

M260/M262 Compact Needle Print Mechanisms

Features

- **35 and 42 Column Mechanisms**
- **M260: Single Colour**
- **M262: Red and Black**
- **7 Horizontal Needles**
- **Print Speed: 2.3 Lines/Second**
- **Fast Paper Feed: 7 Lines/Second**
- **Dot Graphics Capability**
- **Uses Standard Paper**
- **1 Original + 2 Copies Capability**
- **Cassette Ribbon**
- **Compact Size, Low Profile**
- **Horizontal or Vertical Mounting**
- **12VDC Supply**
- **Wide Range of Interfaces**
- **Industry Standard mechanisms**
- **Low Cost**

Applications

- **Industrial Control**
- **Cash Dispensers**
- **Vending Machines**
- **Gaming Machines**
- **PoS and ECR**
- **Automatic Test Equipment**
- **Alarm Monitoring**
- **Data Logging**
- **Kitchen Printers**
- **Ticket Issuing**

The M260/M262 series are Epson industry standard compact printer mechanisms using dot impact matrix method. They are particularly useful where a substantial amount of printing is required but space and cost are at a premium. Standard paper is used. Up to 1 Original and 2 Copies can be printed.

The M260 is a single colour mechanism. The M262 has red and black print capability. A long life cassette is used. The mechanisms are suitable for graphics printing. A high print speed of 2.3 lines/second is complemented by a fast paper feed speed of 7 lines/second.

The D183 interface runs the mechanism at 42 columns from Serial or Parallel sources. The D197 power supply drives both the interface and the mechanism. Both plastic and metal housings are available for ease of installation. The mechanisms can be mounted vertically for panel mount applications.

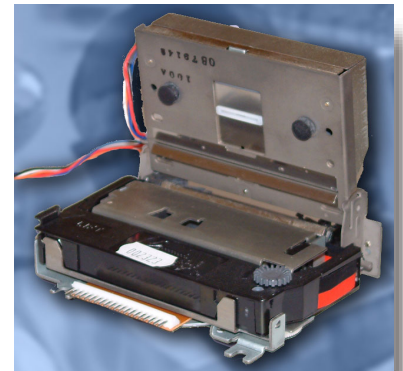
The mechanisms consist of 7 horizontal solenoids on a head which shuttles sideways so that each solenoid prints 1/7 of the characters. A 12VDC signal applied to the single motor activates the shuttle movement. As the head moves, timing signals from a tachometer fitted to the motor are generated. For each timing signal, all 7 of the solenoid can be fired causing the needles to be propelled outward. The needle hits the inked ribbon onto the paper causing a dot to be printed.

The 7 needles are fired at each timing signal until the specified number of dots across the paper has been counted. The motor continues to operate, and a cam is triggered causing the paper to advance either 0, 1, 2, 3 or 4 dot lines dependant on trigger time. Hence up to 4 dot lines can be fed for one head movement. At the beginning of each dot line a reed switch closes to indicate the start of a dot

Typically 7 dot lines are used to print characters with a further 3 dot line spacing. As each dot is directly addressable full graphics can be printed.

The 'ON' time of the print head needles varies with the power supply voltage. If the needles are held on too long at a higher voltage (faster speed) then the needle may jam in the ribbon. The D183 interface and D197 power supply are used at a 12.4VDC nominal setting.

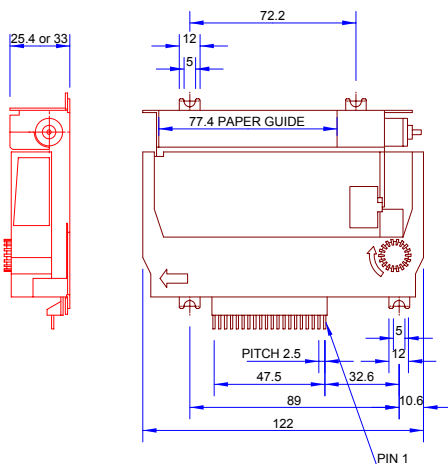
The M260/M262 mechanisms can be used without a cassette by using 'Action' paper which relies on needle impact only for printing.



Specifications

| | | | | | |
|-----------------------------|---|--|-------------------------|--|--|
| Printing System: | 7 Needle Impact Dot Matrix | | Motor: | Voltage: | 12VDC \pm 10% |
| Characters per Line: | 35 (1 dot column spacing) 42 (1/2 dot + 1 dot column spacing) 210 (420 in 1/2 dot mode) | | | Currents: | 0.2A (Average) 1.0A (Peak) |
| Print Speed: | 1 Dot Line: | 54 mSec (13.2V) to 65 mSec (10.9V) | Print Solenoids: | Number: | 7 |
| | 1 Char Line (10 Dot Lines): | 2.3 Sec (13.2V) to 1.9 Sec (10.9V) | | Voltage: | 12VDC \pm 10% |
| | | | | Currents: | 0.1A (Average/solenoid) 3A (Peak) |
| Paper Feed: | Method: | Friction 0, 1, 2, 3 or 4 dot line pitch can be selected after printing 1 line by Trigger Magnet timing | | 'ON' time: | 358 to 450 μ Secs (Varies with Supply Voltage) |
| | Fast Feeding: | 7 Lines/Sec Approximately | Trigger Coil: | Function: | Paper Feed/Colour Change |
| Dot Line Pitch: | 0.423mm | | | Voltage: | 12VDC \pm 10% |
| | | | | Resistance: | 47ohms |
| Character Size: | (5 x 7 Format) | 35 Columns 42 Columns | Timing Detector: | Tachometer Connected to Motor | |
| | Width: | 1.6 1.3 | Reset Director: | Reed Switch, Closes at Home Position | |
| | Height: | 2.9 2.9 | Operating Temp: | 0 ∞ C to 50 ∞ C | |
| Paper: | Type: | Standard | Reliability: | 1.5 Million Character Lines | |
| | Width: | 76 \pm 0.5mm | Dimensions: | M260: | 122mm (W)x83.6mm (D)x25.4mm (H) |
| | Diameter: | 83mm Maximum | | M262: | 122mm (W)x83.6mm (D)x33mm (H) |
| | Thickness: | 0.06 to 0.085mm | Weight: | 350 grams (Including Cassette) | |
| | Weight: | 52 to 64gsm | Connector: | 20 way Header and Crimp. See 'Accessories'. | |
| Inking: | Type: | Cassette | Power Supply: | 12VDC \pm 10% | |
| | Colours: | Single (M260) Red/Black (M262) | | 1.25A (Text Printing) 1.75A (Full Graphic Printing) | |
| | Operation: | Automatically fed by motor | | | |
| | Life: | 1.5 Million Characters (Single Colour) 0.7 Million Characters (Each Colour Red/Black) | | | |

Physical Dimensions



Connections

| | | | |
|----|------------------------------|----|--|
| 1 | Trigger Magnet | 1 | |
| 2 | Trigger Magnet | 2 | |
| 3 | Reset Detector | 3 | |
| 4 | Reset Detector | 4 | |
| 5 | Print Solenoid Frame GND | 5 | |
| 6 | Print Solenoid (A) | 6 | |
| 7 | Print Solenoid (B) | 7 | |
| 8 | Print Solenoid (C) | 8 | |
| 9 | Common to all Print Solenoid | 9 | |
| 10 | Common to all Print Solenoid | 10 | |
| 11 | Common to all Print Solenoid | 11 | |
| 12 | Print Solenoid | 12 | |
| 13 | Print Solenoid | 13 | |
| 14 | Print Solenoid | 14 | |
| 15 | Print Solenoid | 15 | |
| 16 | Motor (+) | 16 | |
| 17 | Timing Detector | 17 | |
| 18 | Timing Detector | 18 | |
| 19 | Motor (-) | 19 | |
| 20 | (Not Used) | 20 | |
| | PIN 20 Nearest Fixing Lug | | |

Order codes

| | |
|--|-------------------|
| M260: Single colour mechanism | Stock No: 551-261 |
| M262: Red/Black mechanism | Stock No: 551-262 |
| CASSETTE AND MATING CONNECTOR NOT INCLUDED | |

ACCESSORIES

| | |
|------------------------------------|-------------------|
| Cassette Ribbon (Black) | Stock No: 553-261 |
| Cassette Ribbon (Red/Black) | Stock No: 553-262 |
| Paper 76mm(W)x76mm(D) | Stock No: 552-077 |
| 20 Way connector + crimps | Stock No: 432-120 |
| 20 Way connector + 4" flying cable | Stock No: 432-121 |

| | |
|---|-------------|
| Mechanism in plastic housing with roll holder | D174 Series |
| Mechanism in 3U high metal case | D195 Series |
| Interface (RS232C + Centronics parallel) | D183 Series |
| Power supply (230vac) | D197 Series |

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