

# Robot ordering method description

In the order format for the YAMAHA single-axis robots FLIP-X series, the notation (letters/numbers) for the mechanical section is shown linked to the controller section notation.

**[Example]**

<p>● <b>Mechanical ▶ F8</b></p> <ul style="list-style-type: none"> <li>Lead ▷ 20mm</li> <li>Brake ▷ Yes</li> <li>Origin position ▷ Non-motor side</li> </ul>	<ul style="list-style-type: none"> <li>Grease ▷ Standard</li> <li>Stroke ▷ 500mm</li> <li>Cable length ▷ 3.5m</li> </ul>	<p>● <b>Controller ▶ SR1-X</b></p> <ul style="list-style-type: none"> <li>Usable for CE ▷ Not required</li> <li>Regenerative unit ▷ Not required</li> <li>I/O selection ▷ NPN</li> <li>Battery ▷ With battery</li> </ul>
--------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

● **Ordering method**

**F8-20-BK-Z-500-3L-SR1-X-05-N-B**

Mechanical section

Controller section

This page describes using the ordering form for mechanical components.  
To find detailed controller information see the controller page.

SR1-X ▶ **P377**, TS-X ▶ **P354**, RDX ▶ **P365**

## Mechanical section

● **T type / F type (F8 / F8L / F8LH)**

① Model	② Lead designation	③ Brake	⑨ Option	⑩ Stroke	⑪ Cable length																																																		
<table border="1"> <tr><td>T4H</td><td>F8</td></tr> <tr><td>T5H</td><td>F8L</td></tr> <tr><td>T6</td><td>F8LH</td></tr> <tr><td>T9</td><td></td></tr> <tr><td>T9H</td><td></td></tr> <tr><td>T4</td><td></td></tr> <tr><td>T5</td><td></td></tr> </table>	T4H	F8	T5H	F8L	T6	F8LH	T9		T9H		T4		T5		<table border="1"> <tr><td>30</td><td>30mm</td></tr> <tr><td>20</td><td>20mm</td></tr> <tr><td>12</td><td>12mm</td></tr> <tr><td>10</td><td>10mm</td></tr> <tr><td>6</td><td>6mm</td></tr> <tr><td>5</td><td>5mm</td></tr> <tr><td>2</td><td>2mm</td></tr> </table>	30	30mm	20	20mm	12	12mm	10	10mm	6	6mm	5	5mm	2	2mm	<table border="1"> <tr><td>No entry</td><td>No brakes</td></tr> <tr><td>BK</td><td>Brakes provided</td></tr> </table>	No entry	No brakes	BK	Brakes provided	<table border="1"> <tr><td>Origin position change</td><td>None</td><td>Standard</td></tr> <tr><td>Z</td><td>Non-motor side</td><td></td></tr> </table> <table border="1"> <tr><td>Grease type</td><td>None</td><td>Standard</td></tr> <tr><td>GC</td><td>Clean</td><td></td></tr> </table>	Origin position change	None	Standard	Z	Non-motor side		Grease type	None	Standard	GC	Clean		<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
T4H	F8																																																						
T5H	F8L																																																						
T6	F8LH																																																						
T9																																																							
T9H																																																							
T4																																																							
T5																																																							
30	30mm																																																						
20	20mm																																																						
12	12mm																																																						
10	10mm																																																						
6	6mm																																																						
5	5mm																																																						
2	2mm																																																						
No entry	No brakes																																																						
BK	Brakes provided																																																						
Origin position change	None	Standard																																																					
Z	Non-motor side																																																						
Grease type	None	Standard																																																					
GC	Clean																																																						
3L	3.5m																																																						
5L	5m																																																						
10L	10m																																																						

● **F type (Except F8 / F8L / F8LH)**

① Model	② Lead designation	③ Brake	⑤ Cable entry location	⑨ Option	⑩ Stroke	⑪ Cable length																																																				
<table border="1"> <tr><td>F10</td><td>F20</td></tr> <tr><td>F14</td><td>F20N</td></tr> <tr><td>F14H</td><td></td></tr> <tr><td>F17</td><td></td></tr> <tr><td>F17L</td><td></td></tr> </table>	F10	F20	F14	F20N	F14H		F17		F17L		<table border="1"> <tr><td>50</td><td>50mm</td></tr> <tr><td>40</td><td>40mm</td></tr> <tr><td>30</td><td>30mm</td></tr> <tr><td>20</td><td>20mm</td></tr> <tr><td>10</td><td>10mm</td></tr> <tr><td>5</td><td>5mm</td></tr> </table>	50	50mm	40	40mm	30	30mm	20	20mm	10	10mm	5	5mm	<table border="1"> <tr><td>No entry</td><td>No brakes</td></tr> <tr><td>BK</td><td>Brakes provided</td></tr> </table>	No entry	No brakes	BK	Brakes provided	<table border="1"> <tr><td>No entry</td><td>Standard (S)</td></tr> <tr><td>U</td><td>From the top</td></tr> <tr><td>R</td><td>From the right</td></tr> <tr><td>L</td><td>From the left</td></tr> </table>	No entry	Standard (S)	U	From the top	R	From the right	L	From the left	<table border="1"> <tr><td>Origin position change</td><td>None</td><td>Standard</td></tr> <tr><td>Z</td><td>Non-motor side</td><td></td></tr> </table> <table border="1"> <tr><td>Grease type</td><td>None</td><td>Standard</td></tr> <tr><td>GC</td><td>Clean</td><td></td></tr> </table>	Origin position change	None	Standard	Z	Non-motor side		Grease type	None	Standard	GC	Clean		<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
F10	F20																																																									
F14	F20N																																																									
F14H																																																										
F17																																																										
F17L																																																										
50	50mm																																																									
40	40mm																																																									
30	30mm																																																									
20	20mm																																																									
10	10mm																																																									
5	5mm																																																									
No entry	No brakes																																																									
BK	Brakes provided																																																									
No entry	Standard (S)																																																									
U	From the top																																																									
R	From the right																																																									
L	From the left																																																									
Origin position change	None	Standard																																																								
Z	Non-motor side																																																									
Grease type	None	Standard																																																								
GC	Clean																																																									
3L	3.5m																																																									
5L	5m																																																									
10L	10m																																																									

● **N type (Single carriage)**

① Model	② Lead designation	⑥ Cable carrier entry location	⑦ Cable carrier specification	⑨ Option	⑩ Stroke	⑪ Cable length																																				
<table border="1"> <tr><td>N15</td><td></td></tr> <tr><td>N18</td><td></td></tr> </table>	N15		N18		<table border="1"> <tr><td>20</td><td>20mm</td></tr> </table>	20	20mm	<table border="1"> <tr><td>RH</td><td>Horizontal, right</td></tr> <tr><td>LH</td><td>Horizontal, left</td></tr> <tr><td>RW</td><td>Wall, right</td></tr> <tr><td>LW</td><td>Wall, left</td></tr> </table>	RH	Horizontal, right	LH	Horizontal, left	RW	Wall, right	LW	Wall, left	<table border="1"> <tr><td>S</td><td>Standard cable carrier</td></tr> <tr><td>M</td><td>Optional cable carrier</td></tr> </table>	S	Standard cable carrier	M	Optional cable carrier	<table border="1"> <tr><td>Origin position change</td><td>None</td><td>Standard</td></tr> <tr><td>Z</td><td>Non-motor side</td><td></td></tr> </table> <table border="1"> <tr><td>Grease type</td><td>None</td><td>Standard</td></tr> <tr><td>GC</td><td>Clean</td><td></td></tr> </table>	Origin position change	None	Standard	Z	Non-motor side		Grease type	None	Standard	GC	Clean		<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
N15																																										
N18																																										
20	20mm																																									
RH	Horizontal, right																																									
LH	Horizontal, left																																									
RW	Wall, right																																									
LW	Wall, left																																									
S	Standard cable carrier																																									
M	Optional cable carrier																																									
Origin position change	None	Standard																																								
Z	Non-motor side																																									
Grease type	None	Standard																																								
GC	Clean																																									
3L	3.5m																																									
5L	5m																																									
10L	10m																																									

● **N type (Double carriage)**

① Model	② Lead designation	④ Take out direction	⑦ Cable carrier specification	⑨ Option	⑩ Stroke	⑪ Cable length																										
<table border="1"> <tr><td>N15D</td><td></td></tr> <tr><td>N18D</td><td></td></tr> </table>	N15D		N18D		<table border="1"> <tr><td>20</td><td>20mm</td></tr> </table>	20	20mm	<table border="1"> <tr><td>H</td><td>Horizontal installation</td></tr> <tr><td>W</td><td>Wall hanging installation</td></tr> </table>	H	Horizontal installation	W	Wall hanging installation	<table border="1"> <tr><td>S</td><td>Standard cable carrier</td></tr> <tr><td>M</td><td>Optional cable carrier</td></tr> </table>	S	Standard cable carrier	M	Optional cable carrier	<table border="1"> <tr><td>Grease type</td><td>None</td><td>Standard</td></tr> <tr><td>GC</td><td>Clean</td><td></td></tr> </table>	Grease type	None	Standard	GC	Clean		<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
N15D																																
N18D																																
20	20mm																															
H	Horizontal installation																															
W	Wall hanging installation																															
S	Standard cable carrier																															
M	Optional cable carrier																															
Grease type	None	Standard																														
GC	Clean																															
3L	3.5m																															
5L	5m																															
10L	10m																															

● **B type**

① Model	⑧ Motor installation direction	⑨ Option	⑩ Stroke	⑪ Cable length																														
<table border="1"> <tr><td>B10</td><td></td></tr> <tr><td>B14</td><td></td></tr> <tr><td>B14H</td><td></td></tr> </table>	B10		B14		B14H		<table border="1"> <tr><td>L</td><td>Motor leftward, horizontal position</td></tr> <tr><td>R</td><td>Motor rightward, horizontal position</td></tr> <tr><td>LU</td><td>Motor leftward, upper position</td></tr> <tr><td>RU</td><td>Motor rightward, upper position</td></tr> <tr><td>LD</td><td>Motor leftward, lower position</td></tr> <tr><td>RD</td><td>Motor rightward, lower position</td></tr> </table>	L	Motor leftward, horizontal position	R	Motor rightward, horizontal position	LU	Motor leftward, upper position	RU	Motor rightward, upper position	LD	Motor leftward, lower position	RD	Motor rightward, lower position	<table border="1"> <tr><td>Grease type</td><td>None</td><td>Standard</td></tr> <tr><td>GC</td><td>Clean</td><td></td></tr> </table>	Grease type	None	Standard	GC	Clean		<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
B10																																		
B14																																		
B14H																																		
L	Motor leftward, horizontal position																																	
R	Motor rightward, horizontal position																																	
LU	Motor leftward, upper position																																	
RU	Motor rightward, upper position																																	
LD	Motor leftward, lower position																																	
RD	Motor rightward, lower position																																	
Grease type	None	Standard																																
GC	Clean																																	
3L	3.5m																																	
5L	5m																																	
10L	10m																																	

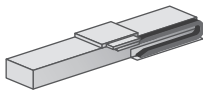
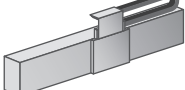
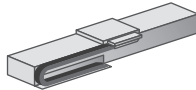
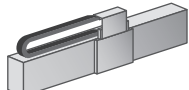
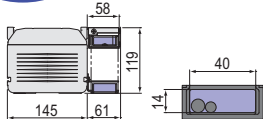
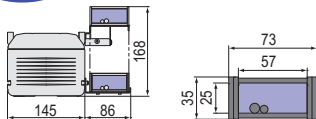
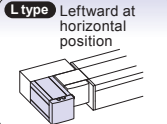
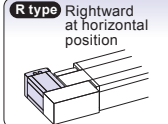
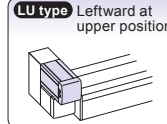
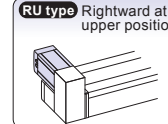
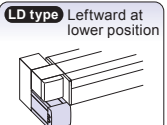
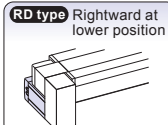
● **YMS type**

① Model	② Lead designation	③ Brake	⑩ Stroke	⑪ Cable length																		
<table border="1"> <tr><td>YMS45</td><td></td></tr> <tr><td>YMS55</td><td></td></tr> </table>	YMS45		YMS55		<table border="1"> <tr><td>12</td><td>12mm</td></tr> <tr><td>6</td><td>6mm</td></tr> </table>	12	12mm	6	6mm	<table border="1"> <tr><td>No entry</td><td>No brakes</td></tr> <tr><td>BK</td><td>Brakes provided</td></tr> </table>	No entry	No brakes	BK	Brakes provided	<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m	
YMS45																						
YMS55																						
12	12mm																					
6	6mm																					
No entry	No brakes																					
BK	Brakes provided																					
3L	3.5m																					
5L	5m																					
10L	10m																					

● **R type**

① Model	⑤ Cable entry location	⑪ Cable length																
<table border="1"> <tr><td>R5</td><td></td></tr> <tr><td>R10</td><td></td></tr> <tr><td>R20</td><td></td></tr> </table>	R5		R10		R20		<table border="1"> <tr><td>No entry</td><td>Standard (S)</td></tr> <tr><td>B</td><td>From the side</td></tr> </table>	No entry	Standard (S)	B	From the side	<table border="1"> <tr><td>3L</td><td>3.5m</td></tr> <tr><td>5L</td><td>5m</td></tr> <tr><td>10L</td><td>10m</td></tr> </table>	3L	3.5m	5L	5m	10L	10m
R5																		
R10																		
R20																		
No entry	Standard (S)																	
B	From the side																	
3L	3.5m																	
5L	5m																	
10L	10m																	

# Robot ordering method terminology

① Model	Enter the robot unit model.
② Lead designation	Select the ball screw lead.
③ Brake	Select Brake or No-brake. Horizontal specs: No-brake Vertical specs: with Brake
④ Take out direction	Select what direction to install the robot (horizontal / wall mounted).
⑤ Cable entry location	Select what direction to extract the robot cable connecting the robot and controller.
⑥ Cable carrier entry location	<p>Select what direction to install the robot (horizontal / wall mounted) and what direction to extract the robot cable carrier.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p><b>RH</b> Horizontal, right</p>  </div> <div style="text-align: center;"> <p><b>RW</b> Wall, right</p>  </div> <div style="text-align: center;"> <p><b>LH</b> Horizontal, left</p>  </div> <div style="text-align: center;"> <p><b>LW</b> Wall, left</p>  </div> </div> <p>Note. Be sure to install in the direction as specified (in cable carrier take-out direction drawing and various specification drawings) individually. Installation in any other way will cause a failure. For requirement of installation in any way other than the above standard installation, please consult YAMAHA as special arrangement will be available.</p>
⑦ Cable carrier specification	<p>Select the cable carrier size for the customer wiring.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>S type</b> Standard cable carrier</p>  <p>145 61 119 58 40 14</p> </div> <div style="text-align: center;"> <p><b>M type</b> Optional cable carrier</p>  <p>145 86 168 73 57 35 25</p> <p>Space for optional cable for users</p> </div> </div> <p>Note. Cannot pass more than 3 urethane hoses (φ6 x 4).</p>
⑧ Motor installation direction	<p>Select what direction to install the motor.</p> <div style="display: grid; grid-template-columns: repeat(2, 1fr); gap: 10px;"> <div style="text-align: center;"> <p><b>L type</b> Leftward at horizontal position</p>  </div> <div style="text-align: center;"> <p><b>R type</b> Rightward at horizontal position</p>  </div> <div style="text-align: center;"> <p><b>LU type</b> Leftward at upper position</p>  </div> <div style="text-align: center;"> <p><b>RU type</b> Rightward at upper position</p>  </div> <div style="text-align: center;"> <p><b>LD type</b> Leftward at lower position</p>  </div> <div style="text-align: center;"> <p><b>RD type</b> Rightward at lower position</p>  </div> </div>
⑨ Option	<b>Origin position change:</b> Origin point position can be changed.
	<b>Grease type:</b> Clean grease can be selected.
⑩ Stroke	Select the stroke for the robot movement range.
⑪ Cable length	<p>Select the robot cable length to use for connecting the robot to the controller.</p> <p>3L : 3.5m (standard)            5L : 5m            10L : 10m            3K : 3.5m (Bend-resistant cable)            5K : 5m (Bend-resistant cable)            10K : 10m (Bend-resistant cable)</p>

APPLICATION  
 TRANSSERVO  
 Compact single-axis robots  
 FLIP-X  
 Single-axis robots  
 PHASER  
 Linear motor single-axis robots  
 XY-X  
 Cartesian robots  
 YK-XG  
 SCARA robots  
 YP-X  
 Pick & place robots  
 CLEAN  
 CONTROLLER INFORMATION  
 T type  
 F type  
 N type  
 B/MMS/R type