

Cutler Hammer STK2

Seltronic and Series C310 Test Kit

Instruction Manual

Cutler Hammer \_\_\_\_\_ 123C60H05

Instruction Manual STK2 \_\_\_\_\_

Style #1232C50G10 \_\_\_\_\_

For Testing Series C 310 and Seltronic Trip Units \_\_\_\_\_

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### Short Delay Test

1. Set "Test Type" switch to "Short Delay" (RED "RUNNING" LIGHT MAY COME ON BRIEFLY).
  2. Set "Short Delay Time" setting on the tip unit. If available to minimum.
  3. When green "Ready" light turns on the unit is ready for testing. Push "Start" button.
    - The red "Running" light turns on during testing.
    - Breaker will trip instantaneously. Release "Start pushbutton.
    - The green "Ready" light turns on in four to six seconds.
  4. Reset and reclose Breaker.
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Figure 1-Test Cords

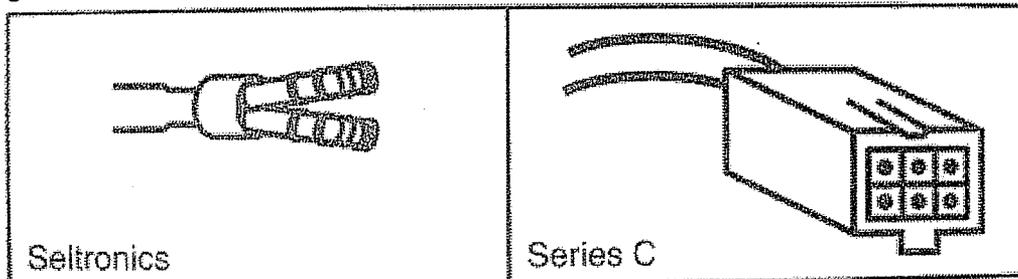


Figure 2-Seltronics

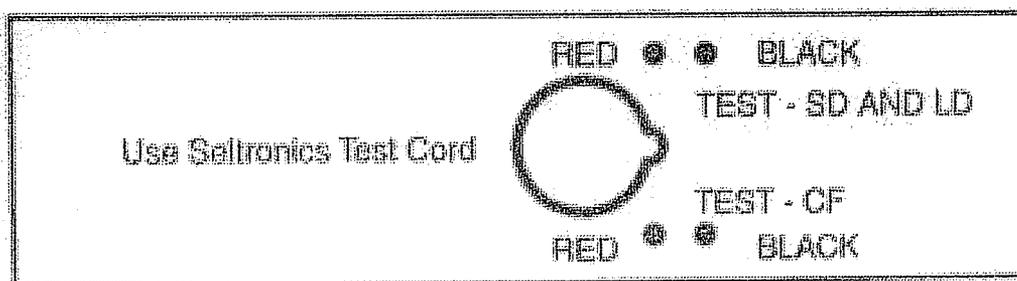
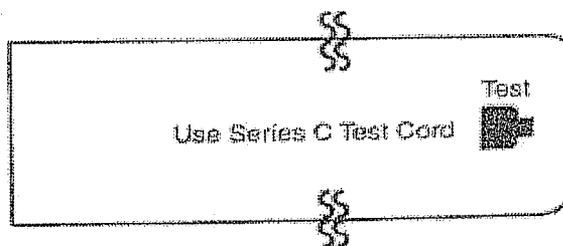


Figure 3-Typical Series C



## TEST CHARTS

CHART #

- Test Chart 1, LC.....123C63H01
- Test Chart 2, LCL, MC, NC.....123C63H02
- Test Chart 3, PC.....123C63H03
- Test Chart 4, AQB.....1232C63H06G
- Test Chart 5, AQB.....1232C63H20A
- Test Chart 6, KS SELTRONIC.....1232C63H04B
- Test Chart 7, KES Digitrip RMS 310.....1232C63H13
- Test Chart 8, LS SELTRONIC.....1232C63H14
- Test Chart 9, LES/MES Digitrip RMS 310.....1232C63H15A
- Test Chart 10, NES SELTRONIC.....1232C63H16
- Test Chart 11, NES Digitrip RMS 310.....1232C63H17A
- Test Chart 12, RS SELTRONIC.....1232C63H18
- Test Chart 13, RES Digitrip 310.....1232C63H19
- Test Chart 14, KS Mining.....1232C63H07B
- Test Chart 15, SPB Digitrip RMS 210.....1232C63H21
- Test Chart 16, SPB Digitrip RMS 210.....1232C63H22
- Test Chart 17, SPB Digitrip RMS 210.....1232C63H23
- Test Chart 18, SPB Digitrip RMS 210.....1232C63H24
- Test Chart 19, Digitrip RMS 310 Mining.....1232C63H25A
- Test Chart 20 Digitrip RMS 310 Mining.....1232C63H26B
- Test Chart 21 Digitrip RMS 310 Mining.....1232C63H27
- Test Chart 21, Navy AQB-L403/LL403 & AQB-L803.....1232C63H28

**Test Chart 1**

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
LC150	75	A	32	64
	90	A	49	92
	100	B	25	50
	125	B	40	78
	150	C	32	64
LC300	150	A	32	64
	175	A	44	87
	200	B	25	50
	225	B	32	64
	250	B	40	78
	275	C	27	54
	300	C	32	64
LC400	200	A	32	64
	225	A	41	81
	250	B	22	44
	300	B	32	64
	350	C	25	49
	400	C	32	64
LC600	300	A	32	64
	350	A	44	87
	400	B	25	50
	450	B	32	64
	500	B	40	78
1232C63H01	600	C	32	64

**Test Chart 3**

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
PC2000	1000	A	38	75
	1200	A	55	107
	1400	B	33	65
	1600	B	43	85
	1800	C	31	60
	2000	C	38	75
PC2500	1400	A	47	94
	1600	B	27	54
	1800	B	35	68
	2000	B	43	85
	2500	C	38	75
PC3000	1600	A	43	85
	1800	A	55	107
	2000	B	30	59
	2500	B	47	92
	3000	C	38	75
1232C63H03				

**Test Chart 2**

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
LCL250	125	A	38	75
	150	A	55	107
	175	B	33	65
	200	B	43	84
	225	C	31	60
	250	C	38	75
LCL400	200	A	38	75
	225	A	48	94
	250	B	26	52
	275	B	32	62
	300	B	38	75
	350	C	29	57
	400	C	38	75
MC800	400	A	38	75
	500	B	26	52
	600	B	38	74
	700	C	30	57
	800	C	38	75
NC1200	800	B	30	59
	900	B	38	74
	1000	B	46	92
	1100	C	32	63
	1200	C	38	75
1232C63H02				

**Test Chart 4**

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds		
			Min.	Max.	
AQB-A103 Notes 1, 2, 3	10	C	25	45	
	25	E	90	175	
	40	C	25	45	
	100	E	90	175	
AQB-A103 RMS Notes 1, 2, 3	10	E	60	105	
	40	E	60	105	
AQB-A253 AQB-L253 Note 1	250	E	76	142	
	225	E	62	116	
	200	E	50	92	
	175	E	38	70	
	160	D	43	79	
	150	D	41	76	
	125	D	34	64	
	100	D	19	35	
	AQB-LL400 QS	250	D	12	24
		300	D	16	33
350		D	21	43	
400		D	28	55	

**\*NOTES:**

1. Set continuous current setting to minimum for short delay test.
2. Test plug must be removed between repeated short delay trip tests.
3. To reset the A103 after trip, move the handle to the closed position, then to the reset position. The breaker can then be closed.

Test Chart 9 LES/MES Digitrip RMS 310

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
LES600	300	A	24	49
	315	A	27	54
	350	A	33	67
	400	B	20	39
	500	B	31	61
	600	C	24	48
	630	C	26	53
LES/MES800	400	B	20	39
	500	B	31	61
	600	C	24	48
	630	C	26	53
	800	D	28	56

**Important:**

Wait 5 minutes between a long and any other previous test.  
 A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H15A

Test Chart 10 NES SELTRONIC

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
ND800	400	A	31	62
	450	A	40	80
	500	B	22	44
	550	B	27	54
	600	B	32	64
	630	B	35	70
	700	C	24	48
	800	C	31	62
ND1200	600	B	32	64
	630	B	35	70
	700	C	24	48
	800	C	31	62
	900	D	25	50
	1000	D	31	62
	1200	E	32	64
1250	E	35	70	

**Important:**

Wait 5 minutes between a long and any other previous test.  
 A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H16

Test Chart 11 NES Digitrip RMS 310

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
NES800	400	A	31	62
	450	A	40	80
	500	B	22	44
	550	B	27	54
	600	B	32	64
	630	B	35	70
	700	C	24	48
	800	C	31	62
NES1200	600	B	32	64
	630	B	35	70
	700	C	24	48
	800	C	31	62
	900	D	25	50
	1000	D	31	62
	1200	E	32	64
ND1600	1250	E	35	70

**Important:**

Wait 5 minutes between a long and any other previous test.  
 A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H17A

Test Chart 12 RS SELTRONIC

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
RS1600	800	C	25	52
	1000	C	39	79
	1200	D	36	74
	1250	D	39	82
	1400	E	34	72
	1500	E	39	82
	1600	E	44	92
RS2000	1000	C	25	52
	1200	C	37	73
	1250	C	39	79
	1400	D	32	63
	1600	E	29	57
	2000	E	44	92

1232C63H18

Test Chart 17 SPB Digitrip RMS 210

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
SPB2500	1600	C	19	38
	2000	D	19	38
	2500	E	21	43
SPB3000	1600	C	19	38
	2000	C	30	59
	2500	D	30	60
	3000	E	31	61
SPB3150	1600	C	19	38
	2000	C	30	59
	2500	D	30	60
	3000	E	31	61
	3150	E	34	68

**Important:**

Wait 5 minutes between a long and any other previous test.  
A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H23

Test Chart 18 SPB Digitrip RMS 210

Breaker Frame	Rating	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
SPB4000	2000	B	31	61
	2500	C	26	52
	3000	D	24	48
	3150	D	27	53
	3200	D	28	55
	4000	E	31	61
SPB5000	3000	B	31	61
	3150	B	34	67
	3200	C	19	38
	4000	C	30	59
	5000	D	30	60

**Important:**

Wait 5 minutes between a long and any other previous test.  
A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H24

Test Chart 19 Digitrip RMS 310 Mining

Breaker Frame	Breaker Setting	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
KEM3100T	H	D	10	19
KEM3125T	H	E	12	22
KEM3150T	H	E	16	32
KEM3150TM	F	E	Instantaneous	
KEM3200T	H	D	10	19
KEM3225T	H	E	9	17
KEM3225T2	H	E	9	17
KEM3225TM	F	E	Instantaneous	
KEM3225TM2	E	E	Instantaneous	
KEM3400T	H	E	5	14
KEM3400T2	H	E	5	14
KEM3400TM	F	E	Instantaneous	
KEM3400TM2	H	E	Instantaneous	

**Important:**

Wait 5 minutes between a long and any other previous test.  
A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H25A

Test Chart 20 Digitrip RMS 310 Mining

Breaker Frame	Breaker Setting	Long Delay Test Position	Time Range For Trip-Seconds	
			Min.	Max.
LEM3300T	H	B	11	21
LEM3350T	H	B	9	17
LEM3400T	H	C	12	20
LEM3400TM	H	E	Instantaneous	
LEM3400T2	H	E	6	10
LEM3400TM2	C	E	Instantaneous	
LEM3450T	H	D	8	16
LEM3500T	H	D	12	20
LEM3600T	H	C	23	39
LEM3600TM	H	E	Instantaneous	
LEM3600T2	H	E	11	19
LEM3600TM2	A	D	Instantaneous	
MEM3800T	H	D	32	54
MEM3800TM	G	D	Instantaneous	
MEM3800T2	E	D	32	54
MEM3800TM2	E	E	Instantaneous	

**Important:**

Wait 5 minutes between a long and any other previous test.  
A memory effect will cause the time to be less than indicated above if the 5 minute waiting period is ignored.

1232C63H26B