

# TAKT TIME Production Board

## User Manual

### Title Page

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### **Warning**

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

# 1 Installation Instructions

## 1.1 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.

## 1.2 Hardware

The Production Display should be located in a position where there is unrestricted viewing of the front face of the Display. Also avoid locations where the Display is subject to bright lights or direct sunlight.

Mount the Display securely and connect the cables as shown in Figure 1.

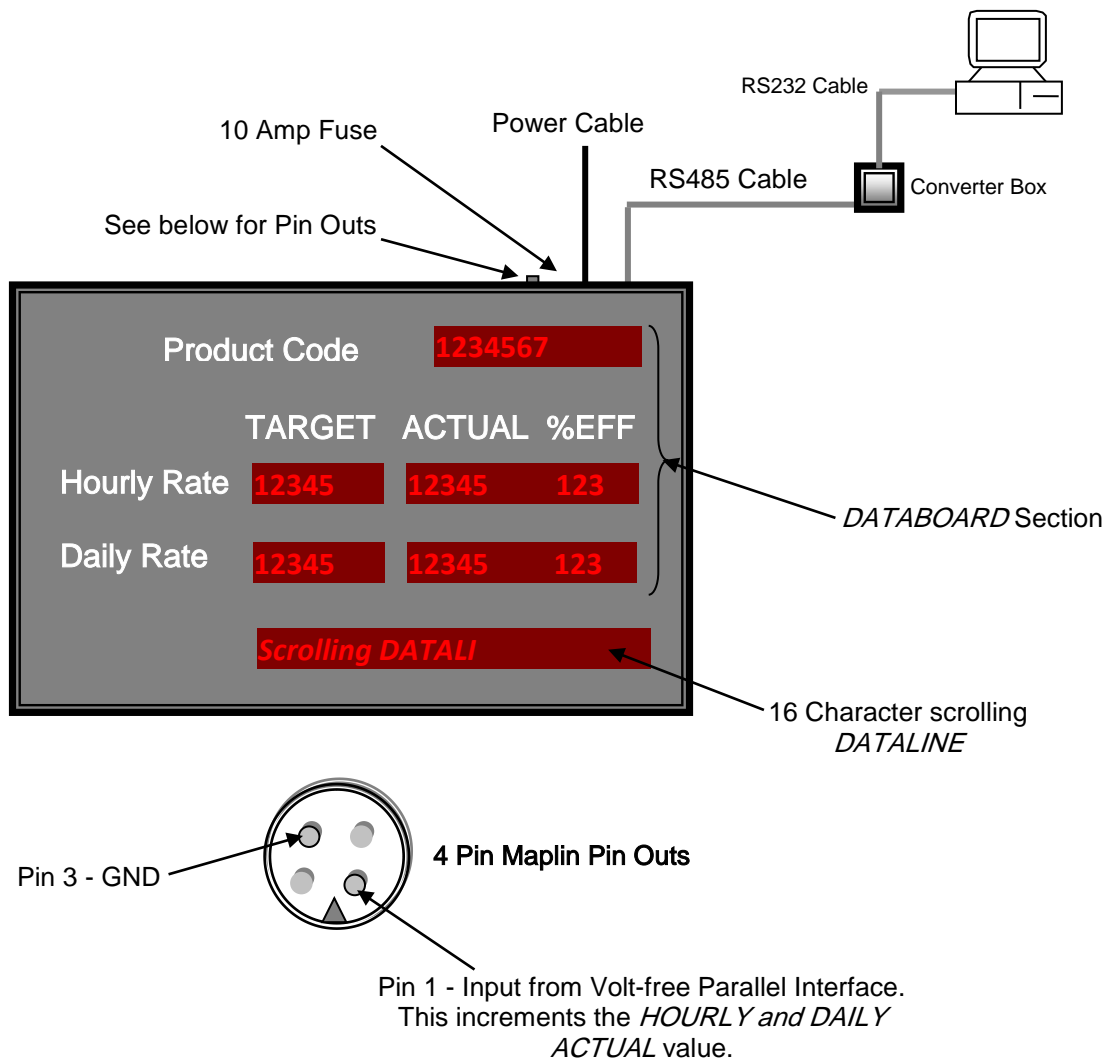


Figure 1 – System Configuration.

### 1.3 Software

The ProdnSDS software package is supplied in floppy disk format. Using MS Dos, type 'A:\install' at the prompt command. To install the ProdnSDS software from the floppy disk using Windows 95, do the following:

1. Insert the disk in the floppy drive
2. Click the *Start* button, Select *Settings* and click on *Control Panel*
3. Double-click the *Add/Remove Programs* icon and follow the instructions displayed the on screen.

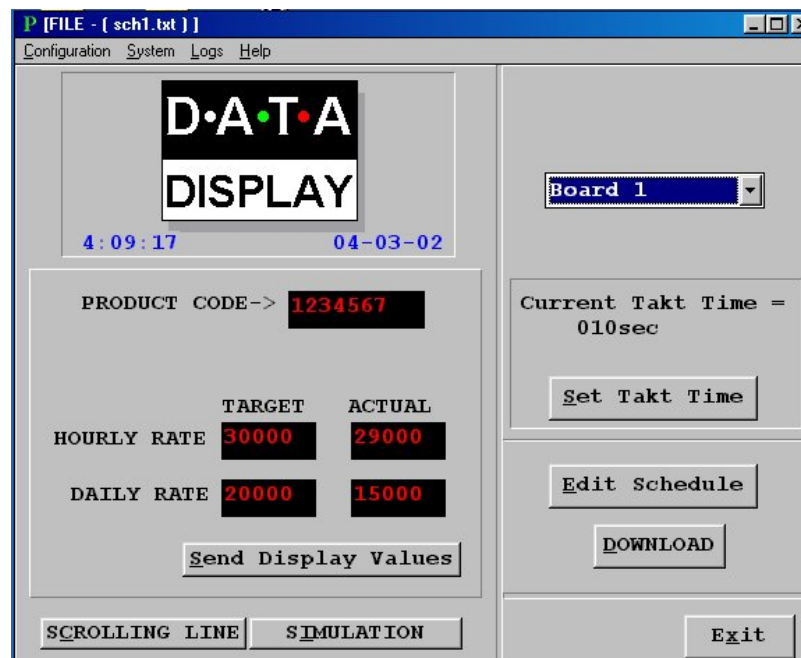
Add *ProdnSDS* to the Start menu or Desktop by creating a shortcut as described in your Windows User Manual.

## 2 Operating Instructions

### 2.1 General

The main function of the Production Display is to show the Target/Actual values and efficiencies of the production line depending on the TAKT Level settings. The Display works as follows:

1. The *HOURLY RATE TARGET*, *DAILY RATE TARGET* and *PRODUCT CODE* values are entered manually using the ProdnSDs software.
2. The *HOURLY RATE ACTUAL* and *DAILY RATE ACTUAL* values increment by 1 each time the Display receives a Volt-free pulse to the Parallel Interface installed in the Display.
3. The percentage efficiency (% Eff) is calculated automatically and displayed by the software.
4. To create and edit general text message, click on the SCROLLING LINE button.



*Figure 2 - Production Board Display User Interface.*

To send values to the Display manually, enter the values in each text box, select Board 1 or 2 and click on the *Send Display Values* button.



The Display may be reset to zero up to 25 times during the Shift(s).

**Note:** If a time parameter is not used, enter **\*\*a\*\*** or **\*\*p\*\*** in the time parameter.

### 2.3 Copying similar file details

Where the shift patterns are similar, click on the '*COPY TIMES TO ANOTHER DAY*' button to copy a selected file from one day to another.

To copy times, do the following steps:

1. Click on the '*COPY TIMES TO ANOTHER DAY*' button
2. Select the day from the drop down list
3. Click on the '*OK*' button.

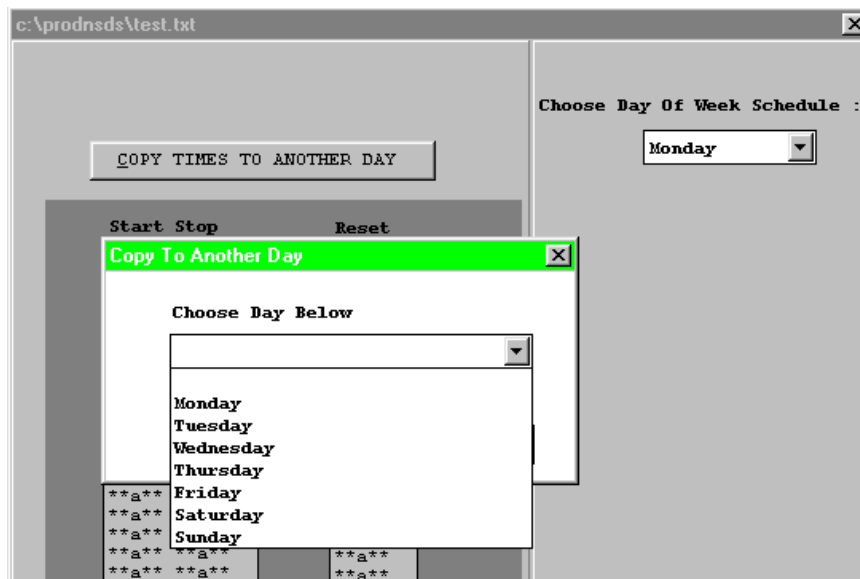


Figure 5 -Copying schedule times to another day.

### 2.4 Setting the Shift TAKT Time (Level)

The TAKT Time value is set to provide a moving target to which the current production level may be monitored. This value is set at the operators' discretion. The Display increments by this value every minute. The AMBER and RED LEVELS are not applicable for this Display.

To set the TAKT Time value, do the following steps:

1. Click on the '*Set TAKT Time*' button on the User Interface
2. Enter the TAKT value, e.g. 020, The Display will increment by 20 every minute
3. Click on the '*OK*' button.

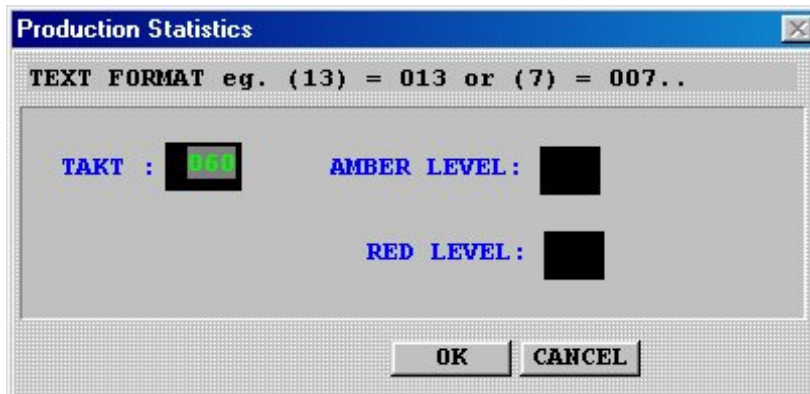


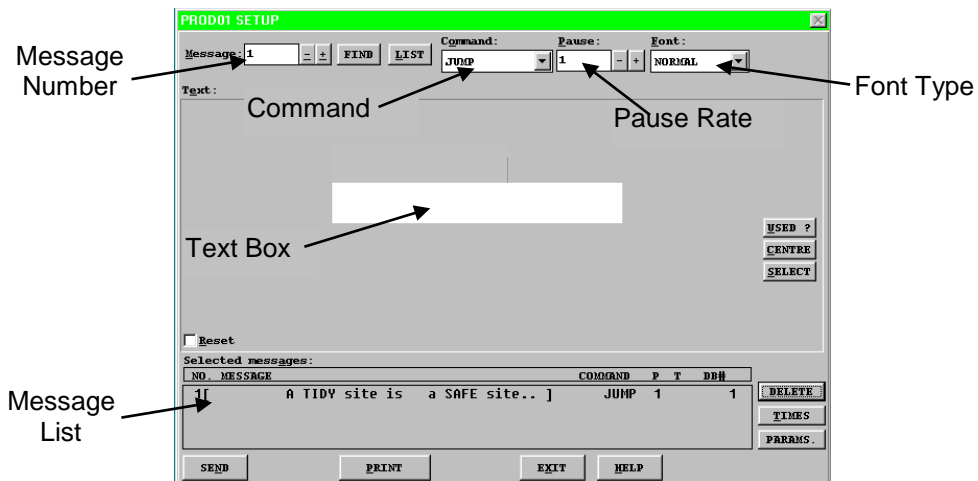
Figure 6 - Setting TAKT Time.

## 2.5 Downloading to the Display

After creating or editing the schedule files, click the 'DOWNLOAD' button to send the file details to the Display. Clicking the 'DOWNLOAD' button also sends the current Time and Date to the Display. Make sure the PC is set to the correct time.

## 2.6 Sending Messages to the DATALINE

To send text to the 16 character Databoard section of the Display, click on the *Scrolling Line* button to open the Message Editor Interface. Enter your text message in the text box and click on the 'SELECT' button. The message is now added to the message list at the bottom.



Click on the 'SEND' button twice to send the new text message to the Display  
 To edit a text message, click the message number (+/-) to show the message in the text box. Make the changes to the text message and click on the 'SEND' button. The changes to the message are shown in the message list. Click on the 'SEND' button again to send the new changes to the Display.  
 Various Commands, Pause Rates and Font Types can be selected from the drop down lists to give your message more effect.  
 When messages are sent to the Display, click on the 'Simulation' button to view the text message currently being shown on the Display.  
 For more features and functions, refer to the SDS User Manual.

## 3 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.

### 3.1 Maintenance Instructions

#### 3.1.1 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 to clean the Display. Remove difficult stains or marks with a suitable solvent. **DO NOT USE** sharp or metal objects.

#### 3.1.2 Preventative Maintenance

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

- Damaged or dirty Lens
- Defective LEDs
- Loose Cables

#### 3.1.3 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. Loosen the attaching screws on the Display Panel
3. Disconnect wiring and remove the Display Panel
4. Remove the Logic Board by unscrewing the attaching nuts
5. Replace the Logic Board and connect all wiring
6. Slide in the Lens and attach the side bracket.

Replacing a defective Fuse:

1. Open the Fuse holder on the Display with a flat-head screwdriver
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.

### 3.1.4 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.

## 3.2 Handling Equipment

- One working platform
- Standard tool kit

## 3.3 Special Tools

There are no special tools required.

## 3.4 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.**

## 3.5 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 protective 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.

## 4 Product Specifications

CHARACTERISTIC	VALUE
<b>Display Features</b>	
Data Display Ref. No	DDJ04568001
Model	DB-PRODN BOARD-IN 5CM
Display Type	TAKT Time Counter Production Board
No. of Lines per Board	4
Characters per Line	Various
Character Size	5cm
Display Panel Type	DL405R (8), DL216R (1)
LED Diameter	5mm
LED Colour	Standard-Bright Red
<b>Communication</b>	
EPROM Protocol	AUTOGLYM.OBJ, ENG-16 9600, DB Win
Baud Rate	9600
Data Format	8 bit, 1 stop bit, no parity
<b>Electrical</b>	
Fuse Value	10 Amp
Main Power Supply	230 Volts
<b>Housing</b>	
Dimensions (LxHxD)	1373mm x 638mm x 75mm
Housing Material	Aluminium
Housing Colour	Black
Lens Colour	Grey
<b>Environmental Conditions</b>	
Temperature Range	-5°C to 65°C
Humidity Range	5% to 80% without condensation

*Table 1 - Product Specifications.*