

System Overview

Each switching unit controls a separate block of telephones, the local block entrance and the main entrance. The local entrance is controlled using 'DOOR 2' connections. 'DOOR 1' connections are used to control the main entrance, or gate.

One Switching unit is allocated as the main entrance *master* and actually powers the lock release and speech unit. Other Switching units operate the main entrance via auxiliary inputs to the master.

Important : Mode Setting

The DIP switch on every Switching Unit in the system must be set as below:

Operating Mode	SW2 DIP Switch setting
	8
2 Level Entry Switching Unit	on

Cable Requirements

Refer to diagrams 2, 6, 7 and 8.

Use standard 0.5mm solid core twisted-pair telephone cable for all telephone connections unless otherwise specified (e.g. BT spec# CW1308). **Do not use stranded alarm cable.** All 'R' and 'O' connections to telephone and speech unit must use a twisted-pair. Avoid running any cables alongside mains or other transmission wiring.

The total number of cores depends on the requirement for each telephone model as shown in the table below. In all cases there is an individual call line (I) for each phone, while the remainder of the cores are common to all phones within a block. All telephone models, except the 500X series, maybe wired either with an individual cable or by looping from phone to phone.

A 0.5mm solid core wire is required between the '+ EXIT' Door 1 main entrance master and every other switching unit at there '+ REMOTE LOCK' Door 1 terminals.

If the door monitor switch is used a wire must be connected between 'DOOR SW +' DOOR 1 connections on every Switching Unit, refer to table 2.

'R','O','T' DOOR 1 connections must be connected between all Switching Units.

719S 2 Level Entry Supplement

Table 1 : General Cable Requirement

Connection	No. of Cores	Max. Length (m)	Solid Core Dia. (mm)
Lock Release (up to 0.5A)	2	25 100	0.5 1.0
Power Supply	2	2	0.5 (1A PSU) 1.0 (2A PSU)
Speech Unit	5	50	0.5
Telephones: 500A, 500D, 500PA, 500PD	5	100m	0.5
500X, 500PX	6	See table 3	See table 3
500LX, 500PLX, 500PLXT	7	See table 3	See table 3
Door Monitor Switch	2	See table 4	See table 4
EXIT/Trades Button (inc. Time Clock)	1/2	100	0.5
Remote Lock Output (up to 100mA)	1	100	0.5
Between furthest Switching Units when using Telephones: 500A, 500D, 500PA, 500PD	-	100	0.5
500X, 500PX	-	100	0.5
500LX, 500PLX, 500PLXT	-	See table 2	See table 2

The absolute maximum distance between any entrance panel and any telephone, via a Switching unit(s), is 150m.

Table 2

Maximum distance between any 2 Switching Units (any interconnection)		
Total No. of 500LX, 500PLX, or 500PLXT Telephones	Max. Distance (m)	Solid Core Dia. (mm)
20	40 100	0.5 1.0
40	20 80	0.5 1.0
60	13 50	0.5 1.0
80	40	1.0
100	32	1.0
Note the PSU common between 719S units (12V -) must use 1.0mm diameter cable or larger regardless of distance.		

Model 500PX, 500LX, 500PLX, 500PLXT Telephones

If a block contains more than 20 common wired telephones, a junction box should be used to split the cables into groups of 20 to limit voltage drops. The junction box should not be more than 2 metres away from the Switching unit for that block. An additional power supply will also be required for the block, refer to diagram 6.

Table 3a

Connection to a Telephone junction box (Telephone models 500P, 500PX, 500LX, 500PLX, 500PLXT)	
No. of telephones per block	Min. Core Diameter (mm)
Up to 40	0.5
Above 40	1.0

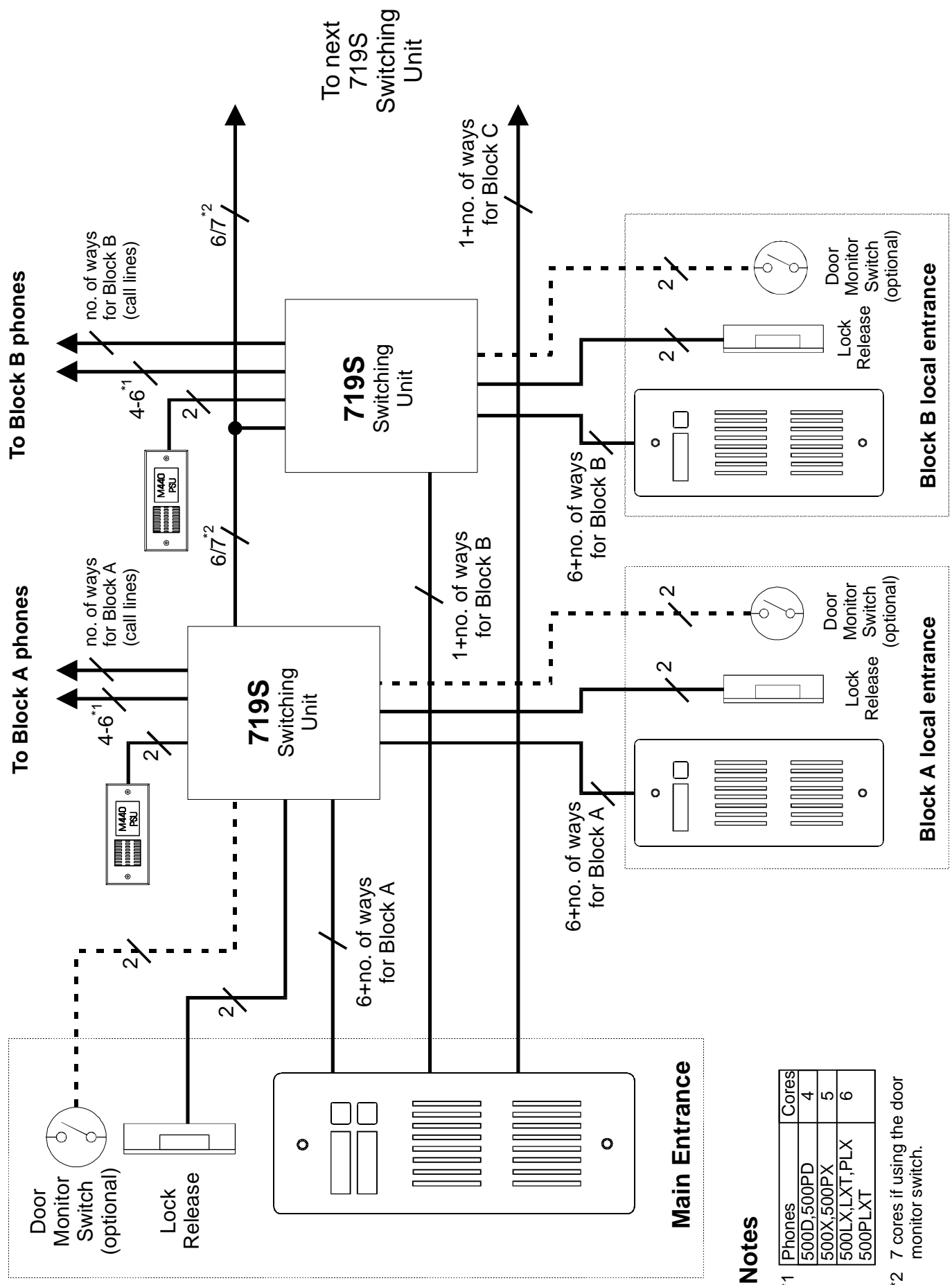
Table 3b

Connection to Telephones Model 500X, 500PX, 500LX ,500PLX, 500PLXT	
No. of Telephones per branch	Max. Length (m)
5	65
10	30
15	20
20	15

Table 4

Connection to a Door Switch		
Total no. of 500LX, 500PLX, or 500PLXT telephones on the system.	Max. Length (m)	Min. core diameter (mm)
20	60	0.5
60	20 65	0.5 1.0
100	45	1.0

Diagram 7 : Cabling for a 2 level entry system

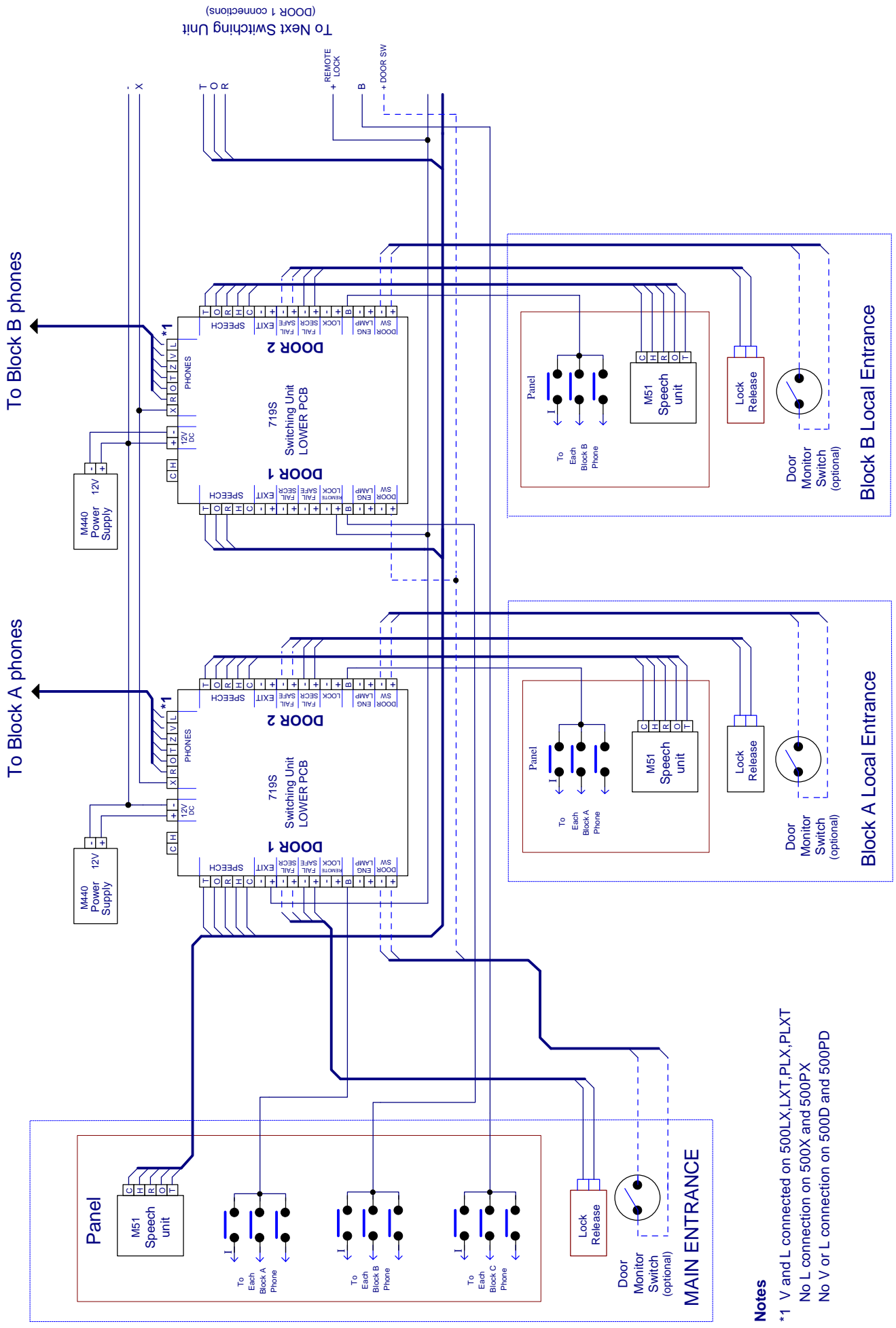


Notes

Phones	Cores
500D,500PD	4
500X,500PX	5
500LX,LXT,PLX	6
500PLXT	

*1 7 cores if using the door monitor switch.

Diagram 8 2 level entry wiring for DC telephones



Notes

- *1 V and L connected on 500LX, LXT, PLX, PLXT
- No L connection on 500X and 500PX
- No V or L connection on 500D and 500PD