
Product Category: Notebooks and Tablet PCs
Marketing Name/Model:  Mustang W650R

Purpose: The document is intended for use by end-of-life recyclers or treatment facilities. It provides the basic instructions for the disassembly of Ace products to remove components and materials requiring selective treatment, as defined by EU directive 2002/96/EC, Waste Electrical and Electronic Equipment (WEEE).

1.0 Items Requiring Selective Treatment

1.1 Items listed below are classified as requiring selective treatment.

1.2 Enter the quantity of items contained within the product which require selective treatment in the right column, as applicable.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Notes</th>
<th>Quantity of items in Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)</td>
<td>With a surface greater than 10 sq cm</td>
<td>3</td>
</tr>
<tr>
<td>Batteries</td>
<td>All types including standard alkaline and lithium coin or button style batteries</td>
<td>2</td>
</tr>
<tr>
<td>Mercury-containing components</td>
<td>For example, mercury in lamps, display backlights, scanner lamps, switches, batteries</td>
<td>0</td>
</tr>
<tr>
<td>Liquid Crystal Displays (LCD) with a surface greater than 100 sq cm</td>
<td>Includes background illuminated displays with gas discharge lamps</td>
<td>1</td>
</tr>
<tr>
<td>Cathode Ray Tubes (CRT)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Capacitors / condensers (Containing PCB/PCT)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>External electrical cables and cords</td>
<td>Power cord</td>
<td>1</td>
</tr>
<tr>
<td>Gas Discharge Lamps</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Component Description</td>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Plastics containing Brominated Flame Retardants weighing &gt; 25 grams (not including PCBs or PCAs already listed as a separate item above)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste) and toner</td>
<td>Include the cartridges, print heads, tubes, vent chambers, and service stations.</td>
<td>0</td>
</tr>
<tr>
<td>Components and waste containing asbestos</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Components, parts and materials containing refractory ceramic fibers</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Components, parts and materials containing radioactive substances</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

There are two batteries on this notebook, the main battery and the CMOS battery which is a coin cell mounted on the motherboard. Removal instructions for the main battery is as follows:

**Removing the Battery**

1. Turn the computer off, and turn it over.
2. Loosen screws 1 - 3 (Figure 1a) and carefully lift the battery 4 up (Figure 1b).
3. Remove the battery 4 from the battery bay (Figure 1c).

**Figure 1**

**Battery Removal**

a. Loosen screws.
b. Carefully lift the battery up.
c. Remove the battery from the battery bay.
Removing the CMOS battery is a bit more complicated but is accessible by first removing the keyboard and its shielding plate and then simply removing the battery. See detailed instructions which follow:

Removing the Keyboard

1. Turn off the computer and remove the battery (page 2 - 5).
2. Remove screws 1. - 3. from the bottom of the computer (Figure 8a).
3. Turn the computer over, open the LCD/LCD, and carefully (a cable is connected to the underside of the LED cover module) unsnap up the LED cover module from point 4. on the right.
4. Disconnect cable 5. and remove the LED cover module 6. (Figure 8c).

5. Remove screws 7. - 10. from the keyboard (Figure 9d).
6. Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable 12. Disconnect the keyboard ribbon cable 13. from the locking collar socket 14. (Figure 9e).
7. Remove the keyboard 14. (Figure 9f).

Re-inserting the Keyboard

When re-inserting the keyboard, align first the four keyboard tabs (Figure 9f) that are located at the bottom, to the slots in the case.
After this plate is removed, the CMOS battery may be accessed and removed.
There are a maximum of three PCB’s – One/Two are video card(s) and the other is the main logic board.

Instructions to remove the video card(s) are as follows:

**Removing and Installing the Video Card**

**Video Card Removal Procedure**
1. Turn off the computer, turn it over and remove the battery (page 2 - 5) and component cover (page 2 - 7).
2. Remove screws 1 & 2 (Figure 5a).
3. Disconnect the fan cables 3 & 4 and remove the fan units 11 & 12 (Figure 5b).
4. Remove screws 15 - 18 from the heat sink unit in the order indicated on the label (i.e. screw 4 first through to screw 1 last) (Figure 5c).
5. Carefully (it may be hot) remove the heat sink units 21 & 22 by pulling the plastic strips 23 & 24 up (Figure 5d).
6. Remove screws 25 - 28 from the video cards 29 & 30 (Figure 5d).

**Heat Sink Screw Removal and Insertion**
Remove the screws from the heat sink in the order indicated here: 4-3-2-1.
When tightening the screws, make sure that they are tightened in the order: 1-2-3-4.

**Disassembly**
7. The video cards 29 & 30 will pop up.
8. Disconnect the video card cables 23 & 24 and remove the video cards 29 & 30 (Figure 6f).

**Caution**
The heat sink and video card areas in general, contain parts which are subject to high temperatures. Allow the area time to cool before removing these parts.

**Video Card Removal (cont’d)**
e. The video cards will pop up.
f. Disconnect the video card cables and remove the video cards.
The main logic board is removed by removing all the chassis screws which anchor it to the logic board plate. There are 14 M4 screws which do this and they can be removed with a T8 screwdriver.

Removing the display:

The LCD screen is now removed and can be recycled or repaired.
The power cord plugs in to the rear of the computer as shown below:

The AC Adapter is a 330W Model with a 4 prong plug as shown below:

The power cord is a standard 5-15P to C13 cable with 6 foot length and is not incorporated into the AC adapter for recycling purposes.