<table>
<thead>
<tr>
<th>NO.</th>
<th>DRAWING NO.</th>
<th>DESCRIPTION</th>
<th>OPTION NO./FILE DATE</th>
<th>REV.</th>
<th>NO. OF BTH</th>
<th>OPTION NO./FILE DATE</th>
<th>DRAWING NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D-UA-BH7F-3-1</td>
<td>MASSBUS CONTROLLER</td>
<td>1</td>
<td>C-SC-1209856-0-02</td>
<td>1</td>
<td>B-MH-MB152-P-6</td>
<td>1</td>
<td>MODULE ECO HISTORY</td>
</tr>
<tr>
<td>2</td>
<td>D-CS-MB152-P-1</td>
<td>MASSBUS DATA PATH</td>
<td>6</td>
<td>X</td>
<td>1</td>
<td>2</td>
<td>CONTROLLER TRANSCEIVER</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>D-CS-MB151-P-1</td>
<td>CONTROL &amp; STATUS</td>
<td>1</td>
<td>K-CO-MB151-P-4</td>
<td>1</td>
<td>X-Y COORD. HOLE LOCATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>D-CS-MB152-P-1</td>
<td>ADDR. &amp; WORD COUNT REG.</td>
<td>4</td>
<td>D-AN-MB152-P-5</td>
<td>1</td>
<td>ASSY/DRILLING HOLE LAYOUT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CUSTOMER PRINT SET**

**PRINT SET CODES**

- X: PRINT OF DOCUMENT INCLUDED IN PRINT SET
- C: INCLUDES ALL PRINTS INDICATED ON DOCUMENT
- S: CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

**DRAWING DIRECTORY PH W**

**SIZE CODE**

- B: DD

**NUMBER**

- RH7F-3-1

**REV**

- B

**DRAWING NO.**

- D-UA-BH7F-3-1
- D-CS-MB152-P-1
- D-CS-MB151-P-1
- D-CS-MB152-P-1
- D-AN-MB152-P-5
- D-AN-MB152-P-5
- D-AN-MB152-P-5

**DESCRIPTION**

- MASSBUS CONTROLLER
- MASSBUS TRANSCEIVER
- WRITE COMMAND FLOW DIAG.
- READ COMMAND FLOW DIAG.
- B/H Y DATA BUFFER TIM. DIAG.
- MASSBUS TIMING DIAG.
- MASSBUS TIMING DIAG.
- UNIBUS CABLE & GRANT CHAIN
- 11/70 UNIT ASSY (REF)
- KB11-B WIRELIST (REF)
- MASSBUS DATA PATH
- X-Y COORD. HOLE LOCATION
- ASSY/DRILLING HOLE LAYOUT
- MASSBUS TERMINATOR
- X-Y COORD. HOLE LOCATION
- ASSY/DRILLING HOLE LAYOUT
- MODULE ECO HISTORY
- MODULE ECO HISTORY
- MODULE ECO HISTORY
- MODULE ECO HISTORY
-ModuleName
**NOTES:**

1. The RHSS & RHSS registers will be selected as the last two registers in the Register set. The jumper on B10 selects the desired number of registers in the set. When RHSS or RHSS is selected, the MASSBUS register selection will be disabled.

### REGISTER SELECT PROM - 23045A5 (8253)

<table>
<thead>
<tr>
<th>ADDR</th>
<th>REG 1</th>
<th>REG 2</th>
<th>REG 3</th>
<th>REG 4</th>
<th>REG 5</th>
<th>REG 6</th>
<th>REG 7</th>
<th>REG 8</th>
<th>REG 9</th>
<th>REG 10</th>
<th>REG 11</th>
<th>REG 12</th>
<th>REG 13</th>
<th>REG 14</th>
<th>REG 15</th>
<th>REG 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>L</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>L</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### UNIBUS ADDRESS, BUS NOTE

<table>
<thead>
<tr>
<th>ADDR</th>
<th>REG 1</th>
<th>REG 2</th>
<th>REG 3</th>
<th>REG 4</th>
<th>REG 5</th>
<th>REG 6</th>
<th>REG 7</th>
<th>REG 8</th>
<th>REG 9</th>
<th>REG 10</th>
<th>REG 11</th>
<th>REG 12</th>
<th>REG 13</th>
<th>REG 14</th>
<th>REG 15</th>
<th>REG 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### RHSS, RHSS

**WARNING**

Ensure that RHSS and RHSS are properly configured according to the specified truth table for correct operation.

---

**UNIBUS CONTROL**

<table>
<thead>
<tr>
<th>SLOT</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROM TRUTH TABLE**

- **NOTE**: M: Master, C: Control, A: Address.
NOTES:
1. ASSEMBLE (3) SCREW AND NUT TO BOARD, CUT OFF SCREW FLUSH WITH NUT.
2. INSERT BOARD INTO CONNECTOR FINGERS AND SOLDER ON TO BOARD PADS AS PER DETAIL SHOWN USING TOOLING.
3. USE TOOLING CHISEL TO REMOVA PI PRIOR TO ASSEMBLY.

SEE NOTE 1

SEE NOTE 2

LETTERING UP

SIDE 1

SOLDER