

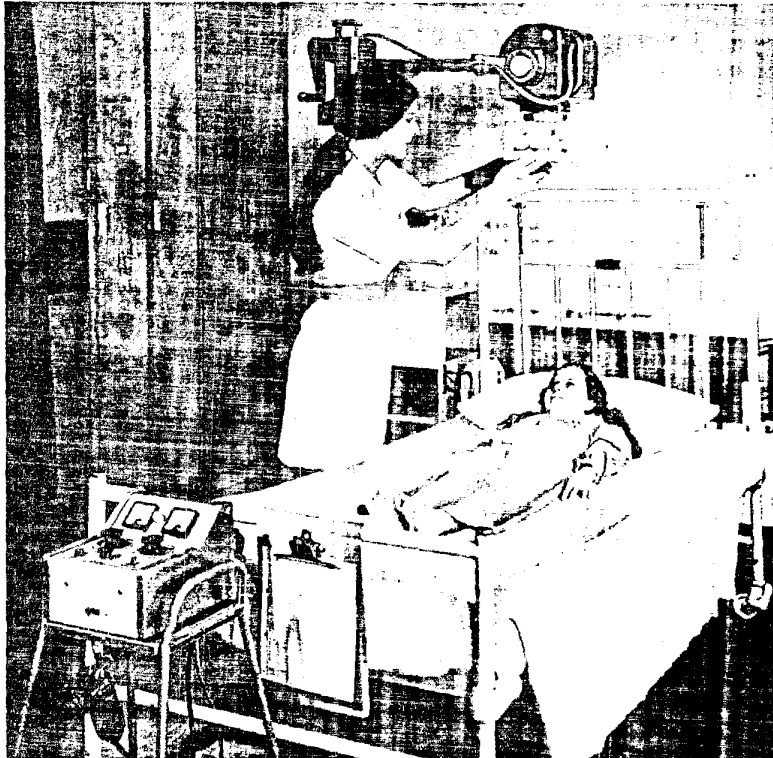
KEEP IT SECRET
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MX2 Portable X-ray Unit

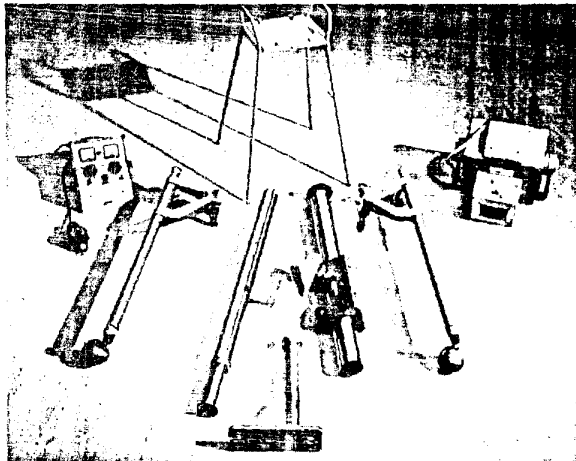


mobile that is truly portable

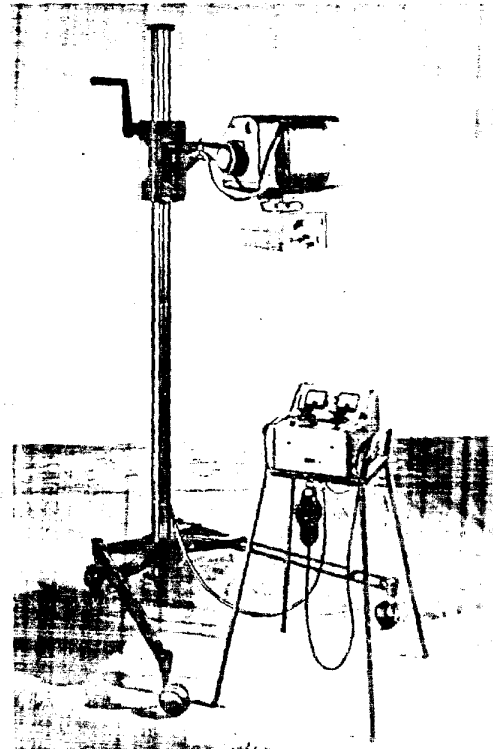
HIGH OUTPUT
10mA at 83kV - 20mA at 76kV



The MX2 Portable is a powerful, practical X-ray unit designed for long service in tough conditions. The underlying concepts of mechanical and radiographic soundness that characterise the GEC Medical MX2 portable X-ray unit, have made it the most widely used unit of its type in the world. This enviable reputation enhanced by the latest developments in component technology and engineering, ensures the utmost reliability under difficult conditions. Much in demand in hospital wards and casualty departments the MX2 is also ideal for emergency use. The unit operates efficiently from a normal mains supply, and yet is small enough to be easily handled in an average size room. Used in fracture clinics or as a standby in the X-ray department, this versatile unit is indispensable. Always reliable, the MX2 has consistently proved its value for remote field operations, mission hospitals and emergency situations where maintenance facilities are scarce.



For transportation, the unit may be quickly and easily dismantled into a number of separate conveyable components. On arrival at the site, the components can be re-assembled in a matter of minutes.



Compact, high output tubehead

The small powerful tubehead is capable of outputs of 10mA at 83kV and 20mA at 76kV, making it suitable for a very wide range of radiographic procedures. Fluoroscopy is also possible with the MX2 at 3mA and 88kV, and this is continuous for periods up to fifteen minutes under average conditions.

The Monobloc tubehead is fully X-ray protected and contains the X-ray tube, filament and H.T. transformers. It is oil impregnated and shielded with lead to comply with the international recommendations of protection and the (British) Code of Practice. The X-ray tube itself is a Machlett 1.5mm single focus type generously rated and guaranteed to give a long and reliable service. It has a permanent 1.5mm A1 filter fitted.

The tubehead is mounted on a gimbal, on the demountable support column, and permits free rotation about its long and short axis. Angulating scales are fitted at each side of the tubehead.

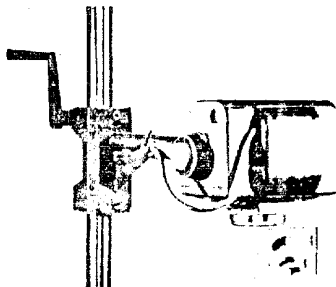
A choice of type of Diaphragm

The tubehead is designed to accept a simple slide-in plate diaphragm or a light beam diaphragm.

The simple type uses diaphragms which slide over the tubehead aperture and limit the X-ray beam to the area of the film in use. A colour-code, read in conjunction with the exposure chart, indicates the correct diaphragm to use for the various regions of the body.

The detachable telescopic centre finder is hinged, enabling it to be moved out of the X-ray beam during an exposure.

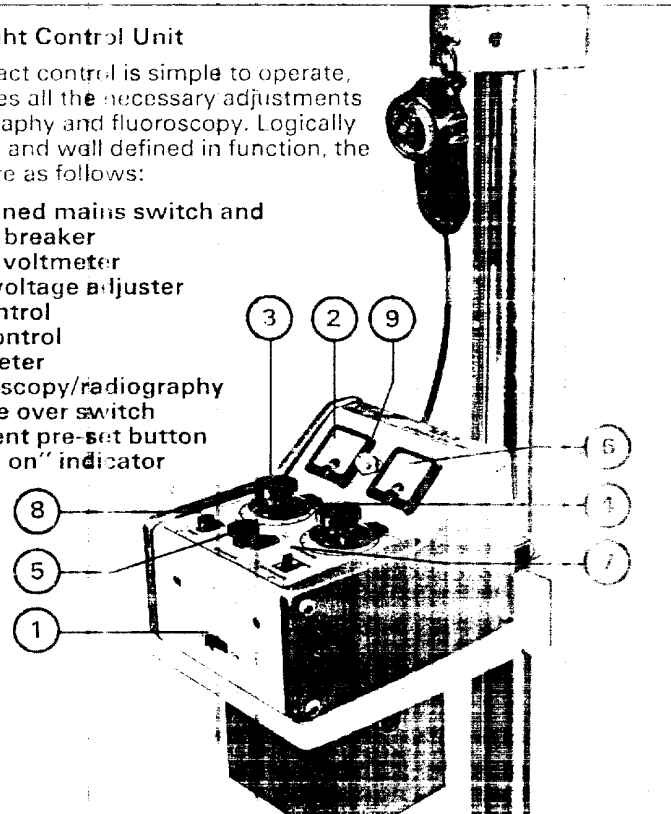
The compact light beam diaphragm has been especially designed for radiography with the MX2, and can be supplied as an optional extra.



Lightweight Control Unit

The compact control is simple to operate, yet provides all the necessary adjustments for radiography and fluoroscopy. Logically positioned and well defined in function, the controls are as follows:

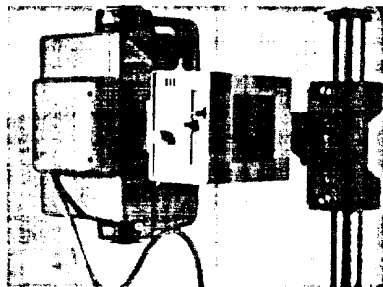
1. Combined mains switch and circuit breaker
2. Mains voltmeter
3. Main voltage adjuster
4. kV Control
5. mA Control
6. mA Meter
7. Fluoroscopy/radiography change over switch
8. Filament pre-set button
9. "X-ray on" indicator



The mains voltmeter not only indicates the supply voltage, but also provides an accurate means of setting the required tube current when the filament pre-set button is depressed.

The exposure time is selected and controlled by a separate handswitch attached to the control by a long coiled flexible lead. The extensible handswitch cable enables the operator to be positioned a safe distance from the X-ray tubehead during an exposure. The dial of the handswitch is marked from 0.1 seconds up to a maximum of 10 seconds exposure.

The control unit, supported by a portable tubular stand, is positioned at a suitable working height. If required, a special support tray is available which permits the control unit to be carried on the tube column, thus achieving single unit mobility. This portable tube stand is light in weight, provides a rigid support for the X-ray tubehead, and is quick and easy to dismantle. The tubehead unit is supported by the gimbal located on a crossarm, and held on the tube column by a carrier. A crank arm winds the crossarm up and down the column, with a range of movement giving ample access to film distance when examining patients confined to bed. The tubehead gimbal permits rotation of 360° around the short axis, and 180° about the long axis. Efficient castors on the column base give maximum mobility when positioning or moving round the hospital. Doorways and lift entrances are negotiated with ease due to the compact dimensions of the unit.



Technical information

Mains Supply 200v at 14 amps
50 or 60 Hz
250v at 10 amps
50 or 60 Hz

For supplies other than 200-250 volt A.C. ask for details for accessories or special operating conditions. Information regarding suitable electrical generating equipment is available on request.

Radiographic

Output 10mA at 53 to 83kV

15mA at 50 to 80kV

Fluoroscopic Output 20mA at 46 to 76kV
3mA at 58-88kV

Continuously up to fifteen minutes

Electronic

Timer Range 0.1 to 10.0 seconds

X-ray Tube Machlett single focus stationary anode tube with 1.5 mm foci

Finish

Light Grey enamel and chromium plate

Ordering information

Portable X-ray Unit Type MX2
Comprising shockproof tubehead in supporting gimbal, demountable mobile tubestand, control unit with separate time exposure hand switch, set of 4 diaphragms, centre finder, inter-connecting leads and supporting tubular stand for control unit

Cat. No. 116/1

Footswitch - an auxiliary control for fluoroscopy

Cat. No. 116/3

Adjustable light beam diaphragm

Cat. No. 116/7

Mounting adaptor for light beam diaphragm

Cat. No. 116/8

Support Tray for Control Unit - attachment to tubestand column

Cat. No. 116/9

Fluoroscopic Stand complete with fluorescent screen breathguard and protective apron (but less MX2 Unit)

Cat. No. 116/10

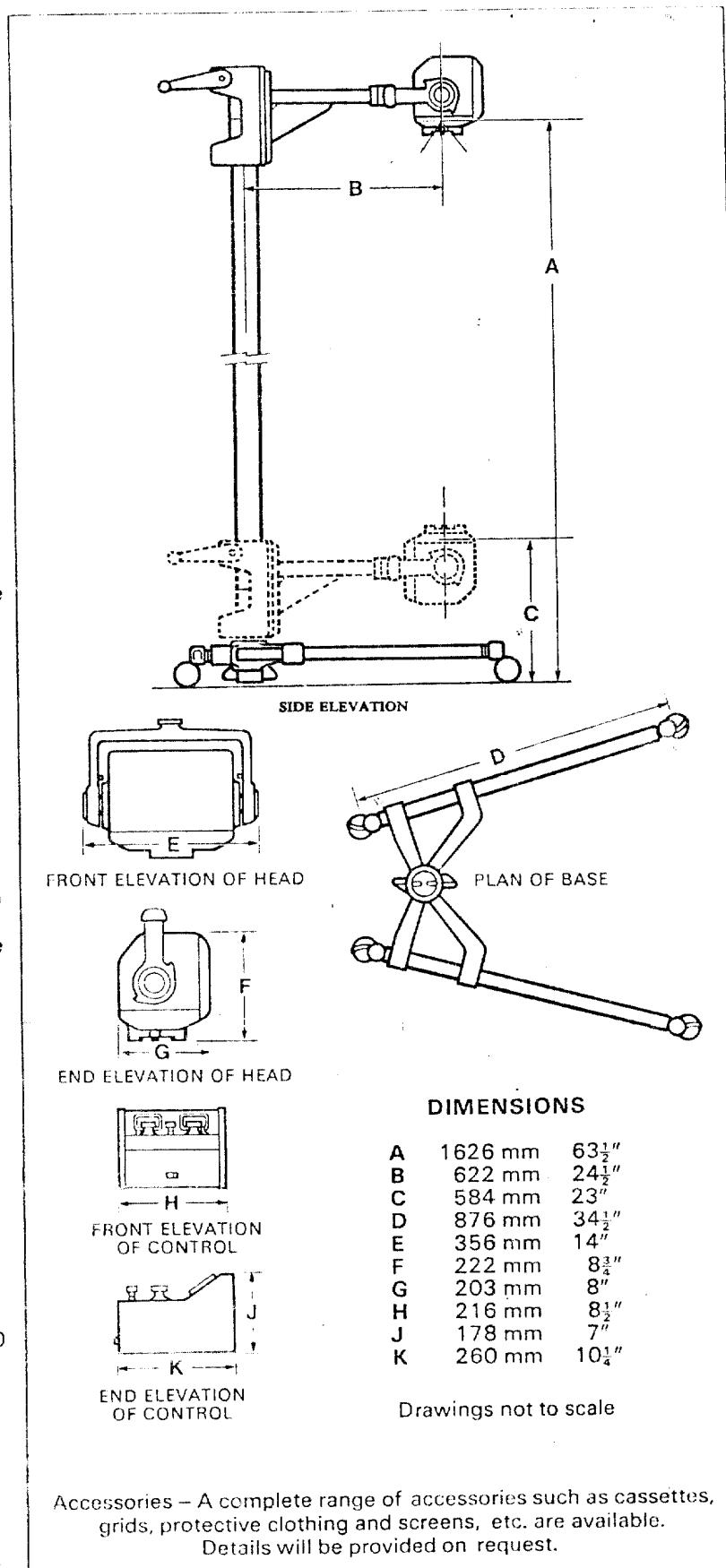
Fluoroscopic Stand as above but complete with MX2 Unit

Cat. No. 116/11

NOTE The Fluoroscopic Stand Units are supplied to special order only.

Adjustable Tube Diaphragm for use with fluoroscopic stand

Cat. No. 116/15



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GE Medical Equipment Limited

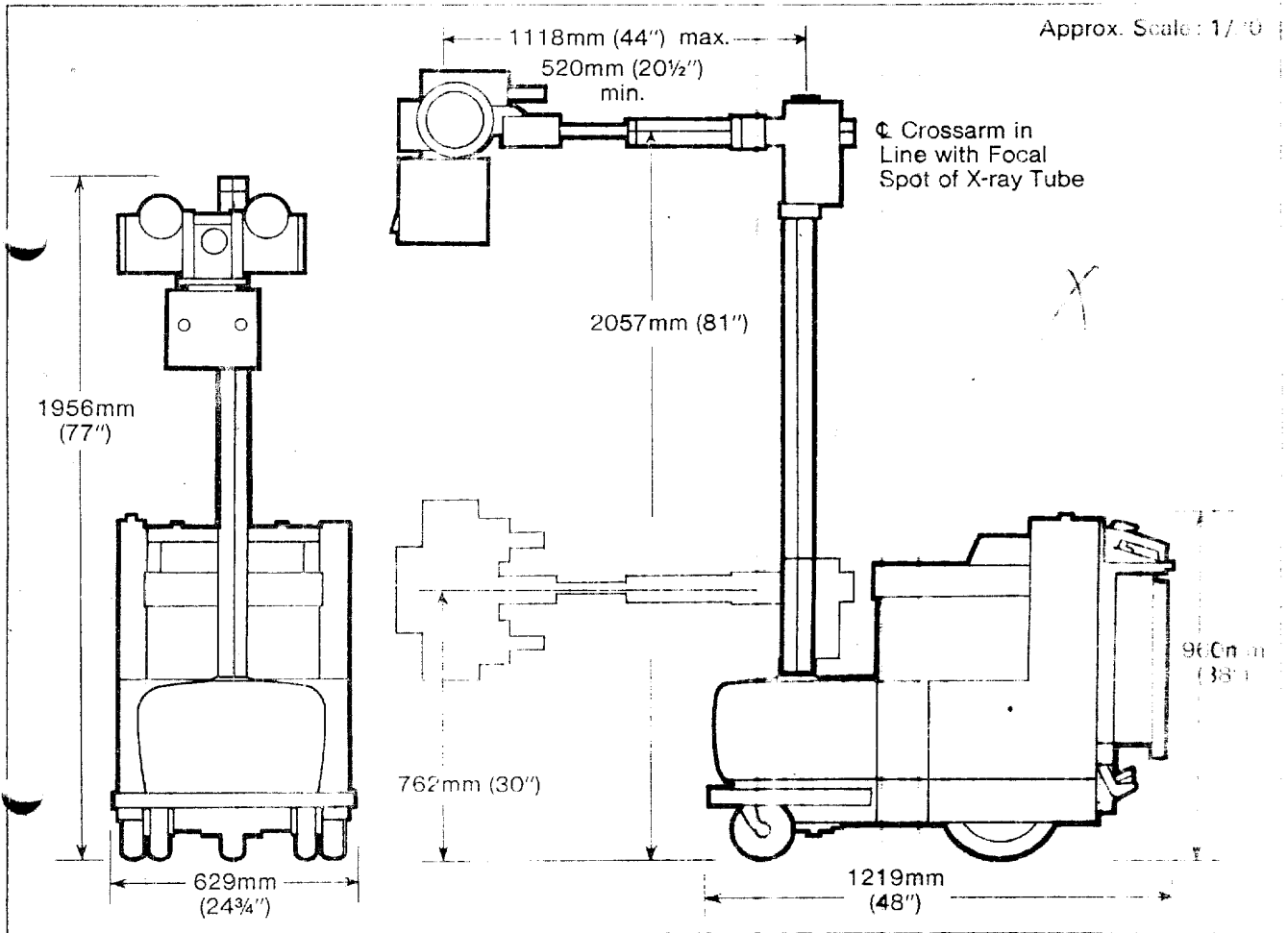
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Specifications:

Mains supply:
 AC single phase 100 - 250V
 50/60Hz
Permissible line fluctuation:
 ±10% of nominal voltage.
kV range:
 Continuous from 30 - 125kV
mAs range:
 0.5 - 50mAs in 16 steps (It is recommended that a maximum of 30mAs should apply below 100kV).
Capacitor charging time:
 20 seconds (approximately

depending on mains impedance).
Automatic line voltage compensation.
Tube current:
 Range 0.5 - 5mAs
 Max 540 mAp at 55kV (50Hz)
 65kV (60Hz).
 Range 6 - 50mAs
 Max 450mAp at 50kV (50Hz)
 60kV (60Hz).
Capacitor:
 1μF (1kV drop per mAs during exposure).

X-ray tube:
 Rotating anode X-ray tube.
Max. operating voltage: 125kV.
Focal spot: 1.2mm x 1.2mm nominal.
Anode heat storage capacity: 80,000 HU.
Overload protection:
 Automatic for each exposure:
 thermal cut-out prevents tube shell overheating.
Collimator:
 Fitted with light beam, lamp timer, safety shutter, inclinometer and FFD tape.



All equipment manufactured and supplied by this Company has been tested and examined to ensure as far as is reasonably practicable, that it is safe and without undue risk to health when properly used. The conditions under which our equipment will operate safely and without undue risk to health are specified in our Operating Instructions and users should ensure that they fully understand the technical conditions regarding safe operating of the equipment and are conversant with and observe Regulations and Codes of Practice which relate to X-ray Equipment. It is also the duty of the employer to ensure that his employees fully understand the Regulations and Operating Instructions (UK Health and Safety at Work etc. Act 1974)

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Publication No. 211 - L34P - BK 11 - 3

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The ultimate in common-sense, value-for-money engineering

An outstanding unit built to meet the needs of modern mobile radiography

In the ward:

Bedside positioning is made easier due to the compact size and manual/motor propulsion system of the CD 38S. Whether the unit is positioned at the side or foot of the bed, the extensive range of movement of the X-ray tube provides excellent coverage of the patient. The cassette container at the rear of the unit provides transit and storage for a wide range of cassettes and other accessories which may be required.

In the X-ray department:

The output, manoeuvrability and range of X-ray tube movement make the CD 38S an effective standby unit in the X-ray department where it can be used in conjunction with a patient trolley.

Tube movements:

The motorised vertical X-ray tube movement obviates the necessity for counterweighting and allows the total length of the column to be used. A unique telescopic column enables the height to be kept to 1956 mm (77"). This allows the unit to pass through doorways, etc. yet when in use provides a maximum focus to floor distance of 2057 mm (81").

Pushbuttons provided at the X-ray tube mounting and repeated on the control panel allow the tube to be driven to the required height above the patient.

The X-ray tube crossarm also has a telescopic movement enabling the focal spot to be positioned 1118 mm (44") from the centre of the support column.

The X-ray tube can be rotated 360° about the vertical axis of the crossarm. The angle of tilt is indicated on an inclinometer conveniently positioned on the tube mounting. Additionally, the whole tube column can be rotated around its axis.

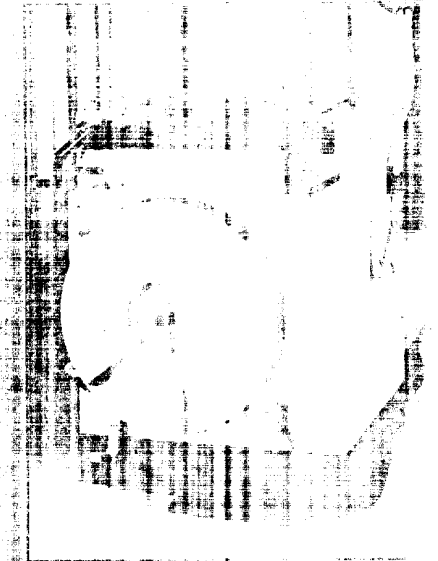
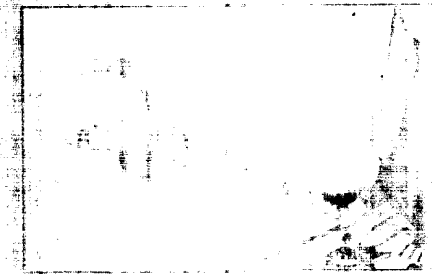
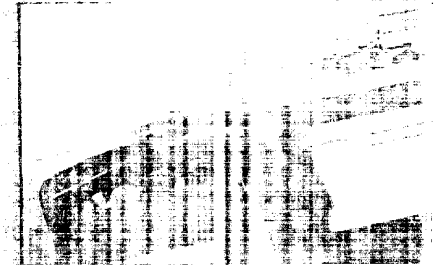
Propulsion:

Two 12 volt batteries provide the drive power which is transmitted to

the floor through a single wheel. This wheel is raised and lowered by foot pedals. When the drive wheels are in the raised position the operator is able to ease the unit manually into the desired position without any friction from the drive mechanism. Powerful disc brakes are operated by a single lever conveniently positioned by the operator's hand. Controls are provided for forward and reverse drive and the unit is power boosted to negotiate slopes and ramps.

When fully charged the battery system allows the unit to be driven up to 3000 miles. When recharging becomes necessary the unit can be

readily plugged into any power supply and the built-in 5 ampere power taken over. The unit is fitted to the car with a special X-ray tube rig to allow the tube to be removed without damage to the unit. The tube cover will slide over the tube and be held in place through doorways. The bumpers and into and out of the tube bumper bar provide extra protection. A key switch is provided on the unit when not in use.





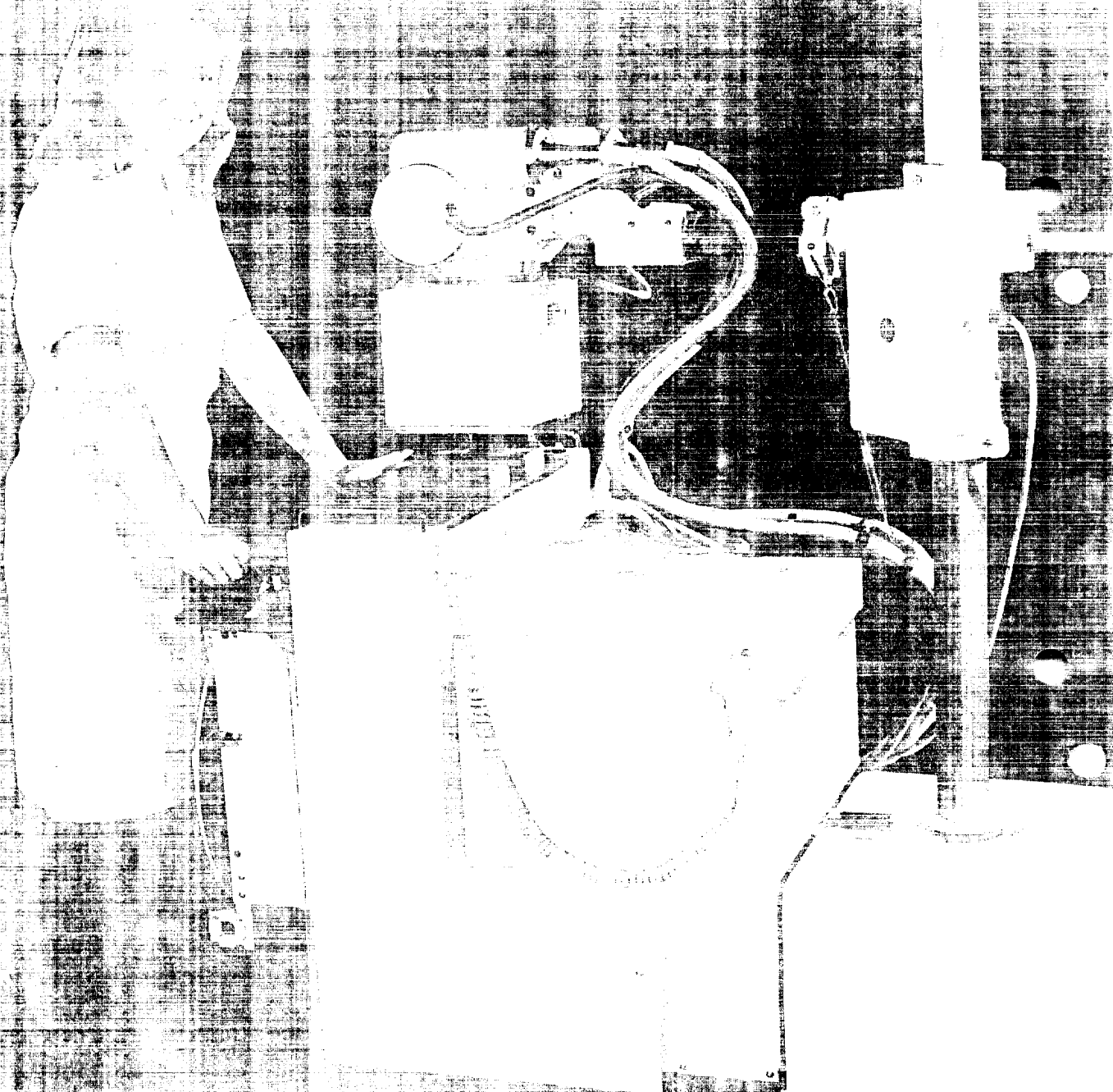
CD 385
mobile
capacitor discharge
X-ray unit

Hickel

D38S

Mobile X-ray unit

Think with the radiographer in mind



X-ray controls:

All X-ray controls are grouped in a practical working manner at the front of the unit with a hinged panel providing protection during transportation or when the unit is stationary. A large digital kV meter is provided. Connection to the main supply is by a 10 m (33') cable which is wound on a slim drum mounted on the cassette box. The handswitch has a long coiled cable enabling the operator to stand at a safe distance during an exposure.

Motor drive unit:

- 1 Drive unit "ON/OFF" keyswitch.

- 2 Slow/fast switch.
- 3 Forward drive switch.
- 4 Drive handle (reverse drive switch is underneath handle).
- 5 Brake handle (brake lever is underneath handle).

Mains supply:

- 6 'Control on' pushbutton.
- 7 'Mains on/off' indicator.
- 8 'Control off' pushbutton.
- 9 'Control on/off' indicator.

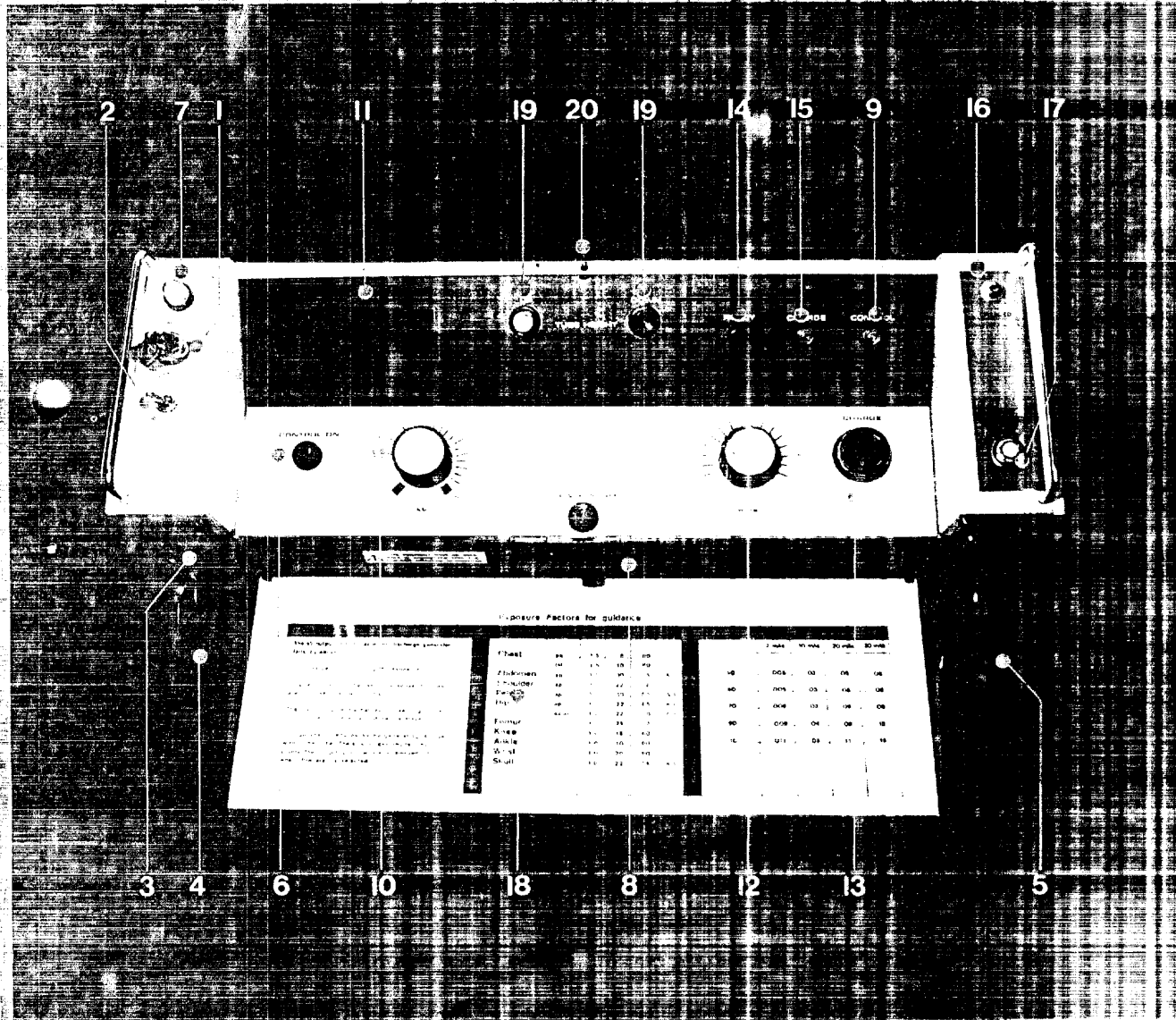
Exposure:

- 10 kV selector.
- 11 kV digital display.

- 12 mA selector.
- 13 Capacitor charge pushbutton.
- 15 'System ready' indicator.
- 16 'Capacitor charged' indicator (visible when lid is open or closed).
- 17 'X-rays on' indicator.
- 18 Lid of control showing exposure factor guide.

Tube positioning:

- 19 X-ray tube 'raise' and 'lower' pushbuttons.
 - 20 'Tube lower' safety switch.
- To discharge capacitors turn kV selector to zero when the safety shutter automatically operates.

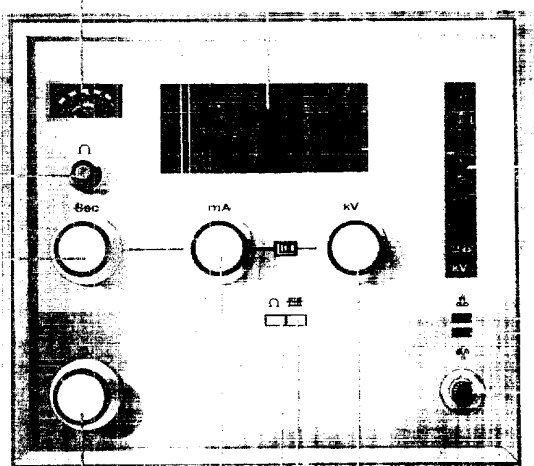


Efficient and logical control layout

Control Efficiency

The control layout is logical and simple in operation. The controls allow maximum flexibility in the choice of techniques but are fully interlocked so that the selected values of mA, kV and time, always fall within the permissible rating of the X-ray tube. A long coiled handswitch cable enables

the operator to be positioned at a safe distance from the X-ray tubehead during an exposure. The electrical layout incorporates proven circuitry, plug-in component boards, printed circuits and solid state primary switching so ensuring high reliability and long trouble-free service.



Preparation

1. Main switch with circuit breaker
2. Mains voltage compensator – Operating in conjunction with mains resistance and line voltage indicator (9)
3. Mains resistance control. Permits checking line impedance of power supply points so that the unit can operate with optimum performance.

Radiography

4. 5 position mA selector
5. kV selector
6. Exposure timer
7. X-ray "on" indicator
8. Bucky switch
9. Illuminated combination meter – 0 to 200mA Radiography Mains line resistance indicator. Line voltage indicator
10. Illuminated mAs indicator
11. Overload (amber) indicator light
12. Set mains resistance button
13. Illuminated kV indicator
14. 'X-ray on' indicator.

Technical information

Input

Maximum Output
8.1kW at 88kV
7.4kW at 100kV

Maximum mA
150mA at 66kV

Maximum kV
125kV at 75mA

Input

Maximum instantaneous input
20kVA

Maximum continuous input
0.25kVA

Power Supply

210 – 250V (nominal) single phase 50Hz

Mains resistance 0.3 ohms maximum at 240V at supply socket with standard (10m) mains cable for full output.

Line Compensation

Manual. Range – 10% to + 6%.
Note: Maximum output cannot be obtained at less than 210V actual supply voltage.

kV Range

45 – 125kV in 19 steps

mA Control

5 position rotary selector for 50, 75, 100, 125 and 150mA

Timer

Electronic Timer, 0.02 – 5 seconds, with thyristor radiographic switch.

X-ray Switch

Low voltage Prepare/Expose push button unit with extensible cable.

Ancillary Controls

2 push buttons – line resistance and Bucky.

Instrumentation

Combination meter – line resistance calibration, line voltage and 0–200 mA.

Illuminated mAs/time indicator.
Illuminated kV indicator.

Indicators

X-rays ON and Overload lamps.

HT Generator

Self contained monobloc tubehead containing HT and filament transformers, full wave (2-peak) silicon rectifiers and rotating anode (0.8mm) X-ray tube.

Mains Connection

preferably to 30A socket or to 13A ring main suitably fused.

Weight

Manually propelled unit
290kg (640lb)

Motor propelled unit

320kg (720lb)

Finish

Medium and light grey stove enamel.

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150mA and 125kV output • Self-contained Monobloc tubehead • Manual or power propelled, giving exceptionally good mobility and manoeuvrability • Operational simplicity for a wide range of radiographic requirements • Choice of technique by means of mA, kV and time controls Robust construction for heavy workloads *

The MX4 Mobile is robustly constructed for the heavy workload of hospital wards, casualty departments, fracture clinics and operating theatres. The monobloc tubehead achieves high power output for a wide range of radiographic techniques. The tubehead contains the high tension and filament transformers, full wave silicon rectifiers and the rotating anode X-ray tube, thus eliminating the need for a separate H.T.

transformer unit and H.T. cables. Control handles at the front of the MX4, combined with the compact mechanical base construction provide exceptional manoeuvrability. The handles of the manually propelled unit, when gripped take the brakes "off", when released the brakes are automatically re-applied. For final small positional adjustments a push-button catch holds the brakes "off".

Safety in transit with ease of manipulation



In transit, the tubehead is rotated and positioned over the control to minimise risk of damage and ensure good forward vision. A choice of manual or power driven units is available. Where long distances or slopes require to be negotiated, the power driven unit is recommended. Two compact 12 volt batteries power a dual speed motor connected by chain drive to the main wheels. A built-in battery charger operates automatically when the unit is plugged into a mains supply. A removable key prevents unauthorised use by immobilising the motor drive and X-ray generator.

Many simple and practical design features allied to heavy duty construction give the MX4 its ability to withstand vigorous handling in use

These include:

A protective hinged cover over the control panel which safeguards the controls in transit and when the apparatus is not being used.

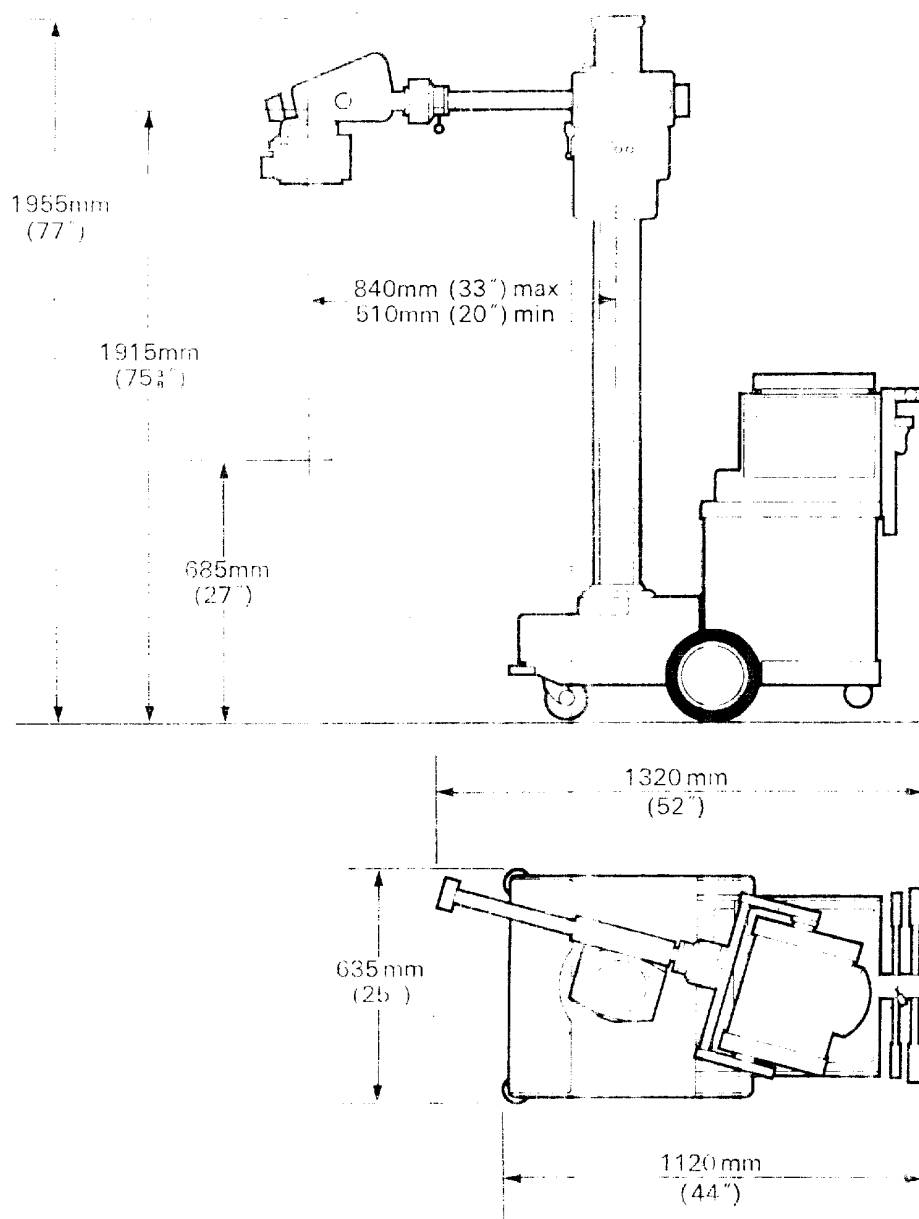
A retractable mains cable 10 metres long (32ft. approx) located below the control unit. After use, the cable is easily wound back by a small handle; the cable plug being housed within a recess.

A protected storage space beneath the control which

accepts cassettes up to 35.6 cm x 43cm (14in x 17in) and protective gloves, etc.

Rotating buffers fixed horizontally on the front corners of the mobile which help to protect the unit against accidental collisions.

A compact base and cleverly designed wheel system which enables the unit to be swivelled about its central axis, facilitating bedside adjustments or negotiation of sharp corners. The unit can turn within its own



MX4 Summary Information

MX4 Mobile comprising Tubehead incorporating solid state rectifiers. Machlett Dynamax rotating anode tube and Demarcator light beam diaphragm. Complete with Control Unit including hand exposure switch on extensible cable.

Tubestand with gimbal mounting, fitted on mobile base; the support for the control unit incorporates a cassette storage recess and 10m length of mains cable fitted on "wind-in" drum.

Suitable for operation on AC

supplies, 210-250 volt, 50 Hz.

Alternatively, MX4 as above but provided with Power Drive including drive motors, batteries (2) and built-in battery charger.

Extras

Sinus Cone (FFD/6).

Dental Cone

Auxilliary X-ray Tubehead on Mobile stand complete with control box and interconnecting cables.

Demarcator Light Beam Diaphragm.

Theatre Twin Head Unit

Optionally available, a second self-contained tubehead with separate mobile stand considerably simplifies positioning for surgical procedures (e.g. Smith Peters Pinning). The system permits positioning the heads separately for lateral and A. P. projections. When not required, the second tubehead readily unplugs for storage.

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Publication No. 211 - 23P

**Tubehead
movements allow
maximum flexibility
of use**

Monobloc Tubehead

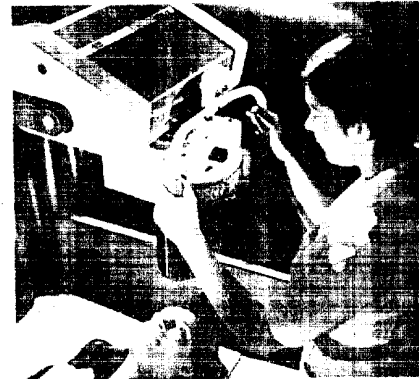
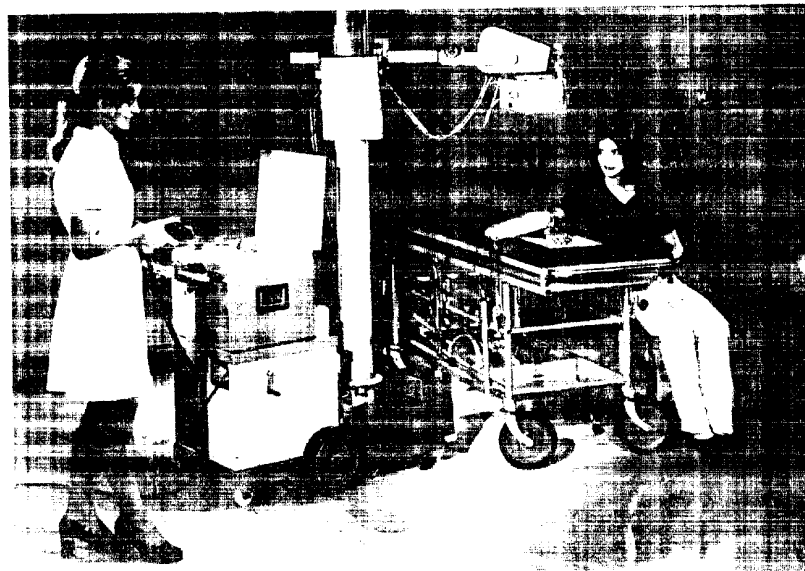
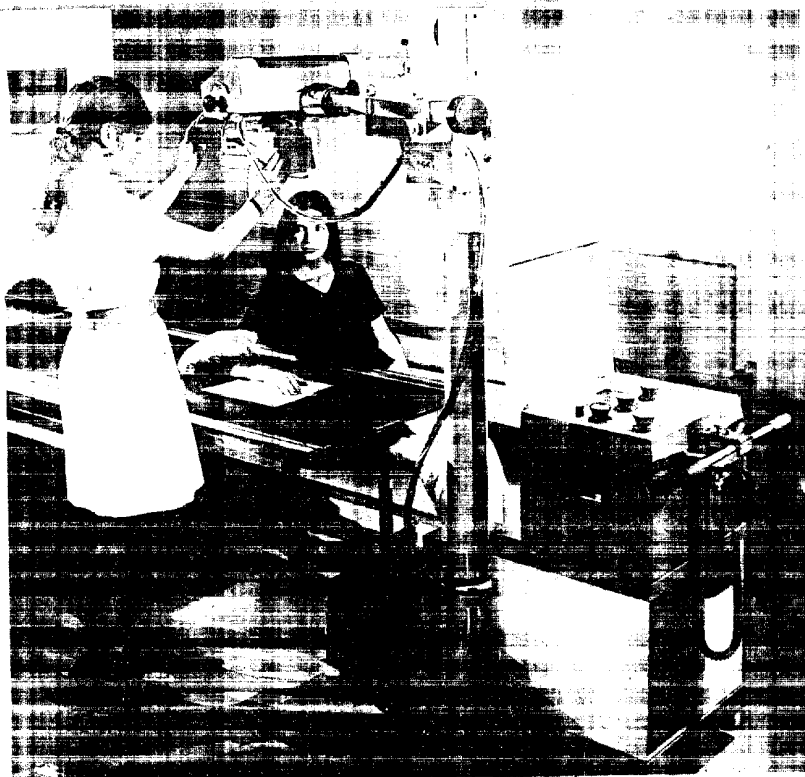
Designed and constructed for heavy duty performance, the compact MX4 tubehead offers a long trouble-free life. It comprises a sealed tank housing the high tension transformer, a set of silicon rectifiers, tube filament transformer and a Machlett Dynamax 0.8mm single focus rotating anode tube. Oil impregnated and shielded with lead, the tubehead complies with the international recommendations of protection, and the (British) Code of Practice.

**Wide Range of Tubehead
Movement**

The tubehead can be rotated 360° about its short axis, and angulated 90° forward and 50° backwards of its long axis, giving a total of 140° of movement. The scales provided indicate the degree of angulation. Quick-acting brakes are provided on all movements to lock to any required position. A handle at the front of the tube-head facilitates these adjustments.

**Demarcator Light Beam
Diaphragm**

A light beam diaphragm is included as a standard component. Film coverage at varying focus to film distance is clearly indicated on dual scales. The powerful light beam controlled by a time switch greatly aids positioning.



D38 Summary Information

Technical information

Output:

Maximum Output
 17.8kW at 75kV
 15.8kW at 100kV
 Maximum mA 300mA at 75kV
 Maximum kV 125kV at 150mA

Input:

35kVa maximum instantaneous
 0.55kVa maximum continuous
 Voltage range: Input ... 200-250
 volt A.C. 50Hz

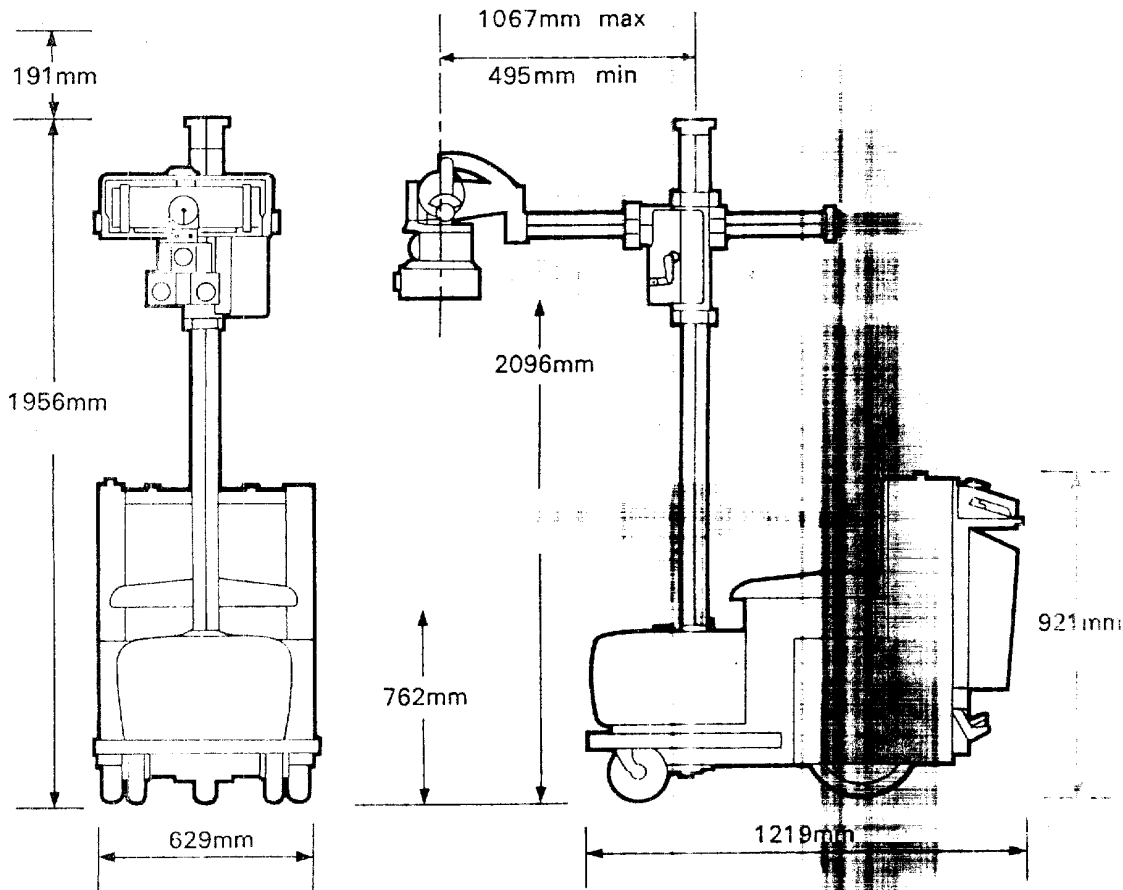
Maximum line impedance for full
 output: 0.32 ohms at 240 volt
 Power Drive Unit voltage:
 24 volt D.C.
 Power Drive Supply Unit:
 2-12 volt batteries
 Current Selections:
 50mA - 100mA fine focus
 100mA - 150mA - 200mA -
 300mA broad focus

Weight:

408 kg (900 lb) approx.

D38 Mobile

D38 Mobile, comprising motor
 driven base, 2 batteries
 complete with tube column,
 Dynamax 40 rotating anode
 X-ray tube, H.T. cables and light
 beam diaphragm. The control unit
 incorporates a cassette box and
 cable compartment which
 includes 9.4m (30ft) of mains
 cable. The H.T. transformer
 which is also mounted on the
 base includes selenium rectifier.

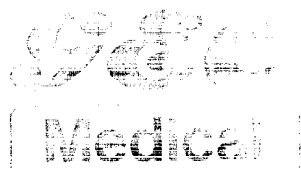


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 tested and examined to ensure as far as
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 The conditions under which our

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 regarding safe operating of the
 equipment and are conversant with and

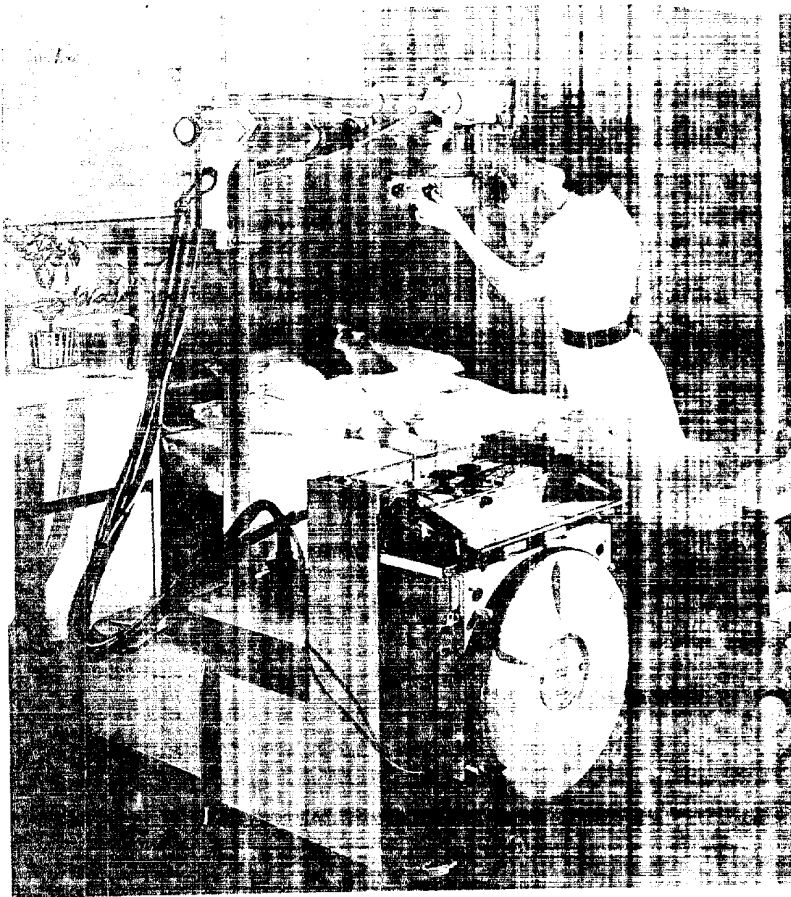
observe Regulations and Codes of
 Practice which relate to X-ray
 Equipment.

It is the duty of the employer to
 ensure that his employees fully
 understand the Regulations and
 Operating Instructions.



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 Publication No. 211-29P



In the ward

Bedside positionings are made easier due to the compact size and manual/motor propelled system of the D38. The beam unit is positioned at the side of the foot of the bed, the 30 cm range of the X-ray tube movement provides excellent coverage of the patient.

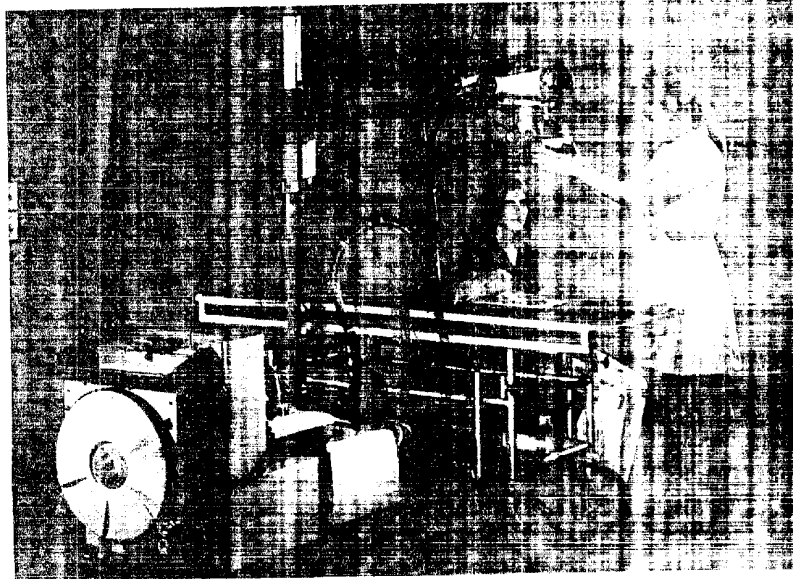
The cassette box at the rear of the unit provides convenient storage of a wide range of cassettes and other accessories which may be required.

In the X-ray department

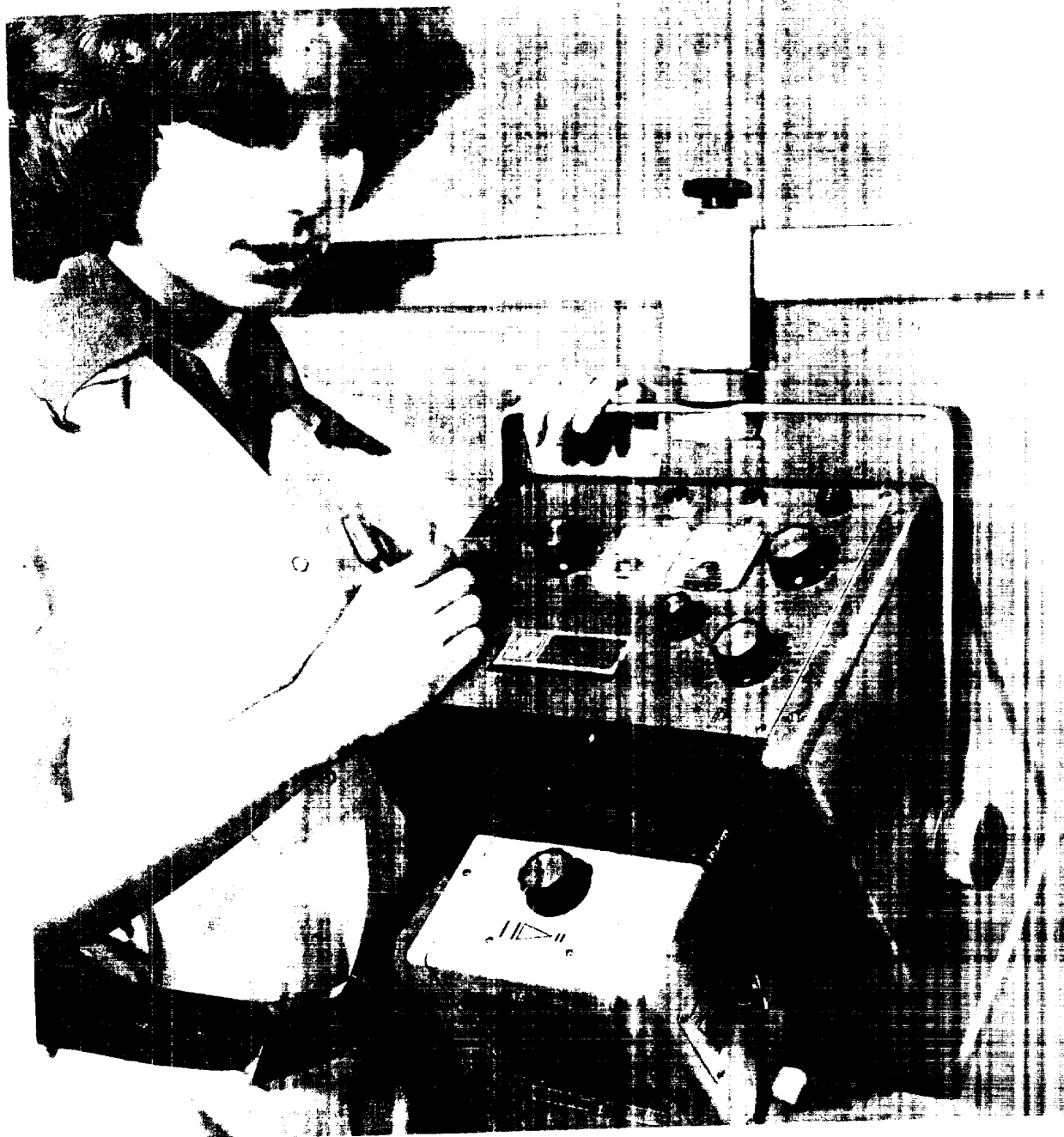
The output, manoeuvrability and range of the X-ray tube movements make the D38 an effective standby or spare unit in the X-ray department. Used in conjunction with a trolley or simple Bucky table, reliable, compact and economical installation is achieved, enabling a wide range of examinations to be undertaken.

Tube movements

The motorised vertical column movement obviates the necessity for counterweighting and allows the total length of the column to be used. A unique telescopic column enables the height to be kept to 1956mm (77in). This allows the unit to pass through doorways, etc. The unit provides a maximum reach to floor distance of 2098mm (82in). Pushbuttons provided at the X-ray tube mounting or on the control panel allow the tube to be moved to the required height to examine patient. The X-ray tube crossarm also has a telescopic movement enabling the focal spot to be positioned 1067mm (42in) from the centre of the upper column. The practical design of the X-ray tube mounting enables it to be angled 90° forward or 20° backward and rotated 30° about the vertical axis of the crossarm. The angle of tilt is indicated on a scale on the angulation scale and the unit is positioned on an X-ray table mounting. Additionally, the whole mounting can be rotated around the central vertical column. A light beam diaphragm fitted, its aperture being easily set by means of two knobs on the front panel. The positioning light is automatically switched on when the time switch is depressed, and switched off 30 seconds later. An extendable measuring bar is attached to the tube mounting. To allow the precise focus to be established, the beam can also be rotated so that the X-ray beam is always adjusted to the position of the cassette.



TR PORTABLE X-RAY UNITS



*For speed, simplicity and
proved reliability.*

Operation and controls

Propulsion

Two 12 volt batteries provide the power. The drive itself is transmitted to the floor through a single wheel, which is raised and lowered by foot pedals. When the drive wheel is in the raised position the operator is able to ease the unit manually in to the desired position without any friction from the drive mechanism.

A powerful disc brake is operated by a single lever conveniently positioned by the operator's hand. Controls are provided for forward and reverse drive. The unit is power boosted to negotiate slopes or ramps. A key switch prevents interference from unauthorised persons.

X-ray Controls

All controls are grouped in a practical working manner at the front of the unit, with a hinged panel providing protection during transportation or when the unit is stationary. Large size meters are provided for kV and mA/mAs. Connection to the mains supply is via a 9.4m (30ft) cable on a single annular cable drum mounted on the cassette box. To compensate for changes in line impedance throughout the hospital, a six position switch is incorporated on the control panel. At the time of installation, a numbered disc is fitted beside each required supply socket in the hospital. The operator simply adjusts the 'line resistance control' to match this number to obtain maximum performance. The exposure handswitch is provided on a long coiled cable enabling operators to position themselves at a safe distance during an exposure.

Controls provided are:-

Motor Drive Unit

1. Drive unit "ON/OFF" key switch
2. Normal/Boost drive selector switch
3. Forward/Reverse drive lever
4. Drive unit selector pedals
5. Brake lever which cuts electrical supply to the drive and applies disc brake

Mains Supply

6. Mains "ON" and six position line resistance selector switch
7. Mains "ON" indicator light
8. Mains "OFF" pushbutton

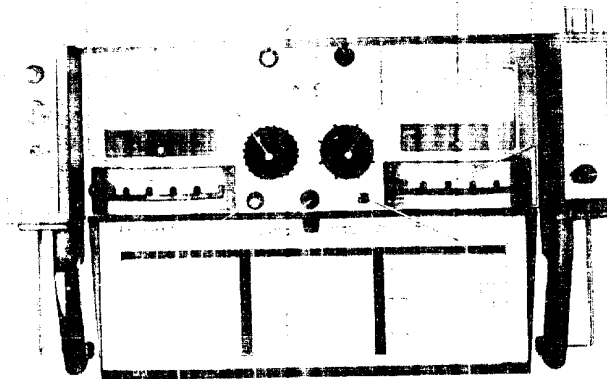
Exposure

9. Tube current selector provides a selection of six mA values and focus from 50 to 300mA each interlocked with kV and time

10. kV control, selecting 40 values in graded steps, by five revolutions of the control knob
11. Electronic Timer with range 0.02 to 5 seconds
12. Dual purpose mAs/mA meter scaled from 5 to 500mAs and 0 to 300mA, shows before the exposure is made the product of mA and time on a pre-reading mAs scale and during the exposure indicates actual mAs
13. kV Meter scaled from 0 to 130kV
14. Overload warning light
15. Prepare/Exposure handswitch
16. X-ray "ON" indicator light
17. Bucky switch

Tube Positioning

18. X-ray Tube "raise" and "lower" pushbuttons



Special features

High power 300mA and 125kV output. Full-wave rectified using selenium rectifiers. Exposure termination by thyristor solid state primary switching.

Motor driven battery propelled for movement between various departments or wards with facilities for manual propulsion when necessary. The unique telescopic system for both crossarm and vertical carriage movements provides rigidity during transit and extensive X-ray tube movement when used in the wards or theatre.

Robust construction withstands vigorous handling. Compact overall dimensions for easy storage and positioning.

Functional control layout with large exposure factor meters. A protective panel covers controls during transit.

A box is provided for storage and transport of cassettes.

It is often necessary or preferred to X-ray patients in the ward rather than take them to the X-ray department. This proves particularly useful when moving the patient can be dangerous or painful, or when they are under intensive care. Additionally, the ability to radiograph the patient in the ward reduces congestion within the corridors and waiting areas of the X-ray department, thus improving the flow of patients generally. The GEC Medical D38 Mobile

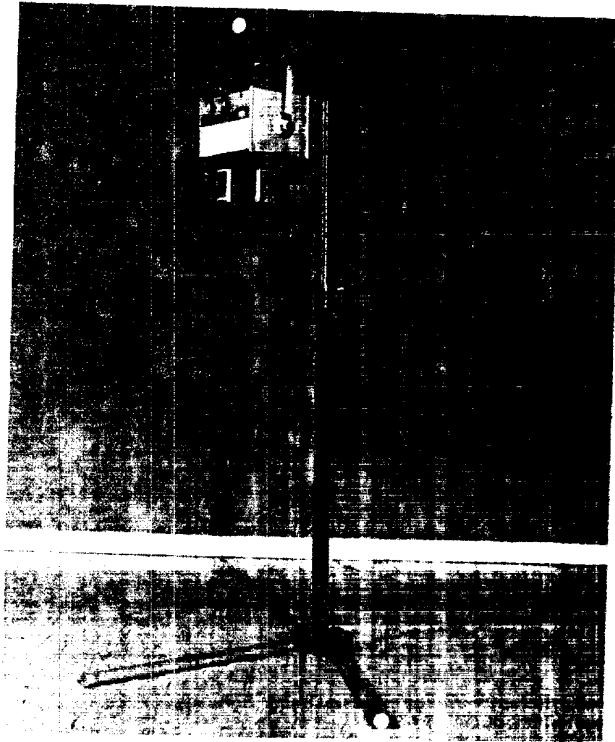
Unit is designed and engineered to fulfil these needs. Even within the X-ray department, the D38 will prove most useful as a stand-by unit, or as a casualty unit, particularly when used in conjunction with a Bucky table or accident trolley. Being a high powered mobile unit, the facilities and features of the D38 recommend its use within clinics, medical and industrial health centres or the operating theatre.



In transit

In transit the D38 is highly mobile and easy to handle. When fully charged, the battery system allows the unit to be driven up to seven miles. When re-charging becomes necessary, the unit can be readily plugged into a mains supply, and the built-in battery charger takes over. To improve control on slopes or ramps a hand brake is provided.

The moulded pad fitted to the control cover holds the X-ray tube rigid, and reduces the risk of damage to the tube when moving over differing floor surfaces throughout the hospital; and also when the unit is manoeuvred through doors, around corners and into and out of lifts. A steel bumper bar provides additional protection.



80kV/20mA unit



100kV/30mA unit

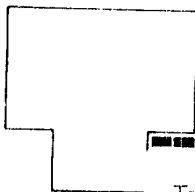
TR PORTABLE X-RAY UNITS

- ★ Easy to set up and dismantle
- ★ Normal household mains supply
- ★ Mains voltage compensation
- ★ Collimator standard on 100/30, optional extra on 80/20
- ★ Carrying case for tubehead/control
- ★ Demountable tube support stand
- ★ Hand switch on extendable lead
- ★ Complete operating instructions and exposure chart
- ★ Comprehensive after sales service

TR portable X-ray units are light weight, rugged and well proved in service. They are ideal for fracture work, extremities and other forms of casualty and domiciliary work. The TR 100/30 is powerful enough for all types of routine radiography.

TR portable units meet the demands of day to day use in all kinds of locations and circumstances. The stands of both units are easy to assemble and adjust for focus and distance, a particular advantage when dealing with a difficult subject. The controls are clearly marked on an attractive black chrome panel. A collimator can be fitted as an optional extra on the 80/20 and is standard on the 100/30 unit. Both units are supplied with a hand switch and tubehead/control carrying case.

TR portable units are widely used in hospitals, clinics and domiciliary work. They offer simplicity in use, speed in obtaining accurate radiography and constant reliability with the aid of solid state technology. They are an invaluable aid to the modern practice.



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The right is reserved to make any alterations in the light of technical advances



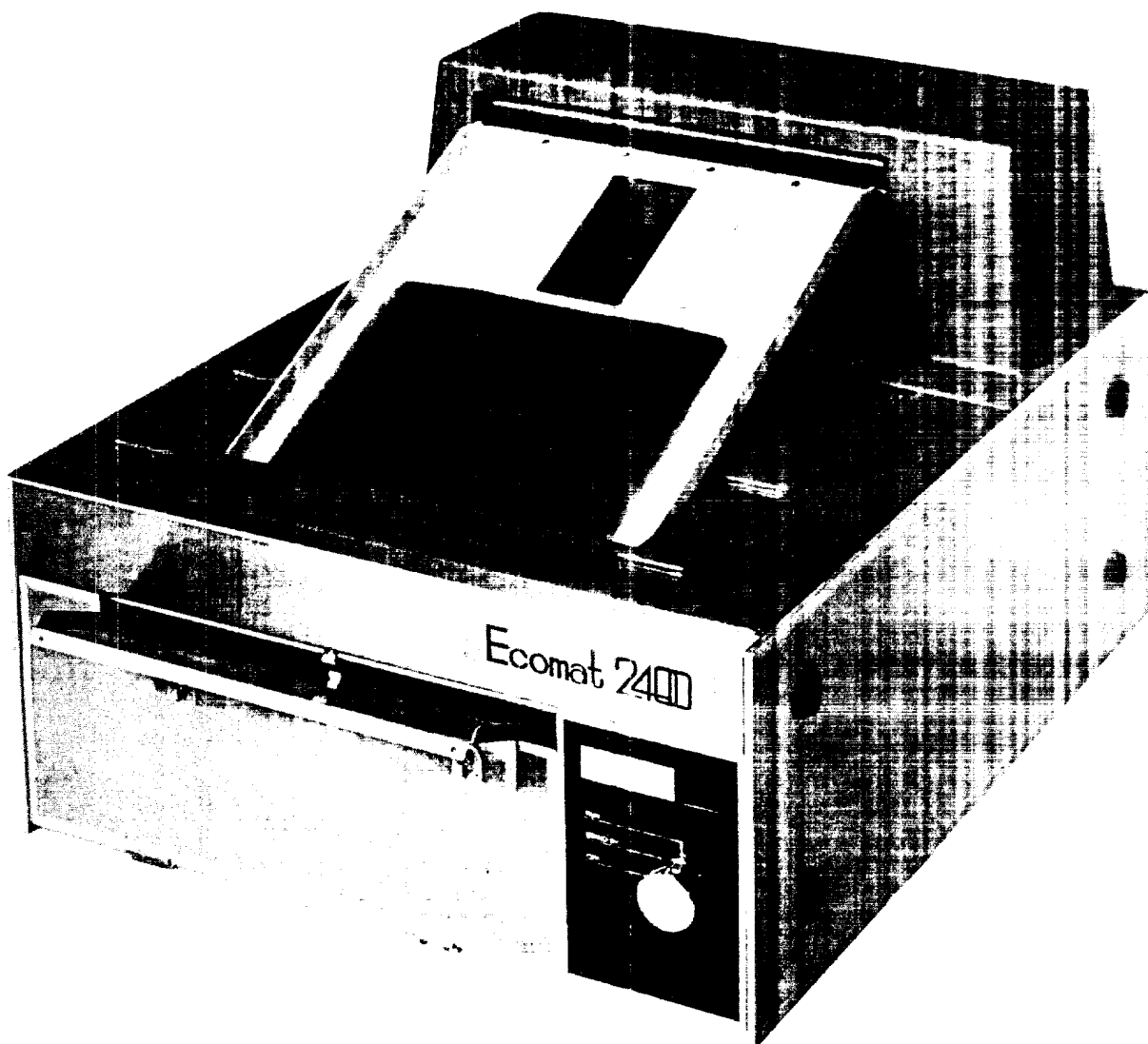
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TR 2400 AUTOMATIC PROCESSOR



**Now low cost automation comes to the
darkroom...**

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