

NIERENBERG INVESTMENT MANAGEMENT CO
Form SC 13D/A
December 28, 2006

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

SCHEDULE 13D
Under the Securities Exchange Act of 1934
(Amendment No. 4)

ELECTRO SCIENTIFIC INDUSTRIES INC. (ESIO)
(Name of Issuer)

Common Stock
(Title of Class of Securities)

285229100
(CUSIP Number)

David Nierenberg
The D3 Family Funds
19605 NE 8th Street
Camas, WA 98607
(360) 604-8600

With a copy to:

Henry Lesser, Esq.
DLA Piper US LLP
2000 University Avenue
East Palo Alto, CA 94303
(650) 833-2000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

December 27, 2006
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D and is filing this schedule because of ss.ss. 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box (TM).

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSON

The D3 Family Fund, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a) |X|
(b) |_|

3 SEC USE ONLY

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

4 SOURCE OF FUNDS*

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED
PURSUANT TO ITEMS 2(d) OR 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Washington

7 SOLE VOTING POWER

486,682 Common shares (1.7 %)

8 SHARED VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY

0

EACH
REPORTING
PERSON

9 SOLE DISPOSITIVE POWER

486,682

WITH

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
For the reporting person listed on this page, 486,682; for all
reporting persons as a group, 2,759,484 shares (9.5 %)

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.5%

14 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT!

2

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSON

The DIII Offshore Fund, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS*

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED
PURSUANT TO ITEMS 2(d) OR 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

7 SOLE VOTING POWER
635,004 common shares (2.2%)

NUMBER OF
SHARES 8 SHARED VOTING POWER
BENEFICIALLY OWNED BY 0

EACH 9 SOLE DISPOSITIVE POWER
REPORTING PERSON 635,004

WITH 10 SHARED DISPOSITIVE POWER
0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
For the reporting person listed on this page, 635,004; for all reporting
persons as a group, 2,759,484 shares (9.5%)

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.5%

14 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT!

3

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSON

The D3 Family Bulldog Fund, L.P.

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS*

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Washington

	7	SOLE VOTING POWER	
			1,637,798 common shares (5.6%)
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	8	SHARED VOTING POWER	0
	9	SOLE DISPOSITIVE POWER	1,637,798
	10	SHARED DISPOSITIVE POWER	0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
For the reporting person listed on this page, 1,637,798; for all reporting persons as a group, 2,759,484 shares (9.5%)

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.5%

14 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT!

1 NAME OF REPORTING PERSON

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSON

Nierenberg Investment Management Company, Inc.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)

(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS*

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED
PURSUANT TO ITEMS 2(d) OR 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Washington

7 SOLE VOTING POWER

0

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

8 SHARED VOTING POWER

2,759,484 shares (9.5%)

9 SOLE DISPOSITIVE POWER

0

10 SHARED DISPOSITIVE POWER

2,759,484 shares

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

For the reporting person listed on this page, 2,759,484; for all reporting persons as a group, 2,759,484 shares (9.5%)

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.5%

14 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT!

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSON

Nierenberg Investment Management Offshore, Inc.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a) |
(b) |

3 SEC USE ONLY

4 SOURCE OF FUNDS*

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED
PURSUANT TO ITEMS 2(d) OR 2(e) |

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

7 SOLE VOTING POWER

0

8 SHARED VOTING POWER

635,004 common shares (2.2%)

9 SOLE DISPOSITIVE POWER

0

10 SHARED DISPOSITIVE POWER

635,004 common shares

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
For the reporting person listed on this page, 635,004 for all reporting
persons as a group, 2,759,484 shares (9.5%)

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES* |

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.5%

14 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT!

This Amendment No. 4 to Schedule 13D (this "Amendment") amends the below-indicated items from the Schedule 13D previously filed by or on behalf of the undersigned parties (the "Reporting Persons") (the "Schedule 13D"), by supplementing such Items with the information below:

Item 4. Purpose of Transaction

On December 27, 2006, the letter attached as Exhibit 1 to this Amendment was sent to the Chairman of the Board of ESIO proposing a special one-time cash dividend of \$4.00 per share. Such letter is incorporated by reference into this Item 4. The Reporting Persons understand from ESIO's Chairman that their dividend proposal will be considered at the meeting of ESIO's Board to be held in mid-January 2007 and will await the outcome of that meeting before making any decisions as to any future action they might take with respect to their proposal.

By reporting the information contained in this Amendment, the Reporting Persons do not intend to solicit, nor are they soliciting, proxies or consents from, nor seeking or requesting any other action by, any of the other stockholders of ESIO. The Reporting Persons have made no decisions as to whether or not they may in the future solicit proxies from any of the other stockholders on any matter that might be brought before the stockholders nor as to whether or not any such solicitation, if made, would be effected as an exempt solicitation under the proxy rules of the Securities and Exchange Commission.

The statements in the letter referred to above as to the views of the Reporting Persons regarding their investment in ESIO represent solely their own analyses and judgments, based on publicly-available information and their own internal evaluation thereof. Those statements are not intended, and should not be relied on, as investment advice to any other investor or prospective investor. To the extent those statements reflect assessments of possible future developments, those assessments are inherently subject to the uncertainties associated with all assessments of future events; actual developments may materially differ as a result of circumstances affecting ESIO and/or extrinsic factors such as developments in the company's industry and the economic environment. The Reporting Persons reserve the right to change their internal evaluation of this investment in the future, as well as to increase or decrease their investment depending on their evaluation, without further amending their Schedule 13D except as required by applicable rules.

Item 5. Interest in Securities of the Issuer

(a, b) The Reporting Persons, in the aggregate, beneficially own 2,759,484 common shares, constituting approximately 9.5% of the outstanding shares.

(c) During the past sixty (60) days the following purchases of Shares were made by D3 Family Funds in open market transactions:

Fund	Transaction Date	Shares Bought	Price
----	-----	-----	-----
D3 Family Bulldog Fund LP	11/27/2006	9,630	19.41
D3 Family Fund LP	11/1/2006	241	19.75
D3 Family Fund LP	11/2/2006	2,500	19.48
D3 Family Fund LP	11/27/2006	4,000	19.41
DIII Offshore Fund LP	11/2/2006	1,729	19.48

Edgar Filing: NIERENBERG INVESTMENT MANAGEMENT CO - Form SC 13D/A

Item 7. Material to be filed as Exhibits

Exhibit 1 to this Amendment is the letter referred to in Item 4.

8

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, each of the undersigned certifies that the information set forth in the Statement is true, complete and correct.

D3 Family Fund, L.P., and D3 Bulldog Fund, L.P.

By: Nierenberg Investment Management Company, Inc.

Its: General Partner

December 28, 2006

By: /s/ David Nierenberg

David Nierenberg, President

DIII Offshore Fund, L.P.

By: Nierenberg Investment Management Offshore, Inc.

Its: General Partner

December 28, 2006

By: /s/ David Nierenberg

David Nierenberg, President

Nierenberg Investment Management Company, Inc.

December 28, 2006

By: /s/ David Nierenberg

David Nierenberg, President

Nierenberg Investment Management Offshore, Inc.

December 28, 2006

By: /s/ David Nierenberg

David Nierenberg, President

9