Purpose:
To provide information on compatibility of various revisions of this MotionCARD, the LEM software version number and various MotionBASIC® releases.

Description:
Initially, all MotionCARDS™ were MotionBASIC® release specific. In other words each version would only work with a specific release of MotionBASIC®. ORMEC has been working to eliminate this version dependency and make MotionCARDS™ compatible across minor releases of MotionBASIC®. Now that some MotionCARDS™ have become compatible with several releases of MotionBASIC® it is no longer possible to determine which MotionBASIC® releases a MotionCARD™ will work with by simply examining the part number.

Compatibility Levels:
There are two compatibility levels:

✓ Fully Compatible.
★ Partially Compatible.

Partial compatibility means that not all all features will work properly with the indicated MotionBASIC® release. Check the release notes for details.

Updates:
Updates on this information are included in the README.TXT file shipped with each MotionCARD™.
MODBUS LEM Compatibility Table:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>LEMVER$</th>
<th>Motion Basic Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCD-MDB/MB1.1d</td>
<td>LEM-MDB/1.0a-6</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/MB1.1e</td>
<td>LEM-MDB/1.0a-7</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/MB1.2a</td>
<td>LEM-MDB/1.0a-8</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/B2.0a[M]</td>
<td>LEM-MDB/2.0a-1</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/B2.1c[M]</td>
<td>LEM-MDB/2.0a-3</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/B2.1d[M]</td>
<td>MDB/2.0a</td>
<td>✓ ✔ ¬</td>
</tr>
<tr>
<td>MCD-MDB/B2.1f[M]</td>
<td>MDB/2.0b</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/B2.1h[M]</td>
<td>MDB/2.0c</td>
<td>✓</td>
</tr>
<tr>
<td>MCD-MDB/B2.1h[M]</td>
<td>MDB/2.0d</td>
<td>! !</td>
</tr>
<tr>
<td></td>
<td>MDB/2.0e</td>
<td>✓ ✔</td>
</tr>
</tbody>
</table>

Release Notes:

MDB/2.0e
1. Fixed a problem in MDB/2.0d where DIO events could stop if a MAP event occurred at the wrong time. The version of the MAP LEM is now 1.1b.

MDB/2.0d
1. Released for MotionBASIC® version 2.1h or 2.1i compatibility.

MDB/2.0c
1. Fixed a problem with asynchronous errors in message replies when running under MB2.1f (works fine with MB2.1d)
2. Note that some MotionCARDs were shipped with a 2.0b label on the back of the card. If LEMVER$ returns "MDB/2.0c" then it is a 2.0c version.

MDB/2.0b
1. Released for MotionBASIC® version 2.1f compatibility.
2. Fixed a problem where RTU mode did not work when running under MB2.1f (works fine w/ MB2.1d).
**MDB/2.0a**

1. Released for MotionBASIC® version 2.1d compatibility.
2. Add `MOD.TR` and `MOD.TW`, typed read/write commands.
3. Changed MOD@ to MODBUS@.
4. Added MAP events.
5. Added `MOD.TRACE@` for debug support.
7. Ctrl-C no longer sets MODBUS@=OFF automatically.
8. Swapped parity and data bits in MOD.CFG to be consistent with OPEN.
9. CRC/LRC errors in replies will now generate a MotionBASIC® error if MOD.ERR@ is turned on.
10. Removed support for MAP ERROR, use MAP EVENTS.
11. `MODBUS@` and `MOD.ERR@` now only accept ON or OFF as arguments.

**LEM-MDB/2.0a-3 (pre-release version)**

1. Pre-released for MotionBASIC® version 2.1c compatibility.

**LEM-MDB/2.0a-1 (pre-release version)**

1. Pre-released for MotionBASIC® version 2.0a compatibility.
2. Added `MOD.CTR@` keyword to display diagnostic counter values.
3. Added `MOD.PORT@`, a read-only array variable that returns the communications port settings determined by `MOD.INIT` and `MOD.CFG`.
4. Removed the MOD.MNET@ keyword. This variable was used in earlier pre-release versions to set the baud rate on the MotionNET port when using Modbus to communicate between two or more GEN-III's.
5. Removed the MOD.STA@ keyword. This functionality is now handled by MOD.PORT@(6).
6. Added support for sending and receiving additional diagnostic codes via the `MOD.LOOP` command. See also: sending diagnostic codes and receiving diagnostic codes.
7. Added support for receiving FORCE MULTIPLE COILS command.
8. Added the keywords `MOD.FC`, `MOD.RI` and `MOD.RO` for I/O support.
9. Added the `MOD.CLOSE` keyword. You can now close a Modbus serial port and open a different one. This is useful for connecting one GEN-III (Modbus master) to a PLC (Modbus slave) via a serial port and daisy-chaining one or more GEN-IIIIs (Modbus slaves) on the MotionNET port.
10. Modified the functionality of `MOD.ERR@`. It is now a Modbus master only command which determines whether either a timeout or exception response from a slave will generate a MotionBASIC error.
11. Added error codes #9016, #9017 and #9020.
12. Added Ormec specific response codes. See also: `MOD.STS@`
13. Fixed a problem in the `MOD.CUST` command where `MOD.STS@` did not get set when there was an error in the reply to a custom command.

14. When a station is configured as a Modbus master and `MODBUS@=0` (Communications are disabled) an error is generated immediately when the program attempts to send a message.

**LEM-MDB/1.0a-8 (pre-release version)**

1. Pre-released for MotionBASIC® version MB1.2a compatibility.

**LEM-MDB/1.0a-7 (pre-release version)**

1. Pre-released for MotionBASIC® version MB1.1e compatibility.

**LEM-MDB/1.0a-6 (pre-release version)**

1. Pre-released for MotionBASIC® version MB1.1d compatibility.