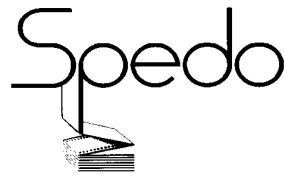


Spedo Optical Loop Switch 2230

INSTRUCTION MANUAL

Issue 4

Part Number SP004 592



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Spedo Optical Loop Switch 2230

Safety Measures

This instruction manual contains certain WARNING and CAUTION notices which must be followed by the user to ensure safe operation and to retain the equipment in a SAFE condition.

All users of the equipment described in this manual MUST have received adequate training in its use and application in order to ensure SAFE AND PROPER USE.

Any adjustment, maintenance or repair of the opened apparatus under voltage shall be carried out only by a skilled person who is AWARE OF THE HAZARD INVOLVED.

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DESCRIPTION & OPERATION**SECTION 1****INTRODUCTION**

Optical Loop Switch Unit is designed to control the height of the paper loop that forms between an outfeeding printer or collator and the associated infeeding Spedo Forms Cutter. A forms cutter of other manufacture can be used provided it is fitted with a synchronisation input facility. The unit is positioned on the floor, mounted on 4 feet between the two units.



Fig 1.1 Spedo Optical Loop Switch 2230

TECHNICAL DATA**Paper Loop Sync**

Switched relay contact normally open. Closed across pins 1 & 3 when paper is detected

Mains Power

230 V +/- 10 %, 50/60 Hz.

Mains Fuse

800 mA (Type F800mA)

Dimensions

Depth: 26 cm (incl. feet)
Width: 60 cm
Height: 26 cm (incl. feet)

Weight (with leads):

8.6 kg (approx.)

DESCRIPTION OF OPERATION

Optical Loop Switch Unit

This unit consists of a box assembly with an optical sensor (fitted in the centre of the top cover), which operates in conjunction with a opto sensing board inside the unit. The optical sensor detects for the presence of the paper loop which forms between the outfeeding printer or collator and the infeeding forms cutter and maintains it at a height set by the operator. It has a maximum height detection range of 300 mm, which can be adjusted internally.

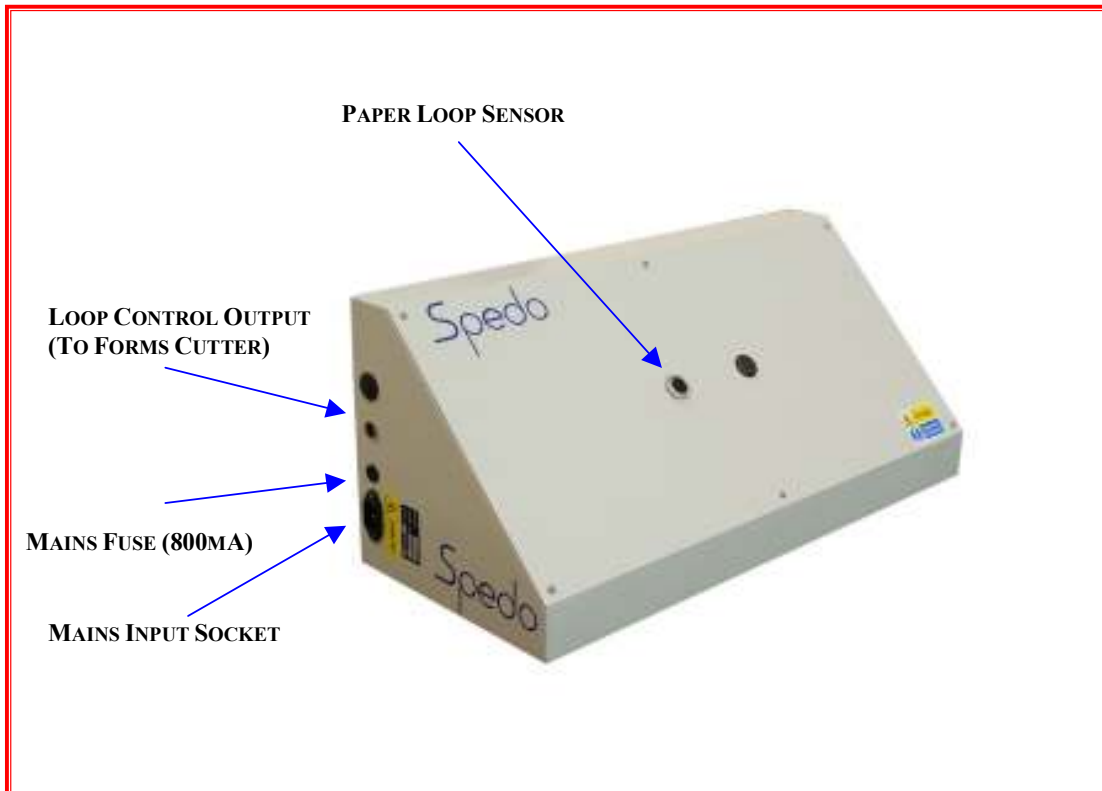


Fig 1.2 Identification of Main Parts

Operation with Ancillary Units

Optical Loop Switch Unit is supplied with mains power from the forms cutter by interconnecting it with the captive mains lead supplied. The sync lead is also connected to the forms cutter.

INSTALLATION

- The opto sensor has been factory set to 200 mm. If required, this can be reset by the operator during operation as described elsewhere in this manual.
- The way that the optical loop switch unit controls the paper is illustrated in Fig 1.3. Position the unit centrally between the ancillary units as shown.
- **WARNING:** Ensure that the forms cutter is isolated from the local mains source before carrying out the next step.

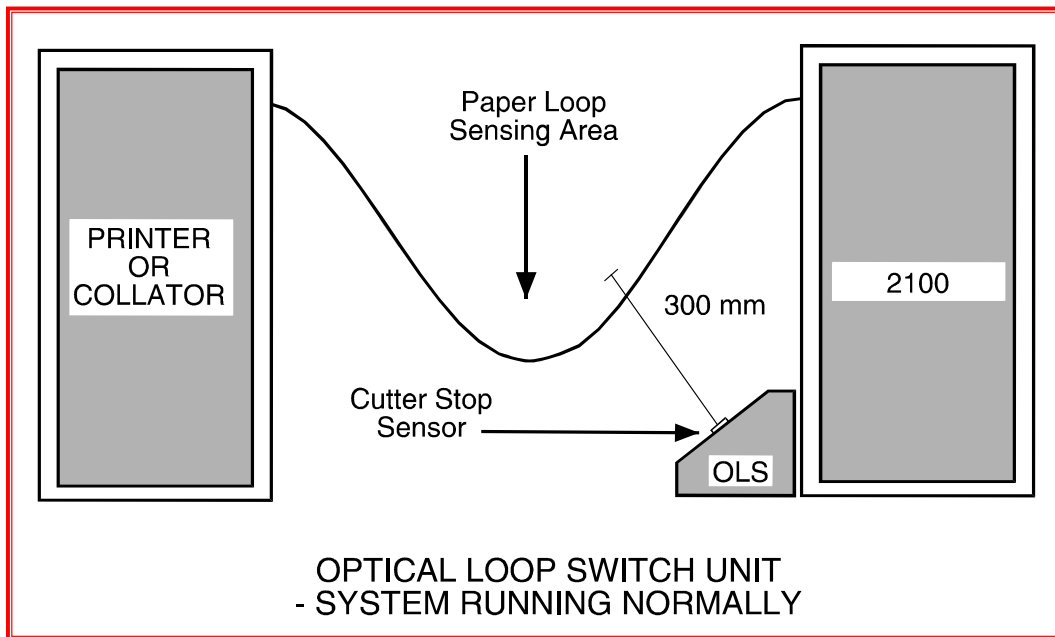


Fig 1.3 Operating States

- Connect the captive mains input cable to the mains output connector on the forms cutter.
- Connect the captive sync lead to the sync connector on the forms cutter.
- Switch on the forms cutter. Check that the optical loop switch unit is now powered up.
- Place a piece of paper in front of the opto sensor and check that, at a maximum of 200 mm, a relay inside the unit can be heard to 'click' on and off as the paper is moved inside and outside the sensing range.
- If the above check is satisfactory, the unit is ready to operate.
- Note that the mains cable is supplied fitted with moulded connectors that should not normally require removal.

OPERATING INSTRUCTIONS

- **WARNING:** Never operate the combined system when wearing items of loose clothing or other decorative jewellery, such as necklaces or bracelets as they could become entrapped in the ancillary machinery and cause injury.
- Having checked the serviceability of the unit, as in Installation above, it may be required to adjust the range of detection of the opto sensors for your particular system.

Paper Detection Range Adjustment

- **WARNING:** High voltage mains is present on this equipment. Ensure that the equipment is isolated from the mains supply when carrying out any adjustments.
- The adjustment control and associated indicator are housed on the opto sensor assembly and can only be accessed from inside the unit.
- With the mains power disconnected, remove the top cover as shown in Fig 1.4.

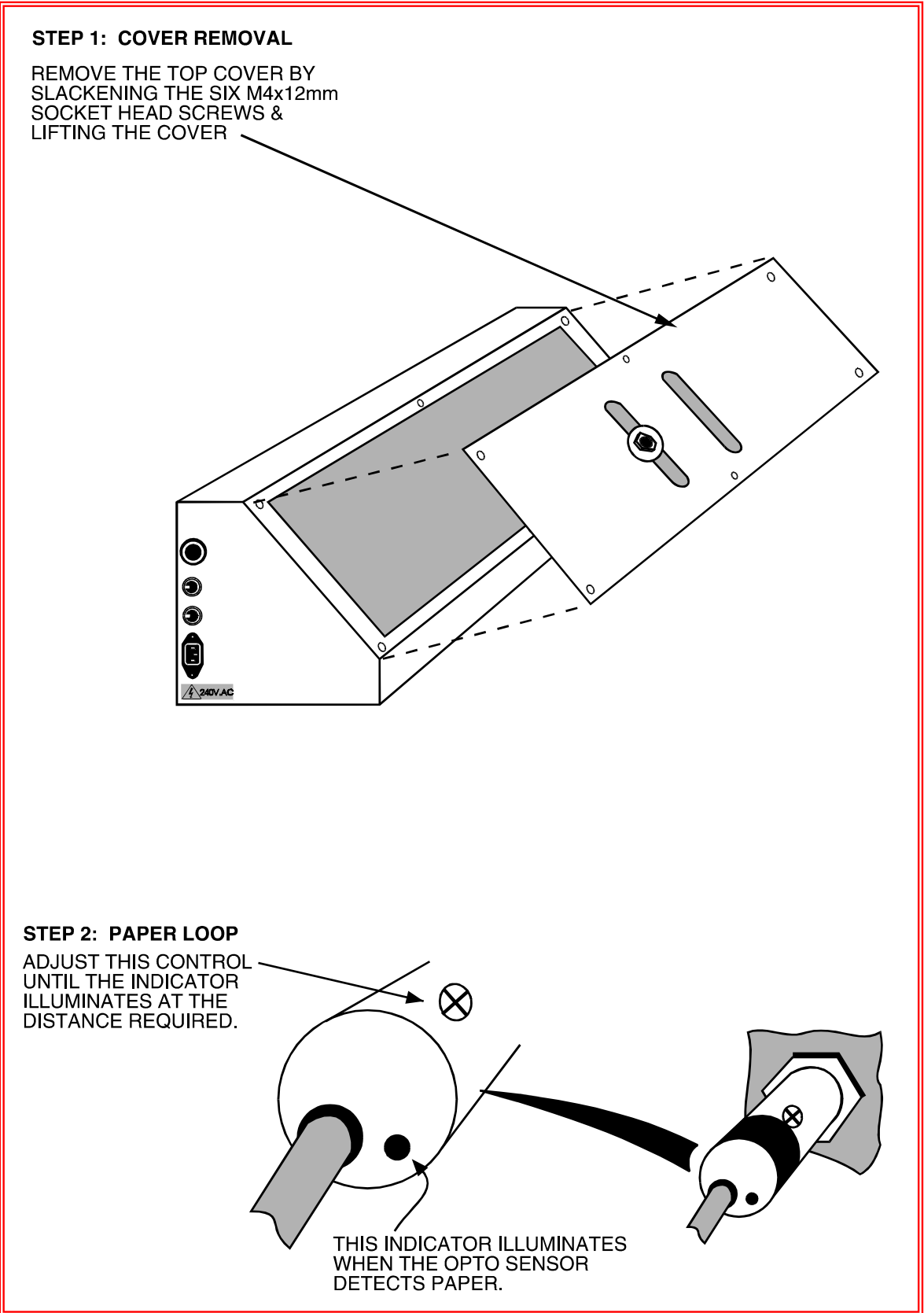


Fig 1.4 Paper Detection Range Adjustments

- **CAUTION:** Lift off the cover with care because it is attached to the rest of the unit by a cable.
- The adjustment control and indicator are located at the end of the opto sensor. The indicator illuminates when paper is detected.
- Reconnect the mains power. Place a piece of paper in front of the opto sensor. Adjust the setting of the control, at the same time as moving the paper towards and away from the front of the opto sensor, noting the distance at which the indicator lights. Vary the setting until the required distance is reached.
- Disconnect the mains power and refit the top cover.
- Position the unit back into the system and reconnect it, ready to continue operation.

OPERATIONAL MAINTENANCE

- **WARNING:** A high voltage mains supply is present on this equipment. Ensure that the equipment is isolated from the mains supply when carrying out any maintenance procedures.
- **Cleaning:** This is limited to removing the build up of paper dust, with an airline, from the face of the opto sensor. This should be carried out on a regular basis.
- **Connectors:** Periodically check the connectors for bent or dirty pins.