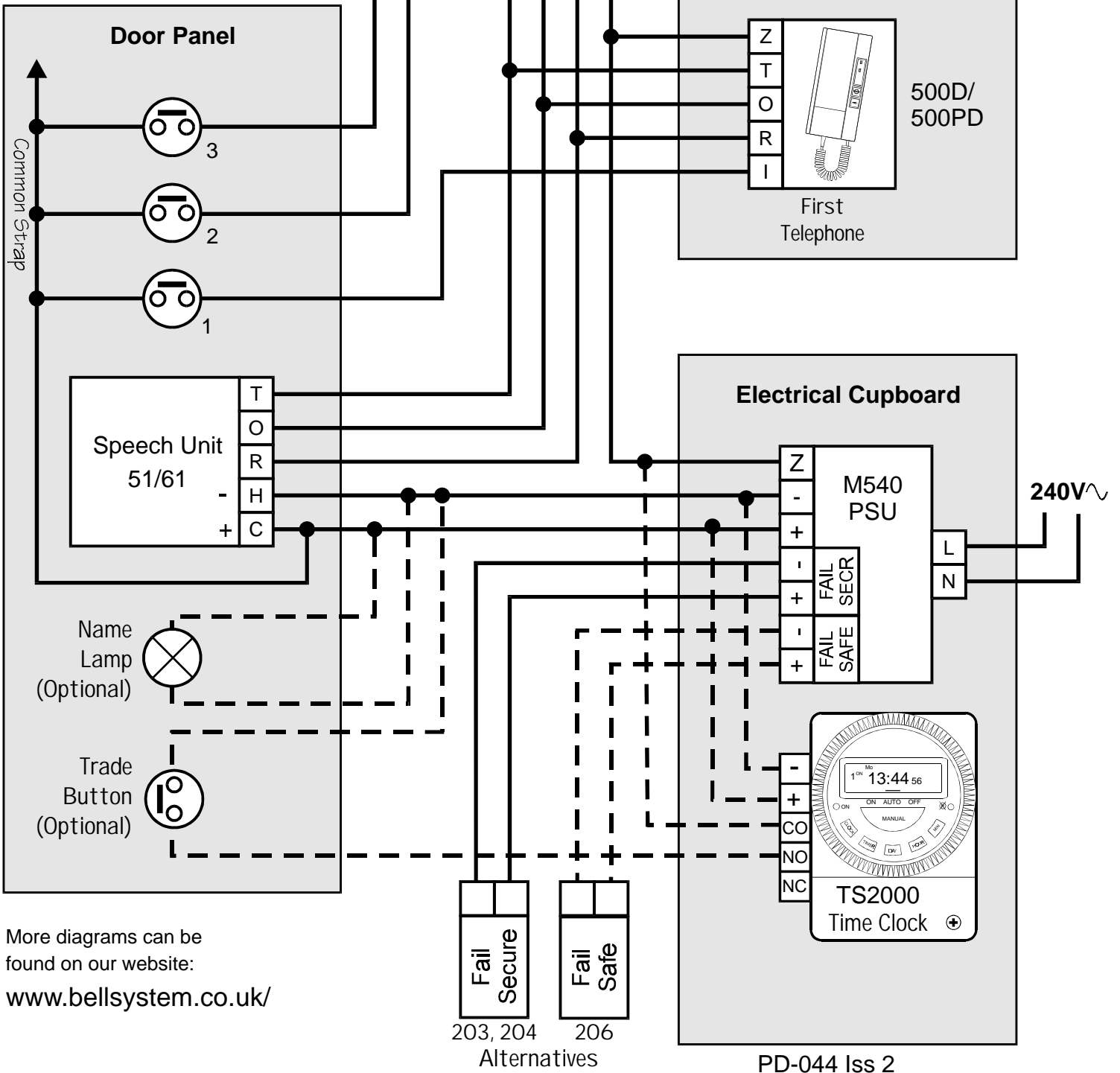


# Wiring Diagram for DC Door Entry Systems with a M540 Power Supply

**500D**

Telephone Models:  
500D 500PD

For more than 20 phones, the use of privacy types 500PD is recommended.



More diagrams can be found on our website:  
[www.bellsystem.co.uk/](http://www.bellsystem.co.uk/)

# Installation of Door Entry Systems

## Important Safety Information

The **Power Supply Unit** must be placed in a protected indoor environment such as an electrical cupboard, close to a 240V AC electrical supply and located no further than 50 metres from the entrance panel. It must be wall-mounted onto plasterboard, wood or a similar non-conductive material.

Connections to the 240V AC mains supply must be carried out by a qualified electrician or similar competent person, and made in accordance with accepted safety practices. A two-pole switch (as provided by a Consumer Unit or Switch-Fuse) must be included to isolate both Live and Neutral during Installation or Maintenance. The transformer is protected by fuses; always replace these with the correct type and rating.

Use only mains cable to BS6004 or equivalent, within the following specified limits:

<b>Conductor Diameter:</b>	Min. 1.0mm (0.8mm <sup>2</sup> )	Max. 2.25mm (4mm <sup>2</sup> )
<b>Cable Diameter:</b>	Min. 4.0mm	Max. 8.0mm

The **Door Entry Telephone** is designed to be wall-mounted in a convenient indoor location.

The **Entrance panel**, containing the speech unit, is available with either a surface or flush-mounting back box. Normally this would be mounted on an outside wall near the front door, and if possible in a sheltered location.

The **Model 203 Electric Lock Release** is designed for use on an inward opening door fitted with a surface night-latch type lock. This should be installed with a small amount of play on the door as operation will be impaired if too tight.

**Tradesman button (optional):** This is used in conjunction with a time-clock to allow tradesmen access during restricted hours.

**Cable requirements:** For optimum speech clarity, it is strongly recommended that this system is installed using twisted-pair telephone cable (eg type CW1308). Use one of the pairs for the R & O connections between the speech unit and the telephone.

**Installation:** Connect all items by following the diagram overleaf. It is strongly recommended that a single telephone be connected at a time and fully tested before proceeding to the next.

**Speech adjustment:** The speech unit has two controls at the rear for adjustment of speech levels:

Volume A: Speech level at the Entrance Panel

Volume B: Speech level at the Telephone

If feedback is experienced (a howl or whistle) turn both controls to 'off' and then slowly adjust each up in turn until a satisfactory level of speech is attained.

**Troubleshooting:** No speech/ insufficient speech: Initially establish correct operation of the Speech Unit by disconnecting all telephones and re-connecting a single telephone with a short length of cable (R O T only); Reconnect the telephones one at a time until the fault re-appears. Note: speech will be impaired if one or more telephones are left off the hook.