

**Signals – Attachment 1  
Norfolk Southern:  
Postaccident Test Records**

**Pages - 21**  
(including cover sheet)

MONTH 11/22 YEAR 06

*Relay contact resistance test*

FRA RULES 236.102, 236.107, 236.109, 234.265

GVE  
RBS

DIVISION ALABAMA

HEADQUARTERS Pell City, AL

TERRITORY M.P. 746.5 to M.P. 767.8

MILE POST	LOCATION & AARDOT NUMBER	ENERGY BUSS	GROUND TEST	SIGNAL NUMBER	* SIGNAL MECH SEMAPHORE & SEARCH LIGHT	TIME RELEASE AND TIMING DEVICES				ITEM ADJUSTED, REPAIRED OR REPLACED
						DEVICE	SET	ACTUAL	* DATE	
						QUARTERLY 236.107				
						ANNUALLY 236.109 / 234.265				
747.7	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			
749.0&1	EASTABOGA INTERMEDIATE	B-10								
751.3&4	INTERMEDIATE	B-10								
753.1	ELECTRIC LOCK / DERAIL	B-10				TE	8' 56"			Riverside Int. signal Relay resistance tests. 1-22-06
753.9	ELECTRIC LOCK / DERAIL	B-10				TE	10' 25"			
754.1	LINCOLN BUNGALOW	B-12				ASR	6' 05"			
		B-28								
755.7	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			7604H
756.1	EMBRY BUNGALOW	B-12				ASR	6' 34"			35gr H/F=0 H/B=0.5 32gr H/F=0 H/B=0.5 12gr H/F=0 H/B=0.4
		B-28								
757.4	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			
757.9	COOSA BUNGALOW	B-12				1TE	5' 25"			
		B-28				1TTE	9'-11"			7604BD 32gr H/F=0 H/B=0.5 35gr H/F=0 H/B=0.5
760.4&5	RIVERSIDE INTERMEDIATE	B-10				TE	8' 00"			
761.7	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			
761.7&5	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			PC
761.9	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			12gr H/F=0.5
762.8&9	PELL CITY INTERMEDIATE	B-10				TE	8' 00"			22gr H/F=0.2
763.1	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			
764.2	ELECTRIC LOCK / DERAIL	B-10				TE	8' 00"			

D G Ca/dwell

Signature of employees performing test (in ink)

(\*) Enter Date and Test Code  
 TEST CODES  
 C - Test completed, left in compliance  
 A - Adjustments made, test completed and left in compliance (item shall be identified)  
 R - Repair / replacement made, test completed and left in compliance (item shall be identified)  
 N/A - Not applicable

Form complies with FRA S-96-05

FORM 12000 (9/96)

ITS  
or men perform.

TIME  
CLEARED

Date Jan - 11 - 2005

**NORFOLK SOUTHERN**  
TRACK TIME FORM 23-A

FORM 23-A (Rev. 8/99) (ITEM 113100)

No. 111 To Fox

between Home Sigsbee Amiston may use  
and Released Amiston hons track  
until Released restrictions hons

Time  
reported 8:30 AM

Time control station  
acknowledged report that  
specified tracks are clear

8:28 AM

Roadway Worker Joint Occupancy on Reverse

3 7 9 2 3  
4 7  
EMF



# RELAY TEST

FORM 11577 (REV. 8/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama

LOCATION Riverside

M.P. 760.5

AAR/DOT NO. & CITY/COUNTY/STATE

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

DEVICE DESIGNATION 7604AD

RESISTANCE 900 OHMS

SERIAL NO. F80-54Q

TYPE B-1

SIZE 2.5

MODEL NO. A62-308

DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.004 Amps

MIN.D.A. 0.0034 Amps

P.U./W 0 Amps

P.U. 0.008 Amps

MAX.P.U. 0.0088 Amps

MAX.P.U. 0 Amps

W 0 Amps

TEST DATE	TEST Amps					N. OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W					
1/23/2006	N	0.0046	0.0073	0	0	28.8		admin	C
1/23/2006	R	0	0	0	0	28.8		admin	C

IDENTIFIED ITEM \_\_\_\_\_

TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05



**RELAY TEST**

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

<b>DIVISION</b> Alabama	<b>LOCATION</b> Riverside	<b>M.P.</b> 760.5
<b>AAR/DOT NO. &amp; CITY/COUNTY, STATE</b>		
1 YEAR TEST	2 YEAR TEST	3 YEAR TEST
		4 YEAR TEST YES

<b>DEVICE DESIGNATION</b> 7604BD	<b>RESISTANCE</b> 900 OHMS	<b>SERIAL NO.</b> F80-013
<b>TYPE</b> B-1	<b>SIZE</b> 2.5	<b>MODEL NO.</b> A62-308
<b>DEVICE SPECIFICATION</b>		

<b>NEUTRAL</b>		<b>POLAR</b>	
D.A. 0.004 Amps	MIN.D.A. 0.0034 Amps	P.U./W 0 Amps	
P.U. 0.008 Amps	MAX.P.U. 0.0088 Amps	MAX.P.U. 0 Amps	
W 0 Amps			

TEST DATE	TEST Amps				N.OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				
1/23/2006	N 0.0054	0.0076	0	0	28.8		admin	C
1/23/2006	R 0	0	0	0	28.8		admin	C
IDENTIFIED ITEM								

**TEST CODES**

- C - Test completed, left in compliance
- A - Adjustments made, test completed and left in compliance (item shall be identified)
- R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
- N/A - Not applicable

Form complies with FRA S-96-05



# RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613877

DIVISION Alabama LOCATION Riverside M.P. 760.5  
 AAR/DOT NO. & CITY/COUNTY/STATE  
 1 YEAR TEST 2 YEAR TEST 3 YEAR TEST 4 YEAR TEST YES

DEVICE DESIGNATION 7604H RESISTANCE 900 OHMS SERIAL NO. F80-J58  
 TYPE B-1 SIZE 2.5 MODEL NO. A62-308

NEUTRAL  
 D.A. 0.004 Amps MIN.D.A. 0.0034 Amps POLAR  
 P.U. 0.008 Amps MAX.P.U. 0.0088 Amps P.U./W 0 Amps  
 W 0 Amps MAX.P.U. 0 Amps

TEST DATE	TEST Amps				N.OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				
1/23/2006	N	0.0044	0.0074	0	0	28.8	admin	C
1/23/2006	R	0	0	0	0	28.8	admin	C
IDENTIFIED ITEM _____								

### TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05



# RELAY TEST

FORM 11577 (REV. 8/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

**DIVISION** Alabama

**LOCATION** Riverside

**M.P.** 760.5

**1 YEAR TEST**

**2 YEAR TEST**

**3 YEAR TEST**

**4 YEAR TEST** YES

**DEVICE DESIGNATION** 7605D

**RESISTANCE** 900 OHMS

**SERIAL NO.** F80-015

**TYPE** B-1

**SIZE** 2.5

**MODEL NO.** A62-308

NEUTRAL  
**DEVICE SPECIFICATION**

POLAR

**D.A.** 0.004 Amps  
**P.U.** 0.008 Amps  
**W** 0 Amps

**MIN.D.A.** 0.0034 Amps  
**MAX.P.U.** 0.0088 Amps

**P.U./W** 0 Amps  
**MAX.P.U.** 0 Amps

TEST DATE	TEST Amps				N.O.P.R LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				
1/23/2006	N	0.0044	0.0073	0	0	28.8	admin	C
1/23/2006	R	0	0	0	0	28.8	admin	C
IDENTIFIED ITEM _____								

### TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05



# RELAY TEST

FORM 11577 (REV. 8/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama

LOCATION Riverside

M.P. 760.5

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

DEVICE DESIGNATION 7605H

RESISTANCE 900 OHMS

SERIAL NO. F80-036

TYPE B-1

SIZE 2.5

MODEL NO. A62-308

DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.004 Amps

MIN.D.A. 0.0034 Amps

P.U./W 0 Amps

P.U. 0.008 Amps

MAX.P.U. 0.0088 Amps

MAX.P.U. 0 Amps

W 0 Amps

TEST DATE	TEST Amps				N,OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				

1/23/2006	N	0.0041	0.0071	0	0	28.8	admin	C
1/23/2006	R	0	0	0	0	28.8	admin	C

IDENTIFIED ITEM \_\_\_\_\_

TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05





# RELAY TEST

FORM 11577 (REV. 8/04)

ITEM 613677

FRA RULES 234.263, 236.102, 236.106

DIVISION Alabama LOCATION Riverside M.P. 760.5

1 YEAR TEST 2 YEAR TEST 3 YEAR TEST 4 YEAR TEST YES

DEVICE DESIGNATION WT RESISTANCE 900 OHMS SERIAL NO. F80-00R  
TYPE B-1 SIZE 2.5 MODEL NO. A62-308

NEUTRAL  
D.A. 0.004 Amps MIN.D.A. 0.0034 Amps POLAR  
P.U. 0.008 Amps MAX.P.U. 0.0088 Amps P.U./W 0 Amps  
W 0 Amps MAX.P.U. 0 Amps

TEST DATE	TEST Amps						N.OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.	P.U./W					
1/23/2006	N	0.0044	0.0072	0	0	0	28.8	admin	C	
1/23/2006	R	0	0	0	0	0	28.8	admin	C	

### TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05



RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama LOCATION Coosa M.P. 757.9  
AAR/DOT NO. & CITY/COUNTY, STATE  
1 YEAR TEST 2 YEAR TEST 3 YEAR TEST 4 YEAR TEST YES

DEVICE DESIGNATION LEAD RESISTANCE 900 OHMS SERIAL NO. F80-17R  
TYPE B-1 SIZE 2.5 MODEL NO. A62-308

NEUTRAL POLAR  
D.A. 0.004 Amps MIN.D.A. 0.0034 Amps P.U./W 0 Amps  
P.U. 0.008 Amps MAX.P.U. 0.0088 Amps MAX.P.U. 0 Amps  
W 0 Amps

TEST DATE	TEST Amps					N.O.P.R. LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.	P.U./W				
1/23/2006	N 0.0041	0.0072	0	0	0	28.8		admin	C
1/23/2006	R 0	0	0			28.8		admin	C

IDENTIFIED ITEM

TEST CODES

C - Test completed, left in compliance  
A - Adjustments made, test completed and left in compliance (item shall be identified)  
R - Repair/Replacements made, test completed and left in compliance (item shall be identified)  
N/A - Not applicable

Form complies with FRA S-96-05



# RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama

LOCATION Coosa

M.P. 757.9

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

AAR/DOT NO. & CITY/COUNTY, STATE

DEVICE DESIGNATION 1EAG

RESISTANCE 900 OHMS

SERIAL NO. F80-L26

TYPE B-1

SIZE 2.5

MODEL NO. A62-308

### DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.004 Amps

MIN.D.A. 0.0034 Amps

P.U./W 0 Amps

P.U. 0.008 Amps

MAX.P.U. 0.0088 Amps

MAX.P.U. 0 Amps

W 0 Amps

TEST DATE

TEST Amps

D.A.

P.U.

W

POL.P.U./W

N.OPR LOCAL VOLTS

%D.A. FOR AC

Signature (IN INK)

TEST CODE

1/23/2006 N

0.0048

0.0074

0

0

28.8

admin

C

1/23/2006 R

0

0

0

0

28.8

admin

C

IDENTIFIED ITEM

### TEST CODES

- C - Test completed, left in compliance
- A - Adjustments made, test completed and left in compliance (Item shall be identified)
- R - Repair/Replacements made, test completed and left in compliance (Item shall be identified)
- N/A - Not applicable

Form complies with FRA S-96-05



### RELAY TEST

FRA RULES 234.263, 236.102, 236.106

FORM 11577 (REV. 8/04)

ITEM 613877

DIVISION Alabama LOCATION Coosa M.P. 757.9

1 YEAR TEST 2 YEAR TEST 3 YEAR TEST 4 YEAR TEST YES

DEVICE DESIGNATION 1EBD RESISTANCE 900 OHMS SERIAL NO. F80-N70  
TYPE B-1 SIZE 2.5 MODEL NO. A62-308

NEUTRAL POLAR

D.A. 0.004 Amps MIN.D.A. 0.0034 Amps P.U./W 0 Amps  
P.U. 0.008 Amps MAX.P.U. 0.0088 Amps MAX.P.U. 0 Amps  
W 0 Amps

TEST DATE	TEST Amps				N.OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				
1/23/2006	N	0.0052	0	0	28.8		admin	C
1/23/2006	R	0	0	0	28.8		admin	C

IDENTIFIED ITEM \_\_\_\_\_

TEST CODES  
C - Test completed, left in compliance  
A - Adjustments made, test completed and left in compliance (item shall be identified)  
R - Repair/Replacements made, test completed and left in compliance (item shall be identified)  
N/A - Not applicable



# RELAY TEST

FRA RULES 234.263, 236.102, 236.106

FORM 11577 (REV. 8/04)

ITEM 613677

DIVISION Alabama

LOCATION Cosa

M.P. 757.9

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

AAR/DOT NO. & CITY/COUNTY, STATE

DEVICE DESIGNATION 1EBG

RESISTANCE 900 OHMS

SERIAL NO. F80-M18

TYPE B-1

SIZE 2.5

MODEL NO. A62-308

### DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.004 Amps

MIN.D.A. 0.0034 Amps

P.U./W 0 Amps

P.U. 0.008 Amps

MAX.P.U. 0.0088 Amps

MAX.P.U. 0 Amps

W 0 Amps

TEST DATE

TEST Amps

N.O.P.R LOCAL VOLTS

%D.A. FOR AC

Signature (IN INK)

TEST CODE

D.A.

P.U.

W

POL.P.U./W

N.O.P.R LOCAL VOLTS

%D.A. FOR AC

Signature (IN INK)

TEST CODE

1/23/2006

N

0.0048

0

0

28.8

admin

C

1/23/2006

R

0

0

0

28.8

admin

C

IDENTIFIED ITEM

### TEST CODES

- C - Test completed, left in compliance
- A - Adjustments made, test completed and left in compliance (item shall be identified)
- R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
- N/A - Not applicable

Form complies with FRA S-96-05



# RELAY TEST

FRA RULES 234.263, 236.102, 236.106

FORM 11577 (REV. 6/04)  
ITEM 613677

DIVISION Alabama

LOCATION Coosa

M.P. 757.9

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

AAR/DOT NO. & CITY/COUNTY, STATE

DEVICE DESIGNATION 1ECG

RESISTANCE 900 OHMS

SERIAL NO. F80-P42

TYPE B-1

SIZE 2.5

MODEL NO. A62-308

### DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.004 Amps

MIN.D.A. 0.0034 Amps

P.U./W 0 Amps

P.U. 0.008 Amps

MAX.P.U. 0.0088 Amps

MAX.P.U. 0 Amps

W 0 Amps

### TEST DATE

### TEST Amps

D.A.

P.U.

W

POL.P.U./W

N.OPR LOCAL VOLTS

%D.A. FOR AC

Signature (IN INK)

TEST CODE

1/23/2006

N

0.0055

0.0075

0

0

28.8

admin

C

1/23/2006

R

0

0

0

0

28.8

admin

C

### IDENTIFIED ITEM

### TEST CODES

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05



NORFOLK SOUTHERN

### RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama

LOCATION Goosa

M.P. 757.9

1 YEAR TEST

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

AAR/DOT NO. & CITY/COUNTY, STATE

DEVICE DESIGNATION 1NWC  
TYPE B-1

RESISTANCE 500 OHMS  
SIZE 2.5

SERIAL NO. G80-001  
MODEL NO. A62-122

DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.0058 Amps  
P.U. 0.0115 Amps  
W 0.0115 Amps

MIN.D.A. 0.00493 Amps  
MAX.P.U. 0.01265 Amps

P.U./W 0 Amps  
MAX.P.U. 0 Amps

TEST DATE	TEST Amps					N.O.P.R LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.	P.U./W				
1/23/2006	N	0.006	0.0105	0	0	23		admin	C
1/23/2006	R	0	0	0	0	23		admin	C
IDENTIFIED ITEM									

TEST CODES

- C - Test completed, left in compliance
- A - Adjustments made, test completed and left in compliance (item shall be identified)
- R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
- N/A - Not applicable



# RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

DIVISION Alabama

LOCATION Coosa

M.P. 757.9

1 YEAR TEST

AAR/DOT NO. & CITY/COUNTY, STATE

2 YEAR TEST

3 YEAR TEST

4 YEAR TEST YES

DEVICE DESIGNATION 1RWC

RESISTANCE 500 OHMS

SERIAL NO. G80-N91

TYPE B-1

SIZE 2.5

MODEL NO. A62-122

DEVICE SPECIFICATION

NEUTRAL

POLAR

D.A. 0.0058 Amps

MIN.D.A. 0.00493 Amps

P.U./W 0 Amps

P.U. 0.0115 Amps

MAX.P.U. 0.01265 Amps

MAX.P.U. 0 Amps

W 0.0115 Amps

TEST DATE	TEST Amps				N.O.P.R LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.P.U./W				
1/23/2006	N	0.0062	0.0109	0	0	23	admin	C
1/23/2006	R	0	0	0	0	23	admin	C
IDENTIFIED ITEM								

**TEST CODES**

- C - Test completed, left in compliance
  - A - Adjustments made, test completed and left in compliance (item shall be identified)
  - R - Repair/Replacements made, test completed and left in compliance (item shall be identified)
  - N/A - Not applicable
- Form complies with FRA S-96-05





# RELAY TEST

FORM 11577 (REV. 6/04)

FRA RULES 234.263, 236.102, 236.106

ITEM 613677

**DIVISION** Alabama **LOCATION** Coosa **M.P.** 757.9

**1 YEAR TEST** **AARDOT NO. & CITY/COUNTY, STATE**

**2 YEAR TEST** **3 YEAR TEST** **4 YEAR TEST** YES

**DEVICE DESIGNATION** 1WBK **RESISTANCE** 900 OHMS **SERIAL NO.** B80-Q32

**TYPE** B-1 **SIZE** 2.5 **MODEL NO.** A62-308

### NEUTRAL

### DEVICE SPECIFICATION

### POLAR

**D.A.** 0.004 Amps **MIN.D.A.** 0.0034 Amps **P.U./W** 0 Amps

**P.U.** 0.008 Amps **MAX.P.U.** 0.0088 Amps **MAX.P.U.** 0 Amps

**W** 0 Amps

TEST DATE	TEST Amps					N.OPR LOCAL VOLTS	%D.A. FOR AC	Signature (IN INK)	TEST CODE
	D.A.	P.U.	W	POL.	P.U./W				
1/23/2006	N	0.0042	0	0	0	28.8		admin	C
1/23/2006	R	0	0	0	0	28.8		admin	C

### TEST CODES

C - Test completed, left in compliance  
A - Adjustments made, test completed and left in compliance (item shall be identified)  
R - Repair/Replacements made, test completed and left in compliance (item shall be identified)  
N/A - Not applicable  
Form complies with FRA S-96-05

**Subdivision 1bheast**

113	between ANNISTON SIDING and ANNISTON SIDING	Simple	ME
111	between ANNISTON MAIN 1 and ANNISTON MAIN 1	Simple	FOX
999	between LARDENT MAIN and ARDREY MAIN	Simple	REED
996	between TALLAPOOSA MAIN and HUBBARD MAIN	Simple	PATTERSON
998	between WINSTON MAIN and CRACKER	Simple	WHITAKER

**View Summary**

284	between SPRING SIDING and VINCENT SIDING	Simple	DISPATCHER
102	between CHILDERSBURG MAIN and LIPSY MAIN	Simple	GILLILAND

**End Summary**

No. 111 To FOX  
between ANNISTON MAIN 1  
and ANNISTON MAIN 1

Notes U/R RRESTNONE

Placed at 01/11/06 8:13 AM RTC jf  
Removed at 01/11/06 8:28 AM RTC jf

Cancelled by jf



**GE Transportation Systems**  
Global Signaling

**W. J. Scheerer**  
Chief Engineer

GE Transportation Systems Global Signaling, LLC  
2712 S. Dillingham Road, PO Box 600  
Grain Valley, Missouri 64029  
Telephone: (816) 650-1653 / Dial Comm: \*8 217-1653  
William.Scheerer@trans.ge.com

January 26, 2006

Mr. Brian L. Sykes  
Chief Engineer, C&S Engineering  
Norfolk Southern Railway  
1200 Peachtree St NE  
Atlanta, GA 30309-3579

Dear Mr. Sykes,

At your request, two of our senior Engineers Jeff Buckles and Rodger Maurer, were dispatched on Tuesday, to assist Norfolk Southern in the technical review of the performance of Electro Code IIC equipment installed on the Birmingham Subdivision. The equipment reviewed included the ECIIcs that control the West track circuit at the Coosa Control Point and the opposite end of the same track circuit at Signal 7604 located at Mile Post 760.4 in Riverside.

The following data was collected:

Milepost 760.4 ECIIc serial number 2683

Module	Mod level revision	Serial number	Notes						Recommendations
1C	BB	567	OK						
2C	A	3325	OK						
3S	D	4816	OK						
4K	Gold D	6218	Capacitor modification complete as per ESB 02-100						Apply Mod Level sticker "F"
5K	Gold D	6649	Capacitor modification complete as per ESB 02-100						Apply Mod Level sticker "F"
6A	none	2353	Mod Level sticker missing						Apply Mod Level sticker "N"
7K	J	129610774	OK						
8A	A	3689	OK						
10K	none	2738	Electronis as per ESB 02-100 Mod Level sticker missing						Apply Mod Level sticker "F"
11A	C	2228	OK						
12A	N/A	N/A	Not required						
13B	B	6953	OK						

**Track circuit analysis**

Cleared for an Eastbound move at 11:20 AM

Received	Code Rate	1st pulse width	2nd pulse width	period
Code 4	320 ms	100ms	100ms	2.520s

Transmitted				
Code 1		120ms		2.520s

Behind train number 5529 (BNSF) at 11:44 AM

Received				
Code 1		120ms		2.500s

Transmitted				
Code 2	700ms			2.500s



**Coosa Control Point ECIC West track circuit**

Module	Mod level revision	Serial number	Notes						Recommendations
1C	BB	566/568	OK						
2C	A	3537	OK						
3E	N/C	1240	OK						
4K	none	4260	Capacitor modification complete as per ESB 02-100						Apply Mod Level sticker "F"
5K	Gold D	6308	Capacitor modification complete as per ESB 02-100						Apply Mod Level sticker "F"
6A	none	2356	Mod Level sticker missing						Apply Mod Level sticker "N"
7K	none	8962348	OK						Apply Mod Level sticker "J"
8A	A	3694	OK						
10K	N/A	N/A							
11A	C	2141	OK						
12A	B	1840	OK						
13B	A	1727	OK						

**Track circuit analysis**

Cleared for an Eastbound move at 5:20 PM

Received	Code Rate	1st pulse width	2nd pulse width	period
Code 4	320 ms	220ms	140ms	2.500s

**Conclusions:**

The Electro Code IIC equipment reviewed was operating as intended. Track circuit analysis indicates that code pulses applied to the rail meet original factory specifications. Mod Level revisions meet the minimum requirements as described in the Electro Code IIC Minimum Mod Level Guide document number 100464-009. Although some modules in the above tables did not have the Mod Level sticker attached to the PC board assembly, a review of the electronic components and circuits by GETS GS engineers validated that the equipment meets the minimum mod level requirements. The appropriate stickers should be applied as recommended above.

GETS GS is prepared to assist Norfolk Southern Railway with further analysis of the equipment reviewed should NS consider removing the subject equipment and submitting it to GETS GS for lab examination. Feel free to contact us with any comments or questions you may have.

Best regards,

W. J. Scheerer  
 Chief Engineer

Cc: Chuck Johnson  
 Gregg Estelle  
 Bob Bremmer  
 Jeff Buckles  
 Rodger Maurer