

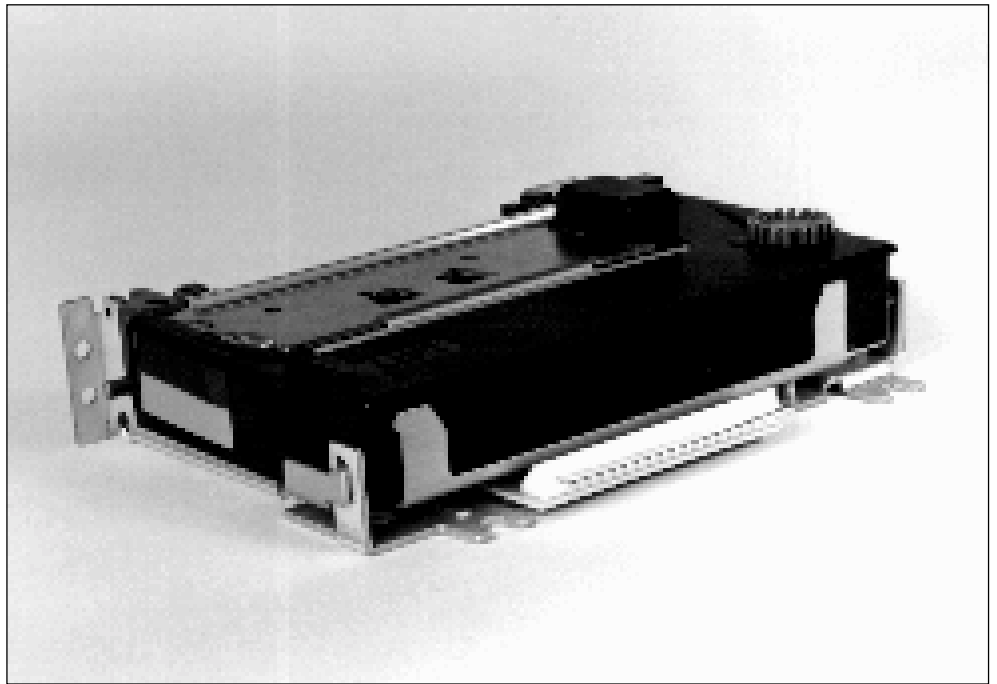
# M260/M262 Compact Needle Print Mechanisms

## 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



## Introduction

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.

## Operation

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 line.

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.

## SPECIFICATION

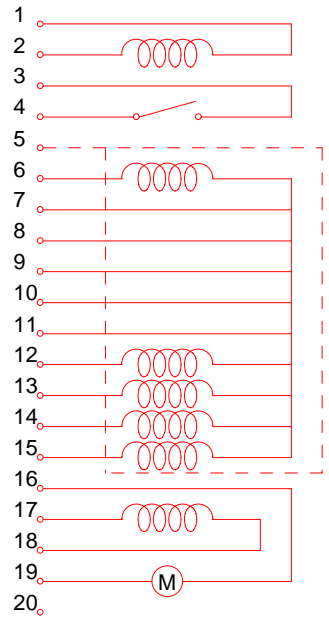
<b>Printing System:</b>	7 Needle Impact Dot Matrix		
<b>Characters per Line:</b>	35 (1 dot column spacing) 42 (1/2 dot + 1 dot column spacing) 210 (420 in 1/2 dot mode)		
<b>Print Speed:</b>	1 Dot Line:	54 mSec (13.2V) to 65 mSec (10.9V)	
	1 Char Line (10 Dot Lines):	2.3 Sec (13.2V) to 1.9 Sec (10.9V)	
<b>Paper Feed:</b>	Method:	Friction 0, 1, 2, 3 or 4 dot line pitch can be selected after printing 1 line by Trigger Magnet timing	
	Fast Feeding:	7 Lines/Sec Approximately	
<b>Dot Line Pitch:</b>	0.423mm		
<b>Character Size:</b>	(5 x 7 Format)	35 Columns	42 Columns
	Width:	1.6	1.3
	Height:	2.9	2.9
<b>Paper:</b>	Type:	Standard	
	Width:	76 ±0.5mm	
	Diameter:	83mm Maximum	
	Thickness:	0.06 to 0.085mm	
	Weight:	52 to 64gsm	
<b>Inking:</b>	Type:	Cassette	
	Colours:	Single (M260) Red/Black (M262)	
	Operation:	Automatically fed by motor	
	Life:	1.5 Million Characters (Single Colour) 0.7 Million Characters (Each Colour Red/Black)	
<b>Motor:</b>	Voltage:	12VDC ±10%	
	Currents:	0.2A (Average) 1.0A (Peak)	
<b>Print Solenoids:</b>	Number:	7	
	Voltage:	12VDC ±10%	
	Currents:	0.1A (Average/solenoid) 3A (Peak)	
	'ON' time:	358 to 450 µSecs (Varies with Supply Voltage)	
<b>Trigger Coil:</b>	Function:	Paper Feed/Colour Change	
	Voltage:	12VDC ±10%	
	Resistance:	47ohms	
<b>Timing Detector:</b>	Tachometer Connected to Motor		
<b>Reset Director:</b>	Reed Switch, Closes at Home Position		
<b>Operating Temp:</b>	0°C to 50°C		
<b>Reliability:</b>	1.5 Million Character Lines		
<b>Dimensions:</b>	M260:	122mm (W) x 83.6mm (D) x 25.4mm (H)	
	M262:	122mm (W) x 83.6mm (D) x 33mm (H)	
<b>Weight:</b>	350 grams (Including Cassette)		
<b>Connector:</b>	20 way Header and Crimp. See 'Accessories'.		
<b>Power Supply:</b>	12VDC ±10% 1.25A (Text Printing) 1.75A (Full Graphic Printing)		

## CONNECTIONS

### FUNCTION

Trigger Magnet  
Trigger Magnet  
Reset Detector  
Reset Detector  
Print Solenoid Frame GND  
Print Solenoid (A)  
Print Solenoid (B)  
Print Solenoid (C)  
Common to all Print Solenoids  
Common to all Print Solenoids  
Common to all Print Solenoids  
Print Solenoid (D)  
Print Solenoid (E)  
Print Solenoid (F)  
Print Solenoid (G)  
Motor (+)  
Timing Detector  
Timing Detector  
Motor (-)  
(Not Used)  
PIN 20 Nearest Fixing Lug

### PRINTHEAD PIN No.



## ORDER CODE

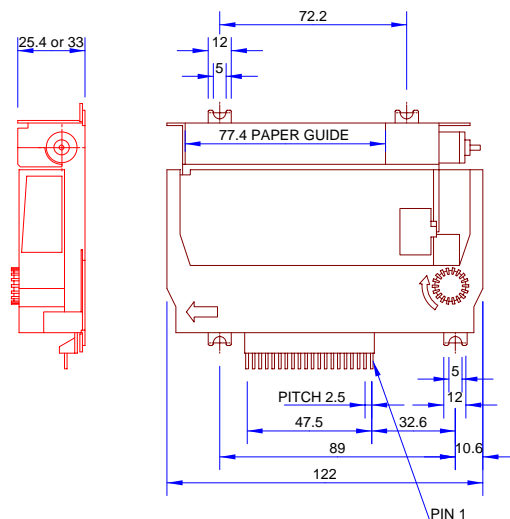
M260: Single colour mechanism Stock No: 551-261  
M262: Red/Black mechanism Stock No: 551-262  
CASSETTE AND MATING CONNECTOR NOT INCLUDED

## 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

## PHYSICAL DIMENSIONS (mm)



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Specifications are subject to change without notice



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