0	59	0	
tof	rtc	Light/aux OFF time setting	-SC	-	C	-	-	-	
d__	rtc	Day	***	days	*	0	11	0	
h__	rtc	Hour	***	hours	*	0	23	0	
n__	rtc	Minute	***	min	*	0	59	0	
tc	rtc	RTC date/time setting	MSC	-	C	-	-	-	
y__	rtc	Years	***	years	0	0	99	00	
M__	rtc	Month	***	months	1	1	12	1	
d__	rtc	Day of the month	***	days	1	1	31	1	
u__	rtc	Day of the week	***	days	6	1	7	6	
h__	rtc	Hour	***	hours	0	0	23	0	
n__	rtc	Minute	***	min	0	0	59	0	