

## MJR DNA Engine Tetrads



**Manufacturer:** MJ Research, Inc.  
**Model Number:** PTC 225  
**Web Address:** [www.mjr.com](http://www.mjr.com)

The DNA Engine Tetrads thermal cycler expands the envelope of discovery beyond the pioneering PTC-200 DNA Engine. It has four times the capacity with a footprint only twice the size, providing very high throughput for laboratories that run massive quantities of reactions, such as sequencing or diagnostic labs.

### DNA Engine Tetrads: Commands

▶ **BLOCK( n, c )** - Selects a sample block. Single blocks installed in a Tetrads cycler are designated as 1,A; 2,A; 3,A, etc.

n	Integer	Indicates the chosen Alpha unit. Range of values: <b>1</b> to <b>4</b> .
c	String	"A" - indicates a single block installed on the Alpha unit, "B" - indicates a double block installed on the Alpha unit.

▶ **BLOCK?( )** - Returns the designation of the current block, i.e. 1,A or 3,B, etc.

▶ **BLOCKID( n )** - Visually identifies the current sample block to the user. Sending this command causes the unit to flash the LED designating the current block.

n	Integer	If n is 0, the LED flashes briefly. If n is 1, the LED flashes indefinitely, until a BLOCKID 0 command or a valid BLOCK n,c command is received. Range of values: <b>0</b> to <b>1</b> .
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▶ **INCUBATE( n )** - Activates the current sample block and immediately takes it to target temperature n.

n	Integer	Incubation temperature in degrees C.
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▶ **INCUBATE?( )** - Returns the target temperature of the current block (if it is active).

▶ **RUN( name, control, lid )** - Initiates the specified program on the current block.

name	String	Identifies a program stored in the unit's internal non-volatile memory (any folder) or the program most recently created in the RAM buffer.
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control	String	"BLOCK" - specifies BLOCK control type. "PROBE" - specifies PROBE control type. "CALC" - specifies CALC control type.
lid	Boolean	true - turns on the lid heater during the run. false - turns off the lid heater during the run.

▶ **RUN?()** - Returns the name of the program running on the current block, the current control method, and the current lid state separated by commas as for a RUN command.

▶ **BLOCKTEMP?()** - Returns the measured temperature of the sample block.

▶ **PROBETEMP?()** - Returns the measured in-sample probe temperature.

▶ **CALCTEMP?()** - Returns the algorithmically calculated sample temperature.

▶ **LIDTEMP?()** - Returns the measured lid temperature.

▶ **CANCEL()** - Aborts the program in progress.

▶ **LID( open )** - Opens or closes the lid of the current block.

open	Boolean	true - opens the lid. false - closes the lid.
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▶ **LID?()** - Returns a string description of the current lid position. OPEN - lid is open. CLOSED - lid is closed. OPENING - lid is opening. CLOSING - lid is closing.

▶ **ISINCUBATING?()** - Indicates if the block is incubating.

▶ **ISRUNNING?()** - Indicates if the block is running a program.

▶ **ISLIDPREHEATING?()** - Indicates if the block is preheating a lid.

## DNA Engine Tetrad: Errors

🔥 **LidError( message )** - Error if the lid does not exist, it is not automated, it is obstructed, lid sensor or mechanical error occurred.

message	String	Error message.
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