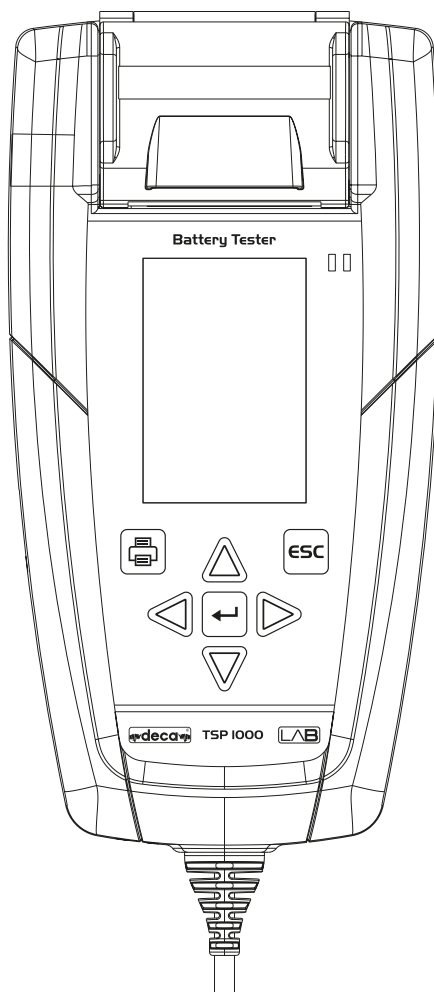


TSP I000



Manuale istruzioni / Instruction manual

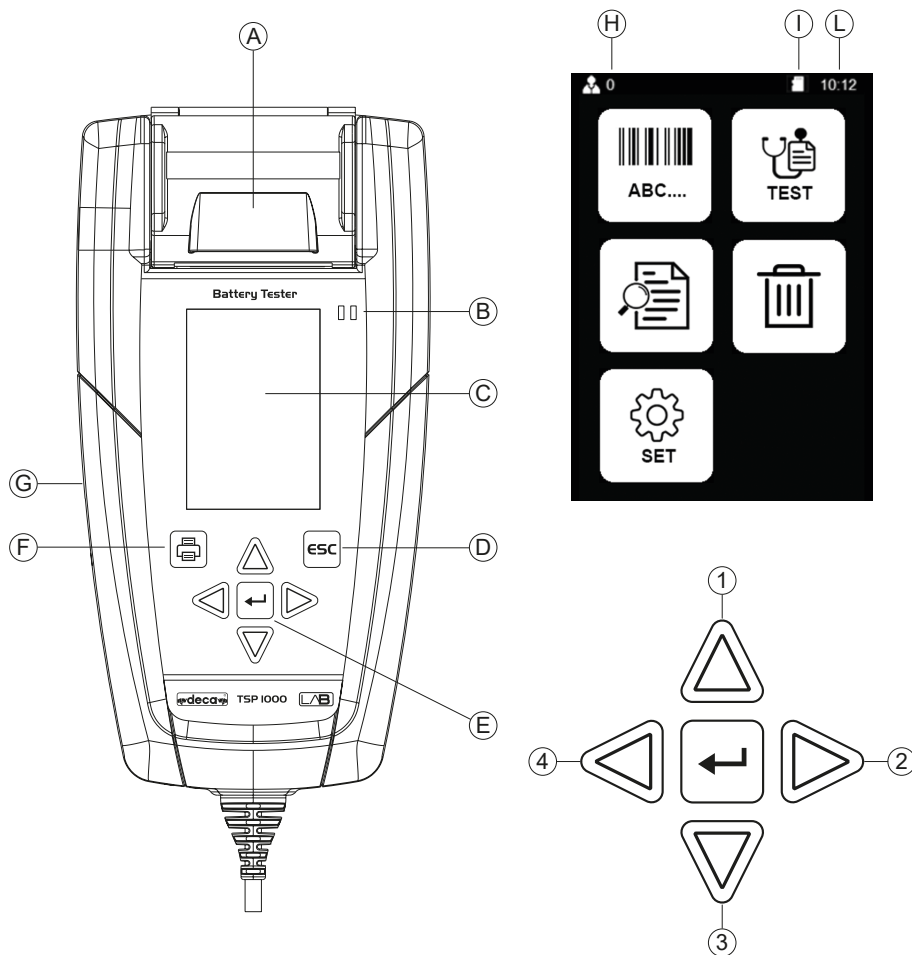
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Fig.1



(IT) Smaltimento apparecchiature elettriche ed elettroniche: Simbolo che indica la raccolta separata delle apparecchiature elettriche ed elettroniche. L'utilizzatore ha l'obbligo di non smaltire questa apparecchiatura come rifiuto solido urbano misto (indifferenziato), ma di rivolgersi ai centri di raccolta autorizzati. **(EN)** Electrical and electronic equipment disposal: Symbol indicating separate collection for waste of electrical and electronic equipment. When the end-user wishes to discard this product, it must not be disposed of as (unsorted) mixed municipal solid waste but sent to duly authorised collection facilities.



Manuale istruzioni. Tester Batteria



Prima di effettuare i test, leggi attentamente il contenuto di questo manuale. Leggi le istruzioni della batteria e del veicolo che la utilizza.

Generalità e avvertenze



Attenzione gas esplosivi !

- La batteria genera del gas esplosivo (idrogeno) durante il normale funzionamento ed in quantità maggiore durante il test del sistema di avviamento e dell'alternatore.



Evita la formazione di fiamme o scintille



Prevedi un'adeguata ventilazione durante il test.



- Indossa occhiali di sicurezza con protezione ai lati degli occhi, guanti antiacido e vestiti che ti proteggano dall'acido.



- Non usare il tester batterie con i cavi danneggiati, se ha ricevuto colpi, se è caduto oppure se è stato danneggiato.
- Non smontare il tester batterie ma portarlo a un centro di assistenza qualificato.
- Il cavo del prodotto deve essere sostituito da personale qualificato.
- Non collocare il tester batterie su superfici infiammabili.
- Non mettere il tester batterie e i suoi cavi nell'acqua o su superfici bagnate.

Destinazione d'uso

Il tester digitale per batterie è stato progettato per essere utilizzato nei seguenti modi:

- Analizzare batterie 12V al piombo-acido WET, SLI, EFB, AGM FLAT, AGM SPIRAL, GEL e al litio LiFePO4.
- Controllare il sistema di avviamento a 12V e 24V.
- Testare l'alternatore a 12V e 24V.
- Verificare l'impianto di massa a 12V



La tensione di esercizio del tester va da 9 a 30V.

Descrizione del Tester Batteria

Fig.1

- A) Vano porta rotolo stampante
- B) Led di stato della stampante
- C) Schermo TFT a colori
- D) Tasto "Esc": per uscire dalla funzione in esecuzione
- E) Tasto "Enter": per confermare il dato inserito e il test da eseguire
- F) Tasto "Stampa": per stampare i risultati dei test
- G) Vano scheda SD
- H) Numero test/documento
- I) Segnalazione scheda SD
- L) Ora
- 1,2,3,4) Tasti per il movimento del cursore

Installazione della carta della stampante

Aprire il coperchio della stampante e inserire il rotolo di carta termica (max. 57mm x 12m). Chiudere il coperchio assicurandosi che la carta termica sia trattenuta dal rullo e fuoriesca di almeno 10mm.

Scheda SD

Il tester è dotato di scheda SD per memorizzare i test effettuati e poterli visualizzare sul PC.

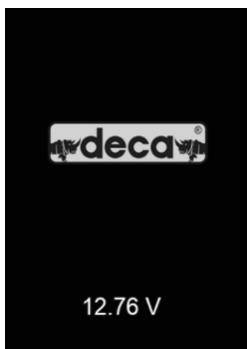
Codice QR

Per ogni test viene rilasciato un codice QR che può essere scannerizzato per ottenere il risultato in formato digitale. I dati possono essere salvati nel database aziendale ed essere inviati facilmente al cliente.

Collegamento del tester batterie

Collega il morsetto rosso (+) al polo positivo ed il morsetto nero (-) al polo negativo della batteria. Assicurarsi che le pinze e i cavi siano lontani da ventole, parti in movimento e dalla condotta del carburante. Il tester è protetto in caso di inversione di polarità e non si accende.

Settaggio iniziale

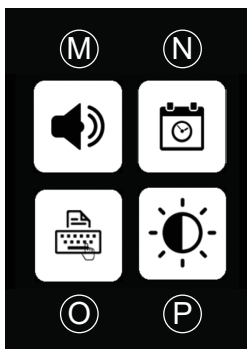


Una volta collegato correttamente il tester mostrerà la tensione della batteria.



Prima di iniziare ad utilizzare il tester si consiglia di impostare i parametri iniziali, selezionando l'icona SET.

➤ Premere il tasto "Enter" per entrare nelle regolazioni.

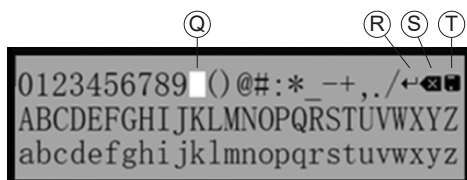


- M) Per eliminare il suono, confermare con tasto "Enter"
- N) Per regolare data e ora, confermare con tasto "Enter"
- O) Per inserire i dati aziendali.
- P) Regola la luminosità dello schermo, confermare con tasto "Enter"

Inserimento dati aziendali



Entrando nel menu dell'icona O: è possibile impostare il nome, l'indirizzo ed il numero di telefono dell'azienda.



➤ Per scrivere, muovere il cursore della tastiera premendo le frecce del pannello di controllo. Per creare uno spazio bianco, posizionare il cursore sull'icona Q e per cancellare posizionare il cursore sull'icona S.

➤ Per passare da una riga all'altra, posizionare il cursore sull'icona R, confermare premendo "Enter" e spostarsi su e giù con le frecce, una volta posizionati sulla riga desiderata confermare nuovamente premendo "Enter".

➤ Per salvare i dati posizionare il cursore sull'icona T e confermare sempre premendo il tasto "Enter".

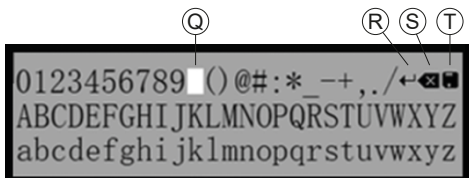
Inserimento dati per test cliente



Per ogni nuovo test è possibile memorizzare le credenziali del cliente, selezionando l'icona ABC...



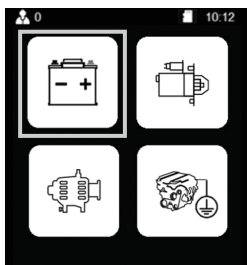
➤ Entrati nel menu inserire il nome del cliente o la targa del veicolo e scansionare il codice a barre della batteria (scanner opzionale).



➤ Per scrivere, muovere il cursore della tastiera premendo le frecce del pannello di controllo. Per creare uno spazio biancoposizionare il cursore sull' icona Q e per cancellare posizionare il cursore sull'icona S.

➤ Per salvare le credenziali posizionare il cursore sull'icona T e confermare sempre premendo il tasto "Enter".

i Una volta confermate, le credenziali appariranno sul display in alto a sinistra e sarà possibile iniziare il test.



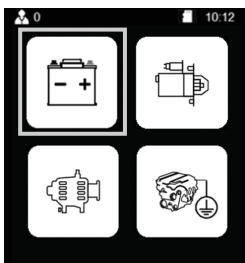
i Se non vengono inserite le credenziali il nuovo test "H" avrà sempre codice 0, e verrà sempre sovrascritto l'ultimo test eseguito nell'apposita sezione (vedi par. "Rivedi/Richiama Test").

➤ A questo punto è possibile procedere con i test singoli o eseguire tutti i test in sequenza.

Test Batteria al piombo



➤ Selezionare "TEST" per procedere.



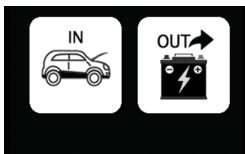
➤ Selezionare test batteria.



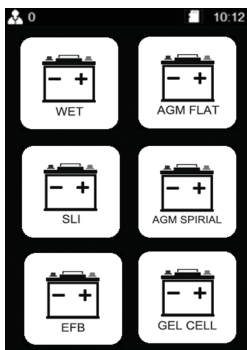
➤ Selezionare nuovo test.



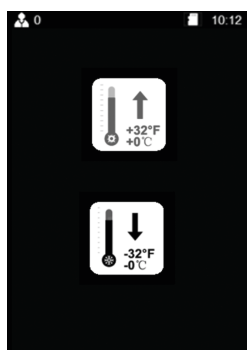
➤ Seleziona il tipo di veicolo.



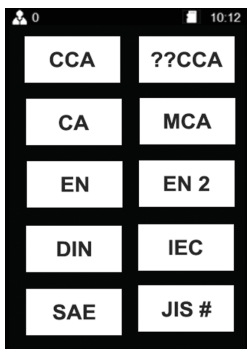
➤ Selezionare se la batteria si trova dentro o fuori il veicolo.



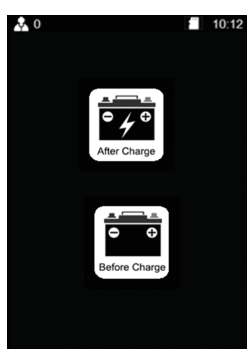
➤ Selezionare la tipologia di batteria.



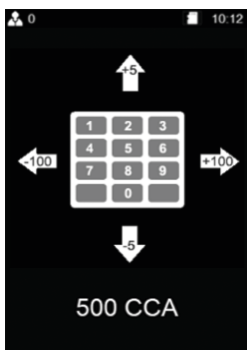
In alcuni casi il tester chiederà di selezionare la temperatura.



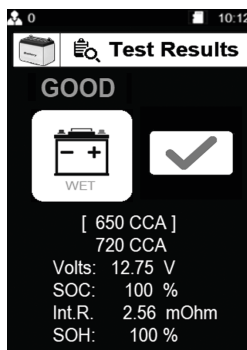
➤ Selezionare lo standard di riferimento.



In alcuni casi il tester chiederà di selezionare se il test viene effettuato prima o dopo la carica.



➤ Impostare la corrente di avviamento: 40-600A (moto), 100-2000A (auto e mezzi pesanti).



Risultato del test.

➤ Ora è possibile stampare i risultati, premendo il tasto "F".



In test...

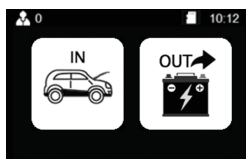


➤ Premere il tasto 2 e scannerizzare il QR code per inviare i risultati.

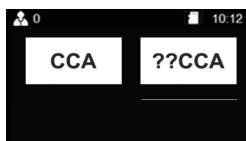
Test Batteria al litio LiFePO4



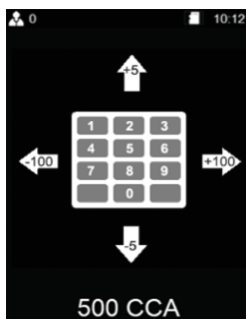
➤ Selezionare "TEST" per procedere.



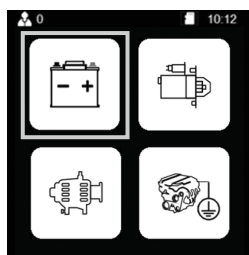
➤ Selezionare se la batteria si trova dentro o fuori il veicolo.



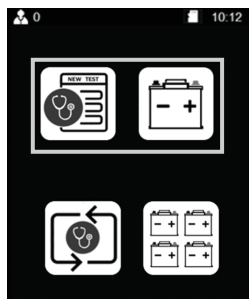
➤ Selezionare lo standard di riferimento.



➤ Impostare la corrente di avviamento. (40-2000A)



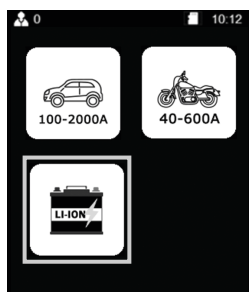
➤ Selezionare test batteria.



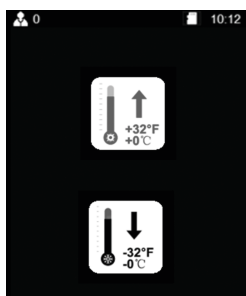
➤ Selezionare nuovo test.



In test...

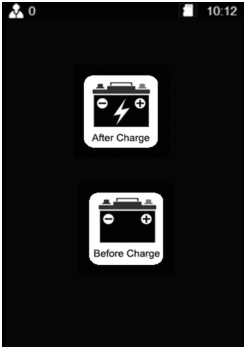


➤ Seleziona la batteria al litio.

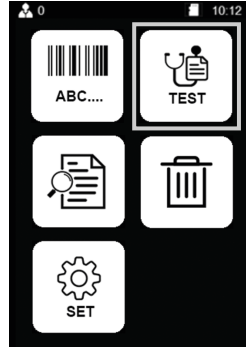


In alcuni casi il tester chiederà di selezionare la temperatura.

Test Ripetitivo

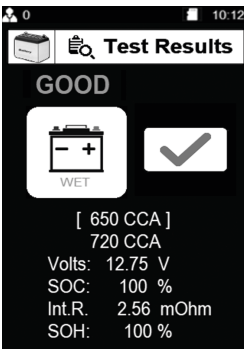


In alcuni casi il tester chiederà di selezionare se il test viene effettuato prima o dopo la carica.



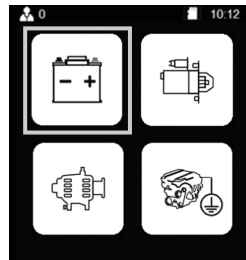
Modalità di test che permette di testare batterie della stessa tipologia senza dover reinserire tutti i dati.

➤ Selezionare "TEST" per procedere.



Risultato del test.

➤ Ora è possibile stampare i risultati, premendo il tasto "F".



➤ Selezionare test batteria.



➤ Premere il tasto 2 e scansionare il QR code per inviare i risultati.



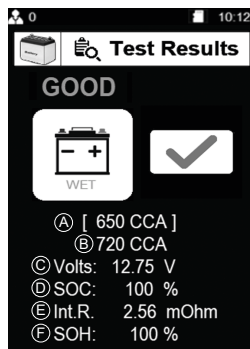
➤ Selezionare icona "Ripeti test".



Il tester mostra i parametri dell'ultimo test eseguito.

➤ Premere "Enter" per procedere con le fasi successive del test e seguire le indicazioni dei paragrafi precedenti.

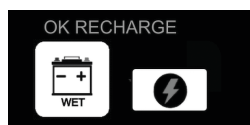
Risultati del Test



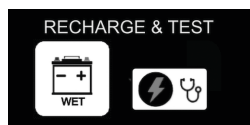
A seconda dei dati rilevati il tester mostrerà i seguenti risultati:



➤ La batteria è buona.



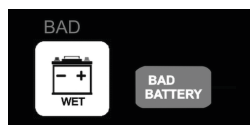
➤ La batteria è in buone condizioni, ma necessita di ricarica.



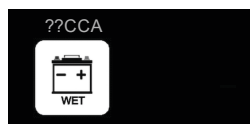
➤ La batteria deve essere ricaricata e ritestata per ottenere un risultato corretto. **Se, dopo la ricarica, appare nuovamente "RECHARGE & TEST" sostituire la batteria.**



➤ Batteria da sostituire. Se la batteria si trova sul veicolo, scollegare i cavi e ritestare la batteria direttamente sui poli.

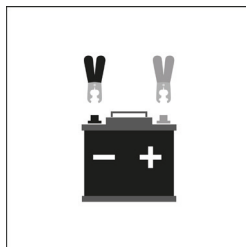


➤ La batteria è guasta, può avere una cella guasta.

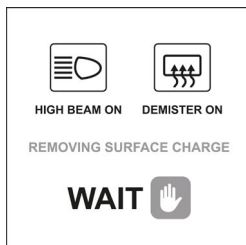


➤ Nel caso venga testata una batteria con uno standard sconosciuto (??CCA) vengono riportati i valori misurati ma non viene espresso un giudizio

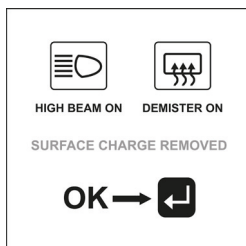
Segnalazione errori



■ Verificare la connessione delle pinze e connettere correttamente.



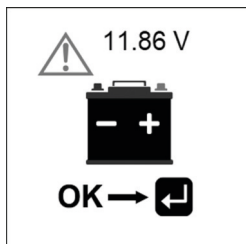
■ È presente una carica superficiale della batteria accendere gli abbaglianti e il lunotto termico per rimuoverla.



■ La carica superficiale è stata rimossa, premere "Enter".



■ Si è connessi ad un impianto batteria a 24V! Testare le batterie a 12V singolarmente.

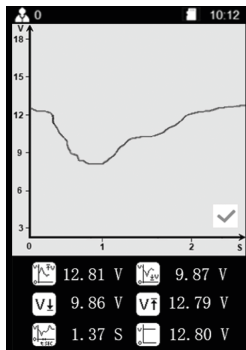


■ La tensione della batteria è bassa, premere "Enter" per continuare.

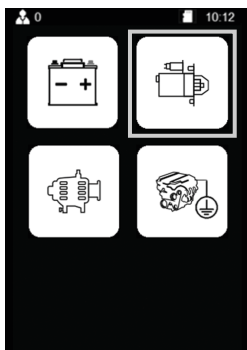
Test di Avviamento



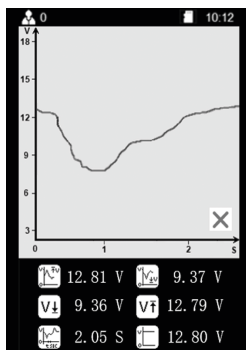
➤ Selezionare "TEST" per procedere.



Il risultato del test verrà segnalato con una V verde in caso di esito positivo. In questo caso la tensione costante (C) durante la messa in moto non è scesa sotto 9,6V (12) o 19,2V (24V).

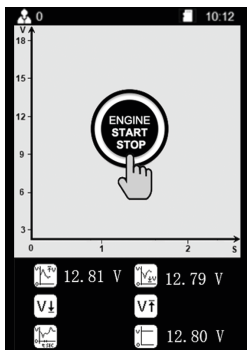


➤ Selezionare test del motorino di avviamento.



Il risultato del test verrà segnalato con una X rossa in caso di esito negativo. Potrebbe essere necessario sostituire la batteria e controllare il motorino di avviamento.

➤ Ora è possibile stampare i risultati, premendo il tasto "F".

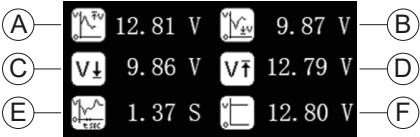


➤ Avviare il veicolo.



➤ Premere il tasto 2 e scannerizzare il QR code per inviare i risultati.

Spiegazione dei risultati

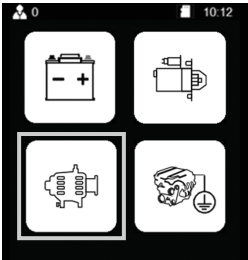


- A) Tensione di batteria prima dell'avviamento
- B) Massima caduta di tensione
- C) Tensione costante durante la messa in moto
- D) Tensione di recupero della batteria
- E) Tempo di avviamento
- F) Valore medio di batteria dopo l'avviamento. (La lettura di questo valore continua in tempo reale anche dopo l'avviamento)

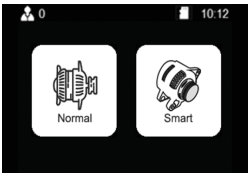
Test dell'Alternatore



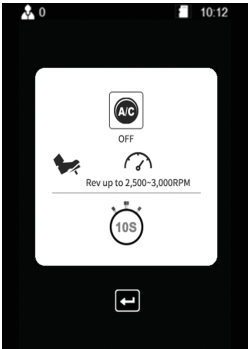
➤ Selezionare "TEST" per procedere.



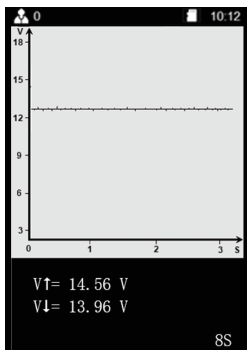
➤ Selezionare test dell'alternatore.



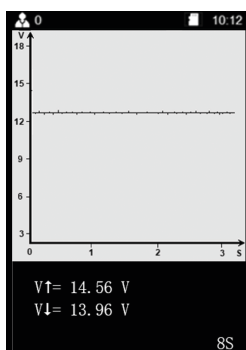
➤ Selezionare il tipo di alternatore: standard o intelligente.



➤ Avviare il motore e portarlo a 2500/3000 giri; accertarsi che i carichi siano spenti. Premere "Enter" per continuare.



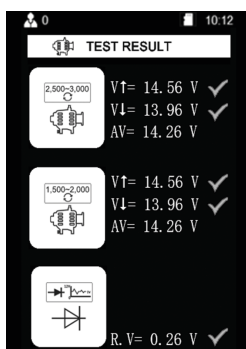
Il display indica la tensione di carica, la tensione minima e massima rilevata ed il tempo mancante alla fine della prova.



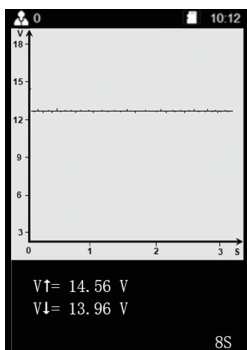
Il display indica la tensione di carica, la tensione minima e massima rilevata ed il tempo mancante alla fine della prova.



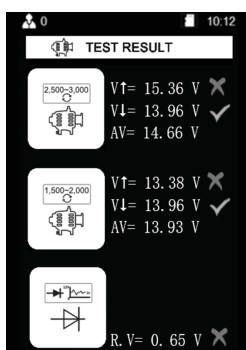
➤ Portare il motore a 1500/2000 giri; accendere gli abbaglianti e il lunotto termico. Premere "Enter" per continuare.



Il risultato del test verrà segnalato con una V verde in caso di esito positivo.

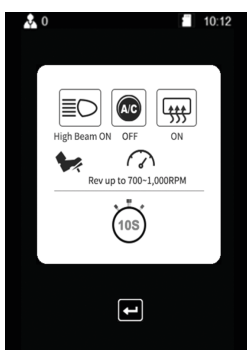


Il display indica la tensione di carica, la tensione minima e massima rilevata ed il tempo mancante alla fine della prova.



Il risultato del test verrà segnalato con una X rossa in caso di esito negativo.

➤ Ora è possibile stampare i risultati, premendo il tasto "F".



➤ Portare il motore a 700/1000 giri; accendere gli abbaglianti e il lunotto termico. Premere "Enter" per continuare.



➤ Premere il tasto 2 e scannerizzare il QR code per inviare i risultati.

Spiegazione dei risultati

I risultati vengono ritenuti positivi se sono entro i limiti riportati di seguito:

2500/3000 Giri	Alternatore 12V	
	Normale	Smart
V↑	≤15.0V	≤16.2V
V↓	≥13.3V	≥12.4V

1500/2000 Giri	Alternatore 12V	
	Normale	Smart
V↑	≥13.8V	≥12.4V
V↓	≥12.6V	≥12.0V

2500/3000 Giri	Alternatore 24V	
	Normale	Smart
V↑	≤30.0V	≥32.4V
V↓	≥26.6V	≥24.8V

1500/2000 Giri	Alternatore 24V	
	Normale	Smart
V↑	≥27.6V	≥24.8V
V↓	≥25.2V	≥24.0V

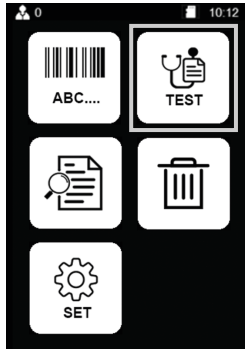
Oscillazione dei diodi ≤ 0,5V a 12V, ≤ 1.0V a 24V.

i Sul risultato del test dell'alternatore smart non viene visualizzato il valore medio di tensione AV.

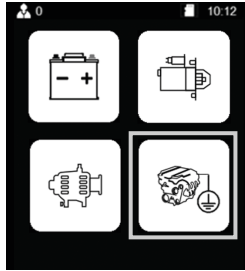
Indicazioni generali

- **Valori di tensione entro i limiti:** l'alternatore funziona correttamente.
- **Valori di tensione sopra i limiti:** si sta sovraccaricando la batteria. Verificare che non vi siano collegamenti allentati, se tutti i collegamenti sono stati effettuati correttamente sostituire il regolatore e se necessario anche il generatore.
- **Valori di tensione sotto i limiti:** il generatore non eroga una tensione adeguata alla batteria. Controllare le cinghie per garantire che il generatore stia girando in maniera corretta. Se le cinghie sono danneggiate o scivolano, sostituirle e ripetere la verifica. Se le cinghie sono in buono stato, sostituire il generatore. Esaminare i collegamenti tra il generatore e la batteria. In caso di connessioni allentate o ossidate, pulire o sostituire il cavo e quindi ripetere il controllo.
- **Tensione assente:** controllare i cavi di collegamento all'alternatore, la cinghia di trasmissione dell'alternatore e il motore.

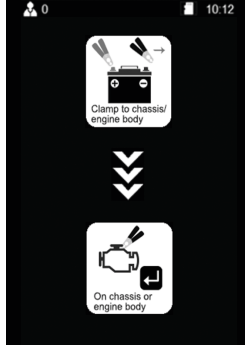
Test di massa del veicolo



➤ Selezionare "TEST" per procedere.



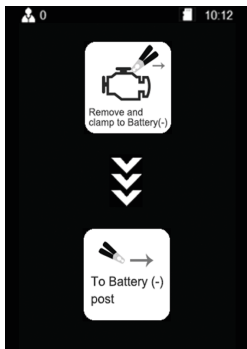
➤ Selezionare test di massa.



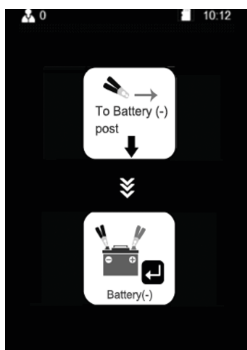
➤ Collegare la pinza nera sulla massa del veicolo. Premere "Enter" per continuare.



In test...



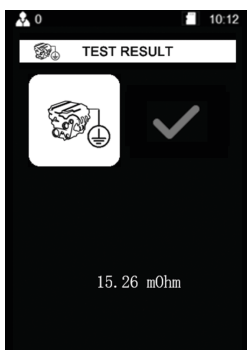
➤ Ricollegare la pinza nera al polo negativo della batteria.



➤ Premere "Enter" per continuare.



In test...



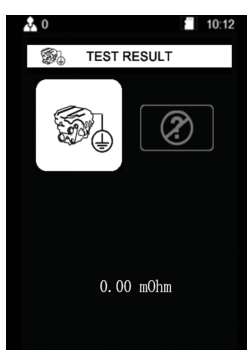
➤ Il risultato del test verrà segnalato con una V verde in caso di esito positivo. In questo caso la resistenza è inferiore al limite di 30 mOhm

➤ Ora è possibile stampare i risultati, premendo il tasto "F".



Il risultato del test verrà segnalato con una X rossa in caso di esito negativo. Verificare le connessioni della messa a terra del veicolo.

➤ Ora è possibile stampare i risultati, premendo il tasto "F".



Il risultato del test non è valido. Ripetere la procedura di test.



➤ Premere il tasto 2 e scannerizzare il QR code per inviare i risultati.

Gestione Test memorizzati

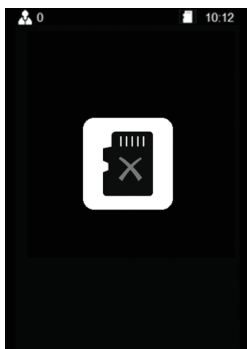
Elimina Test



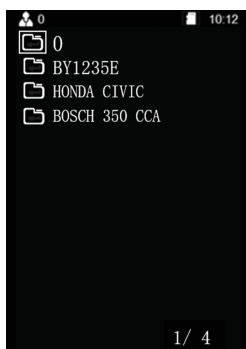
È possibile rivedere i test in memoria e anche continuare un test precedente una volta richiamato.



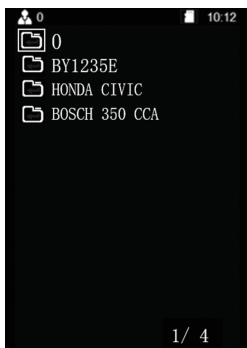
È possibile cancellare i test in memoria.



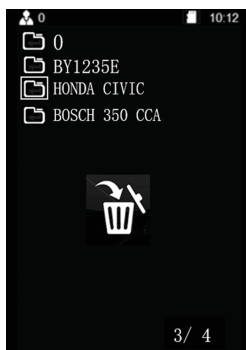
Indica che la scheda SD non è presente nel tester.



Se la scheda SD è presente compare la lista dei test effettuati, Premere "Enter" per selezionare il test.



Se la scheda SD è presente compare la lista dei test effettuati. Premere "Enter" per vedere il test.



➤ Premere "Enter" per eliminare il test. Premere "Esc" per tornare alla schermata iniziale.



Una volta richiamato il test è possibile continuare la sessione di prove tornando al menu principale (premendo "Esc" due volte). Sul display in alto a sinistra apparirà il codice richiamato; questa funzione è utile se ad esempio è stato effettuato solamente il test batteria e si vuole procedere con gli altri test; il tester aggiungerà automaticamente i nuovi risultati rilevati al codice selezionato.



Instruction manual. Battery Tester



Carefully read this manual, and both the instructions provided with the battery and the vehicle in which it will be used.

Overview and warnings



Warning: explosive gas!

- Batteries generate explosive gas (hydrogen) during normal operation and even greater quantities during the starter and alternator test.



Avoid creating flames or sparks.



Provide adequate ventilation during testing



- Always wear safety goggles closed at the sides, acid-proof safety gloves, and acid-proof clothing.



- Never use the battery tester with damaged cables or whenever the tester has been subjected to impact or damaged.
- Never dismantle the battery tester: take it to authorized service center.
- If the cable is damaged, it must be replaced by the manufacturer, its service agent or similar qualified person.
- Never position the battery tester on flammable surface.
- Never place the battery tester and its cables in the water or on wet surfaces.

Intended use

The digital battery tester is designed to be used in the following ways:

- Analyze 12V lead-acid WET, SLI, EFB, AGM FLAT, AGM SPIRAL, GEL and LiFePO4 lithium batteries.
- Check the 12V and 24V starting system.
- Test alternator at 12V and 24V.
- Check the 12V grounding system.



The operating voltage range of the tester is from 9V to 30V.

Description of the Battery Tester

Fig.1

- A) Printer roll compartment
- B) Printer status LED
- C) TFT color screen
- D) "Esc" key: to exit the running function
- E) "Enter" key: to confirm the entered data and the test to be performed
- F) "Print" key: to print the test results
- G) SD card slot
- H) Test/document number
- I) SD card reporting
- L) Hour
- 1-2-3-4) Key for cursor movements

Paper installation

Open the printer cover and insert the printer roll (max.57mmx12m). Close the cover making sure that the thermal paper is held by the roll and protrudes at least 10mm.

SD card

The tester is equipped with an SD card to store the tests performed and be able to view them on the PC.

QR code

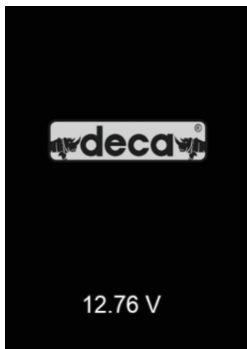
A QR code is issued for each test, which can be scanned to obtain the result in digital format. The data can be saved in the company database and easily sent to the customer.

Connecting the battery tester

Connect the red testing clamp to the positive (+) battery terminal and the black testing clamp to the negative (-) battery terminal. Make sure the clamps and cables are away from fans, moving parts and the fuel line. The tester is protected in case of polarity reversal and will not turn on.

Initial setting

Corporate Data entry



Once properly connected, the tester will show the battery voltage.

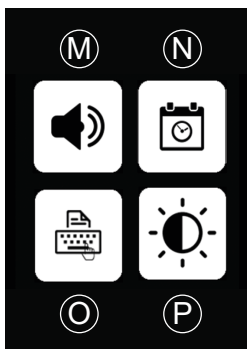


By entering the menu of the O icon: the name, address and telephone number can be set.

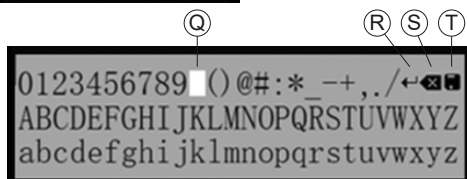


Before starting to use the tester, it is recommended to set the initial parameters by selecting the SET icon.

➤ Press "Enter" to set the battery tester.



- M) to delete the sound, confirm with "Enter" key
- N) to adjust the date and time, confirm with "Enter" key
- O) to enter the corporate data
- P) the adjust the brightness of the screen, confirm with "Enter" key



➤ To write, move the keyboard cursor by pressing the arrow on the control panel. To create white space place the cursor on the Q icon, and to erase place the cursor on the S icon.

➤ To move from one line to another, place the cursor on the R icon, confirm by pressing "Enter" and move up and down with the arrows, once positioned on the desired line confirm by pressing "Enter" key.

➤ To save the data place the cursor on the T icon and always confirm by pressing the "Enter" key.

Customer data for New Test

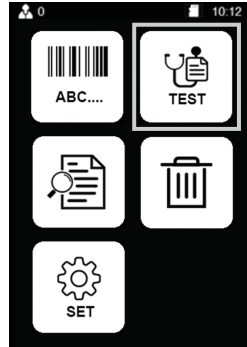


For each new test, the client's credentials can be stored by selecting the ABC... icon.

Lead Acid Battery Test



➤ Once in the menu, enter the customer's name or vehicle license plate and scan the battery barcode (the barcode reader is an optional).



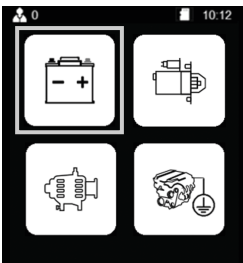
➤ Select "TEST" to proceed.



➤ To write, move the keyboard cursor by pressing the arrow on the control panel. To create white space place the cursor on the Q icon, and to erase place the cursor on the S icon.

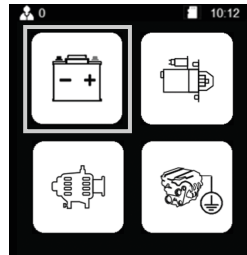
➤ To save the data place the cursor on the T icon and always confirm by pressing the "Enter" key.

❗ Once confirmed, the credentials will appear on the display in the upper left corner and you can begin the test.



❗ If the credentials are not entered, the new test will always have code 0, and it will always overwrite the last test run in the appropriate section (see par. "Review/ Recall test").

➤ At this point you can proceed with the individual test or run all tests sequentially.



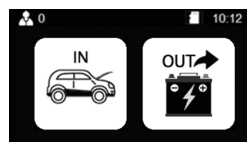
➤ Select battery test.



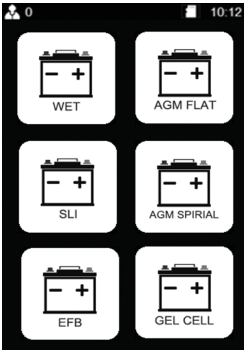
➤ Select new test.



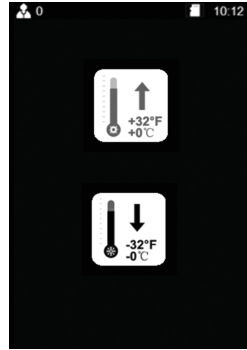
➤ Select the type of vehicle.



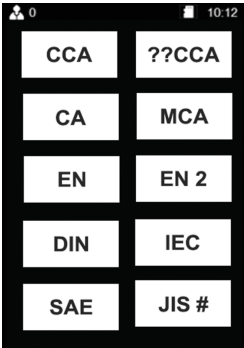
➤ Select whether the battery is located inside or outside the vehicle.



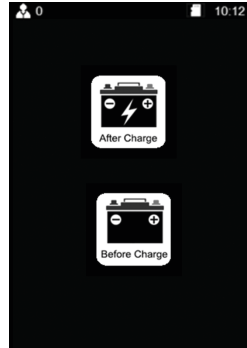
➤ Select the type of battery.



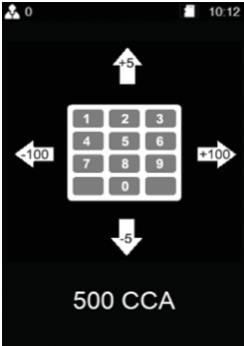
In some cases the tester will ask you to select the temperature range.



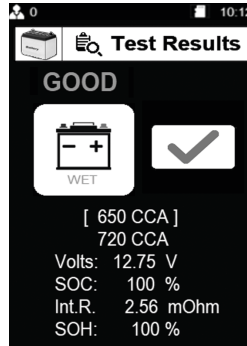
➤ Select the reference standard.



In some cases the tester will ask you to select whether the test is done before or after charge.



➤ Set the starting current: 40-600A (motorcycles), 100-2000A (cars and trucks).



Test result.

➤ Now press the F key to print the results.



In testing...

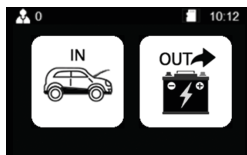


➤ Press button 2 and scan the QR code to send the results.

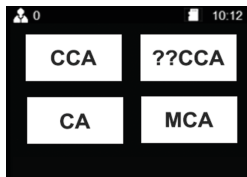
Lithium LiFePO4 battery test



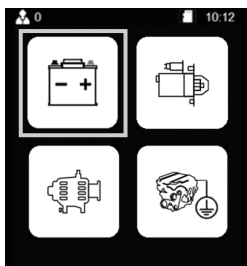
➤ Select "TEST" to proceed.



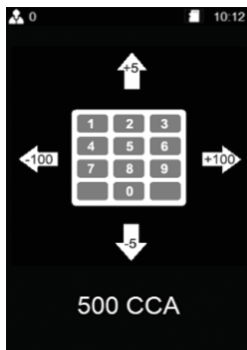
➤ Select whether the battery is located inside or outside the vehicle.



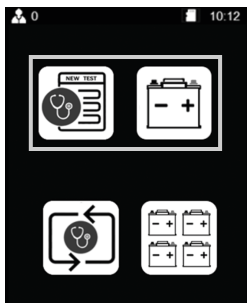
➤ Select the reference standard.



➤ Select battery test.



➤ Set the starting current.
(40-2000A)



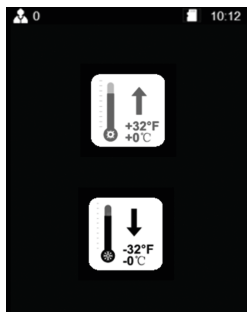
➤ Select new test.



In testing...

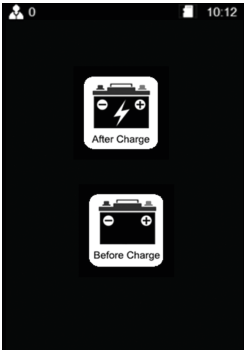


➤ Select lithium battery.

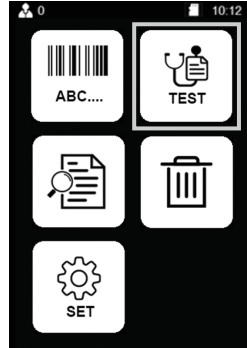


❗ In some cases the tester will ask you to select the temperature range.

Ripetitive Testing

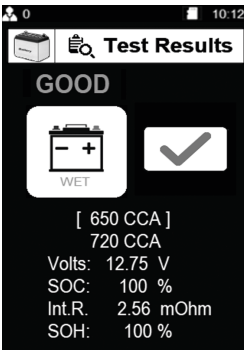


In some cases the tester will ask you to select whether the test is done before or after charge.



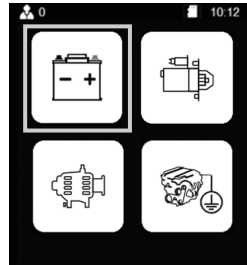
Test mode that allows to test batteries of the same type without having to re-enter all the data.

➤ Select "TEST" to proceed.



Test result.

➤ Now press the F key to print the results.



➤ Select battery test.



➤ Press button 2 and scan the QR code to send the results.



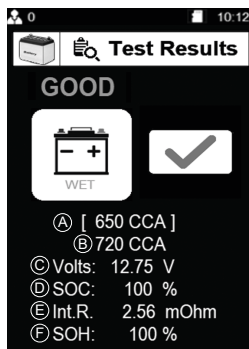
➤ Select "Repeated test" icon.



The tester shows the parameters of the last test performed.

➤ Press "Enter" to proceed to the next steps of the test and follow the explanations in the previous paragraphs.

Battery Test Results

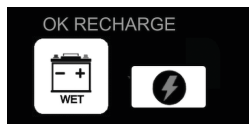


- A) Settled Starting current
- B) Detected starting current
- C) Battery voltage
- D) Charge percentage
- E) Internal resistance
- F) State of Health

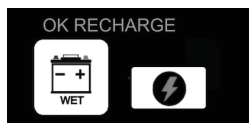
Depending on the data collected, the tester will show the following results:



- The battery is good.



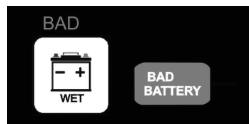
- The battery is good but needs to be recharged.



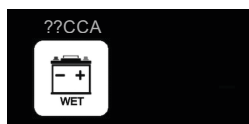
- The battery must be recharged and retested to get the correct result. If, after recharging the battery, "RECHARGE & TEST" appears again, replace the battery.



- Battery to be replaced. If the battery is on the vehicle, disconnect the cables and retest the battery directly on the pole.

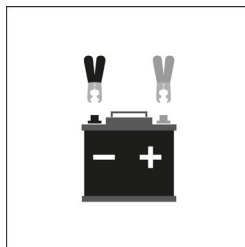


- The battery is faulty: it may have a damaged cell.

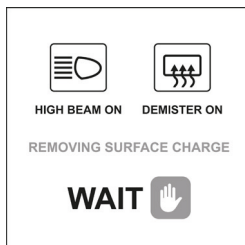


- In case is tested with unknown standard (??CCA) measured values are reported but no judgment is made.

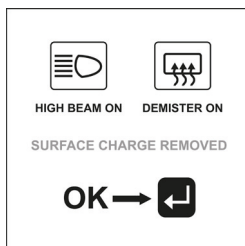
Error reporting during Test



- Check the connection of the clamps and connect correctly.



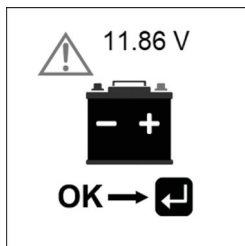
- A surface battery charge is present: turn on high beams and rear demister to remove it.



- The surface charge has been removed, press "Enter".



- You are connected to a 24V battery system! Test the 12V batteries individually.

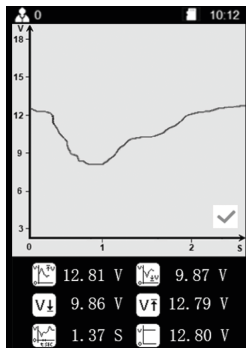


- The battery voltage is low, press "Enter" to continue.

Starter Motor Test

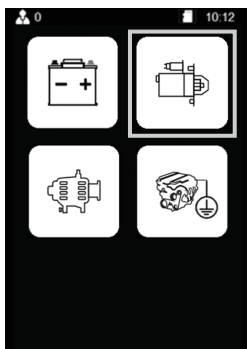


➤ Select "TEST" to proceed.

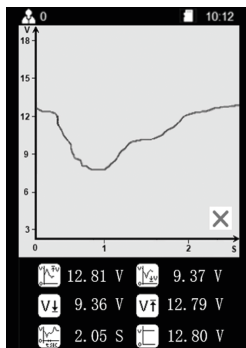


The test result will be reported with a green V in case of positive result. In this case the constant voltage (C) during statup did not fall below 9,6V (12V) or 19,2V (24V).

➤ Now press the F key to print the results.

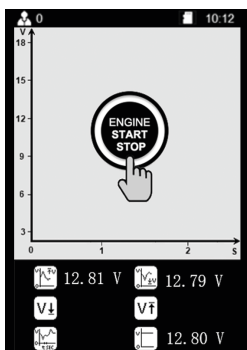


➤ Select the starter motor test.



The test result will be report with a red X in case of negative result. It may be necessary to replace the battery and check the starter motor.

➤ Now press the F key to print the results.

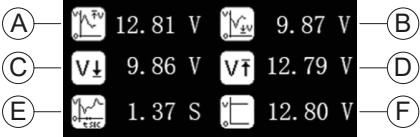


➤ Start the veichle.



➤ Press button 2 and scan the QR code to send the results.

Explanation of the results

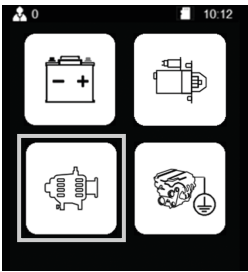


- A) Battery voltage before starting
- B) Maximum voltage drop
- C) Costant voltage during startup
- D) Battery recovery voltage
- E) Start-up time
- F) Average battery value after starting.
(The reading of this value continues in real time even after starting.)

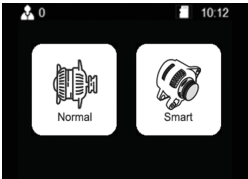
Alternator test



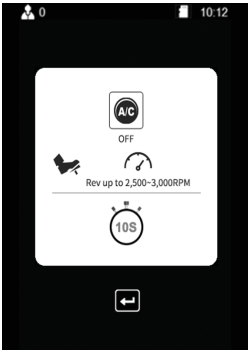
➤ Select "TEST" to proceed.



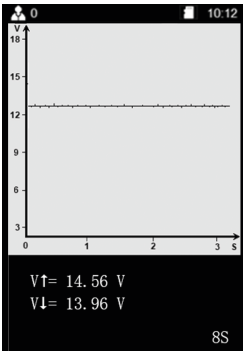
➤ Select alternator test.



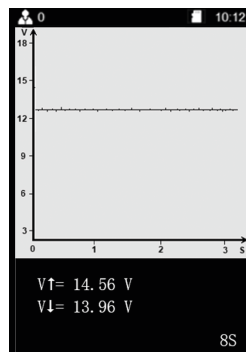
➤ Select the type of alternator: standard or smart.



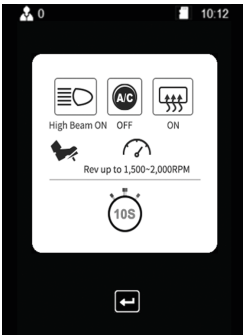
➤ Start the motor and increase to 2500/3000 rpm; make sure the loads are off. Press "Enter to continue.



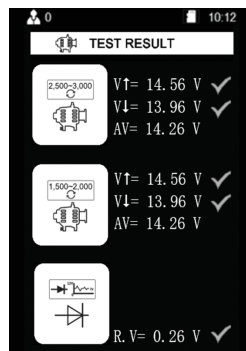
The display shows the charging voltage, the minimum and maximum voltage detected, and the time left until the end of the test.



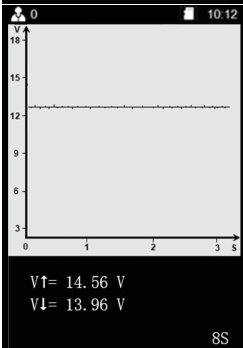
The display shows the charging voltage, the minimum and maximum voltage detected, and the time left until the end of the test.



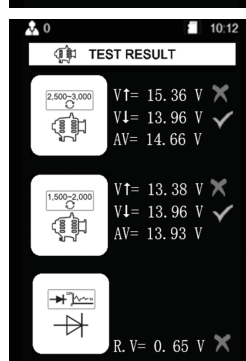
➤ Start the motor and increase to 1500/2000 rpm; turn on the high beam and rear demister. Press "Enter" to continue.



The test result will be reported with a green V in case of positive result.

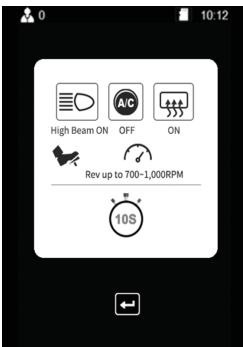


The display shows the charging voltage, the minimum and maximum voltage detected, and the time left until the end of the test.



The test result will be reported with a red X in case of negative result.

➤ Now press the F key to print the results.



➤ Start the motor and increase to 700/1000 rpm; turn on the high beam and rear demister. Press "Enter" to continue.



➤ Press button 2 and scan the QR code to send the results.

Explanation of the results

Results are considered positive if they are within the limits given below:

2500/3000 Rpm	Alternator 12V	
	Normal	Smart
V↑	≤15.0V	≤16.2V
V↓	≥13.3V	≥12.4V

1500/2000 Rpm	Alternator 12V	
	Normal	Smart
V↑	≥13.8V	≥12.4V
V↓	≥12.6V	≥12.0V

2500/3000 Rpm	Alternator 24V	
	Normal	Smart
V↑	≤30.0V	≥32.4V
V↓	≥26.6V	≥24.8V

1500/2000 Rpm	Alternator 24V	
	Normal	Smart
V↑	≥27.6V	≥24.8V
V↓	≥25.2V	≥24.0V

Diode ripple ≤ 0,5V at 12V, ≤ 1.0V at 12V.

 The average AV voltage value is not displayed on the smart alternator result.

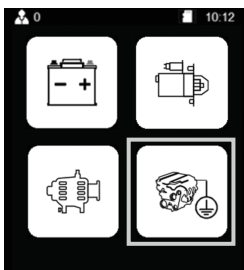
General information

- **Voltage values within limits:** the alternator is working properly.
- **Voltage values above limits:** the battery is being overcharged. Check for loose connections; if all connections have been made correctly, replace the regulator and the if necessary also the regulator.
- **Voltage values below limits:** the generator is not supplying adequate voltage to the battery. Check the belts to ensure that the generator is turning properly. If the belts are damaged or slipping, replace them and repeat the check. If the belts are in good condition, replace the generator. Examine the connections between the generator and the battery. If connections are loose or oxidized, clean or replace the cable and then repeat the check.
- **No voltage:** check the alternator connection cables, alternator drive belt and engine.

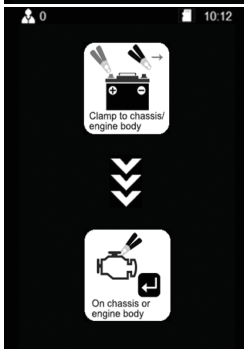
Grounding test



➤ Select "TEST" to proceed.



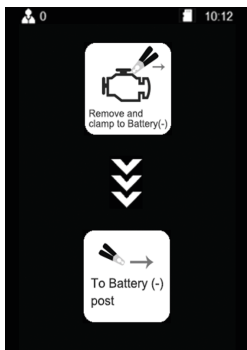
➤ Select the grounding test.



➤ Connect the black clamp on the vehicle ground. Press enter to continue.



In testing...

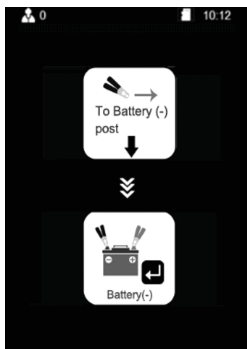


➤ Reconnect the black clamp to the negative battery terminal.



The test result will be report with a red X in case of negative result. Check the grounding connection of the vehicle.

➤ Now press the F key to print the results.



➤ Press "Enter" to continue



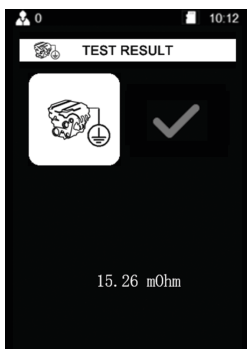
The test result is invalid. Repeat the test procedure.



In testing...



➤ Press button 2 and scan the QR code to send the results.



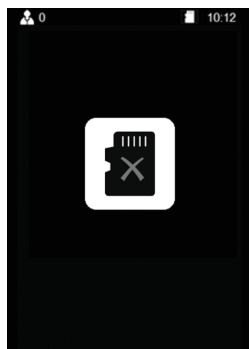
The test result will be reported with a green V in case of positive result. In this case, the resistance is less than 30 mOhm limit.

➤ Now press the F key to print the results.

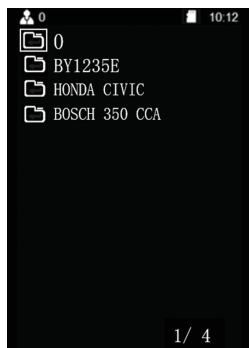
Managing saved Tests



It is possible to review the tests in memory and also to continue a previous test once recalled.



Indicates that the SD card is not present in the tester.

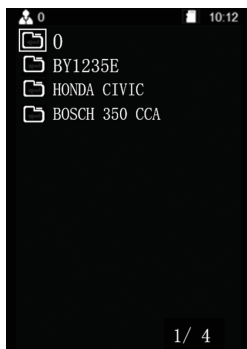


If the SD card is present the list of test performed appears. Press "Enter" to see the test.

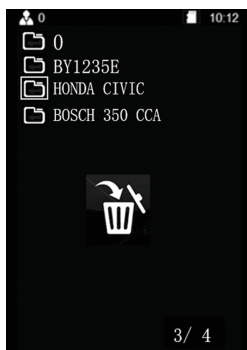
Delete Test



It is possible to delete tests in memory.



If the SD card is present the list of test performed appears. Press "Enter" to see the test.



➤ Press "Enter" to delete the test. Press "Esc" to return to the home screen.

- Once the test is recalled, it is possible to continue the test session by returning to the main menu (by pressing "Esc" twice). The top left display will show the recalled code; this function is useful if, for example, only the battery test has been performed and you want to proceed with the other tests; the tester will automatically add the newly detected results to the selected code.

(I) Garanzia del Fabbricante

Gli apparecchi sono coperti da una garanzia di 12 mesi dalla data di acquisto. Il periodo di garanzia decorre dalla data di acquisto da parte del primo utilizzatore, dimostrata attraverso il documento fiscale di acquisto riportante la data di acquisto e la descrizione del prodotto. Entro tale periodo il Fabbricante s'impegna ad eliminare i difetti di fabbricazione. L'eliminazione dei difetti avviene mediante la riparazione gratuita del prodotto. Sono escluse dalla garanzia: Le parti di normale usura. I guasti derivanti da usura naturale, sovraccarico o uso improprio dell'apparecchio, al di fuori delle prestazioni dichiarate. Anomalie di minima entità che non alterano il valore e le prestazioni del prodotto. I prodotti manomessi o danneggiati dall'utilizzo di accessori o ricambi non originali. Gli apparecchi resi, anche se in garanzia, dovranno essere spedite in PORTO FRANCO e verranno sostituiti in PORTO ASSEGNATO. Fanno eccezione a quanto stabilito, gli apparecchi che rientrano come beni di consumo secondo la direttiva europea 1999/44/CE, solo se venduti negli stati membri della UE. Non trovano applicazione diritti differenti da quello dell'eliminazione dei difetti riscontrati sul prodotto.

(EN) Manufacturer's Warranty

The equipment is covered by a 12-month warranty starting from the purchase date. The warranty period starts from the date on which the equipment is purchased by the first user, proved by presenting the purchase receipt showing the purchase date and the product description. Within this period the Manufacturer agrees to eliminate any manufacturing defects. These defects are eliminated by repairing the product free of charge. The warranty excludes the following: - Parts that are subject to normal wear and tear. - Faults originating from natural wear, overloads or improper utilization of the equipment outside declared performance specifications. - Minor faults, which do not alter the value and performance of the product. - Products tampered with or damaged by the use of non-original accessories or spare parts. Appliances returned, even if they are under warranty, shall be sent to us CARRIAGE PAID, and shall be delivered CARRIAGE FORWARD. These terms do not apply to appliances classified as consumer goods according to the European Union Directive 1999/44/CE, provided that these appliances are sold in the Member States of the European Union. The warranty does not extend to rights other than the elimination of defects identified in the product.

(FR) Garantie du Fabricant

Les appareils sont couverts par une garantie d'une durée de 12 mois à partir de la date d'achat. La garantie prend effet à la date à laquelle le premier utilisateur a acheté l'appareil. Pour prouver cette date, il est nécessaire de présenter le reçu de caisse indiquant la date d'achat et la description du produit. Durant cette période, le Fabricant s'engage à éliminer tout défaut de fabrication. Éliminer ces défauts consiste à réparer gratuitement le produit. La garantie ne couvre pas: Les pièces soumises à une usure normale. Les problèmes liés à l'usure naturelle, une surcharge ou une utilisation impropre de l'appareil, en dehors des performances déclarées. Les anomalies de faible ampleur qui ne modifient pas la valeur et les performances du produit. Les produits transformés ou endommagés par l'utilisation d'accessoires ou de pièces de rechange qui ne sont pas d'origine. Même s'ils sont encore sous garantie, les appareils renvoyés devront être expédiés FRANCO DE PORT et seront restitués en PORT DU. Les appareils qui appartiennent à la catégorie des biens de consommation selon la directive européenne 1999/44/CE font exception à la règle uniquement s'ils sont vendus dans les états membres de l'UE. Tout droit autre que l'élimination des défauts rencontrés sur le produit n'est pas applicable.

(ES) Garantía del fabricante

Los aparatos están cubiertos por una garantía de 12 meses a partir de la fecha de compra. El periodo de garantía comienza a partir de la fecha de compra por parte del primer usuario y debe estar acompañado por un comprobante de compra en el que se describa

detalladamente el producto y la fecha de adquisición. Durante este periodo, el Fabricante se compromete a eliminar los defectos de fabricación. La eliminación de dichos defectos supone la reparación gratuita del producto. La garantía no incluye: Las piezas con vida útil limitada. Las fallas ocasionadas por un desgaste natural, una sobrecarga o un uso inadecuado del aparato, es decir, por fuera de las prestaciones declaradas. Anomalías de pequeña entidad que no alteran ni el valor ni las prestaciones del producto. Los productos manipulados o averiados debido al uso de accesorios o piezas de repuesto no originales. Los artefactos devueltos, aunque estén bajo garantía, deberán ser enviados CON PORTE PAGADO, y serán devueltos con PORTE PAGADERO EN DESTINO. Constituyen una excepción a lo establecido, los artefactos que son considerados como bienes de consumo según la Directiva europea 1999/44/CE, solo si se vendieron en los estados miembros de la UE. El único derecho aplicable es el de la eliminación de los defectos en el producto.

(PT) Garantia do Fabricante

Os aparelhos estão cobertos por uma garantia de 12 meses a contar da data de compra. A garantia começa a partir da data de compra da parte do primeiro utilizador, comprovada pela nota fiscal de compra com a indicação da data de compra e a descrição do produto. Durante o prazo de garantia, o Fabricante compromete-se a eliminar os defeitos de fabrico. A eliminação dos defeitos é feita mediante a reparação gratuita do produto. A garantia não cobre: As peças de desgaste normal. As avarias derivantes de desgaste natural, sobrecarga ou uso impróprio do aparelho, fora dos rendimentos declarados. Anomalias de pouca importância que não alteram o valor e os rendimentos do produto. Os produtos alterados ou danificados pela utilização de acessórios ou peças não originais. Os aparelhos entregues, mesmo se em garantia, deverão ser expedidos em PORTE PAGO e serão restituídos em PORTE DEVIDO. São excluídos do quanto estabelecido, os aparelhos que formam parte de bens de consumo segundo a directiva europeia 1999/44/CE, somente se vendidos nos estados membros da UE. Não encontram aplicação direitos diferentes daquele da eliminação dos defeitos verificados no produto.

(DE) Herstellergarantie

Auf die Geräte wird eine Garantie von 12 Monaten ab dem Kaufdatum gewährleistet. Die Garantiefrist setzt am Datum des Kaufs durch den ersten Anwender ein. Das Kaufdatum geht aus den Rechnungsunterlagen hervor, auf denen sowohl das Kaufdatum als die Produktbeschreibung vermerkt sind. Der Hersteller verpflichtet sich, innerhalb dieses Zeitraums Fabrikationsmängel zu beheben. Die Mängel werden durch die kostenlose Reparatur des Produkts behoben. Von der Garantie ausgeschlossen sind: Die normalen Verschleißteile. Auf den normalen Verschleiß, die Überschreitung der angegebenen Leistungen oder auf einen unsachgemäßen Gebrauch des Geräts zurückzuführende Störungen. Geringfügige Anomalien, die den Wert und die Leistungen des Produkts nicht beeinträchtigen. Umgeänderte Produkte oder durch den Gebrauch von Nichtoriginal-Ersatzteilen oder –Zubehör beschädigte Produkte. Die zurückgegebenen Geräte müssen, auch wenn die Rückgabe innerhalb des Garantiezeitraums erfolgt, PORTOFREI eingesandt werden und werden PORTOPFLICHTIG zurückerstattet. Von dieser Festlegung ausgenommen sind die als Verbrauchsgüter unter die europäische Richtlinie 1999/44/EG fallende Geräte nur, wenn sie in den EU-Mitgliedsländern verkauft wurden. Es bestehen keine weiteren Ansprüche als die Behebung der am Produkt festgestellten Mängel.

(DA) Fabriksgaranti

Udstyret er dækket af 12 måneders garanti med start fra købsdatoen. Garantiperioden begynder fra den dato, hvor udstyret købes af den første bruger, hvilket skal bevises ved fremvisning af kvittering, hvor købsdato og produktbeskrivelse er anført. Inden for denne periode accepterer fabrikanten at fjerne alle fabrikationsfejl. Disse fejl fjernes ved, at produktet repareres gratis. Garantien udelukker følgende: -

Dele, der udsættes for almindeligt slid. - Fejl som følge af naturligt slid, overbelastninger eller fejlagtig brug af udstyret, som ikke hører under de forventede arbejdspræstationer. - Mindre fejl, der ikke ændrer ved produktets værdi eller arbejdspræstation. - Produkter som er ødelagte eller beskadigede efter brug af uoriginalt tilbehør eller uoriginale reservedele. De tilbageleverede apparater skal sendes FRIT LEVERET, også selvom de er dækket af garanti, og de vil blive sendt tilbage PR. EFTERKRAV. Undtaget herfra, som det er fastsat, er de apparater, som i henhold til det europæiske direktiv 1999/44/CE er forbrugsgoder: Dog kun hvis de er solgt i et EU-land. Der kan ikke gives andre rettigheder ud over fjernelse af fejl ved produktet.

(NL) Garantie van de Fabrikant

De apparaten worden gedekt door een garantie van 12 maanden vanaf de aankoopdatum. De garantieperiode gaat in op de datum van aankoop door de eerste gebruiker, vermeld op het kasticket van de aankoop, waarop buiten de datum ook de beschrijving van het product vermeld staat. Binnen deze periode verplicht de Fabrikant zich tot het oplossen van fabricagefouten. De herstellingen nodig om de defecten te verhelpen worden gratis uitgevoerd. Vallen niet onder de garantie: De onderdelen onderhevig aan normale slijtage. De defecten te wijten aan natuurlijke slijtage, overbelasting of verkeerd gebruik van het apparaat, die buiten de vermelde prestaties vallen. Kleine storingen die de waarde en de prestaties van het product niet wijzigen. Producten waarop eigenmachtige handelingen werden uitgevoerd of beschadigd werden door het gebruik van niet originele accessoires of vervangstukken. Teruggezorgde apparaten dienen, ook als ze in garantie zijn, FRANCO te worden verstuurd en worden ze NIET FRANCO weer teruggezorgd. Uitzondering hierop vormen apparaten die gedefinieerd worden als verbruiksgoederen volgens de Europese richtlijn 1999/44/EG, maar enkel indien verkocht in de lidstaten van de EU. Het enige recht toegekend door de garantie is de eliminatie van het op het product vastgestelde defect.

(SV) Tillverkarens garanti

Utrustningen täcks av en 12 månaders garanti som gäller från inköpsdatumet. Garantiperioden gäller från inköpsdatumet för den förste ägaren, som ska bestyrkas av en inköpshandling där köpedatum och produktbeskrivning anges. Inom denna period förbinder sig tillverkaren att eliminera fabriksfel. Fel elimineras genom gratis reparation av produkten. Garantin täcker inte följande: Slijtagelagar. Fel som beror på ett naturligt slitage, överbelastning eller om utrustningen används på ett olämpligt sätt eller på ett sätt som den inte är avsedd för. Mindre fel som inte påverkar produktens värden eller prestanda. Produkter som har modifierats eller skadats på grund av att tillbehör eller reservdelar har använts som inte är original. Transporten av dessa system skall, även om garantin gäller, betalas av avsändaren och kommer att returneras mot att transporten betalas av mottagaren. Undantag från detta görs för system som klassas som konsumentvaror enligt EU-direktiv 1999/44/EG, endast för varor sålda inom EU:s medlemsstater. Inga andra rättigheter föreligger än att eliminera defekter på produkten. Transporten av dessa system skall, även om garantin gäller, betalas av avsändaren och kommer att returneras mot att transporten betalas av mottagaren. Undantag från detta görs för system som klassas som konsumentvaror enligt EU-direktiv 1999/44/EG, endast för varor sålda inom EU:s medlemsstater.

(NO) Produsentens garanti

Utstyret er dekket av en 12 måneders garanti som starter fra kjøpsdatoen. Garantiperioden starter fra datoen hvor utstyret er kjøpt av den første brukeren, bevisst ved fremvising av kjøpskvittering som viser kjøpsdatoen og produktbeskrivelsen. Innen denne perioden sier produsenten seg enig i å rette opp enhver produktdefeksjon. Disse defektene elimineres ved å reparere produktet uten kostnad. Garantien ekskluderer følgende: - Deler som er utsatt for normal slitasje. - Feil som oppstår ved normal slitasje, overbelastninger eller upassende bruk av utstyret utenfor erklærte ytelsesspesifikasjoner. - Mindre feil som ikke endrer

verdien eller ytelsen på produktet. - Produkter som er tuklet med eller skadet av bruk av ikke-originalt tilbehør eller reservedeler. Transport av disse systemene skal, selv om garantien gjelder, betales av avsenderen og kommer til å returneres mot at transporten betales av mottakeren. Unntak fra dette gjøres for system som klasseres som forbrukervarer etter EU-direktiv 1999/44/EG, kun for varer solgt innen EUs medlemsland. Garantien gjelder ikke for andre rettigheter enn eliminering av defekter identifisert i produktet.

(FI) Valmistajan takuu

Laitteen takuu on voimassa 12 kuukautta ostopäivästä lähtien. Takuuaika alkaa siitä päivästä, jolloin ensimmäinen käyttäjä on ostanut laitteen. Tämä tulee todistaa esittämällä ostokuitti, josta ilmenee ostopäivämäärä ja tuotteen kuvaus. Tämän ajan sisällä valmistaja lupaa poistaa kaikki mahdolliset valmistusvirheet. Nämä virheet poistetaan korjaamalla tuote velloituksesta. Takuu ei kata seuraavia: - Osat, jotka ovat normaalisti kuluneet. - Viat, jotka johtuvat laitteen luonnollisesta kulumisesta, ylikuormituksesta tai virheellisestä käytöstä, joka poikkeaa siitä käytöstä, johon laite on suunniteltu. - Pienet viat, jotka eivät vaikuta tuotteen arvoon ja suorituskykyyn. - Peukaloidut tuotteet tai tuotteet, joita on vahingoitettu käyttämällä ei-alkuperäisiä varusteita tai varaosia. Palautettavat koneet, myös takuussa olevat, on lähetettävä LÄHETTÄJÄN KUSTANNUKSELLA ja ne palautetaan VASTAANOTTAJAN KUSTANNUKSELLA. Poikkeuksen muodostavat koneet, jotka asetuksissa kuuluvat kulutushyödykkeisiin eurooppalaisen direktiivin 1999/44/EY mukaisesti vain, jos ne myydään EU:n jäsenmaissa. Mitään muita oikeuksia, kuin tuotteesta löydettyjen vikojen poistoa ei voida soveltaa.

(ET) Tootja garantii

Seadmel on 12-kuuline garantii, mis hakkab kehtima alates ostukuupäevast. Garantiperiood algab kuupäevast, mil seadme esmakasutaja seadme ostis. Ostukuupäeva tuleb tõendada, esitades ostutšeki, millel kirjas ostukuupäev ja seadme kirjeldus. Nimetatud perioodi jooksul nõustub Tootja kõrvaldama kõik tootmisest tingitud defektid. Need defektid kõrvaldatakse tasuta. Garantii ei hõlma järgmist: - Osi, mis kuluvad loomulikul teel. - Rikkeid, mis on tekkinud loomulikul kulumisest, ülekoormusest või seadme ebasobivast ja nõuetele mittevastavast kasutamisest. - Väiksemad rikkeid, mis ei muuda toote väärtust ega toimimist. - Mitteoriginaalsest tarvikute või -varuosade kasutamisega rikitud tooteid. Tagastatud seadmed, millel on garantii, saadetakse VABASADAMASSE ja tagastatakse tavalisel KAUBASADAMAS. Euroopa direktiiviiga 1999/44/CE on kehtestatud erandid taaskasutusse võetavatele aparaatidele, kui neid müüakse ainult EL liikmesriikides. Garantii ei anna alust mis tahes muule õigusele, kui ainult tootes tuvastatud rikete kõrvaldamine.

(LV) Ražotāja garantija

Aprikojumam ir 12 mēnešu garantija, sākot ar tā iegādes dienu. Garantijas periods sākas no dienas, kad aprikojumu ir iegādājis pirmais lietotājs; kā pierādījums jāuzrāda pirkuma čeks, kurā redzams iegādes datums un produkta apraksts. Garantijas perioda laikā ražotājs apņemas novērst jebkādas ražošanas defektus. Šos defektus novērs, remontējot produktu bez maksas. Garantija neattiecas uz: - sastāvdaļām, kas pakļautas pastāvīgam nolietojumam; - bojājumiem, kas radušies aprikojuma dabiska nolietojuma, pārslodzes vai nepareizas lietošanas rezultātā ārpus noteiktajām veikspjūsmas prasībām; - sīkiem bojājumiem, kas neietekmē produkta vērtību un veikspēju; - produktiem, kas bojāti, lietojot tajos neoriginālus piederumus un rezerves daļas. Attiecībā uz atgrieztajām iekārtām, arī ja tās sedz garantija, nosūtīšanas izmaksas sedz nosūtītājs, un atpakaļ atbūtīšanas izmaksas sedz saņēmējs. Kā izņēmums minētajiem nosacījumiem tiek noteiktas iekārtas, kas ir definētas kā patēriņa preces saskaņā ar Eiropas direktīvu 1999/44/EK, tikai tad, ja tās tiek pārdotas ES valstīs. Nav piemērojamas nevienas citas tiesības, kā vien konstatēto produkta defektu novēršana.

(LT) Gamintojo garantija

Jrangi suteikiama 12 mėnesių garantija, skaičiuojant nuo pirkimo datos. Garantinis laikotarpis prasideda nuo tos datos, kai šią įrangą įsigijo pirmasis naudotojas. Mėnėto datos įrodymui reikia pateikti pirkimo kvitą, kuriame nurodyta pirkimo data ir produkto pavadinimas. Garantinio laikotarpio metu Gamintojas įsipareigoja pašalinti bet kokius gamybos defektus. Šie defektai bus šalinami pateiktas produktą nemokamai. Ši garantija netaikoma šiais atvejais: - Įprasto naudojimo metu nusidėvėjimams dalims. - Gedimams, kurių priežastis natūralus nusidėvėjimas, perkrovos ar įrangos netinkamas naudojimas, pažeidžiant naudojimo reikalavimus. - Smulkiems gedimams, kurie nekeičia produkto vertės ir veikimo. - Produktams, kurie buvo perdurti ar sugadinti, naudojant neoriginalius priedus ar atsargines dalis. Pateikti prietaisai, net jei jiems taikoma garantija, turi būti išsiųsti už transportą SUMOKANT SIUNTĖJUI, o grąžinami už transportą SUMOKĖJUS GAVĖJUI. Šis nustatymas išimtinai netaikomas prietaisams, kurie pagal 1999/44/EB direktyvą yra plataus vartojimo prekes, tik jei jos parduodamos ES šalyse narėse. Nesuteikiame jokios kitos teisės, išskyrus teisę į šiame produkte aptiktų defektų pašalinimą.

(PL) Gwarancja Producenta

Užpadenia sa objęte gwarancją na okres 12 miesięcy od daty zakupu. Okres gwarancji obowiązuje od daty zakupu przez pierwszego użytkownika, potwierdzonego przez dokument fiskalny zakupu zawierający datę zakupu oraz opis produktu. W ciągu tego okresu Producent zobowiązuje się do usunięcia wykrytych usterek fabrycznych. Usunięcie usterek polega na bezpłatnej naprawie produktu. Gwarancja nie obejmuje: Części podlegających zwykłemu zużyciu. Usterek powstałych na skutek zwykłego zużycia, przeciążenia lub niewłaściwego zastosowania urządzenia, poza zadeklarowanymi osiągnięciami. Anomalii o minimalnym znaczeniu, które nie zmieniają wartości i osiągów produktu. Produktów naruszonych lub uszkodzonych w wyniku zastosowania nieoryginalnych akcesoriów lub części zamiennych. Urządzenia zwracane, również w ramach gwarancji, będą wysyłane NA KOSZT NADAWCY i odsyłane NA KOSZT ODBIORCY. Wyjątek od powyższej zasady stanowią urządzenia będące dobrami konsumpcyjnymi zgodnie z dyrektywą UE 1999/44/WE jedynie wtedy, gdy są one sprzedawane w krajach członkowskich UE. Nie stosuje się innych praw od prawa usunięcia usterek wykrytych w produkcji.

(CS) Záruka výrobce

Na zařízení se vztahuje záruka o délce 12 měsíců, počínaje datem zakoupení. Záruční doba začíná dnem zakoupení zařízení prvním uživatelem a jako doklad o zakoupení slouží účtenka s uvedeným datem zakoupení a popisem produktu. Po dobu trvání této záruční doby se výrobce zavazuje odstranit veškeré výrobní závady. Závady budou odstraněny formou bezplatné opravy produktu. Záruka se nevztahuje na následující: - Díly podléhající normálnímu opotřebení. - Závady způsobené přirozeným opotřebením, přetížením nebo nesprávným používáním zařízení mimo rozsah uvedených výkonových specifikací. - Malé závady, které nemění hodnotu a výkon produktu. - Produkty pozměněné nebo poškozené z důvodu používání neoriginálních doplňků nebo náhradních dílů. Vracená zařízení musí být v období záruky zasílána VYPLACENÉ a budou vrácena na MÍSTO URČENÍ. Výjimkou z výše uvedeného jsou zařízení, která patří ke spotřebnímu zboží podle evropské směrnice č. 1999/44/ES a to pouze tehdy, jsou-li prodávána v členských zemích EU. Záruka se nevztahuje na jiná práva než na odstranění závad zjištěných na produktu.

(HU) A Gyártó garanciája

A megvételtől számított 12 hónapig a készülékek garancia alatt állnak. A garancia ideje az első használat megvételenek időpontjától kezdődik, mely dátumot a termék leírásával együtt, az eladási blokk igazol. Ezen az időszakon belül a Gyártó feladata minden

gyártási hibák megszüntetése. A hibák megszüntetése a termék ingyenes javításával történik. Nem esnek garancia alá: Normális használatnak kitett részek. A normális használat, túlterhelés vagy a készülék nem megfelelő, a kijelentett használaton kívüli használat okozta hibák. Minimális mértékű hibák, melyek nem változtatják a készülék értékét és nyújtott teljesítményét. Sértett készülékek, vagy nem eredeti alkatrészek használata által okozott károsodások. A visszaküldött készülékeket, még akkor is, ha garanciálisak, BÉRMENTESÍTVE kell elküldeni, és UTÁNVÉTTTEL lesznek visszaküldve. Az 1999/44/EK irányelv szerint fogyasztási javaknak minősülő készülékek csak akkor képeznek kivételt a megállapítottak alól, ha az EU tagországai adják el őket. A terméken talált hibák kijavításának jogán kívül egyéb joggal nem lehet élni.

(SK) Záruka výrobcu

Na produkt sa vztahuje 12-mesačná záruka, ktorá začína plynúť dňom zakúpenia. Záručné obdobie sa začína odo dňa zakúpenia produktu prvým používateľom, čo sa musí preukázať predložením pokladničného bloku, na ktorom je uvedený deň zakúpenia a popis produktu. V rámci tohto obdobia sa výrobca zaväzuje odstrániť akékoľvek výrobné chyby. Tieto chyby sa odstránia bezplatným opravením produktu. Záruka vylučuje nasledujúce prípady: - diely, ktoré podliehajú bežnému opotrebovaniu. - chyby vzniknuté prirodzeným opotrebovaním, preťažením alebo nesprávnou údržbou produktu mimo deklarovaných požiadaviek výkonu. - menšie chyby, ktoré nespôsobujú zmenu hodnoty a výkonu produktu. - pozmienené alebo poškodené produkty spôsobené používaním neoriginálneho príslušenstva alebo dielov. Vyrobené zariadenia, aj keď sú v záruke, musia byť zaslané s vyplateným prepravným a budú vrátené s prepravným, ktoré platí prijímateľ. Výnimku z tohto ustanovenia tvoria prístroje kvalifikované ako spotrebný tovar podľa smernice EÚ 1999/44/ES, ak sa predávajú v členských štátoch EÚ. Akékoľvek éni nároky ako odstránenie chýb zistených na produkte, nie sú možné.

(HR) Garancija proizvođača

Oprema ima garanciju od 12 mjeseci od dana kada je ista kupljena. Razdoblje garancije počinje teći od dana kada je oprema kupljena (prvi korisnik), a dokazuje se prikazom računa na kojemu je naveden datum kupnje i opis proizvoda. Tijekom navedenog razdoblja proizvođač je suglasan da će ukloniti sve nepravilnosti proizvodnje, besplatnim popravkom proizvoda. Garancija ne pokriva slijedeće: - Dijelove koji podliježu normalnom trošenju. - Kvarove uslijed normalnog trošenja, preopterećenja ili nepravilne upotrebe opreme koja ne spada pod navedene specifikacije upotrebe. - Manje nepravilnosti koje ne mijenjaju vrijednost i rezultate proizvoda. - Proizvodi koji su neovlašteno izmjenjeni ili oštećeni uslijed upotrebe neoriginalne opreme ili rezervnih dijelova. Kupac koji vraća uređaje, čak i ako su pod garancijom, mora sam snositi troškove slanja i primanja. Jedinu iznimku su uređaji koji spadaju pod potrošnu robu u skladu sa Europskom direktivom 1999/44/EZ, samo ako su prodani u zemljama članicama EU-a. Garancija se ne prenosi na prava koja nisu uklanjanje identifikiranih nepravilnosti proizvoda.

(SL) Garancija proizvajalca

Garancijski rok za izdelek je 12 mesecev od datuma nakupa. Garancijski rok se začne na dan, ko je izdelek kupil prvi uporabnik, kar se dokazuje z računom, opremljenim z datumom in navedbo izdelka. V času garancije se proizvajalec obvezuje, da bo odpravil vse tovarniške napake. Te napake bo odpravil z brezplačnim popravilom izdelka. Garancija ne pokriva naslednjega: - Deli, podvrženi normalni obrabi. - Napake, do katerih je prišlo zaradi normalne obrabe, preobremenitve ali nepravilne uporabe izdelka, ki ne ustreza navedeni predvideni uporabi zanj. - Manjše napake, ki ne razvednotijo izdelka in ne spremenijo njegove učinkovitosti. - Izdelki, popravljeni ali okvarjeni zaradi uporabe neoriginalnih sestavnih delov in/ali opreme. Če so vrnjeni aparati še pokriti z garancijo, jih je potrebno odposlati s prevzemom proizvajalca, ki jih bo nato vrnil s prevzemom uporabnika. Izjema zgornjih določil so aparati, ki so uvrščeni med potrošniško blago v skladu z določbami

европске smernice 1999/44/ES, in sicer samo v primeru, da so se prodali v eni od držav članic EU. Garancija zajema izključno pravice, ki se nanašajo na odpravo dokazanih okvar in napak izdelka.

(EL) Εγγύηση Κατασκευαστή

Ο εξοπλισμός καλύπτεται από 12μηνη εγγύηση, αρχής γενομένης από την ημερομηνία αγοράς. Η περίοδος εγγύησης ξεκινά από την ημερομηνία αγοράς του εξοπλισμού από τον πρώτο χρήστη. Η αγορά αποδεικνύεται με επίδειξη του παραστατικού αγοράς, όπου αναγράφεται η ημερομηνία αγοράς και η περιγραφή του προϊόντος. Κατά τη διάρκεια της περιόδου αυτής, ο Κατασκευαστής δεσμεύεται να αποκαταστήσει τυχόν ελαττώματα στην κατασκευή. Τα ελαττώματα αυτά αποκαθίστανται με τη δωρεάν επίσκεψη του προϊόντος. Η εγγύηση δεν καλύπτει τα εξής: - Εξαρτήματα που υφίστανται φυσιολογική φθορά. - Ελαττώματα που οφείλονται σε φυσιολογική φθορά, υπερφόρτωση ή ακατάλληλη χρήση του εξοπλισμού εκτός των δηλωθέντων απαιτήσεων λειτουργίας. - Μικροελαττώματα που δεν επηρεάζουν την αξία και την απόδοση του προϊόντος. - Προϊόντα που έχουν επηρεαστεί ή φθαρεί λόγω της χρήσης μη αυθεντικών αξεσουάρ ή ανταλλακτικών. Οι συσκευές που επιστρέφονται, ακόμα κι αν είναι ακόμα σε εγγύηση, πρέπει να αποσταλούν PORTO FRANCO (κόμιστρα πληρωτέα από τον αποστολέα) και θα επιστραφούν PORTO ASSEGNATO (κόμιστρα πληρωτέα από τον παραλήπτη). Εξαιρούνται οι συσκευές που θεωρούνται καταναλωτικά αγαθά σύμφωνα με την οδηγία 1999/44/EK, μόνο αν έχουν πωληθεί στα κράτη μέλη της ΕΚ. Δεν ισχύει κανένα άλλο δικαίωμα πλην του δικαιώματος αποκατάστασης ελαττωμάτων για το προϊόν.

(RU) Гарантия изготовителя

Гарантия на оборудование имеет срок в 12 месяцев с момента покупки. Гарантия вступает в действие с момента покупки оборудования первым пользователем, подтвержденного финансовым документом, в котором указана дата покупки и описание приобретенного оборудования. В течение указанного периода Изготовитель обязуется устранять дефекты изготовления. Под устранением дефектов подразумевается бесплатный ремонт продукции. Из гарантии исключены: Компоненты, подвергающиеся обычному износу. Неисправности, вызванные обычным износом, чрезмерной нагрузкой, неправильным использованием оборудования, использование для целей, отличных от указанных. Незначительные аномалии, которые не изменяют значений параметров или характеристик продукции. Измененное или поврежденное оборудование в случае использования неоригинального дополнительного оборудования или запчастей. Возвращаемые приборы, в том числе и те, на которые распространяется гарантия, должны отгружаться на условиях ФРАНКО-ПОРТ и затем высылаются обратно НАЛОЖЕННЫМ ПЛАТЕЖОМ. Исключение из сказанного составляют приборы, которые входят в категорию потребительских товаров в соответствии с европейской директивой 1999/44/CE и только в том случае, если они были проданы на территории Европейского союза. В гарантию включено только устранение дефектов оборудования.

(BG) Гаранция на производителя

Оборудването има 12-месечна гаранция, започваща от дата на закупуване. Гаранционният период започва от датата, на която оборудването е закупено от първия потребител, което се доказва с представяне на квитанцията за покупка, показваща датата на покупка и описание на продукта. В границите на този период производителят е съгласен да отстрани всички производствени дефекти. Тези дефекти се отстраняват посредством безплатното ремонтване на продукта. Гаранцията изключва следното: - Части, които са подложени на нормално износване и амортизация. - Неизправности, произтичащи от естествено износване, претоварване или неправилно използване на оборудването в противоречие на декларираните спецификации

на експлоатация. - Несъществени неизправности, които не променят експлоатационните характеристики на продукта. - Модифицирани продукти или повредени от използване на неоригинални аксесоари или резервни части. Върнатите апарати, както е и според гаранцията, са предплатени от изпращача и трябва да бъдат възстановени от получателя. Правят изключения от тази наредба, апаратите, които влизат като стоки за употреба според европейската директива 1999/44/CE, които се продават само в държавите членки на ЕС. Гаранцията не покрива други права, освен отстраняването на неизправности, установени в продукта.

(RO) Garanția producătorului

Echipamentul are o garanție de 12 luni de la data cumpărării. Perioada de garanție începe de la data când echipamentul a fost cumpărat de primul utilizator, lucru dovedit prin prezentarea bonului de cumpărare care indică data cumpărării și descrierea produsului. În cadrul acestei perioade, Producătorul este de acord să elimine orice defecte de fabricație. Aceste defecte sunt eliminate prin repararea gratuită a produsului. Garanția exclude următoarele: - Piese supuse uzurii normale. - Defecte provocate de uzura naturală, suprasarcini sau utilizare incorectă a echipamentului în afara specificațiilor de performanță declarate. - Defecte minore, care nu modifică valoarea și performanța produsului. - Produsele la care s-a intervenit sau au fost deteriorate urmare folosirii de accesorii sau piese de schimb neoriginale. Aparatele trimise înapoi, chiar dacă sunt în garanție, vor trebui expedite în regim PORTO FRANCO și vor fi returnate în regim PORTO CU PLATA TRANSPORTULUI LA DESTINATAR. Fac excepție de la cele de mai sus, aparatele care se trimit ca bunuri de consum conform Directivei UE 1999/44/CE, numai dacă sunt vândute în statele membre ale UE. Garanția nu se extinde la alte drepturi decât eliminarea defectelor identificate la produs.

(TR) İmalatçı Garantisi

Cihazlar satın alındıkları tarihten itibaren geçerli olmak üzere, 12 ay süreyle garanti kapsamındadırlar. Garanti süresi, satın alındığı tarihi ve ürün tanımını gösteren satın alma fişi aracılığıyla kanıtlanan, ilk kullanıcı tarafından satın alındığı tarihten itibaren başlar. Bu süre içerisinde İmalatçı fabrikasyon hatalarını giderme yükümlülüğünü üstlenmektedir. Bu hatalar ürünün bedelsiz onarılması aracılığıyla giderilirler. Aşağıda belirtilenler garanti kapsamı dışındadırlar: Normal aşınmaya maruz parçalar. - Normal aşınma, aşırı yük veya belirtilen hizmetler dışında, cihazın uygunsuз kullanımından kaynaklanan hatalar. - Ürün değerini ve verimini değiştirmeyen küçük çaplı bozukluklar. - Kurcalanmış veya orijinal olmayan aksesuar veya yedek parçaların kullanımından hasar görmüş ürünler. Geri iade edilen cihazlar, garanti kapsamında olsalar dahi, MASRAFLAR GÖNDERENE AİT OLMAK ÜZERE yollanacak ve MASRAFLAR TESLİM ALANA AİT OLMAK ÜZERE geri iade edileceklerdir. Sadece, Avrupa Birliği ülkelerinde satılmış olan, ve 1999/44/CE Avrupa Yönetmeliği'ne göre tüketim malları kapsamına giren cihazlar bu uygulamadan muaf tutulacaktır. Ürün üzerinde görülen hataların giderilmesinden farklı haklar iddia edilemez.



Product ID:
TSP 1000 (421000)



IT DICHIARAZIONE DI CONFORMITÀ

Dichiariamo che il prodotto indicato è conforme alle Direttive Comunitarie: (1) ed alle Norme: (2).

EN DECLARATION OF CONFORMITY

We declare that the product indicated conforms with the EC Directives: (1) and with the relevant Standards: (2):

FR DECLARATION DE CONFORMITÉ

Nous déclarons que le produit indiqué est conforme aux Directives Européennes: (1) et aux Normes pertinentes: (2).

ES DECLARACION DE CONFORMIDAD

Declaramos que el producto indicado es conforme a las Directivas Comunitarias: (1) y a los documentos Normativos relativos: (2).

PT DECLARAÇÃO DE CONFORMIDADE

Declaramos que o produto indicado é em conformidade com a Directiva Comunitária: (1) e com as Normas relevantes: (2).

DE KONFORMITÄTSERKLÄRUNG

Wir erklären dass das angegebene Produkt den EG-Richtlinien: (1) und den einschlägigen Normen: (2) entspricht.

DA OVERENSSTEMMELSESERKLÆRING

Vi erklærer, at det angivne produkt er i overensstemmelse med EF-Direktiverne: (1) og med de relevante Standarder: (2).

NL EEG-VERKLARING VAN OVEREENSTEMMING

We verklaren dat het aangegeven product voldoet aan de EG-Richtlijnen: (1) en aan de relevante Normen: (2).

SV EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE

Vi förklarar att den angivna produkten överensstämmer med EG-Direktiven: (1) och med relevanta Standarder: (2).

NO SAMSVARSERKLÆRING

Vi erklærer at det indikerte produktet overholder EC-Direktivene: (1) og med relevante Standarder: (2).

FI EY-VAATIMUSTENMUKAISUUSVAKUUTUS

Valmistaja vakuuttaa, että tuote täyttää seuraavien EY-Direktiivien määräykset: (1) ja lisäksi vakuuttaa, että yhdenmukaistettuja Standardeja on sovellettu: (2).

ET VASTAVUSDEKLARATSIOON

Kinnitame, et märgitud toode vastab EÜ Direktiividele: (1) ja asjakohastele Standarditele: (2).

LV ATBILSTĪBAS DEKLARĀCIJA

Ar šo mēs ka norādītie produkti ir saskaņā ar EK Direktīvu: (1) un ar saistošajiem standartu dokumentiem: (2).

LT ATITIKTIES DEKLARACIJA

Pareiškiame, kad nurodytas gaminy's atitinka EB Direktyvas: (1) ir atitinkamus Standartus: (2):

PL DEKLARACJA ZGODNOŚCI

Oświadczamy że określony produkt jest zgodny z Dyrektywami UE: (1) i odpowiednimi Normami: (2).

CS PROHLÁŠENÍ O SHODĚ

Prohlašujeme že uvedený výrobek odpovídá Směrnicím ES: (1) a příslušným Normám: (2).

HU MEGFELELŐSÉGI NYILATKOZAT

Kijelentjük hogy az említett termék megfelel az EK Irányelveknek: (1) és a vonatkozó szabványoknak: (2):

SK DEKLARACE O SHODĚ

Prohlašujeme že uvedený výrobek splňuje požadavky Evropské Normy: (1) a příslušných Předpisů: (2).

HR IZJAVA O SUKLADNOSTI

Izjavljujemo da je navedeni proizvod usklađen sa EC direktivama: (1) i odgovarajućim standardima: (2).

SL IZJAVA O USTREZANJU

Izjavljamo da je navedeni izdelek v skladu z Direktivami ES: (1) in veljavnimi Standardi: (2).

EL ΒΕΒΑΙΩΣΗ

Δηλώνουμε ότι το υποδεικνυόμενο προϊόν συμμορφώνεται με τις Οδηγίες ΕΚ: (1) και με τα σχετικά Πρότυπα: (2).

BG ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ

Ние декларираме, че посоченият продукт отговаря на Директивите на ЕО: (1) и приложимите Стандарти: (2).

RO DECLARAȚIE DE CONFORMITATE

Declarăm că produsul indicat este conform cu Directivele CE: (1) și cu Standardele relevante: (2).

TR UYGUNLUK BEYANNAMESİ

Belirtilen ürünün EC Direktiflerine: (1) ve ilgili Standartlara: (2) uygun olduğunu beyan ederiz.

(1) EU Directives 2014/30/EU (EMC); 2011/65/EU + 2015/863/EU (RoHS2);

(2) Harmonised standards EN IEC 61326-1: 2021; EN IEC 61000-3-2: 2019 + A2: 2024; EN 61000-3-3: 2013 + A2: 2021 + AC 2022-01

San Marino, 18 / 04 / 2025
Maurizio De Biagi C.E.O.

DECA s.p.a.
Strada dei censiti, 10 - 47891 Falciano
Rep. San Marino

www.decaweld.com

