

DEK Grid-Lok™ Premium Automatic Substrate PCB Support for SMT Processes

Designed to accommodate assemblies of all types – from basic SMT to high-density, highly miniaturized products – Grid-Lok is the best substrate support on the SMT market, for the entire assembly process:

Key benefits:

- High versatility
- Unparalleled flexibility
- Minimal operator intervention
- Reduced or zero change over time
- No risk of component damage
- Global coverage organization

System Components:

- Control box to provide module(s) - machine interface
- Hand controller to set operating mode
- Up to 6 Grid-Lok modules

- Field installation kit
- Manifold used to support up to 6 modules
- Machine-specific fitting tools
- Machine-specific interface (sensor or pneumatic input to start the pin raise and clamp cycle)
- All interconnecting hardware

System Requirements:

- Air pressure: 80-102 PSI (0.55-0.7 MPa)
- Air quality: 2.3.3 where 2 (dirt) = 1 micron, 3 (water) = -20° C pressure dew point and 3 (oil) = 1 mg/m³
- 120-240 AC supply to provide 24 VDC to power control box

DEK Grid-Lok Gold™

Grid-Lok Gold has been designed to offer the support required for screen printing and testing processes where maximum substrate support is required for increased yields.



Module Specifications:

Depending on the specific machine application, the modules have the following specifications:

- Available tooling heights 39 mm to 159 mm
- Available module lengths: 254 mm (standard), 305 mm (HD), 457 mm (HD)
- Component clearance: 13-40 mm
- Pin count
 - HD modules are available in heights from 39 mm to 135 mm
 - Module width: 32 mm
 - 305 mm -- 46 pins configured in 2 rows on a 12x18 mm pitch
 - 457 mm -- 70 pins configured in 2 rows on a 12x18 mm pitch
 - Pin setting force – 5 grams per pin
 - Pin cap – electrically conductive silicone rubber compound

Stencil printers:

ASM DEK,
Ekra,
Ersa,
Juki GKG
MPM Speedline
Panasonic

Speedprint,
Yamaha

Flying Probe:

Itochu-Takaya
Spea

Grid-Lok Gold™ Ordering Information

Grid-Lok™ Kits

Part Number	Controller/ Description	Manifold(s) Included	Included in All Kits
KIT_111	111_CTL - Single Table System	1 each, 006_MAN, Manifold for 6 modules	INC_FIK - Field Installation Kit, 002_CON - Hand Held Controller/Holder (only for single table system) , 6 each twin leashes per manifold, All necessary fittings, tubes and air pipes for kit installation
KIT_211	211_CTL - Dual Table System	2 each, 006_MAN, Manifolds for 12 modules	

Note: 077_SBA - Optical Sensor which is not included in the kit, may be required if the host machine doesn't have pneumatic activated board clamps. Please consult your local ASM Representative for more information.

Height (mm)	Gold, HD, 12 inch modules	Gold, HD, 18 inch modules	Equipment
	Part Numbers		
39	GHD3912	GHD3918	MPM Momentum, Accela, Accuflex
41	GHD4112	GHD4118	Panasonic SP18, 60, 70, 80, SPG
59	GHD5912	GHD5918	Speedprint
62	GHD6212	GHD6218	Takaya in line
65	GHD6512	GHD6518	Juki GKG
67	GHD6712	GHD6718	Yamaha YSP
81	GHD8112	GHD8118	ASM DEK
87	GHD8712	GHD8718	Ekra
98	GHD9812	GHD9818	Ersa
98	GLM9812***	GLM9818***	Takaya off line
110	GLM1012***	GLM1018***	Spea

*** Grid-Lok Max - special modules with ultra-high component clearance (40 mm)

DEK Grid-Lok Silver™

Grid-Lok Silver is ideal for placement processes, where substrate support requires robustness and protection against vibration.



Pick & Place Systems

Supported:

ASM SIPLACE
 Assembleon
 Fuji
 I-pulse
 Juki
 Panasonic
 Samsung
 Universal
 Yamaha

Module Specifications:

Depending on the specific machine application, the modules have the following specifications:

- Available tooling heights: 53 mm to 159 mm
- Module length: 14" / 355 mm
- Module width: 32 mm
- Pin count: 27 pins configured in 2 rows, on a 25x20 mm pitch
- Component clearance: 16.5 mm
- Pin cap – electrically conductive silicone rubber compound

System Requirements:

- Air pressure: 80-102 PSI (0.55-0.7 MPa)
- Air quality: 2.3.3 where 2 (dirt) = 1 micron, 3 (water) = -20° C pressure dew point and 3 (oil) = 1 mg/m³
- 120-240 AC supply to provide 24 VDC to power control box

Grid-Lok Silver™ Automatic Kits Ordering Information

Grid-Lok™ Kits			
Part Number	Controller/ Description	Manifold(s) Included	Included in All Kits
KIT_111	111_CTL - Single Table System	1 each, 006_MAN, Manifold for 6 modules	INC_FIK - Field Installation Kit, 002_CON - Hand Held Controller/Holder (only for single table system) , 6 each twin leashes per manifold, All necessary fittings, tubes and air pipes for kit installation
KIT_211	211_CTL - Dual Table System	2 each, 006_MAN, Manifolds for 12 modules	

Note: 077_SBA - Optical Sensor which is not included in the kit, may be required if the host machine doesn't have pneumatic activated board clamps. Please consult your local ASM Representative for more information.

Height (mm)	Controller	Silver, MD, 10 inch modules	Silver, MD, 14 inch modules	Equipment
Part Numbers				
53	single	GMD5310A	GMD5314A	Fuji NXT M3, M6 single
53	dual	GMD5310A	GMD5314A	Fuji NXT M3, M6 dual
57	single	N/A	GMD5714A	UIC
57	dual	N/A	GMD5714A	UIC
59	single	N/A	GMD5914A	Speedprint
62	single	N/A	GMD6214A	Takaya in line
65	single	N/A	GMD6514A	Juki GKG
67	single	N/A	GMD6714A	Yamaha YSP
69	single	N/A	GMD6914A	Assembleon GEM series
70	single	N/A	GMD7014A	Panasonic NPM, I-Pulse
76	single	N/A	GMD7614A	Yamaha YS12
76	dual	GMD7610AM*	N/A	Yamaha YS24
77	single	N/A	GMD7714A	ASM Siplace F, C, S
81	single	N/A	GMD8114A	ASM DEK
87	single	N/A	GMD8714A	Ekra
97	single	N/A	GMD9714A	ASM Siplace D, SX. Juki
97	dual	N/A	GMD9714A	ASM Siplace X. Juki FX-3
97	quad	N/A	GMD9714A	ASM Siplace X, HS
98	single	N/A	GMD9814A	Ersa, Takaya off line
115	single	N/A	GMD1154A	Assembleon AX-201
132	single	N/A	GMD1324A	Samsung SM421
134	single	N/A	GMD1344A	Samsung SM481, 482
134	dual	N/A	GMD1344A	Samsung SM471
135	single	N/A	GMD1354A	Assembleon I-Flex single
135	dual	N/A	GMD1354A	Assembleon I-Flex dual

* Hybrid modules

Grid-Lok Silver™ Manual Modules Ordering Information

Height (mm)	Silver, MD, 10 inch modules	Silver, MD, 14 inch modules	Equipment
	Part Numbers		
53	GMD5310M	GMD5314M	Fuji NXT M3, M6
57	N/A	GMD5714M	UIC
59	N/A	GMD5914M	Speedprint
62	N/A	GMD6214M	Takaya in line
65	N/A	GMD6514M	Juki GKG
67	N/A	GMD6714M	Yamaha YSP
69	N/A	GMD6914M	Assembleon GEM series
70	N/A	GMD7014A	Panasonic NPM, I-Pulse
76	GMD7610M	GMD7614M	Yamaha YS12, YS24
77	N/A	GMD7714M	ASM Siplace F, C, S
81	N/A	GMD8114M	ASM DEK
87	N/A	GMD8714M	Ekra
97	N/A	GMD9714M	ASM Siplace D, SX. Juki
98	N/A	GMD9814M	Ersa, Takaya off line
115	N/A	GMD1154M	Assembleon AX-201
132	N/A	GMD1324M	Samsung SM421
134	N/A	GMD1344M	Samsung SM481, 482, 471
135	N/A	GMD1354M	Assembleon I-Flex single

Grid-Lok™ Spares ordering information

Part Number	Description
025_TIP	25 Rubber Compliant Top Caps for GSX
100_TIP	100 Rubber Compliant Top Caps for GSX
025_UTP	25 Universal Compliant Caps for GHD
100_UTP	100 Universal Compliant Caps for GHD
025_TMP	25 Universal Compliant Caps for GMD
100_TMP	100 Universal Compliant Caps for GMD
025_TSP	25 Universal Compliant Caps for GHD 39 mm
100_TSP	100 Universal Compliant Caps for GHD 39 mm
018_PRK	DEK, Ekra, Siemens, MPM Pin Repair Kit
881_PRK	81 mm HD Grid-Lok Pin Repair Kit
887_PRK	87 mm HD Grid-Lok Pin Repair Kit
009_PRK	Grid-Lok Pin Repair Kit (75 mm)
818_PRK	Grid-Lok HD Pin Repair Kit (39 mm), 10 pins
062_PRK	Grid-Lok HD Pin Repair Kit (62 mm)
053_PRK	Grid-Lok Silver Pin Repair Kit (10 pins)
006_MAN	6 Station Manifold Fully Fitted
006_SMF	6 Female Silver Quick Connect
006_RMF	6 Female Red Quick Connect
006_AFT	90 Deg. X 1/4" Tube x 1/8" npt
006_FLO	90 Deg. X 1/4" Tube x 1/8" npt Flow Control
018_FLO	Pack of 5 HD Grid_Lok Module Flow Controllers
005_LEA	Twin Tubing w/ fittings, 5 pcs
041_BLA	41 mm board lifters set (Panasonic SP)
067_BLA	67 mm board lifters set (Yamaha YSP)
087_BLA	87 mm board lifters set (Ekra)
077_SBA	Optical Sensor with Magnetic Base
111_CTL	Single Grid-Lok controller
211_CTL	Double Grid-Lok controller
002_CON	Grid_Lok Hand Held Controller (Mark 2)
001_DCP	24 Volt Power Supply
005_SFT	5/32" Tube x 10-32 Thread Straight Fitting
005_AFT	5/32" Tube x 10-32 Thread 90 Deg. Fitting
111_VAL	Valve inside control box 111_CTL
111_PSI	Pressure Sensor for 111_CTL
111_PCB	Programmed Circuit Board for 111_CTL
211_PCB	Programmed Circuit Board for 211_CTL
518_MAG	18" of Adhesive Magnetic Tape
010_PIP	Pin in paste jig 10" silver module
012_PIP	Pin in paste jig 12" gold module
014_PIP	Pin in paste jig 14" silver module
018_PIP	Pin in paste jig 18" gold module
553_PST	Plastic piston for the silver modules, bag of 5 pcs.
018_ORP	Orange rubber piston stoppers for the gold modules, bag of 50 pcs.