Aug 24, 2018

Motor Business Unit,
Electromechanical Control Business Division,
Automotive & Industrial Systems Company,
Panasonic Corporation

Software Upgrade Notice
for AC Servo Driver (MINAS A6SE/A6SF/A6SG Series)

Thank you for your daily support and efforts to our business.
As described below, we will upgrade the software version for MINAS A6SE, A6SF and A6SG series.
We would appreciate your understanding and cooperation with this matter.

■ Affected Models: Servo drivers of all MINAS A6SE, A6SF and A6SG series
Part number:

M * D L * * * S *

Starting with M, with DL as the 3rd and 4th characters, S as the 8th character, and F or G as the 9th character from the left.

■ Description of the Change and Reason:
The software version will be upgraded from Ver1.07 to Ver1.09 for functionality improvement purposes.
* By setting the previous parameter file to the driver, the functions that were available before can be used.

No.	Function		Ver1.07 →	Ver1.09
1	Specification extension of command pulse prohibition input (INH) 【Affected Models】: A6SE series A6SF series A6SG series	Pr5.18 "Command pulse prohibition input disable"	Set value = 0: INH input is valid (When INH input is ON, the servo driver ignores the command pulse, disabling pulse counting function, and, at the same time, clears the accumulated pulses of the position command filter function and damping control as well as the remnant pulses of the command division/multiplication function.)	Set value = 0: INH input is valid (When INH input is ON, the servo driver ignores the command pulse, disabling pulse counting function, and, at the same time, clears the accumulated pulses of the position command filter function and damping control as well as the remnant pulses of the command division/multiplication function.)
			Set value = 1: INH input is invalid	Set value = 1: INH input is invalid
				[Addition] **Set value = 2: INH input is valid** **(When INH input is ON, the servo driver ignores the command pulse, disabling pulse counting function. In this setting, the servo driver keeps the accumulated pulses of the position command filter function and damping control as well as the remnant pulses of the command division/multiplication function.)**
2	Setting range extension of analog input (AI1, AI2, AI3) offset 【Affected Models】: A6SF series (F as the 9th character)	Pr4.22 "analog input 1 (AI1) offset setting"	Range of setting -5578 ~ 5578 [0.359 mV]	Range of setting **-27888 ~ 27888** [0.359 mV]
		Pr4.25 "analog input 2 (AI2) offset setting"	Range of setting -342 ~ 342 [5.96 mV]	Range of setting **-1707 ~ 1707** [5.96 mV]
		Pr4.28 "analog input 3 (AI3) offset setting"	Range of setting -342 ~ 342 [5.96 mV]	Range of setting **-1707 ~ 1707** [5.96 mV]

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http://industrial.panasonic.com/ww/products/motors-compressors

3	Specification extension of deterioration diagnosis warning function 【Affected Models】: A6SE series A6SF series A6SG series	Pr6.97 "Function expansion setting 3"	bit 5 Use by the manufacturer Use with "0" fixed.	**[Addition]** **bit 5 Latch for deterioration diagnosis torque command average value** **0: invalid, 1: valid**

* Refer to the next page for the detail of changed content

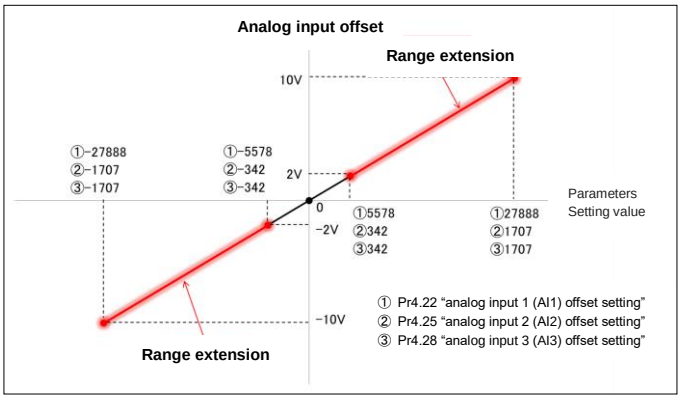
[Detail of Changed Content]

No. 1) Specification extension of Command pulse inhibition (INH) function

The function of forcibly stopping the counting processing of the command pulse inhibition input signal (INH) is expanded by using the command pulse prohibition input signal (INH). By setting Pr5.18 "Command pulse prohibition input disable" to "2", the command pulse input is prohibited during INH input, the retention of the position command filter and electronic gear remainder without clearing become possible. If the position command filter and electronic gear remainder need to be cleared, set it to "0". (Shipment setting is "1: INH input invalid.")

No. 2) Setting range extension of analog input (AI1, AI2, AI3) offset

The setting range of offset adjustment value (Pr4.22, Pr4.25, Pr4.28) to the voltage applied to the analog input (AI1, AI2, AI3) has been expanded as follows.
±2V (Pr4.22: -5578 ~ 5578 [0.359 mV],
Pr4.24, Pr4.28: -342 ~ 342 [5.96 mV])
↓
±10V (Pr4.22: -27888 ~ 27888 [0.359 mV],
Pr4.24, Pr4.28: -1707 ~ 1707 [5.96 mV])
(Please see the chart to the right.)
Because this is an expansion of the set range, use of this function, as before, is possible without a change.



No. 3) Specification extension of deterioration diagnosis warning function

The torque command average value latch valid mode has been added to the deterioration diagnosis warning function. By setting bit 5 to "1" of Pr6.97 "Function expansion setting 3", this function becomes valid, and deterioration diagnosis invalid section can be obtained from the torque command average value, calculated in the valid section immediately prior to the invalid section. When the calculated value of normal torque command average value needs to be obtained as before, bit 5 of Pr6.97 is set to "0". (Shipment setting is "0: invalid.")

- Refer to SX-DSV03031: "MINAS A6 Series Technical Reference - Functional Specification -" and SX-DSV03283: "MINAS A6 Series (Frame size V, DC24 / 48 V) Technical Reference - Functional Specification -" for more detail.
○Related reference download page
https://www3.panasonic.biz/ac/e/dl/manual/index.jsp?series_cd=3514

• Setup support software (PANATERM) for Ver1.09 will be available from Ver.6.0.1.12 onward.

■ Timing: The change will be made from the production lot in September 2018.

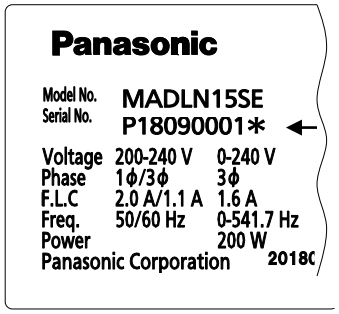
■ Method of checking:

• Method involving checking the software version

The software version can be checked by using the setup support software (PANATERM), or by using the monitor mode on the front panel.

• Method of checking the year and month of manufacturing from the manufacturing code (serial number)

The manufacturing code (serial number) shown on the name plate located on the side of the product conforms to the following rule.



Manufacturing code (Serial number)

Ex. **P18090001***

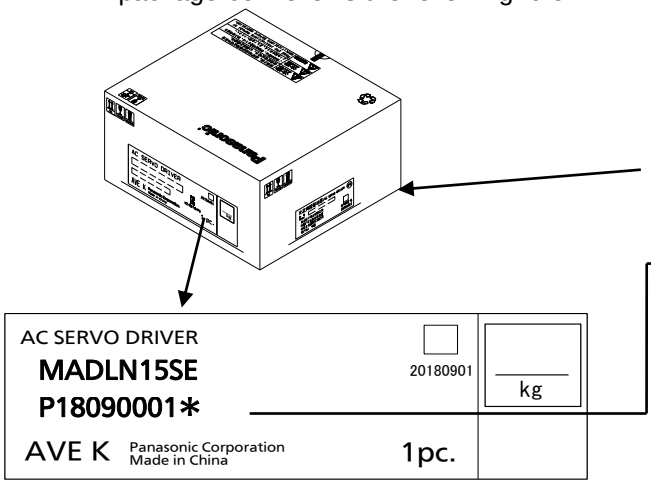
Serial number

Month of manufacturing

Year of manufacturing (last 2 digits of the calendar year)

Check the year and month of manufacturing.

The manufacturing code (serial number) shown on the label attached to the front surface of the package box follows the following rule.



Serial number is not included in this label.

Manufacturing code (Serial number)

Ex. **P18090001***

Serial number

Month of manufacturing

Year of manufacturing (last 2 digits of the calendar year)

Check the year and month of manufacturing.