



ROBO Cylinder Combinations

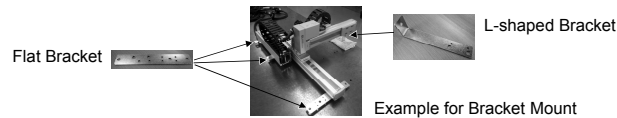
IA Kit IK Series Assembly Procedures Edition 3

Thank you for purchasing an IAI product.
Use this Assembly Procedures as reference to assemble your product correctly.

List of Drawings Referenced in Assembly Procedures

No.	Type	DWG No.
1	XY base fixed type	Single slider type GMM07-053E
2	XY base fixed type	Double slider type GMM07-054E
3	Upright type	Single slider type GMM07-055E
4	Upright type	Double slider type GMM07-056E
5	Crossed-type base fixed	Single slider type GMM07-057E
6	XYB + Z base fixed type	Single slider type GMM07-058E
7	XYB + Z base fixed type	Double slider type GMM07-059E
8	Cable affixing method	GMM07-060E

! Note : The flat brackets and L-shaped bracket attached on the unit when it is delivered are to fix the actuator for packaging. They are not necessary for installation. Have the unit installed with the brackets taken off.

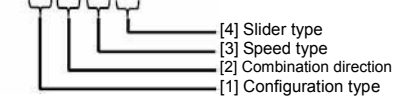


Upright type



[Model] IK2-SXZ [1] [2] [3] [4] Axis configuration RCS2

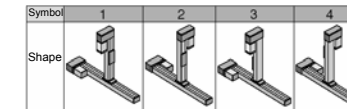
IK2-PXZ [1] [2] [3] [4] Axis configuration RCP2



[1] Configuration type

Symbol	X-axis (axis 1)	Y-axis (axis 2)
B1	SS8R (150W)	SA7R

[2] Combination direction



[3] Speed type

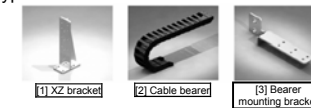
Symbol	Type	
HH	High speed	High speed
HM	High speed	Medium speed
HL	High speed	Low speed
MM	Medium speed	Medium speed

[4] Slider type

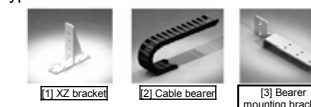
Symbol	Type
S	Single
D	Double

[IA kit components]

* Single slider type



* Double slider type

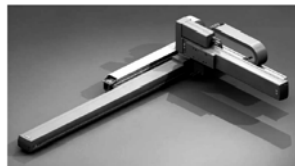


[Assembly procedure]

* Single slider type
DWG No.: GMM07-055E

* Double slider type
DWG No.: GMM07-056E

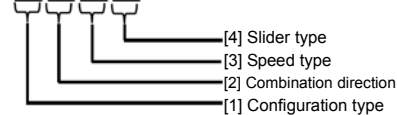
XY base fixed type



[Model]

IK2-SXB [1] [2] [3] [4] : Axis configuration RCS2

IK2-PXB [1] [2] [3] [4] : Axis configuration RCP2

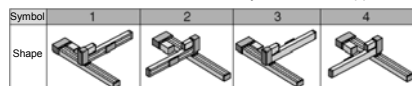


[1] Configuration type

Symbol	X-axis (axis 1)	Y-axis (axis 2)
A1	SS8R (150W)	SS8R (100W)
A2	SS8C (150W)	SS8C (100W)
B1	SS8R (150W)	SA7R
B2	SS8C (150W)	SA7R
C1	SS7R	SA6R
C2	SS7C	SA6R
D1	SS7R	SA5R
D2	SS7C	SA5R

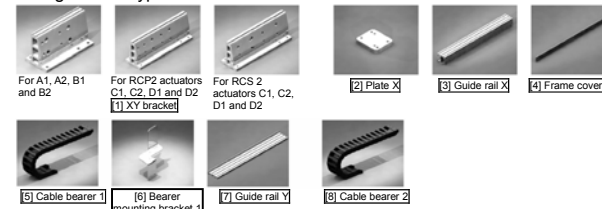
[2] Combination direction

* If the X-axis is reversed, only 1 and 2 are applicable.

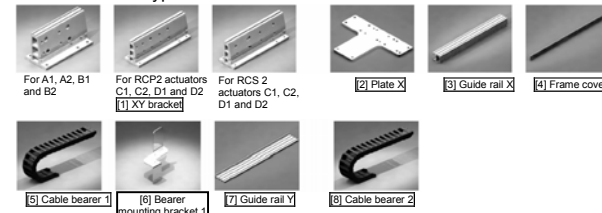


[IA kit components]

* Single slider type



* Double slider type



[Assembly procedure]

* Single slider type
DWG No.: GMM07-053E

* Double slider type
DWG No.: GMM07-054E

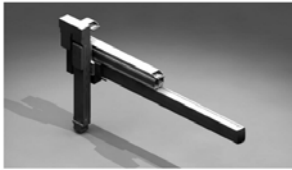
[3] Speed type

Symbol	Type	
HH	High speed	High speed
HM	High speed	Medium speed
HL	High speed	Low speed
MM	Medium speed	Medium speed

[4] Slider type

Symbol	Type
S	Single
D	Double

Crossed-type base fixed



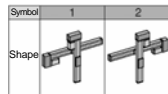
[Model] IK2-SYB [1][2][3][4] Axis configuration RCS2
 IK2-PYB [1][2][3][4] Axis configuration RCP2

[4] Slider type
 [3] Speed type
 [2] Combination direction
 [1] Configuration type

[1] Configuration type

Symbol	X-axis (axis 1)	Y-axis (axis 2)
B1	SS8R (150W)	SA7R

[2] Combination direction



[3] Speed type

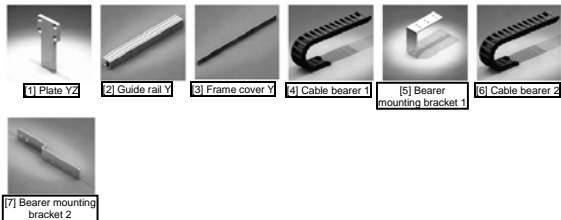
Symbol	Type	
HH	High speed	High speed
HM	High speed	Medium speed
HL	High speed	Low speed
MM	Medium speed	Medium speed

[4] Slider type

Symbol	Type
S	Single

[IA kit components]

* Single slider type

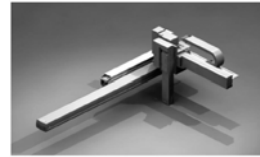


[Assembly procedure]

* Single slider type

DWG No.: GMM07-057E

XYB + Z base fixed type



[Model] IK3-SBB [1][2][3][4] Axis configuration RCS2
 IK3-PBB [1][2][3][4] Axis configuration RCP2

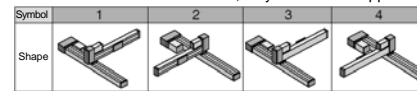
[4] Slider type
 [3] Speed type
 [2] Combination direction
 [1] Configuration type

[1] Configuration type G1

Symbol	X-axis (axis 1)	Y-axis (axis 2)	Z-axis (axis 3)
G1	SS8R (100W)	SA7R	SA6R

[2] Combination direction

* If the X-axis is reversed, only 1 and 2 are applicable.



[3] Speed type

Symbol	Type		
HHH	High speed	High speed	High speed
HHM	High speed	High speed	Medium speed
HHL	High speed	High speed	Low speed

[4] Slider type

Symbol	Type
S	Single
D	Double

[IA kit components]

* Single slider type



* Double slider type



[Assembly procedure]

* Single slider type

DWG No.: GMM07-058E

* Double slider type

DWG No.: GMM07-059E

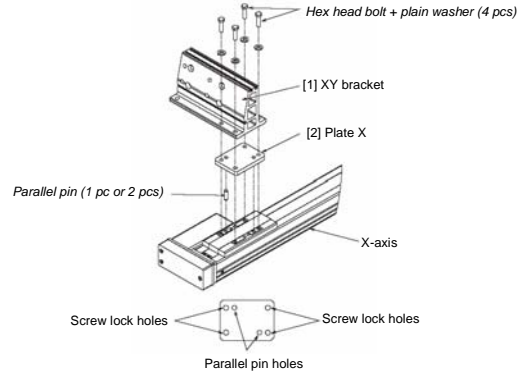
Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

XY base fixed type: Single slider type
IK2-S(P)XB□□□□□□S

DWG. No. GMM07-053E 1/2

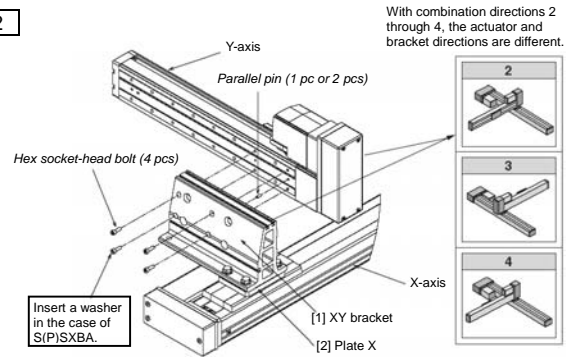
1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□S	∅8h7 x 25	M8 x 30 mm	306kgf · cm / 2997N · cm
IK2-S(P)SXBC(SXBD)□□□□□□S	∅5h7 x 25	M5 x 25 mm	74.2kgf · cm / 727N · cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

2



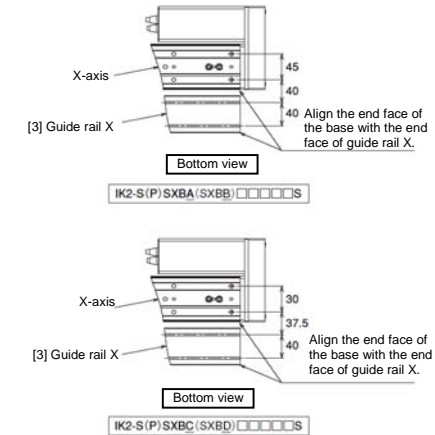
Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□S	∅5h7 x 12	M8 x 18 mm	306kgf · cm / 2997N · cm
IK2-S(P)SXBB□□□□□□S	∅4h7 x 10	M5 x 15 mm	34.9kgf · cm / 342N · cm
IK2-S(P)SXBC(SXBD)□□□□□□S	∅4h7 x 10	M5 x 12 mm	34.9kgf · cm / 342N · cm
IK2-S(P)SXBD□□□□□□S	∅4h7 x 10	M5 x 12 mm	18.0kgf · cm / 176N · cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

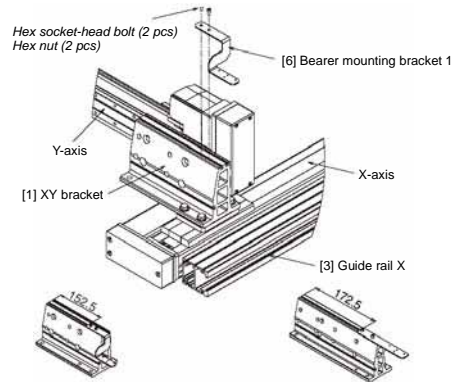
3

The following procedures apply to configurations with a cable bearer.

Install the X-axis and guide rail X.



4

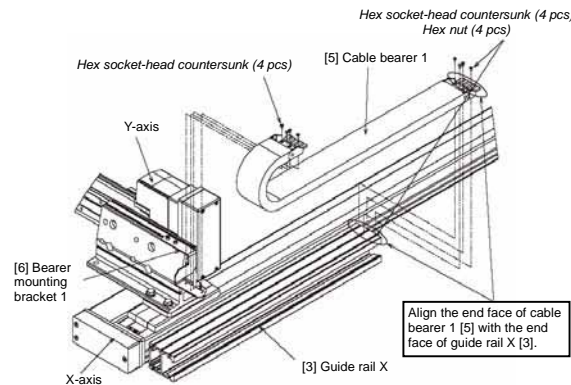


Set the dimension from the side face of the XY bracket to the tip of bearer mounting bracket 1 [6] to 152.5 mm.

Set the dimension from the side face of the XY bracket to the tip of bearer mounting bracket 1 [6] to 172.5 mm.

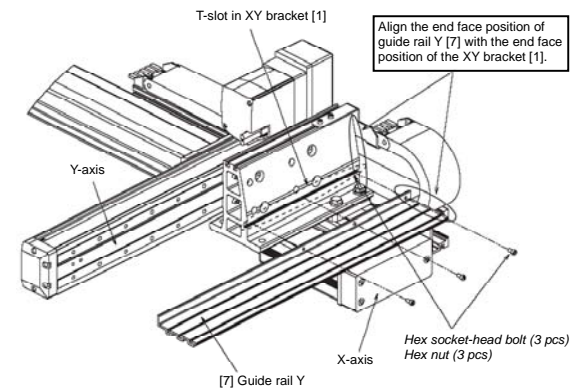
Model	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□S	M4 x 8 mm	36.7kgf · cm / 359N · cm
IK2-S(P)SXBC(SXBD)□□□□□□S	M4 x 8 mm	36.7kgf · cm / 359N · cm

5



Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm
IK2-S(P)SXBC(SXBD)□□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

6

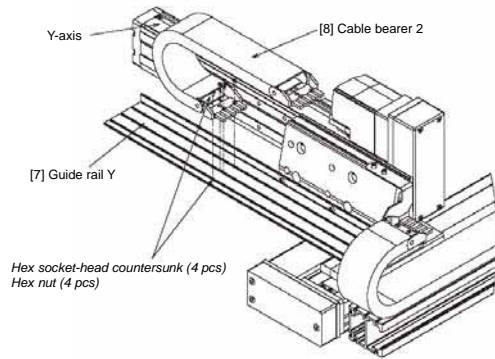


Model	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□S	M4 x 8 mm	18.0kgf · cm / 176N · cm
IK2-S(P)SXBC(SXBD)□□□□□□S	M4 x 8 mm	18.0kgf · cm / 176N · cm

* This assembly procedure applies to combination direction 1. With other combination directions such as 2 and 3, the actuator and bracket directions are different. If you are using combination direction 2 or 3, assemble the parts by referring to this drawing.

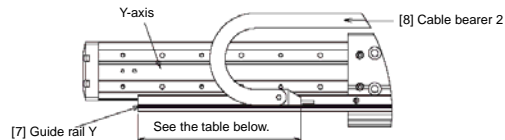
7

(Note) One side of cable bearer 2 [8] is free. The customer should install cable bearer 2 when installing a handle, etc.



Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm
IK2-S(P)SXBC(SXBD)□□□□□S		

Installation position of cable bearer 2 [8]



Installation position of IK2-S(P) SXBA (SXBB) □□□□□S

Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	81.5
100 mm	106.5
150 mm	131.5
200 mm	156.5
250 mm	181.5
300 mm	206.5
350 mm	231.5
400 mm	256.5

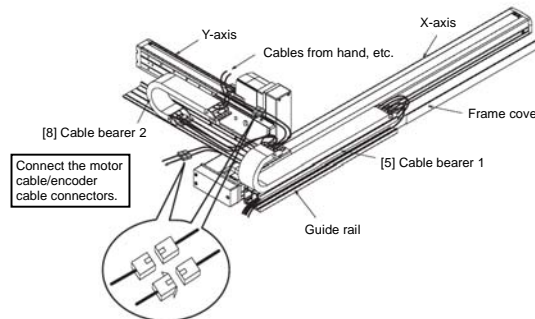
Installation position of IK2-S(P) SXBC (SXBD) □□□□□S

Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	80.0
100 mm	105.0
150 mm	130.0
200 mm	155.0
250 mm	180.0
300 mm	205.0
350 mm	230.0
400 mm	255.0

8

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

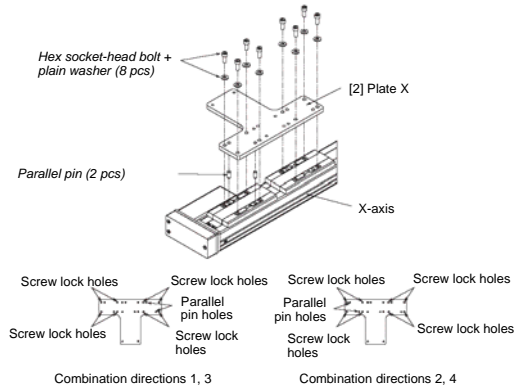
Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

XY base fixed type: Double slider type IK2-S(P)XB□□□□□□

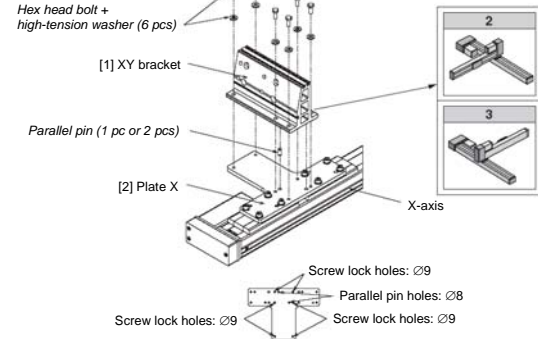
DWG. No. GMM07-054E 1/2

1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	∅8h7 x 18	M8 x 20 mm	306kgf · cm / 2997N · cm
IK2-S(P)SXBC(SXBD)□□□□□□	∅5h7 x 14	M5 x 20 mm	74.2kgf · cm / 727N · cm

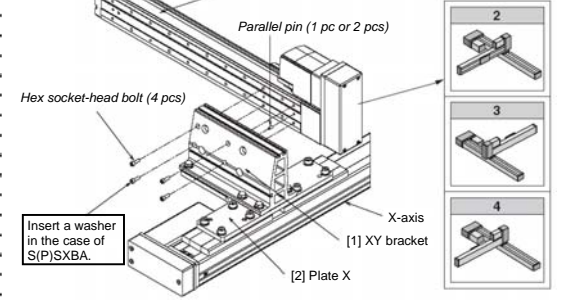
2 With combination directions 2 and 3, the bracket direction is different.



Model	Parallel pin	Hex head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	∅8h7 x 18	M8 x 20 mm	306kgf · cm / 2997N · cm
IK2-S(P)SXBC(SXBD)□□□□□□	∅5h7 x 14	M5 x 18 mm	74.2kgf · cm / 727N · cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

3 With combination directions 2 through 4, the actuator direction is different.

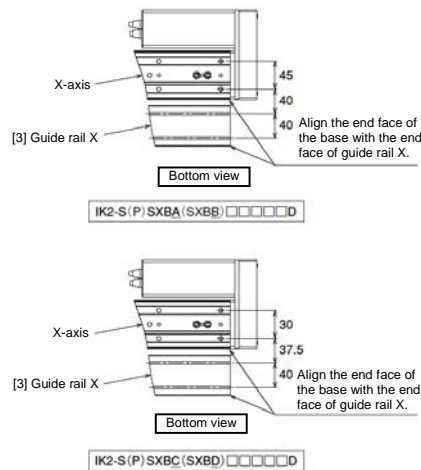


Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA□□□□□□	∅5h7 x 12	M8 x 18 mm	306kgf · cm / 2997N · cm
IK2-S(P)SXBB□□□□□□	∅4h7 x 10	M5 x 15 mm	34.9kgf · cm / 342N · cm
IK2-S(P)SXBC□□□□□□	∅4h7 x 10	M5 x 12 mm	34.9kgf · cm / 342N · cm
IK2-S(P)SXBD□□□□□□	∅4h7 x 10	M4 x 12 mm	18.0kgf · cm / 176N · cm

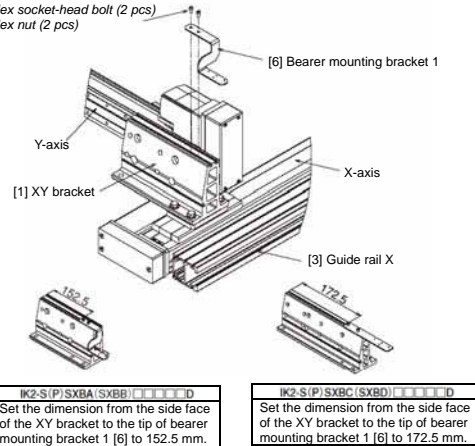
Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

4 The following procedures apply to configurations with a cable bearer.

Install the X-axis and guide rail X.

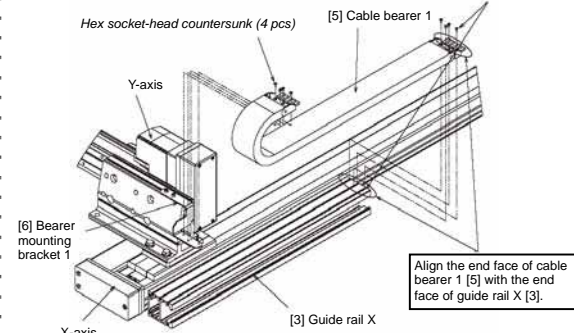


5 Hex socket-head bolt (2 pcs) Hex nut (2 pcs)



Model	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	M4 x 8 mm	36.7kgf · cm / 359N · cm
IK2-S(P)SXBC(SXBD)□□□□□□		

6 Hex socket-head countersunk (4 pcs) Hex nut (4 pcs)



Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	M3 x 6 mm	4.89kgf · cm / 47.9N · cm
IK2-S(P)SXBC(SXBD)□□□□□□		

* This assembly procedure applies to combination direction 1. With other combination directions such as 2 and 3, the actuator and bracket directions are different. If you are using combination direction 2 or 3, assemble the parts by referring to this drawing.

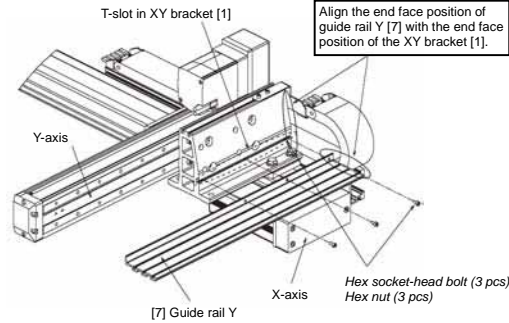
XY base fixed type: Double slider type
IK2-S(P)XB□□□□□□

DWG. No.

GMM07-054E

2/2

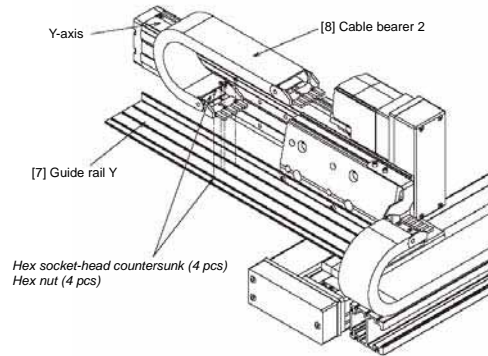
7



Model	Hex socket-head bolt	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	M4 x 8 mm	18.0kgf · cm / 176N · cm
IK2-S(P)SXBC(SXBD)□□□□□□		

8

(Note) One side of cable bearer 2 [8] is free. The customer should install cable bearer 2 when installing a handle, etc.

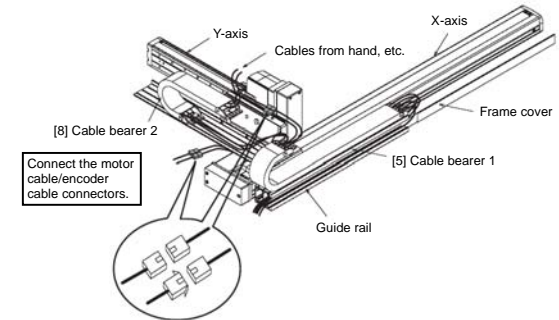


Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)SXBA(SXBB)□□□□□□	M3 x 6 mm	4.89kgf · cm / 47.9N · cm
IK2-S(P)SXBC(SXBD)□□□□□□		

9

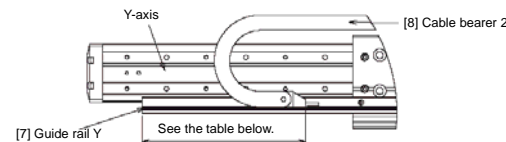
Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

Installation position of cable bearer 2 [8]



Installation position of IK2-S(P)SXBA(SXBB)□□□□□□

Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	81.5
100 mm	106.5
150 mm	131.5
200 mm	156.5
250 mm	181.5
300 mm	206.5
350 mm	231.5
400 mm	256.5

Installation position of IK2-S(P)SXBC(SXBD)□□□□□□

Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	80.0
100 mm	105.0
150 mm	130.0
200 mm	155.0
250 mm	180.0
300 mm	205.0
350 mm	230.0
400 mm	255.0

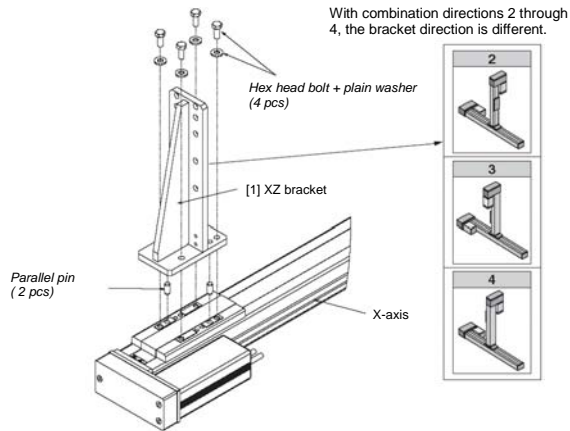
Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

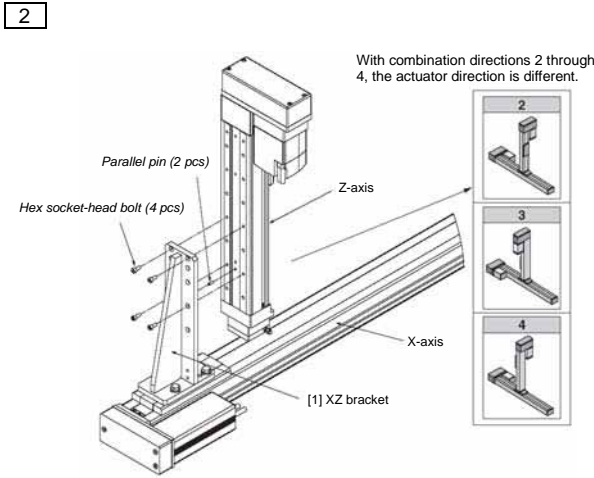
Upright type: Single slider type
IK2-S(P)XZ□□□□□□S

DWG. No. GMM07-055E 1/1

1 [Tools] Allen wrench, spanner wrench, ruler

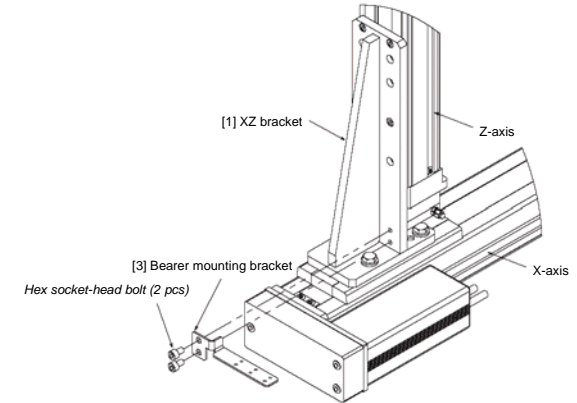


Model	Parallel pin	Hex head bolt	Tightening torque
IK2-S(P)XZB1□□□□□S	∅2h7 x 18	M8 x 20 mm	306kgf · cm / 2987N · cm



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)XZB1□□□□□S	∅4h7 x 10	M5 x 12 mm	34.9kgf · cm / 342N · cm

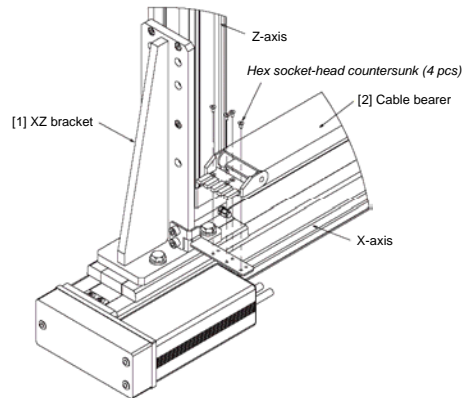
3 The following procedures apply to configurations with a cable bearer.



[Installation of bearer mounting bracket [3] on XZ bracket [1]]

Model	Hex socket-head bolt	Tightening torque
IK2-S(P)XZB1□□□□□S	M6 x 10 mm	126kgf · cm / 1234N · cm

4 (Note) One side of the cable bearer is free. The customer should install the cable bearer as necessary.

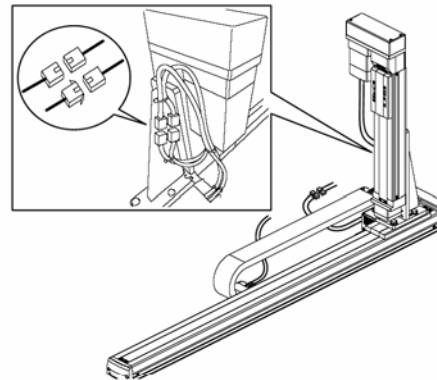


[Installation of cable bearer [2] on bearer mounting bracket [3]]

Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)XZB1□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

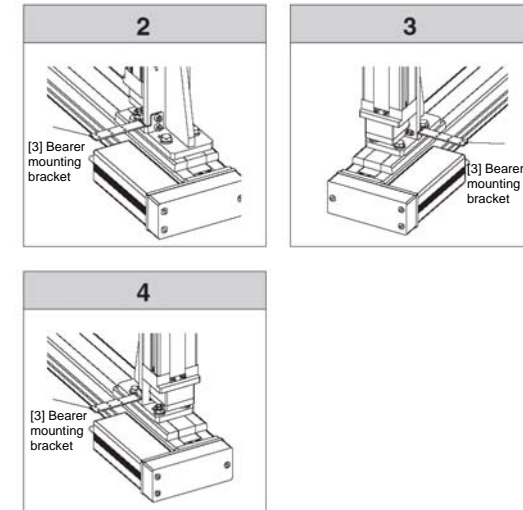
5 Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

With combination directions 2 through 4, the installation direction of the bearer mounting bracket [3] is different.



* This assembly procedure applies to combination direction 1. With other combination directions such as 2 and 3, the actuator and bracket directions are different. If you are using combination direction 2 or 3, assemble the parts by referring to this drawing.

Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

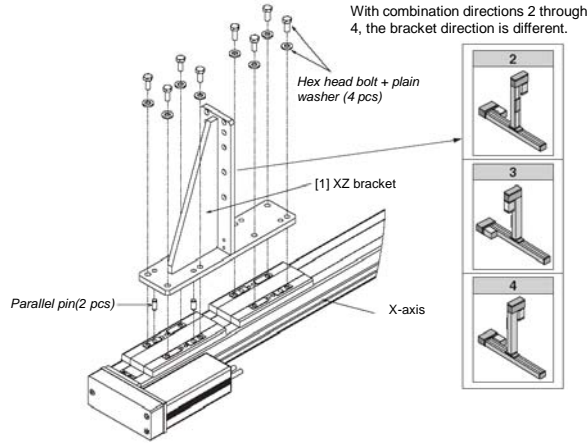
Upright type: Double slider type
IK2-S(P)XZ□□□□□□

DWG. No.

GMM07-056E

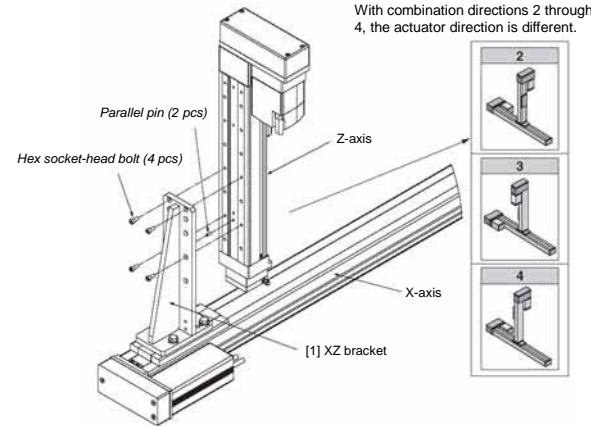
1/1

1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex head bolt	Tightening torque
IK2-S(P)XZB1□□□□□□	∅8h7 x 18	M8 x 20 mm	306kgf · cm / 2997N · cm

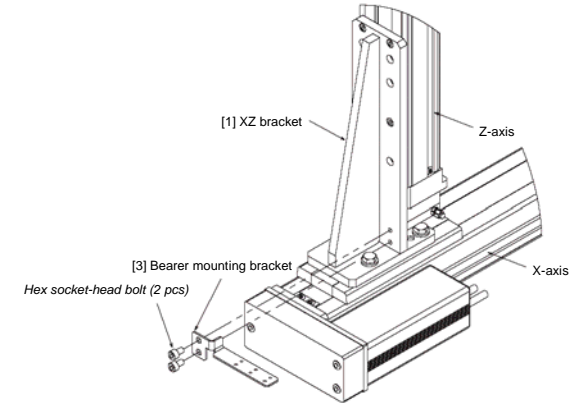
2



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)XZB1□□□□□□	∅4h7 x 10	M5 x 12 mm	34.9kgf · cm / 342N · cm

3

The following procedures apply to configurations with a cable bearer.

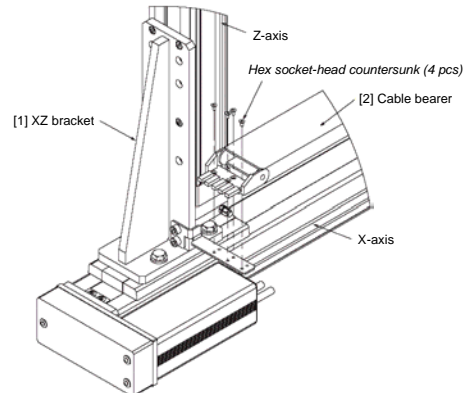


[Installation of bearer mounting bracket [3] on XZ bracket [1]]

Model	Hex socket-head bolt	Tightening torque
IK2-S(P)XZB1□□□□□□	M6 x 10 mm	126kgf · cm / 1234N · cm

4

(Note) One side of the cable bearer is free. The customer should install the cable bearer as necessary.



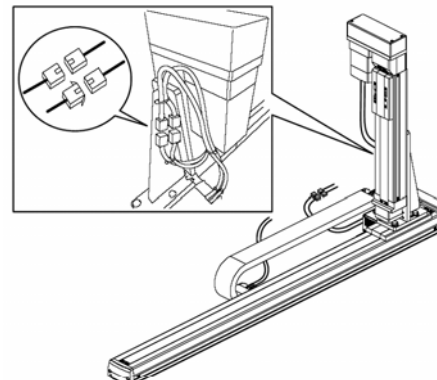
[Installation of cable bearer [2] on bearer mounting bracket [3]]

Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)XZB1□□□□□□	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

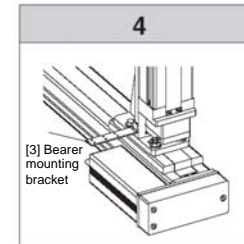
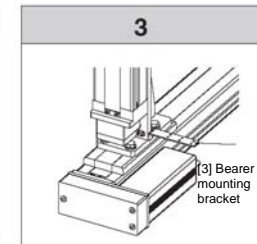
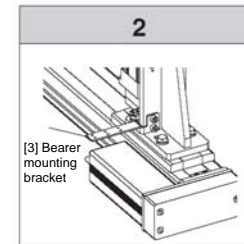
5

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



With combination directions 2 through 4, the installation direction of the bearer mounting bracket [3] is different.



* This assembly procedure applies to combination direction 1. With other combination directions such as 2 and 3, the actuator and bracket directions are different. If you are using combination direction 2 or 3, assemble the parts by referring to this drawing.

Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

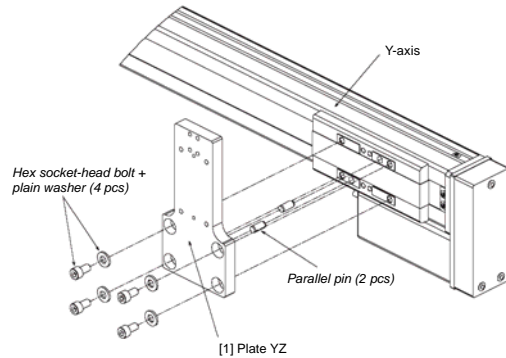
Crossed-type base fixed: Single slider type
IK2-S(P)YBB1□□□□□S

DWG. No.

GMM07-057E

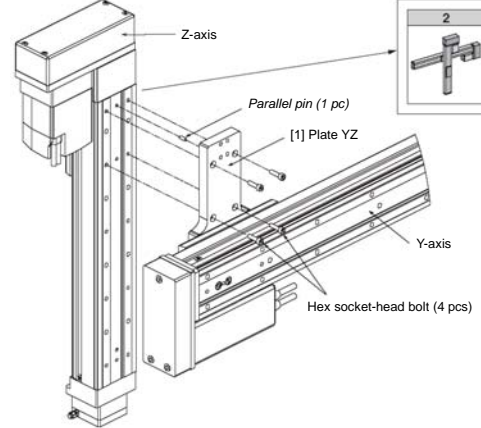
1/2

1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)YBB1□□□□□S	∅8h7 x 18	M8 x 15 mm	306kgf · cm / 2997N · cm

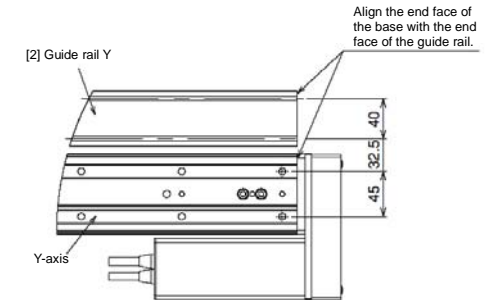
2 With combination direction 2, the actuator direction is different.



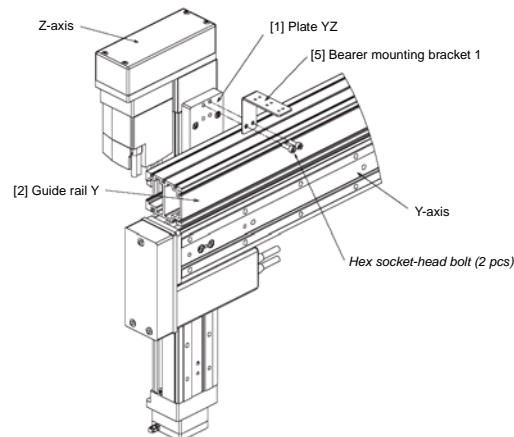
Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK2-S(P)YBB1□□□□□S	∅4h7 x 10	M5 x 18 mm	34.9kgf · cm / 342N · cm

3 The following procedures apply to configurations with a cable bearer.

Install the Y-axis and guide rail Y.

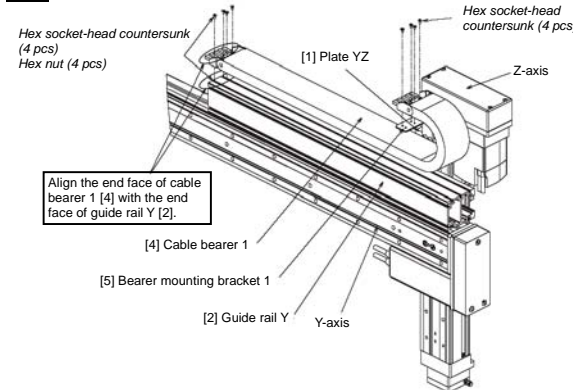


4



Model	Hex socket-head bolt	Tightening torque
IK2-S(P)YBB1□□□□□S	M5 x 18 mm	74.2kgf · cm / 727N · cm

5



[Installation of cable bearer 1 [4] on bearer mounting bracket 1 [5]]

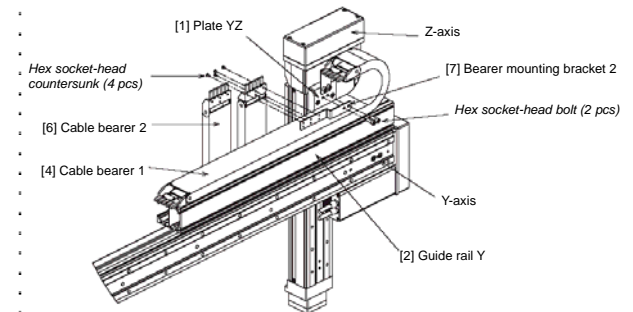
Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)YBB1□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

[Installation of cable bearer 1 [4] on guide rail 2 [2]]

Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)YBB1□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

6

(Note) One side of cable bearer 2 is free. The customer should install cable bearer 2 as necessary.



[Installation of bearer mounting bracket 2 [7] on plate YZ [1]]

Model	Hex socket-head bolt	Tightening torque
IK2-S(P)YBB1□□□□□S	M5 x 15 mm	74.2kgf · cm / 727N · cm

[Installation of cable bearer 2 [6] on bearer mounting bracket 2 [7]]

Model	Hex socket-head countersunk	Tightening torque
IK2-S(P)YBB1□□□□□S	M3 x 6 mm	4.89kgf · cm / 47.9N · cm

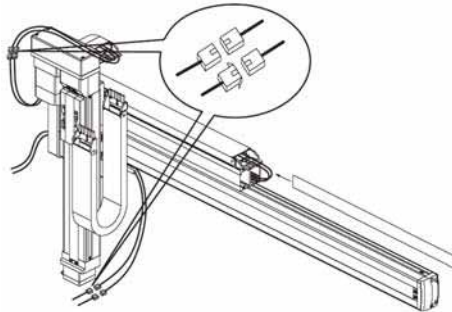
* This assembly procedure applies to combination direction 1. With other combination directions such as 2, the actuator and bracket directions are different. If you are using combination direction 2 or 3, assemble the parts by referring to this drawing.

7

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.

Y-axis (axis 1): With cable bearer / Z-axis (axis 2): Without cable bearer

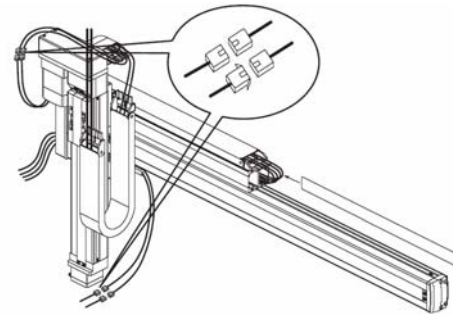


* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.

Y-axis (axis 1): With cable bearer / Z-axis (axis 2): With cable bearer



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

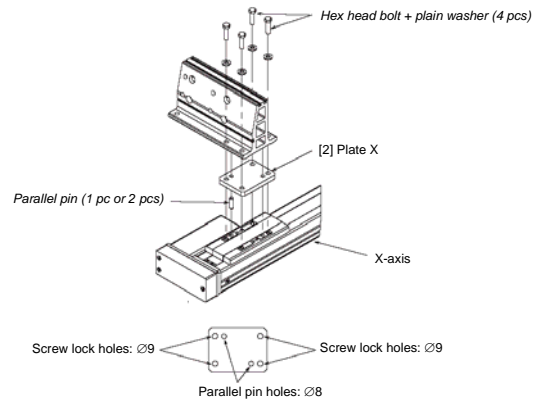
XYB + base fixed type: Single slider type
IK3-S(P)BB□□□□□□

DWG. No.

GMM07-058E

1/2

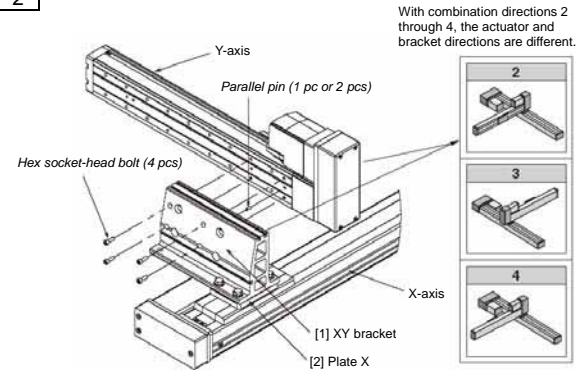
1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex head bolt	Tightening torque
IK3-S(P)BBG1□□□□□	ø8h7 x 25	M8 x 30 mm	306kgf·cm / 2997N·cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

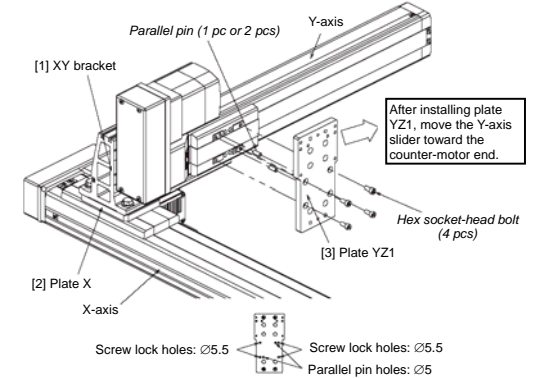
2



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□	ø4h7 x 10	M5 x 15 mm	34.9kgf·cm / 342N·cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

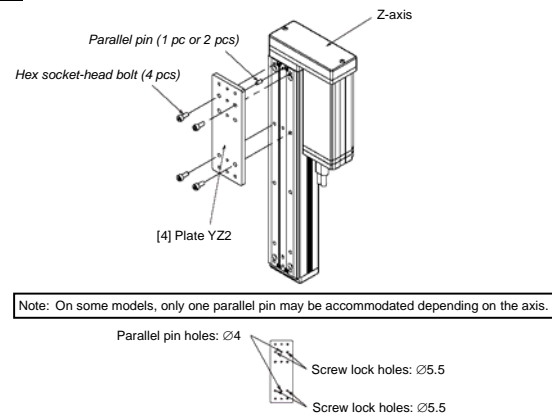
3



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□	ø5h7 x 14	M5 x 12 mm	34.9kgf·cm / 342N·cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

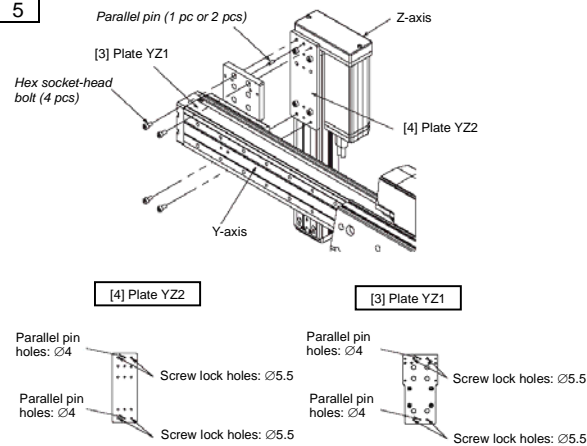
4



Note: On some models, only one parallel pin may be accommodated depending on the axis.

Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□	ø4h7 x 10	M5 x 12 mm	34.9kgf·cm / 342N·cm

5

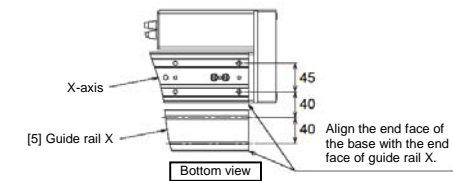


Note: To ensure squareness of the Y-axis and Z-axis, place one parallel pin. After adjusting the squareness of the Y-axis and Z-axis, affix the hex head bolt.

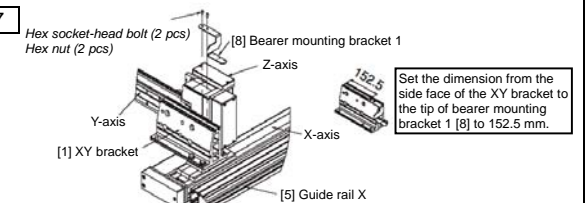
6

The following procedures apply to configurations with a cable bearer.

Install the X-axis and guide rail X.



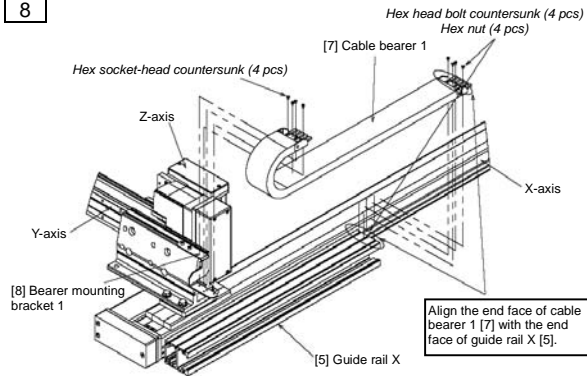
7



Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□	M4 x 8 mm	36.7kgf·cm / 359N·cm

* This assembly procedure applies to combination direction 1. With other combination directions such as 2 through 4, the actuator and bracket directions are different. If you are using combination direction 2 through 4, assemble the parts by referring to this drawing.

8



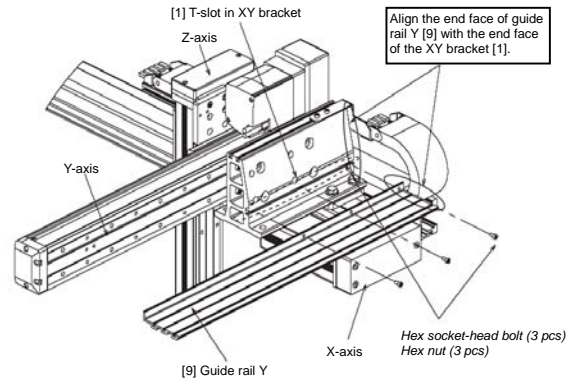
[Installation of cable bearer 1 [7] on bearer mounting bracket 1 [8]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□S	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

[Installation of cable bearer 1 [7] on guide rail X [5]]

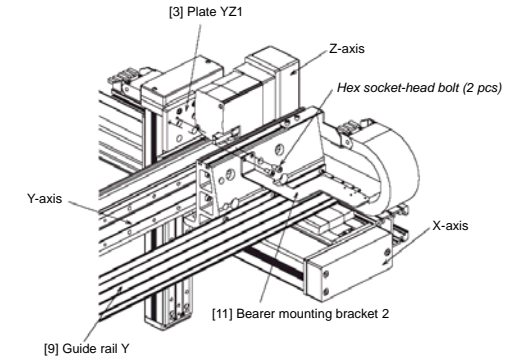
Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□S	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

9



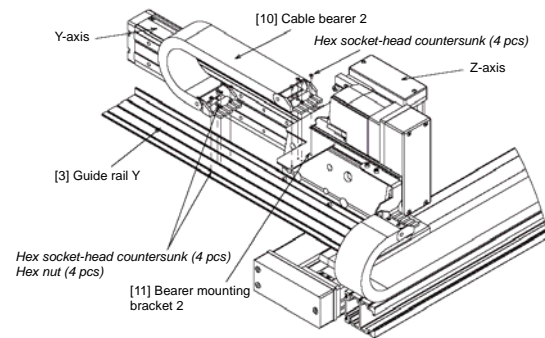
Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□S	M4 x 8 mm	18.0kgf·cm / 176N·cm

10



Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□S	M5 x 10 mm	74.2kgf·cm / 727N·cm

11



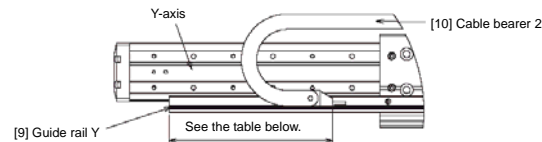
[Installation of cable bearer 2 [10] on guide rail Y [9]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□S	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

[Installation of cable bearer 2 [10] on bearer mounting bracket 2 [11]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□S	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

Installation position of cable bearer 2 [10]

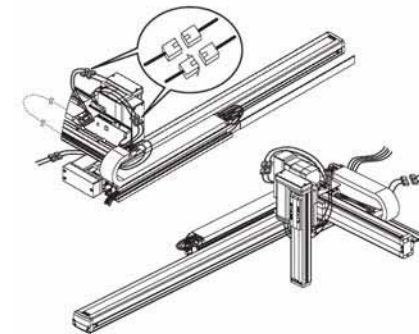


Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	81.5
100 mm	106.5
150 mm	131.5
200 mm	156.5
250 mm	181.5
300 mm	206.5
350 mm	231.5
400 mm	256.5

12

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

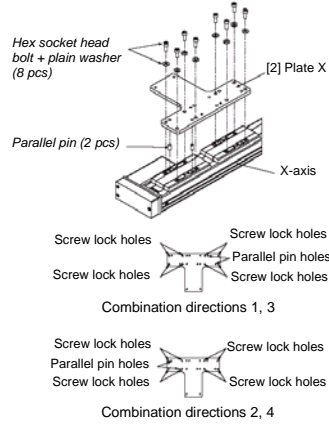
XYB + base fixed type: Double slider type
IK3-S(P)BB□□□□□□

DWG. No.

GMM07-059E

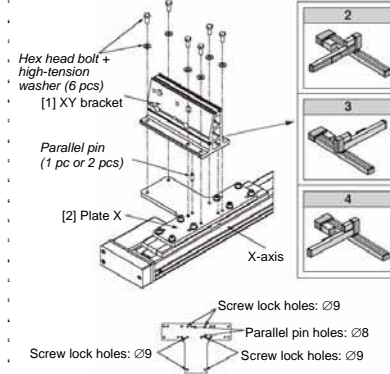
1/2

1 [Tools] Allen wrench, spanner wrench, ruler



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅8h7 x 18	M8 x 20 mm	309kgf·cm / 299N·cm

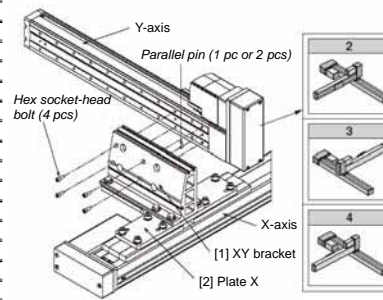
2 With combination directions 2 through 4, the bracket direction is different.



Model	Parallel pin	Hex head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅8h7 x 18	M8 x 20 mm	309kgf·cm / 299N·cm

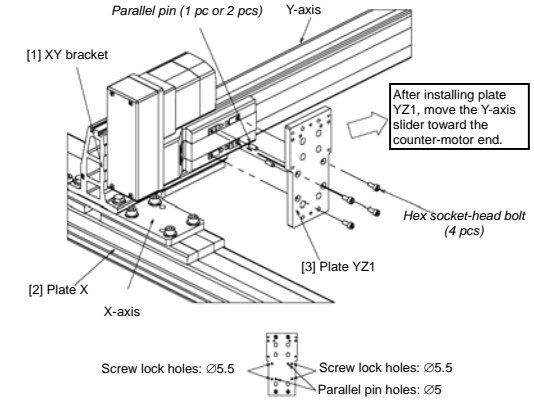
Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

3 With combination directions 2 through 4, the actuator direction is different.



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅4h7 x 10	M5 x 15 mm	34.9kgf·cm / 342N·cm

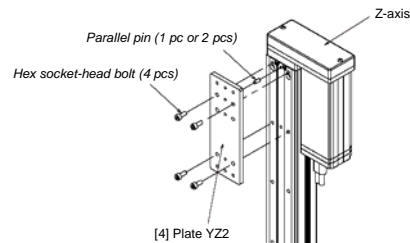
4



Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅5h7 x 14	M5 x 12 mm	34.9kgf·cm / 342N·cm

Note: To ensure squareness of the X-axis and Y-axis, place one parallel pin. After adjusting the squareness of the X-axis and Y-axis, affix the hex head bolt.

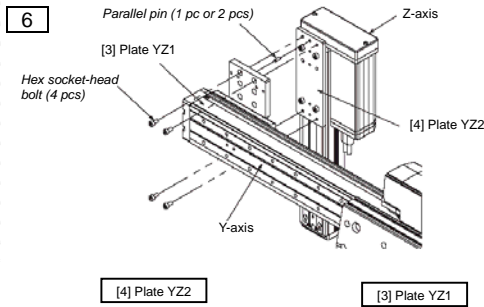
5



Note: On some models, only one parallel pin may be accommodated depending on the axis.

Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅4h7 x 10	M5 x 12 mm	34.9kgf·cm / 342N·cm

6



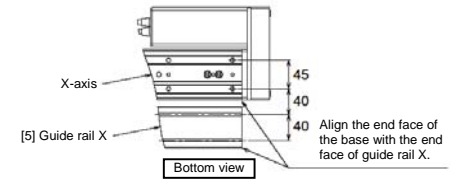
Model	Parallel pin	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	∅4h7 x 10	M5 x 10 mm	34.9kgf·cm / 342N·cm

Note: To ensure squareness of the Y-axis and Z-axis, place one parallel pin. After adjusting the squareness of the Y-axis and Z-axis, affix the hex head bolt.

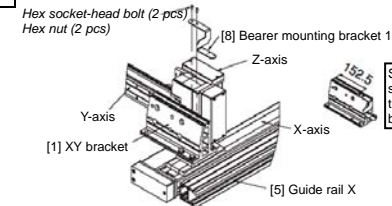
7

The following procedures apply to configurations with a cable bearer.

Install the X-axis and guide rail X.



8

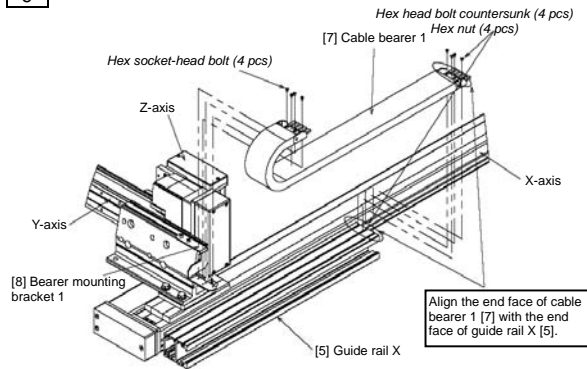


Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	M4 x 8 mm	36.7kgf·cm / 359N·cm

Set the dimension from the side face of the XY bracket to the tip of bearer mounting bracket 1 [8] to 152.5 mm.

* This assembly procedure applies to combination direction 1. With other combination directions such as 2 through 4, the actuator and bracket directions are different. If you are using combination direction 2 through 4, assemble the parts by referring to this drawing.

9



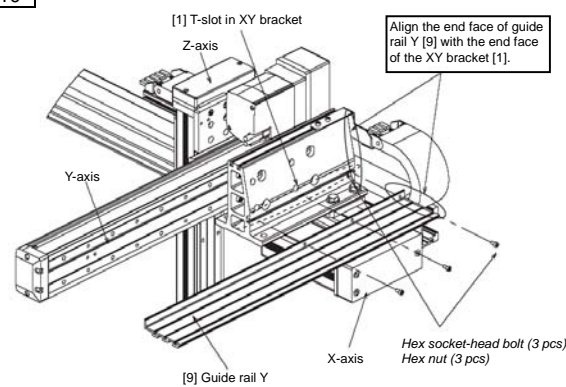
[Installation of cable bearer 1 [7] on bearer mounting bracket 1 [8]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□□□	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

[Installation of cable bearer 1 [7] on guide rail X [5]]

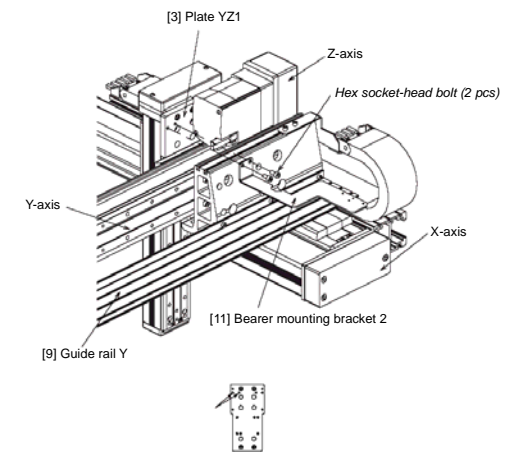
Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□□□	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

10



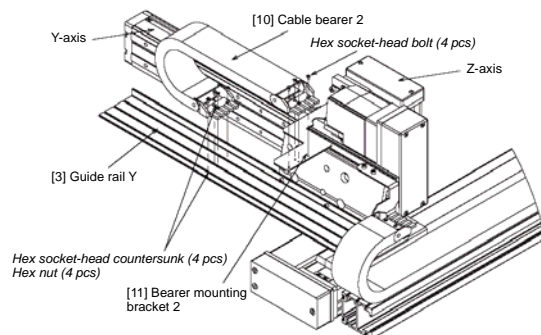
Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	M4 x 8 mm	18.0kgf·cm / 176N·cm

11



Model	Hex socket-head bolt	Tightening torque
IK3-S(P)BBG1□□□□□□	M5 x 10 mm	74.2kgf·cm / 727N·cm

12



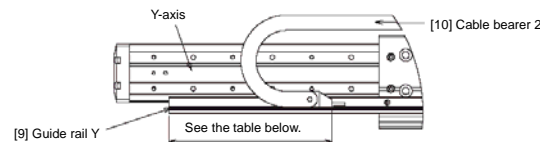
[Installation of cable bearer 2 [10] on guide rail Y [9]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□□□	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

[Installation of cable bearer 2 [10] on bearer mounting bracket 2 [11]]

Model	Hex socket-head countersunk	Tightening torque
IK3-S(P)BBG1□□□□□□	M3 x 6 mm	4.89kgf·cm / 47.9N·cm

Installation position of cable bearer 2 [10]

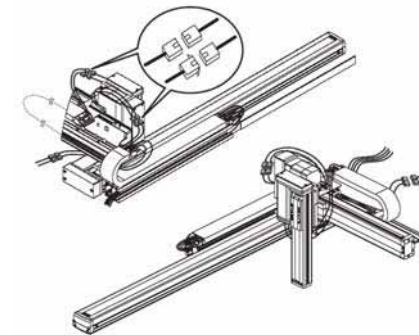


Y-axis stroke	Length from end face of guide rail Y (front side) to fixed end of bearer
50 mm	81.5
100 mm	106.5
150 mm	131.5
200 mm	156.5
250 mm	181.5
300 mm	206.5
350 mm	231.5
400 mm	256.5

13

Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke.

(Note) If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.



* Refer to "Cable affixing method: GMM07-060" for affixing of cables.

Note:

- Although the corners of each part have been chamfered, exercise due caution during assembly to prevent injury. If necessary, wear gloves and other protective gears.
- Exercise due caution during assembly to prevent pinching of your hands and fingers.

Cable affixing method

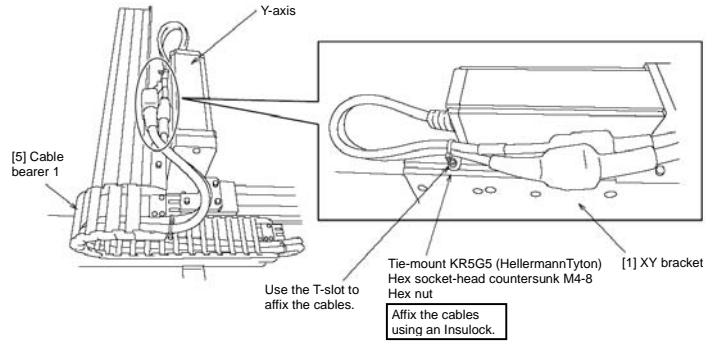
DWG. No.

GMM07-060E

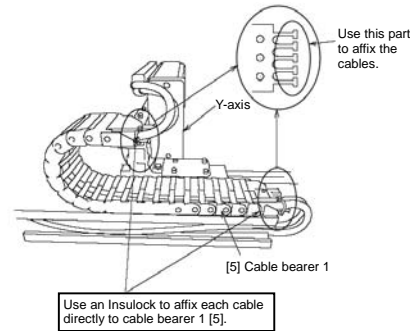
1/2

XY base fixed type

Affixing to XY bracket [1]

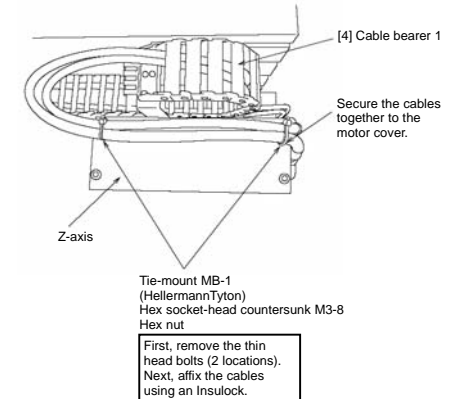


Affixing to cable bearer 1 [5]



Crossed type

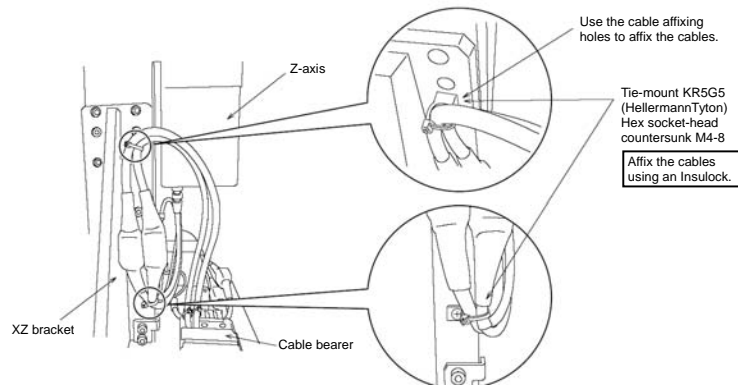
Affixing to Z-axis



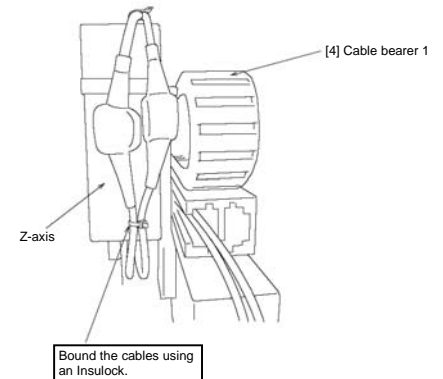
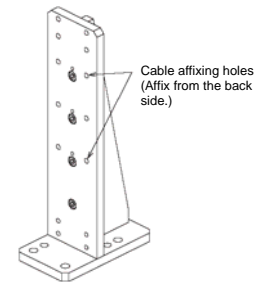
Note: Since the hex socket on the thin head bolt is small, the hex socket may be stripped (damaged) depending on how the bolt is loosened. Exercise due caution when loosening the thin head bolts.

Upright type

Affixing to XY bracket [1]



[1] XZ bracket

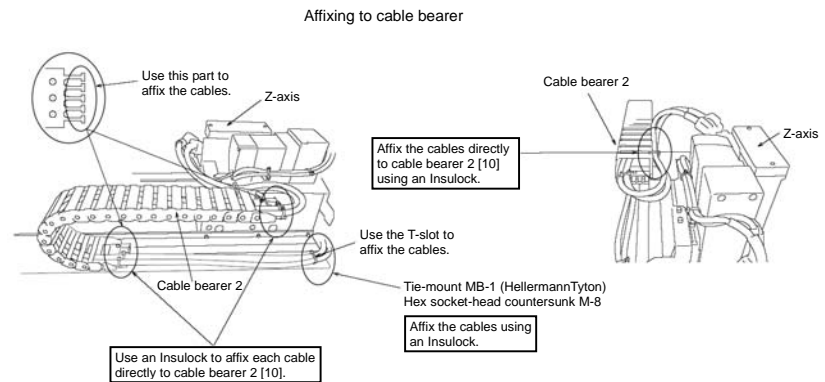
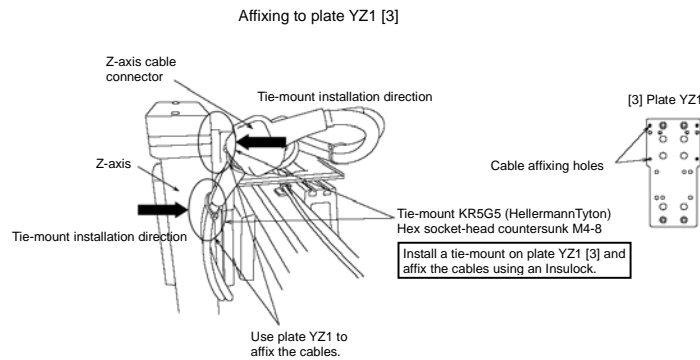


* The cable affixing method shown above assumes a Z-axis stroke of 50 mm. If the Z-axis stroke is more than 50 mm, lay the cables straight when affixing, instead of bending them as shown in the figure.

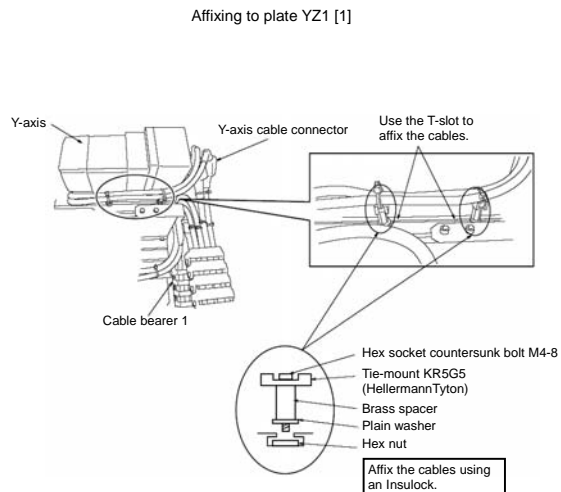
Note: Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke. If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.

XY base fixed type

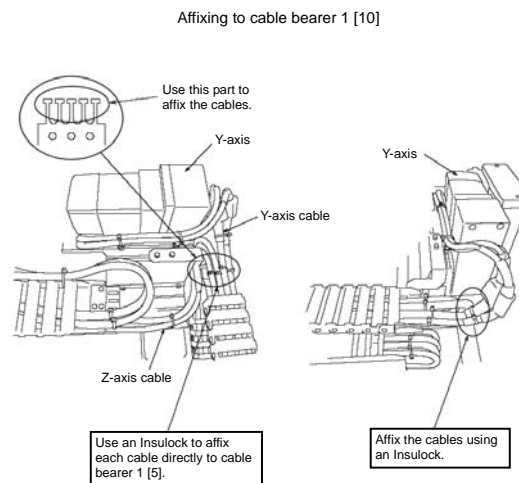
1 Between Z-axis and cable bearer 2



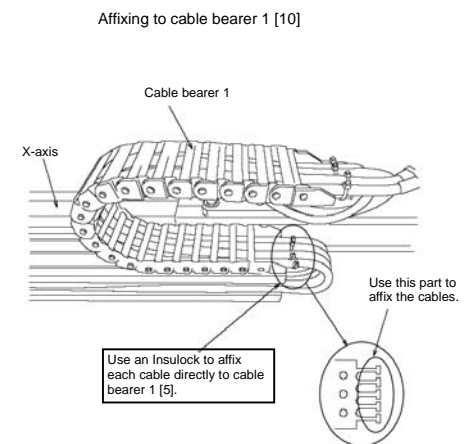
2 Between Y-axis and cable bearer 1



3 Between cable bearer 1 and cable bearer 2



4 Between cable bearer 1 and cable bearer 2



Note: Arrange the wires so that each axis will not contact the cables and connectors when the axis is moved over its entire stroke. If you want to move the actuator with brake by hand, connect the controller and supply the power and then set the brake release switch to the release (RLS) side.