R A C S

R o g e r A c c e s s C o n t r o l S y s t e m

System overview

RACS_UK.doc
Roger S.C.
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System concept

System is designed for installation of up to 32 independent door, controlled with electric look. Up to 1,000 users can be defined in system. User can be identified by card and/or PIN code. Each user is assigned an access group that will allow entry at selected doors, only according to pre-defined schedules. All events are recorded by the system for future reviev. Once the system is configured, the computer is required only to monitor/update the system or to print reports. The report generator can provide information sorted and printed according to operator needs. For communication purposes RACS system implement RS485 standard, use of it guaranteed up to 1200m distance between controllers. Due to reduced data transfer no termination resistors are required, installer may build communication bus using tree or star structure or combination of both. In case of comm. bus failure system can continue operation but events registration disappeared, controllers freezes time zone settings until communication returns.

The RACS hardware consist of :

- main control panel
- door controllers
- identification terminals
- communication interface
- auxiliary power supply

Building bigger systems

As mentioned above RACS system basically offer operation with up to 32 controllers on one communication bus equipped with CPR. Bigger systems can be implemented by multiplying such basic structures. The RACS 3.0* software offer operation with up to 8 sub-systems (total 256 controllers) connected to separate PC's COM ports.

* RACS 3.0 now is under test phase and is due to be available at Q1 of 2002.

CPR main control panel

The CPR have two main functions :

- recording of events,
- control of access time zones (pre-defined access schedules),

When RACS system is equipped with CPR the PC computer is required only when configuration of system have to be changed or when the contents of CPR events buffer must be transferred to PC.
CPR fatures:

- 2A buffered power supply,
- battery backed memory banks and time/date clock,
- built in RS485 interface,
- 1A PGM alarm output,
- TAMPER loop input,
- signalization LED's and Buzzer,
- metal case with compartment for 17Ah battery,
- battery protection against deep discharge,
- battery charging by constant current method – constatnt voltage method,

There are two versions of CPR :

- CPR32 can operate with up to 32 PR controllers and have 240 000 events capacity,
- CPR8 can operate with up to 8 PR controllers and have 64 000 events capacity,

PR301/201 controllers

Controllers are logically device which organize access control to one door. They can operate in networked system or in stand-alone mode. When run in stand alone mode events registration is not avaiable and time schedules can not be implemented, in this case all users belong to one access level. Both controllers can be programmed locally using the MASTER identifier or remotely from the computer. The PR301 controller has a built-in proximity reader module, 12 digit keypad, three electric inputs, one relay and two transistor outputs. Inputs and outputs of the controller may be configured to several pre-defined functions. PR201 have the same hardware except keypad. An additional identification terminal can be connected to PR301/201 controller by means of two wires up to 300m long (Clock and Data lines). Users can be identify direct on the controller as well as on the terminal. Terminal together with controller can organize both side door control.

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PR401 controller*

Similar to PR301/201 controllers the PR401 is also dedicated for one door (single or double side) access control. PR401 isn't equipped with any identification mechanism (proximity or PIN code), instead of it this controller can operate with two remote identification terminals. Beside this controller offer few advanced access control feature including anti-pass back feature and others.
* PR401 controller will be available on Q1/Q2 2002

PRT identification terminals

As mentioned above access terminals in RACS systems operate as auxiliary remote user identification device. Terminals does not grant access for particular users but recognize user (by card or PIN code) and transmit information to logic device (controller) which made proper decision. Terminals operate as a ordinary access control readers. There are few types of terminals including external versions. Wide range of terminals types gives opportunity to full fit installation requirements.

Communication interface

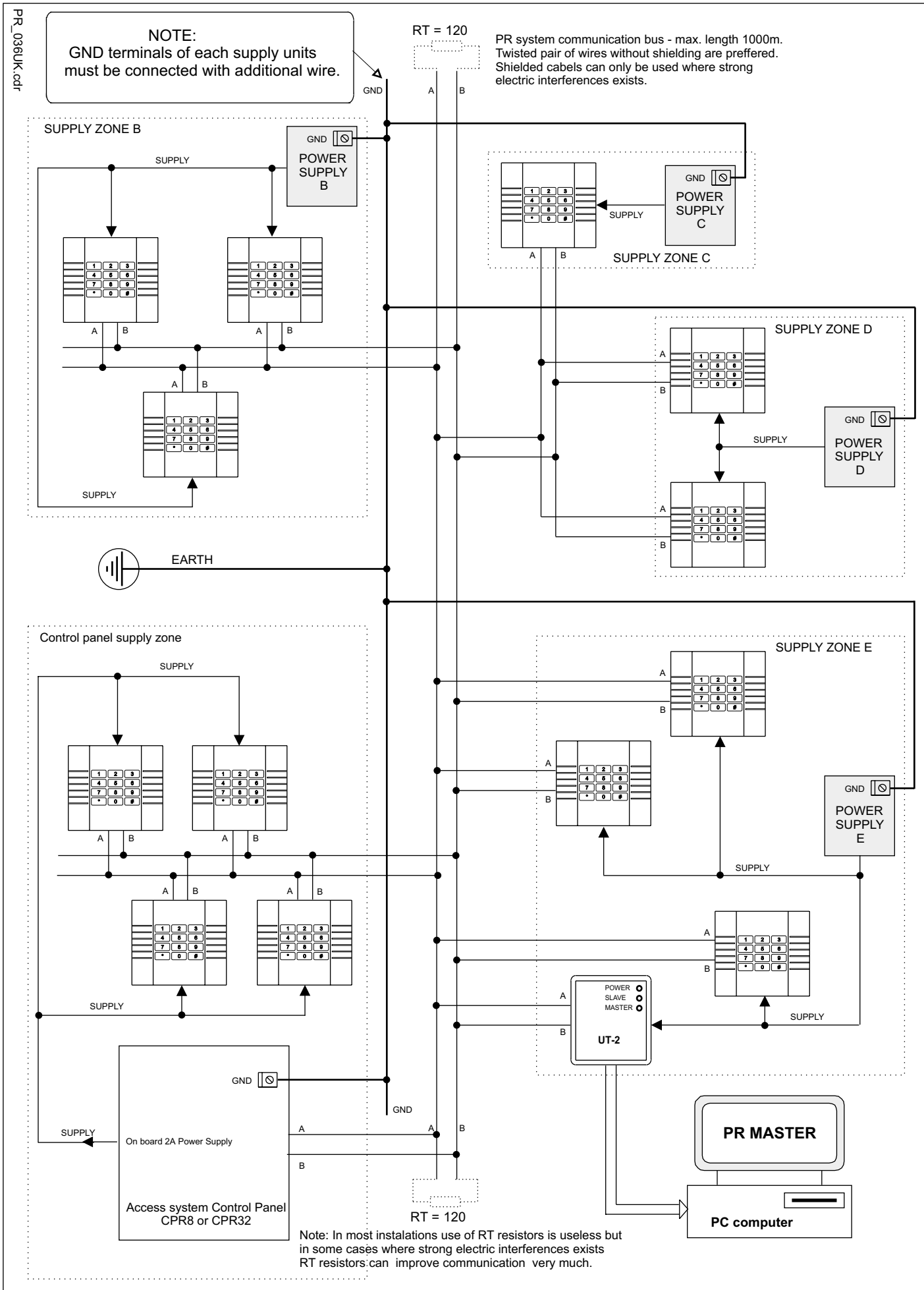
Because communication bus of RACS use RS485 standard an additional converter between PC and com. bus must be used. Roger offer UT-2 interface especially design for access system.

Software

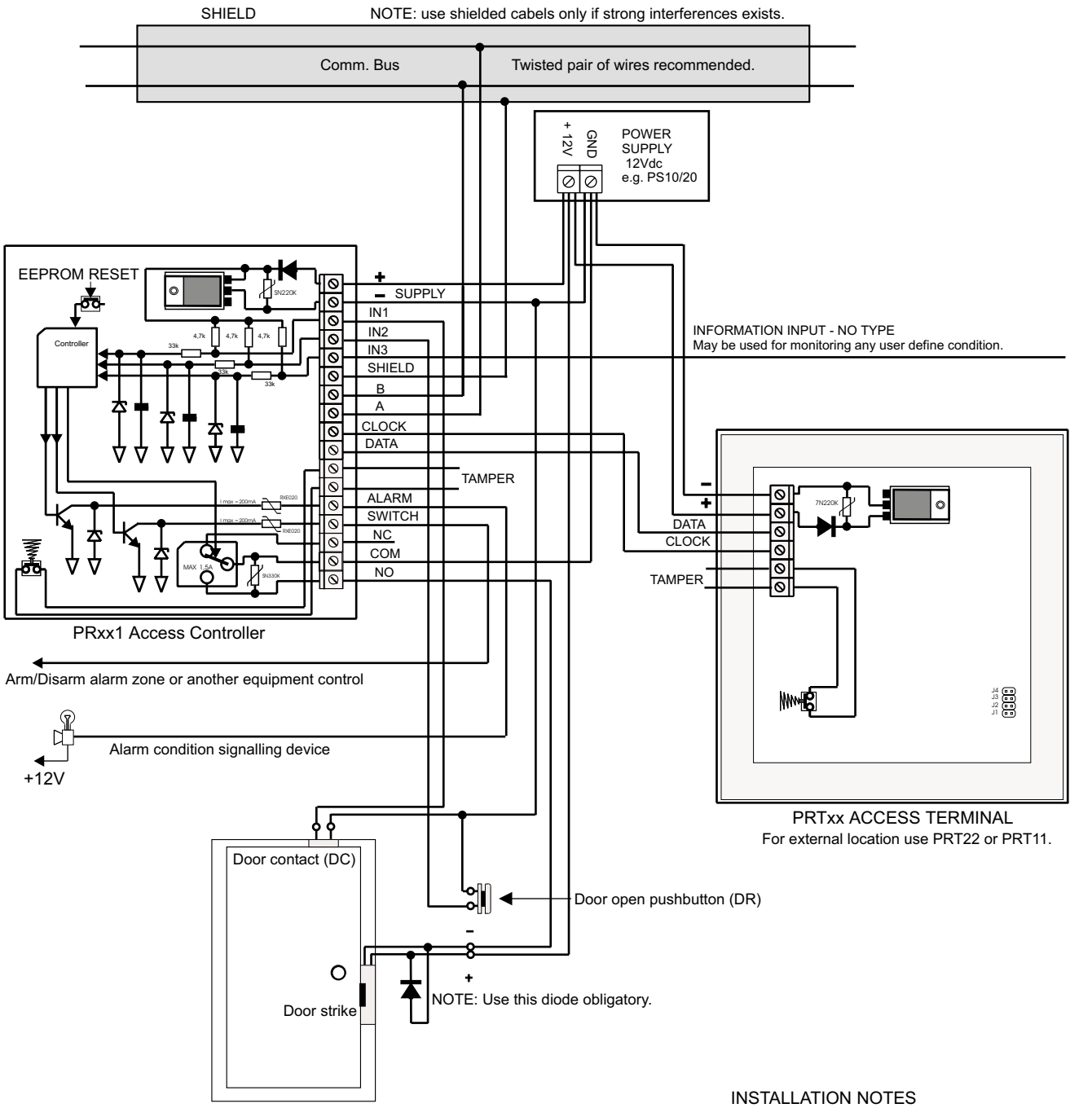
For system maintaining the RACS software packet must be used, packet consist of four programs :

- PR Master
- CPR Master
- RACS Remote Monitor
- Language selector

For increased security access to separate programs and some menus can be restricted to pre-defined users with passwords. With ***PR Master*** operator can create and modify system data base, from this program printed reports can be generated. PR Master can also be used instead of CPR control panel but in this case computer must work in On-line mode. Generally ***CPR Master*** is dedicated to configure CPR and download buffered events, beside this program enable on-line system monitoring. From this program operator can view system events on computer monitor and send interactive commands to controllers (e.g. open door, cancel alarm and etc.), some simple reports might also be generated. CPR Master has unique feature to broadcasts system events to another computers connected to LAN. Other operator can view system events on networked computers using ***RACS Remote Monitor***. RASC software packet gives foreign customers unique opportunity to create its own national versions of software at minimum cost. All text messages used by software are located in external Language.ini files which can be easy translated by third party. Selection of available language is done by use of Language selector, RACS software has at least one predefined language version - English.



PR access control system with 13 controllers, CPR type control panel and additional 4 power supply units.



INSTALLATION NOTES

Comm. Bus max lenght - 1000m.
The max. Distance between controller and terminal - 300m.

The max. voltage droop between controller and power supply must not exceed 1V level, for larger values reduce supply wire resistance.

Door strike must be supply with separate pair of wires.

Typical connection diagram of PRxx1 access controller.

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