

## OPERATING INSTRUCTIONS

### Electromagnetic Sieve Shaker for 200mm or 8 inch and 300mm or 12 inch diameter sieves

**80-0200**

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<i>In the interests of improving and updating its equipment, ELE reserves the right to alter specifications to equipment at any time</i> <b>ELE International 2016 ©</b>		

**Contents**

	<b>Section</b>	<b>Page</b>
<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Specification</b>	<b>4</b>
<b>3</b>	<b>Installation</b>	<b>4</b>
<b>4</b>	<b>Controls</b>	<b>5</b>
<b>5</b>	<b>Operation</b>	<b>7</b>
<b>6</b>	<b>Maintenance</b>	<b>8</b>
<b>7</b>	<b>Trouble Shooting</b>	<b>8</b>
<b>8</b>	<b>Spares and Accessories</b>	<b>8</b>
	WEEE Directive	

## 1 Introduction

- 1.1 The sieve shaker is driven by an electromagnetic drive system which makes it very reliable due to minimal moving parts. The sound output is also reduced compared to conventional sieve shakers. A remote control module allows easy programming for the various facilities available with this product.

The actual sieving action imparts a circular motion to the material being sieved so that it makes a slow progression over the surface of the sieve. At the same time, a rapid vertical movement agitates the sample which assists in clearing the apertures to minimise blinding of sieve apertures.

Sieving times are fully variable from 1 to 999 minutes. The shaker also has an intermittent time mode where the sieving process can be punctuated with rest periods during the sieving process.

The amplitude or intensity of the sieving process can also be adjusted by the user to make sure that the sieving process is completed to the required conclusion.

The control module can be placed on a bench or mounted on a wall.

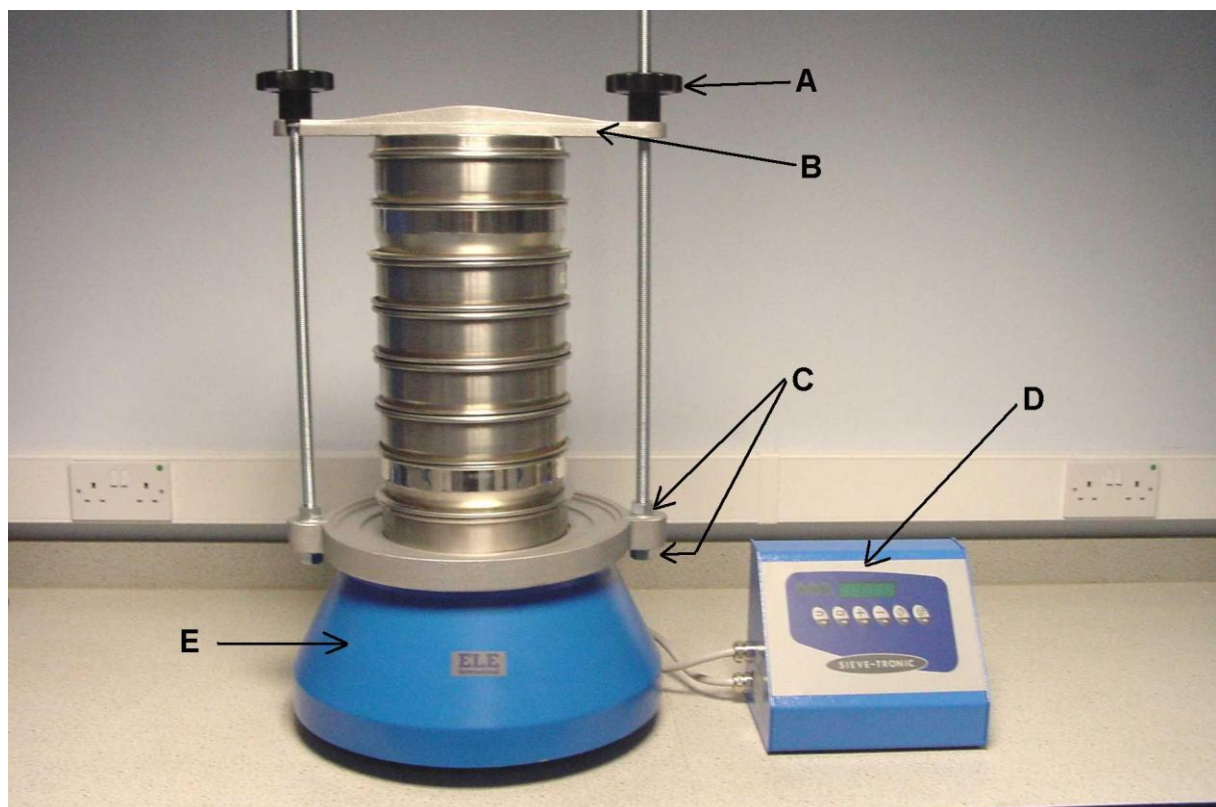


Figure 1

## 1.2 Safety

This equipment has been tested and is safe to use providing that the proper safety precautions are observed:

***Do not use this equipment in any manner other than as specified in this user manual; misuse may result in serious injury to personnel.***

***Do not attempt to operate the equipment with covers removed.***

***Only connect to the correct electrical supply. Equipment voltage setting is stated on the label on the appliance.***

***Refer to Installation section before installing machine.***

***Do not operate the unit with wet hands.***

Please read this entire manual before unpacking, setting up or operating this equipment. Pay particular attention to all **DANGER** and **CAUTION** statements. Failure to do so could result in serious injury to the operator, or other personnel, or damage to the equipment.

## 1.3 Key to hazard warning statements

**DANGER :** Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION :** Indicates a potentially hazardous situation that may result in minor or moderate injury.

**Important Note :** Information that requires special emphasis.

**Note :** Information that supplements points in the main text.

## 2 Specification

Dimensions (mm)	Sieve shaker	Control module
Width	440	280
Depth	420	170
Height	1200	200
Weight (Kg)	38	5
Acceptable sieve sizes	200 & 300 mm or 8 and 12 inch dia.	
Maximum operational temperature		+5 to +40°C
Maximum operational humidity		30 to 95%
Sound output	LAeq @ 1m distance	59 dB(A)
	LWA	67 dB(A)

**Maximum allowable sample weight including sieves 20 kgs**

## 3 Installation

3.1 **DANGER :** It is recommended that the installation is carried out by a competent person.

3.1.1 **DANGER :** 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. It is recommended to use an RCCB (Residual Current Circuit Breaker) and a fused supply for the electrical supply for this product.

This product may be operated through a standard 13 amp socket outlet when fitted with an appropriate 3 pin plug fused in accordance with the label.

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 Note** : This equipment must be correctly grounded (earthed).

### 3.1.2 Portable Appliance Tests (PAT)

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

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 Note** : **Do not connect PAT leads to sensitive components such as PCBs, control switches, etc.**

### **DO NOT FLASH TEST ELECTRONIC EQUIPMENT.**

**If in doubt as to the most suitable ground connection point (which will usually be a screw or metallic part) then contact ELE Service Department for assistance.**

- 3.2 **CAUTION** : This product is heavy and care must be taken when lifting it. Do not attempt to lift it with only one person. Use sufficient resources to lift it safely in order to avoid injury or damage to the equipment.
- 3.3 **CAUTION** : Do not power up or run the sieve shaker before reading and fully understanding Section 4 relating to the use of the controls for this product.
- 3.4 **CAUTION** : Ensure all appropriate measures are taken to protect the operator from excessive noise by using good quality industrial ear defenders.
- 3.5 **Important Note** : Do not run the sieve shaker empty as this could seriously damage the vibrating system inside the shaker and invalidate the warranty for this product.
- 3.6 Position the shaker on a suitable level rigid surface. It is important that the shaker is on a level surface ensuring the even distribution of the sample over the sieves during the sieving process.
- 3.6.1 Place the four nuts supplied onto the threaded rods, two above and two below the vibrating base unit of the shaker (C). Finally tighten the nuts to lock the two threaded rods in position to the vibrating base unit.

## **4 Controls**

- 4.1 The sieve shaker has the user controls located in the main control module.
- 4.2 Mains power switch is located on the right hand side of the main control module and the OFF position is marked ( O ) and the ON is marked ( I ).
- 4.3 Any changes made to the various user definable options will be stored in memory when the shaker is switched off.
- 4.4 For a full guide to the front panel controls and display see Figures 2 and 3.



Figure 2

- 1) Controls and selects or views in sequence the various options required to change operational parameters (see list of options in Figure 3).
- 2) Once an option has been selected this control button will allow the user to enter the option and then further pushes will select the required digit to be changed which will be flashing. To exit the option press the (2) button until the display stops flashing. The main options can be changed again with the (1) button.
- 3) Allows the user to increase values when in a selected option.
- 4) Allows the user to decrease values when in a selected option.
- 5) Switches ON the sieving process when ready. This button can only be used when L is showing in the display.
- 6) Stops the sieving process.
- 7) When illuminated shows the sieve shaker is running.
- 8) When illuminated shows the continuous mode is selected.
- 9) This indicator illuminates only when data is being changed and stored.
- 10) Digital display screen.

Options	Description	Values
<b>L</b>	Indicates only the countdown in minutes to the end of the test	---
<b>T</b>	Indicates OR selects sieving duration in minutes	1 - 999 min
<b>H</b>	Indicates OR selects level of vibration	0 – 99
<b>F</b>	Indicates OR selects the ON time when using intermittent mode	1 – 999 sec
<b>C</b>	Indicates OR selects the intermittent mode ON or OFF	0 = Intermittent 1 = Continuous

Figure 3

4.5 **Important Note** : Make sure the shaker does not make a metallic banging sound as this will damage the unit. If this should occur then immediately reduce the number in option “H” in Figure 3 for decreasing the sieving vibration intensity.

4.6 **Note** : When using the intermittent mode option the OFF period is fixed at two minutes and is not user changeable.

4.7 It is possible to increase or decrease the vibration power while the shaker is running. Press button 1 and select H, then press button 2 until the digit you want to change is flashing, then press 3 or 4 depending if the vibration power needs to be increased or decreased. As the digit changes the vibrating power will change accordingly.

## 5 Operation

5.1 Apply power to the sieve shaker by switching the mains switch on the control module to ( I ).

5.2 Sieve stacking (see Figure 1)

Place the receiver centrally into the appropriate recess in the lower vibrating location plate. Stack the required number of sieves on top of the receiver. Place the sample in the top sieve and fit the lid.

5.3 Fitting the Clamp Plate (B) (see Figure 1)

Locate the clamp plate onto the two rods and slide down squarely onto the lid of the sieve stack.

Carefully tighten the hand wheels (A) simultaneously to ensure that the clamp plate is located square on the lid.

The unit is supplied with a pair of hand wheels for quick adjustment. Standard threaded hand wheels are also available as an optional extra. Either can be used depending upon requirements.

5.4 Running the test

5.4.1 Set up the required sieving program as described in Section 4.

5.4.2 Ensure the mains switch is on (display should be showing “L” on the left hand side, and a number on the right of the screen will be the current sieving time set in memory).

5.4.3 Press the control button (5) to start the sieving action. A flashing dash should be visible in the middle of the display (10), also the indicator (7) will be illuminated.

- 5.4.4 The display will count down in minutes on the right hand side and stop after showing the final minute. When the test is finished the time also resets to the current time set in memory.
- 5.4.5 At the end of the test the clamp plate (B) and sieve stack may be removed in the reverse order to which they were assembled.
- 5.4.6 The sieve shaker may also be stopped at any time during operation by pressing the (6) button, or in an emergency switch off the shaker by using the mains switch on the side of the control module.

## 6 Maintenance

- 6.1 The sieve shaker is maintenance free other than keeping it clean and free from debris, especially with regard to the recesses in the lower vibrating plate. The external surfaces may be cleaned using a mild detergent solution. Under no circumstances should solvents be used as they will damage the paint finish.
- 6.2 If at any time the shaker makes a strange noise which cannot be rectified by reducing the vibration intensity, contact ELE for further information. Do not run the sieve shaker in this state as serious damage to the internal mechanisms could occur.

## 7 Trouble Shooting

**DANGER :** This work must only be carried out by a competent and approved person

**DANGER :** Disconnect mains electrical supply before removing any covers.


Fault	Possible Cause	Check
<b>With main switch ON the shaker does not start</b>	No Supply.	Check main supply is correct.
	Fuses blown.	Replace fuses with correct capacity. Fuses are located inside the control module.
<b>The display is on and when pressing button (5) the shaker does not start</b>	Wire connection failure inside the control module.	Open the control module case and check the various wire connections.
	Failure of the electromagnetic unit.	Contact ELE service department.

## 8 Spares and Accessories

For spares and accessories please contact ELE International.



## DIRECTIVE ON WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)

	<p>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.</p> <p><b>Note:</b> For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment for proper disposal.</p> <p><b>Important document. Retain with product records.</b></p>
<p><b>GERMAN</b></p>	<p>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.</p> <p><b>Hinweis:</b> 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.</p> <p><b>Wichtige Informationen. Bitte zusammen mit den Produktinformationen aufbewahren.</b></p>
<p><b>FRENCH</b></p>	<p>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.</p> <p><b>Remarque :</b> 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.</p> <p><b>Ce document est important. Conservez-le dans le dossier du produit.</b></p>
<p><b>ITALIAN</b></p>	<p>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.</p> <p><b>Nota:</b> 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.</p> <p><b>Documento importante. Conservare con la documentazione del prodotto.</b></p>
<p><b>DANISH</b></p>	<p>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.</p> <p><b>Bemærk:</b> I forbindelse med returnering til genbrug skal du kontakte producenten eller leverandøren af apparatet for at få instruktioner om, hvordan udtjente apparater bortskaffes korrekt.</p> <p><b>Vigtigt dokument. Opbevares sammen med produktdokumenterne.</b></p>

#### 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 uttrangerad 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.**