MULLW

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MULLW	Multiply Literal with W
Syntax:	[*label*] MULLW k
Operands:	$0 \le k \le 255$
Operation:	(W) x k → PRODH:PRODL
Status Affected:	None
Encoding:	0000 | 1101 | kkkk | kkkk
Description:	An unsigned multiplication is carried out between the contents of W and the 8-bit literal 'k'. The 16-bit result is placed in PRODH:PRODL register pair. PRODH contains the high byte. W is unchanged. None of the status flags are affected. Note that neither overflow nor carry is possible in this operation. A zero result is possible but not detected.
Words:	1
Cycles:	1

Q Cycle Activity:

Q1	Q2	Q3	Q4
Decode	Read literal 'k'	Process Data	Write registers PRODH: PRODL

Example: MULLW   0xC4

Before Instruction

```
W        =    0xE2
PRODH    =    ?
PRODL    =    ?
```

After Instruction

```
W        =    0xE2
PRODH    =    0xAD
PRODL    =    0x08
```

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