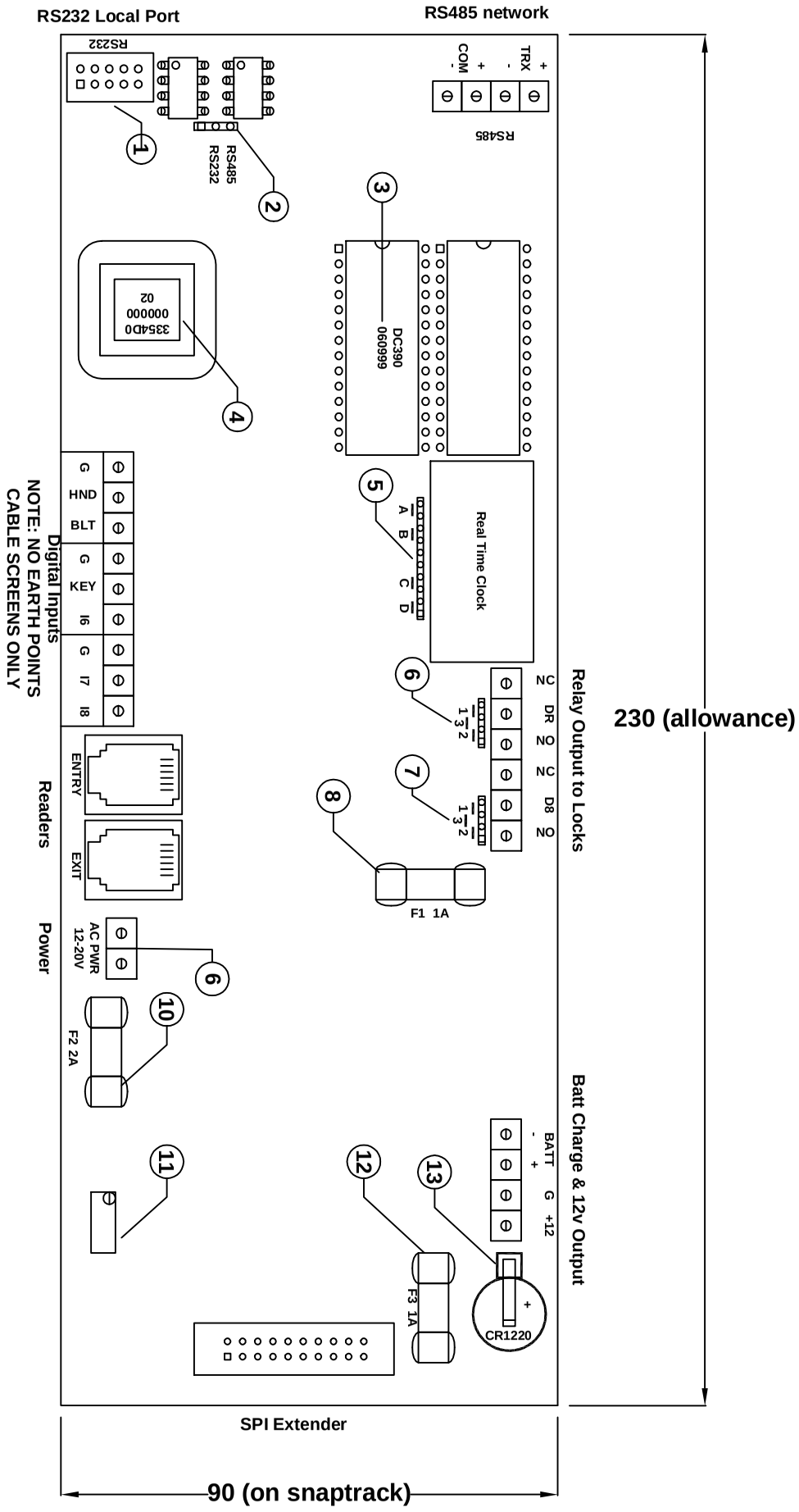


DC390 PCB

1 RS232 Communication Port

2 RS232 - RS485 Jumper

3 EPROM

4 Processor

5 Mode Jumpers

- A = Communications Mode
  RS485 on RS232 off
- B= Initialising Jumper
- C = Speed Jumper RS485
  41000 on 9600 off
- D = TDI 8bit input

6 Door Lock Power Jumper

7 Aux Relay Power Jumper

8 Door Lock Fuse

9 Power Input 16 VAC

10 Main Fuse

11 Battery Charger Trip pot

12 Auxillary 12 VDC Fuse

13 Backup Battery (3V Lithuim)

Commissioners Name:

Commission Date:

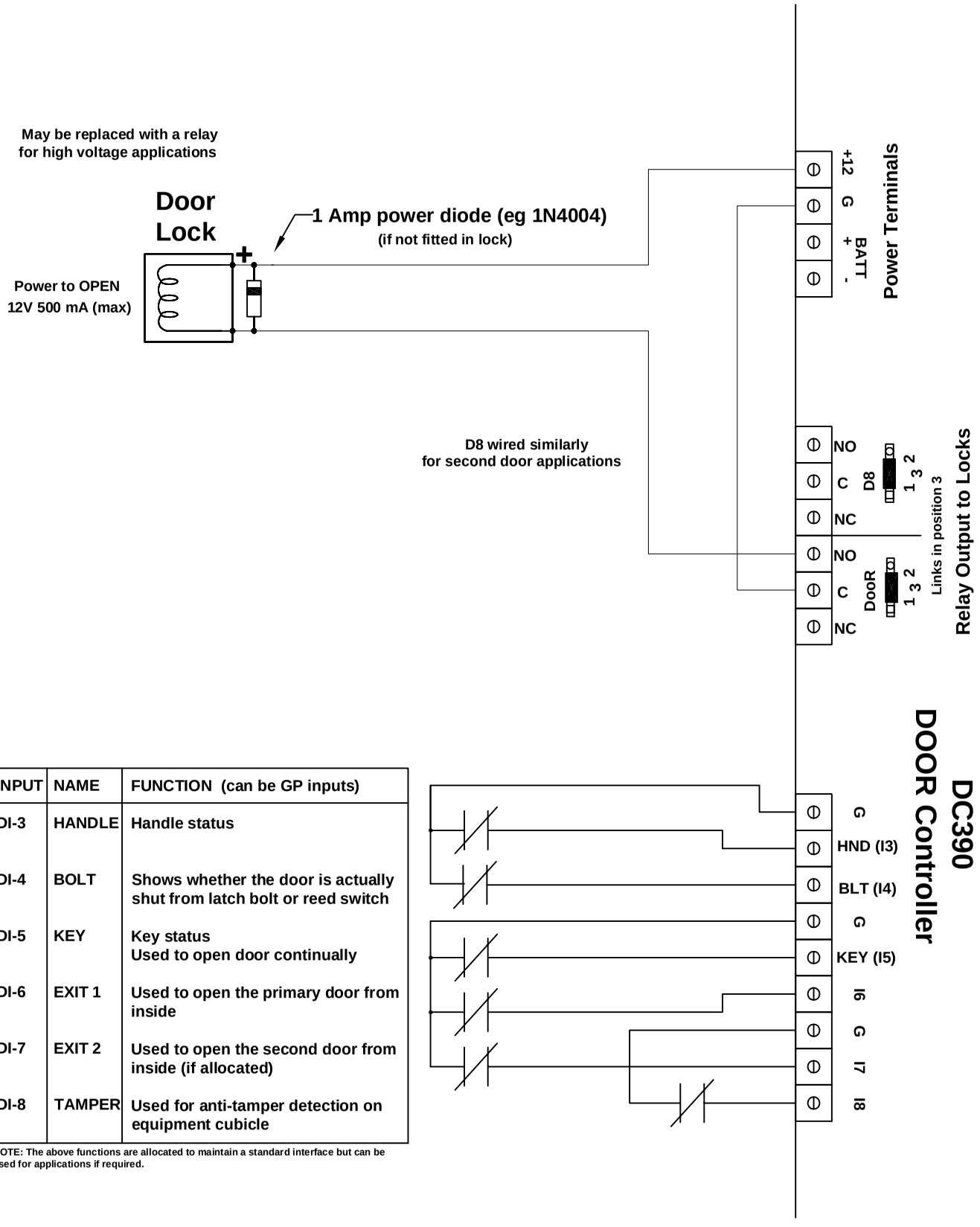
SPHERE SYSTEMS P/L
15 Mc Namara Street
Macleod 3085
Victoria AUSTRALIA
www.spheresystems.com.au
Ph: (03) 9457-6994 Fax: (03) 9457-6995

Project: ACCESS CONTROL SYSTEM

Sheet: Door Controller

Sheet No:	Drawing No:	Drawn By:	Checked By:
1 of 5	SPH-107	PJC	RS

Rev	Description	Date
A	Initial Release	08/10/2003



INPUT	NAME	FUNCTION (can be GP inputs)
DI-3	HANDLE	Handle status
DI-4	BOLT	Shows whether the door is actually shut from latch bolt or reed switch
DI-5	KEY	Key status Used to open door continually
DI-6	EXIT 1	Used to open the primary door from inside
DI-7	EXIT 2	Used to open the second door from inside (if allocated)
DI-8	TAMPER	Used for anti-tamper detection on equipment cubicle

NOTE: The above functions are allocated to maintain a standard interface but can be used for applications if required.

Commissioners Name:

Commission Date:

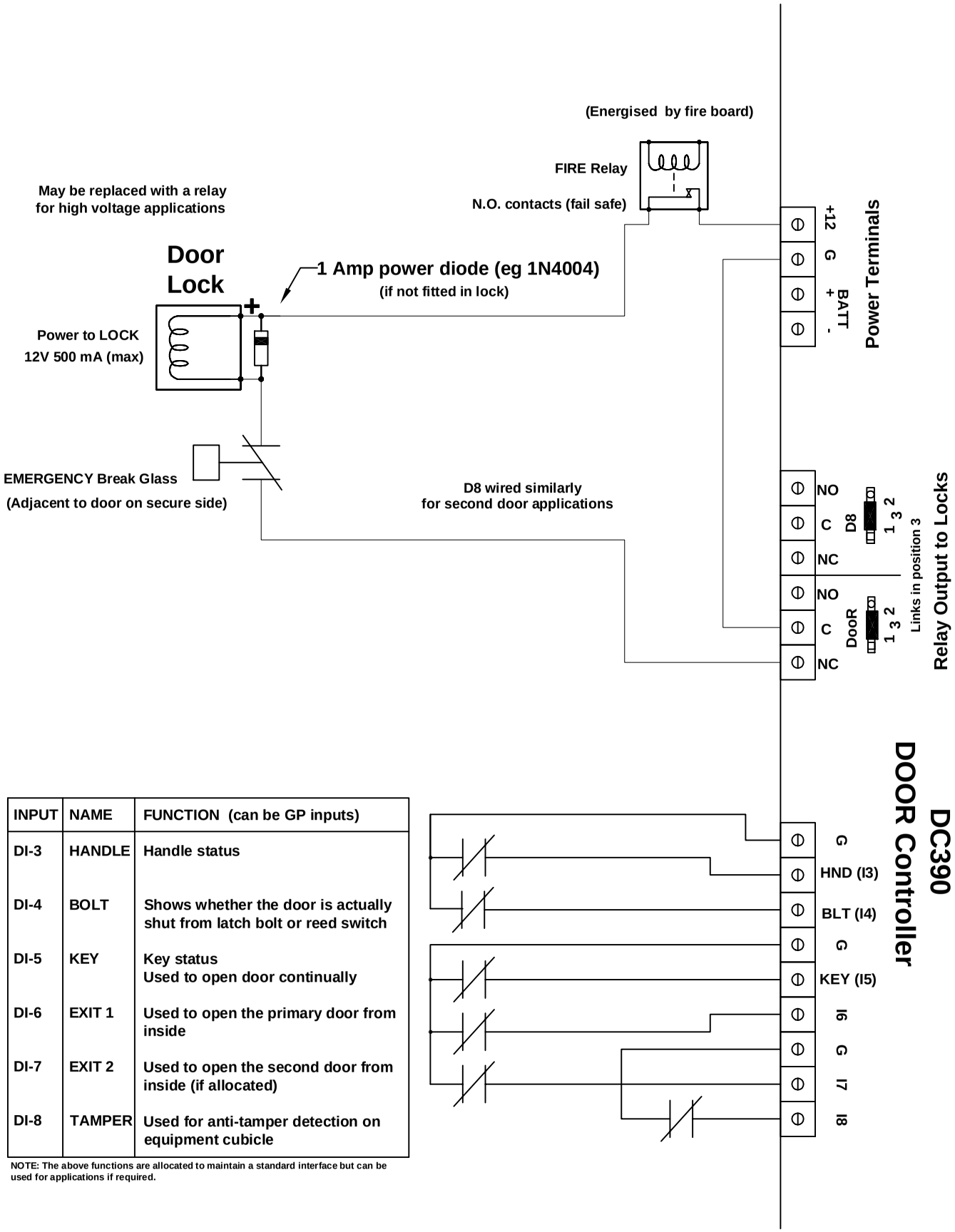
SPHERE SYSTEMS P/L
15 Mc Namara Street
Macleod 3085
Victoria AUSTRALIA
www.spheresystems.com.au
Ph: (03) 9457-6994 Fax: (03) 9457-6995

Project: ACCESS CONTROL SYSTEM

Sheet: Door Wiring - Power to OPEN

Sheet No:	Drawing No:	Drawn By:	Checked By:
2 of 5	SPH-107	PJC	RS

Rev	Description	Date
A	Initial Release	08/10/2003



INPUT	NAME	FUNCTION (can be GP inputs)
DI-3	HANDLE	Handle status
DI-4	BOLT	Shows whether the door is actually shut from latch bolt or reed switch
DI-5	KEY	Key status Used to open door continually
DI-6	EXIT 1	Used to open the primary door from inside
DI-7	EXIT 2	Used to open the second door from inside (if allocated)
DI-8	TAMPER	Used for anti-tamper detection on equipment cubicle

NOTE: The above functions are allocated to maintain a standard interface but can be used for applications if required.

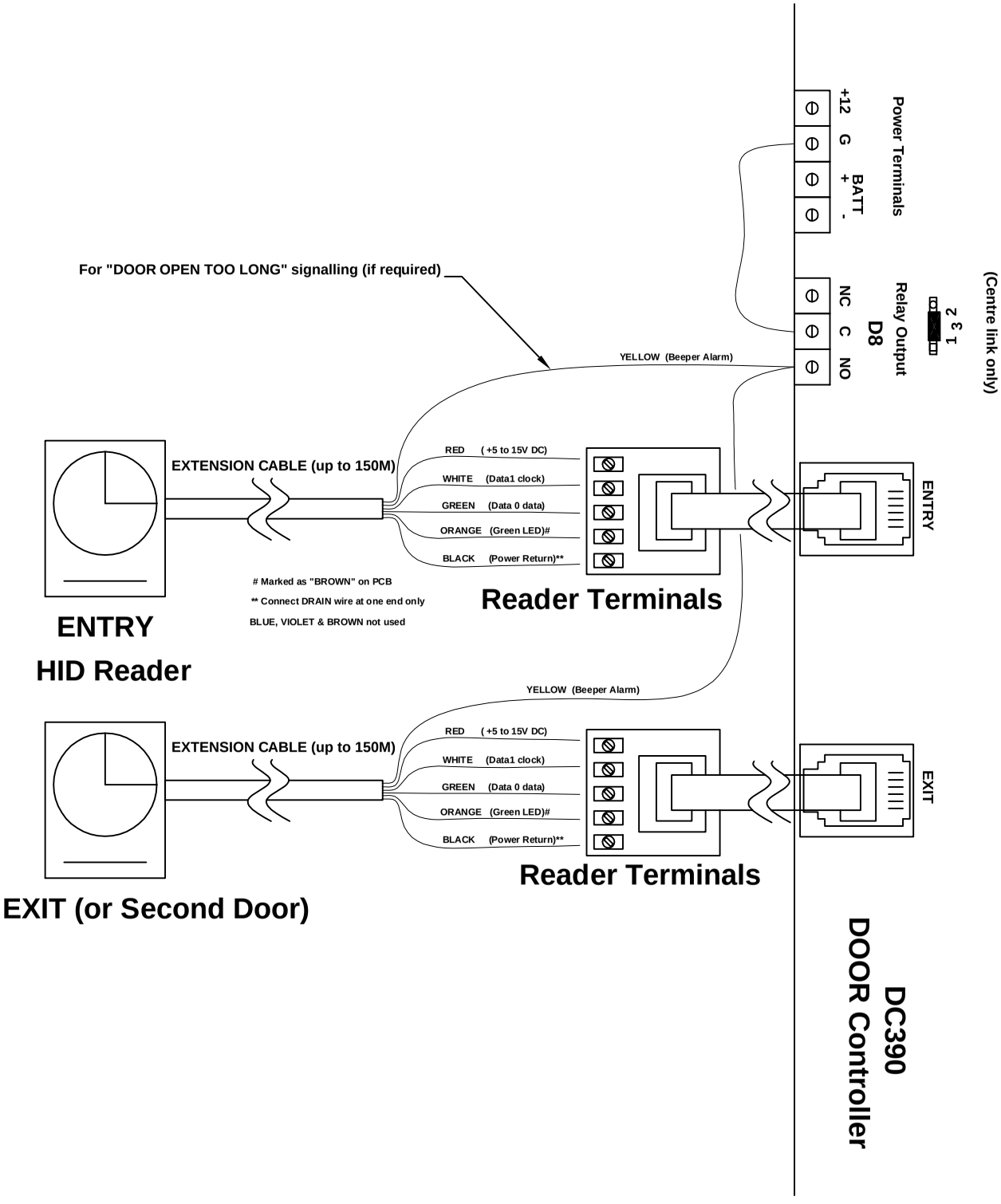
Commissioners Name: | Commission Date:

SPHERE SYSTEMS P/L
15 Mc Namara Street
Macleod 3085
Victoria AUSTRALIA
www.spheresystems.com.au
Ph: (03) 9457-6994 Fax: (03) 9457-6995

Project: ACCESS CONTROL SYSTEM
Sheet: Power to Lock Door Control

Sheet No:	Drawing No:	Drawn By:	Checked By:
3 of 5	SPH-107	PJC	RS

Rev	Description	Date
A	Initial Release	08/10/2003



Commissioners Name: | Commission Date:

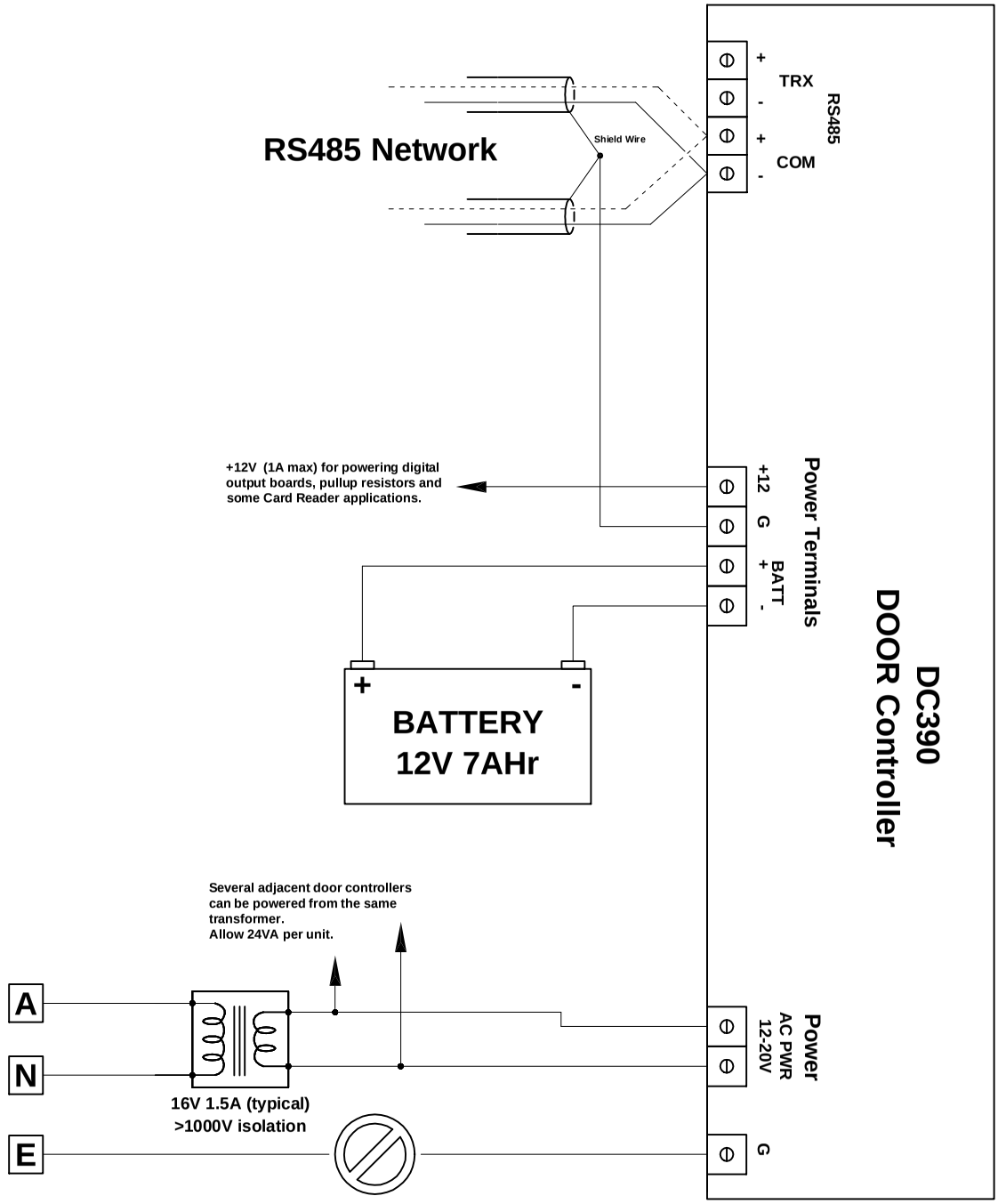
SPHERE SYSTEMS P/L
15 Mc Namara Street
Macleod 3085
Victoria AUSTRALIA
www.spheresystems.com.au
Ph: (03) 9457-6994 Fax: (03) 9457-6995

Project: ACCESS CONTROL SYSTEM
Sheet: Card Reader Wiring

Sheet No:	Drawing No:	Drawn By:	Checked By:
4 of 5	SPH-107	PJC	RS

Rev	Description	Date
A	Initial Release	08/10/2003

NETWORK cable integrity is essential for fast intercommunication.
The SHIELD is the source of PROTECTIVE GROUND for the whole network.
The cable:
- MUST be specified for RS485. (Nominal Impedance 120 Ohm)
- MUST be a consistent twisted pair (when in multi-pair configuration)
- MUST have polarity maintained
- MUST have shield wire continuous and connected to "G" on each controller.
- MUST be connected to mains EARTH at the network controller ONLY (DP11 and PC)
- MUST be wired serially between controllers with NO BRANCHES
- MUST be terminated at each end with 120 Ohm resistors



DO NOT CONNECT TO LOCAL EARTH !!

Commissioners Name:	Commission Date:

SPHERE SYSTEMS P/L
15 Mc Namara Street
Macleod 3085
Victoria AUSTRALIA
www.spheresystems.com.au
Ph: (03) 9457-6994 Fax: (03) 9457-6995

Project: ACCESS CONTROL SYSTEM
Sheet: Powering & RS485 Network

Sheet No:	Drawing No:	Drawn By:	Checked By:
5 of 5	SPH-107	PJC	RS

Rev	Description	Date
A	Initial Release	08/10/2003