User Guide

ICP 300
In-Cab Printer

Operation

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Introduction

Figure 1

The RDS ICP 300 In-Cab printer is an ultra-compact thermal printer designed for easy paper loading. It accepts 58mm wide rolls up to 44mm dia. The printer is connected to and powered from the instrument via a single cable with RJ-12 connector, and operates with a supply voltage in the range 10-35V dc. No maintenance is required except to occasionally clean the rubber paper roller to remove any dirt buildup.

Parts List

Part No	Description	Qty
S/HU/167-4-001	ICP 300 Printer	1
S/BK/167-4-015	Mounting Plate	1
S/CB/167-4-005 or:	Printer Cable for Wizard	1
S/CB/167-4-006	Printer Cable for Pro-Series/PSi	
S/F701-050	M3X 8 Screw	2
S/F713-001	M3 Washer	2
S/FSNR/940117	M6 x 16 Hex Set Screw	2
S/FSNR/406	M6 Nut	2
S/FSNR/940205	M6 Washer	2
S/CBL/TIE/001	Cable Tie	25
S/AC/167-3-030	Paper Roll	2

Setup

Plug the printer cable RJ-12 connector into the back of the printer and then attach the mounting plate with the two M3 screws provided.

The cable is connected normally to the upper port on a 'Pro-Series'/'Psi' head unit, or into the 'Terminator' junction box of a 'Wizard' instrument (fig. 2).
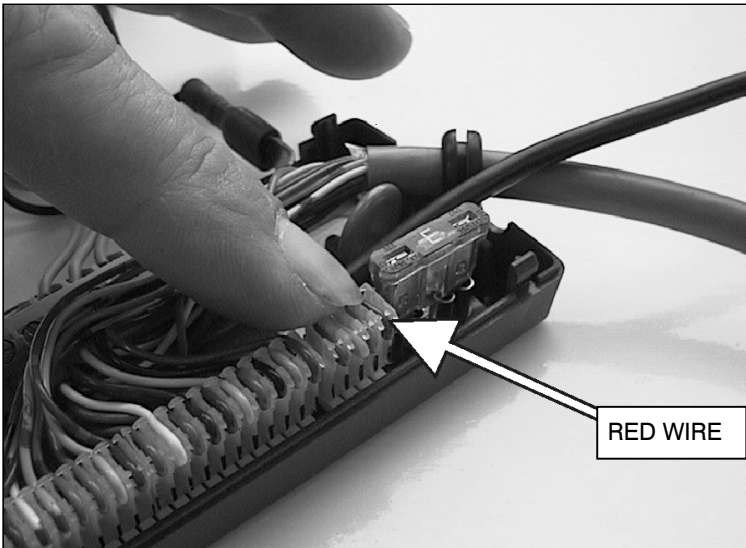

Figure 2 Connecting to a Wizard Head Unit

Connect the lead Pt No. S/CB/167-4-005 onto the 4-way connector in the terminal box as shown.

Locate the cable grommet onto the moulding, and cable-tie the head unit lead onto the moulded cable saddle to provide strain relief.

Operation

When installed with a Wizard instrument the printer is normally powered on as the vehicle is started.

When installed with a Pro-Series/Psi instrument the printer is powered on when the instrument is switched on.

The status LED illuminates and the printer mechanism is reset.

Pressing the (image) button advances the paper.

Power-On Self-Test

Press and hold the (image) button and then power up the instrument. The printer will then print a self-test report.

The self-test procedure checks most of the printer functions except for the serial interface

Status LED

If there is a problem with the printer, the status LED will indicate a fault condition by a flashing sequence as follows.

LED Indication			Condition	Solution
On			Normal	-
Off			No Power	-
*	*	*	Paper Out	Fit new paper
**	**	**	Print head too hot	Allow head to cool
***	***	***	Power below 10V dc	Check supply +V

Replacing the paper roll

Pull the lever up until the lid is released. Do not use excessive force.

Figure 3: Unlock paper compartment

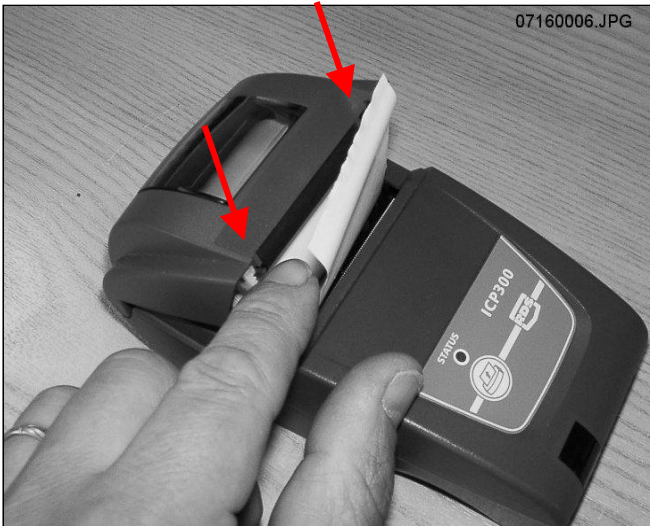Replace the roll and press the lid at each side until it clicks shut.

Figure 4: Lock paper compartment

Maintenance

Occasionally, it may be necessary to clean dust or foreign matter from the paper compartment. Wipe the paper compartment clean using a dry soft cloth only.

The rubber roller can be removed for cleaning if necessary. Push the roller forwards at each end to disengage it from the slots (figure 5).

NOTE: DO NOT angle the roller too far with one end still engaged as this may break the moulding.

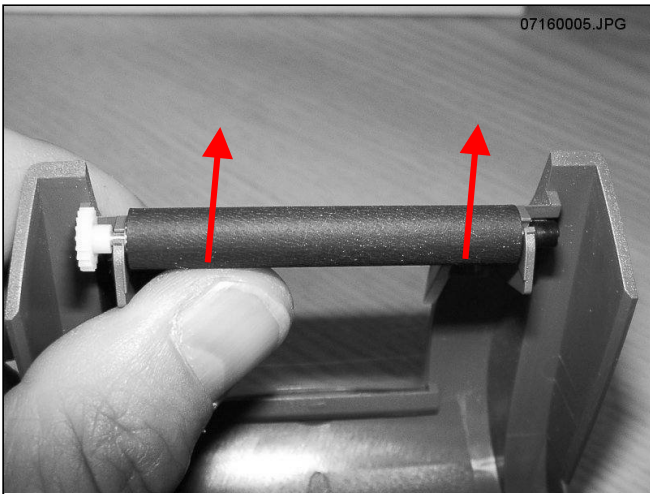*DO NOT touch or attempt to clean the print head.*

Figure 5: Remove paper roller

Service

There are no servicable parts. In the event of damage or failure, the printer is replaceable only as a complete unit.

Specifications

Printing

Printing System	Direct Thermal line head
Characters per line	48
Character matrix	24 x 8
Horizontal dot pitch	0.125mm (200 dpi)
Vertical Dot pitch	0.125mm
Printing width	48mm
Max. print speed	10 lines per second
MTBF	Approx. 10^7 lines (20°C, print ratio 25%)

Power

Voltage	External 10 – 35 V dc
Operating Current	From 1A @ 35V to 2.7A @ 10V
Standby	30 mA

Paper

Paper roll	58mm x 44mm dia
Paper specification	TF50-KS-E2D (recommended)

I/O

Interface	RS232C
Connector	6-way RJ-12 socket
Baud rate	4800
Parity	None
Data Bits	8
Stop Bits	1
Handshake	Hardware (CTS)
Buffer	5 Kbyte
Character set	ASCII

Environmental

Operating	0°C to +50°C
Storage	-20°C to +60°C
Dimensions	85.5mm x 150mm x 55mm (excluding bracket)
Weight	0.4 kg (excluding bracket)

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