SEL-651R-2

Recloser Control With Automatic Network Reconfiguration, Harmonic Analysis, Single-Phase Trip Capability, 6 Voltage Inputs, Power Quality Monitoring, 8 Settings Groups, Template Storage, SEL Fast SER, and DNP3 Level 2 Outstation

Standard with ACSELERATOR QuickSet® SEL-5030 Software(1)

Part Number: **0 6 5 1 R 2 _ _ _ _ _ _ A _ _ _ _ _ _ _ _ _**

Firmware

Standard	2

Control Cable Interface

Traditional Retrofit (14-Pin)	1
G&W Viper®-ST, G&W Viper-LT, ABB OVR, or ABB Elastimold MVR (32-Pin)*	2
ABB OVR/VR3S (15 and 27 kV only) (24-Pin)*	3
G&W Control Power Viper-S or Control-Powered Eaton NOVA (19-Pin)*	4
ABB Joslyn TriMod™ 600R (27-Pin)*	5
Eaton NOVA-TS Triple-Single or NOVA-STS Single-Tank Triple-Single (26-Pin)*	6
Siemens SDR Triple-Single (40-Pin)*	8
Siemens SDR 3-Phase (40-Pin)*	9
SEL Multi-Recloser Interface (42-Pin)*	A

Enclosure(2)

Dual Door (Side Mount), Painted Steel With 3-Point Latches	A
Dual Door (Side Mount), Painted Type 304 Stainless Steel With 3-Point Latches*	B
Single Door (Rear Mount), Painted Steel With 3-Point Latches	C
Single Door (Rear Mount), Painted Type 304 Stainless Steel With 3-Point Latches*	D

Conformal Coat

None	X
Conformally Coated Circuit Boards*	1

Secondary Input Voltage

(6) 300 Vac Max Inputs	A
(3) 8 Vac Max LEA Inputs(3) and (3) 300 Vac Max Inputs	B
(3) 8 Vac Max LEA Inputs and (3) 120 Vac, 1M Lindsey SVMI LEA Inputs(3)	C
(3) Eaton Nova LEA Inputs(3) and (3) 300 Vac Max Inputs(4)	D

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(3) Eaton Nova LEA Inputs and (3) 120 Vac, 1M Lindsey SVMI LEA Inputs[3][4]										E												
(3) 300 Vac Max Inputs and (3) 120 Vac, 1M Lindsey SVMI LEA[3] Inputs										F												
(6) 8 Vac Max LEA Inputs[3]										G												
(3) 300 Vac Max inputs and (3) Siemens SDR LEA Inputs[3][5]										H												
(3) 120 Vac, 1M Lindsey SVMI LEA Inputs and (3) Siemens SDR LEA Inputs [3][5]										J												

Secondary Input Current

1 A Phase, 0.2 A Neutral											A											
1 A Phase, 0.2 A Neutral With High-Impedance Fault Detection*											G											

Extra Inputs/Outputs

None[6]												X										
(7) 12 Vdc Inputs/(8) Standard Outputs*												8										
(2) 125 Vdc and (5) 12 Vdc Inputs/(8) Standard Outputs*												A										

Communications Port

3 EIA-232, USB													A									

Communications Interface

(1) 100BASE-FX, EIA-485*														D								
(2) 10/100BASE-T, EIA-485														E								
(2) 100BASE-FX, EIA-485*														F								

Communications Protocol

Standard															1							
Standard Plus IEC 61850*															2							

Power Supply

120 Vac (Includes GFCI Outlet)																1						
230 Vac																2						
48 Vdc																4	X					
125 Vdc																3	X					

Battery Option

None																	X					
12 V, 16 Ahr																	1					
12 V, 40 Ahr*																	2					

User Interface

Configurable Labels[7]																		2				
Configurable Labels[7] and Tri-Colored LEDs*																		3				

Installed Accessories[8]

None																			X	X		
Accessory Shelf*																			1	0		
Voltage Input Fuse Block (Secondary Voltages)*																			1	1		

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Universal Fuse Block (Incoming Power)*																			1	2			
AC Transfer Switch[9]*																			1	3			
100 W Heater[9]*																			1	4			
SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf[9]*																			1	6			
SEL-2725 Ethernet Switch (2725D33XX) on Accessory Shelf[9]*															E				1	7			
SEL-3031 Serial Radio Transceiver (30310W01XXX) on Accessory Shelf[9]*																			1	8			
Two SEL-2812MR Transceivers*																			1	A			
SEL-2925 BLUETOOTH® Serial Adapter*																			1	C			
SEL-3060 Ethernet Radio (Configurable) on Accessory Shelf[9]*															E				1	D			
100 W Heater and SEL-2925 BLUETOOTH® Serial Adapter[9]*																			1	E			
SEL-3061 Cellular Router for AT&T, T-Mobile, and Rogers (Canada) Networks (3061#DNCF) on Accessory Shelf[9][10]*															E				1	F			
SEL-3061 Cellular Router for Verizon Network (3061#JBCB) on Accessory Shelf[9][10]*															E				1	G			
2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22)[9]*							1												2	0			
8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22)*																			2	1			
4-Position Pin Contact Receptacle for LEA Inputs (MS5015, Size 22)*							1												2	2			
3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12)*																			3	0			
2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22) and 8-Position Pin Contact Receptacle for Voltage Inputs (MS5105, Size 22)[9]*							1												A	0			
Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Input Power), AC Transfer Switch, 2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22), and 8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22)*							1									1			A	1			
Accessory Shelf, Universal Fuse Block, and 2-Position Socket Contact Recepatacle for Low-Voltage Close (MS5015, Size 22)[9]*							1												A	3			

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100 W Heater and 2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22)[9]*							1												A	4				
SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf and 2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22) *							1												A	5				
Accessory Shelf, Universal Fuse Block (Incoming Power), 100 W Heater, and 3-Position Pin Contact Receptacle for Input Power (MS5015, Size 22)[9]*							1												A	8				
Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Incoming Power), 100 W Heater, SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf, 2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22), and 8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22)[9]*							1												A	9				
Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Input Power), AC Transfer Switch, 2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22), 8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22), and Door Switch Wired to IN101*							1				8				1				A	A				
Accessory Shelf and Door Switch Wired to IN103[9][12]*																			A	N				
AC Transfer Switch and Two 3-Position Pin Contact Receptacles for Input Power (MS26482, Size 12)*																1			B	0				
AC Transfer Switch, Two 3-Position Pin Contact Receptacles for Input Power (MS26482, Size 12), and 8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22)*																1			B	1				
Accessory Shelf, Universal Fuse Block (Input Power), and 3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12)*																			B	2				
Accessory Shelf, Universal Fuse Block (Input Power), 100 W Heater, and 3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12)[9]*																			B	3				
Accessory Shelf and 3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12)*																			B	4				

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Accessory Shelf, Universal Fuse Block (Incoming Power), AC Transfer Switch, and (2) 3-Position Pin Contact Receptacles for Input Power (MS26482, Size 12)*																1			B	6		
Accessory Shelf, Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Incoming Power), AC Transfer Switch, 100 W Heater, and (2) 3-Position Pin Contact Receptacles for Input Power (MS26482, Size 12)*																1			B	7		
100 W Heater and 3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12)[9]*																			B	9		
AC Transfer Switch, SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf, and (2) 3-Position Pin Contact Receptacles for Input Power (MS26482, Size 12)*																1			B	A		
SEL-2401 Satellite-Synchronized Clock (24010XXX0) and SEL-3060 Ethernet Radio (Configurable) on Accessory Shelf[9]*														E					B	D		
8-Position Pin Contact Receptacle for Voltage Inputs (MS26482, Size 12)*							4												C	3		
AC Transfer Switch, 8-Position Pin Contact Receptacle for Voltage Inputs (MS26482, Size 12), and 5-Position Pin Contact Receptacle for AC Input (MS5015, Size 22)*							4									1			C	4		
3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12) and 8-Position Pin Contact Receptacle for Voltage Inputs (MS26482, Size 12)*							4												C	7		
Accessory Shelf and Voltage Input Fuse Block (Secondary Voltages)*																			D	2		
100 W Heater and SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf [9]*																			D	3		
Accessory Shelf and 100 W Heater[9]*																			D	4		
Voltage Input Fuse Block (Secondary Voltages), 100 W Heater, and SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf[9]*																			D	5		
Voltage Input Fuse Block (Secondary Voltages) and SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf[9]*																			D	6		
AC Transfer Switch and 100W Heater*																1			D	8		
SEL-2401 Satellite-Synchronized Clock (24010XXX0) and SEL-3031 Serial Radio Transceiver (30310W01XXX) on Accessory Shelf[9]*																			D	9		

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SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf and 3-Position Pin contact Receptacle for Input Power (MS26482, Size 12)[9]*																			D	A			
Accessory Shelf and AC Transfer Switch*																1			D	C			
Accessory Shelf, Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Incoming Power), and 100 W Heater[9]*																			D	E			
SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf and SEL-2925 BLUETOOTH® Serial Adapter[9]*																			D	G			
Security Package 1: SEL-3622 Security Gateway (Configurable) on Accessory Shelf and Door Switch[9][11][12]*														E					E	K			
Voltage Input Fuse Block (Secondary Voltages), Universal Fuse Block (Incoming Power), 100 W Heater, and SEL-2401 Satellite-Synchronized Clock (24010XXX0) on Accessory Shelf [9]*																			G	5			
Accessory Shelf, 100 W Heater, and Door Switch Wired to IN104 [9][12]*																			L	1			
SEL-FR12 Fault Receiver (FR12-0001) on Accessory Shelf [9][13]*																			L	3			
Accessory Shelf, 100 W Heater, AC Transfer Switch and 8-Position Pin Contact Receptacle for Input Power (MS5015 Size 22)*							2									1			M	7			

Bundled Accessories (Shipped in box with SEL-651R but not installed in enclosure)

None																					X	X
Security Sleeve (2" Diameter)*																					0	1
Two Security Sleeves (2" Diameter)*																					0	2
Three Security Sleeves (2" Diameter)*																					0	3
Four Security Sleeves (2" Diameter)*																					0	4
Five Security Sleeves (2" Diameter)*																					0	5
SEL-C553 40' Control Cable (32-Socket MS26482 to 32-Socket MS26482) and SEL-C533 40' Incoming Power Cable (3-Socket MS26482 to Ring Terminals)*							2														A	2
Security Strap*																					0	6
Security Strap and (1) Security Sleeve*																					0	7
Security Strap and (2) Security Sleeves*																					0	8
Security Strap and (3) Security Sleeves*																					0	9
Security Strap and (4) Security Sleeves*																					1	0

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Accessories (Shipped Separately)

Security Sleeve (2" Diameter)*	9 2 5 0 0 1 1
Security Strap for 42-Pin SEL Multi-Recloser Interface and 32-Pin Tavrida OSM Control Cables*	9 2 5 0 8 2 7
Security Strap for 24-Pin ABB Control Cables*	9 2 5 0 8 2 8
Security Strap for 40-Pin Siemens SDR Control Cables*	9 2 5 0 8 2 9
Accessory Shelf (For Dual-Door Enclosure)*	9 2 5 0 5 5 0
Accessory Shelf (For Single-Door Enclosure)*	9 2 5 0 5 6 7
Voltage Input Fuse Block (For Dual-Door Enclosure)*	9 2 5 0 5 5 1
Voltage Input Fuse Block (For Single-Door Enclosure)*	9 2 5 0 5 6 8
Universal Fuse Block (For Dual-Door Enclosure)*	9 2 5 0 5 5 2
Universal Fuse Block (For Single-Door Enclosure)*	9 2 5 0 5 6 9
100W Heater (For Dual Door Enclosure)*	9 2 5 0 5 8 5
100W Heater (For Single Door Enclosure)*	9 2 5 0 8 3 1
120 Vac Transfer Switch (For Dual-Door Enclosure)*	9 2 5 0 5 5 3
120 Vac Transfer Switch (For Single-Door Enclosure)*	9 2 5 0 5 7 0
SEL-2401 Satellite-Synchronized Clock (For Dual Door Enclosure) with Accessory Shelf*	9 2 5 0 5 9 3
SEL-2401 Satellite-Synchronized Clock (For Single Door Enclosure) with Accessory Shelf*	9 2 5 0 5 9 5
2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22) for Dual-Door Cabinet*	9 2 5 0 5 5 4
2-Position Socket Contact Receptacle for Low-Voltage Close (MS5015, Size 22) for Single-Door Cabinet*	9 2 5 0 5 7 1
8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22) for Dual-Door Cabinet*	9 2 5 0 5 5 5
8-Position Pin Contact Receptacle for Voltage Inputs (MS5015, Size 22) for Single-Door Cabinet*	9 2 5 0 5 7 2
3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12) for Dual-Door Cabinet*	9 2 5 0 5 5 6
3-Position Pin Contact Receptacle for Input Power (MS26482, Size 12) for Single-Door Cabinet*	9 2 5 0 5 8 0
4-Position Pin Contact Receptacle for LEA Inputs (MS5015, Size 22) for Single-Door Cabinet*	9 2 5 0 6 9 1
4-Position Pin Contact Receptacle for LEA Inputs (MS5015, Size 22) for Dual-Door Cabinet*	9 2 5 0 6 9 2
8-Position Pin Contact Receptacle for Voltage Inputs (MS26482, Size 12) for Dual-Door Cabinet*	9 2 5 0 5 5 7
8-Position Pin Contact Receptacle for Voltage Inputs (MS26482, Size 12) for Single-Door Cabinet*	9 2 5 0 5 8 1

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16 Ahr Replacement Battery Kit*	9 1 5 9 0 0 2 0 0
40 Ahr Replacement Battery Kit*	9 1 5 9 0 0 1 9 9
SEL-C510 Control Cable (14-Socket MS5015 to 14-Pin MS5015) for Recloser*	C 5 1 0
SEL-C520 Control Cable (14-Socket MS5015 to 14-Pin MS5015) with Overmolding for Recloser*	C 5 2 0
SEL-C524 Control Cable (32-Socket MS26482 to 32-Pin MS26482) for Recloser*	C 5 2 4
SEL-C553 Control Cable (32-Socket MS26482 to 32-Socket MS26482) for Recloser*	C 5 5 3
SEL-C550 Control Cable (42-Socket Rectangular to 32-Socket MS26482) for Recloser*	C 5 5 0
SEL-C551 Control Cable (42-Socket Rectangular to 32-Pin MS26482) for Recloser*	C 5 5 1
SEL-C552 Control Cable (42-Socket Rectangular to 32-Pin MS26482) for Control Cable Extension*	C 5 5 2
SEL-C515 Low-Voltage Close Cable (2-Pin MS5015 to 2-Socket MS5015) for Recloser*	C 5 1 5
SEL-C517 Voltage Input Cable (8-Socket MS5015 to 8-Pin MS5015) for Recloser*	C 5 1 7
SEL-C5469 Quick Disconnect Battery Cable for Recloser Control*	C 5 4 6 9

* Additional Cost

(1) Download ACSELERATOR QuickSet SEL-5030 software for free at https://www.selinc.com/softwaresolutions/. QuickSet on CD (503001WX4) is available upon request.
(2) The Dual Door (side mount) enclosure dimensions are 24.5" W x 30" H x 16.6" D (11,200 in3). The Single Door (rear mount) enclosure dimensions are 17" W x 32.5" H x 14" D (7,700 in3). The SEL-651R enclosure includes doorstop(s), document holder, and padlockable handle(s).
(3) Refer to Low Energy Analog (LEA) voltage inputs in the installation section of the SEL-651R Instruction Manual for details.
(4) Only Available with Control Cable Interface Options 1, 4, or 6.
(5) Only Available with Control Cable Interface Options 8 or 9.
(6) Not Available with Control Cable Interface Options 3 or A.
(7) For model numbers specifying "Configurable Labels," a configuration kit (9260011 or 9260021) is provided (packaged in the shipping box).
(8) Installed Accessories are mounted and wired inside the SEL-651R enclosure. The compatibility of selected accessory combinations must be verified using the SEL online product configurator (website).
(9) Available on AC Input Powered units only.
(10) The SEL-651R cabinet solution including the pre-installed SEL-3061 is rated for −40° to +50°C. The SEL-3061 accessory includes two floor mounted N-type antenna surge arresters. It is pre-wired to both a Serial and an Ethernet port on the SEL-651R. External antennas and cables must be ordered separately. Refer to the SEL-3061 web page for cable and antenna options.
(11) Door switch is wired to SEL-3622 and SEL-651R IN104.
(12) Requires Extra I/O options 8 or A.
(13) The SEL-FR12 accessory includes a floor-mounted N-type antenna surge arrester. SEL-FT50 Fault Transmitters, an external antenna, and cable must be ordered separately. Refer to the SEL-FR12 web page for cable and antenna options.

Note: The SEL-651R comes standard with a CD manual. One complimentary printed instruction manual is available upon request with each product purchased.

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Making Electric Power Safer, More Reliable, and More Economical ®

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WI-9861
20191018