

NO: RF-042 **PRODUCT:** V680S RFID Firmware
DATE: April 2017 **TYPE:** Modification Notice

V680S Integrated HF RFID Reader/Writer Firmware Update Improves Tag Discrimination to Reduce Reading Errors

Effective date: April 2017 production

Reason for modification:

- Version 3.02 firmware will allow a tag read even if a second non target tag is close to or entering the radio frequency read area.
- This feature will **prevent the erroneous reading** of a nearby but non-target RFID tag. This command can be configured to allow only one attempted read of the target tag or multiple reads on a target tag.
- Another change is the addition of a **query command for the device firmware version** and a browser interface for firmware version



Affected Parts

Reader/writer size	Network	Model
50 x 50 x 30 mm	EtherNet/IP	V680S-HMD63-EIP
	PROFINET	V680S-HMD63-PNT
	Modbus TCP (TCP/IP)	V680S-HMD63-ETN
75 x 75 x 40 mm	EtherNet/IP	V680S-HMD64-EIP
	PROFINET	V680S-HMD64-PNT
	Modbus TCP (TCP/IP)	V680S-HMD64-ETN
120 x 120 x 40 mm	EtherNet/IP	V680S-HMD66-EIP
	PROFINET	V680S-HMD66-PNT
	Modbus TCP (TCP/IP)	V680S-HMD66-ETN

See the following pages for details of differences.

Detail of Differences

Previous Versions	Version 3.02											
<p>Communications options Model:V680S-HMD6□-ETN</p> <table border="1" style="width: 100%;"> <tr><td>Once</td></tr> <tr><td>Auto</td></tr> <tr><td>FIFO Trigger</td></tr> </table>	Once	Auto	FIFO Trigger	<p>Communications options Model:V680S-HMD6□-ETN</p> <p>Added first in first out (FIFO) Trigger with ID code check option.</p> <table border="1" style="width: 100%;"> <tr><td>Once</td></tr> <tr><td>Auto</td></tr> <tr> <td>FIFO Trigger</td> <td>without ID code check</td> <td>← existing option</td> </tr> <tr> <td></td> <td>with ID code check</td> <td>← added</td> </tr> </table> <p>Description of FIFO Trigger with ID code check option.</p> <p>When the Reader/Writer receives a query, it communicates with an RF Tag. After communicating, all further operations with that RF Tag are prohibited. The Reader/Writer communicates with only one operable RF Tag in the communications field. The Reader/Writer will not communicate with it a second time.</p> <p>You can use the FIFO Trigger with ID code check option to perform communications with RF Tags even when there is limited space between the RF Tags. Even if the next RF tag enters the communication area, there is no possibility that the data is erroneously read or a communication error due to collisions does not occur.</p> <p>However, the communication time of FIFO Trigger with ID code check is longer than that of FIFO Trigger without ID code check.</p> <p>Note) Even after adding the above option, there is no change in other functions.</p>	Once	Auto	FIFO Trigger	without ID code check	← existing option		with ID code check	← added
Once												
Auto												
FIFO Trigger												
Once												
Auto												
FIFO Trigger	without ID code check	← existing option										
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Previous Versions	Version 3.02												
<p>Model:V680S-HMD6□-EIP</p> <table border="1" style="width: 100%;"> <tr><td>Once</td></tr> <tr><td>Repeat</td></tr> <tr><td>FIFO Trigger</td></tr> </table>	Once	Repeat	FIFO Trigger	<p>Model:V680S-HMD6□-EIP</p> <p>Added auto option and FIFO Repeat with ID code check option.</p> <table border="1" style="width: 100%;"> <tr><td>Once</td></tr> <tr><td>Auto</td></tr> <tr><td>Repeat</td></tr> <tr> <td>FIFO Repeat</td> <td>without ID code check</td> <td>← existing option</td> </tr> <tr> <td></td> <td>with ID code check</td> <td>← added</td> </tr> </table> <p>Description of Auto option.</p> <p>The Reader/Writer automatically detects an RF Tag and communicates with it. After the host device sends a command, the Reader/Writer automatically detects an RF Tag that enters the communications field and communicates with it.</p> <p>Description of FIFO Repeat with ID code check option.</p> <p>When the Reader/Writer receives a command, it communicates with RF Tags repeatedly. After communicating, all further operations with that RF Tag are prohibited. The Reader/Writer communicates with only one operable RF Tag in the communications field. The Reader/Writer will not communicate with it a second time.</p> <p>You can use the FIFO Repeat with ID code check option to perform communications with RF Tags even when there is limited space between the RF Tags. Even if the next RF tag enters the communication area, there is no possibility that the data is erroneously read or a communication error due to collisions does not occur.</p> <p>However, the communication time of FIFO Repeat with ID code check is longer than that of FIFO Trigger without ID code check.</p> <p>Note) Even after adding the above option, there is no change in other functions.</p>	Once	Auto	Repeat	FIFO Repeat	without ID code check	← existing option		with ID code check	← added
Once													
Repeat													
FIFO Trigger													
Once													
Auto													
Repeat													
FIFO Repeat	without ID code check	← existing option											
	with ID code check	← added											

Previous Versions

Look and feel of Web browser interface

Model : V680S-HMD6□-ETN

OMRON V680S RFID Reader/Writer English

Status

Network settings

Communication settings

Multi Reader/Writer setting

RF Tag communications

Log view

Noise monitor

RF Analyzer

Reboot

configuration

RF Tag communications

Query Reading RF Tag Register number
 Read data size
 Writing RF Tag Register number
 Data to write

 Repeat

Response 00000000007FF03042222222

Error code/Diagnostic Results

Query/Response Log Number of sent

```
[ Query ]00000000006FF030000002
[Response]00000000007FF03042222222
```

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Model : V680S-HMD6□-EIP

Model : V680S-HMD6□-PNT

OMRON V680S RFID Reader/Writer English

Status

Network settings

Communication settings

Multi Reader/Writer setting

RF Tag communications

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Noise monitor

RF Analyzer

Reboot

configuration

RF Tag communications

Command Reading RF Tag Read data address
 Read data size
 Writing RF Tag Write data address
 Data to write
 Repeat

Error code/Diagnostic Results 22222222

Read data Number of communications

22222222

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Version 3.02

Look and feel of Web browser interface

Improve browser screen design. There are no screen layout and function changes for this version upgrade.

Model : V680S-HMD6□-ETN

OMRON V680S RFID Reader/Writer English

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RF Tag communications

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 Writing RF Tag Register number
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Response 00000000007FF03042222222

Error code/Diagnostic Results

Query/Response Log Number of sent

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[ Query ]00000000006FF030000002
[Response]00000000007FF03042222222
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Model : V680S-HMD6□-EIP

Model : V680S-HMD6□-PNT

OMRON V680S RFID Reader/Writer English

Status

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Communication settings

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RF Tag communications

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RF Tag communications

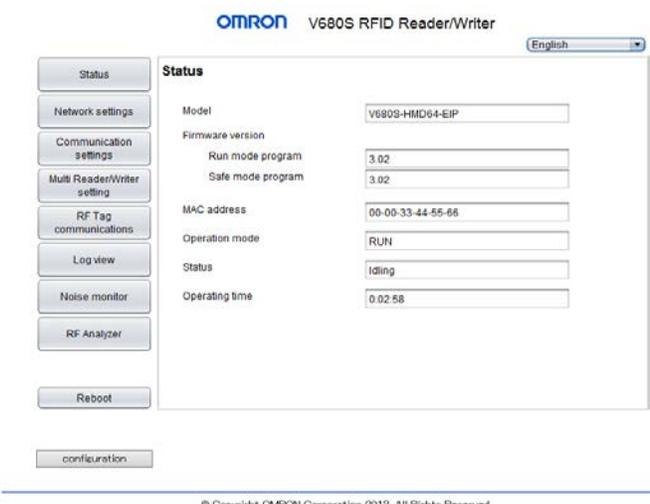
Command Reading RF Tag Read data address
 Read data size
 Writing RF Tag Write data address
 Data to write
 Repeat

Error code/Diagnostic Results 22222222

Read data Number of communications

22222222

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Previous Versions	Version 3.02
<p>Firmware version Model: V680S-HMD6□-ETN Model: V680S-HMD6□-EIP Model: V680S-HMD6□-PNT Ver.3.01</p>	<p>Firmware version Model: V680S-HMD6□-ETN Model: V680S-HMD6□-EIP Model: V680S-HMD6□-PNT Ver.3.02</p> <p>You can confirm the firmware version of V680S by using the query/command or Browser interface described below.</p> 

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