Martin David
Form 4
July 20, 2009

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. *See* Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Martin David

(Last) (First) (Middle)

651 CAMPUS DRIVE

(Street)

ST. PAUL, MN 55112

(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading Symbol
Cardiovascular Systems Inc [CSII]

3. Date of Earliest Transaction (Month/Day/Year)
07/16/2009

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
__X__ Director _____ 10% Owner
__X__ Officer (give title below) _____ Other (specify below)
President and CEO

6. Individual or Joint/Group Filing(Check Applicable Line)
_X_ Form filed by One Reporting Person
___ Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	07/16/2009		A		113,132	A	$ 0	162,304	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(*e.g.*, puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)		8. Pri Deriv Secur (Instr
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	
Stock Option (right to buy)	$ 8.83							(1)	07/16/2011	Common Stock	71,170	
Stock Option (right to buy)	$ 8.83							(2)	08/14/2011	Common Stock	38,820	
Stock Option (right to buy)	$ 8.83							(3)	02/14/2012	Common Stock	349,380	
Stock Option (right to buy)	$ 7.9							(4)	06/11/2017	Common Stock	90,580	
Stock Option (right to buy)	$ 12.15							(5)	12/11/2017	Common Stock	242,625	
Stock Option (right to buy)	$ 8.75							(6)	03/01/2019	Common Stock	32,350	

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Martin David 651 CAMPUS DRIVE ST. PAUL, MN 55112	X		President and CEO	

Signatures

/s/ John R. Remakel as Attorney-in-Fact for David L. Martin pursuant to Power of Attorney previously filed. 07/20/2009

**Signature of Reporting Person Date

Explanation of Responses:

***** If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

****** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Exercisable: 3,235 each month beginning 8/17/06.

(2) Exercisable in three equal installments of 12,940 on 8/15/07, 8/15/08 and 8/15/09.

(3) Exercisable: 9,705 each month beginning 3/15/07.

(4) Exercisable: 30,194 on 6/12/08 and 30,193 on 6/12/09 and 6/12/10.

(5) Exercisable: 121,313 on 2/25/10 and 121,312 on 2/25/11.

(6) Exercisable: 16,175 on 3/2/10 and 3/2/11.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.
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