

ES Scissors Battery Temperature Sensor

For Kit: 1001127269

ES Scissors Battery Temperature Sensor

All Oshkosh Corporation Company

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The purpose of this instruction is to install a Battery Temperature Sensor on JLG model ES scissors lifts using the Delta-Q 24V (JLG P/N: 100112111) to ensure proper charging of the batteries.

It is recommended that you read and thoroughly understand these instructions before starting this procedure.

CAUTION

Use all applicable safety precautions while working on, around or under any machinery.

Models Affected:

- 1230ES
- 1930ES
- 2030ES
- 2630ES
- 2646ES
- 3246ES

Tools & Equipment Required:

- Standard mechanic tools

Personnel Required:

- Qualified JLG equipment mechanic

CAUTION

Disconnect the battery power from the machine.

Parts List:

| Item | Part Number | Description | Qty |
|------|-------------|---------------------|-----|
| 1 | 100112113 | Sensor, temperature | 1 |
| 2 | 4460121 | Terminal, Wire Cap | 2 |

Procedure:

1. Install item #1 to the negative (-) terminal of the left side rear battery as shown on Figure 1.

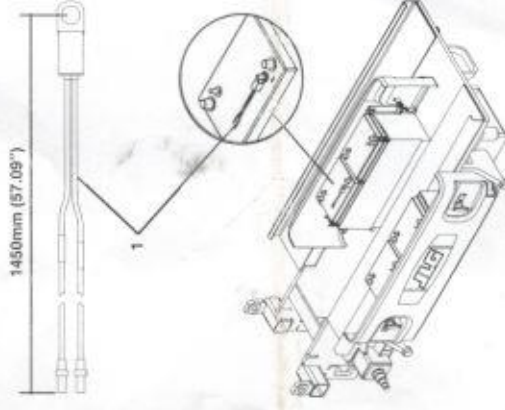


Figure 1: Temperature Sensor

2. Route the leads by following the existing cables to the battery charger.
3. Locate the 6-pin DEUTSCH connector from the battery charger as shown on Figure 2.



Figure 2: 6-Pin DEUTSCH Connector

4. Disconnect the 6-pin DEUTSCH connector at the battery charger connection.

Note: Some older ES scissor lifts may have a red CANbus wire and a black CANbus wire inserted into pins #1 and #2. If your machine is equipped with these wires remove them and insert a Wire Cap Terminal (#2) onto each wire end.

Note: If there is a jumper wire connecting pins 1 and 2 remove the jumper wire and discard.

5. Insert the white and black wires from the Temperature Sensor into the mating 6-pin DEUTSCH connector opposite of the battery charger harness as shown on Figure 3.

- Pin 1 - White Wire
- Pin 2 - Black Wire

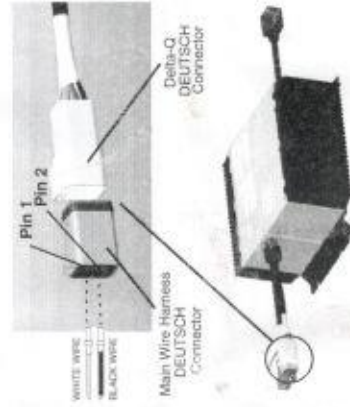
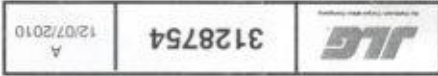


Figure 3: Pin Location



6. Re-connect the B pin DEUTSCH connection to the battery charger.
7. Properly secure temperature sensor and battery charger harnesses using wire ties as required.
8. Reconnect battery power to machine and return to service.

1 kW Industrial Battery Charger

QuiQ Charger - JLG Product Manual

This manual contains important safety and operating instructions for versions of the QuiQ or QuiQ-dci Charger / DC-DC Converter installed on JLG machines (Model nos. 912-2400-J1/J6/J7/J8/06, 912-4800-J5, 912-8400-04/05, & 922-4854-05/08). Please read this information before using your Delta-Q QuiQ Charger. For manufacturer contact information and technical support resources, please visit delta-q.com/support.

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS - This manual contains important safety and operating instructions – read before using charger.

Warning

Use charger only with an algorithm selected that is appropriate to the specific battery type. Other usage may cause personal injury and damage. Lead acid batteries may generate explosive hydrogen gas during normal operation. Keep sparks, flames, and smoking materials away from batteries. Provide adequate ventilation during charging. Never charge a frozen battery. Study all battery manufacturers' specific precautions (e.g. maximum charge rates and if cell caps should be removed while charging).

Danger

Risk of electric shock. Connect charger power cord to an outlet that has been properly installed and grounded in accordance with all local codes and ordinances. A grounded outlet is required to reduce risk of electric shock – do not use ground adapters or modify plug. Do not touch uninsulated portions of output connector or uninsulated battery terminals. Disconnect the AC supply before making or breaking the connections to the battery. Do not open or disassemble charger. Do not operate this charger if the AC supply cord is damaged or if the charger has received a sharp blow, been dropped, or is damaged in any way – refer all repair work to the manufacturer, or qualified personnel. This charger is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge on electrical systems and battery charging, unless they have been given supervision or instruction concerning use of the charger by a person responsible for their safety. Children should be supervised to ensure that they do not play with the charger.

Maintenance Instructions

1. Do not expose charger to high pressure water spray when cleaning JLG aerial work platform.
2. The enclosure of the charger meets IP66, making it dust-tight and protected against powerful water jets. The AC connection is rated to IP20, which is not protected against water. Protect the AC connection if used in wet or dusty environments.
3. If the detachable input power supply cord set is damaged, replace with a cord that is appropriate for your region:
 - + This charger is provided with a cord set for connection to outlets operating at nominal 120 Volts (or 240 Volts as appropriate). If the input plug does not fit the power outlet, contact JLG for the proper cord set terminating in an attachment plug of the proper configuration for the power outlet.
 - + 'North America: UL or CSA listed / approved detachable cord, 3 conductor, 16AWG minimum and rated SJT; terminated in a grounding type IEC 60320 C14 plug rated 250V, 13A minimum
 - + For all other regions: Safety approved detachable cord, 3 conductor, 1.5mm² minimum, rated appropriately for industrial use. The cord set must be terminated on one end with a grounding type input connector appropriate for use in the country of destination and, on the other end, an output grounding type IEC 60320 C14 plug.



INFORMATIONS IMPORTANTES DE SÉCURITÉ - Ce manuel contient des instructions importantes concernant la sécurité et le fonctionnement.

Attention

Utiliser le chargeur seulement avec un algorithme approprié au type spécifique de batterie. D'autres types de batteries pourraient éclater et causer des blessures ou dommages. Les batteries peuvent produire des gaz explosifs en service normal. Ne jamais fumer près de la batterie et éviter toute étincelle ou flamme nue à proximité des batteries. Fournissez une ventilation adéquate du chargement. Ne jamais charger une batterie gelée. Prendre connaissance des mesures de précaution spécifiées par le fabricant de la batterie, p. ex., vérifier s'il faut enlever les bouchons des cellules lors du chargement, et les taux de chargement.

Danger

Risque de décharge électrique. Ne pas toucher les parties non isolées du connecteur de sortie ou les bornes non isolées de la batterie. Toujours connecter le chargeur à une prise de courant mise à la terre. Déconnectez la source AC avant de faire ou défaire les connections à la batterie en chargement. Ne pas utiliser le chargeur si le cordon d'alimentation AC est endommagé ou si le chargeur est abîmé suite à une chute ou autre incident. Ne pas ouvrir ni désassembler le chargeur – référer toute réparation aux personnes qualifiées. Cet appareil n'est pas destiné à un usage par des personnes (dont les enfants) avec des facultés motrices, sensorielles ou mentales réduites, ou ayant une expérience et des connaissances insuffisantes, à moins qu'elles sont sous la supervision ou reçoivent les instructions sur l'utilisation de l'appareil d'un répondant garant de leur sécurité. Les enfants devraient être surveillés afin qu'il ne jouent en aucun temps avec l'appareil.

Operating Instructions

- + The charger may become hot during charging. Use hand protection to safely handle the charger during charging.
- + Extension cords must be 3-wire cord no longer than 30m (100') at 10 AWG or 7.5m (25') at 16 AWG per UL guidelines.
- + Only connect one QuiQ Charger to a single 120VAC 15A circuit, or the circuit may become overloaded.
- + The charger will conduct a self-test after being powered on, visible by flashing all of its LEDs in sequence.



Charge Completion Indicator (Green Light)

- + When solid: Charging complete. Charger in maintenance mode.

Charging Indicator (Amber Light)

- + When solid: Charger output is active.
- + When flashing: Charging profile is displayed.

Fault Indicator (Red Light)

- + Charger error. Refer to troubleshooting information below.

Troubleshooting Instructions

If a fault occurs, count the number of red flashes between pauses and refer to the table below.

| Flashes | Cause | Solution |
|---------------------|--|--|
| ⏸️ 🌟 ⏸️ | Battery high voltage | Check battery size and condition. This fault will clear automatically once the condition has been corrected. |
| ⏸️ 🌟 🌟 🌟 ⏸️ | Battery low voltage | Check battery size and condition. This fault will clear automatically once the condition has been corrected. |
| ⏸️ 🌟 🌟 🌟 🌟 ⏸️ | Charge timeout caused by battery pack not reaching required voltage; or charger output reduced due to high temperatures. | Check connections, that battery type matches selected charge profile and operate the charger at a lower ambient temperature. Reset the charger by interrupting AC power for 15+ seconds. |
| ⏸️ 🌟 🌟 🌟 🌟 🌟 ⏸️ | Battery could not be trickle charged up to minimum voltage. | Check for shorted or damaged cells. Reset the charger by interrupting AC power for 15+ seconds. |
| ⏸️ 🌟 🌟 🌟 🌟 🌟 🌟 ⏸️ | Charger shutdown due to high internal temperature. | Ensure sufficient cooling airflow. Reset the charger by interrupting AC power for 15+ seconds. |
| ⏸️ 🌟 🌟 🌟 🌟 🌟 🌟 🌟 ⏸️ | Internal charger fault | Reset the charger by interrupting AC power for 15+ seconds. Return to service depot if fault persists. |

QuiQ™ Charging Profiles

| | | | | | | | |
|--------|--|--------|---------------------------------------|--------|------------------------------------|--------|------------------------------------|
| Model: | 912-2400-J1/J6/J7/J8 | Model: | 912-2400-06 | Model: | 912-4800-J5 | Model: | 922-4854-05/08 |
| No. | Battery Type | No. | Battery Type | No. | Battery Type | No. | Battery Type |
| 5 | Trojan 30/31XHS | 17 | 150-255Ah flooded or sealed lead acid | 12 | Exide DF06240 Sonnenschein Gel | 23 | JLG/Douglas constant power dv/dt |
| 8 | Concorde 10xAh AGM | Model: | 912-8400-04/05 | 42 | Discover AGM 80-150Ah | 42 | Discover AGM 80-150Ah |
| 11 | Generic 200-255Ah flooded constant power DV/DT | No. | Battery Type | 43 | Discover AGM | 43 | Discover AGM |
| 17 | 150-255Ah flooded or sealed lead acid | 143 | JLG Discover 400Ah (Primary) | 73 | Generic 400Ah DV/DT | 73 | Generic 400Ah DV/DT |
| 21 | Exide flooded | 222 | For Parallel Chargers (Secondary) | 141 | Fullriver 300Ah AGM | 141 | Fullriver 300Ah AGM |
| 23 | Douglas flooded DV/DT | | | 143 | JLG Discover 400Ah | 143 | JLG Discover 400Ah |
| 42 | Discover AGM 80-150Ah | | | 173 | Accelerated 400Ah flooded cp DV/DT | 173 | Accelerated 400Ah flooded cp DV/DT |
| 43 | Discover AGM | | | | | | |
| 151 | Fullriver AGM 200-260Ah | | | | | | |

Note: This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.