Important: These instructions are based on the software version in the dap4 being 2.11 or higher.
Introduction

The Zone Master offers unit lead/lag, rotation and a teamwork control solution for the Dap4 controllers. The Zone Master consists of one Master Unit and up to fifteen Slave Units. The Zone Master units are connected in a daisy chain topology using the dap4 pLAN communication port. The Zone Master feature requires an activation password for each unit in the network. All units in the network must have the same software version to operate properly. Units manufactured under a different job number may have different software versions. Therefore, a software upgrade should be performed before proceeding with Zone Master activation. The dap4 software version can be found in “F - Information” menu.

The Zone Master provides selectable features of:

- Auto Lead/Lag standby rotation
- Secondary Operating Schedule for economical control
- Activate a standby unit due to specified alarms
- Deactivate a running unit due to specified alarms
- Zone Inhibit function to prevent units from conflicting operations
- Temperature and Airflow Assist requests a standby unit to active

Setting up the features and operation of the Zone Master is not explained in this supplement. Please consult the dap4 User Manual for further information.

Enabling the Zone Master feature

Note: Units with factory installed Zone Master already have the Zone Master feature enabled and do not require the following steps. Units that are being retrofitted for Zone Master in the field require an activation password. Please obtain the Controller ID located in the “F - Information” for each controller in the zone. Then contact the Data Aire Parts and Sales department to get the activation password for each unit.

On dap4Touch displays you must change to the Service emulation mode by pressing the tools icon:

To active the Zone Master feature, press the Menu key and enter the Factory level password (default password is 0002).
The procedure to activate Zone Master depends on the type of display:

**Grayscale Display** - Press and hold the MENU key for 10 seconds until the Zone Master Control screen appears.

**Color Touchscreen Display** - Touch the two hands icon on bottom left, then touch the Menu key (looks like a target), now press and hold the two hand key on the bottom right for 10 seconds until the Zone Master Control screen appears.

Enter the Zone Master Activation password for this controller.

This screen should appear if the password is correct:

Select “Yes” to enable Zone Master and then press the ESC key to exit.

Proceed to enable the Zone Master feature on each unit in the zone.
Setting the Address for devices in the network

Each controller and display must have a unique address in the Zone Master network. These devices are all connected via the pLAN port of the controller which are wired together (explained in following section). The table below indicates the address of each control unit and its corresponding display.

Note: Units with factory installed Zone Master already have their addresses set and do not require you to follow the following steps.

*Tip: The address of the dap and its display will add up to be 33.*

<table>
<thead>
<tr>
<th></th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
<th>Unit 5</th>
<th>Unit 6</th>
<th>Unit 7</th>
<th>Unit 8</th>
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<tbody>
<tr>
<td><strong>Controller Address</strong></td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tr>
<tr>
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<td>31</td>
<td>30</td>
<td>29</td>
<td>28</td>
<td>27</td>
<td>26</td>
<td>25</td>
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<th>Unit 9</th>
<th>Unit 10</th>
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<th>Unit 14</th>
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<tr>
<td><strong>Controller Address</strong></td>
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<td>10</td>
<td>11</td>
<td>12</td>
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</tr>
<tr>
<td><strong>Display Address</strong></td>
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<td>22</td>
<td>21</td>
<td>20</td>
<td>19</td>
<td>18</td>
<td>17</td>
</tr>
</tbody>
</table>

Changing the address of the controller (For all dap4 controllers):

*Important! – The Zone Master network should not be connected to the pLAN port of any controller while setting up the addresses.*

![Image of Zone Master menu options]

![Image of BMS Configuration settings]
Set the controller's pLAN address, then Press Enter to save new address. Press Esc to go back to the main screen.

**Changing the address of the display (For grayscale with side buttons only):**

- Press and Hold the three right hand side buttons simultaneously (UP+ENTER+DOWN) until you see this screen about 10 seconds later, then release the buttons.

- Set the display to match the address shown in the table.
- Then adjust the I/O Board Address to the same as the controller was set to.
- After you enter these settings, the display should reestablish communications to the controller and terminal configuration screen will now appear.
• The terminal configuration of the dap4 should be automatically set for the terminal’s new address. If so, just press Enter until the cursor is at “No” and change it “Yes” and press Enter. Do this for every terminal used in the zone.
Changing the address of the controller and display (Color Touch display only):

Press the bottom right icon to open the information screen.

Press and hold the top right corner of the information screen for about 5 seconds and the Zone Master Network window will appear.

First be sure that the Heartbeat shows a heart symbol on/off at a rate of about 2-3 seconds. This indicates that communication between the dap4 and the display is okay. Also be sure that the Zone Master network is disconnected before making any changes to the dap4 address.

- Set the “dap4 Address” according the Zone Master address table for this unit. After changing the addresses, you may notice that the Heartbeat had stopped, this is normal.

- Set the “Display Target” to the same address as the dap4. This tells the display which dap4 to communicate with.

- Set the Display Address according the Zone Master address table for this unit.

At this point you will need to cycle the power on the dap4 and return to this screen to verify that the heartbeat is working again.
Wiring the Zonemaster Network

*Important:* Do not connect the Zone Master wiring until all dap4 controllers and displays have been configured and the Zone Master feature is enabled. Connecting Zone Master network before configuring each units’ address will cause irregular operation.

All communication wire must be at least 22 gauge twisted pair with a shielded drain line. Up to 16 dap4 controllers may be connected in a “daisy chain” topology. Master wiring connection drawing for wiring details).
Wiring diagram for dap4 with REMOTE dap4 touch display

Wiring diagram for mini dap4 with REMOTE dap4 touch display
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