S884A READER

<u>TECHNICAL DESCRIPTION OF OPERATION</u>

The S884A Proximity Reader's intended purpose is to read identification codes programmed into a range of passive contactless Smart cards, accept PINs through a keypad and display a response on a 86 x 240 pixel LCD and one of three banks of LEDs. The maximum read range is about 4". The unit is intended to be connected by cable to a range of Access Control Controllers which provide the necessary power and control/interface signals.

The circuitry is contained on a single PCB which is mounted in a plastic enclosure (150mm x 110mm x 25mm approx). The cable from the terminal block exits through a large hole in the back of the unit.

The power supply is a nominal 12V DC and linear regulators are used to provide 5V and 3V3 internal supply rails.

The antenna is a printed coil that emits a 13.56MHz magnetic field. The field 'powers up' a Smart card which is brought into the vicinity of the antenna. When powered this operates as a field disturbance device allowing two-way communication to take place between the reader and the card. The field is switched on continuously and modulation of the field is carried out by a dedicated device which is manufactured by NXP for the purpose.

The control processor handles communications between the reader and the controller, responding to commands received and passing card data and status information back to the controller. The control processor also carries out housekeeping tasks such as scanning the keypad and monitoring the tamper switch and the general purpose inputs