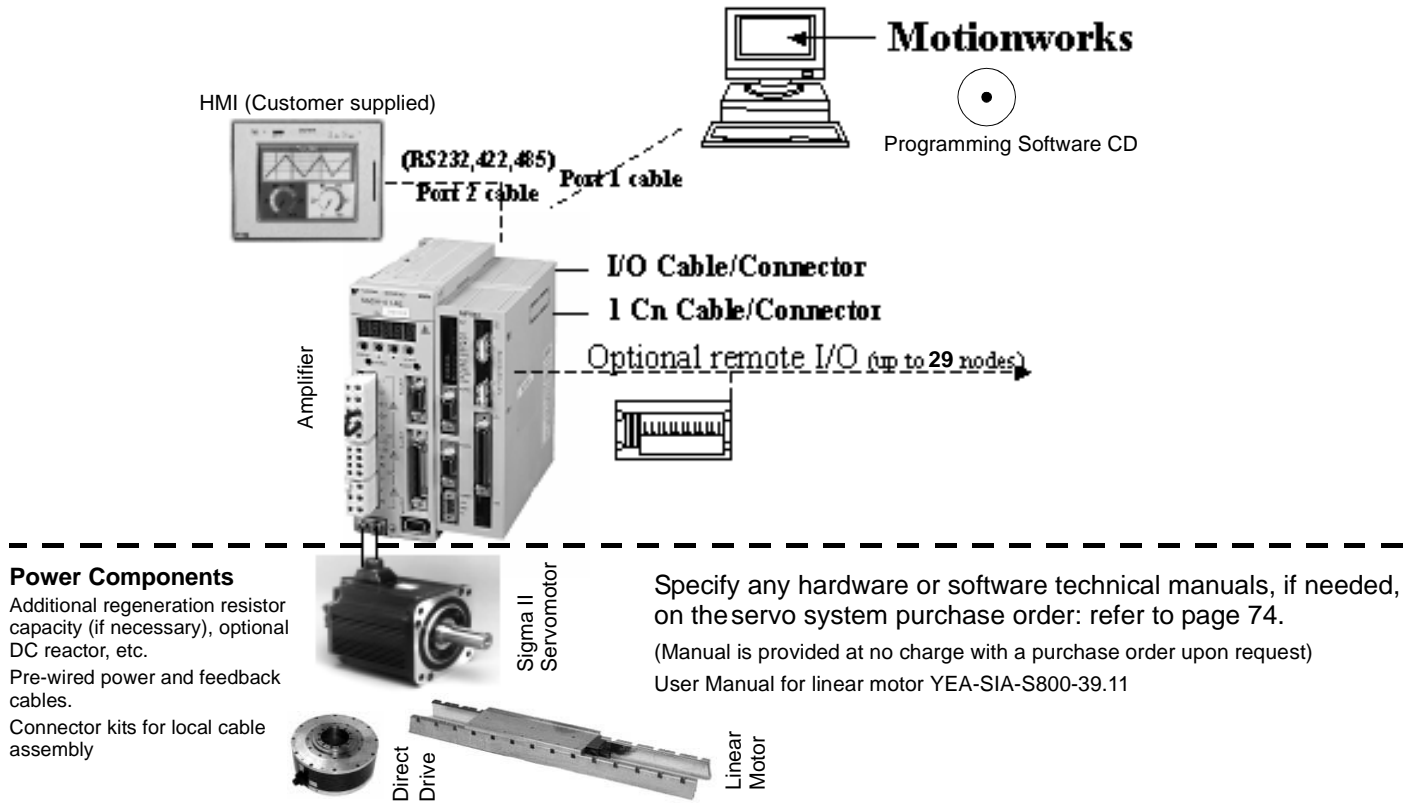


Selecting Your Sigma II MP940 Motion System

Use the tables beginning on the following page to specify choice of MP940 cables, mating connectors only, set-up and monitoring tools, and software.

System Configuration



Power Components
 Additional regeneration resistor capacity (if necessary), optional DC reactor, etc.
 Pre-wired power and feedback cables.
 Connector kits for local cable assembly

Specify any hardware or software technical manuals, if needed, on the servo system purchase order: refer to page 74.
 (Manual is provided at no charge with a purchase order upon request)
 User Manual for linear motor YEA-SIA-S800-39.11

Power Components (motor, amplifier, and connections for power and feedback)

Select the required power components (servomotor, power and feedback connectors or pre-wired cables, amplifier, regenerative packs, etc.) from the following catalog pages.

Use this table or the Yaskawa publications referenced below to determine which catalog section describes the best servomotor for the application.

Application Requirements (Maximum)			Number of Motor Sizes	System Voltage and Sigma II Servomotor Series				Selection Guide for Power Components Page Number *
Speed (rpm)	Rated Torque oz • in [lb • in]	Peak Torque oz • in [lb • in]		100V _{ac} Single-phase	200V _{ac} Single-phase	200V _{ac} Three-phase	480V _{ac} Three-phase	
5000	338	1010	6	SGMAH	SGMAH	—	—	11
5000	676	2027	5	SGMPH	SGMPH	—	—	29
3000	[845]	[1988]	10	—	—	SGMGH	—	57
5000	[140]	[422]	6	—	—	SGMSH	—	85
3000	[845]	[1988]	10	—	—	—	SGMGH	127
5000	[140]	[422]	6	—	—	—	SGMSH	139
6000	[43]	[190]	2	—	—	—	SGMUH	139
2000	[1240]	[6120]	5	—	—	—	SGMBH	165

* Yaskawa publication: *Sigma II Servo System Product Catalog Supplement G-MI#99001x-Sigma II, Linear Motor Catalog KAE-S800-39.10, Direct Drive Motor Catalog YEA-KAA-DDM-1.*

MP940

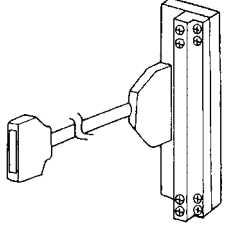
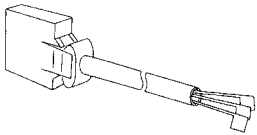
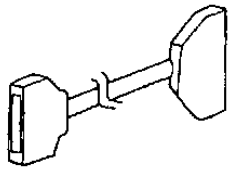
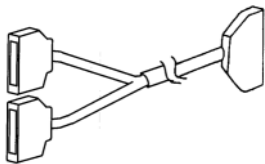
MP940 System Selection

Component Description	Part Number	Item Class
MP940 Application Module*	JEPMC-MC400	Stock
MP940 with DeviceNet	JEPMC-MC410	

* Includes optional remote I/O network interface as standard

Use the Sigma II Application Module Mounting Dimensions on pages 75 to 82 for determining overall MP940 panel space requirements. For 480VAC large capacity amplifiers (22 - 55kW), refer to the Sigma II catalog for amp dimensions.

I/O Interface Cable Selection

Component Description (E)	Part Number	Comments	Item Class
1CN and I/O Cable & Transition Terminal Block 	JUSP-TA50P	35mm DIN rail mountable; the cable length is 0.5m.	Stock
1CN and I/O Cable with Pigtail Leads 	JZSP-CKI01-□(A)*	Use the following key to specify required cable length (last digit of the part number): 1: 1m (standard) 2: 2m 3: 3m	
Input/Output 1CN Cable Cable with Female D-Sub output Connector 	JZSP-CKI0D-□□**	Use the following key to specify required cable length (last two digits of the part number): D50: 0.5m 01: 1m (standard) 02: 2m 03: 3m	
Cable with Female D-Sub* output Connector Applicable only for SGDH-1E (15 kW) and below. 	CKI-MP940D-□□□**	Use the following key to specify required cable length (last two or three digits of the part number): D50: 0.5m 01: 1m (standard) 02: 2m 03: 3m	

* The "(A)" at the end of the cable part number indicates the revision level. Revision level may be subject to change prior to the catalog reprinting.

** 50 pin female D-Sub output connector mates to customer supplied third party terminal block. (e.g., Wago #289-449, Weidmuller #919658, Phoenix #2283647, Amphenol/Sine #20-51039, and many others).

Mating Connector Selection

Component Description (E)	Part Number	Comments	Item Class
1CN and I/O Mating Connector	JZSP-CKI9	for SGDH I/O 50-pin	Stock
4CN Mating Connector	DP-9420007	Solder type with cover	
DeviceNet mating connector (for JEPMC-MC410 only)	YDN-1*	Alternate source: USA Phoenix Contact part number: MSTB2.5/5-STF-5.08AU	
Port 1 and 2 Mating Connector only	YSC-1	—	
5CN Analog Monitor Connector	DE9404559	—	

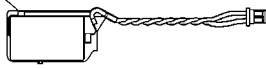
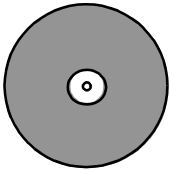
* This mating connector is already included w/the JEPMC-MC410 application module

Optional Remote I/O Modules

Up to 14 modules can be connected. Use cables that are not longer than 50m total network length. Reference detail specifications and dimensions starting on page 75.

Component Name	Description	Model JAMSC-	Item Class
64-Point I/O Module	24 VDC, 64 point inputs, 64 point outputs	(JEPMC-IO350)	Stock
DC Input Module	12/24 VDC, 16 point inputs, 5 mA / point	120DDI34330	
DC Output Module	12/24 VDC, 16 point outputs, 0.3 A / point, sink type	120DDO34330	
AC Input Module	100 VAC, 8 point inputs, 7 mA / point	120DAI53330	
AC Input Module	200 VAC, 8 point inputs, 7 mA / point	120DAI73330	
AC Output Module	100/200 VAC, 8 point inputs, 0.6 A / point 2.4 A / 8 points	120DAO83330	
Relay Module	Wide range voltage relay contact: 8 point outputs, 1A / point	120DRA83030	
A/D Module	A/D -10 to +10 V, 4 channels	120AVI02030	
D/A Module	D/A -10 to +10 V, 2 channels	120AVI01030	
Mechatrolink Network Cable	0.5 meter USB-USB	JEPMC-W6000-A5	
Mechatrolink Network Cable	1.0 meter USB-USB	JEPMC-W6000-01	
Mechatrolink Network Cable	3.0 meter USB-USB	JEPMC-W6000-03	
Mechatrolink Network Cable	5.0 meter USB-USB	JEPMC-W6000-05	
Mechatrolink Network Cable	10.0 meter USB-USB	JEPMC-W6000-10	
Mechatrolink Network Cable	20.0 meter USB-USB	JEPMC-W6000-20	
Mechatrolink Network Terminator Plug	-----	JEPMC-W6020	

Peripheral Device Selection

Component	Description (E)	Part Number	Comments	Item Class
Battery		BA000518	3.6V, 2000mAh (lithium battery) Battery backup for current values of motion program variables and axis position. Programs are stored in non-volatile memory.	Stock
Interface Cable	Port 1	YS-15	Pre-wired 3.0m cable with 9-pin connector (RS232)	
	Port 2	YS-14	Pre-wired 3.0m cable with pig tail leads	
MotionWorks™ Software w/ Ladder Editor MotionWorks+ Icon Graphic Programming Software		MPE720* CP717 Plus**	System setup, programming, debugging, and maintenance software. Choose one. If there is no clear preference for either Icon or Ladder-based programs, Yaskawa recommends Ladder-based MotionWorks. MotionWorks provides a wider selection of debugging tools, program controls, and flexibility to solve applications requirements.	Stock

* Use the following publications for MotionWorks (MPE720) and Ladderworks Programming environments:

- MP940 Reference Manual - YEA-SIA-C887-4.2x
- MotionWorks File Manager/Engineering Manager Manual (Chapters 4 & 5) - SIEZ-C887-2.2-1
- Ladder Works Programming Manual - YEA-SIA-C887-2.1
- Ladder Editor Operator's Manual - YEA-SIA-C887-2.3x

** Use the following publications for MotionWorks (CP717 Plus) Programming environments:

- MP940 Hardware Manual - YEA-SIA-C887-4.1x
- Icon based Programming Manual - YEA-SIA-C887-1.5x

Use the following publication for R - network I/O modules:

- YEA-SIA-C887-5.1