

Production Board

Installation Manual

Title Page

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1. Introduction

1.1. *Scope*

The scope of this document covers the Production Display Board.

1.2. *Purpose*

The purpose of the document is to provide the relevant information to enable the user to operate and maintain the Display Board correctly.

1.3. *System*

The system consists of a Production Display Board connected to a PC via an RS232 connection using the 4 pin Maplin on top of the Display. An optional RS485 5 pin Maplin is also fitted to the Display

The Production Board is a 4 line Display Board with 4 characters on the top two lines and 2 characters on the bottom two lines. The characters are 10cm high and are standard-bright red in colour. The primary function of the Board is to show the comparison between actual production and target production in numerical values.

The Board may be operated using *ProdnSDS*, a windows based software package or from a volt-free pulse to the Parallel Interface Board.

Warning

Only trained and authorised personnel should do tests and maintenance on this Display Board System.

2. Hardware Installation

2.1. Unpacking

Carefully remove the items from their package and store the packaging safely. After unpacking, inspect the contents for any damage that may have occurred during shipment. In the event of damage, refer to the Return of Equipment procedure section of this manual.

2.2. System Configuration

The Display Board should be located in a position where there is unrestricted viewing of the front face of the Board. Also locations where the Board is subject to bright lights or direct sunlight should be avoided. Mount the Board securely and connect the cables as shown in the figure below.

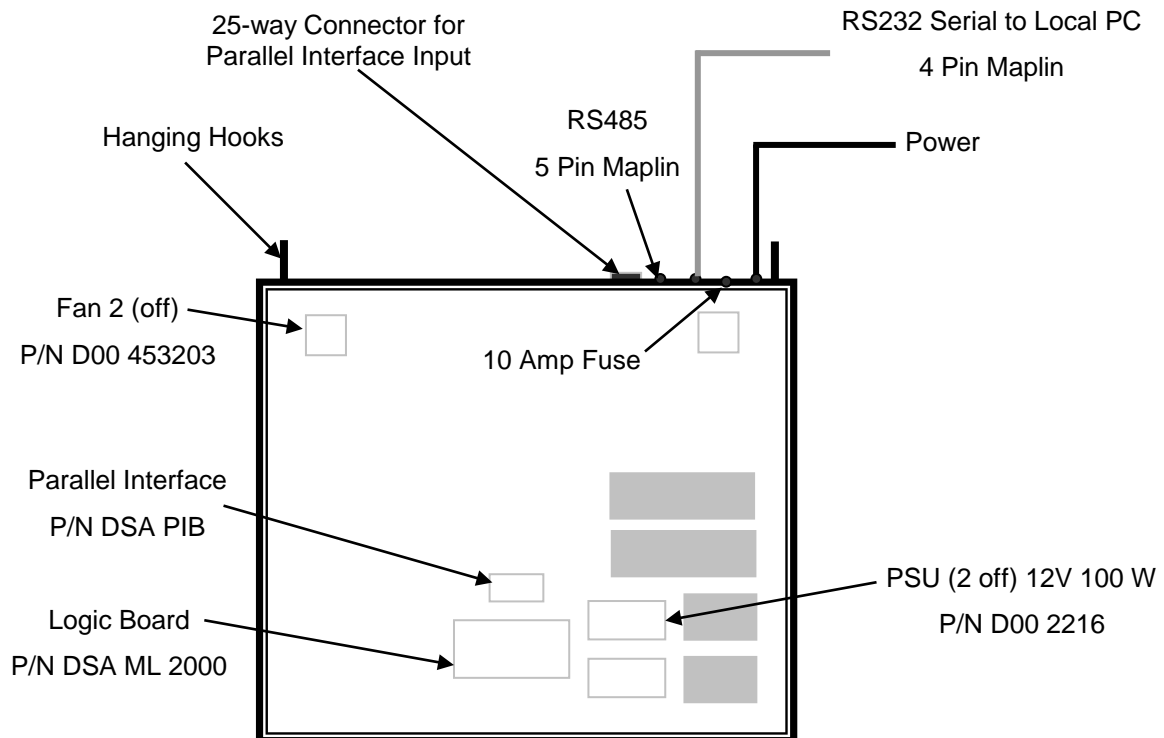


Figure 1 – System Configuration for Display Board.

3. Operating Instructions

3.1. Initial Start Up

After power-up, the last message sent to the Display Board will be shown. If no message has been sent to the Display, a dot will flash on the bottom right-hand corner of the Display.

The Display may be operated using the *ProdnSDS* software package or by a volt-free pulse to the Parallel Interface.

3.2. Installing ProdnSDS software

To install the *ProdnSDS* software using Windows 95, do the following steps:

1. Insert the diskette in the floppy (A) drive,
2. Click the *Start* button
3. Select *S*ettings and click on *C*ontrol Panel
4. Double click the *A*dd/*R*emove Programs icon and follow the instructions displayed the on screen.

Add *ProdnSDS* to the Start menu by creating a short-cut as described in your Windows 95 User Manual. For further details on the *ProdnSDS* software, refer to the SDS User Manual.

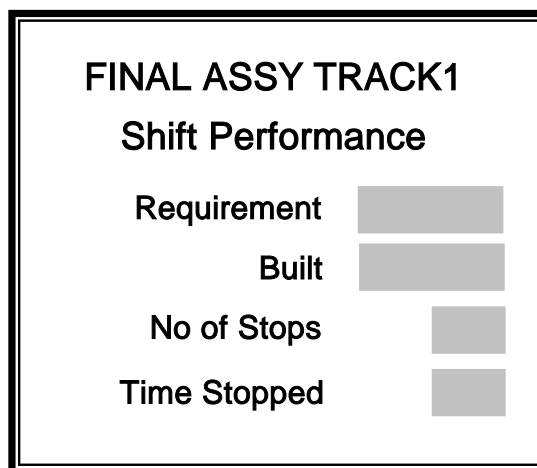


Figure 2 – Fields on Display Board.

3.3. Parallel Interface Pin Connections

To operate the Display using the Parallel Interface, a volt-free contact is needed. Making contact with Pins 1 to 5 on the 25-way connector results in the following:

Pin Number	Action
Pin 1	Increments the ' <i>Built</i> ' value by 1
Pin 2	Increments the ' <i>No of Stops</i> ' value by 1
Pin 3	Increments the ' <i>Time Stopped</i> ' value by 1
Pin 4	Resets the ' <i>Built</i> ' value to 0
Pin 5	Resets the ' <i>No of Stops</i> ' and ' <i>Time Stopped</i> ' value to 0

Table 1 - Parallel Interface Pin Connections.

3.4. Changing from RS232 to RS485

To change the serial input from RS232 to RS485, make the following changes to the Logic Board.

1. Power down the Display Board
2. Remove the side bracket of the Display Board and slide the Lens outwards
3. Locate the Links LK1 and LK2 on the Logic Board, to the left of the RS232 chip
4. Move the Jumper on LK2 up one link
5. Move the Jumper on LK1 down one link
6. Slide in the Lens and attach the side bracket.

4. Maintenance

Warning: Disconnect the power supply before you remove any display panels. Make sure work area is clean and clear of tools and miscellaneous items of equipment after maintenance.

4.1. Maintenance Instructions

4.1.1. Cleaning the Display

Routine cleaning of the Display Board is at the discretion of the operator and subject to local conditions. Use damp non-abrasive materials such as a sponge, or lint-free cloth and a soft detergent (washing-up liquid) to clean the Display. Remove difficult stains or marks with a suitable solvent. **DO NOT USE** sharp or metal objects.

4.1.2. Preventative Maintenance

Inspect the Display for defects before each operation. Do a visual check for the following:

- Damaged or dirty Lens
- Defective LEDs

4.1.3. Corrective Maintenance

Replacing a defective LED:

1. Remove the side bracket and Lens of the Display
2. Loosen the attaching screws on the Display Panel
3. Disconnect wiring and remove the Display Panel
4. Remove solder from the rear of the defective LED
5. Replace the LED
6. Apply solder and wait to dry
7. Connect the wiring and attach the Display Panel
8. Slide in the Lens and attach the side bracket.

Replacing a defective Logic Board:

1. Remove the side bracket and Lens of the Display
2. Disconnect wiring on the Logic Board
3. Remove the Logic Board by unscrewing the attaching nuts
4. Replace the Logic Board and connect all wiring
5. Slide in the Lens and attach the side bracket.

Replacing a defective Fuse:

1. Use a flat-head screwdriver to open the Fuse holder at the top of the Display
2. Replace the Fuse
3. Close the Fuse Holder.

Clean the Display with a damp cloth and make sure the unit is watertight after all maintenance.

4.1.4. Special Measures following a Stoppage

If the Display is out of service for a long period of time, carefully remove the Display and store it in a cool dry place.

4.2. *Handling Equipment*

- One working platform
- Standard tool kit

4.3. *Special Tools*

There are no special tools required.

4.4. *Spare Parts*

For spare parts, contact your nearest Data Display Customer Service Department. **Make sure to quote the Data Display No. in the Product Specifications section of this Manual and the Serial No of the display.**

4.5. *Return of Equipment*

Follow the procedures listed below when returning a Display:

1. Disconnect all cables and carefully remove the Display from the mounting
2. Pack the Display in the original packing.
3. If the original container is not available, pack the Display in a wooden carton. Use cardboard and polystyrene wedges to protect and cushion the Display.
4. Mark carton(s) "THIS SIDE UP" , "THIS SIDE DOWN" and "FRAGILE" where appropriate.
5. Make sure to include with the Display the following information:

NAME

ADDRESS

TELEPHONE NUMBER

SERIAL NUMBER OF DISPLAY

DESCRIPTION OF THE PROBLEM

(A short description is sufficient)

Contact your nearest Data Display Customer Service Department and a suitable collection date and time will be arranged.

5. Product Specifications

CHARACTERISTIC	VALUE
<i>Display Features</i>	
Model	DBTARGET/ACTUAL
Data Display Ref No.	J02071001
Display Type	Production Board
No. of Lines per Board	4
No. of Characters per Line	2 lines of 4 and 2 lines of 2
Character Size	10cm
LED Colour	Standard-Bright Red
<i>Communication</i>	
EPROM	WORC-FAT, V1.0
Protocol	DB Win
Baud Rate	9600
Addressing	P103
Data Format	8 bit, 1 stop bit, no parity
Character Set	Extended ASCII set
<i>Electrical</i>	
Fuse Value	10 Amp
Main Power Supply	230 Volts
Frequency	50 Hz
<i>Housing</i>	
Dimensions (HxLxD)	1200mm x 1400mm x 75mm
Housing Material	Aluminium
Housing Colour	Black
<i>Environmental Conditions</i>	
Temperature Range	-5°C to 65°C
Humidity Range	5% to 80% without condensation

Table 2 - Product Specifications.