SelectLine

Economy functional & digital audio access systems

Audio 8 & 16
Functional & Digital
Installation Manual

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Digital Video
Revision 1.08 Date: 05/12/2011

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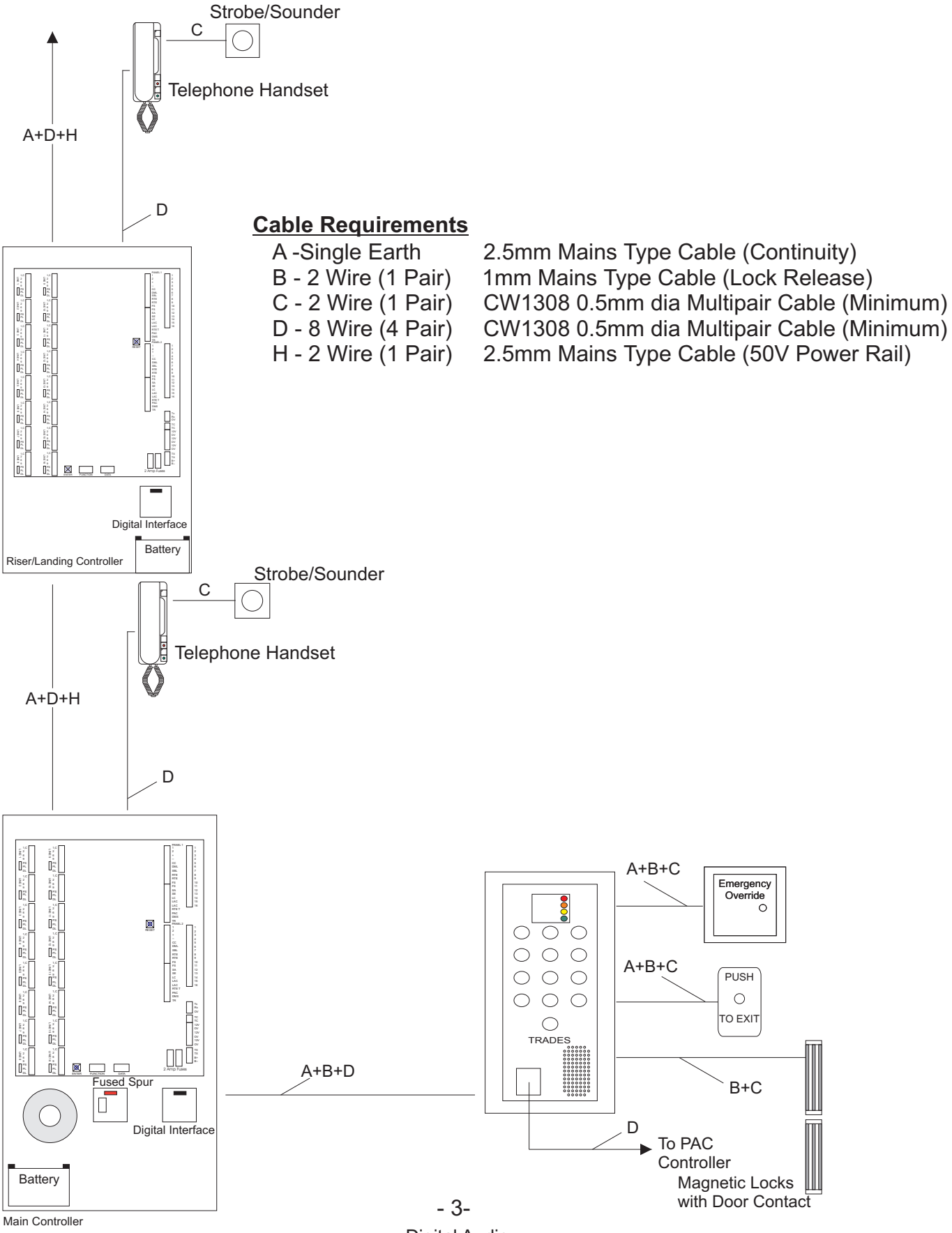
Contents 1

DIGITAL SYSTEM:

Digital Audio Systems

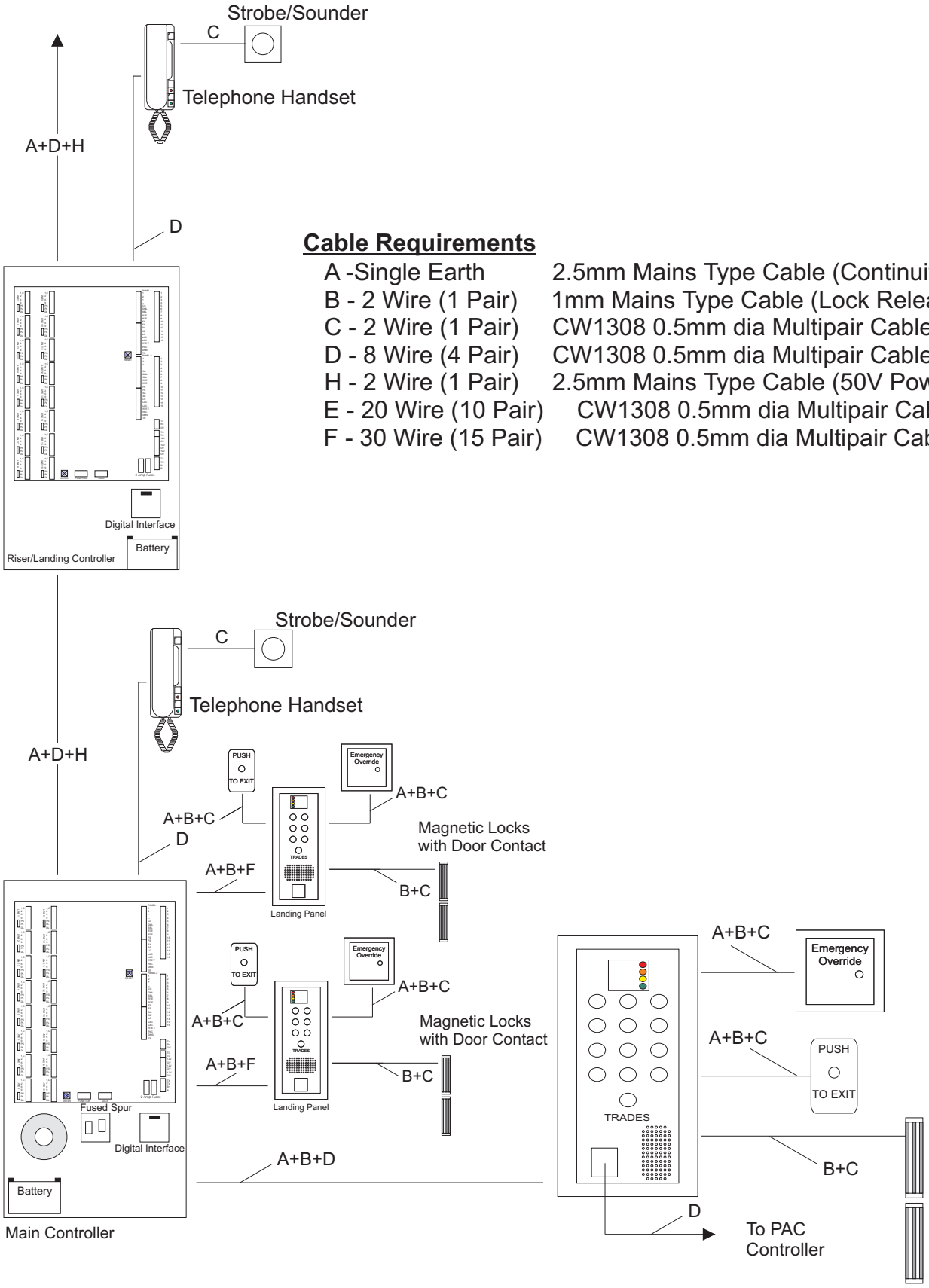
Digital System Basic Overview



Cable Requirements

A -Single Earth	2.5mm Mains Type Cable (Continuity)
B - 2 Wire (1 Pair)	1mm Mains Type Cable (Lock Release)
C - 2 Wire (1 Pair)	CW1308 0.5mm dia Multipair Cable (Minimum)
D - 8 Wire (4 Pair)	CW1308 0.5mm dia Multipair Cable (Minimum)
H - 2 Wire (1 Pair)	2.5mm Mains Type Cable (50V Power Rail)

Digital System with Landing Controller Overview



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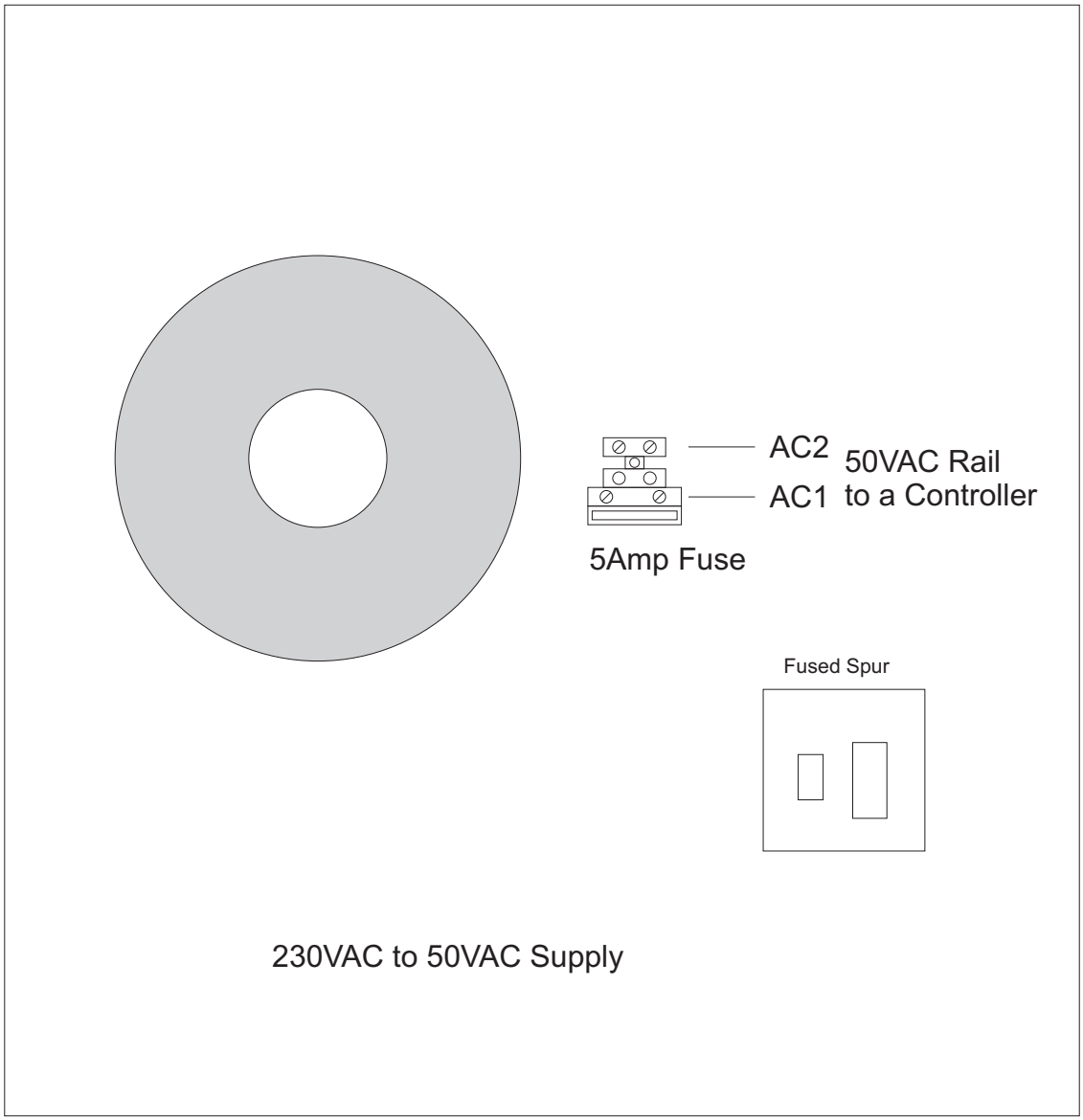
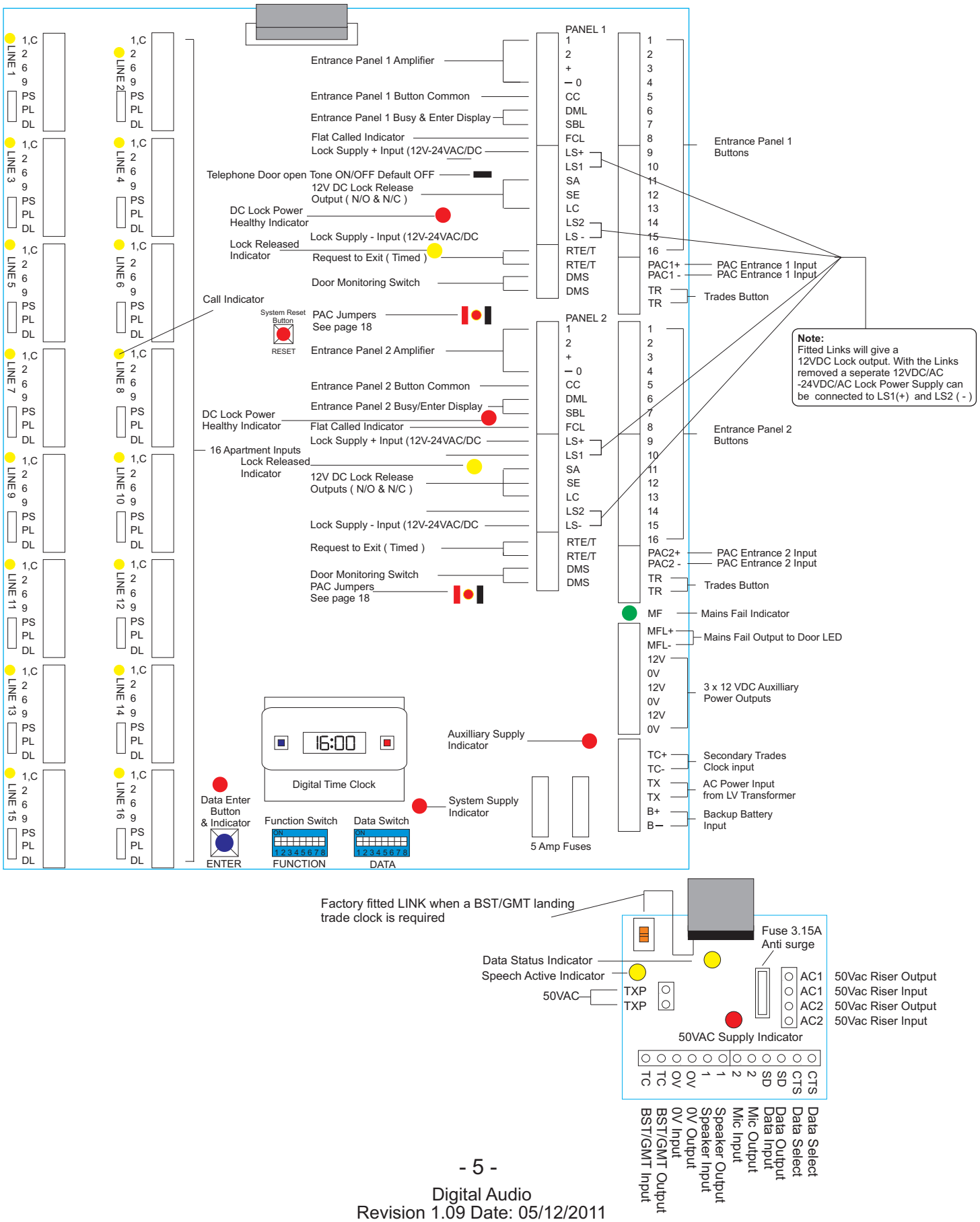
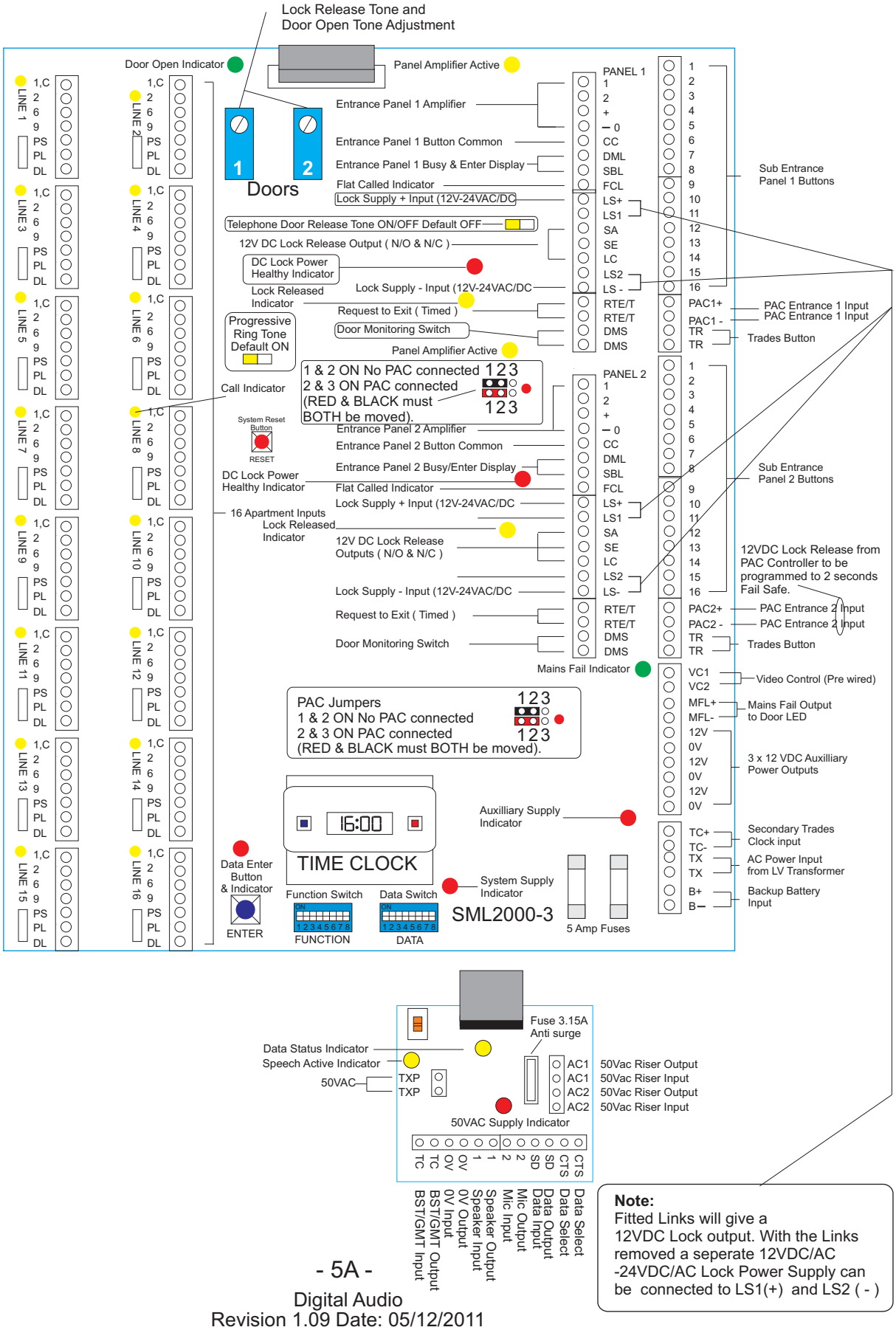
D - 8 Wire (4 Pair)	CW1308 0.5mm dia Multipair Cable (Minimum)
H - 2 Wire (1 Pair)	2.5mm Mains Type Cable (50V Power Rail)
E - 20 Wire (10 Pair)	CW1308 0.5mm dia Multipair Cable (Minimum)
F - 30 Wire (15 Pair)	CW1308 0.5mm dia Multipair Cable (Minimum)

Digital 50VAC Main Power Supply Overview

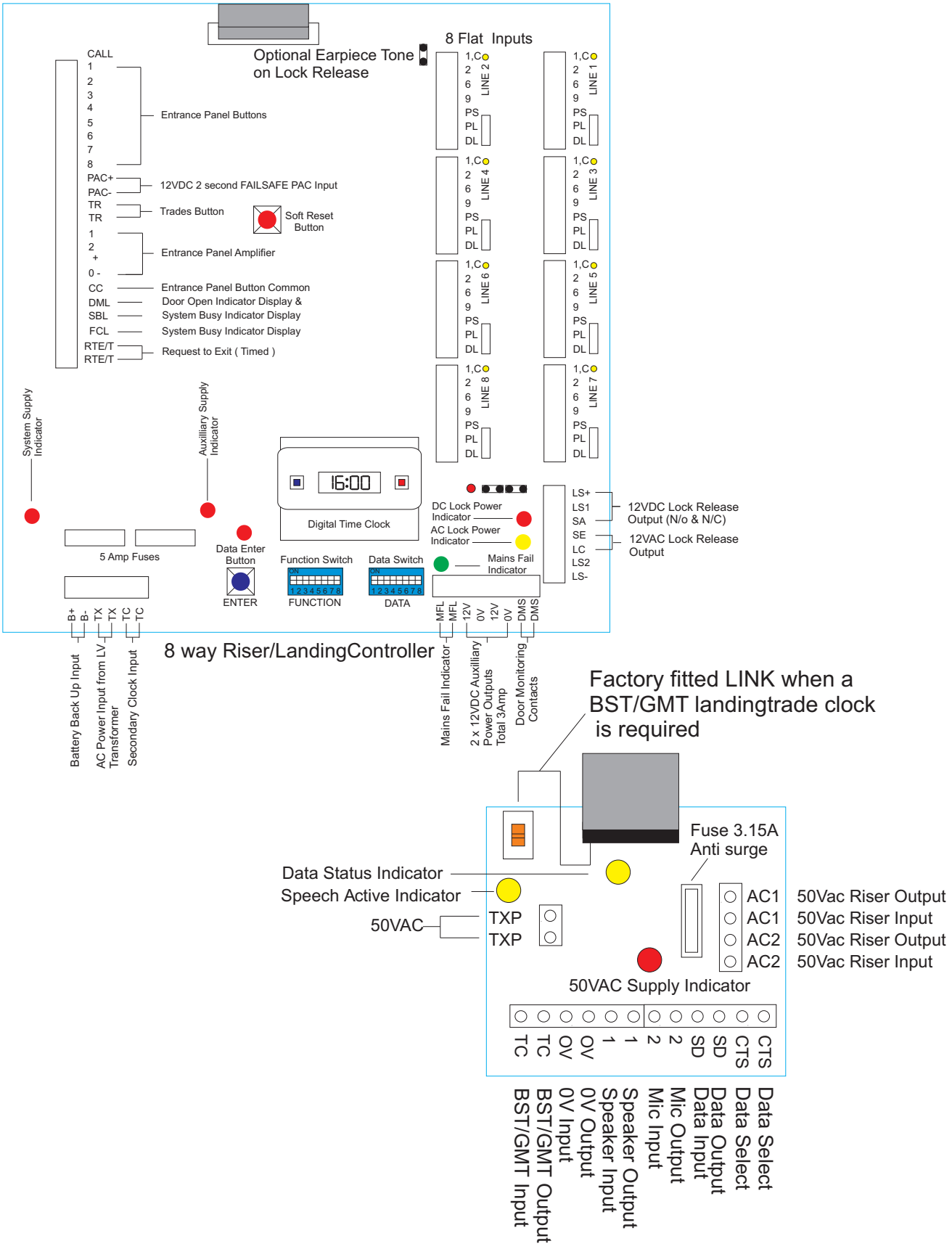


16 way Main, Riser and Landing Controller Overview

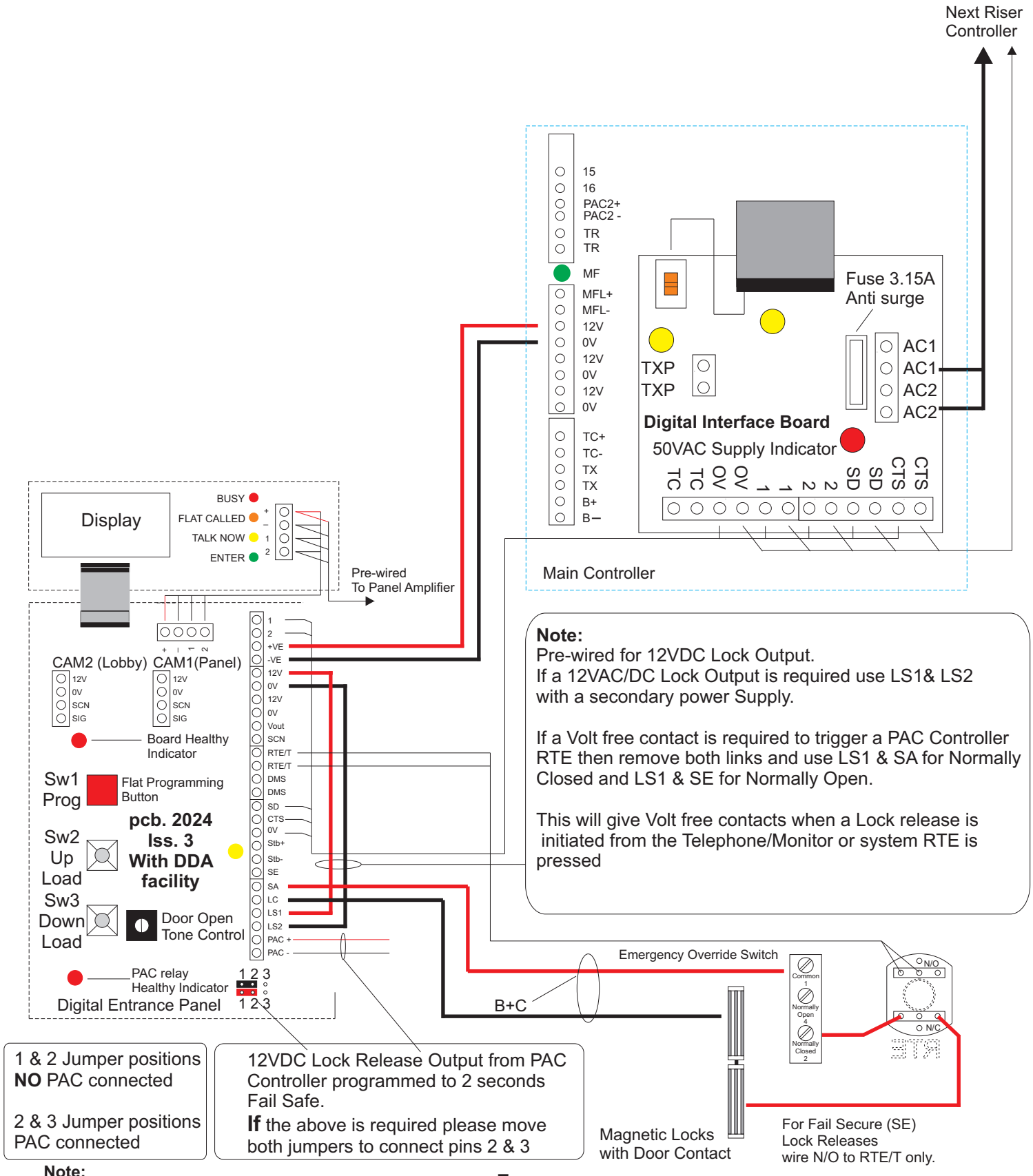



Lock Release Tone and
Door Open Tone Adjustment
Door Open Indicator
Panel Amplifier Active
LINE 1
LINE 2
LINE 3
LINE 4
LINE 5
LINE 6
LINE 7
LINE 8
LINE 9
LINE 10
LINE 11
LINE 12
LINE 13
LINE 14
LINE 15
LINE 16
1,C
2
6
9
PS
PL
DL
1
2
Doors
Entrance Panel 1 Amplifier
Entrance Panel 1 Button Common
Entrance Panel 1 Busy & Enter Display
Flat Called Indicator
Lock Supply + Input (12V-24VAC/DC
Telephone Door Release Tone ON/OFF Default OFF
12V DC Lock Release Output (N/O & N/C)
DC Lock Power
Healthy Indicator
Lock Released
Indicator
Lock Supply - Input (12V-24VAC/DC
Request to Exit (Timed)
Door Monitoring Switch
Progressive
Ring Tone
Default ON
Panel Amplifier Active
1 & 2 ON No PAC connected
2 & 3 ON PAC connected
(RED & BLACK must
BOTH be moved).
123
Call Indicator
System Reset
Button
RESET
Entrance Panel 2 Amplifier
Entrance Panel 2 Button Common
Entrance Panel 2 Busy/Enter Display
DC Lock Power
Healthy Indicator
Flat Called Indicator
Lock Supply + Input (12V-24VAC/DC
16 Apartment Inputs
Lock Released
Indicator
12V DC Lock Release
Outputs (N/O & N/C)
Lock Supply - Input (12V-24VAC/DC
Request to Exit (Timed)
Door Monitoring Switch
Mains Fail Indicator
PANEL 1
PANEL 2
1
2
+
– 0
CC
DML
SBL
FCL
LS+
LS1
SA
SE
LC
LS2
LS -
LS-
RTE/T
RTE/T
DMS
DMS
PAC1+
PAC1 -
PAC2+
PAC2 -
TR
TR
Sub Entrance
Panel 1 Buttons
Sub Entrance
Panel 2 Buttons
PAC Entrance 1 Input
PAC Entrance 1 Input
Trades Button
PAC Entrance 2 Input
PAC Entrance 2 Input
Trades Button
12VDC Lock Release from
PAC Controller to be
programmed to 2 seconds
Fail Safe.
PAC Jumpers
1 & 2 ON No PAC connected
2 & 3 ON PAC connected
(RED & BLACK must BOTH be moved).
VC1
VC2
Video Control (Pre wired)
MFL+
MFL-
Mains Fail Output
to Door LED
12V
0V
3 x 12 VDC Auxilliary
Power Outputs
TC+
TC-
TX
TX
B+
B–
Secondary Trades
Clock input
AC Power Input
from LV Transformer
Backup Battery
Input
16:00
TIME CLOCK
Auxilliary Supply
Indicator
Data Enter
Button
& Indicator
ENTER
Function Switch
FUNCTION
Data Switch
DATA
System Supply
Indicator
SML2000-3
5 Amp Fuses
Fuse 3.15A
Anti surge
Data Status Indicator
Speech Active Indicator
50VAC
TXP
TXP
AC1
AC1
AC2
AC2
50Vac Riser Output
50Vac Riser Input
50Vac Riser Output
50Vac Riser Input
50VAC Supply Indicator
TC
TC
0V
0V
1
1
2
2
SD
SD
CTS
CTS
BST/GMT Input
BST/GMT Output
0V Input
0V Output
Speaker Input
Speaker Output
Mic Input
Mic Output
Data Input
Data Output
Data Select
Data Select
Note:
Fitted Links will give a
12VDC Lock output. With the Links
removed a seperate 12VDC/AC
-24VDC/AC Lock Power Supply can
be connected to LS1(+) and LS2 (-)

8 way Main, Riser and Landing Controller Overview

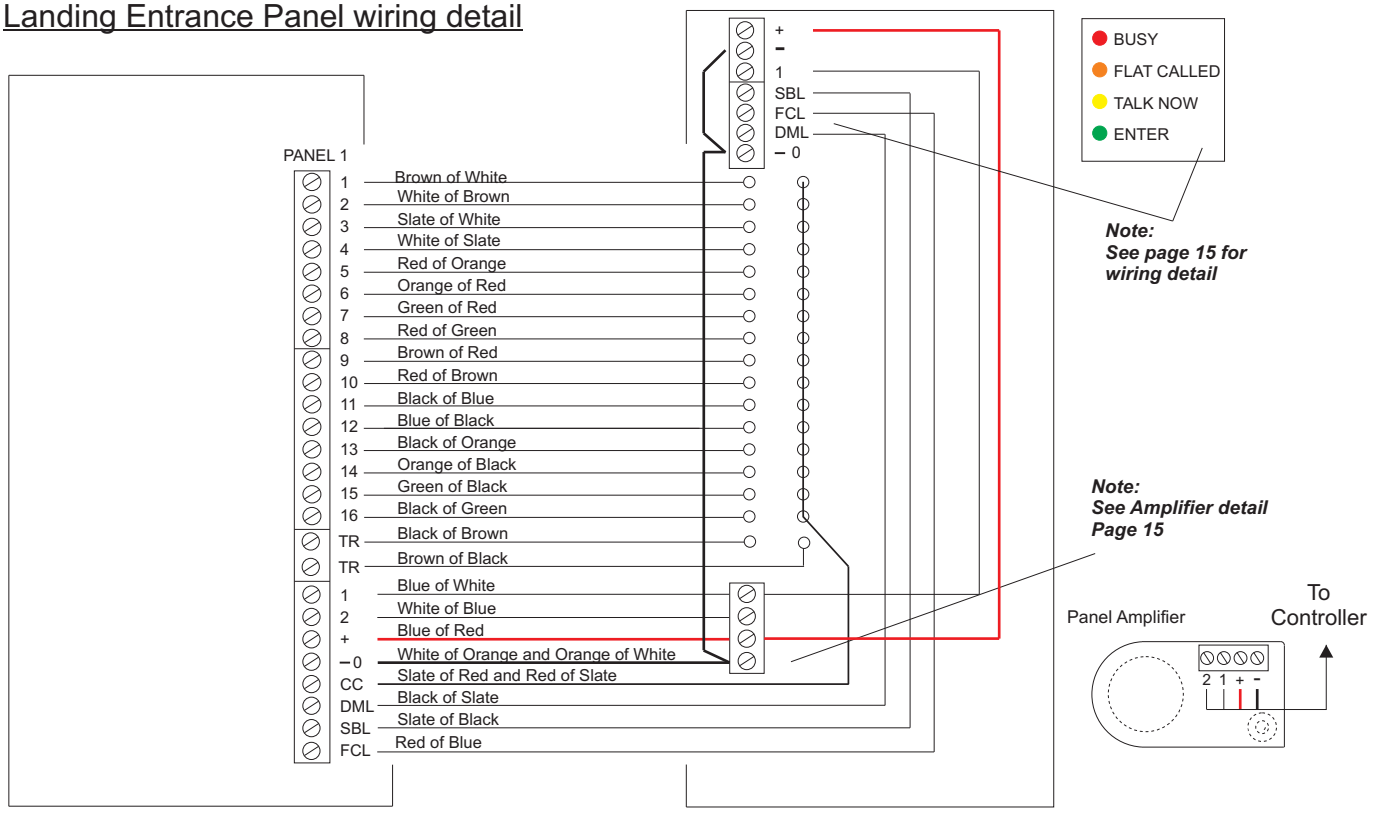


Digital Network & Power Overview

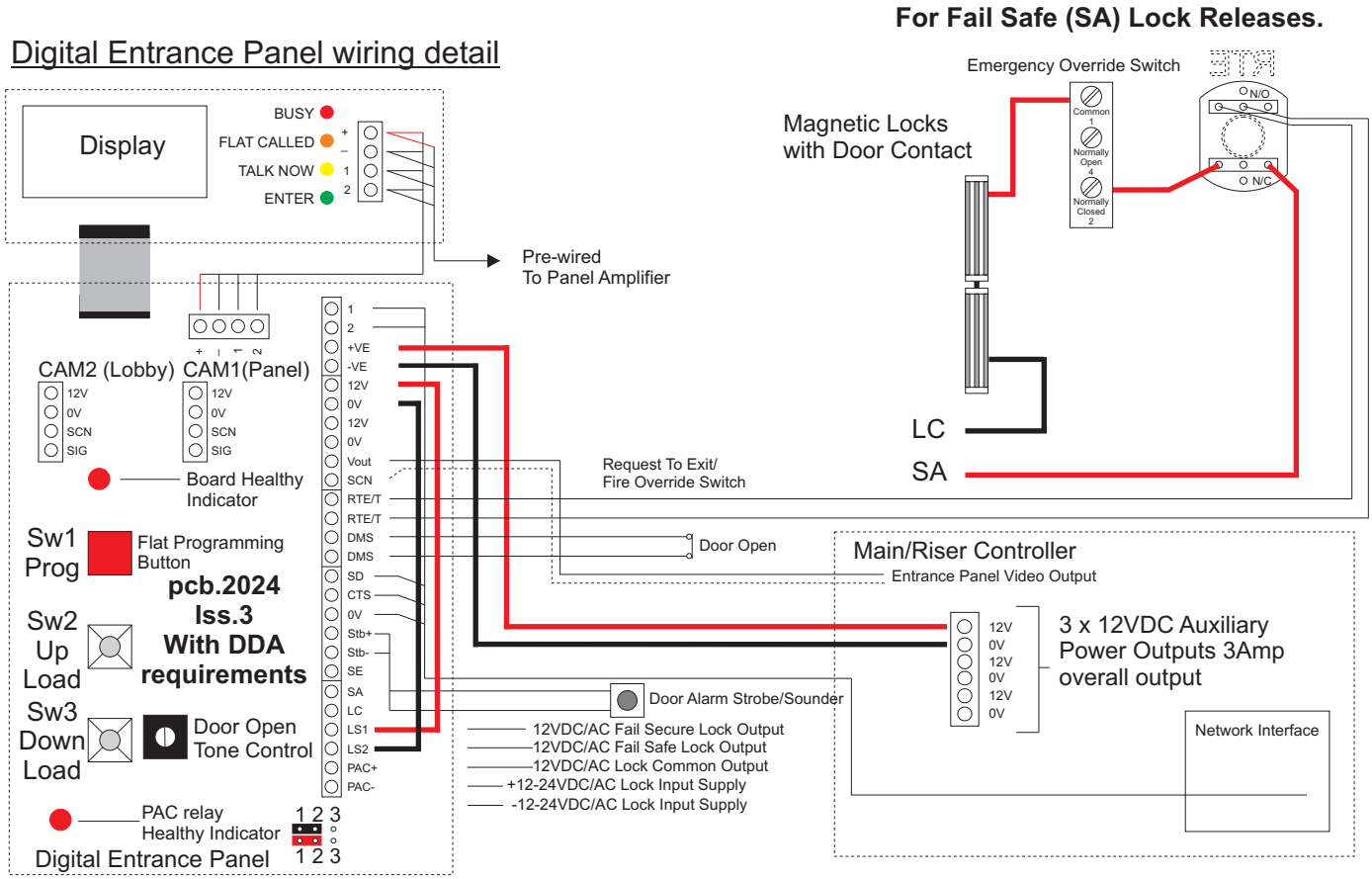


Note:
See page 24-25 for PAC connections and jumper positions.

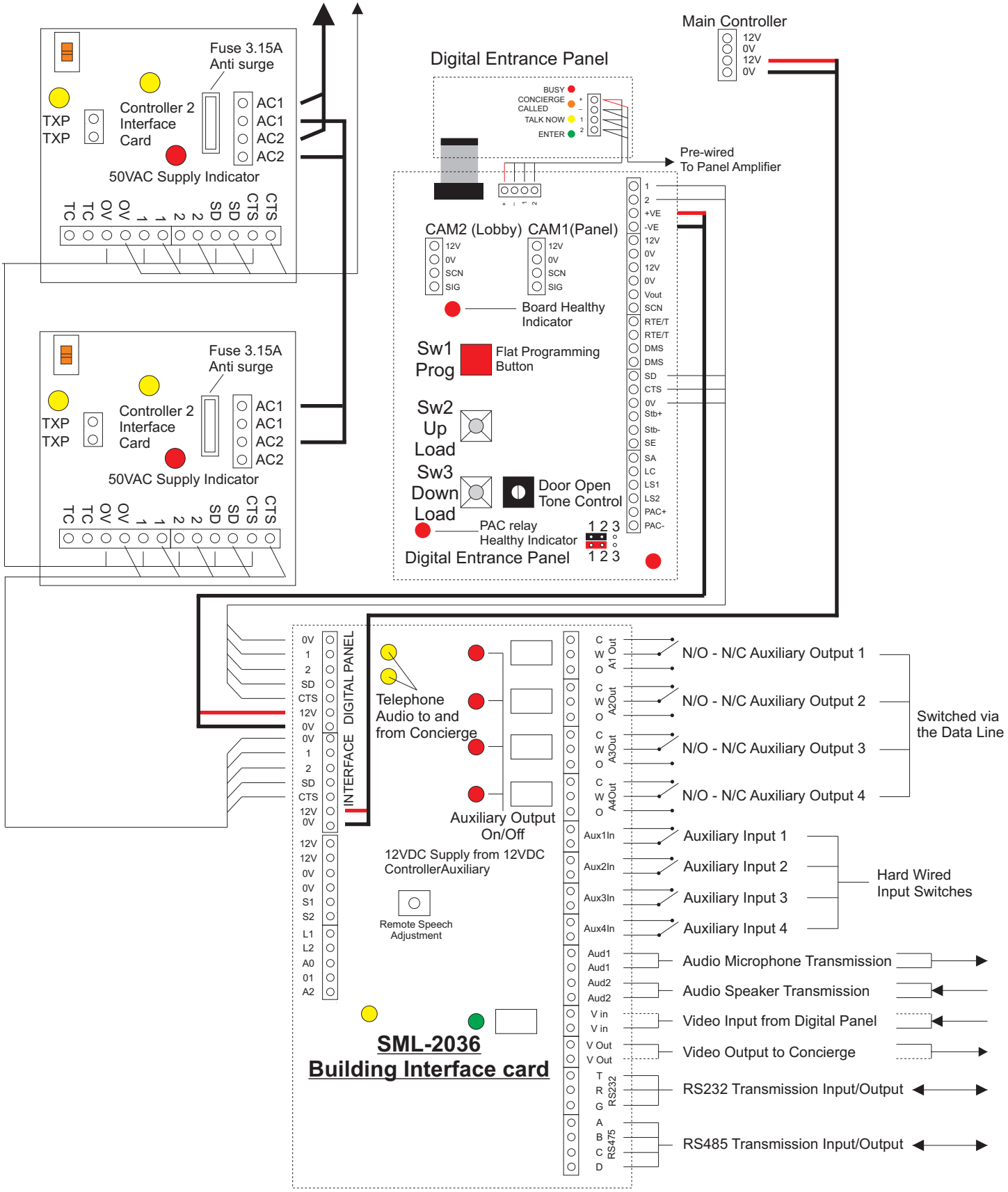
Landing Entrance Panel wiring detail



Digital Entrance Panel wiring detail

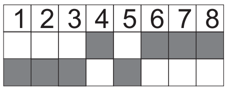


Concierge Building Interface Card (Multi-Building) wiring detail



Digital System Flat Programming Form

ON

FUNCTION SWITCH

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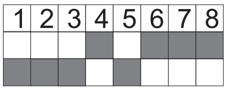
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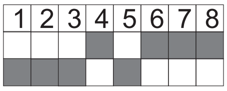
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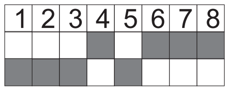
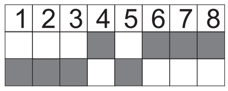
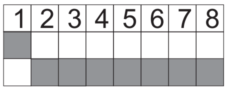

FUNCTION SWITCH


ON

DATA SWITCH

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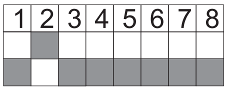
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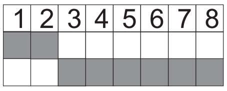
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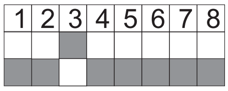
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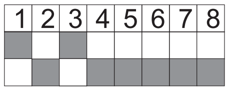
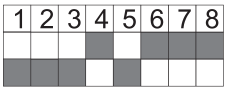


	Controller 1	Controller 2	Controller 3	Controller 4	Controller 5
Line No.	Flat Number	Flat Number	Flat Number	Flat Number	Flat Number
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

ON

FUNCTION SWITCH

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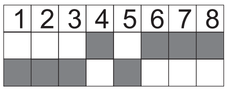
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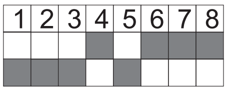
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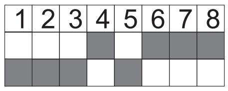
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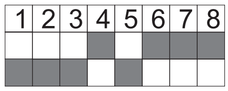

ON

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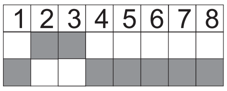
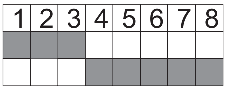

DATA SWITCH

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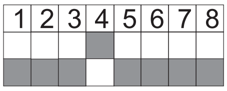
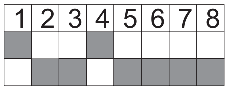
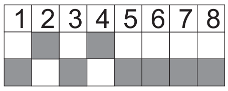

DATA SWITCH

DATA SWITCH


	Controller 6	Controller 7	Controller 8	Controller 9	Controller 10
Line No.	Flat Number	Flat Number	Flat Number	Flat Number	Flat Number
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Note:
Remember to PRESS the Enter button after setting Dill switches positions.

Digital Entrance Panel Programming Instructions

System Function Programming

Function	Description	Parameters	Notes
1	Lock Release Time	1 - 255 Seconds	
2	Door Open Duration Time	1 - 255 Minutes	
3	Door Alarm Delay Time	1 - 255 Minutes	Zero minutes will disable the Door Alarm
4	Service Access Code (AC)	1 - 5 Digits	Code + Trades to release door
5	Engineers Access Code (EA)	1 - 5 Digits	Code + Trades to release door
6	Monitor Ring Time	1 - 255 Seconds	
7	Call Duration Time	1 - 255 Seconds	
8	Set Digital Panel Number	1 - 9	
9	Communication Test facility	-	Controller Interface Data Continuity Test
10	Panel Facility Configuration	A ◄——► F	Alpha Numeric, Cameras, Concierge and Door Tone On/Off
27	Erase All Memory and Reset	-	90 Second Erase on a 30 count will automatically re-set the default values

Function 1 (Lock Release)
Press 1 on the Digital Panel keypad and then press the **PROG** button.
Enter between 1 and 255 seconds and press **CALL**.
This will set the Lock Release duration time for that Panel.

Function 2 (Door Open Alarm Duration)
Press 2 on the Digital Panel keypad and then press the **PROG** button.
Enter between 1 and 255 minutes and press **CALL.**
This will set the Door Alarm Duration time.

Function 3 (Door Open Alarm Delay)
Press 3 on the Digital Panel keypad and then press the **PROG** button.
Enter between 1 and 255 minutes and press **CALL.**
This will set the Door Alarm Delay time.

Function 4 (Service Access Code)
Press 4 on the Digital Panel keypad and then press the **PROG** button.
Enter up to 5 digits and press **CALL.**This will establish a Service Access Code.
If a 5 digit service code has already been entered the Digital Panel will display **AC?**
alternating with the remaining 4 numbers, i.e. **AC1 - 2345**.
This can, if required be deleted by pressing the **CANCEL** button.
Press the TRADES button, Enter Code and then press Trades or Call to release the Door.

Function 5 (Engineering Access Code)
Press 5 on the Digital Panel keypad and then press the **PROG** button.
Enter up to 5 digits and press **CALL.**This will establish an Engineering Access Code.
If a 5 digit engineering code has already been entered the Digital Panel will display
EA1 alternating with the remaining 4 numbers, i.e. **EA1 - 2345**.
This can, if required be deleted by pressing the **CANCEL** button.
Press the TRADES button, Enter Code and then press Trades or Call to release the Door.

Function 6 (Telephone Ring Time)
Press 6 on the Digital Panel keypad and then press the **PROG** button.
Enter between 1 and 255 seconds and press **CALL**.
This can if required be deleted by using the **CANCEL** button.
This will set the Digital Panel to Telephoner ring time.

Function 7 (Call Duration Time)
Press 7 on the Digital Panel keypad and then press the **PROG** button.
Enter between 1 and 255 seconds and press **CALL.**
This can if required be deleted by using the **CANCEL** button.
This will set the Digital Panel to Telephone Call Duration time.

Digital Entrance Panel Programming Instructions cont...

System Function Programming cont...

Function 8 (Setting Digital Panel Number(s))
Press 8 on the Digital Panel keypad and then press the **PROG** button.
Enter from 1 to a maximum of 8 depending on the position of the Digital Panel in the system and press **CALL.**
If required a set Panel position can be deleted by using the **CANCEL** button.
This will set the Digital Panel position in a Single or Multi Entrance system.

Function 9 (Data Communication Test Facility)
Press 9 on the Digital Panel keypad and then press the **PROG** button.
The display will now scroll through all connected Controller Interfaces on the system only pausing when data continuity is broken.
This will establish all Controllers have continuity of Data.

Function 10 (Panel Facility Configuration)

Press 10 on the Digital Panel keypad and then press the **PROG** button.
The display will now show the factory default setting as shown on the rear of the Digital panel. If there is a requirement to change the default mode then press **CANCEL**, enter the new code number and press **CALL** to accept the change.

	Concierge with Panel & Lobby Camera **without** Door Open Tone	Concierge with Panel & Lobby Camera **with** Door Open Tone	Non Concierge Panel & Lobby Camera **without** Door Open Tone	Non Concierge Panel & Lobby Camera **with** Door Open Tone
Non Alpha	006	070	007	071
A	014	078	015	079
AB	022	086	023	087
ABC	030	094	031	095
ABCD	038	102	039	103
ABCDE	046	110	047	111
ABCDEF	054	118	055	119

Function 27 (Erase All Memory and Reset System to Default)
Press 27 on the Digital Panel keypad and then press the **PROG** button. This will put the system into erase mode. Erase mode will be indicated by the Display initially reading **E.000** and then following on with a count of 30. The system will not reset itself to default at 30. To initiate the default setting, the batteries must be disconnected and the Fused spur must be switched off. This must be for a period of no less than 5 seconds or the extinguishing of the on board healthy LED's
Once instigated the erasing of the system cannot be stopped until completion (Approximately 90 seconds).
Note:
Default settings are as follows,

Function 1	Lock Time	10 seconds
Function 2	Door Alarm Delay Time	OFF
Function 3	Door Open Duration Time	OFF
Function 4	Service Access Code	Blank
Function 5	Engineers Access Code	Blank
Function 6	Telephone Ring Time	30 seconds
Function 7	Call Duration Time	30 seconds
Function 8	Digital Panel Position No.	1
Function 10	Panel Facility Configuration	007 (**No Door Open Tones**)

Note:
On a Multi Entrance system it is important that all Digital Panels are assigned an individual position number (FUNCTION 8) AFTER Downloading system data.

Digital Entrance Panel Programming Instructions cont...

Main and Riser/Landing Controllers

1) Program the Main and Riser/Controllers to the Functional System installation manual.

2) Set all Controllers to their specified Riser/Landing positions for a Digital System. (See Controllers and Flat Location form).

Digital Entrance Panel Programming

An existing or previously used Digital Panel at switch on having pressed the **PROG** button should read **01.01** and will then alternate between **01.01** and a clear display or the previously entered flat number.

To Start Programming

1) Press the **PROG** button. The Panel display should now read **01.01, Blank or Digits**.

2) Press **CANCEL** to clear the previously programmed flat number(s) if required.

3) Enter flat number required and press **CALL** to store the flat number you have selected.

4) The display should now read **01.02**.

5) If a new Digital Panel continue with item 3 until all required flats are programmed.

6) If you are programming an existing or previously used Digital Panel continue with items 2 & 3 until all required flats are programmed.

Finally press the PROG button to exit the programming mode.

Note 1:

When there is a need to edit or check an already programmed flat on the system use the following procedure.
Enter Controller number i.e. **2**. Enter Line Output number i.e. **03** and press **PROG**.
To edit a flat number press **CANCEL** enter new flat number and press **CALL** to store.
Finally press **PROG** to exit edit mode.
The Edit/Check flat number operation is now complete.

Note 2:

01.01 relates to **01.** Controller position and **.01** Telephone/Monitor Line 1.

Note 3:

On initial programming if the Red Busy Indicator on the Digital Panel flashes when a flat is called and does not ring, either the flat has not been programmed or the Privacy is in the **ON** mode.

Digital Entrance Panel Controls

PROG button — Used to put the Digital Panel in and out of programming mode.

UPLOAD button — With the Primary Digital Panel programmed pressing the **UPLOAD** button(s) on all Secondary Panels will make them ready for information to be downloaded.

DOWNLOAD button — Pressing the **DOWNLOAD** button on the Primary Digital Panel will send program information to all prepared Secondary Digital Panels.

INTERNAL Volume — Digital Panel to Telephone/Monitor volume adjustment

EXTERNAL Volume — Telephone/Monitor to Digital Panel volume adjustment

Digital System Summary

Digital Entrance Panel Board

1	Speaker Input
2	Microphone Input
+VE	12VDC Positive Input
-VE	12VDC Negative Input
12V	12VDC Positive Output
0V	12VDC Negative Output
12V	12VDC Positive Output
0V	12VDC Negative Output
Vout	Video Core Output
SCN	Video Screen Output
RTE/T	Request to Exit (Timed)
RTE/T	Request to Exit (Timed)
DMS	Door Monitoring Switch
DMS	Door Monitoring Switch
SD	Data Select
CTS	Data Select
0V	0 Volts
Stb+	Positive External Alarm Strobe/Sounder
Stb -	Negative External Alarm Strobe/Sounder
SE	Fail Secure Lock Release Output
SA	Fail Safe Lock Release Output
LC	Lock Release Common
LS1	12VDC Output (With Links in)
LS2	12VDC Output (with Links in)
PAC+)	!2VDC from PAC Lock Output
PAC-)	2 Seconds FAILSAFE
SW1	Programming Button
SW2	Upload Button
SW3	Download Button
SW4	Door Open Tone Adjustment
CAM1-2 12V	Camera 12VDC
CAM1-2 0V	Camera 12V 0V
CAM1-2 SCN	Camera 1-2 Video Screen Input
CAM1-2 SIG	Camera 1-2 Video Signal Input

Interface Board

AC1	50VAC Input
AC2	50VAC Input
AC1	50VAC Output
AC2	50VAC Output
CTS	Data Select Input
CTS	Data Select Output
SD	Data Input
SD	Data Output
2	Microphone Input
2	Microphone Output
1	Speaker Input
1	Speaker Output
0V	0 Volt Input
0V	0 Volt Output
TC	Trades Clock with Landing Control
TC	Trades Clock with Landing Control

Digital System Wiring Colour Codes

Main Controller To Digital Entrance Panel Board

Main Controller		**Digital Entrance Panel Board**
12V	1mm Mains Type Cable	+12VDC Output
0V	1mm Mains Type Cable	-12VDC Output

Main Controller Interface to Digital Entrance Panel Board

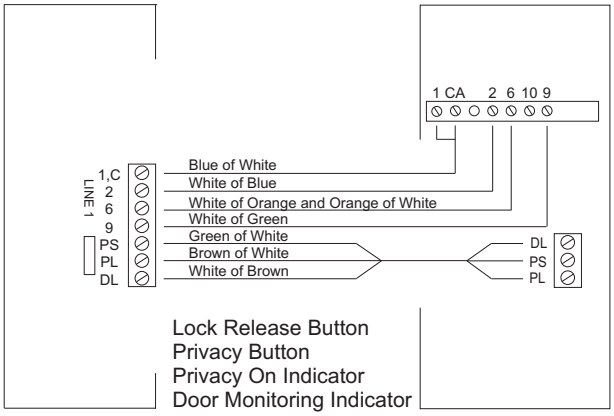
Main Controller		**Digital Entrance Panel Board**
1	Blue of White	Speech Input
2	White of Blue	Microphone Input
SD	White of Brown	Data Output
CTS	Brown of White	Data Select
0V	Orange of White	0V Common Line

Main Controller Interface to Riser/Landing Controller Interface

Main Controller Interface		**Riser/Landing Controller Interface**
AC1	2.5mm Mains Type Cable	50VAC System Power Input/Output
AC2	2.5 Mains Type Cable	50VAC System Power Input/Output
CTS	Brown of White	Data Select
SD	White of Brown	Data Output
1	Blue of White	Speech Output
2	White of Blue	Microphone Output
0V	Orange of White	0V Common Line
TC	Green of White	Trades Clock with Landing Control

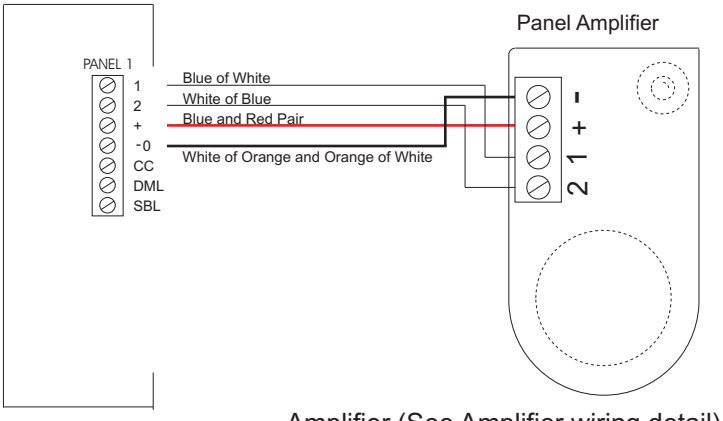
AT-PID Telephone

Privacy, Privacy On Indicator and
Door Monitoring Indicator wiring detail



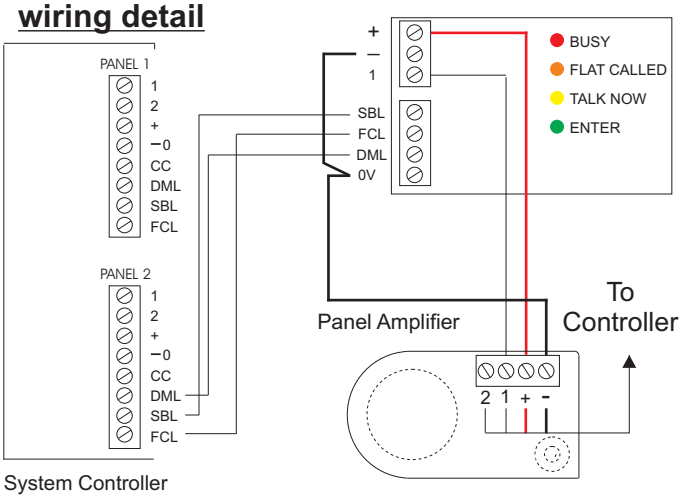
System Controller — AT-PID Telephone Handset

Landing Panel Amplifier wiring detail



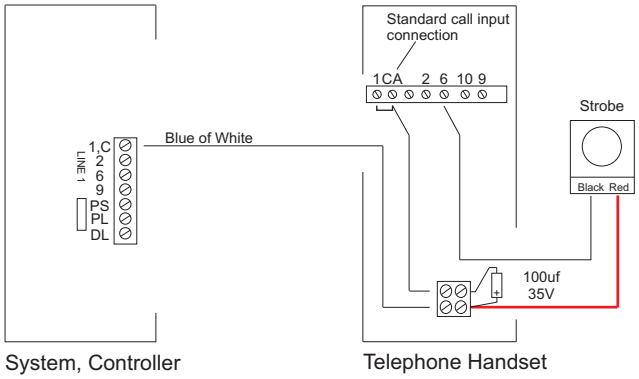
System Controller — Amplifier (See Amplifier wiring detail)

Entrance Panel DDA Display wiring detail



System Controller

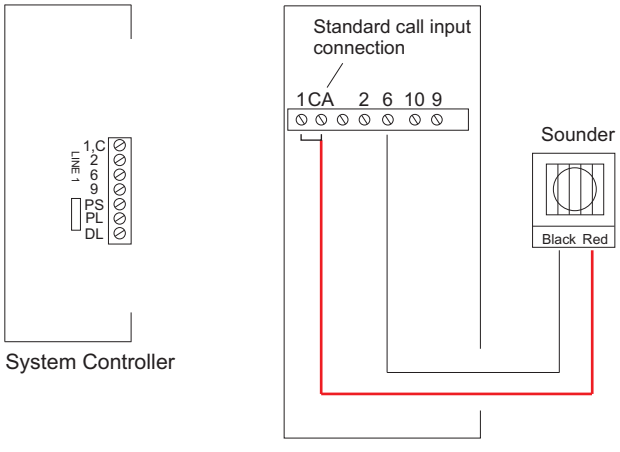
Strobe wiring detail



System, Controller — Telephone Handset

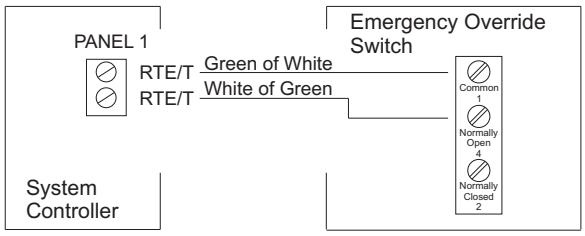
Note:
Please refer to the Controller Programming Instruction sheet in the Functional & Digital Installation Manual on how to initiate the powering of the Strobe.

Sounder wiring detail



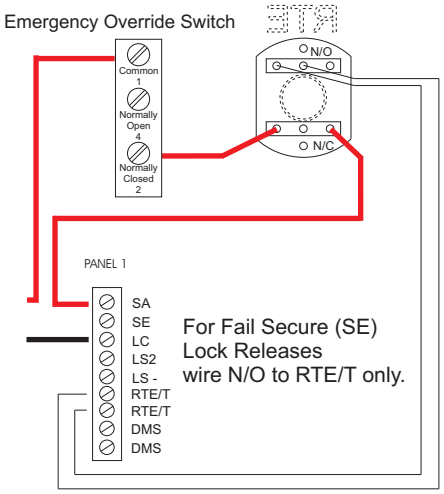
System Controller — Telephone Handset

For Fail Secure (SE) Lock Releases.

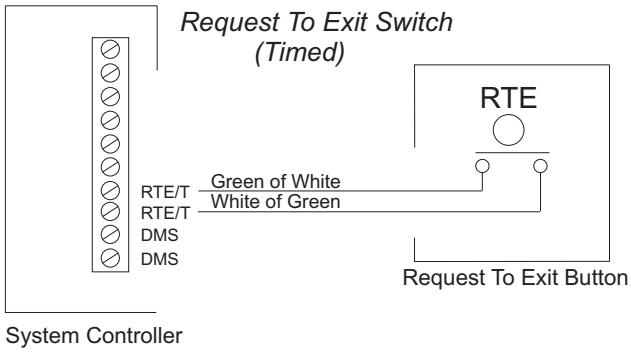


For Fail Safe (SA) Lock Releases.

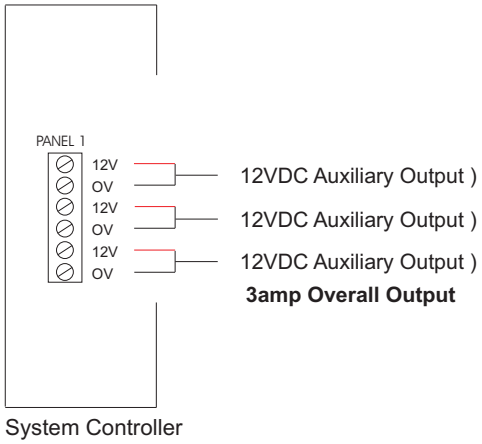
For Landing Panels only



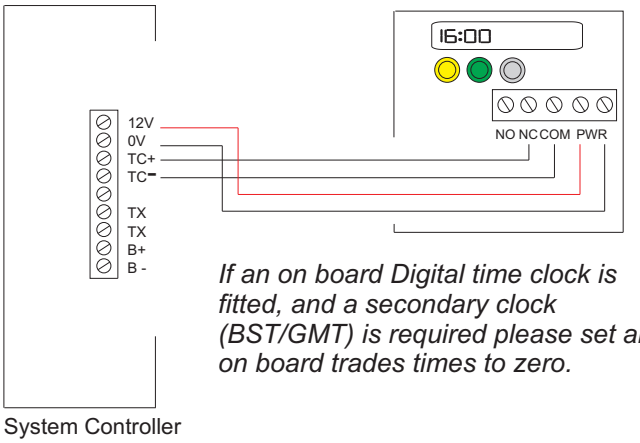
Request To Exit (Timed) wiring detail



12VDC Auxiliary Output wiring detail

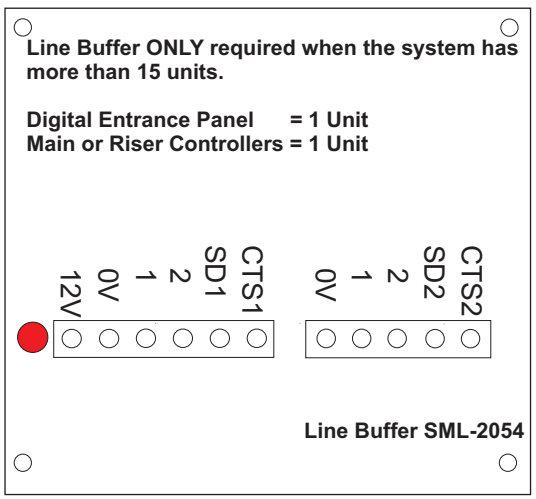


External Time Clock wiring detail

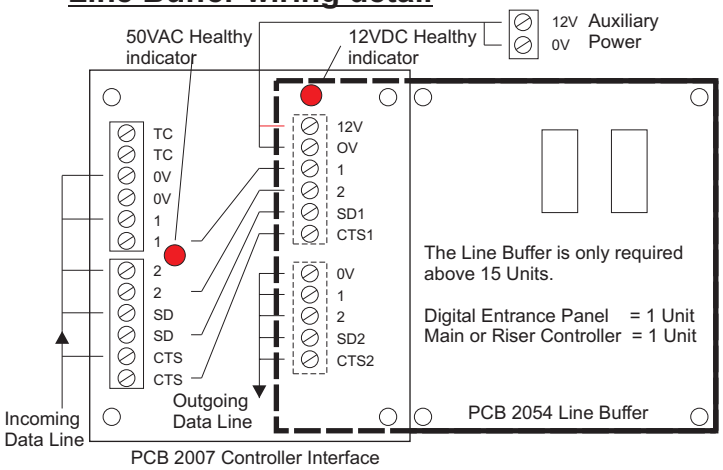


If an on board Digital time clock is fitted, and a secondary clock (BST/GMT) is required please set all on board trades times to zero.

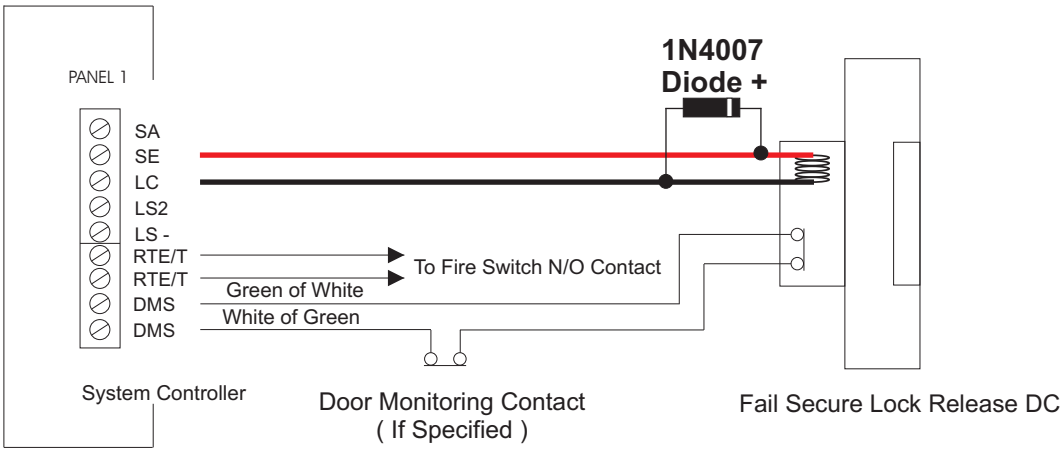
Line Buffer detail



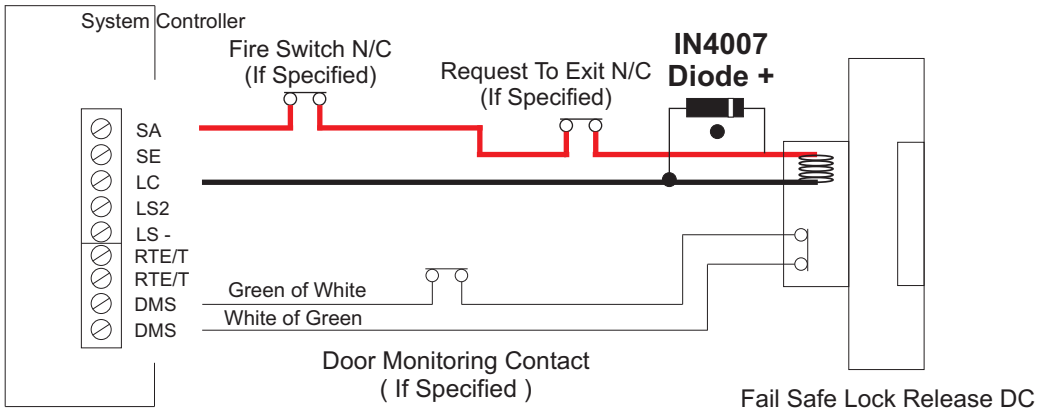
Line Buffer wiring detail



DC Fail Secure Lock Release wiring detail



DC Fail Safe Lock Release wiring detail

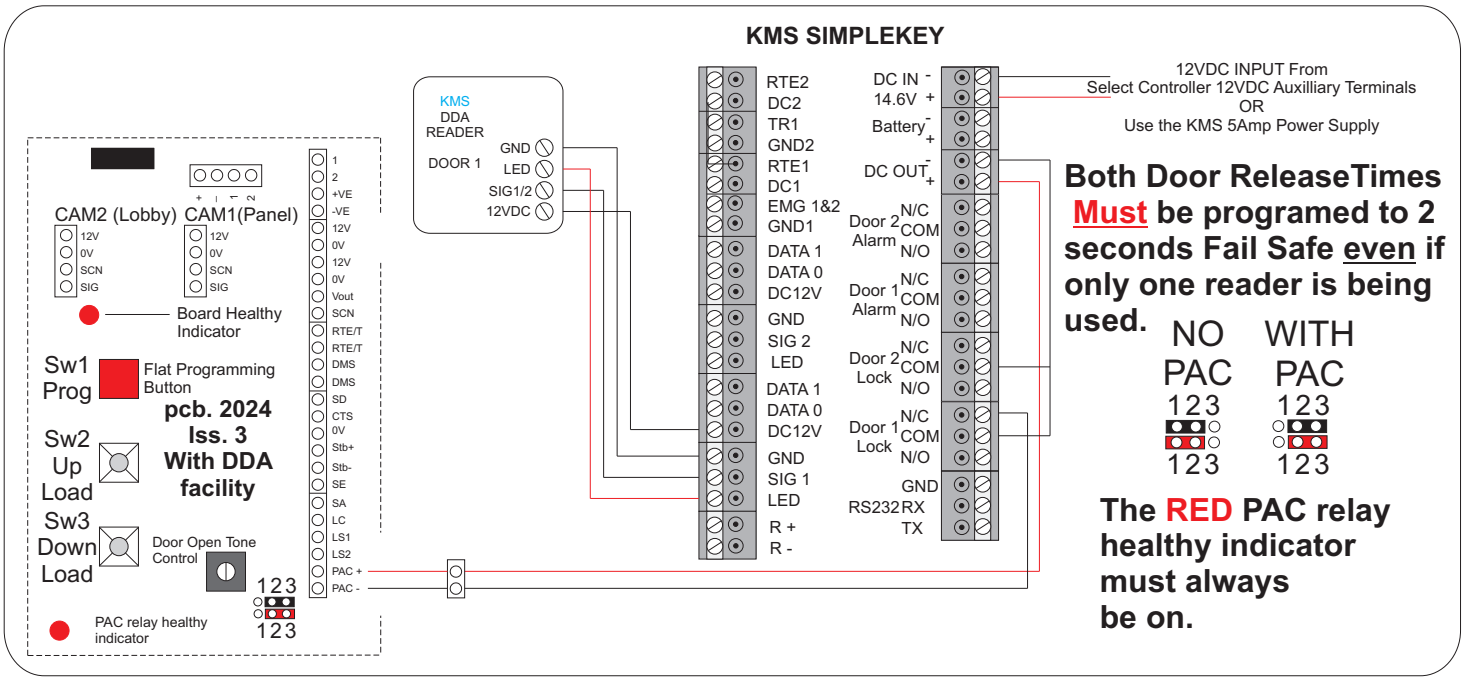


Note:

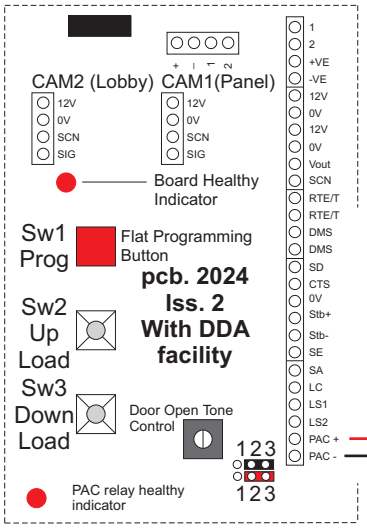
a) If Door Monitoring is not required, then link DMS to DMS with a wire link.

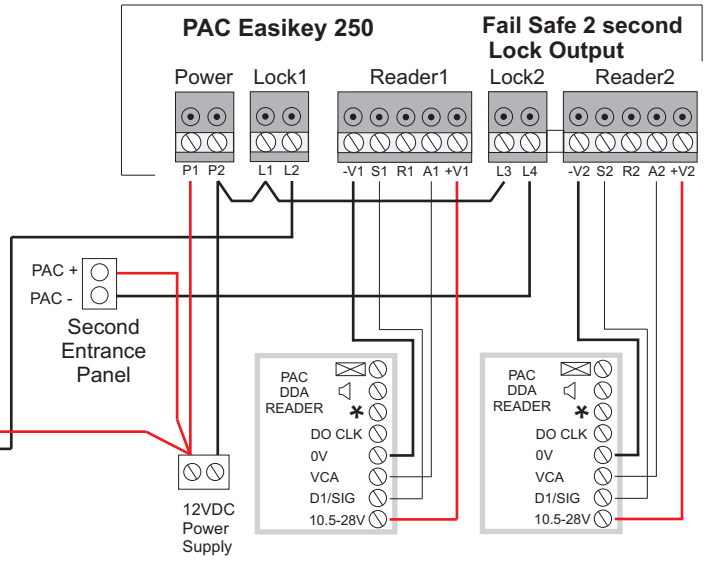
b) It is important that a **1N4007** diode is fitted at the lock release if you are using the System Controller for lock release power, This is to protect the System Controller against back EMF . If the locks are being powered by a PAC Controller then use the MOV supplied with the PAC reader.

Proximity Access wiring detail



Proximity Access wiring detail



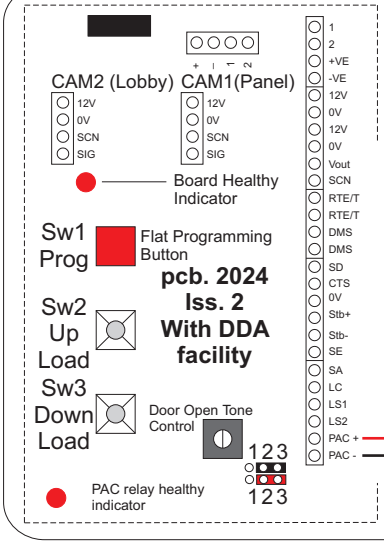


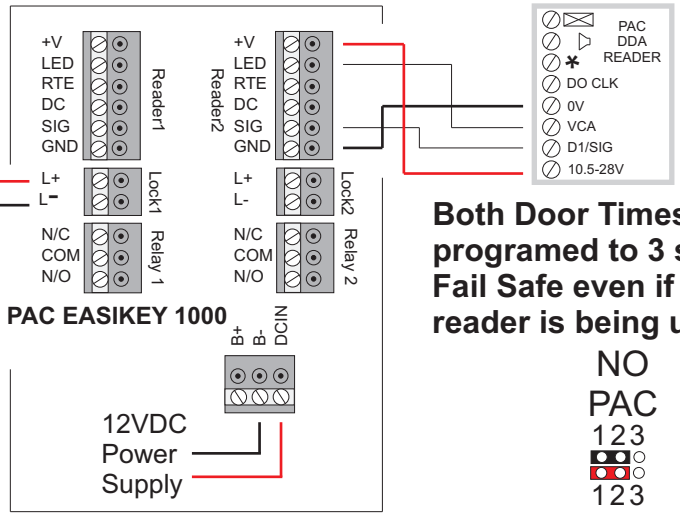
Both Door Times Must be programed to 2 seconds Fail Safe even if only one reader is being used.

NO PAC 123 123
WITH PAC 123 123

Note:
PAC Recommended cable:
7/0.2mm (0.22mm2) 4-core or
6-core unscreened cable or
CW1308 0.5dia Multipair cable.

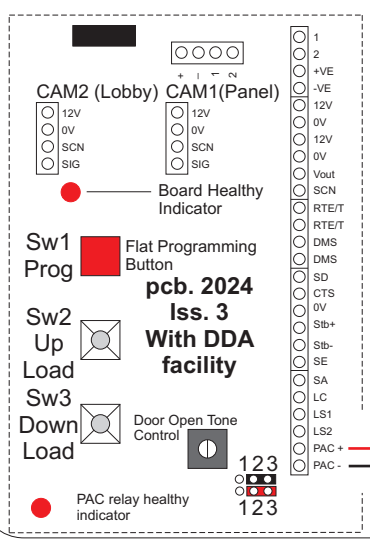
Channel1	Channel2	Reader	Colour
+V1	+V2	10.5/28V	Red
S1	S2	D1/SIG	Blue
R1	R2	n/c	White
A1	A2	VCA	Yellow
-V1	-V2	0V	Black

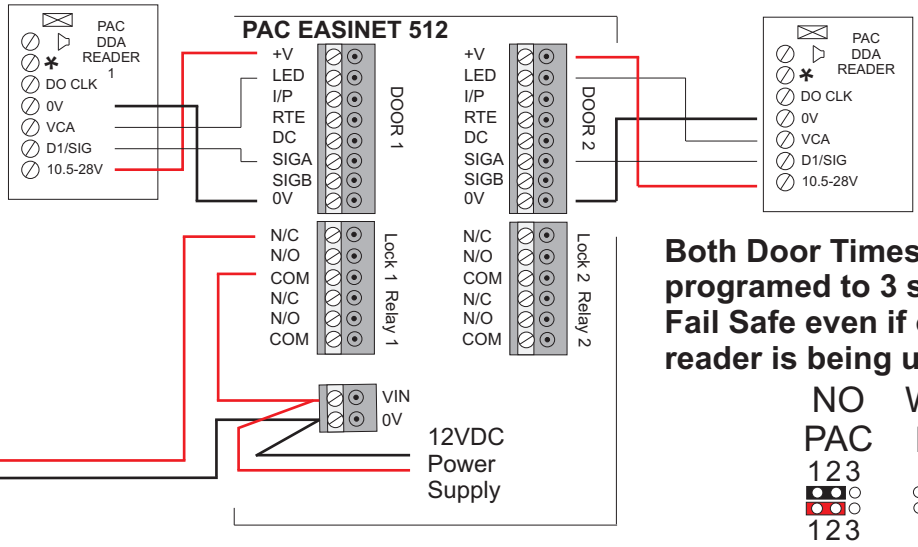




Both Door Times Must be programed to 3 seconds Fail Safe even if only one reader is being used.

NO PAC 123 123
WITH PAC 123 123





Both Door Times Must be programed to 3 seconds Fail Safe even if only one reader is being used.

NO PAC 123 123
WITH PAC 123 123

System Controller Summary

Connection Detail

Controller	Telephone Handset
1,C	Speaker/Electronic Call
2	Microphone
6	Common
9	Lock Release
PS	Privacy Switch
PL	Privacy On Indicator
DL	Door Monitoring Indicator
	Panel Amplifier Detail
1	Speaker
2	Microphone
+	+6VDC
-	-6VDC
	Entrance Panel Detail
DML	Enter Indicator
SBL	System Busy Indicator
FCL	Flat Called Indicator
CC	Button Common
	Trades Detail
TR	Trades Button
TR	Trades Button
RTET	Request To Exit (Timed)
RTET	Request To Exit (Timed)
	Lock Release Detail
LC	Lock Common (DC)
SA	Fail Safe (DC)
SE	Fail Secure (DC)
LAC	Fail Secure (DC)
LAC	Fail Secure (DC)
	PAC Detail
PAC	See page 18-18A
	Serial Connection
Tx	Transmit
Rx	Receive
0V	Common

Controller	Trades Clock
TC	Secondary Trades Clock
TC	Secondary Trades Clock
Note: N/O Clean Contacts	
0V	**Auxiliary Supplies**
12V	3 x 0V Output
	3 x 12VDC Output
Note: 3 Amp Overall Output	
	Power Input to Controller
TX	12Vac Input
TX	12Vac Input
	Battery Back Up
B+	+12VDC Battery Input
B-	0V Battery Input

Controller Programming

To be used in conjunction with the Controller Programming Instruction.

PROGRAMMING LINES
By setting all **FUNCTION** switches to **ON** and then pressing enter will set the system to default. (See Controller function Programming for set up and manufactures default settings).
Note: If a Controller has already been set with an address this will be deleted.
Select the line number to program using the **FUNCTION** switches 1 - 5, note that position 6, 7 and 8 are always in the **OFF** position. (See Controller Programming Instruction).

Next using the **DATA** switches 1 to 4 set the Privacy time. For Call volume and Call type, set **DATA** switches 5, 6 and 7 to the required positions. At this time, setting **DATA** switch 8 to the **ON** position will program a Strobe, Sounder or both. (See Controller Programming Instruction).

Finally pressing the enter button will save the current Line information to memory. Continue until all Lines are programmed.

LOCK RELEASE PROGRAMMING
Use the **FUNCTION** switches to select Entrance Panel 1 and the **DATA** switches to select the number of seconds for the release duration. Select the lock release duration time using the **TIME SELECTION** seconds chart. (See Controller Programming Instruction).

Repeat for Entrance Panel 2

T**ELEPHONE RING TIME FROM THE ENTRANCE PANEL**
Use the **FUNCTION** switches to select Entrance Panel 1 and the **DATA** switches to select the number of seconds for the ringing time duration. Select the ring time duration using the **TIME SELECTION** seconds chart.(See Controller Programming Instruction).

Repeat for Entrance Panel 2

ENTRANCE PANEL TO TELEPHONE CALL DURATION TIME
Use the FUNCTION switches to select Entrance Panel 1 and the DATA switches to select the number of seconds for the call duration time. Select the call duration time using the TIME SELECTION seconds chart. (See Controller Programming Instruction).

Repeat for Entrance Panel 2

DELAY BEFORE DOOR ALARM ACTIVATION
Use the FUNCTION switches to select Entrance Panel 1 and the DATA switches to select the number of minutes for the delay time. Select the Door Alarm delay duration time using the TIME SELECTION minutes chart. (See Controller Programming Instruction).

Repeat for Entrance Panel 2

DOOR ALARM DURATION TIME
Use the FUNCTION switches to select Entrance Panel 1 and the DATA switches to select the number of minutes for the alarm duration. Select the Door Alarm duration time using the TIME SELECTION minutes chart. (See Controller Programming Instruction).

Repeat for Entrance Panel 2

If required, the System Controller can send serial data to a PC.

Controller Programming Settings

SYSTEM CONFIGURATION	Notes	FUNCTION SWITCH 1	2	3	4	5	6	7	8	DATA SWITCH 1	2	3	4	5	6	7	8
Default setting for all items		1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X
Send setup to serial Port		0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0
Low Call Volume and Privacy Time	1	L	L	L	L	L	0	0	0	P	P	P	P	0	1	1	E
Medium Call Volume and Privacy Time	1	L	L	L	L	L	0	0	0	P	P	P	P	0	0	1	E
Nominal Call Volume and Privacy Time	1	L	L	L	L	L	0	0	0	P	P	P	P	0	1	0	E
High Call Volume and Privacy Time	1	L	L	L	L	L	0	0	0	P	P	P	P	0	0	0	E
Buzzer and Privacy Time	1	L	L	L	L	L	0	0	0	P	P	P	P	1	0	0	E
Lock Release Time. Entrance Panel 1	2	1	0	0	0	0	0	1	0	S	S	S	S	S	S	S	S
Lock Release Time. Entrance Panel 2	2	0	1	0	0	0	0	1	0	S	S	S	S	S	S	S	S
Telephone Ring Time. Entrance Panel 1	2	1	0	0	0	0	1	1	0	S	S	S	S	S	S	S	S
Telephone Ring Time. Entrance Panel 2	2	0	1	0	0	0	1	1	0	S	S	S	S	S	S	S	S
Call Duration Time. Entrance Panel 1	2	1	0	0	0	0	0	0	1	S	S	S	S	S	S	S	S
Call Duration Time. Entrance Panel 2	2	0	1	0	0	0	0	0	1	S	S	S	S	S	S	S	S
Delay before Door Alarm. Entrance Panel 1	3	1	0	0	0	0	1	0	1	M	M	M	M	M	M	M	M
Delay before Door Alarm. Entrance Panel 2	3	0	1	0	0	0	1	0	1	M	M	M	M	M	M	M	M
Door Alarm Duration Time. Entrance Panel 1	4	1	0	0	0	0	0	1	1	M	M	M	M	M	M	M	M
Door Alarm Duration Time. Entrance Panel 2	4	0	1	0	0	0	0	1	1	M	M	M	M	M	M	M	M
Controller Address (Functional switch always the same)		0	0	0	1	0	1	1	1	N	N	N	N	N	N	N	N

IMPORTANT: Please do not forget to press the Enter button after making a selection.

(See Flat Programming Sheet)

Note:
1) If an Extension Sounder or Strobe be required set Data switch 8 (E) to ON.
2) Do not set a value of Zero seconds or the system will not time out.
3) Set all Data switches to the OFF position if no Door Alarm is required.
4) Set all Data switches to ON position if the Door Alarm is to operate continuously.

1 = ON
0 = OFF
L = Line Number (Telephone)
P = Privacy Time (Telephone)
E = Extension Strobe/Sounder as required (See note 1)
X = Any Position
S = Seconds
M = Minutes
N = Number

LINE SELECTION (L)

Line Number	Function Switch 1	2	3	4	5
1	1	0	0	0	0
2	0	1	0	0	0
3	1	1	0	0	0
4	0	0	1	0	0
5	1	0	1	0	0
6	0	1	1	0	0
7	1	1	1	0	0
8	0	0	0	1	0
9	1	0	0	1	0
10	0	1	0	1	0
11	1	1	0	1	0
12	0	0	1	1	0
13	1	0	1	1	0
14	0	1	1	1	0
15	1	1	1	1	0
16	0	0	0	0	1

TIME SELECTION (M/S) & CONTROLLER ADDRESS (N)

Data Switch		Number of (M)inutes or (S)econds	Controller Address (N)umber
1	ON	1	1
2	ON	2	2
3	ON	4	4
4	ON	8	8
5	ON	16	16
6	ON	32	32
7	ON	64	64
8	ON	128	Not Used

Note:
1) Select the combination that adds up to the required time period (Max 255 Seconds/Minutes) or Controller Address Number (Max 99).

2) All switches not required must be in the OFF position.

PRIVACY TIMER SELECTION (P)

Privacy Timer (M)inutes and Hours	Data Switch 1	2	3	4
NO TIME (Remains on until manually switched off)	0	0	0	0
	-	-	-	-
10 Minutes	0	1	0	0
20 Minutes	0	0	1	0
30 Minutes	0	1	1	0
40 Minutes	0	0	0	1
50 Minutes	0	1	0	1
60 Minutes	0	0	1	1
70 Minutes	0	1	1	1
2 Hours	1	0	0	0
4 Hours	1	1	0	0
6 Hours	1	0	1	0
8 Hours	1	1	1	0
10 Hours	1	0	0	1
12 Hours	1	1	0	1
14 Hours	1	0	1	1
16 Hours	1	1	1	1

Controller Programming Example Settings

EXAMPLE SYSTEM SETTINGS		Notes	FUNCTION SWITCH 1	2	3	4	5	6	7	8	DATA SWITCH 1	2	3	4	5	6	7	8
			ON								ON							
			1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Default setting for all items			1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X
Send setup to serial Port			0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	X
Low Call Volume and Privacy Time	Line1-Privacy 10 Mins	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
Medium Call Volume and Privacy Time	Line5-Privacy 50 Mins	1	1	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0
Nominal Call Volume and Privacy Time	Line9-Privacy 4 Hours+Strobe	1	1	0	0	1	0	0	0	0	1	1	0	0	0	1	0	1
High Call Volume and Privacy Time	Line12-Privacy 8 Hours	1	0	0	1	1	0	0	0	0	1	1	1	0	0	0	0	0
Buzzer and Privacy Time	Line16-Privacy 12 Hours+Strobe	1	0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	1
Lock Release Time. Entrance Panel 1	16 seconds	2	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
Lock Release Time. Entrance Panel 2	10 Seconds	2	0	1	0	0	0	0	1	0	0	1	0	1	0	0	0	0
Telephone Ring Time. Entrance Panel 1	32 Seconds	2	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
Telephone Ring Time. Entrance Panel 2	24 Seconds	2	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0
Call Duration Time. Entrance Panel 1	20 Seconds	2	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0
Call Duration Time. Entrance Panel 2	32 Seconds	2	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0
Delay before Door Alarm. Entrance Panel 1	5 Minutes	3	1	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0
Delay before Door Alarm. Entrance Panel 2	8 Minutes	3	0	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0
Door Alarm duration Time. Entrance Panel 1	Continuous	4	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Door Alarm duration Time. Entrance Panel 2	15 Minutes	4	0	1	0	0	0	0	1	1	1	1	1	1	1	1	0	0

Note:
1) If an Extension Sounder or Strobe are required set Data switch 8 to ON.
2) Do not set a value of zero seconds or the system will not time out.
3) Set all Data switches to the OFF position if no Door Alarm is required.
4) Set all Data switches to ON if the Door Open Alarm is to operate continuously.

1 = ON
0 = OFF
L = Line Number (Telephone)
P = Privacy Time (Telephone)
E = Extension Sounder or Strobe as required (See note 1)

X = Any Position
S = Seconds
M = Minutes

LINE SELECTION (L)

Line Number	Function Switch 1	2	3	4	5
1	1	0	0	0	0
2	0	1	0	0	0
3	1	1	0	0	0
4	0	0	1	0	0
5	1	0	1	0	0
6	0	1	1	0	0
7	1	1	1	0	0
8	0	0	0	1	0
9	1	0	0	1	0
10	0	1	0	1	0
11	1	1	0	1	0
12	0	0	1	1	0
13	1	0	1	1	0
14	0	1	1	1	0
15	1	1	1	1	0
16	0	0	0	0	1

TIME SELECTION (M/S)

	Data Switch	Number of (M)inutes or (S)econds
1	ON	1
2	ON	2
3	ON	4
4	ON	8
5	ON	16
6	ON	32
7	ON	64
8	ON	128

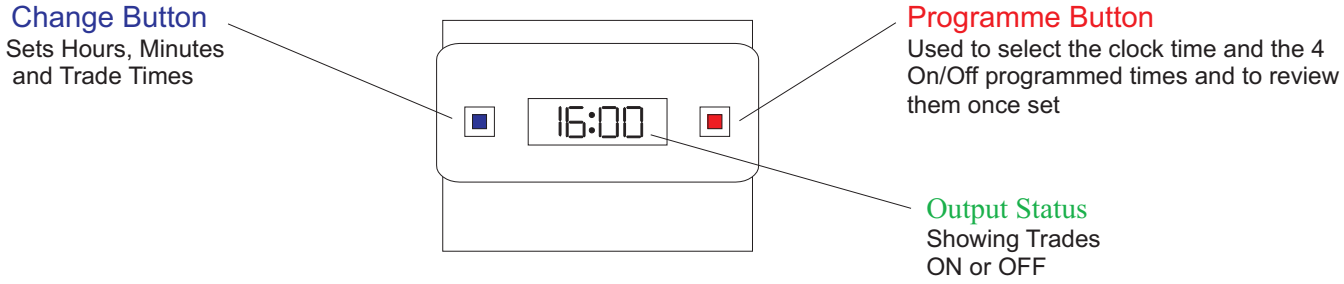
Note:
1) Select the combination that adds up to the required time period.(Maximum 255 Min/Seconds).

2) All switches not required must be in the OFF position.

PRIVACY TIMER SELECTION (P)

Privacy Timer (M)inutes and Hours	Data Switch 1	2	3	4
NO TIME (remains on	0	0	0	0
until manually switched off)	-	-	-	-
10 Minutes	0	1	0	0
20 Minutes	0	0	1	0
30 Minutes	0	1	1	0
40 Minutes	0	0	0	1
50 Minutes	0	1	0	1
60 Minutes	0	0	1	1
70 Minutes	0	1	1	1
2 Hours	1	0	0	0
4 Hours	1	1	0	0
6 Hours	1	0	1	0
8 Hours	1	1	1	0
10 Hours	1	0	0	1
12 Hours	1	1	0	1
14 Hours	1	0	1	1
16 Hours	1	1	1	1

Digital Trades Clock Operating Instructions



Programming

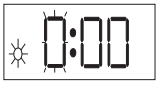
Only two setting buttons are required, Change and Program
In normal use the Change Button is used to switch ON or OFF overriding the time switch until the next program ON or OFF time. During programming the Change Button is used to set the Hours and Minutes. The Program Button is only used when setting or adjusting the clock Time or the 4 programmed ON/OFF times, although it can be used to review the ON/OFF times once they have been set.. Each time the Program Button is pressed the display will flash either the hours or minutes in turn, starting with the clock, then the first ON time, first OFF time, second ON time etc.
Wherever the hours or minutes are flashing they maybe set using the Change Button. Once the Program Button is pressed again to proceed to the next stage.

Normal Operating Mode

In normal operation the time clock will display the correct time with the colon flashing. The output status will be shown be either ON or OFF on the display.

1. To Reset Display Mode

To clear programme from memory and reset the time controller press and hold down both buttons until the display goes blank. Release buttons and the display will fill with its complete range of characters and then clear to show the clock and hour digit flashing.



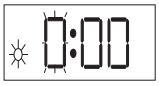
Programming Sequence

Setting Clock
Programme 1 ON
Programme 1 OFF
Programme 2 ON
Programme 2 OFF
Programme 3 ON
Programme 3 OFF
Programme 4 ON
Programme 4 OFF
Operating Mode

Note:
Button pauses greater than 0ne minute during programming will result in automatic return to the operating mode.

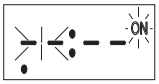
2. Setting Clock (after reset)

i. Hour setting– Press the Change Button to advance the hour setting. **Note:** For rapid hour selections press and hold the Change Button.



ii. Minute Setting- Press the Program Button once to select the minutes display shows clock symbol and minute digits flashing. Press the Change Button to advance the minutes setting.
Note: For rapid minute selection press and hold the Change Button (16 hours shown as example of hours set).

iii. Press the Program Button once- clock is now set and display shows ready for the first ON programme time with ON and the hours digit flashing.



3. To Set Programme ON/OFF Times

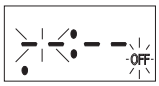
(After clock setting)

Program1 ON time

i. Press Change Button to advance the hour setting.

ii. Press the Program Button once to select the minute time–display shows minute digits and ON Flashing. Press Change Button to advance the minute setting. **Note:** 16 hours shown as example of hours set).

iii. Press the Program Button once – the first ON time is now set and the display will show ready for the first OFF programme time.



iv. Now set the hours and minutes as before.

v. Repeat steps I to iv to set the remainder of the 3 ON/OFF times as required. **Note:** Any unused ON/OFF programs should be skipped until the display shows normal operating mode. Do not program '0's into unused programs.

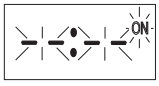
4. Program Review

To fast review the set program or for quick exit to normal operating mode press and hold the Program Button

5. Initiating Programme Mode

This can be initiated at any time during the normal operating mode. Press Program Button and the clock, hours and minutes symbols on the display will flash – this is the review mode. If any change to the programmes is required press the Change Button to initiate programme mode and then follow steps 2 and 3.

6. Cancelling Programmes



Any ON/OFF programme can be cancelled by clearing its ON and OFF time. Follow step 5 and when into the ON/OFF programme to be cancelled press the Change Button until the digits show then press the Program Button to clear the programme. The display will show the hour and minute digits and ON or OFF flashing.

Self Cancelling Override

To change the output status from ON to OFF or vice versa during normal operation press the Change Button. The output status will change and indicate override is in operation by flashing.

GMT/BST TIME SWITCH

Programming Instructions

Select Manufacturing Limited
Unit H1
The Seedbed Centre
Wyncolls Road
Severalls Business Park
Colchester
Essex CO4 9HT

Connection

The 2 screw terminals marked 'PWR' need to be connected to an AC **or** DC power supply within the following voltages:-
AC:- 7V to 21V R.M.S.
DC:- 10V to 30V
Note that if using a dc supply, it can be connected with either polarity.
The remaining 3 screw terminals are cleanSPCO relay contacts for connection to the target system.
Contact rating:-2A @ 30VDC
0.6A @ 150VAC

Display

The large LCD display shows the following information:-
The left hand 8 digits normally shows the date in DD/MM/YY format. Every 30 seconds this changes to show the relay state and the day of the week for a few moments. The right hand 8 digits shows the time in HH:MM 24 hour format. The colon flashes to show the clock is running. The last digit shows either 'W' during winter periods (ie. GMT) or'S' during summer periods (ie. BST). Also the last digit flashes during times when the time switch settings determine that the relay should be on.

```
06/03/02  17:11  S
```

Programming

The Time Clock is simply programmed using the three coloured buttons. The three buttons are used as follows:-
PROG (**Yellow**) Steps between the **PROG** modes (**date,times etc**).
RIGHT (**Green**) Moves the curser to the next number.
UP (**Grey**) Increments the number at the curser.
The button auto-repeats if held down for several seconds.
The left half of the display shows a description of the data to be entered, and the right half shows the data as it is entered.

Step by Step Example

Press **PROG** (**Yellow**) button.

```
DATE ?  06/03/02
```

Display shows:-

Press and hold (**or repeatedly press**) the **UP** (**Grey**) button until the number at the underlined curser equals the current date (ie. 1-31).
Press **RIGHT (Green)** button once.
The underline curser moves to the months column.
Repeat pressing the **UP** (**Grey**) button until the underlined number equals the current month (ie 1-12)
Press **RIGHT** (**Green**) button once.
The underline curser moves to the years column.
Repeat pressing the **UP** (**Grey**) button until the underlined number equals the current year i.e. (1-99)
Note:- It is important for proper GMT/BST operation that the correct date is entered. When the display shows the correct date:-
Press the PROG (**Yellow**) button.

Display shows:-

```
TIME ?      17:12:56
```

Using the Green and Grey buttons as previously set the display to the correct time (**24 hour clock**).
Note:- The time entered is always normal 'clock' time i.e. GMT during winter and BST during summer-time.
Press the **PROG** (Yellow) button.
Display shows:-
Using the Green and Grey buttons as before set the time at which you wish the time switch to come on. The third column (**dy**) is the day or days when this setting will operate. When this is underlined each press of the Grey button will step through the available options, which are:-

DY - Every day
MF - Weekdays i.e. Monday to Friday
SS - Weekend i.e. Saturday and Sunday
Mn - Monday Only
Tu - Tuesday Only
Wd - Wednesday Only
Th - Thursday Only
Fr - Friday Only
SA - Saturday Only
Su - Sunday Only
Of - Off i.e. Never

```
ON  1 ?     7:15 DY
```

Press the PROG (**Yellow**) button.
Display shows:-
Set the time you wish the time switch to switch off.

```
OFF  1 ?    7:30
```

Press the yellow button and set the ON and OFF times for the remaining 5 settings.
Note:- If one or more ON/OFF settings are not required then they can be disabled by either:- i. Setting the OFF time to be before, or the same as, the ON time. Ii. Setting the day code to 'Of' After setting the 'OFF 6' time the time switch resets and starts running with the new settings.

Manual Override

A single press of the Grey button changes the state of the output. This stays in operation until the next on or off time is reached, or the Grey button is pressed again, when normal programmed operation resumes.

Clear

If required the time switch can be completely cleared, including the date, time and all ON/OFF settings, by the following procedure.
Press and hold the Yellow button.
Press and hold the Green and Grey buttons for several seconds.
Display shows:- CLEAR? Y/N
Release all three buttons.
Press the Green button until the 'Y' is underlined.
Press the Yellow button.

Option Link

If summer-time correction is not required then cut the 'BST INHIBIT' link on the circuit board.

System Wiring Colour Codes cont...

Controllers to Functional and Landing Entrance Panels

Controller		Entrance Panel	
1	Brown of White	Button	1
2	White of Brown	Button	2
3	Slate of White	Button	3
4	White of Slate	Button	4
5	Red of Orange	Button	5
6	Orange of Red	Button	6
7	Green of Red	Button	7
8	Red of Green	Button	8
9	Brown of Red	Button	9
10	Red of Brown	Button	10
11	Black of Blue	Button	11
12	Blue of Black	Button	12
13	Black of Orange	Button	13
14	Orange of Black	Button	14
15	Green of Black	Button	15
16	Black of Green	Button	16
CC	Slate of Red and Red of Slate	Button Common	
TR	Brown of Black	Trades Button	
TR	Black of Brown	Trades Button	

Note:
The CC connection on the Controller to the Entrance Panel button common should always be a pair.
I.e. Slate of Red and Red of Slate.

Controller to Entrance Panel Amplifier

Controller		1
1	Blue of White	2
2	White of Blue	+
+	Blue of Red and Red of Blue	-
-	White of Orange and Orange of White	

Controller to Dual and Landing Entrance Panels

Controller		
DML	Black of Slate	DML
SBL	Slate of Black	DML

Note:
a) The above colour codes are based on a 15 Pair CW1308 Multi-pair cable.
b) The main colour is the first colour stated above. The banding is the second colour stated above. Therefore, a wire stated as Black of Slate would be a Black main colour with a Slate banding.

Controllers to Telephone Handset

Controller		Telephone
1,C	Blue of White	1
2	White of Blue	2
6	White of Orange and Orange of White	6
9	White of Green	9
PS	Green of White	PS
PL	Brown of White	PL
DL	White of Brown	DL

Note:
a) The above colour codes are based on a 4 Pair CW1308 Multi-pair cable.
b) The maximum length between the Controller and a Telephone should not exceed 50 metres.

Telephone to Strobe/Sounder

Telephone		Strobe/Sounder
6	Blue of White	Black
CA	White of Blue	+Red

Controller to Door Contact

Controller		Door Contact
DMS	Green of White	Switch Contact
DMS	White of Green	Switch Contact

Controller to Lock Release Monitor Contacts

		Lock Release Monitoring Contacts
Controller		
DMS	Green of White	Switch Contact
DMS	White of Green	Switch Contact

Note:
a) The above colour codes are based on a 4 Pair CW1308 Multi-pair cable.
b) If Door Contacts and Lock Release Monitoring Contacts are both to be used, then both switches must be wired in series back to the DMS terminals in the Controller.
c) The main colour is the first colour stated above. The banding is the second colour stated above. Therefore, a wire stated as Black of Slate would be a Black main colour with a Slate banding.

System Wiring Colour Codes cont...

Controller to Lock Release (AC/DC)

Controller		Lock Release (Fail Safe DC)
LC)		Lock Release Connection
)	1mm Twin Mains Type Cable	
SA)		Lock Release Connection

Controller		Lock Release (Fail Secure DC)
LC)		Lock Release Connection
)	1mm Twin Mains Type Cable	
SE)		Lock Release Connection

Controller		Request To Exit Button (Timed)
RTE T	White of Green	Switch Contact (Normally Open Contacts)
RTE T	Green of White	Switch Contact (Normally Open Contacts)

Note:
a) the above colour codes are based on a 4 Pair CW1308 Multi-pair cable.
b) The main colour is the first colour stated above.
The banding is the second colour stated above.
Therefore, a wire stated as Black of Slate would be a Black main colour with a Slate banding.

Power Specification

Power Input

System Controller	230VAC
Main Controller/Local Power Supply	230VAC
Riser/Landing Controller	50VAC
Working Voltage	12VAC
Amplifier	6-12VDC

Controller Outputs

Lock Release (Fail Secure)	12VDC (Normally Open)(Rated 1Amp)
Lock Release (Fail Safe)	12VDC (Normally Closed)(Rated 1amp)
Auxiliary Supply	3 x 12VDC (Rated 3Amp overall)

Battery Back Up:
System & Riser Controllers
12V7Ah Sealed Lead Acid Battery
Main Controllers
12V17Ah Sealed Lead Acid Battery

System Controller Default Settings..

The following system functions are selected by using the FUNCTION and DATA dil switches located on the Controller motherboard below the Digital Trade clock.

Each of the above switches contains 8 ON and 8 OFF positions that can be selected in various combinations to achieve varying system functions.

Available Functions:

Description	**Default**
Default settings for all functions	Set
Setting line number for apartment	Set 1 - 16
Serial link set up	OFF
Medium Volume Electronic Call	ON
Privacy Time	8 Hours
Strobe	OFF

Entrance Door 1 (Adjustable Time Functions)	**Default**
Lock Release time	10 Seconds
Telephone Ringing time	20 Seconds
System active duration time	30 Seconds
Door Open Alarm delay time	OFF
Door Open Alarm duration time	OFF

Entrance Door 2 (Adjustable Time Functions)	**Default**
Lock Release time	10 Seconds
Telephone Ringing time	20 Seconds
System active duration time	30 Seconds
Door Open Alarm delay time	OFF
Door Open Alarm duration time	OFF

User telephone Instruction Leaflet. Type AT-PID

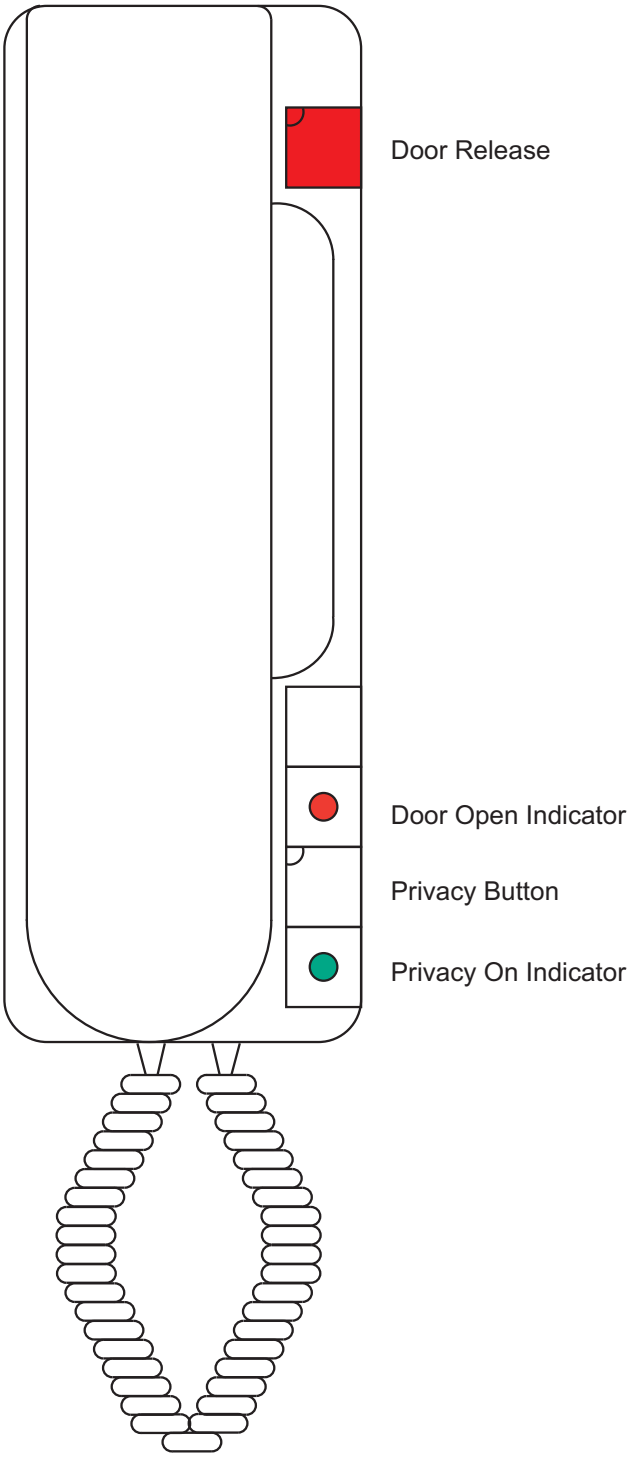
Once the Visitor has called you have the following options and indicators available to you:

Replace The Handset
You can replace the Handset without releasing the door.

To Release the Door
Press the **Door Release button**: this will cause the **RED Door Open** indicator to flash to confirm the door is being released for your visitor.

Door Open Warning
Once the Main Entrance door has been opened the **RED Door Open** indicator will stop flashing and will stay illuminated until the Entrance door is closed.

To Set Telephone Privacy
By pressing the **Privacy button** you will activate the system timer and illuminate the **GREEN Privacy On** indicator stopping all incoming calls for a timed period. You can, at any time if you wish, cancel the timed privacy period by pressing the **Privacy Button**. This cancellation will be confirmed by the extinguishing of the **GREEN Privacy On** indicator.



Select Manufacturing Limited Tel: 01206 855800 Fax: 01206 855801

Functional & Digital Audio Systems

Commissioning/Final Inspection Test Sheet.

Client Name: Site Address: Telephone No.:	Commissioning Engineer: Installer Name:

Controller No.	Line Number	Flat Number.	Call Tone.	Speech.	Lock Release	Door Open Indicator	Privacy Indicator	Video Picture	**Comments**
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									

Trades		Trades settings	On	Off	On	Off	On	Off	On	Off	

General System Comments: Please use reverse