

# Denso Robotics

## RC8/RC8A Calset Procedure

**\*\*Attention\*\***

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## Necessary Equipment

- RC8/8A Controller with Teach Pendant

## CALSET Operation Method:

CALSET refers to calibration of relationship between the position data recognized by robot and actual robot position. CALSET is necessary when position data in encoder was erased after the motor was replaced, or the encoder backup batteries are dead. Executing CALSET will restore the robot calibration data in the controller. This data is referred to as CALSET data. The CALSET data varies for each robot.

### CAUTION:

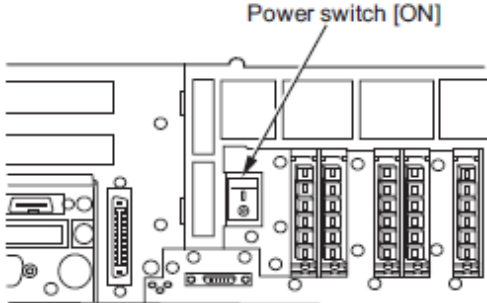
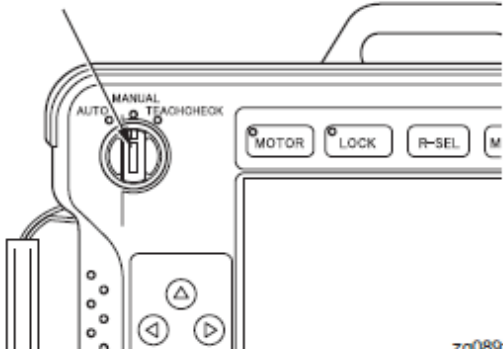
After completing CALSET, make sure, using manual operation, that the axis stops immediately before they touch the mechanical end by the software limit.


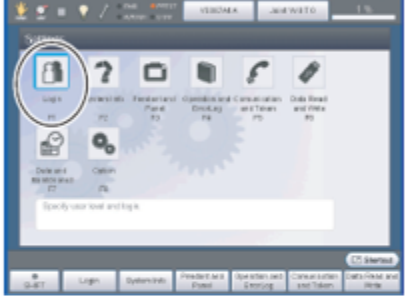
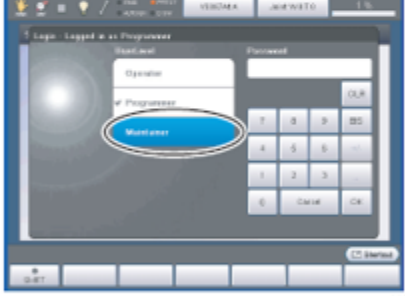
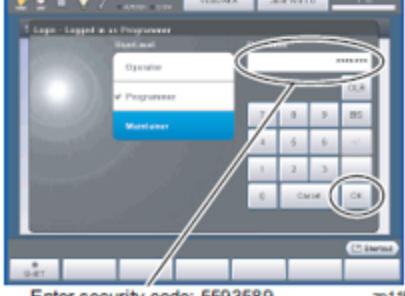





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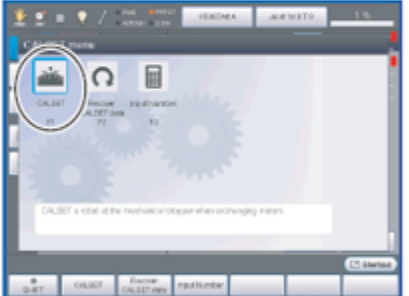

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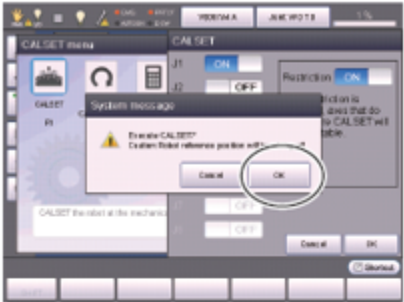
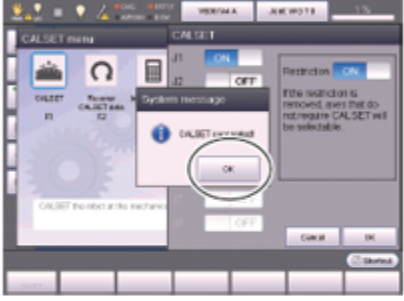
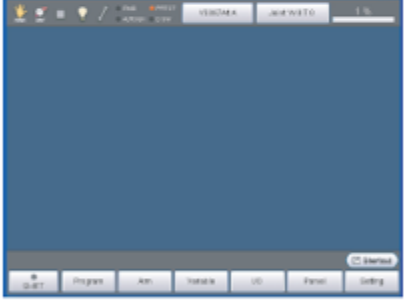
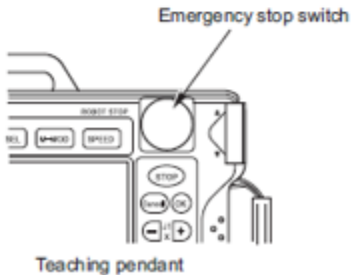
No.	Procedure	Illustration
1	Turn on the power switch on the controller.	 <p>Diagram illustrating the power switch on the controller unit. The switch is labeled "Power switch [ON]".</p> <p>zp1088z</p>
2	Set the mode selector switch on the teaching pendant to MANUAL.	 <p>Diagram illustrating the mode selector switch on the teaching pendant. The switch is set to "MANUAL" mode. Other labels include "AUTO", "TEACH/HECK", "MOTOR", "LOCK", "R-SEL", and "M".</p> <p>zg089z</p>

No.	Procedure	Illustration
3	Push [F6 Setting] on the pendant screen.	 <p>zp1186z</p>
4	Push [F1 Login].	 <p>zp1187z</p>
5	Select [Maintainer].	 <p>zp1188z</p>
6	Enter security code: 5593589. Then press [OK].	 <p>Enter security code: 5593589. zp1189z</p>

No.	Procedure	Illustration
7	Push [Cancel] to return to the opening screen.	 <p>zp1190z</p>
8	Release the axis motor brake for which CALSET is being performed. <b>Caution:</b> This operation will cause the robot to move by its own weight. Hold the robot by hand for safe operation, so that the robot does not impact peripheral devices.	
9	Manually move the corresponding axis to the mechanical end of the CALSET position. (For CALSET position see the Service Manual of each robot.)	
10	Push [F2 Arm]	 <p>zp1191z</p>
11	Push [SHIFT]	 <p>zp1192z</p>

No.	Procedure	Illustration
12	Push [F6 Maintenance]	 <p>zp1193z</p>
13	Push [F7 CALSET]	 <p>RD02094</p>
14	Push [F1 CALSET]	 <p>zp1203z</p>
15	<p>On the CALSET screen set the axis for which CALSET is to be executed to [ON] and then push [OK]</p> <p>The default is in the condition that only the axis requiring CALSET (example: an axis that an encoder reset was executed) can be selected.</p> <p>To select an axis that CALSET is not required, set the restriction button at the top right to [OFF]</p>	 <p>RD02095</p>



No.	Procedure	Illustration
16	Push [OK]	 <p>RD02096</p>
17	Push [OK]	 <p>RD02097</p>
18	Push [Cancel] three times to return to the opening screen.	 <p>zp1185z</p>
19	Push the emergency stop switch on the teaching pendant to lock the motor brake of all axis. (After locking, release the emergency stop switch.)	 <p>Emergency stop switch</p> <p>Teaching pendant</p> <p>zp1178z</p>

No.	Procedure	Illustration
20	<p>Operate the axis for which CALSET has been executed at full stroke, and make sure that error of number 82204010s (software limits) appears immediately before the axis touches the mechanical end.</p> <p><b>CAUTION:</b>  Make sure the area around the robot is safe, and then set the operation speed to 20% or less.</p>	