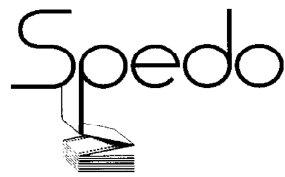


Spedo Optical Loop Interface 2231

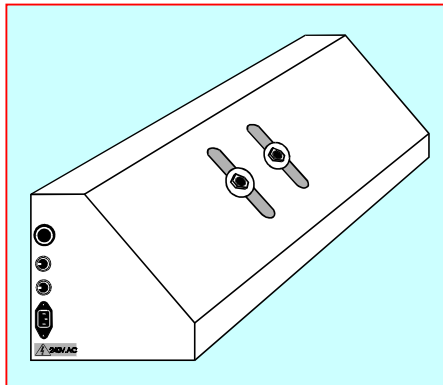
INSTRUCTION
MANUAL

Issue 3

Part Number SP004 593



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Spedo Optical Loop Interface 2231

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.

Spedo Optical Loop Interface 2231

Table of Contents

History Sheet	2
Copyright.....	3
Safety Measures.....	4
Table of Contents.....	5

DESCRIPTION & OPERATION

SECTION 1

INTRODUCTION	6
TECHNICAL DATA.....	6
DESCRIPTION OF OPERATION.....	7
Optical Loop Interface Unit.....	7
Operation with Ancillary Units.....	7
INSTALLATION	8
OPERATING INSTRUCTIONS.....	8
Paper Detection Range Adjustment	8
OPERATIONAL MAINTENANCE	9

DESCRIPTION & OPERATION

SECTION 1

INTRODUCTION

Optical Loop Interface 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. It also detects the overflow of paper outfeeding from the printer or collator that occurs if the forms cutter stops accepting paper infeed. The unit is positioned on the floor, mounted on 4 feet between the two units.

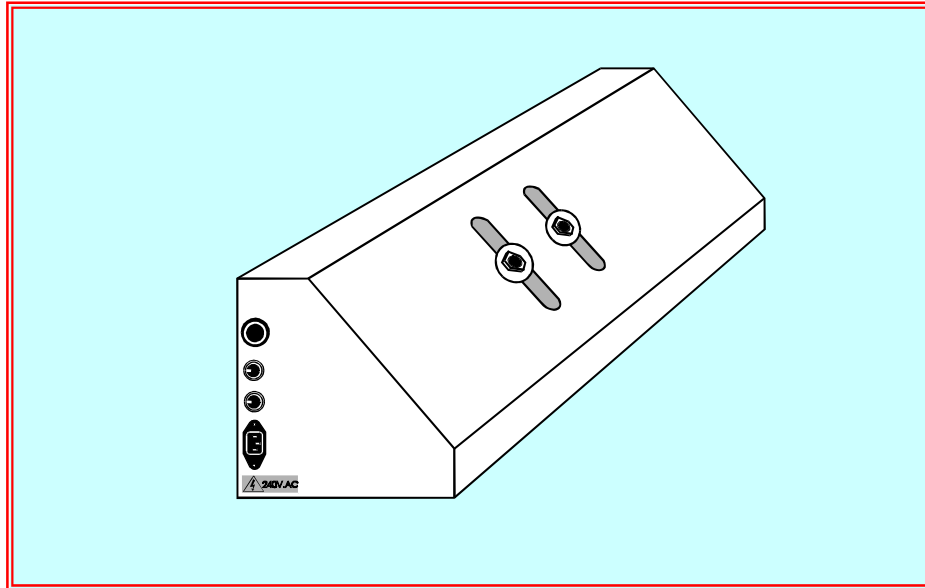


Fig 1.1 Spedo Optical Loop Interface 2231

TECHNICAL DATA

Paper Loop Sync:

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

Interface Signal:

CMOS Logic 0: 0 V
CMOS Logic 1: + 5 V to + 18 V

Mains Power

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

Mains Fuse

500 mA (Type F500mA)

Dimensions

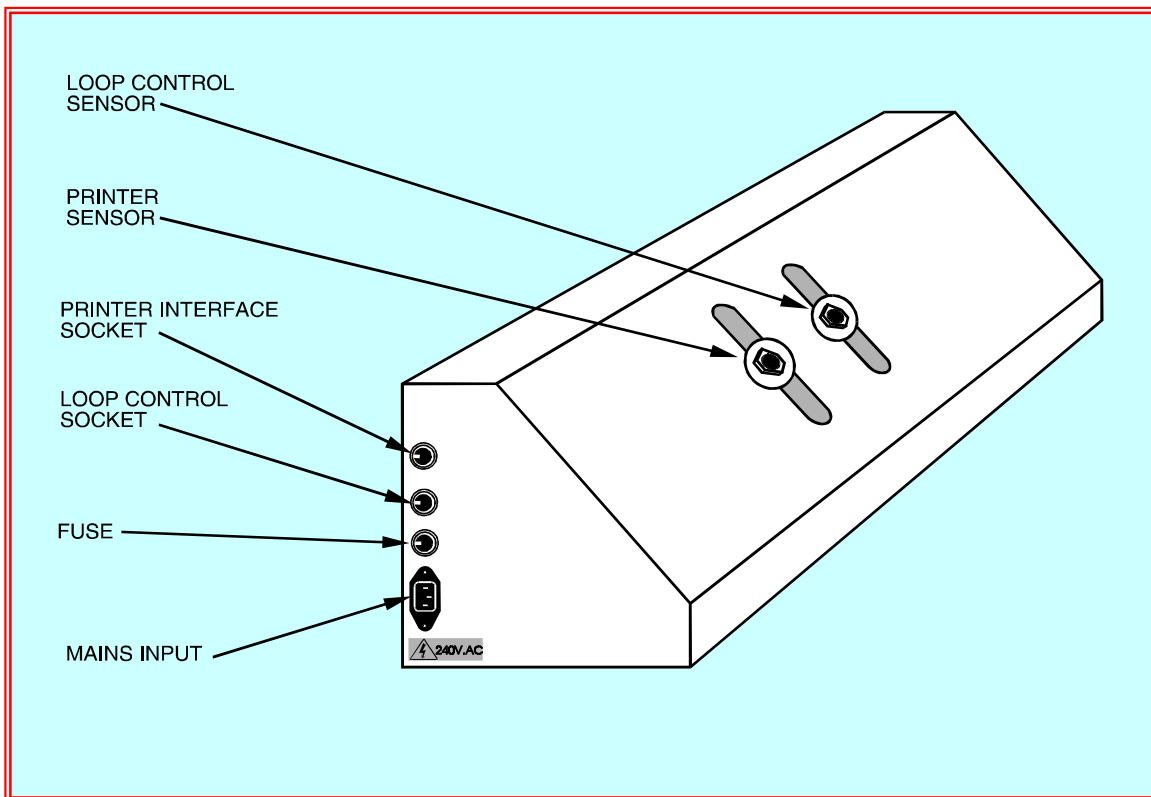
Depth:	26 cm (incl. feet)
Width:	60 cm
Height:	26 cm (incl. feet)

Weight (with leads):

8.6 kg (approx.)

DESCRIPTION OF OPERATION**Optical Loop Interface Unit**

The unit consists of a box assembly with two optical sensors. Both are fitted into the inclined top of the unit, and have been factory set to the required lengths; 400mm for the loop control sensor and 100mm for the printer interface sensor.

**Fig 1.2 Identification of Main Parts**

The loop control sensor maintains the height of the paper loop which forms between a printer or collator and a forms cutter, as set by the operator.

The printer sensor stops the printer or collator outfeeding paper should the forms cutter stop.

Operation with Ancillary Units

Optical Loop Interface Unit is supplied with mains power from the forms cutter by interconnecting it with the mains lead supplied. The sync lead is also connected to the forms cutter. The interface connector connects to the printer or collator.

INSTALLATION

- Both opto sensors have been factory set to the required lengths; 300mm for the loop control sensor and 100mm for the printer interface sensor. Each opto sensor has been factory set to 200mm. If required, these can be reset by the operator during operation as described elsewhere in this manual.
- The way that the optical loop interface 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.
- 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.
- Connect the interface connector to the printer or collator.
- Switch on the forms cutter. Check that the optical loop interface unit is now powered up.
- Place a piece of paper in front of each sensor and check that both are set to their required lengths. A relay inside the unit can be heard to operate on and off as the paper is moved inside and outside the sensing range.
- If the above checks are satisfactory, the unit is ready to operate.

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 <D>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 supply is present on this equipment. Ensure that the equipment is isolated from the mains supply when carrying out any adjustments.
- The adjustment control and indicator are housed on each associated 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.
- **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 on 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.

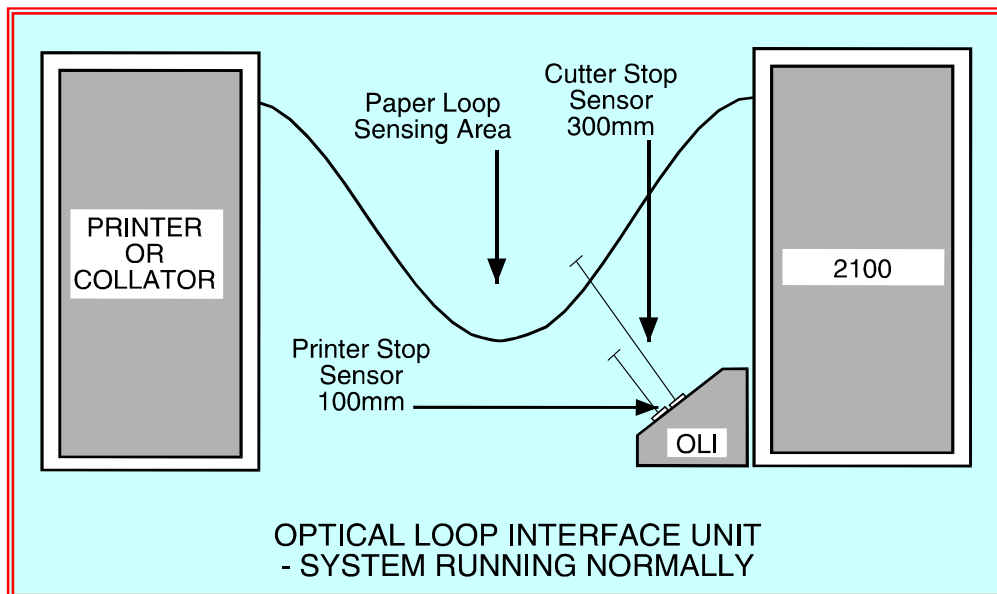


Fig 1.3 Operating States

OPERATIONAL MAINTENANCE

- **WARNING:** 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 from the faces of the opto sensors with an airline. This should be carried out on a regular basis.
- **Connectors:** Periodically check the connectors for bent or dirty pins.

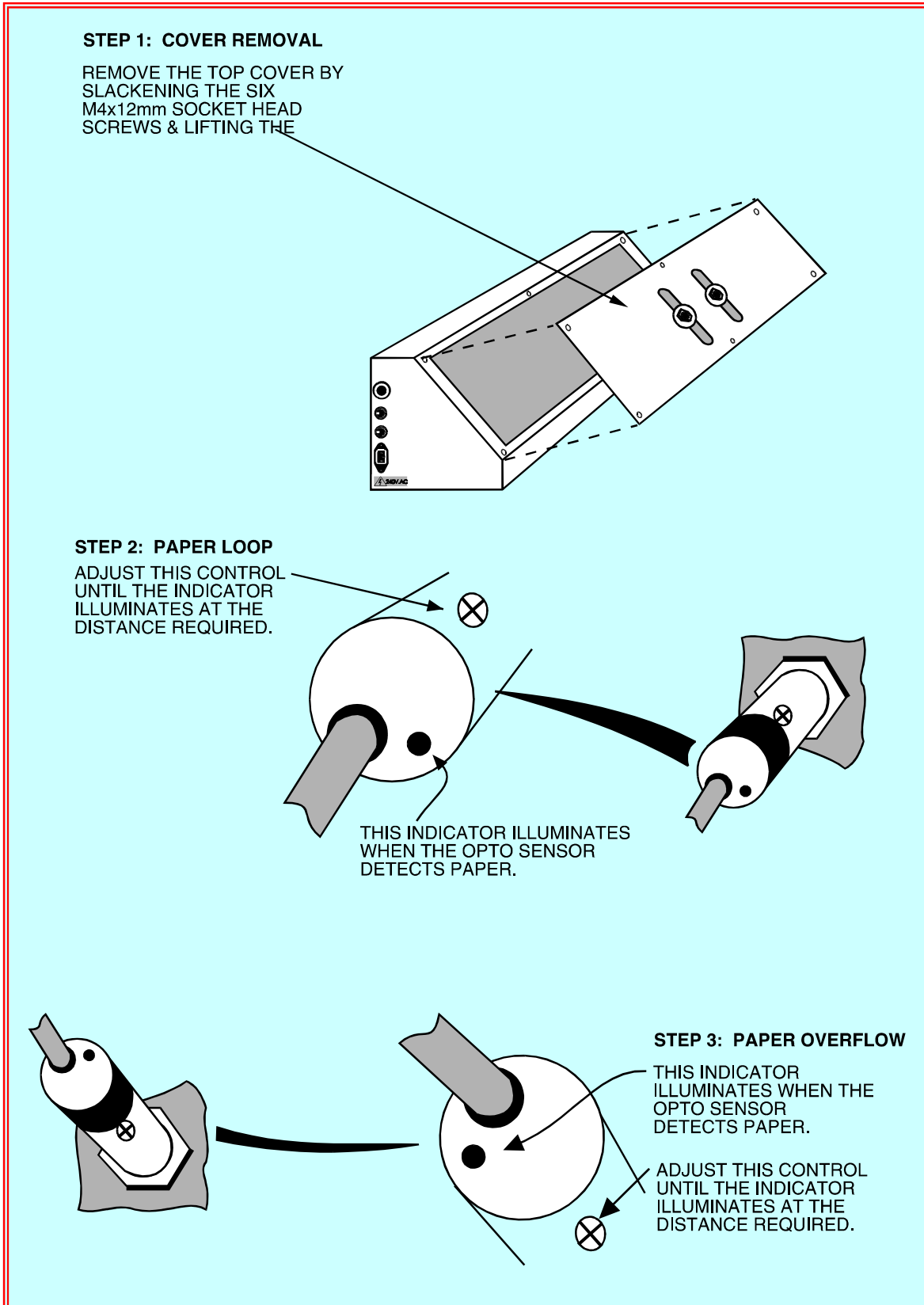


Fig 1.4 Paper Detection Range Adjustments