

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 701

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2007-CDOS-ESS-001-0403		Test Number
Rule or Statute 45.5.2.9.3(a)	The V-VPAT shall consist of the following minimum components: The voting device shall contain a paper audit trail writer or printer that shall be attached, built into, or used in conjunction with the DRE. The printer shall duplicate a voter's selections from the DRE onto a paper record.	DF7-P3-701
		Test Date 9/10/2007
		Test End Date/Time 9/12/2007
		Test Type (D/F/B) Functional
		Eq. Type Amark
Cross Reference 1		Equipment Model Automark
Cross Reference 2		Serial number N/A
Cross Reference 3		Manufacturer ES & S

**Purpose:**

The purpose of this test is to verify that the ~~the~~ selections made on the DRE match the paper record produced by the V-VPAT.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT mirrors the voters selections from a DRE onto a paper record.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarling, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*

**2nd Review**

Jenene Loucks

*Printed name*

**Supervisor Approval**

John Gardner

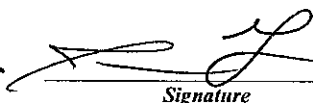
*Printed name*

  
*Signature*

9-13-07  
*Date*

  
*Signature*

9/17/07  
*Date*

  
*Signature*

9/19/07  
*Date*

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Holly Lowder  
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*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 702

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<b>Rule or Statute</b> 45.5.2.9.3(b)	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b> DF7-P3-702
	The V-VPAT shall consist of the following minimum components: The unit or device shall have a paper record display unit or area that shall allow a voter to view his or her paper record.	<b>Test Date</b> 9/10/2007
		<b>Test End Date/Time</b> 9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D,R,B)</b> Functional
		<b>Eq. Type</b> Amark
<b>Cross Reference 2</b>		<b>Equipment Model</b> Automark
		<b>Serial number</b> N/A
<b>Cross Reference 3</b>		<b>Manufacturer</b> ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT component contains a display area for that shows a voter his or her paper record.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT is expected to have a display area for the voter to verify his/her choices before casting the final ballot.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]





## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*

  
*Signature*

9/13/07  
*Date*

**2nd Review**

Denise Lowery

*Printed name*

  
*Signature*

9/17/07  
*Date*

**Supervisor Approval**

John Gardner

*Printed name*

  
*Signature*

9/19/07  
*Date*

State of Colorado  
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Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 703

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<b>Rule or Statute</b>	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b>
45.5.2.9.3(c)	The V-VPAT shall consist of the following minimum components: The V-VPAT unit shall contain a paper record storage unit that shall store cast and spoiled paper record copies securely.	DF7-P3-703
		<b>Test Date</b>
		9/10/2007
		<b>Test End Date/Time</b>
		9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D/F/B)</b>
		Functional
<b>Cross Reference 2</b>		<b>Eq Type</b>
		Amark
<b>Cross Reference 3</b>		<b>Equipment Model</b>
		Automark
		<b>Serial number</b>
		N/A
		<b>Manufacturer</b>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT component safely and securely stores cast and spoiled paper records.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT is expected to safely store cast and spoiled paper records securely.

## Test Log

The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.

[illegible]

## Voting

2007-CDOS-ESS-001-0403

DF7-P3 - 703

[illegible]

## Attachments

*Documents*  
(list all documents)

No

☒Yes ☐

7

**Videos**  
(list all videos)

**No**

☒Yes ☐

7

**Photos**  
(list all photos)

No ☒

☒

**Yes** ☐

5

## Acceptable Compensating Controls

## Results Summary

### Final Test Status

This test is not applicable for this device.

N/A

### 1st Review

## 2nd Review

**Supervisor Approval**

Geneice Mathews

## Scrumo Lomdo

John Gardner

Printed name \_\_\_\_\_

Printed name

Printed name

*Signature*

9.13.07  
Date

*Signature*

Date \_\_\_\_\_

*Signature*

Date \_\_\_\_\_

## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*

**2nd Review**

Jerome Louto

*Printed name*

**Supervisor Approval**

John Gardner


*Printed name*

  
*Signature*

9.13.07  
*Date*

  
*Signature*

9/17/07  
*Date*

  
*Signature*

9/19/07  
*Date*

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*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 704

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<b>Rule or Statute</b>	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b>
45.5.2.9.3(d)	The V-VPAT shall consist of the following minimum components: These devices may be integrated as appropriate to their operation.	DF7-P3-704
		<b>Test Date</b>
		9/10/2007
		<b>Test End Date/Time</b>
		9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D,F,B)</b>
		Functional
<b>Cross Reference 2</b>		<b>Eq Type</b>
		Amark
<b>Cross Reference 3</b>		<b>Equipment Model</b>
		Automark
		<b>Serial Number</b>
		N/A
		<b>Manufacturer</b>
		ES & S

**Purpose:**

The purpose of this test is to confirm if the V-VPAT device is an integrated unit into the DRE system, or if it's an "added" component (photos are expected).

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

The V-VPAT device may be integrated into the DRE, or as an add-on component. Documentation shall specify the solutions' design.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*




[illegible]

[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

## Acceptable Compensating Controls

<i>Results Summary</i>	<i>Final Test Status</i>
This test is not applicable for this device.	N/A

<div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1st Review</div> </div>		<div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">2nd Review</div> </div>		<div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Supervisor Approval</div> </div>	
<div style="text-align: center;">Geneice Mathews</div> <hr/> <div style="text-align: center;"><i>Printed name</i></div>		<div style="text-align: center;">Jerome Lomito</div> <hr/> <div style="text-align: center;"><i>Printed name</i></div>		<div style="text-align: center;">John Gardner</div> <hr/> <div style="text-align: center;"><i>Printed name</i></div>	
<div style="text-align: center;">   <hr/> <i>Signature</i> </div> <div style="text-align: center;"> 9/13/07  <hr/> <i>Date</i> </div>		<div style="text-align: center;">   <hr/> <i>Signature</i> </div> <div style="text-align: center;"> 9/17/07  <hr/> <i>Date</i> </div>		<div style="text-align: center;">   <hr/> <i>Signature</i> </div> <div style="text-align: center;"> 9/19/07  <hr/> <i>Date</i> </div>	

## *Additional Observations and Findings*

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

Printed name



Signature

9/13/07

Date

**2nd Review**

Jenene Louie

Printed name



Signature

9/17/07

Date

**Supervisor Approval**

John Gardner

Printed name



Signature

9/19/07

Date

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Mike Coffman  
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*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 705

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Rule or Statute	2007-CDOS-ESS-001-0403	Test Number
45.5.2.9.4	V-VPAT devices shall allow voters to verify his or her selections on a paper record prior to casting ballots. The voter shall either accept or reject the choices represented on the paper record. Both the electronic record and the paper record shall be stored and retained upon the completion of casting a ballot.	DF7-P3-705
		Test Date
		9/10/2007
		Test End Date/Time
		9/12/2007
Cross Reference 1		Test Type (D/R/B)
		Functional
Cross Reference 2		Eq Type
		Amark
Cross Reference 3		Equipment Model
		Automark
		Serial Number
		N/A
		Manufacturer
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT device allows voters to verify selections prior to casting ballot as required herein.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT is expected to to safely store cast and spoiled paper records securely.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]





## *Additional Observations and Findings*

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

Printed name



Signature


9/13/07

Date

**2nd Review**

Jerome Louie

Printed name



Signature

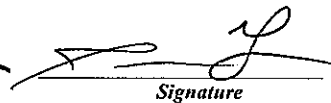
9/17/07

Date

**Supervisor Approval**

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
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1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 706

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.5	The V-VPAT printer connection may be any standard, publicly documented printer port (or the equivalent) using a standard communication protocol.	DF7-P3-706
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D, F, B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT printer connection matches documentation of a publicly documented printer type port using a standard communication protocol.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT printer connection shall be identified to match documentaiton. Connection shall be standard, publicly documented printer type port.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]

[illegible]

<i>Attachments</i>					
<i>Documents</i> <i>(list all documents)</i>	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	<i>Videos</i> <i>(list all videos)</i>	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
				<i>Photos</i> <i>(list all photos)</i>	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>

## Acceptable Compensating Controls

[BIOGRAPHICAL INFORMATION](#)
[CONTACT INFORMATION](#)
[EDUCATION](#)
[EMPLOYMENT](#)
[REFERENCES](#)
[ADDITIONAL INFORMATION](#)

## Results Summary

This test is not applicable for this device.

### Final Test Status

N/A

### 1st Review

Geneice Mathews

Printed name

  
Signature

9.13.07  
Date

## 2nd Review

Sevome Loufo

Printed name

*Signature*

9/17/57  
Date

**Supervisor Approval**

John Gardner

Printed name

  
Signature

9/19/25  
Date

## Additional Observations and Findings

Observations:

N/A

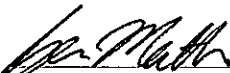
Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

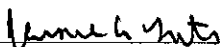
9/13/07

Date

2nd Review

Jenene L. Lento

Printed name



Signature

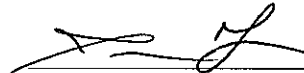
9/17/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 707

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.6	The printer shall not be permitted to communicate with any other device than the voting device to which it is connected.	DF7-P3-707
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to confirm that the V-VPAT device does not have any extraneous connections other than what the documented single connection to the voting booth (photos are expected).

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

The V-VPAT does not establish any extraneous connections.



*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

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page...

[illegible]

Attachment		
<p><i>Documents</i> (list all documents)</p> <p>No <input checked="" type="checkbox"/> Yes <input type="checkbox"/></p>	<p><i>Videos</i> (list all videos)</p> <p>No <input checked="" type="checkbox"/> Yes <input type="checkbox"/></p>	<p><i>Photos</i> (list all photos)</p> <p>No <input checked="" type="checkbox"/> Yes <input type="checkbox"/></p>

## Acceptable Compensating Controls

[illegible]

## Results Summary

This test is not applicable for this device.


### Final Test Status

N/A

### 1st Review

Geneice Mathews

Printed name

  
Signature

9.13.107  
Date

## 2nd Review

Se nome Louro

Printed name


*James L. Rutter*  
Signature

9/17/57  
Date

**Supervisor Approval**

John Gardner

Printed name



  
Signature

9/19/05  
Date

## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

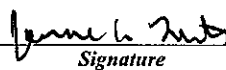
9.13.07

Date

2nd Review

Geneice Mathews

Printed name



Signature

9/17/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 708

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.7	The printer shall only be able to function as a printer, and not perform any other non-printer related services.	DF7-P3-708
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D.F.B)</i>
		Functional
		<i>Eq. Type</i>
<i>Cross Reference 2</i>		Amark
		<i>Equipment Model</i>
		Automark
<i>Cross Reference 3</i>		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT printer does not perform other functions aside from printing.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

The V-VPAT printer does not perform any other functions aside from printing.

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*




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page...

[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

## Acceptable Compensating Controls

<i>Results Summary</i>	<i>Final Test Status</i>
This test is not applicable for this device.	N/A

1st Review		2nd Review		Supervisor Approval	
Geneice Mathews		Jerome Lomito		John Gardner	
Printed name		Printed name		Printed name	
	9/13/07		9/17/07		9/19/07
Signature	Date	Signature	Date	Signature	Date

## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

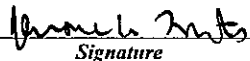
Geneice Mathews

Printed name

  
Signature9.13.07  
Date2nd Review


Jenne Louto

Printed name

  
Signature9/17/07  
DateSupervisor Approval

John Gardner

Printed name

  
Signature9/19/07  
Date



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Department of State  
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Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 709

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<b>Rule or Statute</b>	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b>
45.5.2.9.8	Every electronic voting record shall have a corresponding paper record.	DF7-P3-709
		<b>Test Date</b>
		9/10/2007
		<b>Test End Date/Time</b>
		9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D, F, B)</b>
		Functional
<b>Cross Reference 2</b>		<b>Eq Type</b>
		Amark
<b>Cross Reference 3</b>		<b>Equipment Model</b>
		Automark
		<b>Serial number</b>
		N/A
		<b>Manufacturer</b>
		ES & S

**Purpose:**

The purpose of this test is to verify that each electronic record matches to a V-VPAT printed record.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

Each electronic record is mirrored in a printed paper record.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]



## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

  
Signature9-13-07  
Date2nd Review

Jenne L. Lantz

Printed name

  
Signature9/17/07  
DateSupervisor Approval

John Gardner

Printed name

  
Signature9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 710

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2007-CDOS-ESS-001-0403		Test Number
Rule or Statute 45.5.2.9.10	The V-VPAT device shall be designed to allow every voter to review, and accept or reject his/her paper record in as private and independent manner as possible for both disabled and non-disabled voters.	DF7-P3-710
		Test Date 9/10/2007
		Test End Date/Time 9/12/2007
Cross Reference 1		Test Type (D/A/B) Functional
		Eq Type Amark
Cross Reference 2		Equipment Model Automark
		Serial Number N/A
Cross Reference 3		Manufacturer ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT device allows voters to review, accept or reject paper record in a private and independent manner.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT allows for review of the vote cast. It provides adequate privacy.






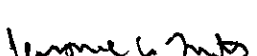
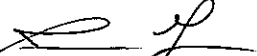
[illegible]

Attachments					
Documents (list all documents)	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	
Videos (list all videos)	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	
Photos (list all photos)	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	

### Acceptable Compensating Controls

\_\_\_\_\_

Results Summary	Final Test Status
This test is not applicable for this device.	N/A

1st Review		2nd Review		Supervisor Approval	
Geneice Mathews		Jerome Lombo		John Gardner	
Printed name		Printed name		Printed name	
	4-13-07		9/17/07		9/19/07
Signature	Date	Signature	Date	Signature	Date

## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

9.13.07

Date

2nd Review

Jerome Londo

Printed name



Signature

9/17/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 711

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<b>Rule or Statute</b>	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b>
45.5.2.9.11	The V-VPAT system shall be designed in conjunction with State Law to ensure the secrecy of votes so that it is not possible to determine which voter cast which paper record.	DF7-P3-711
		<b>Test Date</b>
		9/10/2007
		<b>Test End Date/Time</b>
		9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D/F/B)</b>
		Functional
<b>Cross Reference 2</b>		<b>Eq Type</b>
		Amark
<b>Cross Reference 3</b>		<b>Equipment Model</b>
		Automark
		<b>Serial Number</b>
		N/A
		<b>Manufacturer</b>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT records ensure secrecy so that it is not possible to determine which voter cast which paper record.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT records are designed in such a way to protect voter secrecy.

## Test Log

[illegible]

Continue to next page...

[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

## Acceptable Compensating Controls

Page 1 of 1

## Results Summary

This test is not applicable for this device.

### Einal Test Status

N/A

## 1st Review

Geneice Mathews

Printed name

*Mr. Matts*  
Signature

9-13-57  
Date

### 2nd Review

Jerome Lovato

Printed name

*Signature*

11/14/07  
Date

## Supervisor Approval \_\_\_\_\_

John Gardner

Printed name

  
Signature

9/19/24  
Date

## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

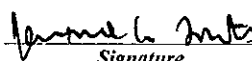
  
Signature

9.13.07  
Date

2nd Review

Jenene Louto

Printed name

  
Signature

9/17/07  
Date

Supervisor Approval

John Gardner

Printed name

  
Signature

9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 712

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.12	The V-VPAT printer shall print at a font size no less than ten (10) points for ease of readability. Any protective covering intended to be transparent shall be in such condition that it can be made transparent by ordinary cleaning of its exposed surface.	DF7-P3-712
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D.F.B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT printer cannot print less than 10 points. Also, verify that display window can be cleaned easily.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPat font size is no smaller than 10 point. Display window can be cleaned with common cleaners.

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

Continue to next page..

## Voting

**2007-CDOS-ESS-001-0403**

DF7-P3 - 712

# 11/23/10

[illegible]

## Attachments

*Documents*  
(list all documents)

*No*

☒Yes ☐

7

*Videos*  
(list all videos)

**No**

4

**Yes** ☐



*Photos*  
(list all photos)

No

7

**Yes** ☐

5

## Acceptable Compensating Controls

## Results Summary

This test is not applicable for this device.

### Final Test Status

N/A

## 1st Review

Geneice Mathews

Printed name

## 2nd Review

Jeune Lovato

Printed name

**Supervisor Approval**

John Gardner

Printed name

*Signature*

911347  
Date

**Signature**

Date \_\_\_\_\_

*Signature*

Date \_\_\_\_\_

## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

2nd Review

Jenne Louto

Printed name

Supervisor Approval

John Gardner

Printed name

Signature

Date

Signature

Date

Signature

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 713

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.13	The V-VPAT system shall be designed to allow each voter to verify his or her vote on a paper record in the same language they voted in on the DRE.	DF7-P3-713
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Gross Reference 1</i>		<i>Test Type (D/F/B)</i>
		Functional
		<i>Eq Type</i>
		Amark
<i>Gross Reference 2</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
<i>Gross Reference 3</i>		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT record prints in the same language as they voted in on the DRE.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT prints in the same language as the one used for voting on the DRE.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]





## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

Printed name

**2nd Review**

Jerome Luvato

Printed name

**Supervisor Approval**

John Gardner

Printed name



Signature

9/13/07

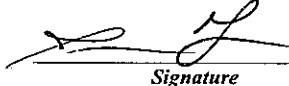
Date



Signature

9/17/07

Date



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 714

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.14	The V-VPAT system shall be designed to prevent tampering with unique keys and/or seals for the compartment that stores the paper record, as well as meet the security requirements of this rule. Additional security measures may be in place on the printer to prevent tampering with the device.	DF7-P3-714
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D, F, B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT can be secured per requirements herein.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT can be secured with tamper evident seals and/or locks with unique keys.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*



*Signature*

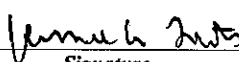
9-13-07

*Date*

**2nd Review**

Seanne Lonto

*Printed name*



*Signature*

9/17/07

*Date*

**Supervisor Approval**

John Gardner

*Printed name*



*Signature*

9/19/07

*Date*

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 715

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.15	The V-VPAT system shall be capable of printing and storing paper record copies for at least 75 ballots cast without requiring the paper supply source, ink or toner supply, or any other similar consumable supply to be changed, assuming a fully printed double sided eighteen (18) inch ballot with a minimum of 20 contests.	DF7-P3-715
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D, F, B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
		<i>Equipment Model</i>
		Automark
<i>Cross Reference 3</i>		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT system shall be capable of printing and storing paper records for at least 75 ballots cast as required herein.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT system accomodates enough paper and printing supplies to store 75 ballots cast before needing to re-stock.



## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*



*Signature*

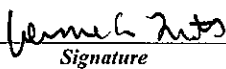
3.13.07

*Date*

**2nd Review**

Deanne Louto

*Printed name*



*Signature*

4/17/07

*Date*

**Supervisor Approval**

John Gardner

*Printed name*



*Signature*

4/19/07

*Date*

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 716

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.16	The V-VPAT unit shall provide a "low supply" warning to the election judge to add paper, ink, toner, ribbon or other like supplies. In the event that an election judge is required to change supplies during the process of voting, the voter shall be allowed to reprint and review the paper audit trail without having to re-mark his or her ballot, and the device shall prevent the election judge from seeing any voters' ballots.	DF7-P3-716
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT has a low paper supply indicator and handles security as required herein.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT has a "low supply" indicator. System allows voter to complete choices and cast vote before judge must change supplies.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

**Observations:**

N/A

**Findings:**

This test is not applicable to this voting device.

**1st Review**

Geneice Mathews

*Printed name*



*Signature*

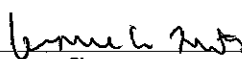
9.13.07

*Date*

**2nd Review**

Jessie Lando

*Printed name*



*Signature*

9/18/07

*Date*

**Supervisor Approval**

John Gardner

*Printed name*



*Signature*

9/19/07

*Date*



State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 717

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.17	As of March 31, 2008, voting systems submitted for certification shall stop the V-VPAT printer of all forward operations of the DRE if the printer is not working due to paper jams, out of supply of consumables, or other issue which may cause the correct readable printing of information on the V-VPAT record as designed.	DF7-P3-717
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

This test is Not Applicable at this time - application for certification is prior to 3/31/2008.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

N/A until after 3/31/2008

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*




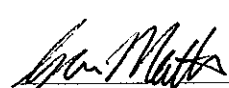
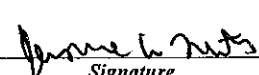
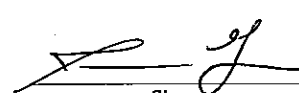
[illegible]

[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

### Acceptable Compensating Controls

<i>Results Summary</i>	<i>Final Test Status</i>
This test is not applicable for this device.	N/A

<div style="text-align: center;">  </div>		<div style="text-align: center;">  </div>		<div style="text-align: center;">  </div>	
<div style="text-align: center;"> Geneice Mathews  <hr/> Printed name </div>		<div style="text-align: center;"> Jenene Loub  <hr/> Printed name </div>		<div style="text-align: center;"> John Gardner  <hr/> Printed name </div>	
<div style="text-align: center;">   <hr/> Signature </div>		<div style="text-align: center;"> 9/13/07  <hr/> Date </div>		<div style="text-align: center;">   <hr/> Signature </div>	
		<div style="text-align: center;"> 9/18/07  <hr/> Date </div>		<div style="text-align: center;">   <hr/> Signature </div>	
				<div style="text-align: center;"> 9/19/07  <hr/> Date </div>	

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Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 718

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<b>Rule or Statute</b>	<b>2007-CDOS-ESS-001-0403</b>	<b>Test Number</b>
45.5.2.9.19(a)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Name or header information of race, question or issue;	DF7-P3-718
		<b>Test Date</b>
		9/10/2007
		<b>Test End Date/Time</b>
		9/12/2007
<b>Cross Reference 1</b>		<b>Test Type (D/F/B)</b>
		Functional
<b>Cross Reference 2</b>		<b>Eq Type</b>
		Amark
<b>Cross Reference 3</b>		<b>Equipment Model</b>
		Automark
		<b>Serial number</b>
		N/A
		<b>Manufacturer</b>
		ES & S

**Purpose:**

The purpose of this test is to verify that the printed portion of the V-VPAT record contains the name or header information of race, question or issue.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT prints the name or header information of race, question or issue.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]





## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

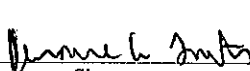
  
Signature

9.13.07  
Date

2nd Review

Geneice Mathews

Printed name

  
Signature

9/19/07  
Date

Supervisor Approval

John Gardner

Printed name

  
Signature

9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 719

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.19(b)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Voter's selections for the race information;	DF7-P3-719
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D.F.B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT prints the voters' selections for the races chosen.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT accurately prints the voter's selections for races.

## Test Log

Date	Time	Operator	Activities and Entries	Incident Reports
------	------	----------	------------------------	------------------

[illegible]

## Voting

2007-CDOS-ESS-001-0403

DF7-P3 - 719

## References

[illegible]

## Attachments

*Documents*  
(list all documents)

No



Yes ☐

9

**Videos**  
(list all videos)

**No**

7

**Yes** ☐



*Photos*  
(list all photos)

No

No ☒

**Yes** ☐

## Acceptable Compensating Controls

## Results Summary

This test is not applicable for this device.

### Final Test Status

N/A

### 1st Review

Geneice Mathews

Printed name

*Signature*

*Signature*

## 2nd Review

Jerome Louko

*Printed name*


*James L. Houts*  
Signature

**Signature**

**Supervisor Approval**

John Gardner

Printed name

  
Signature

*Signature*

9/19/21  
Date

Date \_\_\_\_\_

## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

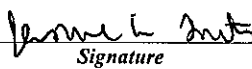
9/13/07

Date

2nd Review

Jerome Louto

Printed name



Signature

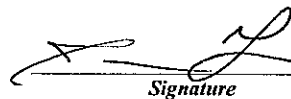
9/18/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 720

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.19(c)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Write-in candidate's names if selected;	DF7-P3-720
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D.F.B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify the V-VPAT will print the keyed write-in candidate's name if used by the DRE device.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT will print the write-in name as input by the voter.



## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

### Observations:

N/A

### Findings:

This test is not applicable to this voting device.

#### 1st Review

Geneice Mathews

Printed name

  
Signature

5/13/07  
Date

#### 2nd Review

Denise Loutch

Printed name

  
Signature

9/19/07  
Date

#### Supervisor Approval

John Gardner

Printed name

  
Signature

9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 721

*{This page intentionally left blank}*

<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.19(d)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Undervote or overvote information – this is in addition to the information on the review screen of the DRE;	DF7-P3-721
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Gross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
<i>Gross Reference 2</i>		<i>Eg Type</i>
		Amark
<i>Gross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT gives indication of overvotes and undervotes.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT identifies and prints any overvotes or undervotes.

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]



## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

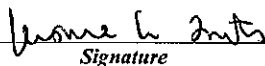
Geneice Mathews

Printed name

  
Signature9/13/07  
Date2nd Review

Jerome L. Lantz

Printed name

  
Signature9/18/07  
DateSupervisor Approval

John Gardner

Printed name

  
Signature9/19/07  
Date



State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 722

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.19(e)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Ability to optionally produce a unique serial number (randomized to protect privacy);	DF7-P3-722
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D/F/B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify if the V-VPAT device has the ability to produce a unique serial number. If serial number is printed on V-VPAT, confirmation that number is randomized.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT allows for the printing of a randomized serial number.

## Test Log

The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.

[illegible]



## Additional Observations and Findings

### Observations:

N/A

### Findings:

This test is not applicable to this voting device.

#### 1st Review

Geneice Mathews

Printed name



Signature

9.13.07

Date

#### 2nd Review

Jerome L. Zito

Printed name



Signature

9/18/07

Date

#### Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* *ESS*

*Application Date:* *04/03/2007*

*Test Number*

DF7-P3 - 723

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.19(f)	The printed information on the printed ballot or verification portion of the V-VPAT device shall contain at least the following items: Identification that the ballot was cancelled or cast.	DF7-P3-723
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Gross Reference 1</i>		<i>Test Type (D/R/B)</i>
		Functional
<i>Gross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Gross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the information printed on the V-VPAT record contains information if the ballot was cast or cancelled.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT prints an indicator of the ballot being cast or cancelled.

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

Continue to next  
page...


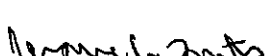



[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

## Acceptable Compensating Controls

<i>Results Summary</i>	<i>Final Test Status</i>
This test is not applicable for this device.	N/A

1st Review		2nd Review		Supervisor Approval	
Geneice Mathews		Terone Lewis		John Gardner	
Printed name		Printed name		Printed name	
	9/13/07		9/18/07		9/19/07
Signature	Date	Signature	Date	Signature	Date

## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

2nd Review

Jerome Lando

Printed name

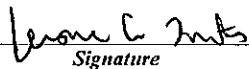
Supervisor Approval

John Gardner

Printed name

  
Signature

9/13/07  
Date

  
Signature

9/18/07  
Date

  
Signature

9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 724

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.20	The V-VPAT shall allow a voter to spoil his or her paper record no more than two (2) times. Upon spoiling, the voter shall be able to modify and verify selections on the DRE without having to reselect all of his or her choices.	DF7-P3-724
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D.F.B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to allow a voter to spoil the paper record no more than 2 times. Voters shall be able to modify ballot after cancellation if less than 2 times.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT allows spoilage of 2 ballots. Voters shall be able to modify and verify selections on DRE without having to reselect previous choices.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]



Environment  
Voting

2007-CDOS-ESS-001-0403

Test Number  
DF7-P3 - 724

## *Additional Observations and Findings*

### Observations:

N/A

### Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

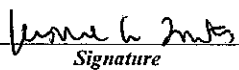
9/13/07

Date

2nd Review

Jerome Lovato

Printed name



Signature

9/19/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 725

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Rule or Statute	2007-CDOS-ESS-001-0403	Test Number
45.5.2.9.21	Before the voter causes a third and final record to be printed, the voter shall be presented with a warning notice that the selections made on screen shall be final and the voter shall see and verify a printout of his or her vote, but shall not be given additional opportunities to change their vote.	DF7-P3-725
		Test Date
		9/10/2007
		Test End Date/Time
		9/12/2007
		Test Type (D-F-B)
		Functional
		Eq Type
		Amark
		Equipment Model
		Automark
		Serial number
		N/A
		Manufacturer
		ES & S
Cross Reference 1		
Cross Reference 2		
Cross Reference 3		

**Purpose:**

The purpose of this test is to verify that the DRE shall inform voters of a 'final notice' or warning that they are on their last chance for voting due to cancellations. Printed record should reflect the notice or cancellation of previous two ballots.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

Voting system will warn voter in a distinct manner that final selections will be cast after cancelling 2 previous paper ballots..

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarting, stop and restoring the system as necessary.*

[illegible]

# West Long

[illegible]

## Attachments

*Documents*  
(list all documents)

*No*



Yes ☐



**Videos**  
(list all videos)

*No*

Yes ☐

*Photos*  
*(list all photos)*

No



**Yes** ☐



## Acceptable Compensating Controls

## Results Summary

This test is not applicable for this device.

### Final Test Status

**N/A**

### 1st Review

Geneice Mathews

---

*Printed name*

## 2nd Review

## Some Lovers

Printed name \_\_\_\_\_

**Supervisor Approval**

John Gardner

---

*Printed name*

*Signature*

Date \_\_\_\_\_

*Signature*

Date \_\_\_\_\_

*Signature*

Date \_\_\_\_\_

## *Additional Observations and Findings*

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

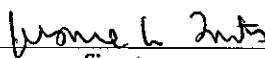
9.13.07

Date

2nd Review

Jerome Lando

Printed name



Signature

9/18/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 726

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.22	All V-VPAT components shall be capable of integrating into existing state testing and auditing requirements of the voting system.	DF7-P3-726
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Gross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
		<i>Eq Type</i>
		Amark
<i>Gross Reference 2</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
<i>Gross Reference 3</i>		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that V-VPAT components can successfully integrate into existing state testing and auditing requirements.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT and DRE combination will integrate with all State required testing, both pre and post election.


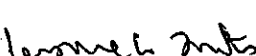

[illegible]

[illegible]

Attachments								
Documents (list all documents)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Videos (list all videos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Photos (list all photos)	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

## Acceptable Compensating Controls

<p><i>Results Summary</i></p> <p>This test is not applicable for this device.</p>		<p><i>Final Test Status</i></p> <p>N/A</p>
---	--	--

1st Review		2nd Review		Supervisor Approval	
Geneice Mathews		Jerome Lousto		John Gardner	
Printed name		Printed name		Printed name	
	9/13/07		9/19/07		9/19/07
Signature	Date	Signature	Date	Signature	Date



## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

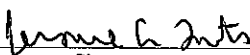
9.13.07

Date

2nd Review

Geneice Mathews

Printed name



Signature

9/19/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 727

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.23	The V-VPAT component should print a barcode with each record that contains the human readable contents of the paper record and digital signature information. The voting system provider shall include documentation of the barcode type, protocol, and/or description of barcode and the method of reading the barcode as applicable to the voting system.	DF7-P3-727
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D,F,B)</i>
		Functional
		<i>Eq Type</i>
<i>Cross Reference 2</i>		Amark
		<i>Equipment Model</i>
		Automark
<i>Cross Reference 3</i>		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT device allows voters to verify selections prior to casting ballot as required herein.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT may print a barcode that contains the human readable contents. If barcode is used, verify that documentation includes barcode type, protocol and method of reading.

## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name

Signature

9/13/07  
Date2nd Review

Jerome Lando

Printed name

Signature

9/19/07  
DateSupervisor Approval

John Gardner

Printed name

Signature

9/19/07  
Date

State of Colorado  
Department of State  
1700 Broadway  
Suite 250  
Denver, CO 80290



Mike Coffman  
Secretary of State

Holly Lowder  
Director of Elections

*CDOS Certification Number:* **2007-CDOS-ESS-001-0403**

*Manufacturer:* **ESS**

*Application Date:* **04/03/2007**

*Test Number*

DF7-P3 - 728

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<i>Rule or Statute</i>	<b>2007-CDOS-ESS-001-0403</b>	<i>Test Number</i>
45.5.2.9.24	The V-VPAT component shall be designed such that a voter shall not be able to leave the voting area with the paper record.	DF7-P3-728
		<i>Test Date</i>
		9/10/2007
		<i>Test End Date/Time</i>
		9/12/2007
<i>Cross Reference 1</i>		<i>Test Type (D, F, B)</i>
		Functional
<i>Cross Reference 2</i>		<i>Eq Type</i>
		Amark
<i>Cross Reference 3</i>		<i>Equipment Model</i>
		Automark
		<i>Serial number</i>
		N/A
		<i>Manufacturer</i>
		ES & S

**Purpose:**

The purpose of this test is to verify that the V-VPAT prevents a voter from taking a paper record from the voting area.

**Prerequisites:**

N/A

**Test Procedures:**

N/A

**Variances Used During Testing:**

N/A

**Test Expected Outcome**

V-VPAT does not allow voter to retain paper record.



## Test Log

*The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.*

[illegible]



## Additional Observations and Findings

Observations:

N/A

Findings:

This test is not applicable to this voting device.

1st Review

Geneice Mathews

Printed name



Signature

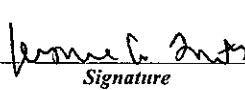
9.13.07

Date

2nd Review

Denise Lando

Printed name



Signature

9/18/07

Date

Supervisor Approval

John Gardner

Printed name



Signature

9/19/07

Date