

Rockwell® to Siemens Controllers

Quick reference guide

Upgrading your Rockwell controller with a Siemens state-of-the art controller?
Use the quick reference charts below for guidelines on selecting replacement parts.

PLC-5® (1785 series)

Rockwell controller	Description	Fully utilized	Typical	Notes **
PLC-5/11	8K Memory, 512 max I/O, On board Communications: 1 DH+ or 1 Remote IO	S7-1511	S7-1215	obsolete / discontinued
PLC-5/20	16K Memory, 512 max I/O, On board Communications: 2 DH+ or 1 Remote IO	S7-1511	S7-1215	obsolete / discontinued
PLC-5/20e	16K Memory, 512 max I/O, On board Communications: 1 Ethernet, 2 DH+ or 1 Remote IO	S7-1511	S7-1215	obsolete / discontinued
PLC-5/40	48K Memory, 2048 max I/O, On board Communications: 4 DH+ or 4 Remote IO	S7-1513	S7-1215	obsolete / discontinued
PLC-5/40e	48K Memory, 2048 max I/O, On board Communications: 1 Ethernet, 2 DH+ or 2 Remote IO	S7-1513	S7-1217	obsolete / discontinued
PLC-5/60	64K Memory, 3072 max I/O, On board Communications: 4 DH+ or 4 Remote IO	S7-1515	S7-1511	obsolete / discontinued
PLC-5/80	100K Memory, 3072 max I/O, On board Communications: 4 DH+ or 4 Remote IO	S7-1515	S7-1511	obsolescence planned / end of life
PLC-5/80e	100K Memory, 3072 max I/O, On board Communications: 1 Ethernet, 2 DH+ or 2 Remote IO	S7-1515	S7-1511	obsolescence planned / end of life

** Memory "Rule of Thumb": The 1215 is 2x faster speed than the PLC-5/80, The 1511 is 2.5X.
Recommendations are general, review the application thoroughly for proper CPU selection.
PLC-5 IO count is per point, Siemens IO count is bytes...take PLC-5 count divide by 8 to determine Siemens I/O bytes.

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SLC 500 (1747 Series)

Rockwell controller	Description	Fully utilized	Typical	Notes **
SLC-5/01	4K Memory, 7880 max I/O, On board Communications: DH-485 Slave	S7-1215	S7-1212	obsolete / discontinued
SLC-5/02	4K Memory, 8192 max I/O, On board Communications: DH-485	S7-1215	S7-1214	obsolete / discontinued
SLC-5/03	32K Memory, 8192 max I/O, On board Communications: DH-485 and RS-232(DF1 or Modbus RTU)	S7-1215	S7-1214	obsolescence planned / end of life
SLC-5/04	64K Memory, 8192 max I/O, On board Communications: DH+ and RS-232(DF1 or Modbus RTU)	S7-1217	S7-1215	obsolescence planned / end of life
SLC-5/05	64K Memory, 8192 max I/O, On board Communications: Ethernet and RS-232(DF1 or Modbus RTU)	S7-1217	S7-1215	obsolescence planned / end of life

** Memory "Rule of Thumb": 1215 is 4x faster speed than the SLC5/05, The 1511 is 6X.
 Recommendations are general, review the application thoroughly for proper CPU selection.
 SLC Memory is spec listed as words, Siemens Memory is Bytes....multiply SLC memory by 2.
 SLC IO count is per point, Siemens IO count is bytes...take SLC count divide by 8 to determine Siemens I/O Bytes.

MicroLogix™ (176x Series)

Rockwell controller	Description	Fully utilized	Typical	Notes **
MicroLogix 1000	1K Memory, 32 max I/O, On board Communications: DF1	S7-1212	S7-1212	obsolete / discontinued
MicroLogix 1100	8K Memory, 160 max I/O, On board Communications: DF1 or Modbus, Ethernet (EIP)	S7-1214	S7-1212	
MicroLogix 1200	6K Memory, 136 max I/O, On board Communications: DF1 or DF1/ Modbus	S7-1214	S7-1212	obsolescence planned / end of life
MicroLogix 1400	20K Memory, 288 max I/O, On board Communications: DF1 or Modbus, Ethernet(EIP, Modbus TCP/IP, DNP3)	S7-1214	S7-1214	
MicroLogix 1500	14K Memory, 540 max I/O, On board Communications: DF1 or DF1/ Modbus	S7-1214	S7-1214	obsolete / discontinued

** Memory "Rule of Thumb": Rule of Thumb: The 1200 is 3x faster speed than the MicroLogix 1400.
 Recommendations are general, review the application thoroughly for proper CPU selection.
 MicroLogix IO count is per point, Siemens IO count is byte...take MicroLogix count divide by 8 to determine Siemens I/O Bytes.
 MicroLogix Memory is spec listed as words, Siemens Memory is Bytes.....multiply MicroLogix memory by 2 to determine Siemens required memory.

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CompactLogix™ (176x Series) – Older Versions

Rockwell controller	Description	Fully utilized	Typical	Notes **
L31	512K Memory, 512 max I/O, On board Communications: 2 RS-232	S7-1511	S7-1215	
L32E	750K Memory, 512 max I/O, On board Communications: 1 Ethernet and 1 RS-232	S7-1511	S7-1215	
L35E	1.5M Memory, 960 max I/O, On board Communications: 1 Ethernet and 1 RS-232	S7-1511	S7-1217	
L43	2M Memory, 512 max I/O, On board Communications: 1 RS-232	S7-1511	S7-1510	
L43S	2M Memory, 500K Safety Memory, 512 max I/O, On board Communications: 1 RS-232	S7-1511F	S7-1510	
L45	3M Memory, 960 max I/O, On board Communications: 1 RS-232	S7-1511	S7-1510	
L45S	3M Memory, 960 max I/O, On board Communications: 1 RS-232	S7-1512F	S7-1510	

** Memory "Rule of Thumb".

1 - Recommendations are general, review the application thoroughly for proper CPU selection.

2 - Rockwell Memory is 10X size of Siemens combined memory. Siemens memory is defined into Program Memory and Data Memory.

To find Program Memory, take Rockwell Memory divide by 10 and multiply by .20 (20%). To find Data Memory, take Rockwell memory divide by 10 and multiply by .80 (80%).

5370 Series Newer Versions

Rockwell controller	Description	Fully utilized	Typical	Notes **
L16X	384K Memory, 64 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1215	
L18x	512K Memory, 96 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1215	
L24x	750K Memory, 302 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1215	
L27x	1M Memory, 558 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1217	
L30x	1M Memory, 512 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1217	
L33x	2M Memory, 1024 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1510	
L36x	3M Memory, 1536 max I/O, On board Communications: 1 Ethernet	S7-1511	S7-1510	

** Memory "Rule of Thumb."

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ControlLogix®

Rockwell controller	Description	Fully utilized	Typical	Notes **
L61	2M Memory, max I/O- 250 Racks, On board Communications: RS-232 (DF1, Modbus RTU)	S7-1511	S7-1510	obsolescence planned / end of life
L62	4M Memory, max I/O- 250 Racks, On board Communications: RS-232 (DF1, Modbus RTU)	S7-1511	S7-1510	obsolescence planned / end of life
L63	8M Memory, max I/O- 250 Racks, On board Communications: RS-232 (DF1, Modbus RTU)	S7-1513	S7-1512	obsolescence planned / end of life
L64	16M Memory, max I/O- 250 Racks, On board Communications: RS-232 (DF1, Modbus RTU)	S7-1515	S7-1512	obsolescence planned / end of life
L65	32M Memory, max I/O- 250 Racks, On board Communications: RS-232 (DF1, Modbus RTU)	S7-1516	S7-1515	obsolescence planned / end of life
L61S	2M Memory, 1M Safety Memory, max I/O- 250 Racks, On board Communications: None	S7-1511F	S7-1510F	obsolescence planned / end of life
L62S	4M Memory, 2M Safety Memory, max I/O- 250 Racks, On board Communications: None	S7-1513F	S7-1512F	obsolescence planned / end of life
L632S	8M Memory, 4M Safety Memory, max I/O- 250 Racks, On board Communications: None	S7-1515F	S7-1513F	obsolescence planned / end of life
L71	2M Memory, max I/O- 500 Racks, On board Communications: None	S7-1513	S7-1510	
L72	4M Memory, max I/O- 500 Racks, On board Communications: None	S7-1513	S7-1510	
L73	8M Memory, max I/O- 500 Racks, On board Communications: None	S7-1515	S7-1512	
L74	16M Memory, max I/O- 500 Racks, On board Communications: None	S7-1516	S7-1512	
L75	32M Memory, max I/O- 500 Racks, On board Communications: None	S7-1516	S7-1515	
L71S	2M Memory, 1M Safety Memory, max I/O- 500 Racks, On board Communications: None	S7-1513F	S7-1510F	
L72S	4M Memory, 2M Safety Memory, max I/O- 500 Racks, On board Communications: None	S7-1515F	S7-1512F	
L73S	8M Memory, 4M Safety Memory, max I/O- 500 Racks, On board Communications: None	S7-1516F	S7-1513F	

** Memory "Rule of Thumb."

Recommendations are general, review the application thoroughly for proper CPU selection.

ControlLogix Memory and Siemens Memory are both Bytes.....divide ControlLogix memory by 2 to determine Siemens required program memory

ControlLogix Safety requires the Safety PLC Listed plus a Safety Partner.

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