

Software Name: Firmware for MGate MB3270

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
V4.1	Build 18113012	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Supports security features based on IEC-62443.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. Accessible IP List supports denying Web/Telnet console access.</li> </ol>	<p><b>Bugs Fixed:</b></p> <p>N/A</p> <p><b>Changes:</b></p> <p>N/A</p>	N/A
v4.0	Build 18070910	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Supports HW revision v2.6.0.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. Enhanced the complexity of token generation to protect against CSRF attacks.</li> <li>2. Enhanced the complexity of the key for password encryption in the web console login process.</li> <li>3. Hides sensitive information for the web login page.</li> <li>4. Encrypts sensitive information in exported configuration files.</li> </ol>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. When the MGate was in ProCOM mode, MODBUS master software would receive an invalid response or no responses at all.</li> <li>2. Responses were not forwarded after receiving a broadcast response.</li> <li>3. Stack-based buffer overflow issue in the web console which may cause web service corruption.</li> <li>4. MGate crash caused by exporting the configuration through DSU.</li> </ol> <p><b>Changes:</b></p> <p>N/A</p>	N/A
v3.0	Build 17030713	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Supports Auto Device Routing function.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. Supports Multi-master for port routing in IP/TCP port modes.</li> <li>2. Enabled a default password.</li> </ol>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. The user's password and SNMP community name may be exposed by a buffer overflow issue.</li> </ol> <p><b>Changes:</b></p> <p>N/A</p>	N/A
v2.8	Build 16101917	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<p><b>New Features:</b></p> <p>N/A</p> <p><b>Enhancements:</b></p> <p>N/A</p>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. MGate boot up might fail when set up with HW flow control.</li> <li>2. The buttons on the Modbus priority web page were missing.</li> </ol> <p><b>Changes:</b></p> <p>N/A</p>	N/A

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v2.7	Build 16053118	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> N/A  <b>Enhancements:</b> 1. Enhanced the strength of parameters used in the web console to avoid unauthorized access.	<b>Bugs Fixed:</b> N/A  <b>Changes:</b> N/A	N/A
v2.6	Build 16012810	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> N/A  <b>Enhancements:</b> 1. Allows modification of the Modbus TCP port. 2. Supports up to 32 TCP client connections.	<b>Bugs Fixed:</b> 1. Serial communication problems when the baudrate is low. 2. If a Modbus TCP slave divides the TCP response to two packets, MGate could not support it. 3. Slave id mapping info for the serial port would be cleared to zero when changing the Modbus mode.  <b>Changes:</b> N/A	N/A
v2.5	Build 15101910	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> N/A  <b>Enhancements:</b> N/A	<b>Bugs Fixed:</b> 1. MGate may not show the correct serial number. 2. When configured by SNMP, the system name, location, and contact information could not be saved.  <b>Changes:</b> N/A	N/A
v2.4	Build 15032513	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> N/A  <b>Enhancements:</b> N/A	<b>Bugs Fixed:</b> 1. MB3270 would not show the full serial number.  <b>Changes:</b> N/A	N/A

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v2.3	Build 14121610	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> 1. Supports Modbus routing by TCP port, IP address, and multi-range slave ID. <b>Enhancements:</b> N/A	<b>Bugs Fixed:</b> N/A <b>Changes:</b> N/A	N/A
v2.2	Build 14060915	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> N/A <b>Enhancements:</b> 1. MGate supports Auto Detection on the web console.	<b>Bugs Fixed:</b> 1. MGate may not boot up when serial port 1 connects to an RS-485 or RS-422 device. 2. MGate stops forwarding requests after receiving broadcast requests. 3. Sometimes TCP PUSH packets will be immediately retransmitted due to imperfections in the retransmission timeout algorithm. 4. Web page does not display correctly when text input field contains any of the four characters "\>". <b>Changes:</b> N/A	N/A
v2.1	Build 13042214	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> 1. Added RTS toggle flow control. 2. Modbus supports adjustable inter-character timeout and inter-frame delay. 3. Added SNMP. <b>Enhancements:</b> 1. If MGate receives an ARP request from another host for which an ARP entry already exists, the hardware address in the ARP entry is updated accordingly. 2. For Modbus function codes 01 to 04, if the receiving bytes of the RTU frame exceed the byte count for Modbus, drop the unnecessary bytes.	<b>Bugs Fixed:</b> 1. MGate could not drop unnecessary RTU bytes when MB3000 retried to receive multiple times. 2. When an RTU slave replied with an exception with a Modbus function code from 01 to 04, MGate would treat this response as an illegal packet (CRC). 3. If auto detection is executed and cancelled before it finishes, and repeated many times, the result would show the wrong information. 4. When running in Modbus ASCII master mode and the serial of Tx and Rx short-circuits, the system may restart. <b>Changes:</b> N/A	N/A

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v2.0	Build 10070617	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Added ProCOM function that provides 4 ProCOMs.</li> <li>2. Added Web console.</li> <li>3. Added IP filter for 24 accessible IPs.</li> <li>4. Sends gratuitous ARP when link goes down and then up again to check if there is an IP conflict.</li> <li>5. Remote slave TCP port can be changed.</li> <li>6. Increased Relay Warning for Power Failure, Ethernet 1/2 Link Down.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. When there is a TCP slave set that does not exist, MB3000 will only try to connect to this slave if there is a request for it. In the previous version, MB3000 would try to connect if it received a request/response from any master/slave.</li> <li>2. Set ON as the default states of DTR &amp; RTS, since some devices would be blocked when DTR or RTS were OFF even when they didn't use flow control.</li> <li>3. In ASCII mode, ignores data received after line feed (LF) because this could be an illegal packet generated by certain devices.</li> <li>4. In ASCII mode, checks CR instead of LF to verify the packet format is correct.</li> </ol>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. When traffic is heavy, MGate may lose some packets.</li> <li>2. According to RFC 2132, the DHCP option field must end with an "End Option", but MB3000 did not follow this policy so it could not get an IP address from some DHCP servers.</li> <li>3. According to RFC 1542, minimal BOOTP (the UDP data field) should be 300 octets, so it is now padded to 300 bytes.</li> <li>4. MGate's BOOTP packet has no magic cookie in the vendor information field. According to RFC 1542, if a special vendor-specific magic cookie is not being used, a BOOTP client should use the dotted decimal value 99.130.83.99 as specified in RFC 1497. In this case, if the client has no vendor information to communicate to the server, the octet immediately following the magic cookie should be set to the "End" tag (255) and the remaining octets of the 'vend' field should be set to zero.</li> <li>5. Firmware version was inconsistent between the telnet console and utility.</li> <li>6. Slave TCP port would be set as 0 after a first time firmware upgrade (above v1.1.5).</li> <li>7. In RTU mode, MB3000 would sometimes divide a frame into two partial frames. This error happened because the CRC was correct when MB3000 received the first partial frame.</li> <li>8. In RTU mode, MB3000 would sometimes drop the last byte of packets when last 3 bytes were 00XX00. The error happened because the CRC was right even when MB3000 dropped the last byte.</li> <li>9. If there is a slave that does not exist, the current Modbus transmission would be delayed.</li> <li>10. When MB3000 received a request before establishing a connection to the target slave, the following requests would be blocked even after MB3000 finished establishing the connection.</li> <li>11. Minimum data length of Modbus request/response was set to zero instead of 1 byte.</li> <li>12. Sends gratuitous ARP requests before Ethernet is linked up.</li> </ol>	N/A

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v1.1	Build 08012211	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> 1. Added wide temperature model checking via MGCI. <b>Enhancements:</b> 1. Sends FIN instead of RST, as remote devices send FIN to close a connection.	<b>Bugs Fixed:</b> 1. Continuously sent more than one reply to the serial master due to queuing requests from the disconnected connection and sending it after re-establishing the connection. 2. With two TCP client/slaves, connection status of the second one would be affected by disconnection of the first one. 3. Set user-defined TCP response timeout instead of default TCP response timeout (1000 ms). <b>Changes:</b> N/A	N/A
v1.0	Build 07071813	N/A	MGate MB3270, MGate MB3270I, MGate MB3270-T, MGate MB3270I-T	<b>New Features:</b> 1. First release. <b>Enhancements:</b> N/A	<b>Bugs Fixed:</b> N/A <b>Changes:</b> N/A	N/A