

DCA-15-MR-010  
Passenger Train Derailment  
Philadelphia, PA  
May 12, 2015



## SIGNAL ATTACHMENT 44

Shore WBB Insulation Resistance (2) 236.108


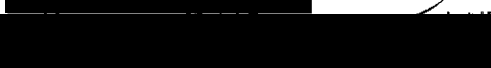
# AMTRAK RECORD OF INSULATION RESISTANCE C&S 2.0

DIVISION		LOCATION	FROM:	TO
MID-ATLANTIC		SHORE	WBB	98 SW SL-25 ELEC LOCK
DATE INSTALLED:		MANUFACTURER	YEAR MANUFACTURED:	SPECIFICATION
2008		OKINITE	2006	12c/14
		LIST INSULATION RESISTANCE VALUES TO GROUND	LIST INSULATION RESISTANCE VALUES OF CROSS	CABLE DESIGNATION:
CDR	CRT. NOMENCLATURE			REMARKS:
1	98NWLC-2	INF	INF	
2	N98NWLC-2	INF	INF	
3	98WV	INF	INF	
4	N98WV	INF	INF	
5	98PL	INF	INF	
6	98B12	INF	INF	
7	98N12	INF	INF	
8	SPARE	INF	INF	
9	SPARE	INF	INF	
10	SPARE	INF	INF	
11	SPARE	INF	INF	
12	SPARE	INF	INF	
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SIGNATURE: [Redacted]		W. CAREL		DATE MEGGERED: 10/1/2008
SIGNATURE: [Redacted]		EWMAN		DATE MEGGERED: 10/1/2008
NOTES:		CONDUCTOR. 3. INDICATE CONDUCTORS THAT ARE SPARE.		
2. UNDERLINE WORKING CONDUCTORS 1 MEG OR BELOW IN RED, 4. TWO SIGNATURES REQUIRED.				
AND LIST 500,000 OR BELOW ON FORM C.&S. 2A.				

**AMTRAK RECORD OF INSULATION RESISTANCE C&S 2.0**

DIVISION		LOCATION	FROM:	TO
MID-ATLANTIC		SHORE	WBB	98A SW NEAR END
DATE INSTALLED:		MANUFACTURER	YEAR MANUFACTURED:	SPECIFICATION
2008		OKINITE	2006	12c/14
LIST INSULATION RESISTANCE VALUES TO GROUND		LIST INSULATION RESISTANCE VALUES OF CROSS	CABLE DESIGNATION:	
CDR	CRT. NOMENCLATURE			REMARKS:
1	98NWLC-1	INF	INF	
2	N98NWLC-1	INF	INF	
3	N98NWLC-2	INF	INF	
4	98NWLC-2	INF	INF	
5	SPARE	INF	INF	
6	SPARE	INF	INF	
7	SPARE	INF	INF	
8	SPARE	INF	INF	
9	SPARE	INF	INF	
10	SPARE	INF	INF	
11	100BX110-1A	INF	INF	
12	100NX110-1A	INF	INF	
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SIGNATURE: 		W. CAREL	DATE MEGGERED: 10/1/2008	
SIGNATURE: 		EWMAN	DATE MEGGERED: 10/1/2008	
NOTES: 1. LIST NOMENCLATURE FOR EACH WORKING CONDUCTOR. 3. INDICATE CONDUCTORS THAT ARE SPARE. 2. UNDERLINE WORKING CONDUCTORS 1 MEG OR BELOW IN RED, 4. TWO SIGNATURES REQUIRED. AND LIST 500,000 OR BELOW ON FORM C.&S. 2A.				

**AMTRAK RECORD OF INSULATION RESISTANCE C&S 2.0**

DIVISION		LOCATION	FROM:	TO
MID-ATLANTIC		SHORE	WBB	98B SW FAR END
DATE INSTALLED:		MANUFACTURER	YEAR MANUFACTURED:	SPECIFICATION
2008		OKINITE	2006	12c/14
		LIST INSULATION RESISTANCE VALUES TO GROUND	LIST INSULATION RESISTANCE VALUES OF CROSS	CABLE DESIGNATION:
CDR	CRT. NOMENCLATURE			REMARKS:
1	98NWLC	INF	INF	
2	N98NWLC	INF	INF	
3	N98NWLC-1	INF	INF	
4	98NWLC-1	INF	INF	
5	SPARE	INF	INF	
6	SPARE	INF	INF	
7	SPARE	INF	INF	
8	SPARE	INF	INF	
9	SPARE	INF	INF	
10	SPARE	INF	INF	
11	100BX110-1A	INF	INF	
12	100NX110-1A	INF	INF	
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SIGNATURE: 		W. CAREL	DATE MEGGERED: 10/1/2008	
SIGNATURE: 		NEWMAN	DATE MEGGERED: 10/1/2008	
NOTES		CONDUCTOR. 3. INDICATE CONDUCTORS THAT ARE SPARE.		
2. UNDERLINE WORKING CONDUCTORS 1 MEG OR BELOW IN RED, 4. TWO SIGNATURES REQUIRED. AND LIST 500,000 OR BELOW ON FORM C.&S. 2A.				

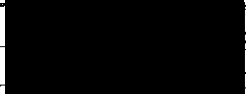
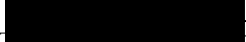


# Record of Insulation Resistance C&S 2.0

NOTE: Use 8 1/2" x 14" legal size paper when printing out this form!

Division: <b>MAD</b>	Location: <b>SHORE</b>	From: <b>WBB</b>	To: <b>81A</b>
Date Installed: <b>1988</b>	Manufacturer: <b>ROCKBESTIS</b>	Year Manufactured: <b>1985</b>	Specification: <b>57C COMPOSITE</b>

Cable Designation		List Insulation Resistance Values to Ground	List Insulation Resistance Values of Cross	Remarks
CDK	Circuit Nomenclature			
01	W100BX110ER	50M	INF	
02	W100BX110ER	INF	INF	
03	W100BX110WR	INF	INF	
04	W100BX110WR	INF	INF	
05	1ECC	INF	INF	
06	N1ECC	INF	INF	
07	4WAHR	INF	INF	
08	3WAHR	INF	INF	
09	SPARE	INF	INF	
10	1DS POS	50M	INF	
11	1DS NEG	50M	INF	
12	1TM POS	INF	INF	
13	1TM NEG	INF	INF	
14	2DS POS	INF	INF	
15	2DS NEG	INF	INF	
16	2TM POS	INF	INF	
17	2TM NEG	75M	INF	
18	2WCC	75M	INF	
19	N2WCC	INF	INF	
20	4BDF	INF	INF	
21	N4WBDF	INF	INF	
22	SPARE	INF	INF	
23	3DS POS	INF	INF	
24	3DS NEG	INF	INF	
25	3TM POS	INF	INF	
26	3TM NEG	INF	INF	
27	3WCC	INF	INF	
28	N3WCC	INF	INF	
29	SPARE	INF	INF	
30	3WAR	INF	INF	
31	3BDF	INF	INF	
32	N3BDF	INF	INF	
33	SPARE	INF	INF	
34	4DS POS	INF	INF	
35	4DS NEG	INF	INF	
36	4TM POS	INF	INF	
37	4TM NEG	INF	INF	
38	4WCC	INF	INF	
39	N4WCC	INF	INF	
40	SPARE	INF	INF	
41	SPARE	INF	INF	
42	SPARE	INF	INF	
43	SPARE	INF	INF	
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Signature:  Date Meggered: 8-28  
 Signature:  Date Meggered: 8-08

- Instructions:
- List circuit nomenclature for each working conductor.
  - Document working conductors L meg. or below on form NRPC 3081, C&S 2.3, and list 500,000 or below on form NRPC 2935, C&S 2A.
  - Indicate conductors that are spare.
  - Two signatures required.

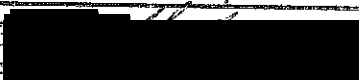



# Record of Insulation Resistance C&S 2.0

NOTE: Use 8 1/2" x 14" legal size paper when printing out this form!

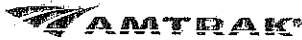
Division: <b>MAD</b>	Location: <b>SHORE</b>	From: <b>WBB</b>	To: <b>19A</b>
Date Installed: <b>12-08</b>	Manufacturer: <b>OKINITE</b>	Year Manufactured: <b>2006</b>	Specification: <b>15C 14</b>

Cable Designation		List Insulation Resistance Values to Ground	List Insulation Resistance Values of Cross	Remarks
CDR	Circuit Nomenclature			
01	19ANW	INF	INF	
02	19ACW	INF	INF	
03	19ARW	INF	INF	
04	19WP1	INF	INF	
05	19NWPI	INF	INF	
06	19WP	INF	INF	
07	19NWF	INF	INF	
08	19WP1A	INF	INF	
09	N19WP1A	INF	INF	
10	SP	INF	INF	
11	SP	INF	INF	
12	19WP2	INF	INF	
13	19WP3	INF	INF	
14	19ABX110	INF	INF	
15	19ANX110	INF	INF	
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Signature:  Date Meggered: **10-1-2008**

Signature:  Date Meggered: **10-1-2008**

- Instructions:
- List circuit nomenclature for each working conductor.
  - Document working conductors 1 meg or below on form NRPC 3081, C&S 2.3, and list 500,000 or below on form NRPC 2935, C&S 2A.
  - Indicate conductors that are spare.
  - Two signatures required.



# Record of Insulation Resistance C&S 2.0

NOTE: Use 8 1/2 "x 14" legal size paper when printing out this form!

Division: <b>MAD</b>	Location: <b>SHORE</b>	From: <b>WBB</b>	To: <b>19A1</b>
Date Installed: <b>12/08</b>	Manufacturer: <b>OKINITE</b>	Year Manufactured: <b>2006</b>	Specification: <b>15C COMPOSITE</b>

Cable Designation		List Insulation Resistance Values to Ground	List Insulation Resistance Values of Cross	Remarks
CDR	Circuit Nomenclature			
01	19A1NW	INF	INF	
02	19A1CW	INF	INF	
03	19ARW	INF	INF	
04	19WP2	INF	INF	
05	19N12	INF	INF	
06	19WP1	INF	INF	
07	19NWP1	INF	INF	
08	SP	INF	INF	
09	SP	INF	INF	
10	19WP1A	INF	INF	
11	19NWP1A	INF	INF	
12	19WP3	INF	INF	
13	19B12	INF	INF	
14	19A1BX110	INF	INF	
15	19A1NX110	INF	INF	
16				
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Signature:	Date Meggered: <b>10-2008</b>
Signature:	Date Meggered: <b>10-2008</b>
Instructions: 1. List circuit nomenclature for each working conductor. 2. Document working conductors 1 meg or below on form NRPC 3081, C&S 2.3, and list 500,000 or below on form NRPC 2945, C&S 2A. 3. Indicate conductors that are spare. 4. Two signatures required.	



# Record of Insulation Resistance C&S 2.0

NOTE: Use 8 1/2" x 14" legal size paper when printing out this form!

Division: <b>MAD</b>	Location: <b>SHORE</b>	From: <b>WBB</b>	To: <b>9W SIGNAL A+B ARM</b>
Date Installed: <b>2008</b>	Manufacturer: <b>OKINITE</b>	Year Manufactured: <b>2006</b>	Specification: <b>9C9</b>

Cable Designation		List Insulation Resistance Values to Ground	List Insulation Resistance Values of Cross	Remarks
CDR	Circuit Nomenclature			
01	SPARE	INF	INF	A ARM 9W SIGNAL
02	SPARE	INF	INF	
03	SPARE	INF	INF	
04	SPARE	INF	INF	
05	9WASAE	INF	INF	
06	9WASBE	INF	INF	
07	ENXA9W	INF	INF	
08	ENX1-9W	INF	INF	
09	ENX2-9W	INF	INF	
10				B ARM 9W SIGNAL 1 TO 9
11	9WBDAE	INF	INF	
12	9WBDBE	INF	INF	
13	9WBHAE	INF	INF	
14	9WBHBE	INF	INF	
15	SPARE	INF	INF	
16	SPARE	INF	INF	
17	9WBNE	INF	INF	
18	SPARE	INF	INF	
19	ENXB9W	INF	INF	
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Signature:	Date Meggered: 10/14/08
Signature:	Date Meggered: 10/14/08

- Instructions:
- List circuit nomenclature for each working conductor.
  - Document working conductors 1 meg or below on form NRPC 3081, C&S 2.3, and list 500,000 or below on form NRPC 2935, C&S 2A.
  - Indicate conductors that are spare.
  - Two signatures required.





# Record of Insulation Resistance C&S 2.0

NOTE: Use 8 1/2 "x 14" legal size paper when printing out this form!

Division: <b>MAD</b>	Location: <b>SHORE</b>	From: <b>WBB</b>	To: <b>1W SIGNAL</b>
Date Installed: <b>2008</b>	Manufacturer: <b>OKINITE</b>	Year Manufactured: <b>2006</b>	Specification: <b>9C9</b>

Cable Designation		List Insulation Resistance Values to Ground	List Insulation Resistance Values of Cross	Remarks
CDR	Circuit Nomenclature			
01	1WADE	INF	INF	1W-A-ARM 1 TO 9
02	1WABDE	INF	INF	
03	1WAHAE	INF	INF	
04	1WAHBE	INF	INF	
05	1WASAE	INF	INF	
06	1WASBE	INF	INF	
07	ENXA1W	INF	INF	
08	ENXWIW	INF	INF	
09	ENX2 1W	INF	INF	
10				1W-B-ARM 1 TO 9
11	1WBDAE	INF	INF	
12	1WBDBE	INF	INF	
13	1WBHAE	INF	INF	
14	1WBHBE	INF	INF	
15	SPARE	INF	INF	
16	SPARE	INF	INF	
17	1WBNE	INF	INF	
18	SPARE	INF	INF	
19	ENXB1W	INF	INF	
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Signature:	Date Meggered: 10/14/08
Signature:	Date Meggered: 10/14/08

- Instructions:
- List circuit nomenclature for each working conductor.
  - Document working conductors 1 meg or below on form NRPC 3081, C&S 2.3, and list 500,000 or below on form NRPC 2935, C&S 2A.
  - Indicate conductors that are spare.
  - Two signatures required.

# AMTRAK RECORD OF INSULATION RESISTANCE C&S 2.0

DIVISION		LOCATION	FROM:	TO:
MID-ATLANTIC		SHORE	WBB LOC	WR
DATE INSTALLED:		MANUFACTURER	YEAR MANUFACTURED:	SPECIFICATION
				57 Cond. Comp.
		LIST INSULATION RESISTANCE VALUES TO GROUND	LIST INSULATION RESISTANCE VALUES OF CROSS	CABLE DESIGNATION:
CDR	CRT. NOMENCLATURE			REMARKS:
1	S100BX110NR	INF.	INF.	CASE LOCATION EAST OF WHEATCHIEF LANE
2	S100NX110NR	INF.	INF.	
3	S100BX110SR	INF.	INF.	
4	S100NX110SR	INF.	INF.	
5	1BDS+	INF.	INF.	
6	1BDS-	INF.	INF.	
7	1BTM+	INF.	INF.	
8	1BTM-	INF.	INF.	
9	1CC-S	INF.	INF.	
10	N1CC-S	INF.	INF.	
11	9WBHAP1	INF.	INF.	
12	N9WBHAP1	INF.	INF.	
13	9WDA	INF.	INF.	
14	N9WDA	INF.	INF.	
15	9WDEDP	INF.	INF.	
16	N9WDEDP	INF.	INF.	
17	1SDEDP	INF.	INF.	
18	N1SDEDP	INF.	INF.	
19	SPARE	INF.	INF.	
20	EMER 110 NEG	INF.	INF.	EMER 110 NEG TO B12/B13 LOC
21	EMER 110 NEG	INF.	INF.	EMER 110 NEG TO B12/B13 LOC
22	EMER 110 NEG	INF.	INF.	EMER 110 NEG TO B12/B13 LOC
23	EMER 110 NEG	INF.	INF.	EMER 110 NEG TO B12/B13 LOC
24	EMER 110 POS	INF.	INF.	EMER 110 POS TO B12/B13 LOC
25	EMER 110 POS	INF.	INF.	EMER 110 POS TO B12/B13 LOC
26	EMER 110 POS	INF.	INF.	EMER 110 POS TO B12/B13 LOC
27	EMER 110 POS	INF.	INF.	EMER 110 POS TO B12/B13 LOC
28	SPARE	INF.	INF.	CABLE CUT ON BRIDGE OVER CONRAIL YARD
29	SPARE	INF.	INF.	27c CABLE SPLICED INTO 57c CABLE OVER
30	SPARE	INF.	INF.	BRIDGE. 20 WORKING WIRES.
31	SPARE	INF.	INF.	CABLE CUT & SPLICED JUST NORTH OF WR LOC
32	SPARE	INF.	INF.	
33	SPARE	INF.	INF.	CONDUCTORS 20 TO 27 SPLICED TOGETHER
34	SPARE	INF.	INF.	11/2/10 BY J. COFFIN & S. KELLY
35	SPARE	INF.	INF.	
36	SPARE	INF.	INF.	CONDUCTORS 28 TO 45 ARE OPEN
37	SPARE	INF.	INF.	
38	SPARE	INF.	INF.	
39	SPARE	INF.	INF.	
40	SPARE	INF.	INF.	
41	SPARE	INF.	INF.	
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SIGNATURE: [REDACTED] B. DEWEES DATE MEGGERED: 10/23/2013

SIGNATURE: [REDACTED] G. ROBINSON DATE MEGGERED: 10/23/2013

NOTES: 1. LIST NOMENCLATURE FOR EACH WORKING CONDUCTOR. 3. INDICATE CONDUCTORS THAT ARE SPARE.  
2. UNDERLINE WORKING CONDUCTORS 1 MEG OR BELOW IN RED, 4. TWO SIGNATURES REQUIRED.  
AND LIST 500,000 OR BELOW ON FORM C.&S. 2A.