



CB 20 VA Blasting machine



The CB 20 VA/400 NT blasting machine is one of a number of blasting machines manufactured by Dyno Nobel, and has functions that contribute to blast initiation safety.

Two-handed operation. Blocking device in event of excessive resistance in circuit. Adapted current intensity.

Technical Specifications

CB 20 VA

Voltage	: 540 V
Capacitor	: 200 μ F
Capacity: GR2 (VA) detonators	: 20 pcs
Max resistance in round	: 77 Ω
Working temperature	: - 25 °C to + 55 °C
Dimensions	: 72 x 65 x 245 mm
Weight	: 0.65 kg
Approval	: SP SU 0003
CE	: LVD and EMC

Can initiate up to 50 rounds with new batteries.

The machine is charged with the aid of built-in batteries and operated by means of two spring-loaded switches that short-circuit the capacitor in the rest position. Unintentional charging and initiation by means of residual charge is not possible.

Safe function of CB 20 VA

The CB 20 is an electronic capacitor blasting-machine that is charged with the aid of built-in batteries of type Ni-MH 4.8 V. The charging time is approximately 15 seconds. All detonators in the round must be of the same type and make, and the lowest period number should be No. 1. Instantaneous detonators can break the firing circuit too soon in unfavourable circumstances.

Before firing

Evacuate the blasting area. Always check that the firing cable is connected properly and that all connection points and joints in the initiation system are well insulated. Only use approved firing cable and connecting wire. Measure the resistance in the initiation circuit using an approved ohmmeter.

Instructions for use

Connect the firing cable to the terminal screws on the blasting machine. Depress the red TESTING button. The lamp "ROUND" should light. Release the TESTING button and depress the green "CHARGING" button. Keep the green button depressed until the "CHARGE" lamp lights (takes approx. 15 seconds). To initiate the round, keep the green "CHARGING" button depressed and press the red "TESTING" button. Disconnect the firing cable.

Charging the batteries

The batteries are charged by connecting the blasting machine to 12 -14 V DC, e.g. a car battery. Observe the polarity according to the marking on the terminals of the blasting machine. The green lamp BATT lights up to indicate that the batteries are being charged. The charging time for depleted batteries is approx. 14 hours.

Replacement of batteries

Replacement of batteries, battery pack or battery holder is made by unscrewing the battery cover on the handle of the blasting machine. When changing rechargeable Ni-MH, 4.8 V and 12 mAh, battery pack or to holder for dry cell the connecting cables must be detached from the old battery pack and soldered to the new pack or battery holder. If dry cell are used instead of rechargeable batteries they must be of Alkaline type and placed in the battery holder according to instruction in the holder. Note! Do not recharge dry cell batteries.

Capacity

Number of parallel series	Number of detonators per series	Total number of detonators	Maximum resistance per series
1	20	20	72

Group 2, VA detonators.

CB 20 VA can initiate up to 20 detonators. In the table on the left the following data has been used: Firing current < 3.5 A, firing impulse < 140 mWs/Ohm. The resistance of each detonator is assumed to be 3.5 Ohm and the firing cable resistance to be 5 Ohm. The resistance of Group 2 detonators is independent of legwire length.

For further information and handling, see the "Electric Initiation" manual.

The CB 20 VA is also available in a modified version, called CB 400 NT, suited to initiate group 1 and 1A detonators.