

# EZ Settings Sheets for the SEL-351R Recloser Control

---

## **⚠**WARNING

Anytime an EZ setting is changed, review all the EZ settings before enabling the new settings. Pay close attention in circumstances where a setting was once set to OFF or N and then later turned on (enabled)-other related settings may need to be turned on, though may still be set to OFF or N.

## Settings Groups 1 (Main) and 2 (Alternate) EZ Settings (SET EZ n command; n = 1, 2)

---

Control Identifier (30 characters)

Range: 0–9, A–Z, -, /, ., space

Incr.: --

---

Control Identifier (30 characters)

Range: 0–9, A–Z, -, /, ., space

Incr.: --

---

CT Ratio

Range: 1.0–6000.0

Incr.: 1

---

PT Ratio

Range: 1.0–10000.0

Incr.: 1

---

Min. trip–phase *Ranges given for CT Ratio = 1000.0*

Range: OFF, 100.00–3199.99 A primary

Incr.: 0.01

---

Min. trip–ground *Ranges given for CT Ratio = 1000.0*

Range: OFF, 5.00–3199.99 A primary

Incr.: 0.01

---

Min. trip–SEF *Ranges given for CT Ratio = 1000.0*

Range: OFF, 5.00–1499.99 A primary

Incr.: 0.01

---

Fast Curve–phase (see [Recloser Curve Designations on page SET.9](#))

Range: OFF, U1–U5 (US), C1–C5 (IEC)

Incr.: --

---

Time dial–phase fast curve

Range: 0.50–15.00 (U1–U5), 0.05–1.00 (C1–C5)

Incr.: 0.01

---

EM reset–phase fast curve

Range: Y/N

Incr.: --

---

Fast Curve–ground (see *Recloser Curve Designations*)

Range: OFF, U1–U5 (US), C1–C5 (IEC)

Incr.: --

Time dial–ground fast curve

Range: 0.50–15.00 (U1–U5), 0.05–1.00 (C1–C5)

Incr.: 0.01

EM reset–ground fast curve

Range: Y/N

Incr.: --

Delay Curve–phase (see *Recloser Curve Designations*)

Range: OFF, U1–U5 (US), C1–C5 (IEC)

Incr.: --

Time dial–phase delay curve

Range: 0.50–15.00 (U1–U5), 0.05–1.00 (C1–C5)

Incr.: 0.01

EM reset–phase delay curve

Range: Y/N

Incr.: --

Delay Curve–ground (see *Recloser Curve Designations*)

Range: OFF, U1–U5 (US), C1–C5 (IEC)

Incr.: --

Time dial–ground delay curve

Range: 0.50–15.00 (U1–U5), 0.05–1.00 (C1–C5)

Incr.: 0.01

EM reset–ground delay curve

Range: Y/N

Incr.: --

Time delay–SEF

Range: 0–16000.00 cycles

Incr.: 0.25

Operations–phase fast curve

Range: OFF, 1–5

Incr.: 1

Operations–ground fast curve

Range: OFF, 1–5

Incr.: 1

Operations to lockout–phase

Range: OFF, 1–5

Incr.: 1

Operations to lockout–ground

Range: OFF, 1–5

Incr.: 1

Operations to lockout–SEF

Range: OFF, 1–5

Incr.: 1

Reclose interval 1  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Reclose interval 2  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Reclose interval 3  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Reclose interval 4  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Reset time from auto reclose  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Reset time from lockout  
Range: 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Close power wait time  
Range: OFF, 0–999999.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Complex fast curve–phase  
Range: Y/N  
Incr.:--

\_\_\_\_\_

Const. time adder–phase fast curve  
Range: 0–60.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Vert. multiplier–phase fast curve  
Range: 0.10–2.00 cycles  
Incr.: 0.01

\_\_\_\_\_

Min. response–phase fast curve  
Range: 0–60.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Complex fast curve–ground  
Range: Y/N  
Incr.:--

\_\_\_\_\_

Const. time adder–ground fast curve  
Range: 0–60.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Vert. multiplier–ground fast curve  
Range: 0.10–2.00 cycles  
Incr.: 0.01

\_\_\_\_\_

Min. response–ground fast curve  
Range: 0–60.00 cycles  
Incr.: 0.25

\_\_\_\_\_

Complex delay curve–phase  
Range: Y/N  
Incr.:--

Const. time adder-phase delay curve  
Range: 0-60.00 cycles  
Incr.: 0.25

Vert. multiplier-phase delay curve  
Range: 0.10-2.00 cycles  
Incr.: 0.01

Min. response-phase delay curve  
Range: 0-60.00 cycles  
Incr.: 0.25

Complex delay curve-ground  
Range: Y/N  
Incr.:--

Const. time adder-ground delay curve  
Range: 0-60.00 cycles  
Incr.: 0.25

Vert. multiplier-ground delay curve  
Range: 0.10-2.00 cycles  
Incr.: 0.01

Min. response-ground delay curve  
Range: 0-60.00 cycles  
Incr.: 0.25

High current trip-phase  
Range: Y/N  
Incr.: --

High current trip-phase (*range given for CT Ratio = 1000.0*)  
Range: 1.00-(20000/Min. trip-phase)  
multiples of Min. trip-phase  
Incr.: 0.01

Time delay-phase high current trip  
Range: 0-16000.00 cycles  
Incr.: 0.25

Activate high current trip-phase  
Range: OFF, 1-5  
Incr.: 1

High current trip-ground  
Range: Y/N  
Incr.: --

High current trip-ground (*range given for CT Ratio = 1000.0*)  
Range: 1.00-(20000/Min. trip-ground)  
multiples of Min. trip-ground  
Incr.: 0.01

Time delay-ground high current trip  
Range: 0-16000.00 cycles  
Incr.: 0.25

Activate high current trip-ground  
Range: OFF, 1-5  
Incr.: 1

High current lockout–phase

Range: Y/N

Incr.: --

\_\_\_\_\_

High current lockout–phase *(range given for CT Ratio = 1000.0)*

Range: 1.00–(20000/Min. trip–phase)

multiples of Min. trip–phase

Incr.: 0.01

\_\_\_\_\_

Activate high current lockout–phase

Range: OFF, 1–5

Incr.: 1

\_\_\_\_\_

High current lockout–ground

Range: Y/N

Incr.: --

\_\_\_\_\_

High current lockout–ground

*(range given for CT Ratio = 1000.0)*

Range: 1.00–(20000/Min. trip–ground)

multiples of Min. trip–ground

Incr.: 0.01

\_\_\_\_\_

Activate high current lockout–ground

Range: OFF, 1–5

Incr.: 1

\_\_\_\_\_

Cold load pickup scheme

Range: Y/N

Incr.: --

\_\_\_\_\_

Cold load pickup–phase *(range given for CT Ratio = 1000.0)*

Range: 1.00–(20000/Min. trip–phase)

multiples of Min. trip–phase

Incr.: 0.01

\_\_\_\_\_

Cold load pickup–ground *(range given for CT Ratio = 1000.0)*

Range: 1.00–(20000/Min. trip–ground)

multiples of Min. trip–ground

Incr.: 0.01

\_\_\_\_\_

Loss of load diversity time

Range: 0–999999.00 cycles

Incr.: 0.25

\_\_\_\_\_

Restore min. trips–time limit

Range: OFF, 0–999999.00 cycles

Incr.: 0.25

\_\_\_\_\_

Restore min. trip–phase

Range: Y/N

Incr.: --

\_\_\_\_\_

Restore min. trip–ground

Range: Y/N

Incr.: --

\_\_\_\_\_

Restore min. trip–SEF

Range: Y/N

Incr.: --

\_\_\_\_\_

Sequence coordination

Range: Y/N

Incr.: --

\_\_\_\_\_

Ground trip precedence

Range: Y/N

Incr.: --

\_\_\_\_\_

Underfrequency loadshedding

Range: Y/N

Incr.: --

\_\_\_\_\_

Underfrequency pickup

Range: OFF, 40.10–65.00 Hz

Incr.: 0.01

\_\_\_\_\_

Underfrequency time delay

Range: 2–16000.00 cycles

Incr.: 0.25

\_\_\_\_\_

Demand meter time constant

Range: 5, 10, 15, 30, 60 minutes

Incr.: --

\_\_\_\_\_

## Global EZ Settings (SET FZ command)

---

System Frequency

Range: 50, 60 Hz

Incr.: --

---

Phase Rotation

Range: ABC, ACB

Incr.: --

---

Recloser Wear Monitor

Range: AUTO, Y, N

Incr.: --

---

Recloser type

Range: OIL, VAC1, VAC2

Incr.: --

---

Interrupt rating

Range: 500–20000 A pri.

Incr.: 1

---

Reset trip-latched LEDs on close

Range: Y, Y1, N, N1

Incr.: --

---

True three-phase voltage connected

Range: Y/N

Incr.: --

---

Phantom voltages from

Range: VA, VB, VC, VAB, VBC, VCA, OFF

Incr.: --

---

Voltage terminal connections (V1, V2, V3)

**V123** terminal connections

*If True three-phase voltage connected = N and*

*Phantom voltages = OFF*

Range: A, B, C, AB, BC, CA, OFF

Incr.: --

Or

*If True three-phase voltage connected = Y, then*

Range: ABC, ACB, BAC, BCA, CAB, CBA

Incr.: --

---

Current terminal connections (I1, I2, I3)

**I123** terminal connections

Range: ABC, ACB, BAC, BCA, CAB, CBA

Incr.: --

---

CT polarity

Range: POS, NEG

Incr.: --

---

Battery Amp-hours

Range: 6.5–20.0 Amp-hours

Incr.: 0.1

---

% Battery capacity for sleep  
Range: 0–100%  
Incr.: 1

\_\_\_\_\_

Turn on the 12 V power  
Range: Y/N  
Incr.: --

\_\_\_\_\_

Keep the 12 V power on while asleep  
Range: Y/N  
Incr.: --

\_\_\_\_\_

# Recloser Curve Designations

## Quick Reference for Curve Settings:

Fast Curve–phase

Fast curve–ground

Delay curve–phase

Delay curve–ground

Use any mix of old and new recloser curve designations when making curve settings.

Recloser Curve Cross Reference-Old to New					
Old	New	Old	New	Old	New
A	101	P	115	7	152
B	117	R	105	8	113
C	133	T	161	8PLUS	111
D	116	V	137	9	131
E	132	W	138	KG	165
F	163	Y	120	11	141
G	121	Z	134	13	142
H	122	1	102	14	119
J	164	2	135	15	112
KP	162	3	140	16	139
L	107	4	106	17	103
M	118	5	114	18	151
N	104	6	136		

US Curve	Description
U1	moderately inverse
U2	inverse
U3	very inverse
U4	extremely inverse
U5	short-time inverse
IEC Curve	Description
C1	class A (standard inverse)
C2	class B (very inverse)
C3	class C (extremely inverse)
C4	long-time inverse
C5	short-time inverse
User-Programmable Curves (factory-set)	Description
DEF_01	definite-time curve (0.1 seconds)
DEF_05	definite-time curve (0.5 seconds)
DEF_1	definite-time curve (1.0 seconds)
DEF_5	definite-time curve (5.0 seconds)

**This page intentionally left blank**