# DEFECT

## Headlights are not working

<table>
<thead>
<tr>
<th>CAUSE(S)</th>
<th>CHECK</th>
<th>SOLUTION(S)</th>
</tr>
</thead>
</table>
| • Bad /wrong plug connections  
• Broken or pinched wires  
• Broken welding  
• Faulty LED  
• Faulty auxiliary board | **If only one light is not working**  
• Visual check of plug (I or G) connections  
• Visual check of plug L connection  
• Visual check for unbroken or pinched wires  
• Visual check on the auxiliary board plug (I or G) welding  
• Visual check on the auxiliary board plug (L) welding  
  
**Open the tank and start it**  
• Touch and move the plug I, G or L and look for any reaction  
• Pull and push the wire near the LED and move it, check for any reaction | • First of all, push in the plug if found to be loose  
• Broken or pinched wires -> needs replacement part or soldering skills  
• If the LED reacts when touched, there’s a faulty welding on the LED leg -> needs replacement LED light part  
• If the auxiliary board plug welding looks broken or loose -> needs replacement part  
• If the LED reacts when the auxiliary board plugs are touched (plug connections already checked), there’s a faulty welding -> need replacement auxiliary board part |
| | **If both lights are not working at all**  
• Visual check of plug L connection  
• Visual check on the auxiliary board plug (L) welds  
  
**Open the tank and start it**  
• Touch and move the plug L and see for any reaction | • First of all, push in the plug if found to be loose  
• If the auxiliary board plug welding looks broken or loose -> needs replacement part  
• If the LED reacts when the auxiliary board plugs are touched (plug connections already checked), there’s a faulty welding -> need replacement auxiliary board part |
# TROUBLESHOOTING

## DEFECT

**Turret motor isn't working**

<table>
<thead>
<tr>
<th>CAUSE(S)</th>
<th>CHECK</th>
<th>SOLUTION(S)</th>
</tr>
</thead>
</table>
| - Poor /wrong plug connections  
- Broken or pinched wires  
- Broken welding  
- Faulty motor  
- Faulty auxiliary board  
- Stuck gears  
- Broken gear  
- Missing gear | - Visual check of plug A connection  
- Visual check of plug L connection  
- Visual check for unbroken or pinched wire  
- Visual check on the auxiliary board plug A welds  
- Visual check on the auxiliary board plug L welds  
- Visual check on gearbox for any openings or gaps | - First of all, push the plug if found to be loose  
- Broken or pinched wires -> needs replacement part or soldering skills  
- If the motor reacts when touched, there's a faulty welding on the motor spot -> needs replacement part  
- If the auxiliary board plug welding looks broken or loose -> needs replacement part  
- If the motor reacts when the auxiliary board plugs are touched, and the plugs are already well pushed in, there's a faulty welding -> need replacement auxiliary board part |

### Open the tank and start it

- Touch and move the plug A or L and look for any reaction  
- Pull and push the wire near the motor and move it, check for any reaction

### Listen carefully when operating:

1. Motor sound, no movement
2. Tickling sound, no movement
3. Tickling sound, movement with continuous stops
4. No sounds at all

### Listening when operating:

1. Missing or broken gear -> open the gearbox and double check -> needs replacement
2. Stuck gear -> open the gearbox, check the gear, clean, add grease, close the gearbox -> try again
3. Motor overload/ stuck parts -> loosen the screws involved in the turret assembly -> check again -> repeat until the turret unlocks
4. Faulty motor -> needs replacement part
# Troubleshooting

## The smoke is not working

<table>
<thead>
<tr>
<th>CAUSE(S)</th>
<th>CHECK</th>
<th>SOLUTION(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Bad / wrong plug connections</td>
<td>· Visual check of plug D connection</td>
<td>· First of all, push in the plug if found to be loose</td>
</tr>
<tr>
<td>· Broken or pinched wires</td>
<td>· Visual check for unbroken or pinched wire</td>
<td>· Broken or pinched wires -&gt; needs replacement part or soldering skills</td>
</tr>
<tr>
<td>· Broken welding</td>
<td>· Visual check on the auxiliary board plug D welding</td>
<td>· If the motor reacts when touched, there's a faulty welding on the motor spot -&gt; needs replacement part</td>
</tr>
<tr>
<td>· Faulty motor</td>
<td>· Visual check for broken welding on gearbox board</td>
<td></td>
</tr>
<tr>
<td>· Faulty coil</td>
<td>· Visual check on gearbox for any openings or gaps</td>
<td></td>
</tr>
<tr>
<td>· Stuck gears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Broken gear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Missing gear</td>
<td></td>
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</tbody>
</table>

### Open the tank and start it
- Touch and move the plug D and look for any reaction
- Pull and push the wire near the motor and move it, check for any reaction

### Listen/look carefully when operating:
1. Motor sound, no smoke
2. Motor sound, no smoke
3. Motor sound, no smoke
4. Tickling sound, no movement
5. No sounds at all

### *Listen when operating:

1. Missing or broken gear -> open the gearbox and double check -> needs replacement
2. Broken coil -> open the gearbox when operating and check if the coil burns the oil -> if the coil doesn’t work, needs replacement
3. Missing oil/too much oil -> add oil/wait a bit since needs more time to burn the oil
4. Stuck gear -> open the gearbox, check the gear, clean, add grease, close the gearbox -> try again
5. Faulty motor -> needs replacement part
## The camera is not working

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<tr>
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<th>SOLUTION(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bad /wrong plug connections</td>
<td>• Visual check of plug Q connection</td>
<td>• First of all, push in the plug if found to be loose</td>
</tr>
<tr>
<td>• Broken or pinched wires</td>
<td>• Visual check for unbroken or pinched wire</td>
<td>• Broken or pinched wires -&gt; needs replacement part or soldering skills</td>
</tr>
<tr>
<td>• Broken welding</td>
<td></td>
<td>• If the signal reacts when touched, there’s a fault on the camera welding -&gt; needs replacement camera light part</td>
</tr>
<tr>
<td>• Faulty camera</td>
<td></td>
<td>• If the auxiliary board plug welding looks broken or loose -&gt; needs replacement part</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If the signal reacts when the auxiliary board plugs are touched and the plugs are already well pushed in, there’s a faulty welding -&gt; need replacement auxiliary board part</td>
</tr>
<tr>
<td><strong>Open the tank and start it</strong></td>
<td></td>
<td>• Broken antenna -&gt; need replacement part</td>
</tr>
<tr>
<td>• Touch and move the plug Q and look for any</td>
<td></td>
<td></td>
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<tr>
<td>reaction</td>
<td>• Pull and push the wire near the camera and move it -&gt;</td>
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<tr>
<td></td>
<td>restart the tank and check for any reaction</td>
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## Troubleshooting

### Defect

**The gun barrel is not elevating at all**

<table>
<thead>
<tr>
<th>Cause(s)</th>
<th>Check</th>
<th>Solution(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bad/wrong plug connections</td>
<td>• Visual check of plug U connection</td>
<td>• First of all, push in the plug if found to be loose</td>
</tr>
<tr>
<td>• Broken or pinched wires</td>
<td>• Visual check of plug Z1 connection</td>
<td>• Broken or pinched wires -&gt; needs replacement part or soldering skills</td>
</tr>
<tr>
<td>• Broken welding</td>
<td>• Visual check for unbroken or pinched wire</td>
<td>• If the motor reacts when touched, there’s a faulty welding on the motor spot -&gt; needs replacement part</td>
</tr>
<tr>
<td>• Faulty motor</td>
<td>• Visual check on the auxiliary board plug U welds</td>
<td>• If the auxiliary board plug welding looks broken or loose -&gt; needs replacement part</td>
</tr>
<tr>
<td>• Faulty auxiliary board</td>
<td>• Visual check on the auxiliary board plug Z1 welds</td>
<td>• If the motor reacts when the auxiliary board plugs are touched and the plugs are already well pushed in, there’s a faulty welding -&gt; need replacement auxiliary board part</td>
</tr>
<tr>
<td>• Stuck gears</td>
<td>• Visual check on gearbox for any openings or gaps</td>
<td></td>
</tr>
<tr>
<td>• Broken gear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Missing gear</td>
<td></td>
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</tbody>
</table>

**Open the tank and start it**

- Touch and move the plug U or Z1 and look for any reaction
- Pull and push the wire near the motor and move it, check for any reaction

**Listen carefully when operating:**

1. Motor sound, no movement
2. Tickling sound, no movement
3. Tickling sound, movement with continuous stops
4. No sounds at all

**Listen when operating:**

1. Missing or broken gear -> open the gearbox and double check -> needs replacement
2. Stuck gear -> open the gearbox, check the gear, clean, add grease, close the gearbox -> try again
3. Motor overload/stuck parts -> loosen the screws involved in the gun barrel assembly -> check again -> repeat till the gun barrel unlocks
4. Faulty motor -> needs replacement part