DT220 Scale Basic rev h

Scale Basic Instructions

Add	[200] [reg1][reg2][reg3]	reg1 = reg2 + reg3 [T]
Sub	[201] [reg1][reg2][reg3]	reg1 = reg2 - reg3
Mul	[202] [reg1][reg2][reg3]	reg1 = reg2 * reg3
Div	[203] [reg1][reg2][reg3]	reg1 = reg2 / reg3
Inc	[204] [reg]	reg = reg + 1
Dec	[205] [reg]	reg = reg - 1
Copy	[206] [reg1][reg2]	reg1 = reg2 [T][T]
Sign	[207] [reg]	status = reg (+/-/0)[T]
Compare	[208][reg1][reg2]	status =sign (reg1-reg2) [T]
Dp adjust	[212] [reg] [pos]	set decimal position for reg
Set	[209] [reg] [number]	reg = num (0 to 255)
Flag on	[210] [flag no.]	turn flag on (11..16=IDflags)
Flag off	[211] [flag no.]	turn flag off. 0=all off
Set pt on	[220] [setpoint no.]	activate setpoint mon
Set pt off	[221] [setpoint no.]	0 = all off
Relay on	[222] [relay number]	10 for reg 10 indirect
Relay off	[223] [relay number]	0 = all off
Timer on	[224] [timer number]	turn on timer[1…9]
Timer off	[225] [timer number]	0 turns off all timers
Keybd	[226] [mode] Disable,Normal,Caps,Capsonly, Reg-Big 0, 1, 2, 3, 10…127	
All off	[229]	turn off all setpoints, relays, timers
Valid wt	[219]	wait for valid weight (hb44)
Beep	[233] [nn]	sound beeper [nn] time
Rxmsg	[216] [port][reg]	set **ComX** receive to **reg**
Txmsg	[237] [port][reg]	send **reg** data to **ComX**
Print	[238] [page/reg]	print page / register data
Error msg	[239] [xx][xx]…[0]	display error message
Disp mode	[217] [mode]	set display to mode
Display	[218] [reg] [line]	disp data at line 0..8, 0=cur
Prompt	[232] [xx][xx]..[0]	disp msg (max.32)0=blank
Get key	[230]	get a keypress from the keybd
Get data	[231] [reg]	reg = keyboard entry
Get id	[234] [dir][reg]	open ID [dir] in register
Make id	[235] [dir][reg]	open/make ID[dir] in register
Write id	[228] [dir]	write ID[dir] data to memory
Erase id	[236] [dir][reg]	erase ID[dir] in register
Open id	[190] [dir]	open an existing id in [dir]
Open new	[191] [dir]	open or create an id in [dir]
Delete id	[192] [dir]	delete currently open id in [dir]
Read first	[193] [dir]	read first record in directory [dir]
Read next	[194] [dir]	read next record in directory [dir]

Append id	[195][dir][reg]	append ID to end of table
End if	[240]	end of if condition
If	[241] [condition]	if condition true do
If not	[242] [condition]	if condition not true do
Else	[251]	alternative to if statment
Gosub	[243] [function]	call a scale basic function
Goto	[244] [function]	goto a scale basic function
Loop1 / Next1	[245] / [246]	beginning / end of loop
Loop2 / Next2	[247] / [248]	loop 2 begin / end
Suspend	[249]	suspend until resume
Resume	[250]	resume from suspend
End	[255]	end of an SB function

Condition Codes

SetpointXX	1...15	True if Setpoint 1..15 ON
TimerX	41...49	true if Timer 1..9 ON
FlagX	51...59	true if Flag 1...9 ON
IdXflag	71…76	ID flags [table 1…6]
InputX	61...67	true if TTL input 1...7 idle
Xkey	80…89	true if last key = 0…9
Zero	100	true if prev calc = 0
Positive	101	true if prev calc >= 0
Minus	102	true if prev calc < 0
Netmode	103	true if display in NET mode
Centerz	104	true if weight is at center of 0
Motion	107	true if scale is in motion
Printable	108	true if wt is hb44 printable
Alt units	109	true if display in alt units mode
Qstatus	110	true if quiry = valid wt. or rx 'I'
Barcode	111	true if message received on Com3
Ktare	112	true if tare from keyboard
Wtare	113	true if tare from scale
Tx2ready	114	true if Com port 2 tx ready
Overload	115	true if scale in overload status
Enterkey	105	true if lastkey = Enter
Clearkey	106	true if lastkey = Clear Entry
Caps	119	true if keyboard Caps is on
Rx1msg	116	true if message received Com1
Rx2msg	117	true if message received Com2
Rx3msg	118	true if message received Com3

Registers		
1-31	Reg 1...31	Numeric Registers 1..31
32-39	Id1r1...8	ID 1 numeric registers 1 to 8
40-47	Id2r1...8	ID 2 numeric registers 1 to 8
48-55	Id3r1...8	ID 3 numeric registers 1 to 8
56-63	Id4r1...8	ID 4 numeric registers 1 to 8
64-71	Id5r1...8	ID 5 numeric registers 1 to 8
72-79	Id6r1...8	ID 6 numeric registers 1 to 8
128/159	Text 1…32	Text Registers 1..32
160	Id1key	ID 1 key register
161-167	Id1t2...8	ID 1 text registers 2 to 8
168	Id2key	ID 2 key register
169-175	Id22...8	ID 2 text registers 2 to 8
176	Id3key	ID 3 key register
177-183	Id3t2...8	ID 3 text registers 2 to 8
184	Id4key	ID 4 key register
185-192	Id4t2...8	ID 4 text registers 2 to 8
193	Id5key	ID 5 key register
194-200	Id5t2...8	ID 5 text registers 2 to 8
201	Id6key	ID 6 key register
202-208	Id6t2...8	ID 6 text registers 2 to 8
81	Gross	Gross weight on the scale
82	Tare	Tare weight
83	Net	Net weight on the scale
84	Alt Gross	Gross weight in alternate units
85	Alt Tare	Tare weight in alternate units
86	Alt Net	Net weight in alternate units
87	Sequence	Sequence number
91	Dgross	Gross weight - displayed
92	Dtare	Tare weight - displayed
93	Dnet	Net weight - displayed
210	Time\date	Time and Date
211	Time	Time
212	Date	Date
213	Ftime	Formatted time
214	Fdate	Formatted date
255	Exit	Setpoint always trips
Relays and Timers		
1 – 9	Relay 1…9	Relay outputs
1 – 9	Timer 1…9	Timer events (5 & 6 auto-reload)

DT220 Scale Basic rev h

rev h

Scale Basic Functions

0	Null	Do not execute a function
1-31	UserXX	User Programmable func.
101-109	Relay on x	Turn on Relay 1..9
111-119	Relay off x	Turn off Relay 1..9
127	Units	Toggle primary / alternate units
128	Gross/net	Toggle Gross and Net modes
129	Tare	Execute the TARE function
130	Zero	Execute the ZERO function
131	Set gross	Switch to GROSS display mode
132	Set net	Switch to NET display mode
136	Printmode	Print page1in gross, page 2 in net
137	Update	Update display & refresh wt. regs
143	Weigh	Single step weigh
138	Weigh in	Weigh in function
139	Weigh out	Weigh out function
140	Database	Manage Database Tables
141	Set Time	Set time and date
142	Disp time	Display time and date (line 8)
144	Txmap	Transmit port 2 data
145	Update alt	Update alternate weight reg's
146	Update seq	Inc sequence no. Result in seq reg.
147	Set seq	Set sequence number.
148	Reset seq	Reset sequence number to 1
150	Clear tare	Set tare = 0
250	Resume	Used by Setpoints & Timers

Keyboard Assignments

Function key 1	Weigh	143
Function key 2	Weigh-in	138
Function key 3	Weigh-out	139
Function key 4		
Function key 5		
Function key 6		
Function key 7	Database Mgt	142
Function key 8	Disp time/date	140
Zero key	Zero scale	130
G/N key	Gross/Net tog.	128
Tare key	Tare scale	129
Units key	Units toggle	127
Print key	Print scale data	136

Serial Input Commands

Fxx<cr> execute scale basic function xx
Nxx<cr> select station numb xx (see param. 27)
RRxx<cr> register transmit, xx = reg. number
RTxx<cr> register transmit using RQ format
RQ<status><nnnn><cr> used in networks
RWxx<cr>nnnn<cr> write register, xx = reg.
nnnn = data to write
S return 'I' if event scan is on
I set Qstatus flag on
X0 turn off continuous TX2 transmit
X1 read TX2 data (see parameter 28)
X2 turn on continuous TX2 transmit
<esc> CLEAR key function (ascii 27)
<cr> ENTER key function (ascii 13)
<ctrl I> REVIEW / PRINT key (ascii 9)
<ctrl K> CONTINUE / UNITS key (ascii 11)

Display Modes

0 Big Gross
1 Big Net
2 Display data
10..127 Numeric Reg. “Big” display
3 Small Gross/Tare/Net

Text Register Escape Codes

EZlink	Code	Description
<nnn>	nnn	insert decimal coded ASCII
<RegX>	253 r	insert register min field
[RegX]	254 r	insert reg 7char field right just
{Item}	252 I	insert print item

Event Monitor Status Codes

True	251	activate event if Condition true
False	252	activate event if Condition false

Meter Select

0 – internal weight meter
1 – Condec
2 – AND
3- Cardinal 738
4 – WI110
5 – Toledo 8142
6 – NONE (no weight meter used)