TBLWT

< Previous instruction: TBLRD | Instruction index | Next instruction: TSTFSZ >

TBLWT	Table Write
Syntax:	[*label*] TBLWT (*; *+; *-; +*)
Operands:	None
Operation:	if TBLWT*, (TABLAT) → Holding Register; TBLPTR - No Change; if TBLWT*+, (TABLAT) → Holding Register; (TBLPTR) +1 → TBLPTR; if TBLWT*-, (TABLAT) → Holding Register; (TBLPTR) -1 → TBLPTR; if TBLWT+*, (TBLPTR) +1 → TBLPTR; (TABLAT) → Holding Register;
Status Affected:	None

Encoding:

0000	0000	0000	11nn nn=0 * =1 *+ =2 *- =3 +*

Description: This instruction uses the 3 LSbs of the TBLPTR to determine which of the 8 holding registers the TABLAT data is written to. The 8 holding registers are used to program the contents of Program Memory (P.M.). See Section 5.0 for information on writing to FLASH memory.

The TBLPTR (a 21-bit pointer) points to each byte in the program memory. TBLPTR has a 2 MBtye address range. The LSb of the TBLPTR selects which byte of the program memory location to access.

TBLPTR[0] = 0: Least Significant Byte of Program Memory Word

TBLPTR[0] = 1: Most Significant Byte of Program Memory Word

The `TBLWT` instruction can modify the value of TBLPTR as follows:

- no change
- post-increment
- post-decrement
- pre-increment

Words: 1

Cycles: 2

Q Cycle Activity:

Q1	Q2	Q3	Q4
Decode	No	No	No

	operation	operation	operation
No operation	No operation (Read TABLAT)	No operation	No operation (Write to Holding Register or Memory)

Example1: `TBLWT *+;`

Before Instruction

TABLAT	=	0x55
TBLPTR	=	0x00A356
HOLDING REGISTER (0x00A356)	=	0xFF

After Instructions (table write completion)

TABLAT	=	0x55
TBLPTR	=	0x00A357
HOLDING REGISTER (0x00A356)	=	0x55

Example 2: `TBLWT +*;`

Before Instruction

TABLAT	=	0x34
TBLPTR	=	0x01389A
HOLDING REGISTER (0x01389A)	=	0xFF
HOLDING REGISTER (0x01389B)	=	0xFF

After Instruction (table write completion)

TABLAT	=	0x34
TBLPTR	=	0x01389B
HOLDING REGISTER (0x01389A)	=	0xFF
HOLDING REGISTER (0x01389B)	=	0x34

< Previous instruction: TBLRD | Instruction index | Next instruction: TSTFSZ >