



# Operation & Maintenance Manual

**NSV12K**

**NSV12KI**

**NSV16K**

**NSV16KI**

machinecatalogic.com

## CAT

Controller:

Program version:

Zapi's serial number from:

NPP / NSP / NSV

Zapi SEM-0

RO 1.76

NPV / NSD

Zapi SEM-1

RO 1.78

Rev.

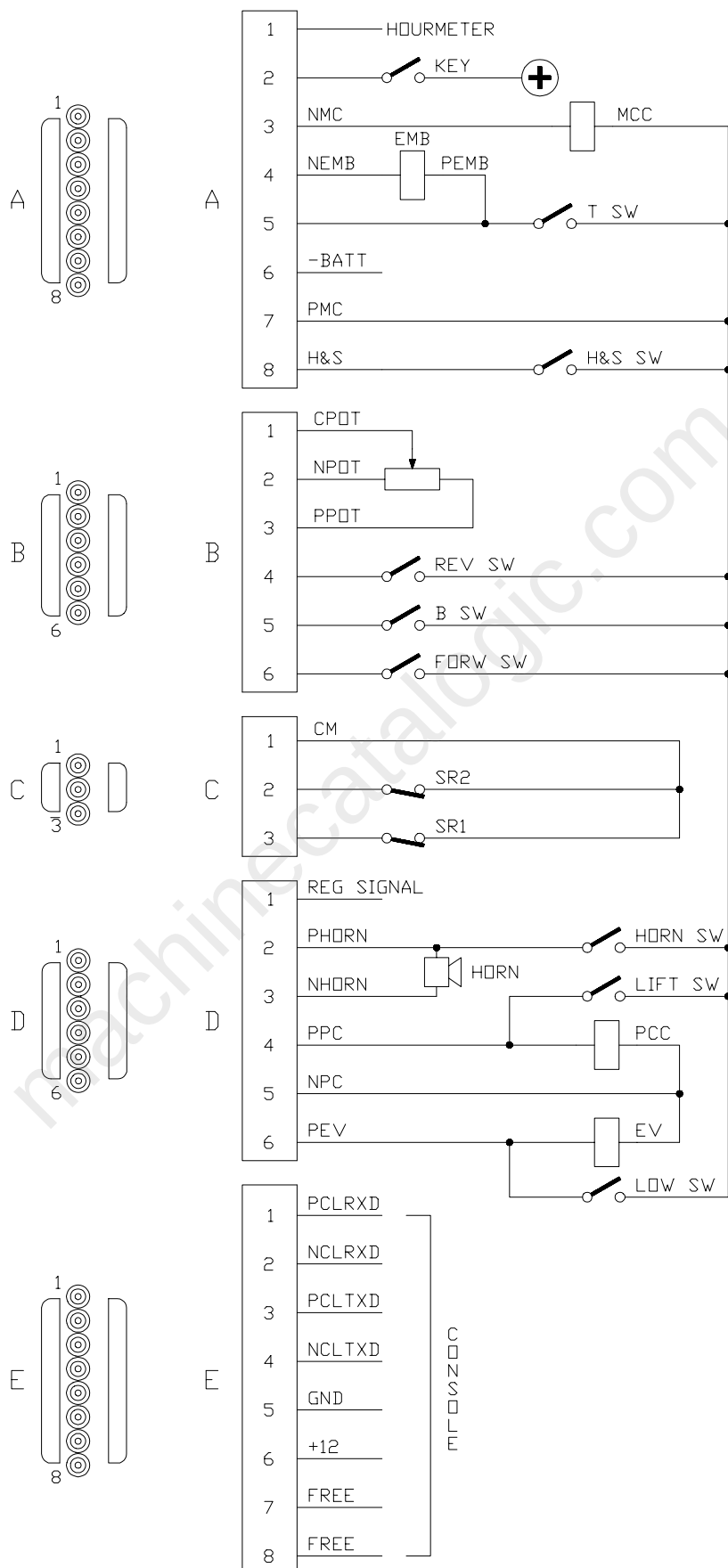
Date

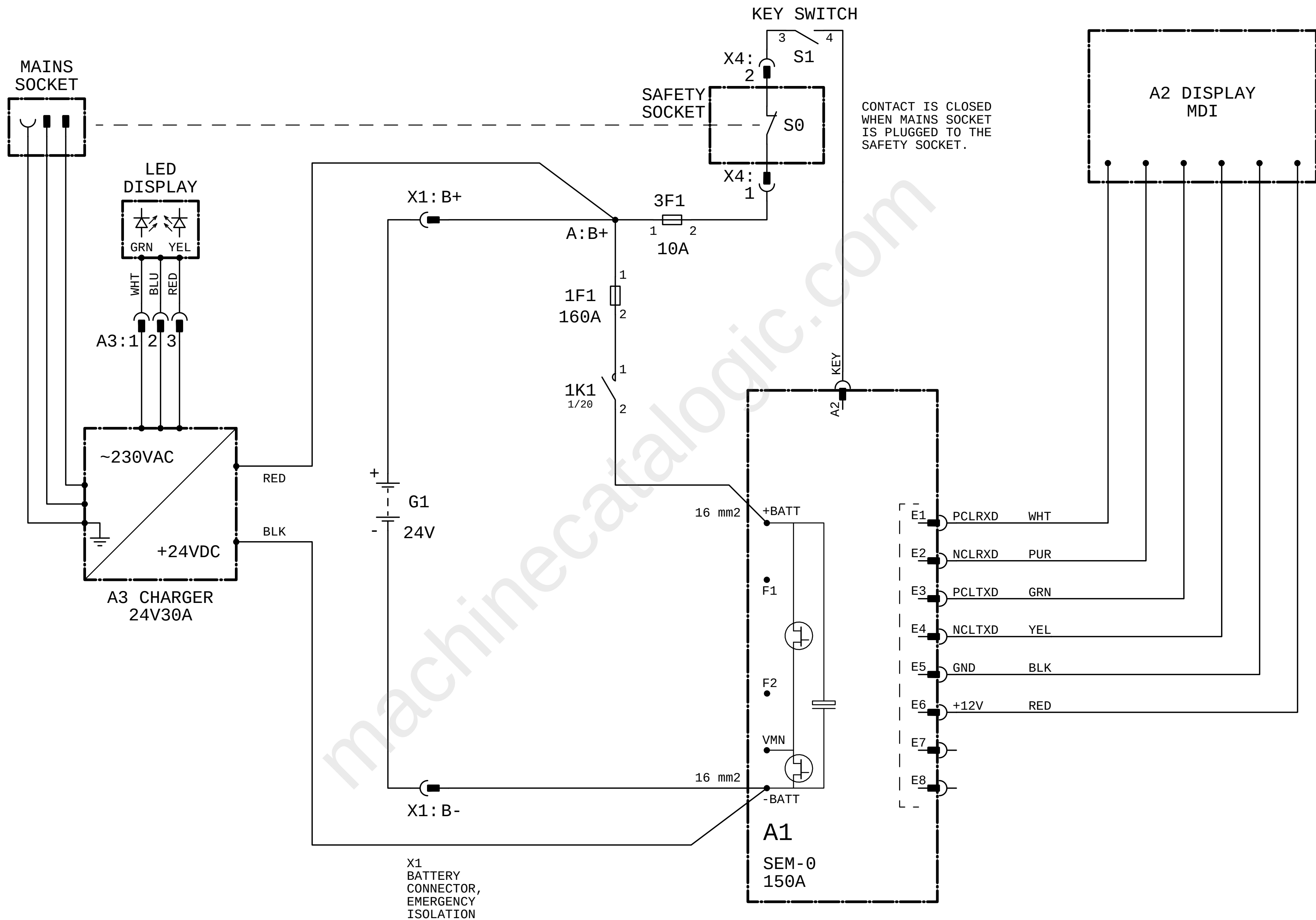
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27.10.2004

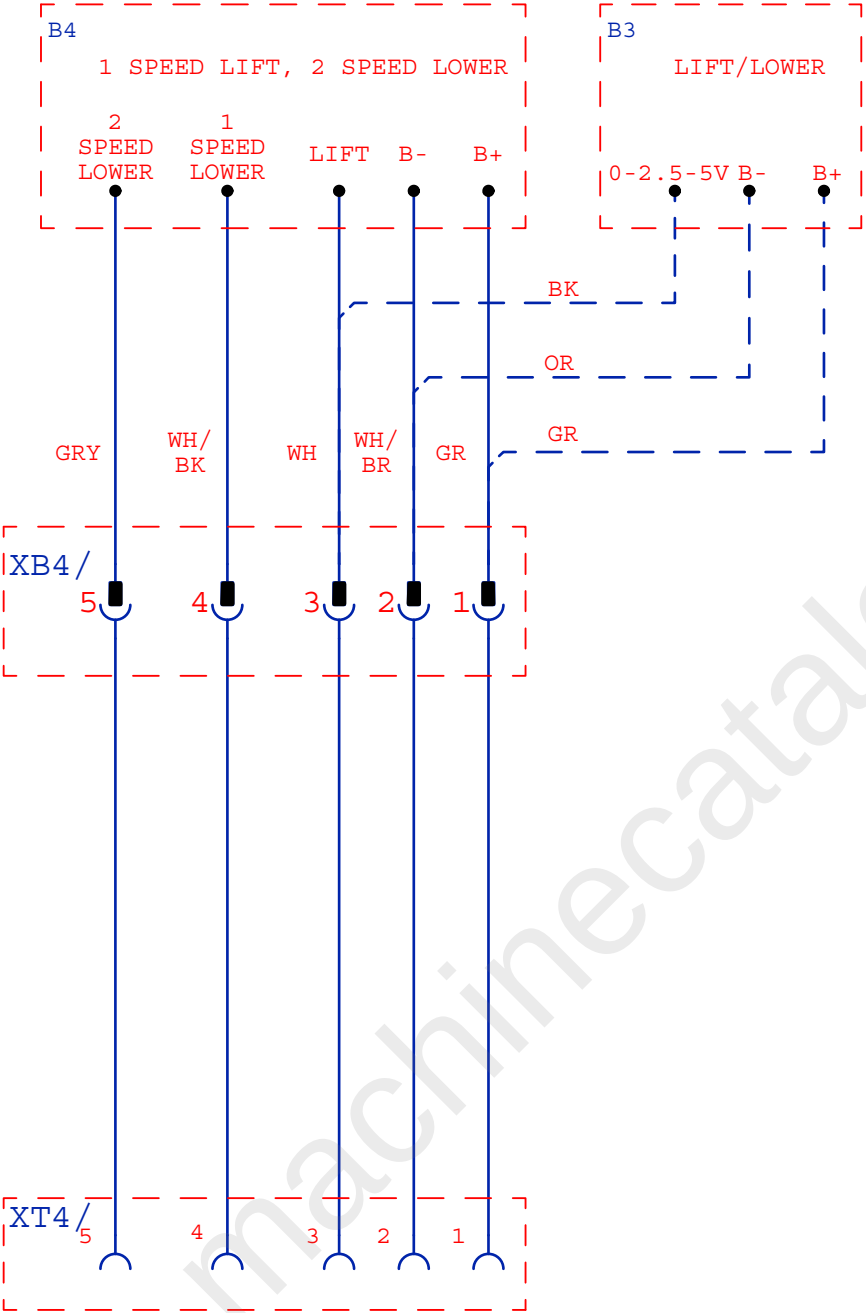
|                                  | TRUCK TYPES: |        |        |        |        |        |             |             |             |            |        | NOTE                       |
|----------------------------------|--------------|--------|--------|--------|--------|--------|-------------|-------------|-------------|------------|--------|----------------------------|
|                                  | NPP16K/20K   | NPP25K | NPV20K | NPV22K | NPV25K | NPV30K | NO20T NO25T | NSP12K/12Ki | NSV12K/12Ki | NSV12K (C) | NSD16K |                            |
| MAIN MENU/                       | SEM0         | SEM0   | SEM1   | SEM1   | SEM1   | SEM1   | SEM1        | SEM0        | SEM0        | SEM1       | SEM1   |                            |
| PARAMETER CHANGE:                |              |        |        |        |        |        |             |             |             |            |        |                            |
| ACCELERATION DELAY               | 2            | 2      | 2      | 3      | 2      | 3      | 2           | 2           | 2           | 2          | 2      |                            |
| DECELERATION DELAY               | 5            | 5      | 5      | 3      | 5      | 6      | 5           | 5           | 5           | 5          | 5      |                            |
| RELEASE BRAKING                  | 1            | 1      | 1      | 1      | 1      | 4      | 1           | 1           | 1           | 1          | 1      |                            |
| INVERSE BRAKING                  | 8            | 8      | 6      | 5      | 6      | 6      | 6           | 8           | 8           | 6          | 6      |                            |
| SOFT BRAKING                     | 0            | 0      | 0      | 8      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | optional                   |
| QUICK INV. BRAKE                 | 5            | 5      | 5      | 5      | 5      | 5      | 5           | 5           | 5           | 5          | 5      |                            |
| SOFT ACCELERATION                | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | optional                   |
| CUTBACK SPEED 1                  | 0            | 0      | 5      | 2      | 4      | 5      | 0           | 0           | 9           | 5          | 5      | NPV20K pedestrian mode     |
| CUTBACK SPEED 2                  | 0            | 0      | 9      | 9      | 8      | 9      | 1           | 0           | 0           | 5          | 9      | NPV20K without side guards |
| H&S CUTBACK                      | 0            | 0      | 0      | 4      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | optional                   |
| MAX. SPEED FORWARD               | 8            | 6      | 8      | 5      | 3      | 4      | 9           | 8           | 9           | 8          | 8      |                            |
| MAX. SPEED FW FINE               | 5            | 5      | 6      | 5      | 0      | 2      | 9           | 5           | 9           | 0          | 6      |                            |
| MAX. SPEED BACKWARD              | 8            | 6      | 8      | 5      | 3      | 4      | 9           | 8           | 9           | 8          | 8      |                            |
| MAX. SPEED BW FINE               | 5            | 5      | 6      | 5      | 0      | 2      | 9           | 5           | 9           | 0          | 6      |                            |
| COMPENSATION                     | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | do not change              |
| MAXIMUM CURRENT                  | 5            | 9      | 5      | 5      | 5      | 5      | 5           | 5           | 5           | 5          | 5      | do not change              |
| ARMA. NOM. CURRENT               | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | do not change              |
| WEAK DROPOUT                     | 1            | 1      | 1      | 1      | 1      | 1      | 1           | 1           | 1           | 1          | 1      | do not change              |
| FIELD NOM. CURRENT               | 2            | 2      | 4      | 9      | 2      | 4      | 1           | 2           | 1           | 9          | 3      | do not change              |
| CREEP SPEED                      | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      |                            |
| BACKING TIME                     | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | not used                   |
| BACKING SPEED                    | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | not used                   |
| AUXILIARY TIME                   | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | not used                   |
| CONFIG MENU/                     |              |        |        |        |        |        |             |             |             |            |        |                            |
| SET OPTIONS:                     |              |        |        |        |        |        |             |             |             |            |        |                            |
| HOURLY COUNTER                   | RUN          | RUN    | RUN    | RUN    | RUN    | RUN    | RUN         | RUN         | RUN         | RUN        | RUN    | do not change              |
| QUICK INVERSION                  | BEL          | BEL    | BEL    | BEL    | BEL    | BEL    | BEL         | BEL         | BEL         | BEL        | BEL    | do not change              |
| AUX OUTPUT #1                    | BRA          | BRA    | BRA    | BRA    | BRA    | BRA    | BRA         | BRA         | BRA         | BRA        | BRA    | do not change              |
| BATTERY CHECK                    | ON           | ON     | ON     | ON     | ON     | ON     | ON          | ON          | ON          | ON         | ON     | do not change              |
| SEAT SWITCH                      | HAN          | HAN    | HAN    | HAN    | HAN    | HAN    | HAN         | HAN         | HAN         | HAN        | HAN    | do not change              |
| BACKING INPUT                    | OFF          | OFF    | OFF    | OFF    | OFF    | OFF    | OFF         | OFF         | OFF         | OFF        | OFF    | not used                   |
| INVERSION MODE                   | NOR          | NOR    | OP2    | NOR    | OP2    | OP2    | OP1         | NOR         | NOR         | OP2        | OP1    | optional                   |
| ADJUSTMENTS:                     |              |        |        |        |        |        |             |             |             |            |        |                            |
| ADJUST BATTERY                   | Ubat         | Ubat   | Ubat   | Ubat   | Ubat   | Ubat   | Ubat        | Ubat        | Ubat        | Ubat       | Ubat   | do not change              |
| SET BATTERY TYPE                 | 24V          | 24V    | 24V    | 24V    | 24V    | 24V    | 24V         | 24V         | 24V         | 24V        | 24V    | volts                      |
| SET CONT. TYPE                   | 24V          | 24V    | 24V    | 24V    | 24V    | 24V    | 24V         | 24V         | 24V         | 24V        | 24V    | volts                      |
| THROTTLE 0 ZONE                  | 1            | 1      | 1      | 1      | 1      | 1      | 1           | 1           | 1           | 1          | 1      |                            |
| THROTTLE X POINT                 | 3            | 3      | 3      | 3      | 3      | 3      | 3           | 3           | 3           | 3          | 3      |                            |
| THROTTLE Y POINT                 | 1            | 1      | 1      | 1      | 1      | 1      | 1           | 1           | 1           | 1          | 1      |                            |
| MAIN MENU/ ALARMS/ SPECIAL MENU: |              |        |        |        |        |        |             |             |             |            |        |                            |
| HARDWARE SETTINGS:               |              |        |        |        |        |        |             |             |             |            |        |                            |
| LOAD HM FROM MDI                 | OFF          | OFF    | OFF    | OFF    | OFF    | OFF    | OFF         | OFF         | OFF         | OFF        | OFF    | not used                   |
| CHECK UP DONE                    | OFF          | OFF    | OFF    | OFF    | OFF    | OFF    | OFF         | OFF         | OFF         | OFF        | OFF    | not used                   |
| CHECK UP TYPE                    | 0            | 0      | 0      | 0      | 0      | 0      | 0           | 0           | 0           | 0          | 0      | not used                   |
| ADJUSTMENT #02                   | 4            | 4      | 4      | 4      | 4      | 4      | 4           | 4           | 4           | 4          | 4      | do not change              |
| ADJUSTMENT #01                   | 4            | 4      | 4      | 4      | 4      | 4      | 4           | 4           | 4           | 4          | 4      | do not change              |
| SET CURRENT                      | 150A         | 150A   | 300A   | 300A   | 300A   | 300A   | 300A        | 150A        | 150A        | 300A       | 300A   | do not change              |
| SET FIELD CURRENT                | 14A          | 14A    | 22A    | 22A    | 22A    | 22A    | 22A         | 14A         | 14A         | 22A        | 22A    | do not change              |

## 5.2 CONNECTIONS





1 SPEED LIFT / 2 SPEED LOWER  
OR  
PROPORTIONAL LIFT / LOWER,  
NOT BOTH IN SAME TRUCK



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## 2. Safety instructions

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### Instructions for site supervisor

- Familiarise yourself with the operating instructions and its contents.
- Train the operator on the use, safety, and maintenance aspects of the truck.
- Control that the operating and maintenance instructions, and safety regulations are observed.

### Occupational safety

- Keep the truck clean and in good working order. Carry out the daily and weekly maintenance checks in accordance with the maintenance schedule and instructions to avoid faults and operational errors.
- If you notice any faults or deficiencies that may effect the safe operation of the truck, take the truck out of operation until the faults or deficiencies have been remedied.
- Do not repair anything on the truck without permission from the site supervisor.
- In the event of a malfunction, switch off the power and notify the site supervisor.
- When using the truck, you are responsible for both your own safety and the safety of your environment.
- Immediately notify the site supervision of any accidents or injuries. In such a case, leave the truck at the place of the accident.
- The truck can only be used for purposes corresponding with its equipment.

### Truck operator

Requirements:

- At least 18 years old
- Sufficient physical (e.g. good hearing and sight) and mental abilities for operating the truck without risks
- Appropriately trained; familiar with operating, safety and maintenance instructions
- Has permission from the site supervision to operate the truck
- Knows and masters the drive and operational features of the truck

### Emergency procedures

If the truck or a load falls over or down on a ramp, release your grip from the tiller and warn people near you. If the truck malfunctions, release the tiller arm to the up position or push it down completely. For instructions on switching off the main power, see Chapter 4. Operating devices.

### Noise

The maximum noise level that the driver may be subjected to is 76 dB (A).

### Work at dangerous premises

Trucks used for working at premises susceptible to fire or explosion or other hazards must be specially equipped. A standard truck is not suitable for the above-mentioned work. Contact your truck dealer for specially designed and equipped trucks for hazardous conditions.

### Repairs and structural modifications

Do not modify the truck without the manufacturer's express permission. Do not add, remove, weld, or bend any parts, as the modifications could affect the operation of the truck and weaken its construction.

### Overhead guard and load support

Trucks driven sitting or standing and that are capable of lifting a load higher than 1.8 m must be equipped with an overhead guard. Modifications to the overhead guard that could possibly weaken its structure are not allowed. If it is possible for objects to fall through the openings in the overhead guard, the size of the openings must be reduced.

Trucks used for transporting small objects or unstable loads must be equipped with a load support.

# **Full Version Available**

## **Caterpillar NSV12K Stacker Operator Manual (WHOMM0011)**

Caterpillar NSV12K Stacker operator manual, covers controls, mast operation, battery care, and safety procedures. Instant PDF download.

**[VIEW THE FULL MANUAL](#)**