



Warning



**INSTALLATION SHOULD ONLY BE
PERFORMED BY QUALIFIED INSTALLATION
PERSONNEL AND MUST CONFORM TO ALL
NATIONAL AND LOCAL CODES**





Hi5a Controller Function Manual

AxisLock





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Printed in Korea - Jun. 2023. 3th Edition
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Overview



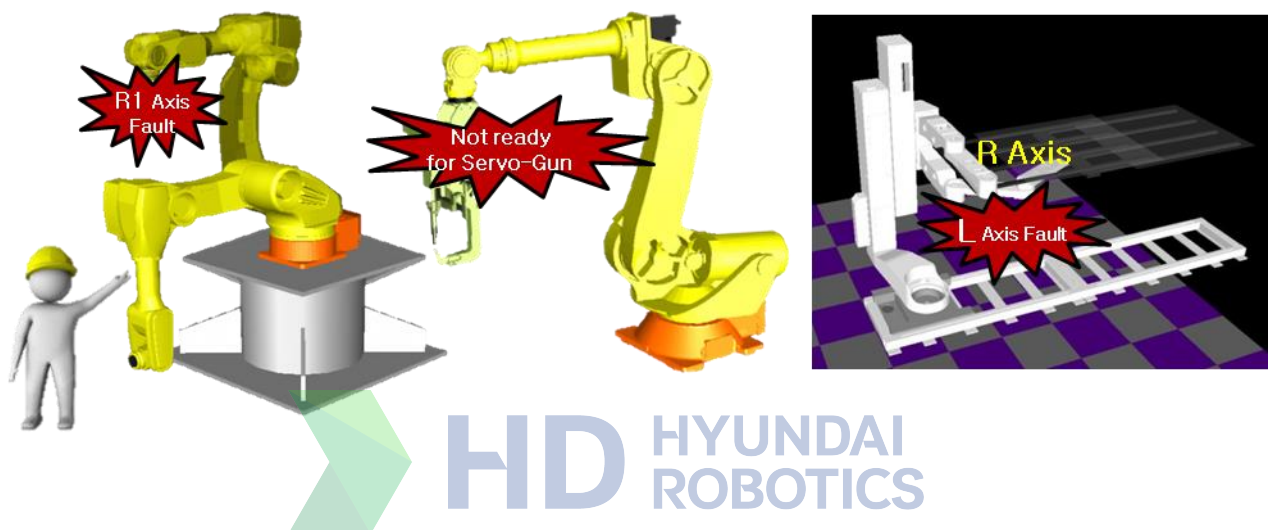
1. Overview

AxisLock Function

1.1. About the AxisLock function

1.1.1. Purpose

It is for allowing the normal axes to move by temporarily disabling the axis that needs to be repaired/replaced due to a problem with the motor or reducer of a robot or an additional axis. Allowing the operation of normal axes will improve the maintenance convenience and availability of robots while minimizing line productivity loss for some of them.



1.1.2. Functions

The following functions are provided according to the types of robots with AxisLock function and axes.

Robot	AxisLock	Motor ON	JOG (Axis)	JOG (Crossing)	Step Record	Command Record	Command Execution	Step Forward/Backward	Auto Operation
All robots	Robot axis	○	○	x	x	○	x	x	x
	Additional axis	○	○	○	○	○	x	○	x
Excluded robot*	Certain axis	○	○	○	○	○	○	○	○

* Certain axis of an excluded robot:

- Axis S of HH140G-0A.
- Axes L and R of an LCD robot.
- Axes LA and RA of an LCD robot with a degree of freedom of 2.



Reference

- It is supported by Hi5a controller **V40.08-00** or a later version.
- It is usable only with the engineer code (R314).
- It is operated by the locked axis when the function is applied.





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Relevant
Functions



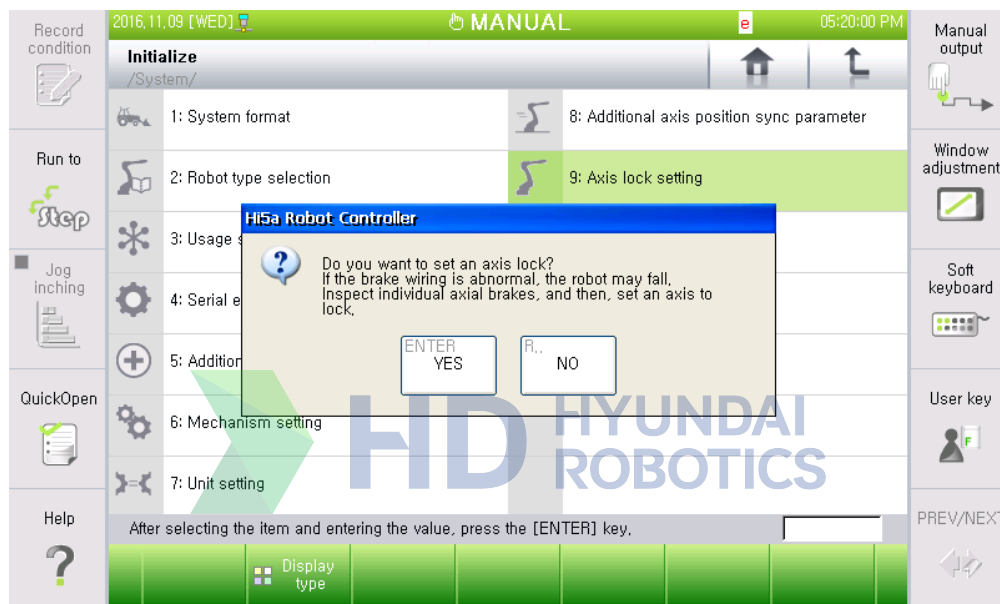
2. Relevant Functions

AxisLock Function

2.1. Setting

2.1.1. Menu

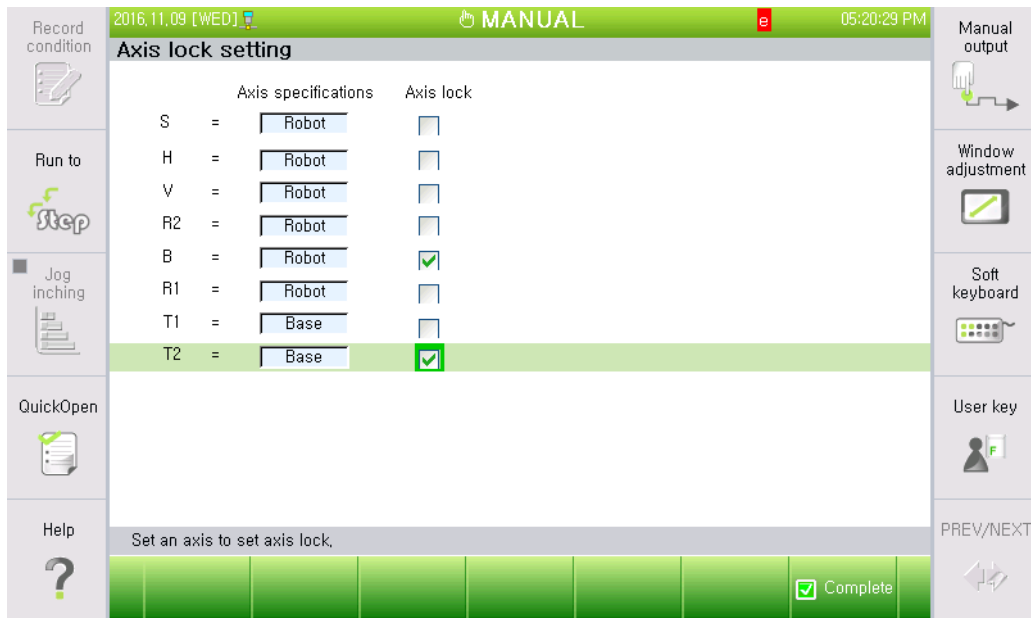
Select **[F2]: System** → **5: Initialize** → **9: Axis lock setting**. Once the menu is selected, the following prompt is displayed to ask if each axis brake is OK. If the brake wiring has a problem, the AxisLock function may cause the robot to fall so **make sure that all the wirings of each axis brake is correct**.



2.1.2. Function setting

After checking the wirings, click the menu to show the following specifications of axes and AxisLock function setting. Select an axis to apply the AxisLock, and press **[F7]: Done** to close the menu.

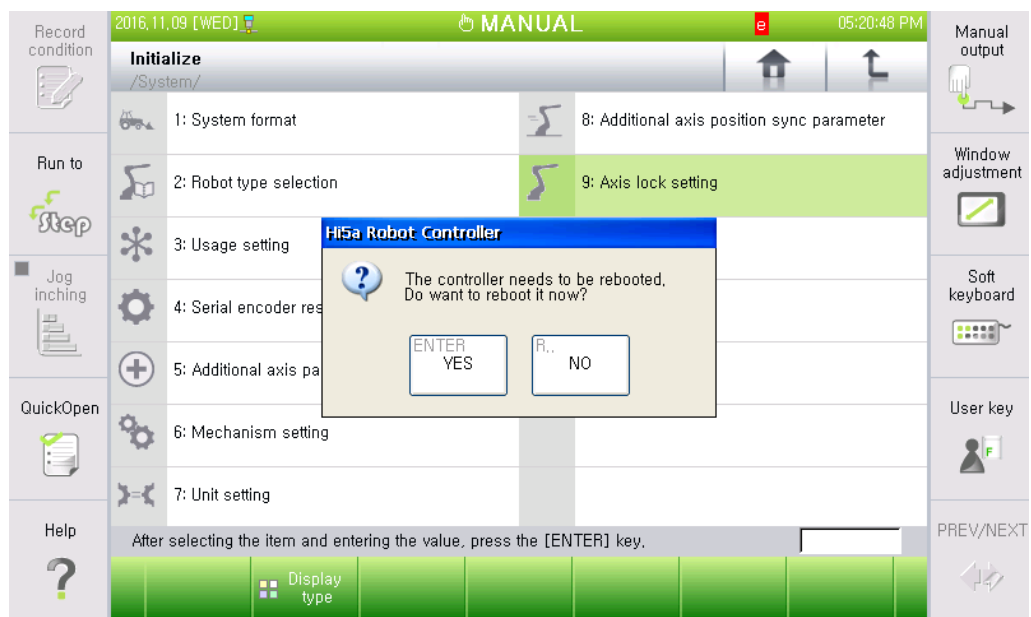
2. Relevant Functions



2.1.3. Rebooting



The AxisLock function is applied to the controller after rebooting. Reboot the robot before operating it.

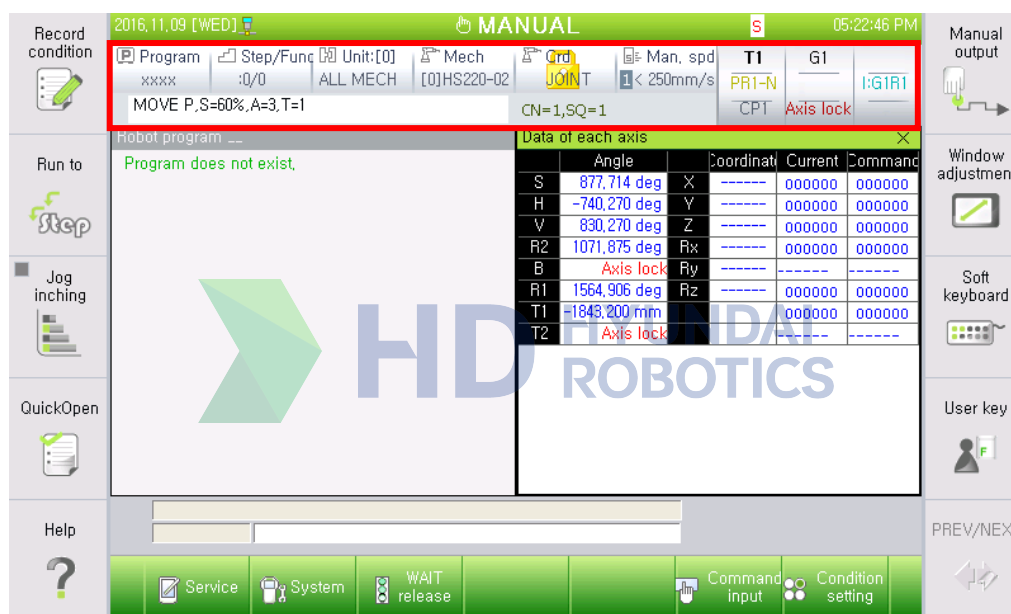


2.2. Application of the function

The AxisLock function may change the motion of a robot, so always check the AxisLock state before operating it. The application state is shown with a status bar, warning message, or monitoring state display.

2.2.1. Status display

The status display shows the status for robot operation. **When using the AxisLock function, check the status before operating a robot.**



- Coordinate system field of the status bar: Padlock icon
- Right-side matrix: "Axis locked" message

2.2.2. Monitoring pane (Individual Axis Data)

The Individual Axis Data displays the "Axis locked" message for a locked axis. If the robot and base axes are locked, the coordinate values cannot be displayed to the values of the coordinates, and locked axes are displayed as "-----."

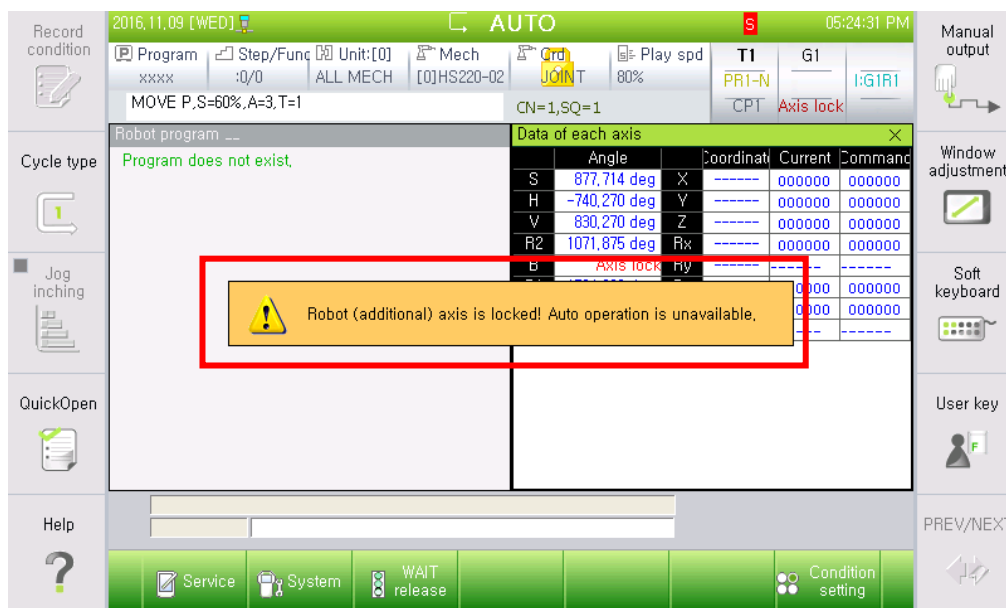
2. Relevant Functions



2.2.3. Warning message



When changing the screen or mode, the range of functions for the locked axis is displayed as a warning message. The message always shows the applications and range of the AxisLock function.







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