

OPERATING INSTRUCTIONS

Los Angeles Abrasion Machine

42-5305, 42-5310, 42-5315

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<p><i>In the interests of improving and updating its equipment, ELE reserves the right to alter specifications to equipment at any time</i> ELE International 2018 ©</p>		

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1 Description

- 1.1 The machine consists of a closed hollow cylindrical steel drum rotating around its horizontal axis on ball bearing units mounted on a sturdy base framework.
- 1.2 The drum is driven via an enclosed belt drive arrangement from an electric motor/gearbox unit situated on the base frame.
- 1.3 Inside the drum is attached a full-length steel shelf, access to the inside of the drum being through a full length opening covered by a dust-proof cover plate. Four nuts and washers retain the plate.
- 1.4 Controls are provided on the right-hand side of the machine at convenient operator height. These consist of start and stop push buttons, and a counter to pre-set the number of revolutions before automatic stop.
- 1.5 A tray for removal of the sample on completion of testing is located on the frame under the drum.
- 1.6 Model 42-5310 is completely enclosed to satisfy CE safety requirements.

2 Installation

2.1 Electrical supply

Safety

Whilst the test is in operation do not remove or open any covers or attempt to adjust any part of the machine.

Ensure all moving parts are thoroughly secured and mains electrical power is isolated before attempting any maintenance.

Ensure all appropriate measures are taken to protect the operator from excessive noise.

See noise certificate (can be supplied on application).

Electrical safety

Warning: Before removing any covers or performing maintenance repair and service, isolate from electrical supply by isolating from mains. Where mains supply is required during these activities, only competent persons should perform the work.

Check that the power supply is compatible with the requirements stated on the label and connect in accordance with IEE regulations or to local requirements.

Local isolation of machine is required.

For full CE compliance it is required that this product is connected to a 100 Amp supply in conjunction with a correct isolator switch. For other installations the unit can be connected to a 13 Amp supply.

The power cable is coded as follows:

Brown wire	L	Live or Power
Blue wire	N	Neutral
Green/Yellow wire	E	Earth or Ground

Important: this equipment must be correctly earthed.

Portable Appliance Tests (PAT)

All ELE designed products are tested for electrical safety prior to sale.

An electrical safety test label is fitted (usually adjacent to the mains input socket).

Should no label be found, please contact ELE Service Department quoting the serial number of the equipment.

Organisations have an obligation to ensure equipment is maintained and is safe for use. Regular PAT testing is one means of ensuring equipment continues to be electrically safe.

Important: do not connect PAT leads to sensitive components such as PCBs, control switches and the like.

DO NOT FLASH TEST ELECTRONIC EQUIPMENT.

If in doubt as to the most suitable connection point (which will usually be an earth stud or an external earth connection), contact ELE Service Department for assistance.

- 2.2 The machine must be sited on a flat, solid floor, or concrete base.
- 2.3 It should be firmly secured in position to the floor, preferably with four M12 (or ½ inch) ragbolts of 150 mm (6 inch) length grouted into the floor, and passing through the angle brackets provided on the base of the machine.

Note. The 42-5310 version will require 300 mm (12 inch) long ragbolts.

3 Operation

- 3.1 Prepare sample as described in the relevant Standard.
- 3.2 Before operating, check that the cover plate fits snugly into the loading aperture in the drum and that the retaining nuts are fully tight permitting no movement of the cover.
- 3.3 Check that the tray sits squarely within its locations on the base framework.
- 3.4 Counter
 - 3.4.1 Omron H7CX

The pre-set value (Green display) is set by pressing the keys (numbered 1 – 6).

The reset key (RST) returns the count value (Red display) to Zero.

- 3.4.2 Omron H7CL

The counter provides nine push-keys for programming and operating. Eight of the keys on the right-hand side are marked with either up or down arrows for incrementing the set value. The ninth key on the extreme left, labelled RST, is used for resetting the pre-set value.

Each of the eight digit-increment keys is associated with the digit immediately above it in the four-digit subsidiary display.



Digit increment keys



This push-key allows the user to set the value of the digit immediately above. When the top push-key is operated repetitively the digit being set will step upwards in value from 0 – 9. The lower key will step downwards in value from 9 – 0.



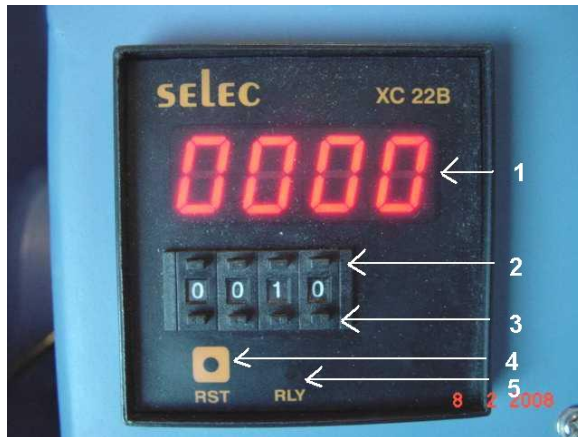
Reset



This push-key allows the user to reset the instrument's main display and output relay.

Note 1: a 50 mA type 'T' fuse protects the counter.

3.4.3 Selec XC 22B



1. Shows the current live count number.
 2. These buttons increase the count number required.
 3. These buttons decrease the count number required.
 4. The reset button will set the live count number back to zero and eliminate the RLY light ready for the next test.
 5. The RLY light will show when the counter has reached the nominated count number and then extinguish when the reset button is pressed ready for the next.
- 3.5 The machine will automatically stop after the pre-set number of revolutions. If it is required to stop before this, the large red "E" stop button may be pressed at any time. Model 42-5310, the drum will also automatically stop if either of the access doors are opened.
- 3.6 To change the contents of the drum, undo the nuts and remove the cover plate. When refitting ensure that the gasket is in place.
- 3.7 Unload by removing the cover plate and carefully revolving the drum by hand, allowing the drum contents to fall into the tray. The tray should be drawn forward slightly on its runner to prevent spillage.
- 3.8 When loading and unloading, or when not in use, switch off electrical current at mains connection.

4 Maintenance

- 4.1 Before any maintenance procedures, isolate unit from mains supply.
- 4.2 Periodically check the tension of the belt drive. This is correct when there is no belt slip on initial machine start up.
- 4.3 To tension the belts, slacken the 4 bolts securing the motor gear unit to the frame, pull the unit back until the belt tension is correct ensuring that the unit is kept square to the frame. Retighten the securing bolts.
Model 42-5310 will require the removal of the side inspection cover for access to the motor fixing bolts.
Note: do not over tension the belts.
- 4.4 Occasionally grease the two drum main bearings via the grease nipples provided.
The geared motor unit gearbox is filled with the correct quantity and grade of oil during manufacture and should not require further attention.

5 Spares and Accessories

Please refer to ELE International for details.

DIRECTIVE ON WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)



Electrical equipment marked with this symbol may not be disposed of in European public disposal systems after 12 August of 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of life equipment to the Producer for disposal at no charge to the user.

Note: For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment for proper disposal.

Important document. Retain with product records.

GERMAN

Elektrogeräte, die mit diesem Symbol gekennzeichnet sind, dürfen in Europa nach dem 12. August 2005 nicht mehr über die öffentliche Abfallentsorgung entsorgt werden. In Übereinstimmung mit lokalen und nationalen europäischen Bestimmungen (EU-Richtlinie 2002/96/EC), müssen Benutzer von Elektrogeräten in Europa ab diesem Zeitpunkt alte bzw. zu verschrottende Geräte zur Entsorgung kostenfrei an den Hersteller zurückgeben.

Hinweis: Bitte wenden Sie sich an den Hersteller bzw. an den Händler, von dem Sie das Gerät bezogen haben, um Informationen zur Rückgabe des Altgeräts zur ordnungsgemäßen Entsorgung zu erhalten.

Wichtige Informationen. Bitte zusammen mit den Produktinformationen aufbewahren.

FRENCH

A partir du 12 août 2005, il est interdit de mettre au rebut le matériel électrique marqué de ce symbole par les voies habituelles de déchetterie publique. Conformément à la réglementation européenne (directive UE 2002/96/EC), les utilisateurs de matériel électrique en Europe doivent désormais retourner le matériel usé ou périmé au fabricant pour élimination, sans frais pour l'utilisateur.

Remarque : Veuillez vous adresser au fabricant ou au fournisseur du matériel pour les instructions de retour du matériel usé ou périmé aux fins d'élimination conforme.

Ce document est important. Conservez-le dans le dossier du produit.

ITALIAN

Le apparecchiature elettriche con apposto questo simbolo non possono essere smaltite nelle discariche pubbliche europee successivamente al 12 agosto 2005. In conformità alle normative europee locali e nazionali (Direttiva UE 2002/96/EC), gli utilizzatori europei di apparecchiature elettriche devono restituire al produttore le apparecchiature vecchie o a fine vita per lo smaltimento senza alcun costo a carico dell'utilizzatore.

Nota: Per conoscere le modalità di restituzione delle apparecchiature a fine vita da riciclare, contattare il produttore o il fornitore dell'apparecchiatura per un corretto smaltimento.

Documento importante. Conservare con la documentazione del prodotto.

DANISH

Elektriske apparater, der er mærket med dette symbol, må ikke bortskaffes i europæiske offentlige affaldssystemer efter den 12. august 2005. I henhold til europæiske lokale og nationale regler (EU-direktiv 2002/96/EF) skal europæiske brugere af elektriske apparater nu returnere gamle eller udtjente apparater til producenten med henblik på bortskaffelse uden omkostninger for brugeren.

Bemærk: I forbindelse med returnering til genbrug skal du kontakte producenten eller leverandøren af apparatet for at få instruktioner om, hvordan udtjente apparater bortskaffes korrekt.

Vigtigt dokument. Opbevares sammen med produktdokumenterne.

SWEDISH

Elektronikutrustning som är märkt med denna symbol kanske inte kan lämnas in på europeiska offentliga sopstationer efter 2005-08-12. Enligt europeiska lokala och nationella föreskrifter (EU-direktiv 2002/96/EC) måste användare av elektronikutrustning i Europa nu återlämna gammal eller utrangerad utrustning till tillverkaren för kassering utan kostnad för användaren.

Obs! Om du ska återlämna utrustning för återvinning ska du kontakta tillverkaren av utrustningen eller återförsäljaren för att få anvisningar om hur du återlämnar kasserad utrustning för att den ska bortskaffas på rätt sätt.

Viktigt dokument. Spara tillsammans med dina produktbeskrivningar.

SPANISH

A partir del 12 de agosto de 2005, los equipos eléctricos que lleven este símbolo no deberán ser desechados en los puntos limpios europeos. De conformidad con las normativas europeas locales y nacionales (Directiva de la UE 2002/96/EC), a partir de esa fecha, los usuarios europeos de equipos eléctricos deberán devolver los equipos usados u obsoletos al fabricante de los mismos para su reciclado, sin coste alguno para el usuario.

Nota: *Sírvase ponerse en contacto con el fabricante o proveedor de los equipos para solicitar instrucciones sobre cómo devolver los equipos obsoletos para su correcto reciclado.*

Documento importante. Guardar junto con los registros de los equipos.

DUTCH

Elektrische apparatuur die is voorzien van dit symbool mag na 12 augustus 2005 niet meer worden afgevoerd naar Europese openbare afvalsystemen. Conform Europese lokale en nationale wetgeving (EU-richtlijn 2002/96/EC) dienen gebruikers van elektrische apparaten voortaan hun oude of afgedankte apparatuur kosteloos voor recycling of vernietiging naar de producent terug te brengen.

Nota: *Als u apparatuur voor recycling terugbrengt, moet u contact opnemen met de producent of leverancier voor instructies voor het terugbrengen van de afgedankte apparatuur voor een juiste verwerking.*

Belangrijk document. Bewaar het bij de productpapieren.

POLISH

Sprzęt elektryczny oznaczony takim symbolem nie może być likwidowany w europejskich systemach utylizacji po dniu 12 sierpnia 2005. Zgodnie z europejskimi, lokalnymi i państwowymi przepisami prawa (Dyrektywa Unii Europejskiej 2002/96/EC), użytkownicy sprzętu elektrycznego w Europie muszą obecnie przekazywać Producentowi stary sprzęt lub sprzęt po okresie użytkowania do bezpłatnej utylizacji.

Uwaga: *Aby przekazać sprzęt do recyklingu, należy zwrócić się do producenta lub dostawcy sprzętu w celu uzyskania instrukcji dotyczących procedur przekazywania do utylizacji sprzętu po okresie użytkowania.*

Ważny dokument. Zachować z dokumentacją produktu.

PORTUGUESE

Qualquer equipamento eléctrico que ostente este símbolo não poderá ser eliminado através dos sistemas públicos europeus de tratamento de resíduos sólidos a partir de 12 de Agosto de 2005. De acordo com as normas locais e europeias (Directiva Europeia 2002/96/EC), os utilizadores europeus de equipamentos eléctricos deverão agora devolver os seus equipamentos velhos ou em fim de vida ao produtor para o respectivo tratamento sem quaisquer custos para o utilizador.

Nota: *No que toca à devolução para reciclagem, por favor, contacte o produtor ou fornecedor do equipamento para instruções de devolução de equipamento em fim de vida para a sua correcta eliminação.*

Documento importante. Mantenha junto dos registos do produto.