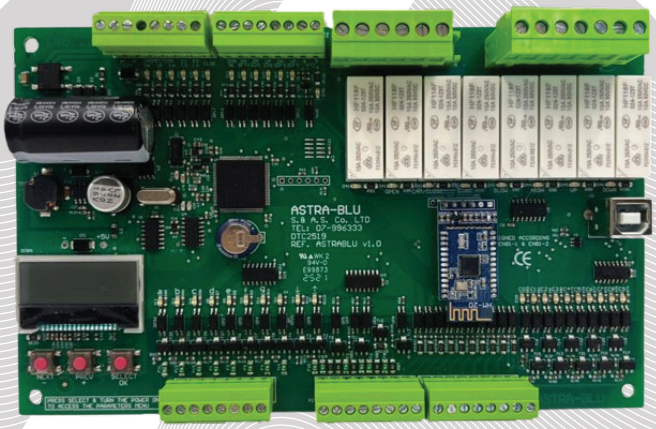
S. & A.S. Co. Ltd
ISO 9001

OFFICE: BOUTROS BLDG., 1ST BSMT, CHEIKH-GHABI, BEIRUT 2068 7808
TEL: 961-1-216994 (2 LINES), FAX: 961-1-339600
HEADQUARTERS AND FACTORY: S. & A. S. BLDG, SEASIDE ROAD, JIEH CHOUF
TEL: 961-7-996333 (2 LINES), FAX: 961-7-996116
TECHNICAL SUPPORT: 961-71-996333 E-MAIL: SUPPORT@SASCONTROLLERS.COM
WWW.SASCONTROLLERS.COM

PRELIMINARY



ELEVATOR CONTROL MODULE

ASTRABLU V1.0

COLLECTIVE DOWN – 10 STOPS / COLLECTIVE FULL – 6 STOPS

WITH GRAPHICAL LCD

USER'S MANUAL

FOR S/W V1.00.0 & ONWARDS 2601

STAY CONNECTED: SCAN OUR QR CODES!

1. GENERAL DESCRIPION

1.1 MAIN FEATURES

<table>
<tr><td>Platform</td><td>Microcontroller</td></tr>
<tr><td>Type</td><td>AC 1 speed – AC 2 speed - VVVF – Hydraulic❶</td></tr>
<tr><td>Self diagnostic</td><td>Error codes outlining typical issues associated with peripheral inputs.</td></tr>
<tr><td>On-board display</td><td>An 8-character, 2-line LCD alphanumeric display is used to show the floor number, error messages, and menu.</td></tr>
<tr><td>Push buttons</td><td>Three push buttons are used to navigate through different parameters and the menu.</td></tr>
<tr><td>Shaft information</td><td>End of shaft in the up direction
End of shaft in the down direction
Slow down and final stop in the up direction
Slow down and final stop in the down direction
Car position is saved following a power failure②</td></tr>
<tr><td>Indicator signal</td><td>Gray Code or
Binary Code or
Enhanced Code (when using S.&A.S. scrolling display) or
7-Segment code or
Decimal</td></tr>
<tr><td>Number of stops</td><td>Related to collective type and indicator type (COLLECTV & INDICATR)

<table><tr><th>Number of Stops</th><th>Collective Type</th><th>Indicator / Notes</th></tr><tr><td>10 stops</td><td>Down Collective or APB</td><td>Indicator types (Gray, Binary, Enhanced, 7segment)</td></tr><tr><td>8 stops</td><td>Down Collective or APB</td><td>Decimal Indicator</td></tr><tr><td>6 stops</td><td>Full Collective</td><td>All types of indicator supported</td></tr><tr><td>5 stops</td><td>Down5 Collective</td><td>No multiplexing (All types of indicator supported)</td></tr><tr><td>4 stops</td><td>Full4 Collective</td><td>No multiplexing (All types of indicator supported)</td></tr></table></td></tr>
<tr><td>Door type</td><td>Swinging or automatic door or half automatic door❶</td></tr>
<tr><td>Door controls❸</td><td>Input for re-open, photocell and door jam switch + input to bypass closing delay④</td></tr>
<tr><td>Door status❸</td><td>Parking with door opened or door closed❶</td></tr>
<tr><td>Floor Stop time</td><td>Variable from 0 to 99 seconds❶</td></tr>
<tr><td>Car light</td><td>Automatic switch off after delay - 0 to 250 seconds❶</td></tr>
<tr><td>Inspection mode❺</td><td>For installation and maintenance, uses slow speed.</td></tr>
<tr><td>PTC Input</td><td>The motor PTC input stops lift operation when the motor overheats.</td></tr>
<tr><td>Indicator Outputs</td><td>Compatible with common negative configurations.</td></tr>
<tr><td>Terminals</td><td>Each terminal is individually labeled based on its function for easy identification.</td></tr>
<tr><td>RTC (Real Time Clock)</td><td>Real time clock with 5 days backup in the absence of external power.</td></tr>
<tr><td>Bluetooth support</td><td>Supports Bluetooth communication with a dedicated app called Liftify, which is available on both iOS and Android platforms.</td></tr>
</table>

❶ Selection is made by presetting a parameter in the menu; see section “MENU DESCRIPTION” for details.

② Upon power restoration, the elevator resumes from its previous position without requiring a homing trip, unless Power-ON homing is enabled; refer to section “MENU DESCRIPTION”.

❸ For automatic or ½ automatic door only.

④ Activated by a push button located in the car.

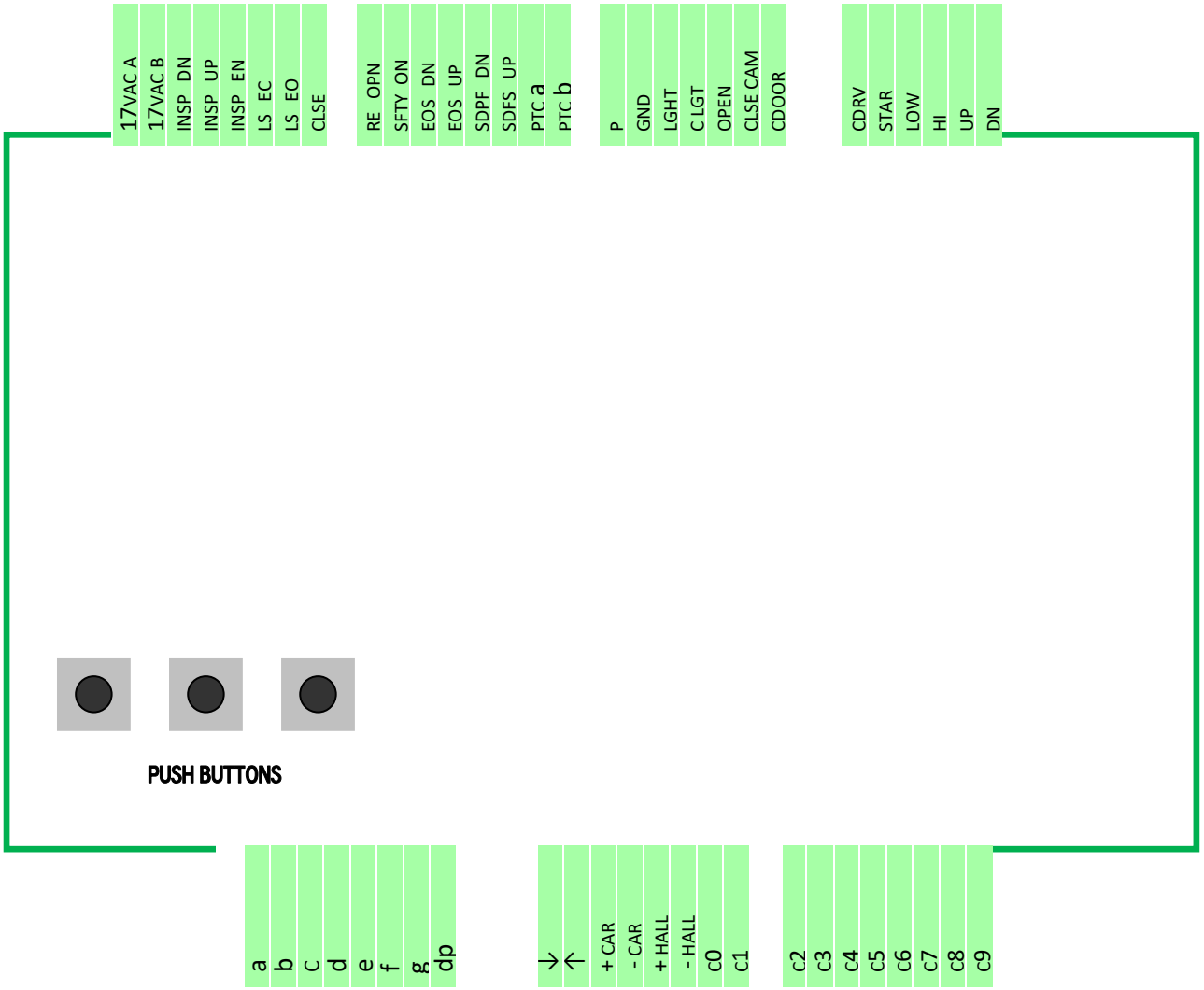
❺ Refer to section “INSPECTION OPERATION”.

1.2 TECHNICAL DATA

Supply voltages	Board supply: 17vac +15% -25% - 120mA Periphery supply: 22vdc +15% -25%
Inputs	Each input has a led to indicate its status – all inputs are optically isolated Input active voltage level is 22vdc
Control outputs	Each output has a led to indicate its status – all outputs are dry relay contacts Rated at 250Vac 10A⑥
Call terminals	Each call has a led to indicate its status Call are optically isolated Call active voltage level is zero volts (GND) Call terminals are capable of driving 15mA leds on 22vdc The + and – supplies of Car and Hall are short circuit protected
Multiplexing Outputs	Total number of supply outputs for multiplexing is 4. All outputs are optically isolated and short circuit protected. CC-, HC- : Active voltage level is 0vdc (GND) CC+, HC+ : Active voltage level is 22vdc (P)
Indicator outputs	Each output has a led to indicate its status – all outputs are optically isolated For a, b, c, d, e, f, g, dp: Red LED On = Output voltage level is 0vdc (Active Low) For arrow up and arrow down: Red LED On = Output voltage level is 0vdc (Active Low)
Connection	Screw type, plug-in connectors
Norms	Conforms to EN81
Weight	242grams

2. TERMINAL DESCRIPTION

2.1 TERMINAL LAYOUT`



⑥ It is essential to include a freewheeling diode in parallel with the coil of each DC contactor or DC relay controlled by the board to ensure proper protection.

2.2 INPUT TERMINALS

17VAC A	Board power supply – 17vac a
17VAC B	Board power supply – 17vac b
INSP_DN	Inspection down
INSP_UP	Inspection up
INSP_EN	Inspection enable (when input is inactive)
LS_EC	Limit switch end of closing
LS EO	Limit switch end of opening
CLSE	Bypasses reclosing delay in automatic door / Emergency stop for swinging door when enabled in the menu
RE OPN	Re-open for automatic door (when inactive) / door closed for swinging door (when active)
SFTY ON	Should be active when lift is moving
EOS_DN	End of shaft in the down direction
EOS_UP	End of shaft in the up direction
SDPF_DN	Slow down and final stop in the down direction / DZ for automatic door when enabled in the menu
SDFS_UP	Slow down and final stop in the up direction
PTC A	Input from the PTC
PTC B	Input from the PTC

2.3 OUTPUT TERMINALS

2.3.1 OUTPUT TERMINALS FOR AC1 SPEED, AC2 SPEED AND VVVF

P +22V	Biasing voltage from periphery supply – positive side❶
GND	Biasing voltage from periphery supply – negative side❶
LGHT	Car light relay
CLGT	Common for LGHT output
OPN	Open door relay or contactor②
CLSE	Cam contactor❸ / Close relay or contactor②
CDOOR	Common for CLSE_CAM and OPN outputs
CDRV	Common for DN_DIR, UP_DIR, HI_SPD, LOW_SPD and STAR outputs
STAR	Spare output – refer to the menu in section “MENU DESCRIPTION”
LOW	Low speed contactor or speed reference 1 in VVVF
HI	High speed contactor or speed reference 2 in VVVF
UP	Up direction contactor or forward in VVVF
DN	Down direction contactor or reverse in VVVF

2.3.2 OUTPUT TERMINALS FOR HYDRAULIC

P +22V	Biasing voltage from periphery supply – positive side❶
GND	Biasing voltage from periphery supply – negative side❶
LGHT	Car light relay
CLGT	Common for LGHT output
OPN	Open door relay or contactor②
CLSE	Cam contactor❸ / Close relay or contactor②
CDOOR	Common for CLSE_CAM and OPN outputs
CDRV	Common for DN_DIR, UP_DIR, HI_SPD, LOW_SPD and STAR outputs
STAR	Star output
LOW	Releveling relay
HI	High speed valve
UP	For Hydraulic elevator with HYD STOP less than 0: Hydraulic Up Valve④ Else Pump delta contactor
DN	Down direction valve

❶Although this is not an output, it is listed with the outputs for convenience.
②For automatic or ½ automatic door only.
❸For swinging door.

2.3.3 INDICATOR OUTPUT TERMINALS – GRAY/GRAY1/BINARY/ BINARY1/ENHANCED

No limitation on the number of basements.

ASTRABLU Terminals	INDICATOR terminals
a	Floor information A - ON level=0VDC
b	Floor information B - ON level=0VDC
c	Floor information C - ON level=0VDC
d	Floor information D - ON level=0VDC
e	N/A
f	N/A
g	N/A
dp	N/A
↓	Down Arrow - ON level=0VDC
↑	Up Arrow - ON level=0VDC

2.3.4 INDICATOR OUTPUT TERMINALS FOR INDICATOR = DECIMAL

ASTRA Terminals	INDICATOR terminals
a	Floor 0 indication– ON level=0VDC
b	Floor 1 indication– ON level=0VDC
c	Floor 2 indication– ON level=0VDC
d	Floor 3 indication– ON level=0VDC
e	Floor 4 indication– ON level=0VDC
f	Floor 5 indication– ON level=0VDC
g	Floor 6 indication– ON level=0VDC
dp	Floor 7 indication– ON level=0VDC
↓	Down Arrow - ON level=0VDC
↑	Up Arrow - ON level=0VDC

2.3.5 INDICATOR OUTPUT TERMINALS FOR INDICATOR = 7SEGMENT/7SEGMENT1

ASTRA Terminals	INDICATOR terminals
a	a segment - ON level=0VDC
b	b segment - ON level=0VDC
c	c segment - ON level=0VDC
d	d segment - ON level=0VDC
e	e segment - ON level=0VDC
f	f segment - ON level=0VDC
g	g segment - ON level=0VDC
dp	"-" Negative segment for basement
↓	Down Arrow - ON level=0VDC
↑	Up Arrow - ON level=0VDC

2.4 CALL TERMINALS

c9	Floor 9 call
c8	Floor 8 call
c7	Floor 7 call
c6	Floor 6 call
c5	Floor 5 call
c4	Floor 4 call
c3	Floor 3 call
c2	Floor 2 call
c1	Floor 1 call
c0	Floor 0 call

3. CONTENTS OF PAGES DISPLAYED ON LCD

Three push buttons are used to simplify access to the main menu. The first page in the menu shows the elevator's status in either numeric or graphical form. The NEXT and PREV buttons allow you to scroll through the 9-page menu, moving downwards and upwards, respectively. The SELECT button is used to enter a function or view information within a menu item. The elevator status page, elevator settings page, and software/hardware page do not have any associated functions. The table below outlines the Main Menu and all its functions:

Page 1	Numeric Display or Graphical Display **Numeric Display:** 1st line: Elevator status → NORM., INSP., HTRP, FLT, EVAC. RLVL, LAND, ESTP. Floor → FL# 2nd line: Door status: For swinging door → OPND, CLSD, LCKG, LCKD For automatic & 1/2 automatic door → OPND, CLSD, OPNG, CLSG, 1/2o, UNKN Direction → ↑, ↓❶ Speed → Hi, Int, Ins, Lo❶ **Graphical Display:** Refer to section " GRAPHICAL DISPLAY"
Page 2②	Current fault description
Page 3❸	Fault log displaying the last 9 faults, along with the corresponding floor where each fault occurred.
Page 4	Erase Faults page
Page 5	SIMULATE CALLS: On board call registration function
Page 6	INSPECT. OPERAT. : On board Inspection operation
Page 7	Homing trip request
Page 8	Summary of the elevator settings: Door type(SWG, AUT, ½) Drive type(AC2S,AC1S,HYDR,VVVF) Main Landing feature (LN: Disabled, LE: Enabled) Parking Door status❹ (PDC: Closed, PDO: Opened)
Page 9	Software and hardware page
Page 10	Date and Time
Page 11	Serial Number

❶When the elevator is moving.
② Appears only if there is a fault.
❸Appears only if fault log is not empty.
❹Relevant in automatic or ½ automatic door. Refer to section "MENU DESCRIPTION".

3.1 GRAPHICAL DISPLAY

The AstraBlu now features a graphical display that summarizes the elevator status, door status, and floor status.

3.1.1 ELEVATOR STATUS

The left side of the LCD display shows the elevator status, including Normal, Inspection, Homing, Fault, and Moving.

ELEVATOR STATUS	SYMBOL	DISPLAY
NORMAL		NORM
MOVING		NORM
INSPECTION		INSP
FAULT		FLT
EVACUATION		EVAC
HOMING		HTRP
LANDING		LAND

3.1.2 MOVING DIRECTION AND SPEED

Moving Direction	Symbol
UP	
DOWN	

The elevator's moving speed is indicated by the scrolling speed of the direction arrows.

3.1.3 DOOR STATUS

The right side of the LCD display shows the door status
For swinging door: Opened, Locked.
For Automatic and half Automatic doors: Opened, Closed, Opening, Closing, Unknown.

Door Status	Door Type	Symbol	DISPLAY
OPENED	Automatic/ Half Automatic		**OPND**
OPENING/CLOSING	Automatic/ Half Automatic		**OPNG/CLSG**
CLOSED	Automatic/ Half Automatic		**CLSD**
UNKNOWN	Automatic/ Half Automatic		**UNKN**
OPENED	Swinging		**OPND**
LOCKED/ LOCKING	Swinging		**LCKD/ LCKG**
LOCKED/ LOCKING	Half Automatic		**LCKD/ LCKG**

3.1.4 FLOOR NUMBER STATUS

The door status will be combined with the floor number.

When the lift is undergoing a homing trip, the floor status is **?**

3.2 ON-BOARD CALL REGISTRATION FUNCTION

The operator can make calls using the push buttons to test the lift by navigating to the "Simulate Calls" page. The lift must be in normal operation. Press SELECT, and the display will show "Floor 0". Use the PREV and NEXT push buttons to change the floor selection. Once the desired floor is displayed, press SELECT. The call for that floor is registered, and the corresponding LED will light up on the board as well as in the car. The lift will then proceed to serve this call. To exit the call registration mode, either go to "Floor 0" and press the PREV button or go to the last floor and press NEXT. The board will also exit call registration mode if no buttons are pressed for 25 seconds.

3.3 ON-BOARD CALL INSPECTION OPERATION

When in inspection mode, go to the “INSPECT. OPERAT.” page. Press SELECT, and the display will show "Sim Insp". The NEXT and PREV push buttons function as INSP_DN and INSP_UP inputs, respectively. To exit the simulate inspection mode, press SELECT.

3.4 INSPECTION OPERATION

The inspection mode is activated by an external key switch or via Liftify. Inspection operation can be performed in four ways:

1. **Inspection Operation via Board Terminals**: The INSP_DN and INSP_UP terminals are used for this method.

2. **Inspection Operation via LCD**:

   Go to the “INSPECT. OPERAT.” page. Press SELECT, and the display will show "SIM INSP". The NEXT and PREV push buttons function as INSP_DN and INSP_UP inputs, respectively. To exit the simulate inspection mode, press SELECT. The system will also exit the simulate inspection mode if no buttons are pressed for 25 seconds. The INSP_DN and INSP_UP terminals take priority and will override the NEXT and PREV buttons.

3. **Inspection Operation via Car Panel**: "INSP. VIA CAB" must be set to Enabled in the settings. CC0 and CC1 call terminals act as INSP_DN and INSP_UP inputs, respectively.

4. **Inspection Operation via LIFTIFY App**: Inspection operation can be activated through the app; two buttons are used as INSP_UP and INSP_DN inputs.

   Inspection commands via terminals have the highest priority, followed by inspection commands from the car, then the AstraBlu user interface, and finally inspection commands from the app, which have the lowest priority.

Inspection commands via terminals have the highest priority, followed by inspection commands from the car, then the AstraBlu LCD, and finally inspection commands from the app, which have the lowest priority.

Additionally, in inspection mode, if "EOS WITH INSP" is set to Enabled:

- When the lift is moving down and EOS_DN goes off, the lift will stop immediately.
- If the lift is stationed under EOS_DN and an INSP_DN command is given, the lift will not move.
- When the lift is moving up and EOS_UP goes off, the lift will stop immediately.
- If the lift is stationed above EOS_UP and an INSP_UP command is given, the lift will not move.

If "EOS WITH INSP" is set to Disabled:

- When the lift is moving down at inspection speed and EOS_DN goes off, the lift will switch to low speed and stop when the door zone is reached.
- When the lift is moving up at inspection speed and EOS_UP goes off, the lift will switch to low speed and stop when the door zone is reached.

4. VIEWING ERRORS AND ERROR CODE DESCRIPTION

4.1 HOW TO VIEW THE ERRORS

Pressing the SELECT push button while on the View ERR page will prompt the board to display the most recent faults saved in memory. The board starts by showing the last fault, followed by the floor number where it occurred. Use the PREV or NEXT push buttons to view the previous or next fault.

The faults detected by the board are categorized into three levels:

1. **Level I faults**: Faults that block the elevator when they occur but allow the elevator to resume operation once the fault clears.
2. **Level II faults**❶: Faults that can be tolerated for a few occurrences before the elevator is blocked by the board.
3. **Level III faults**: Faults deemed fatal by the board, resulting in a complete block of any further elevator operation.

4.2 HOW TO ERASE THE ERRORS

To erase the faults from memory, navigate to the Erase ER page and press the SELECT push button. You will be asked to confirm your request. Press Yes (PREV) to erase all faults, or press No (NEXT) to leave the faults unchanged.

4.3 ERROR CODE DESCRIPTION

Fault Message - English	Fault Message - Arabic	Fault Description	Level	Action taken
SftyOpnd InTravl	فتح الأمان في الجولة	Safety circuit and/or door opened during travel	I	Waits for the safety circuit to be closed.
LockOpnd InTravl❶	فتح القفل في الجولة	Door lock circuit opened during travel	I	Waits for the lock circuit to close and cancels calls if the fault persists for more than 5 seconds. ❸
DoorClsd NotSfty❸	باب مغلق ولا أمان	The safety circuit did not close after the door closed.	I	Cancels calls and opens door②
Fail to Lockcam❶	عجز اقفال	Failure in locking door after 3 attempts	I	Cancels calls②
Fail to ClsDoor❸	عجز اغلاق الباب	Failure in closing door	II	Cancels calls, opens door②
Fail to OpnDoor❸	عجز فتح الباب	Failure in opening door	II	Close door and resume
ShaftInf Fault	خلل في م. البئر	SDFS-UP or SDFS-DN or DZ④ fault	II	Performs a homing trip
No EOS Fault	فقدان نهاية جولة	EOS-UP and EOS-DN faults (both open)	III	Blocks elevator❺
Car is Jammed	العربة عالقة	The motor has been powered for the "**CAR JAM**" duration, but the car did not move.	I	Waits for a call to resume
Emgncy Stop	وقوف طارئ	Emergency stop opened	I	Waits for a car call to resume
Motor OvrHeat	ارتفاع حرارة محرك	Motor has overheated (indicated by the PTC input), lift stops at nearest floor	I	Waits until motor cools down
CALL MAINT	اطلب الصيانة	Maintenance required	III	Blocks elevator⑥

❶Not implemented
②For swinging or ½ automatic door.
❸Waits for a call to resume operation.
④For automatic door.
❺ Once the cause of the fault is identified and resolved, the elevator will automatically resume operation.
⑥ To resolve this error, go to ENTER MAINT. For details, refer to section “MENU DESCRIPTION”.

5. AUXILIARY FUNCTIONS MENU

To access the auxiliary functions menu:

1. Press the SELECT push button.
2. Turn the power on.
3. Use the NEXT and PREV push buttons to navigate to the menu item you wish to edit or change.
4. Press SELECT to edit the parameter associated with the selected menu item.
5. Use the INC and DEC push buttons to adjust the value as desired.
6. Press OK to save the new value in memory.
7. To modify another parameter, repeat from step 4.
8. To exit parameter editing, go to EXIT and press OK (the elevator will become active again).

5.1 MENU DESCRIPTION

What you see on the display- ENGLISH	What you see on the display- ARABIC	Description and Comments	تفسير	Visibility Condition	Range	Default Value
LIGHT TIM	وقت الإضاءة	Car light turn-off delay in seconds.	وقت الاضاءة: تأخير إطفاء ضوء العربة	N/A	0 to 250sec	3 sec
FL STOP TIME	مدة الوقوف على ط	Time between travels in seconds.	مدة وقوف على الطابق: تحديد الوقت بين الرحلات	N/A	0 to 99sec	3 sec
PARKING	وقفة الباب	The door's parking status.	الوقفةالباب: وضع الباب عند الوقوف مفتوح أو مغلق	Auto Half Auto door	OPENED CLOSED	OPENED
VVVF STRT	تأخير إقلاع VVVF	The delay in seconds between providing direction and speed reference outputs. **Positive value**: VVVF selected with direction engaging before speed reference. **Negative value**: VVVF selected with speed reference engaging before direction.	تأخير الإقلاع بين مخارج السرعة و الاتجاه. قيمة إيجابية: إشارة الاتجاه قبل السرعة عند الإقلاع. قيمة سلبية: إشارة السرعة قبل الاتجاه عند الإقلاع.	VVVF drive	-9.9 to 9.9sec	0.0sec
HYD STAR	تأخير إقلاع HYD	The star-up time for the hydraulic mode.	تأخير الاقلاع : الهيدروليكي: ضبط وقت بدء التشغيل في حال كان الهيدروليكي ستار دلتا	Hydraulic	0.0 to 9.9sec	1.0sec
VVVF/ HYD STOP	تأخير وقوف VF/HYD	The delay in seconds between removing the direction and speed reference outputs. **Positive value:** VVVF selected with speed reference disengaging before direction. **Negative value:** VVVF selected with direction disengaging before speed reference	تأخير الوقوف : التأخير بين إطفاء مخارج الاتجاه والسرعة عند الوقوف. قيمة إيجابية: إطفاء الإتجاه قبل السرعة عند الوقوف . قيمة سلبية إطفاء السرعة قبل الإتجاه عند الوقوف.	VVVF drive Hydraulic	-9.9 to 9.9sec	0.0sec
LANDING	تأمين مدخل	Sets the landing floor and the delay before initiating a main landing trip when the elevator has no active calls.	تأمين مدخل : تحديد طابق المدخل مع ضبط وقت التأخير	N/A	None, 0... 9-0’10” to 30’59”	None
PTC	حساس PTC	When this feature is enabled, the motor PTC is continuously monitored	حساس PTC: عند تفعيل هذه الميزة ، يتم مراقبة حرارة المحرك	N/A	DISABLED ENABLED	DISABLED
POWER ON HOMG	رحلة أولية تيار	- When enabled, the elevator performs a homing trip upon every power-on. - When disabled, after a power-on, if the lift is not parked at a floor, the controller will move it to the nearest floor, continuing in the same direction it was traveling before the power failure.	رحلة أولية-تيار: سيتجه المصعد الى أول وقفة من الأسفل عند كل قطع و إعادة وصل للتيار .	N/A	DIS ENA	DIS
HYDRELEV	تصحيح مستوى	When set to **SELECTIVE**, re-leveling occurs only when the door is closed and the elevator has no active calls.	تصحيح مستوى: SELECTIVE عند إختيار يتم تصحيح مستوى الوقوف في حال كان الباب مغلق و لا يوجد أي طلبات.	Hydraulic elevator	ALWAYS SELECTVE	SELECTVE

Not Available

5. AUXILIARY FUNCTIONS MENU

What you see on the display- ENGLISH	What you see on the display- ARABIC	Description and Comments	تفسير	Visibility Condition	Range	Default Value
EOS WITH INSP	أخر جولة + فحص	When enabled, this feature prevents the elevator from exceeding the end-of-shaft limits in inspection mode.	أخر جولة + فحص: عند تفعيل هذه الميزة ، يتوقف المصعد عند نهاية الجولة أثناء الفحص.	N/A	DIS ENA	DIS
CAR JAM	عربة عالقة	The car is considered jammed after this specified delay.	العربة عالقة بعد مرور: تعتبر العربة عالقة بعد مرور هذا الوقت	N/A	Dis, 1 to 99sec	25sec
AUT DOOR OPR.	عملية باب أوتو.	The door is recognized as jammed after this specified delay.	عملية باب أوتوماتيك: يعتبر الباب الاوتو عالق بعد مرور هذا الوقت	Auto Half Auto door	Dis, 1 to 99sec	20sec
BASEMENT	عدد الأدوار السفلية	Sets the count of basements.	عدد الأدوار السفلية: عدد الطوابق السفلية.	N/A	0 to 9	0
DOOR TYP	نوع الباب	Selects the elevator door type. Choose **½ automatic door** if an electric cam is used to lock the door alongside the automatic door drive.	نوع الباب: تحديد نوع الباب. أختار 1/2 أوتوواتيك في حال وجود باب عادي خارجي مع CAM بالإضافة إلى الباب الأوتوماتيكي.	N/A	SWINGING AUTO ½ AUTO ©	AUTO
PERM CLS	إغلاق دائم	When enabled, the door closing signal remains engaged throughout travel, which is necessary for certain types of door drives.	اغلاق دائم: يفعل مخرج إغلاق الباب بشكل مستمر أثناء الرحلة.	Auto Half Auto door	DISABLED ENABLED	DISABLED
RE-OPEN I/P	مدخل RE-OPN	Configures the logic for the re-open input.	مدخل RE-OPN إختيار شكل تماس الباب لمدخل ال REOPEN	N/A	NO NC	NC
DOOR ZONE	مستوى الباب	When enabled, the SDFS DN input is reassigned as DZ for automatic doors only. DZ must be active at every floor stop to permit door opening.	مستوى الباب عند التفعيل ، يتم إعادة تعيين SDFS DN ليكون DZ للباب الاوتوماتيك فقط. يجب أن تكون DZ نشطة فى كل محطة أرضية للسماح بفتح البابز	N/A	DIS ENA	DIS
COLLECTV	تجميع	Selects between collective selective, down collective , APB, down 5 (no multiplexing stages: C0-->C4: CC0-->CC4/C5-->C9: DC0-->DC4) and Full 4 (no multiplexing stages: C0-->C3: CC0-->CC3/C4-->C6: UC0--> UC2/ C7-->C9: DC1-->DC3)	تجميع: إختيار شكل توزيع الطلبات .	N/A	FULL DOWN APB DOWN 5 FULL 4	DOWN
DRIVE	المحرك	Selects the drive type	المحرك: يحدد نوع المحرك.	N/A	AC2SPEED HYDRAULC AC1SPEED VVVF	AC2SPEED

Not Available

© DOOR TYP = ½ AUTO, visible if “Drive” ≠ Hydraulic or “HYD STAR” time = 0.

What you see on the display- ENGLISH	What you see on the display- ARABIC	Description and Comments	تفسير	Visibility Condition	Range	Default Value
SPARE OP	مخرج إضافي	Sets the STAR output function	مخرج إضافي: يضبط وظيفة المخرج الإضافي.	Drive ≠ Hydraulic Or DOOR TYP ≠ ½ Auto	N/A CCM HCM CCP HCP INT.SPD BASEBLOC GONG FAN HYDUPVLV OUTSRVOF OUTSRVON INSP MOD EVAC MOD HI SPEED LO SPEED UP O/P DOWN O/P CLOSE OPEN LIGHT STAR 1/2A CAM UP ARROW DN ARROW IND A IND B IND C IND D IND E IND F IND G IND -	GONG

<table>
<tr><th>What you see on the display- ENGLISH</th><th>What you see on the display- ARABIC</th><th>Description and Comments</th><th>تفسير</th><th>Visibility Condition</th><th>Range</th><th>Default Value</th></tr>
<tr><td>SLOW O/P</td><td>مخرج بطيء</td><td>Sets the SLOW spare output function when drive is set to “AC1SPEED”</td><td>برمجة مخرج البطيء
ضبط وظيفة مخرج سرعة البطيء عند إختيار مصعد سرعة واحدة.</td><td>AC1SPEED drive</td><td>N/A
CCM
HCM
CCP
HCP
GONG
FAN
OUTSRVOF
OUTSRVON
INSP MOD
EVAC MOD
HI SPEED
UP O/P
DOWN O/P
CLOSE
OPEN
LIGHT
1/2A CAM
UP ARROW
DN ARROW
IND A
IND B
IND C
IND D
IND E
IND F
IND G
IND -</td><td>LO SPEED</td></tr>
<tr><td>INDICATR</td><td>مؤشر</td><td><table><tr><th>Display Type</th><th>Description</th></tr><tr><td>GRAY</td><td>Gray code Indicator</td></tr><tr><td>GRAY 1</td><td>Gray code floor information output starting from 1</td></tr><tr><td>BINARY</td><td>Binary code floor information output.</td></tr><tr><td>BINARY1</td><td>Binary code floor information output starting from 1.</td></tr><tr><td>ENHANCED</td><td>Enhanced scrolling display information output.</td></tr><tr><td>7SEGMENT</td><td>Seven Segment display</td></tr><tr><td>7SEGMENT 1</td><td>Seven Segment display starting from 1</td></tr><tr><td>DECIMAL</td><td>Decimal floor information output</td></tr></table></td><td>مؤشر</td><td>N/A</td><td>GRAY
GRAY 1
BINARY
BINARY1
ENHANCED
7SEGMENT
7SEGMENT1
DECIMAL</td><td>7SEGMENT</td></tr>
</table>

5. AUXILIRY FUNCTIONS MENU

What you see on the display- ENGLISH	What you see on the display- ARABIC	Description and Comments	تفسير	Visibility Condition	Range	Default Value
E. STOP I/P	مدخل كبسة طوارىء	When enabled, the CLSE input is reconfigured as the emergency stop specifically for the swinging door.	كبسة طوارئ على CLSE: في حال تفعيل هذه الميزة, يلعب مدخل CLSE دور مفتاح الطوارئ في حال كان الباب مروحي فقط	SWINGING DOOR	DIS ENA	DIS
DOOR LS	LS للباب	When set to NONE, it means the door does not have limit switches. If the door is closed and an open command is given, the door will be considered open after the AUT DOOR OPR and the open signal will then be disengaged. If the door is open and a close command is given, the door will be considered closed after the AUT DOOR OPR and the close signal will then be disengaged.	حساسات الباب: عندما لا يكون مفعل , فإن الباب الاوتوماتيكي سيغلق او يفتح دون أن يأخذ مفتاح نهاية الفتح أو الإغلاق بعين الإعتبار فهناك وقت محدد داخل المتحكم سينتظره ليغلق الباب و من ثم ينفذ الطلب . في حال كان مقفل, سيتم قراءة المداخل ليحدد نهاية الإغلاق أو الفتح و سيتم تنفيذالطلب مباشرة بعد إغلاق الباب	Auto Half Auto door	INSTALLD NONE	INSTALLD
RAM WITH INSP	إنحدار مع فحص	When this feature is activated, the lift will gradually decelerate to a stop once the inspection up or down button is released.	إنحدار خلال الفحص: إذا كان مفعل و كنا في وضع الفحص و نتجه صعودا او نزولا :عند فصل الامر لن يقف المحرك مباشرة بل سيقف تدريجيا	VVVF drive	DIS ENA	DIS
INSP. VIA CAB	فحص من عربة	When this feature is enabled (ENA), the first two calls in the COP are used to move the lift in inspection mode.	الفحص من خلال كبسات العربة: عند تفعيل هذه الميزة يتم استخدام الطلبين الأولين لنقل المصعدصعودا و نزولا في وضع الفحص	N/A	DIS ENA	DIS
CC-CANCL	إلغاء طلب	-The touch panel now supports call cancellation by selecting "ONECLICK." - When set to "DOUBLECL," a registered car call can be canceled by double-clicking it.	الغاء طلبات العربة: وظيفتها إلغاء الطلب عند الضغط على الزر للطلب مرة أو مرتين.	COLLECTV: DOWN5 FULL 4	DISABLED ONECLICK DOUBLECL	DOUBLECL
Arrows	نوع السهم	Configures the arrow type function.	نوع السهم: يضبط وظيفة نوع السهم	N/A	On Blinking Run	On
PInspAL	إستئناف	When enabled, a special message "RES NORM" will appear on the display when exiting inspection mode. If "Yes" is selected, the system will proceed to the status page and resume normal operation. If "No" is selected, the system will stay on the current page until the inspection input is turned off or "Yes" is selected.	عندما التفعيل و عند الخروج من الفحص ، يكتب على الشاشة رسالة خاصة: RES NORM حيث بجب الضغط على OK للخروج من وضعية الفحص	N/A	DISABLED ENABLED	DISABLED
PERM OPN	فتح دائم	When this feature is enabled, the door opening signal remains continuously active once the door is fully opened.	فتح دائم: عندما تكون مفعلة,يتم تنشيط اشارة فتح الباب بشكل دائم عندما يكون الباب مفتوحا بالكامل	Automatic Half Auto door	DISABLED ENABLED	DISABLED
BLU Call Config	توزيع الطلبات	Configuration of call terminals.	ضبط وظائف مداخل الطلبات.	N/A		
BLU CT 0	BLU CT 0	Sets the ASTRABLU-CT0 calls configuration.	ضبط وظيفة طلب CT0	N/A	---, CC 0 to CC 9	CC 0
BLU CT 1	BLU CT 1	Sets the ASTRABLU-CT1 Calls configuration.	ضبط وظيفة طلب CT1	N/A	---, CC 0 to CC 9	CC 1
BLU CT 2	BLU CT 2	Sets the ASTRABLU-CT2 Calls configuration.	ضبط وظيفة طلب CT2	N/A	---, CC 0 to CC 9	CC 2
BLU CT 3	BLU CT 3	Sets the ASTRABLU-CT3 Calls configuration.	ضبط وظيفة طلب CT3	N/A	---, CC 0 to CC 9	CC 3
BLU CT 4	BLU CT 4	Sets the ASTRABLU-CT4 Calls configuration.	ضبط وظيفة طلب CT4	N/A	---, CC 0 to CC 9	CC 4
BLU CT 5	BLU CT 5	Sets the ASTRABLU-CT5 Calls configuration.	ضبط وظيفة طلب CT5	N/A	---, CC 0 to CC 9	CC 5

What you see on the display- ENGLISH	What you see on the display- ARABIC	Description and Comments	تفسير	Visibility Condition	Range	Default Value
BLU CT 6	BLU CT 6	Sets the ASTRABLU-CT6 Calls configuration.	ضبط وظيفة طلب CT6	N/A	---, CC 0 to CC 9	CC 6
BLU CT 7	BLU CT 7	Sets the ASTRABLU-CT7 Calls configuration.	ضبط وظيفة طلب CT7	N/A	---, CC 0 to CC 9	CC 7
BLU CT 8	BLU CT 8	Sets the ASTRABLU-CT8 Calls configuration.	ضبط وظيفة طلب CT8	N/A	---, CC 0 to CC 9	CC 8
BLU CT 9	BLU CT 9	Sets the ASTRABLU-CT9 Calls configuration.	ضبط وظيفة طلب CT9	N/A	---, CC 0 to CC 9	CC 9
BLU CT EXIT	BLU CT خروج	Exits the calls configuration menu.	خروج من لائحة الطلبات	N/A	N/A	N/A
7Seg Ind	7SEG مؤشر	Allows configuration of the 7-segment indicator at each stop.	ضبط وظيفة مؤشر SEGMENT-7 لكل وقفة	INDICATR= 7SEGMENT or 7SEGMENT1	N/A	N/A
ST#0 = XY ST#1 =XY ..... ST# LastFloor =XY	ST' 0 = XY ST' 1 =XY ..... ST' LastFloor =XY	7-segment indication for each stop.	ضبط وظيفة مؤشر SEGMENT-7 للوقفة	INDICATR= 7SEGMENT or 7SEGMENT1	X="-" , "1" , "2" Y=0,1,..,9, -, G, b, L, P, C, S, t	ST#0 = 0 ST#1 = 1 ..... ST# LastFloor = LastFloor
Adj Time	الوقت	Sets the current time of day.	ضبط الوقت	N/A		
Adj Date	التاريخ	Sets the current date.	ضبط التاريخ	N/A		
language	اللغة	Selects the language	اللغة: تحديد اللغة	N/A	English Arabic	English
LCD MODE	نوع الشاشة	When set to "GRAPHIC," the elevator status, door status, and floor status will be shown in a graphical format.	نوع الشاشة: عند ضبط "الغرافيك" المصعد سيعرض حالات الباب و المصعد بطريقة رسومية	N/A	NUMERIC GRAPHIC	GRAPHIC
ENTER MAINT.	لائحة الصيانة	Press select push button to access MAINTENANCE MENU.	لائحة التفتيش: اضغط على زر الضغط للوصول إلى قائمة التفتيش	N/A		ENTER MAINT.
EXIT	خروج	Exits the menu.	خروج من اللائحة	N/A		

6. LIFTIFY APP

6.1 INSTALLING THE LIFTIFY APPLICATION ON MOBILE

Step 1: Download and Install the App

Search for the **"LIFTIFY"** application, which is available on both **iOS** and **Android** platforms, and install it. Alternatively, you can use the following links:

- **Android:** https://play.google.com/store/apps/details?id=com.sas.liftify
- **iOS:** https://apps.apple.com/us/app/liftify/id6748124369

6.2 HOW TO CONNECT TO THE APP

1. Turn on the ASTRABLU device. The Bluetooth indicator will start blinking.
2. Open the LIFTIFY Mobile App. The device will appear under discovered devices, labeled with its serial number, along with the signal strength (weak or normal signal).
3. Select the device by its serial number. The app will prompt the user to enter the device password.
4. Enter the password for the device. Once the password is verified, the app will open, allowing full access to all features.

6.3 FEATURES OF THE APP

The app displays a diagram showing the full status of the elevator and the door, along with information about the device and the application. It also has five main tabs: Calls, I/O, Controls, Parameters, Faults, and Import/Export. Below is a description of each tab:

- **Calls:** Displays all registered calls for the elevator, the number of floors, and a visual representation of the elevator location. Users can also register/cancel calls directly through the app.
- **I/O:** Shows the status of all inputs and outputs of the AstraBlu with the correspondent terminal and function labels.
- **Controls:** Provides access to various functions, including:
    - Inspection: The inspection operation can be activated through the app, using two buttons that control inspection up and down.
    - Lift Reservation: Only car calls are served.
    - Door Reservation: the calls continue to be served but the door does not open.
    - Out Of Service: Elevator stops completely.
- **Parameters:** Allows users to view and modify the AstraBlu parameters directly from the app.
- **Faults:** Allows users to display all faults registered by the board and clear fault log.
- **Import/Export:** Enables the user to import and export parameters.

7. FIRMWARE UPGRADE

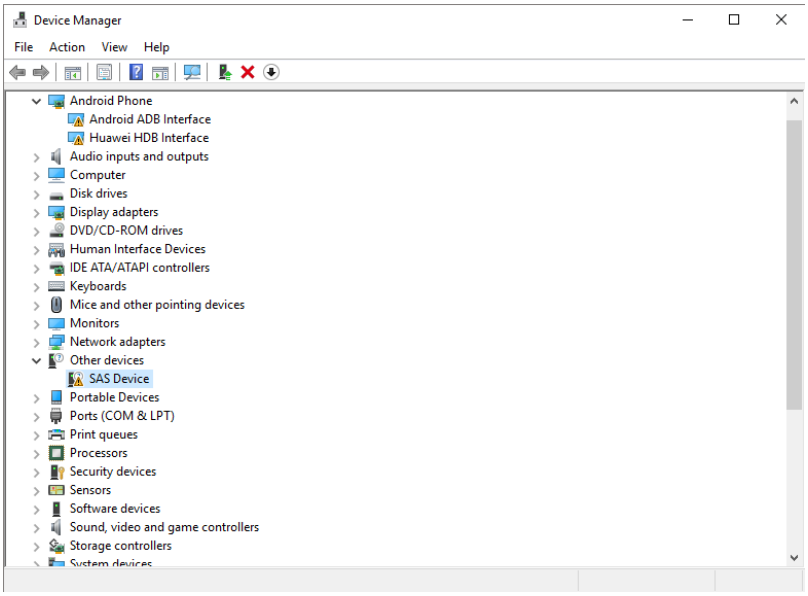
6. FIRMWARE UPGRADE

7.1 FIRMWARE UPGRADE USING PC

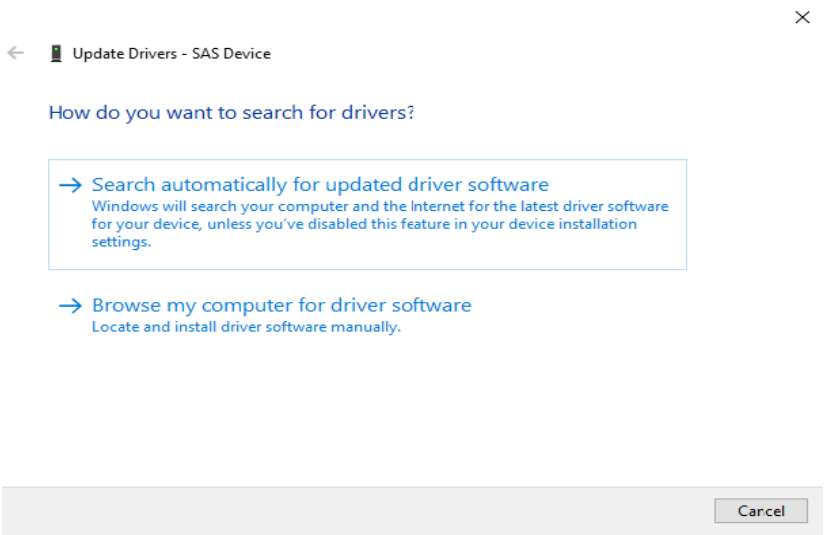
1. Plug the USB cable into the SAS device before powering it on.
2. Turn on the power to the SAS device. All the LEDs on the front will begin blinking.
3. Visit http://www.sascontrollers.com/applications to choose the SAS Firmware Upgrade Driver, or use the SASPTool desktop application, or scan the following QR code.

7.1.1 INSTALLING THE SAS DEVICE USB DRIVER✸

The first SAS device plugged into the PC USB port may not automatically start. If this happens, right-click on "My Computer" and select "Properties." On the left side of the window, click on "Device Manager."
The "SAS DEV" device will appear under "Other Devices." Right-click on it and select "Update Driver Software."



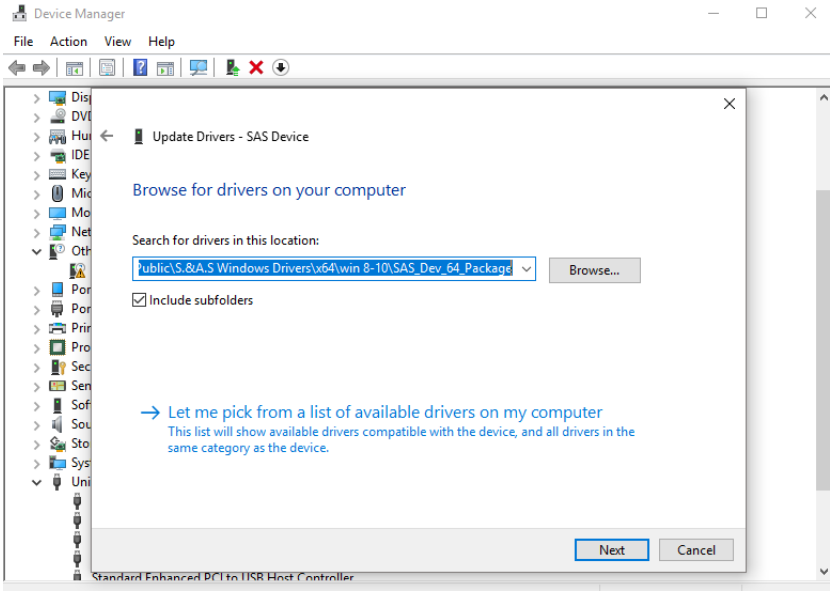
Select "Browse my computer for driver software".



✸This will only need to be implemented the first time the SAS device is connected to the PC via USB.

6. FIRMWARE UPGRADE

Choose the downloaded Windows driver.



The driver setup procedure will be completed only once for Windows. After that, the driver for any new SAS device connected to the PC USB port will be installed automatically.

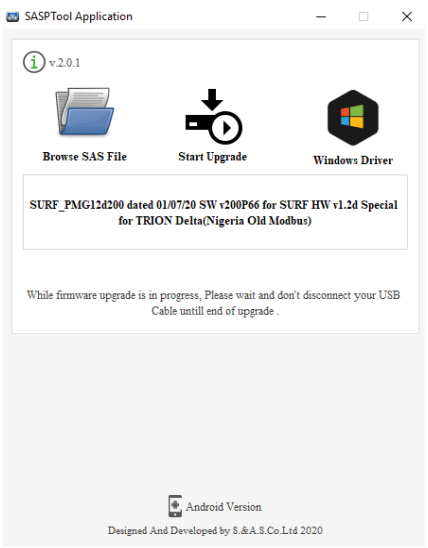
7.1.2 INSTALLING THE FIRMWARE UPGRADE SOFTWARE

To upgrade the firmware on-site, visit http://www.sascontrollers.com/applications and select the Desktop Firmware Upgrade App, or scan the following QR code.

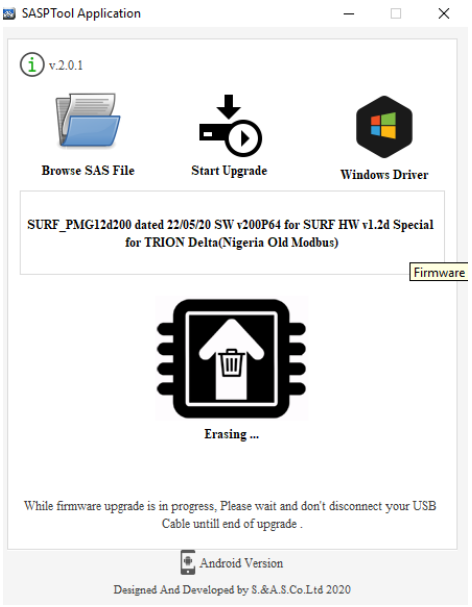
1. The 64-bit and 32-bit folders will be downloaded separately.
2. Run the executable file.

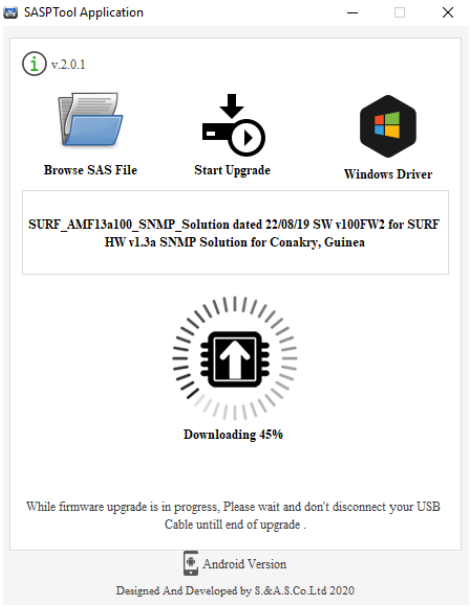
7.1.3 FIRMWARE UPGRADE PROCESS

- Run the "SAS_PTool" application.
- Click the "Browse SAS File" button to select the *.sas file that will be used to upgrade the firmware. A footnote will appear displaying the file name, software version, and its date.

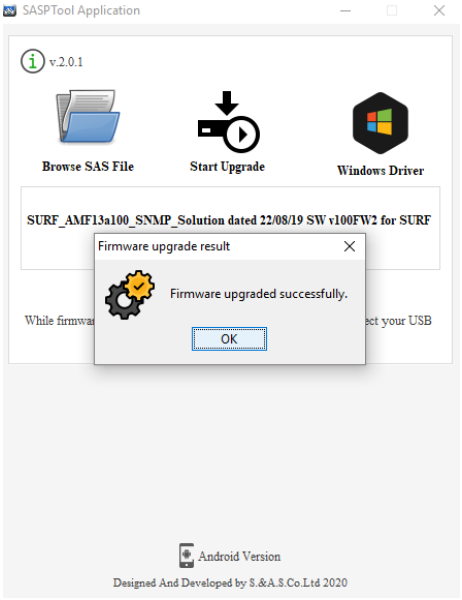


- Click “Start Upgrade”. The upgrade progress is shown as below:





Once the upgrade is complete, a popup message stating "Firmware upgraded successfully" will appear.



The firmware has been successfully upgraded, and the SAS device will automatically execute the new firmware.

6. FIRMWARE UPGRADE

7.2 FIRMWARE UPGRADE USING GOOGLE STORE ON SMART PHONE

7.2.1 INSTALLING THE SASPTOOL FIRMWARE APPLICATION ON THE MOBILE

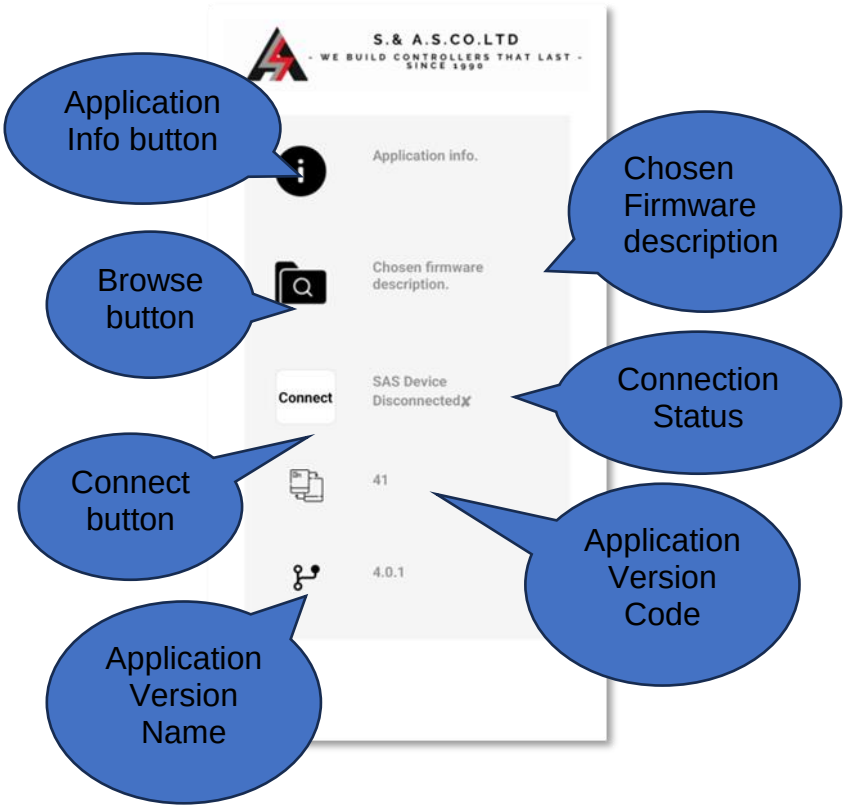
Search for the "SAS_PTool" application on the Google Play Store and install it, or follow the link below: https://play.google.com/store/apps/details?id=com.SAS.sas_ptool, or scan the QR code.

7.2.2 FIRMWARE UPGRADE PROCESS

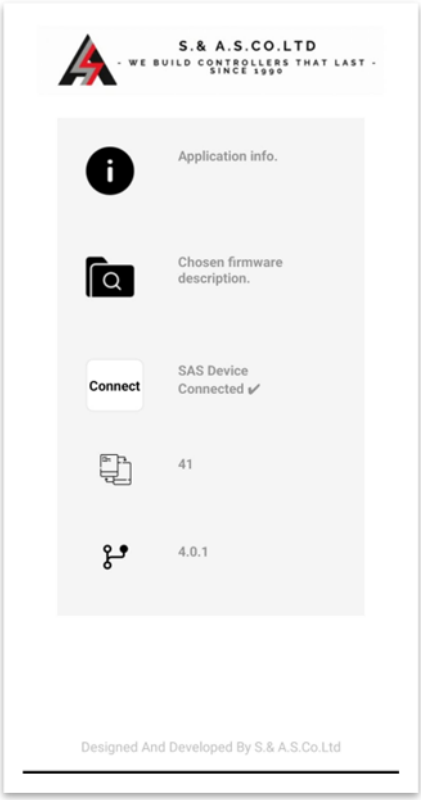
To upgrade the firmware from a mobile, follow these steps:

1. Power off the SAS device board.
2. Connect the SAS device to the mobile using an OTG cable.
3. Turn on the SAS device, a pop-up message will appear:

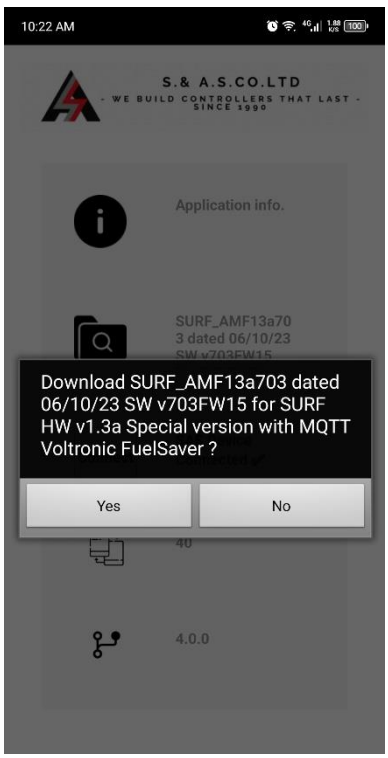
4. Click "OK." The SASPTool app will launch.



5. Click on the "Connect" button. The following window will appear, indicating that a SAS device is now connected:

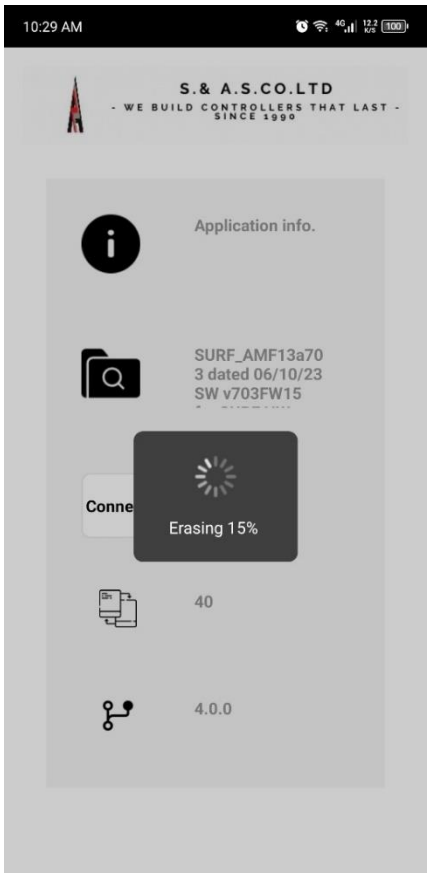


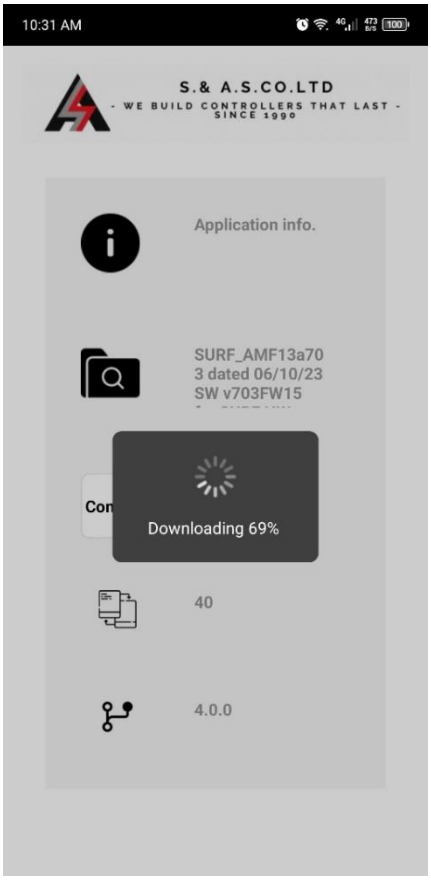
6. Browse for the SAS file you need to download:
   - All documents on your mobile will be displayed, but only .sas files can be selected.
   - The .sas files received via WhatsApp will be saved in the WhatsApp Documents folder.
   - The .sas files received via email will be saved in the Downloads folder.
7. Select the desired .sas file. A popup window will appear displaying the file name, description, and date:



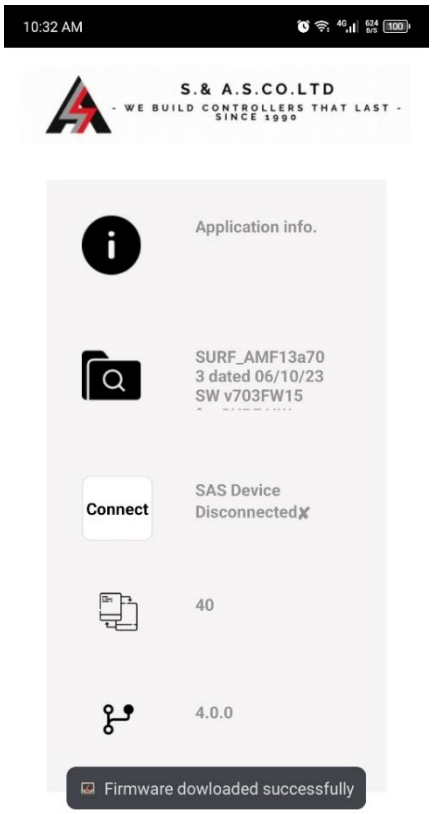
6. FIRMWARE UPGRADE

8. Click "Yes." The download will begin:





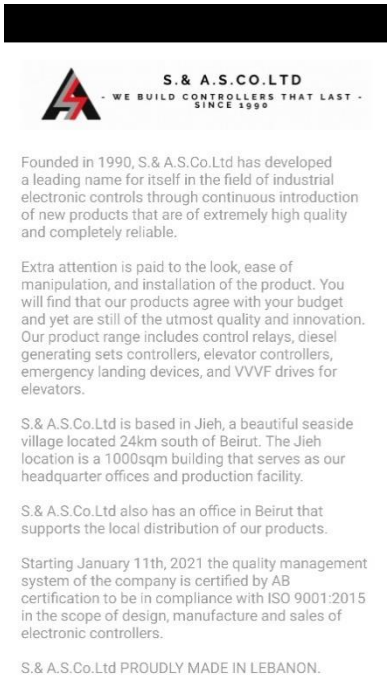
Once the download is complete, the message "Firmware Downloaded successfully" will appear.



6. FIRMWARE UPGRADE

9. Disconnect the USB cable.

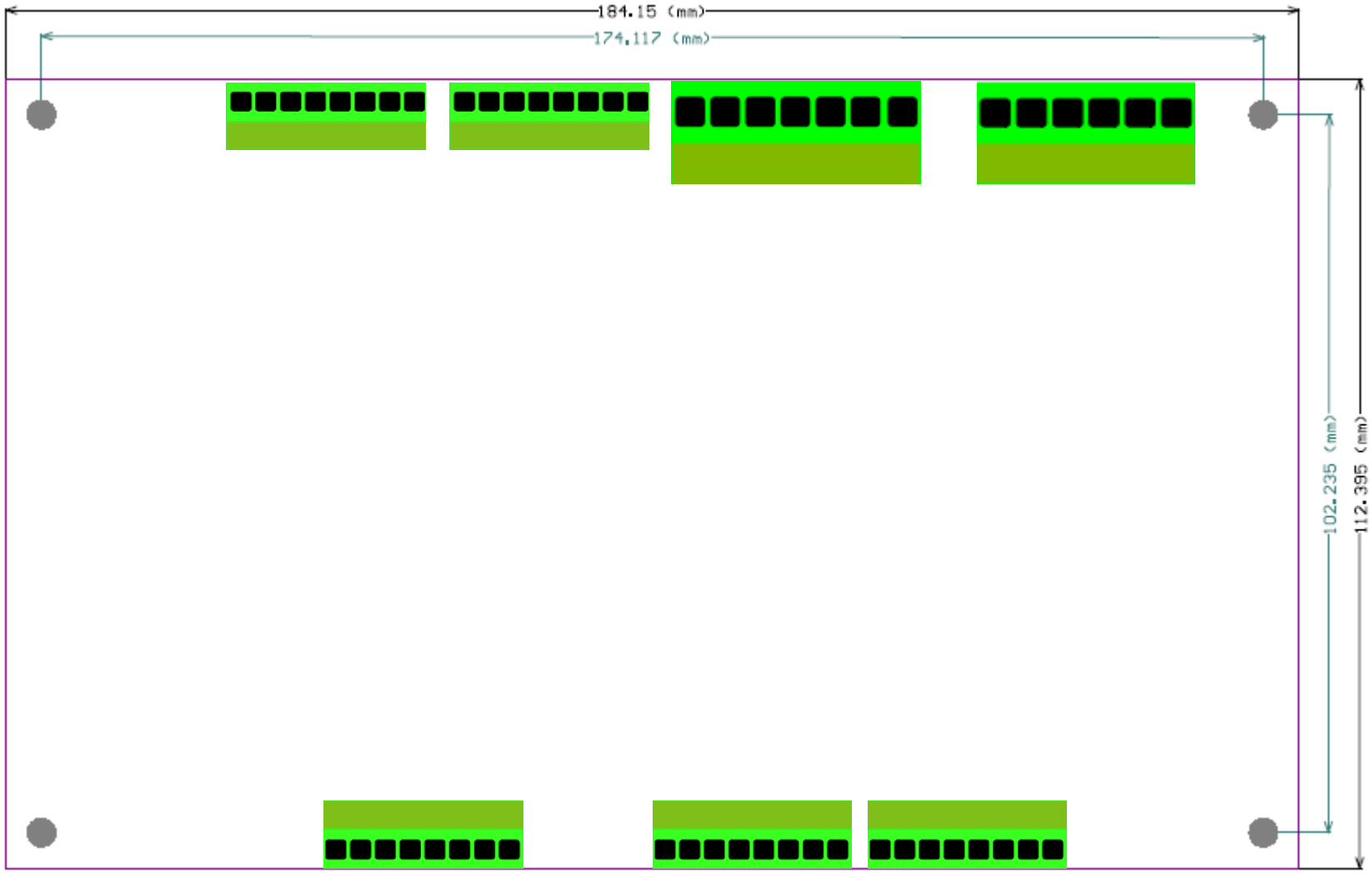
To view the application description page, click on the "Application Info" button.



8 APPENDIX

8.1 APPENDIX A

This appendix contains the dimensions of ASTRABLU board.



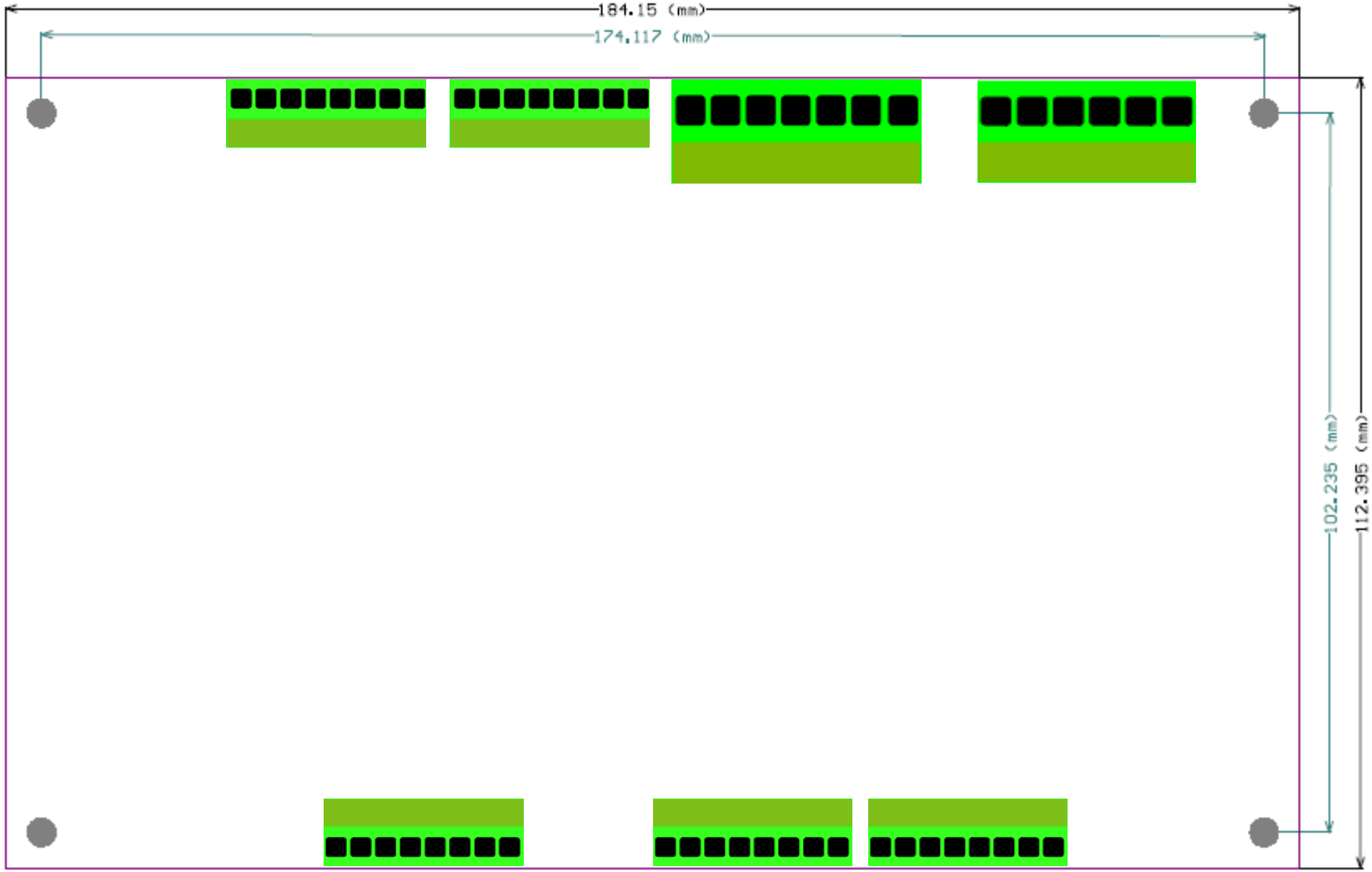
8.2 APPENDIX B

This appendix contains all wiring diagrams relevant to assembling the board in a panel.

7 APPENDIX

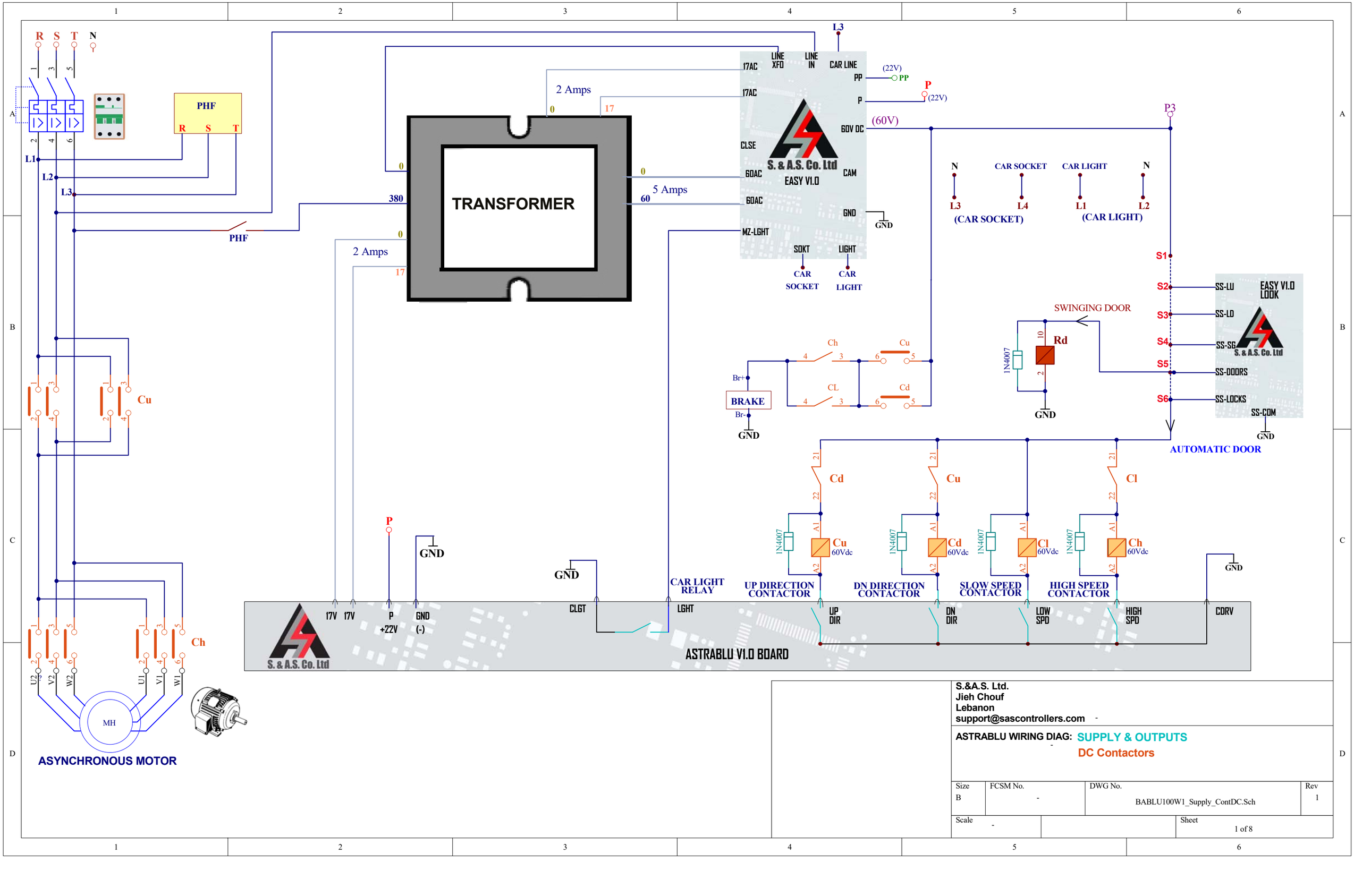
7.1 APPENDIX A

This appendix contains the dimensions of ASTRABLU board.



7.2 APPENDIX B

This appendix contains all wiring diagrams relevant to assembling the board in a panel.

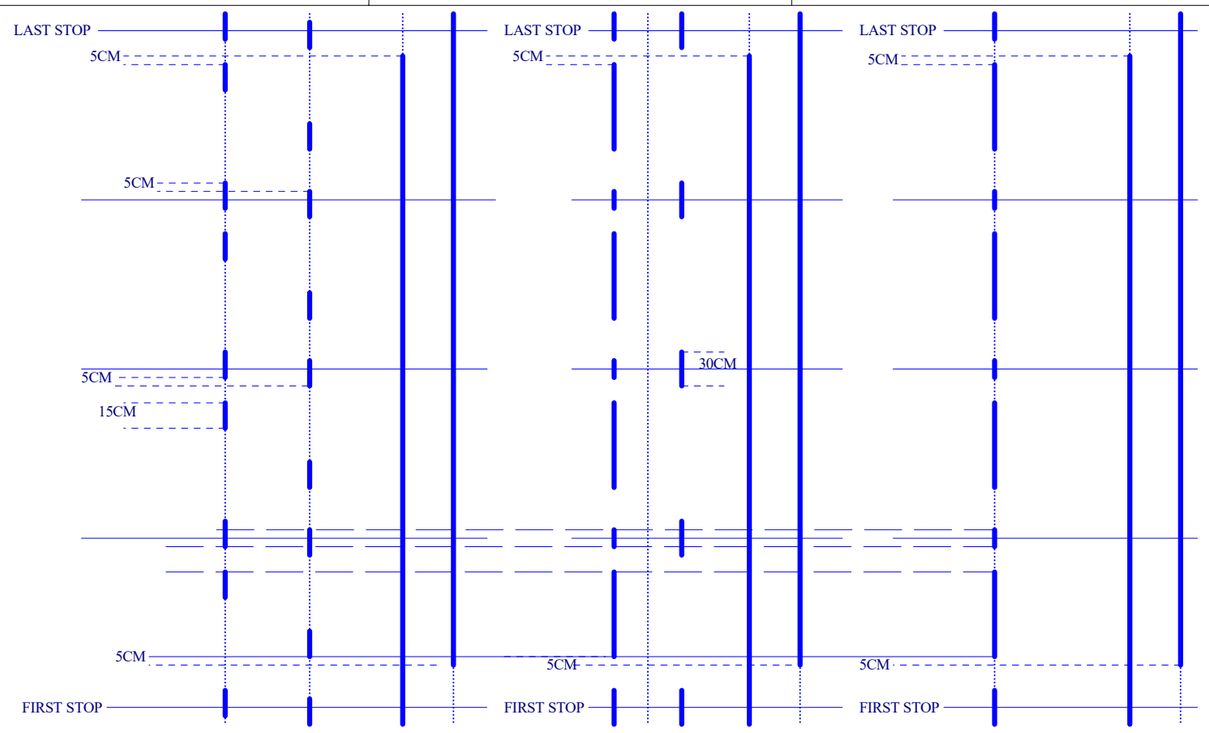


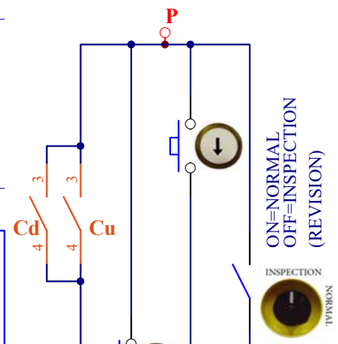
S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com -

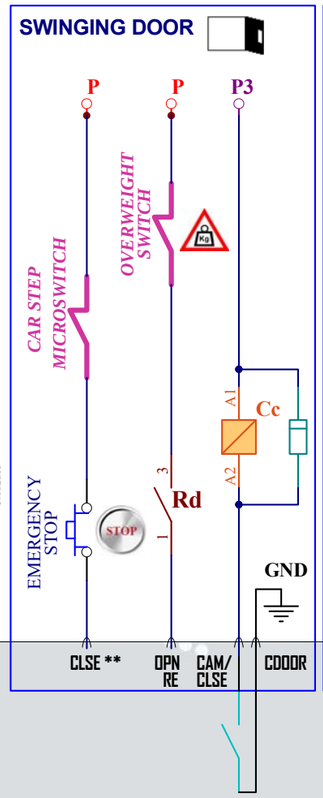
ASTRABLU WIRING DIAG: SUPPLY & OUTPUTS
-
DC Contactors

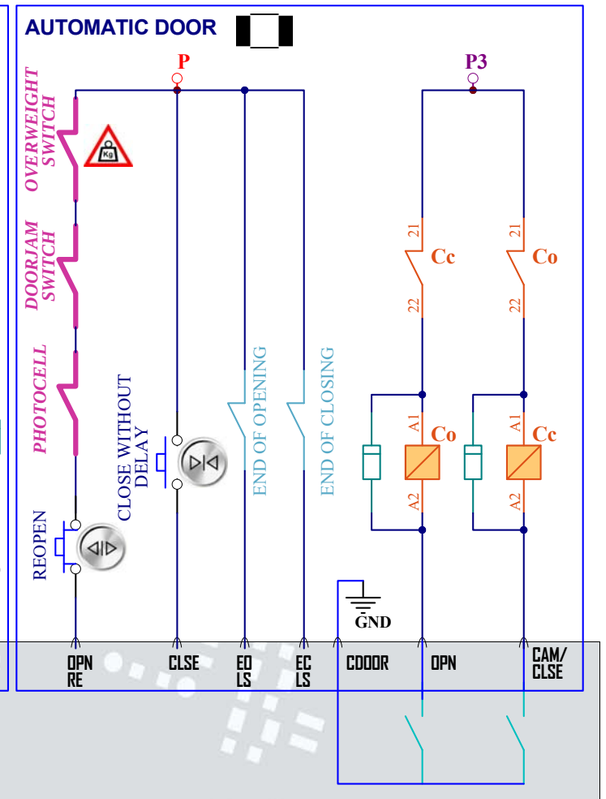
Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W1_Supply_ContDC.Sch	1

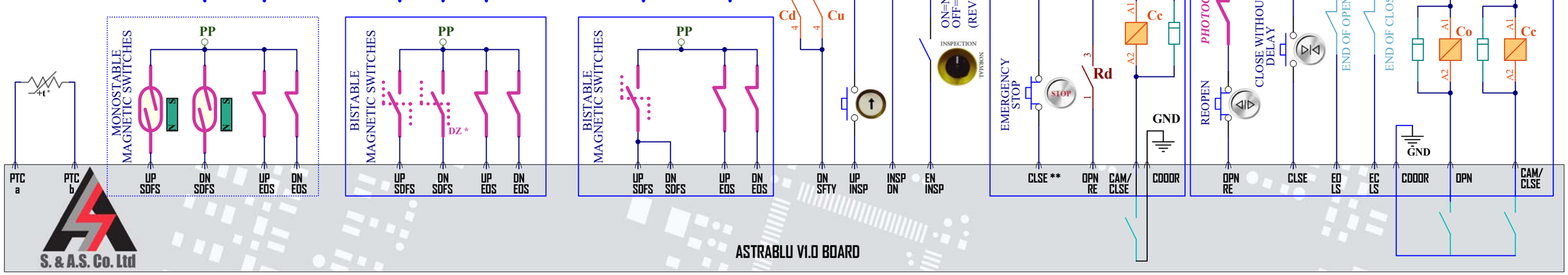
Scale		Sheet
-		1 of 8











Note:
1- Use the Monostable Magnetic Switches configuration for Automatic door.

(*) If DZ enabled in automatic door
(**) If emergency stop enabled in swinging door

S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: INPUTS/DOOR INFO

DC Contactors

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W2_Ips_ContDC.Sch	1
Scale		Sheet	
-		2 of 8	

R S T

PHF

L1 L2 L3

PHF

TRANSFORMER

2Amps 0 17

0 380 0

2 Amps 17

(0Vac)

0 60 110 (110Vac)

L3

LINE XFO 17AC 17AC

LINE IN

CAR LINE PP P 60V DC CLSE 60AC 60AC MZ-LGHT

(22V) PP

P (22V)

(60V)

S. & A.S. Co. Ltd EASY V1.0

CAM GND SOKT LIGHT

GND

CAR SOCKET

CAR LIGHT

P3 (60V)

Ch Cu CL Cd

Br+ BRAKE Br-

GND

(110Vac)

S1 S2 S3 S4 S5 S6

SS-LU SS-LD SS-SG SS-DOORS SS-LOCKS SS-COM

EASY V1.0 LOOK 110Vac

S. & A.S. Co. Ltd

(0Vac)

SWINGING DOOR

Rd 110Vac

(0Vac)

AUTO. DOOR

N CAR SOCKET CAR LIGHT N

L3 L4 L1 L2

(CAR SOCKET) (CAR LIGHT)

Cd Cu Cl

21 22 A1 A2

Cu 110Vac

Cd 110Vac

Cl 110Vac

Ch 110Vac

UP DIRECTION CONTACTOR

DOWN DIRECTION CONTACTOR

SLOW SPEED CONTACTOR

HIGH SPEED CONTACTOR

(0Vac)

P GND

GND

17V 17V P +22V GND (-) CLGT LGHT

CAR LIGHT RELAY

UP DIR DN DIR LOW SPD HIGH SPD CDRV

S. & A.S. Co. Ltd

ASTRABLU V1.0 BOARD

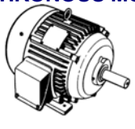
Cd Cu

Cl Ch

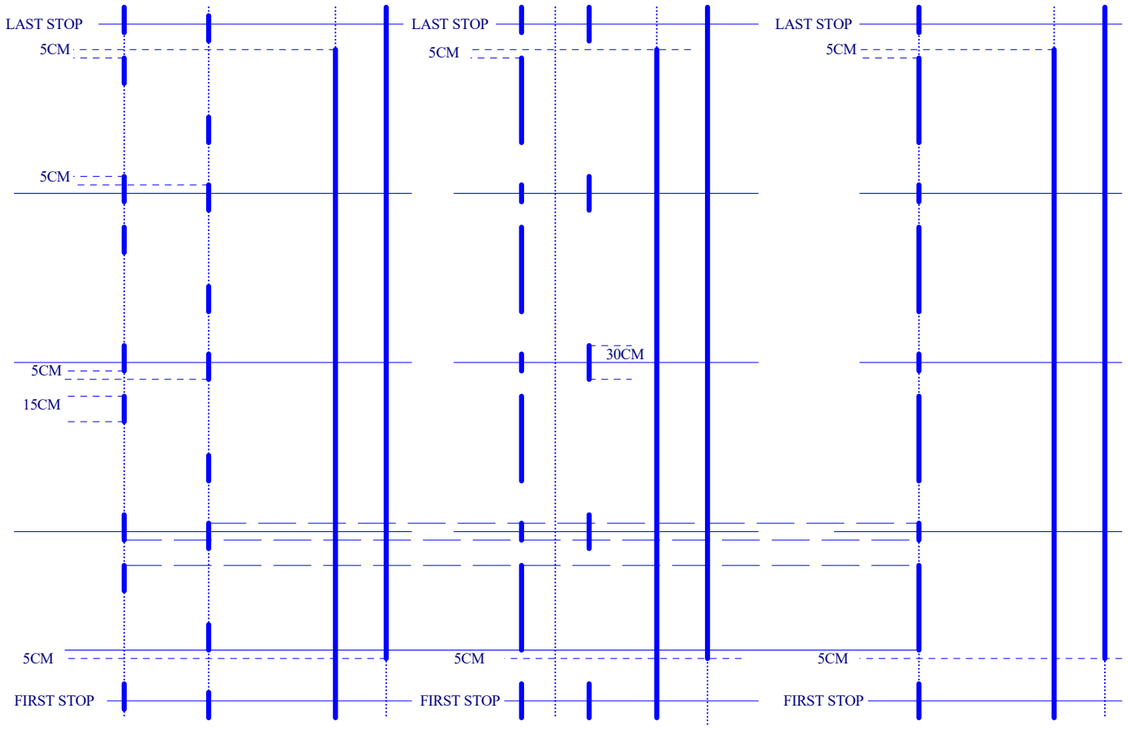
U2 V2 W2 U1 V1 W1

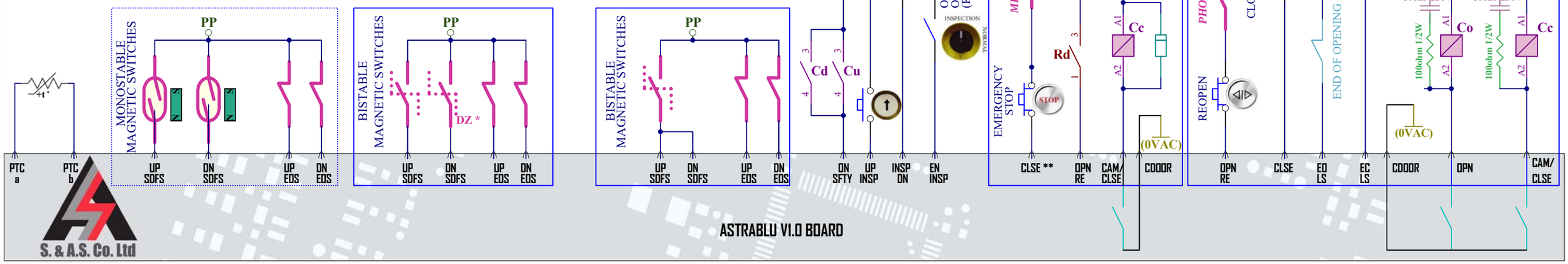
MH

ASYNCHRONOUS MOTOR



S.&A.S. Ltd. Jieh Chouf Lebanon support@sascontrollers.com	
ASTRABLU WIRING DIAG: SUPPLY & OUTPUTS AC Contactors	
Size: B	FCSM No.: -
DWG No.: BABLU100W3_Supply_ContAC.Sch	Rev: 1
Scale: -	Sheet: 3 of 8





S. & A.S. Co. Ltd

ASTRABLU V1.0 BOARD

Note:
1- Use the Monostable Magnetic Switches configuration for Automatic door.

(*) If DZ enabled in automatic door
(**) If emergency stop enabled in swinging door

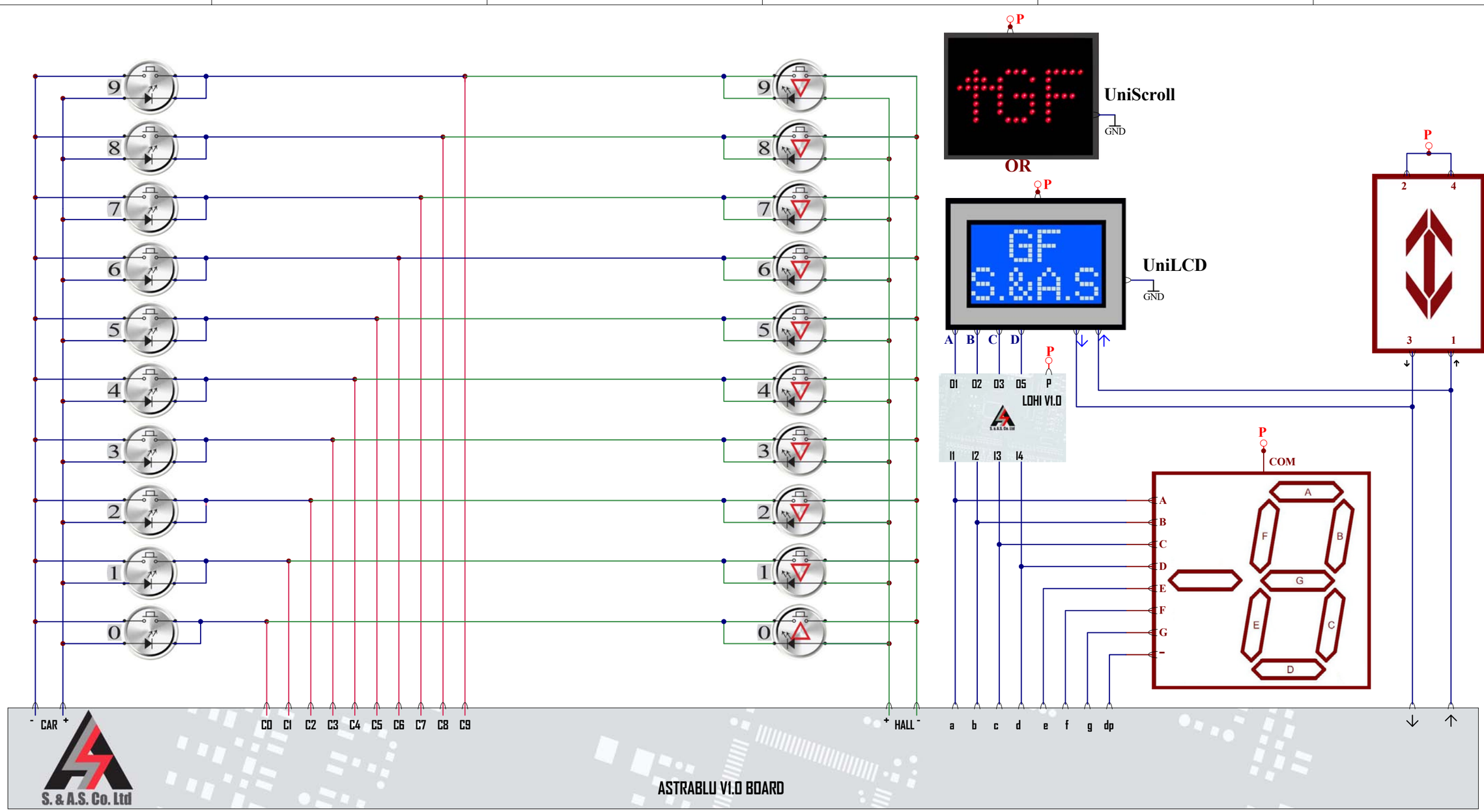
S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: INPUTS/DOOR INFO

AC Contactors

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W4_Ips_ContAC.Sch	1

Scale		Sheet
-		4 of 8



INDICATR="GRAY/GARY1/BINARY/BINARY1/ENHANCED/7SEGMENT/7SEGMENT1"

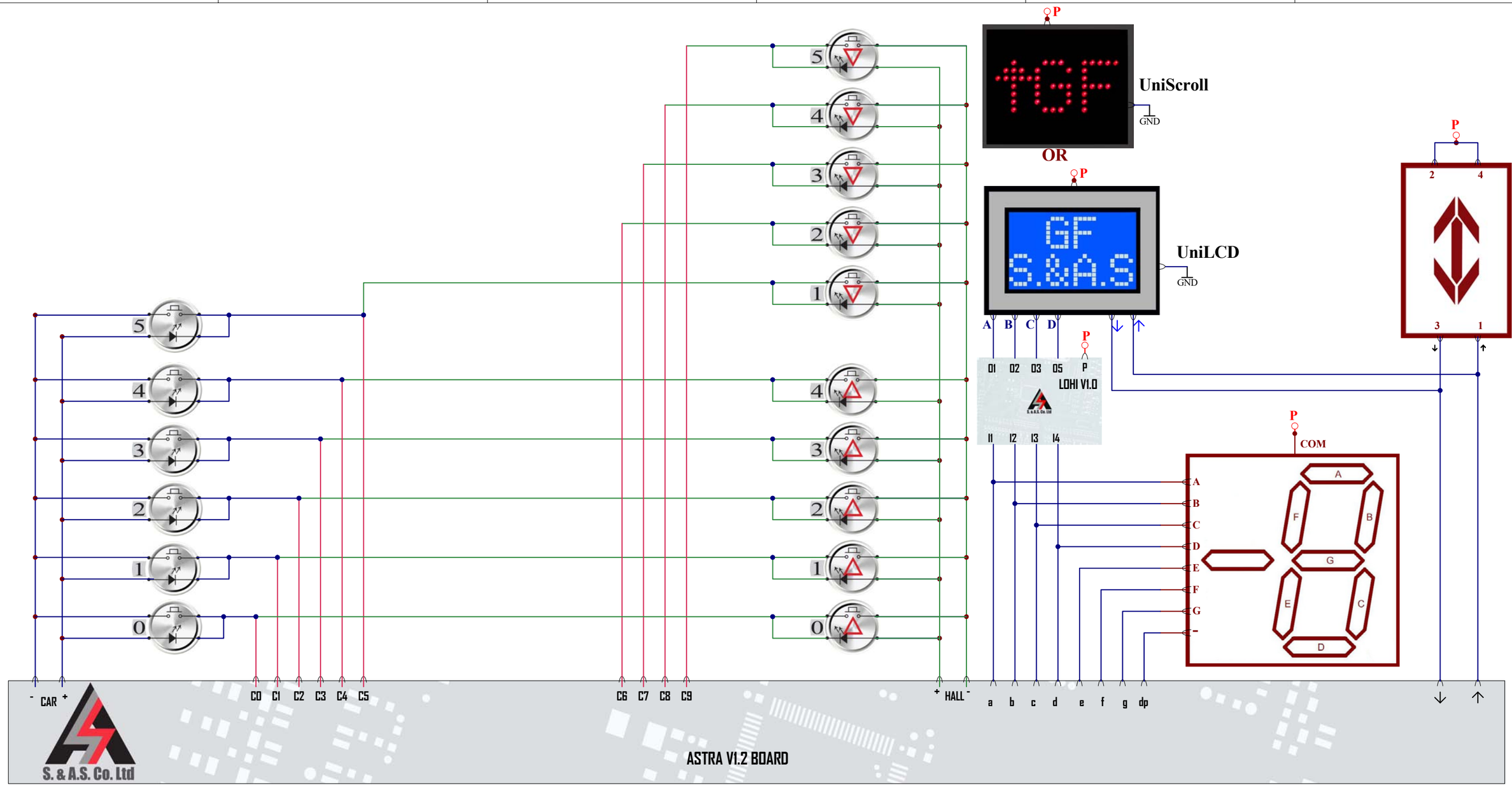
COLLECTV="DOWN"

S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: CALLS / FLOOR INFORMATION-Down Collective-10 stops

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W5_Calls_Dn10.Sch	1

Scale		Sheet
-		5 of 8



INDICATR="GRAY/GARY1/BINARY/BINARY1/ENHANCED/7SEGMENT/7SEGMENT1"

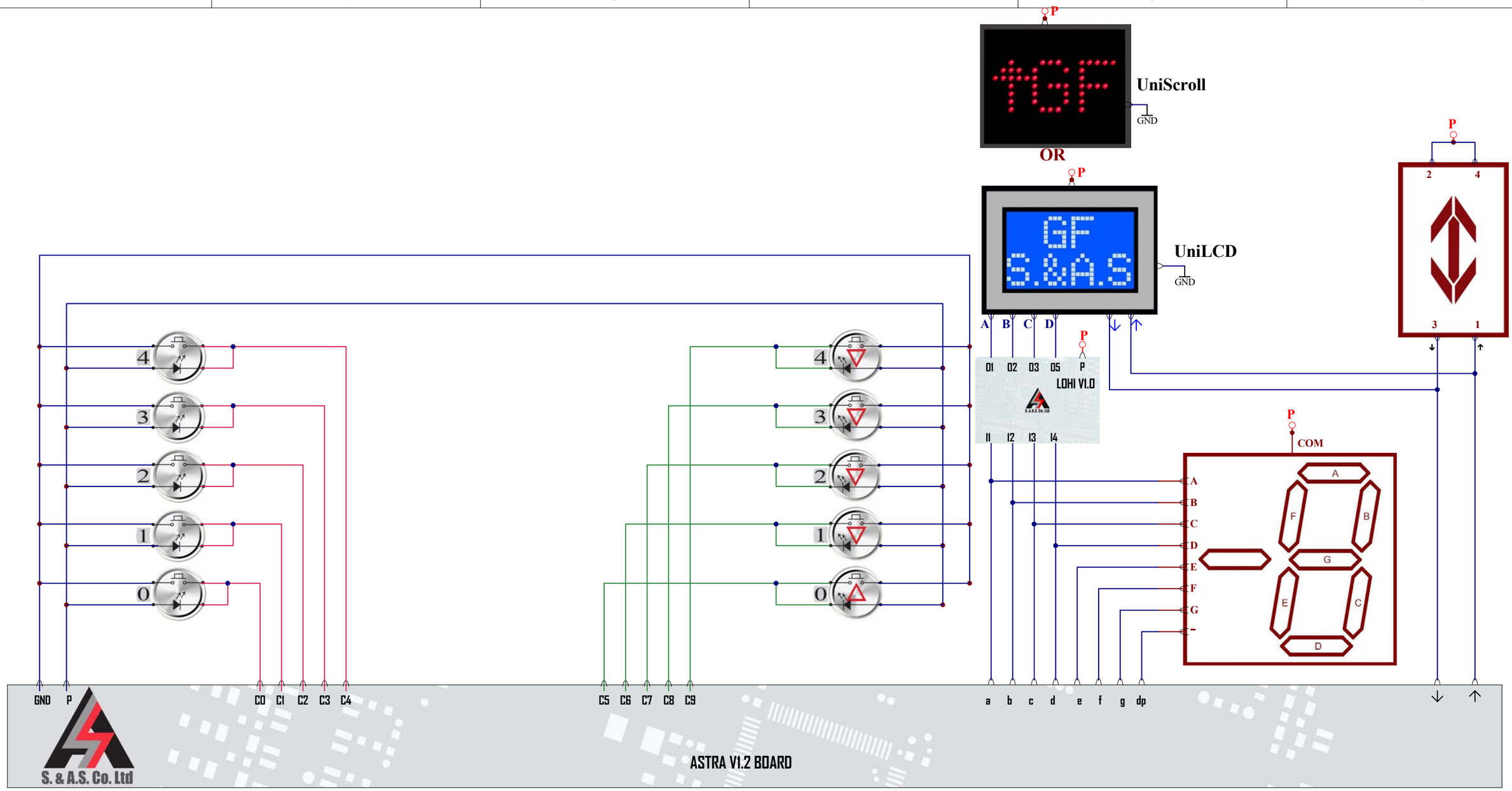
COLLECTV="FULL"

S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: CALLS / FLOOR INFORMATION - Full Collective- 6 stops

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W6_Calls_Full6.Sch	1

Scale		Sheet
-		6 of 8



INDICATR="GRAY/GARY1/BINARY/BINARY1/ENHANCED/7SEGMENT/7SEGMENT1"

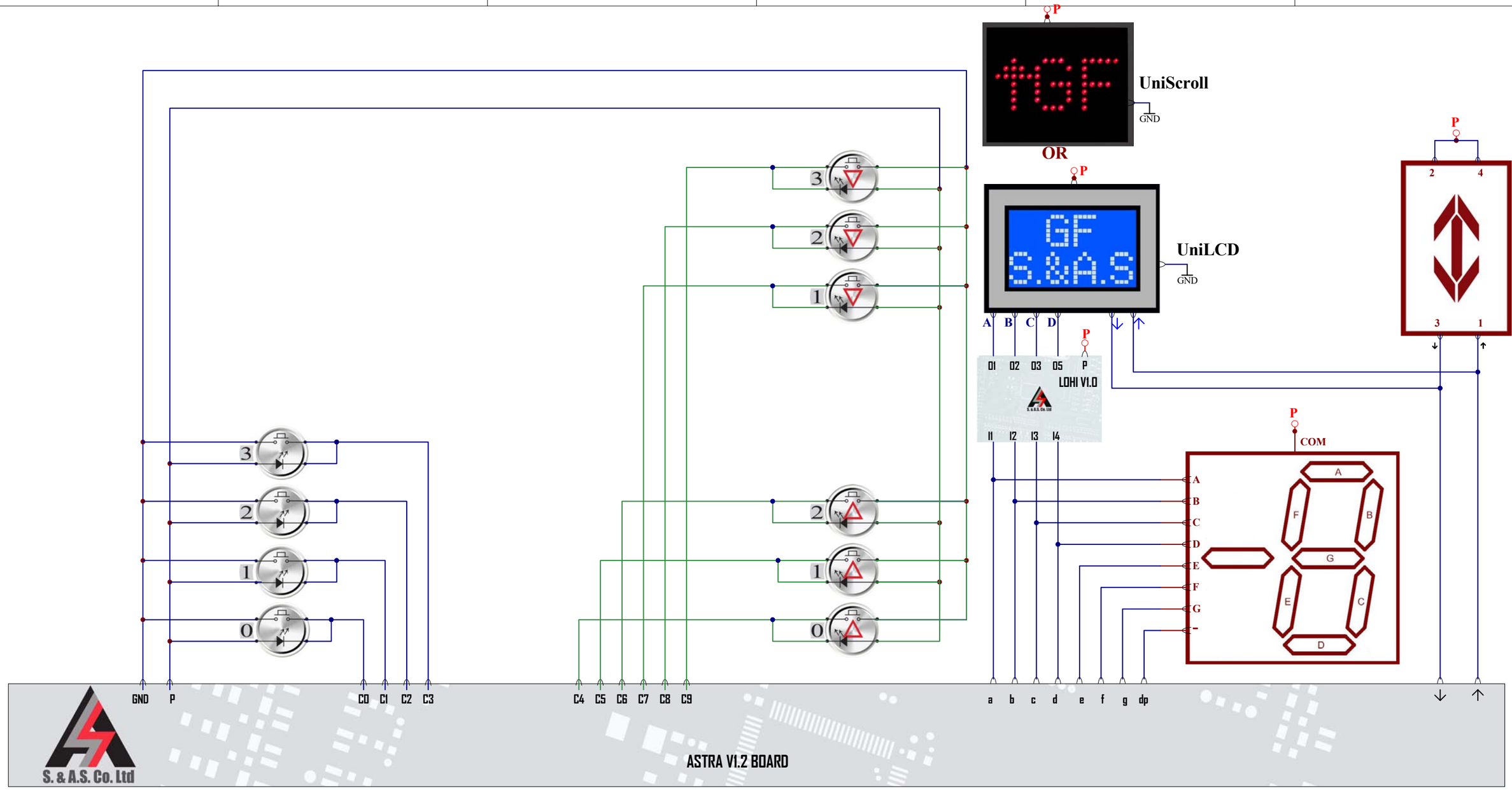
COLLECTV="DOWN 5"

S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: CALLS / FLOOR INFORMATION-Down Collective-5 stops No multiplexing mode

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W7_Calls_Dn5_NoMulti.Sch	1

Scale	Sheet
-	7 of 8



INDICATR="GRAY/GARY1/BINARY/BINARY1/ENHANCED/7SEGMENT/7SEGMENT1"

COLLECTV="FULL 4"

S.&A.S. Ltd.
Jieh Chouf
Lebanon
support@sascontrollers.com

ASTRABLU WIRING DIAG: CALLS / FLOOR INFORMATION - Full Collective- 4 stops
No multiplexing mode

Size	FCSM No.	DWG No.	Rev
B	-	BABLU100W8_Calls_Full4_NoMulti.Sch	1

Scale		Sheet
-		8 of 8

WHICH ELEVATOR CONTROLLER IS RIGHT FOR YOU?

	MicroZed-A v3.1	MicroZed-AR v3.1	ASTRA v1.2	MicroZed v3.3a	MicroZed v3.5a
					
AC 1 speed	✓	✓	✓	✓	✓
AC 2 speed	✓	✓	✓	✓	✓
Hydraulic	✓	✓	✓	✓	✓
VVVF(1m/s speed)	✓	✓	✓	✓	✓
VVVF(1.6m/s speed)	—	—	—	✓	✓
VVVF(>=2m/s speed)	—	—	—	—	✓
Magnetic Switches for Shaft Information	✓	✓	✓	✓	✓
Incremental encoder for direct approach	—	—	—	—	✓
Simplex mode	✓	✓	✓	✓	✓
Group mode	—	—	—	✓	✓
Down Collective	—	—	✓	✓	✓
Full Collective	—	—	✓	✓	✓
Pseudo-collective	✓	✓	—	—	—
Maximum Number of Stops	10	10	10	32	48
Serial Calls	—	—	—	—	✓
Swinging door	✓	✓	✓	✓	✓
Automatic door	✓	✓	✓	✓	✓
Half automatic door	✓	✓	✓	✓	✓
Gray Code Indicator	✓	✓	✓	✓	✓

	MicroZed-A v3.1	MicroZed-AR v3.1	ASTRA v1.2	MicroZed v3.3a	MicroZed v3.5a
					
Binary Code Indicator	✓	✓	✓	✓	✓
Enhanced Code Indicator	✓	✓	✓	✓	✓
Decimal code Indicator	✓	✓	✓	—	—
7-Seg Indicator	✓	✓	✓	—	✓
DC Contactors	✓	✓	✓	✓	—
AC/DC Contactors	—	✓	✓	—	✓
Real Time Clock	—	—	—	✓	✓
Spare Outputs	1	1	2	2	8
Reservation Input	—	—	—	✓	✓
Fullload Input	—	—	—	✓	✓
Overload Input	—	—	—	✓	✓
Evacuation Input	—	—	—	✓	✓
Firemen operation	—	—	—	✓	✓
Alternate Firemen Floor	—	—	—	✓	✓
Final Limit Switch Input	—	—	—	✓	✓
Integrated Evacuation	—	—	✓	✓	✓
Inspection Command via COP option	—	—	✓	✓	✓
Access Control	—	—	—	✓	✓
CarCall Cancellation	—	—	✓	✓	✓
Double Door Entrance	—	—	—	✓	✓

	MicroZed-A v3.1	MicroZed-AR v3.1	ASTRA v1.2	MicroZed v3.3a	MicroZed v3.5a
					
Graphical Display	✓	✓	✓	—	—
24-Charx2-lines LCD alphanumeric display[1]	—	—	—	✓	✓
Diagnostic Tool	—	—	—	✓	✓
English language	✓	✓	✓	✓	✓
French language	—	—	—	✓	✓
Arabic language	—	—	—	✓	✓
Swedish language	—	—	—	✓	✓
Motor PTC monitoring	✓	✓	✓	✓	✓
Faults Log	9	9	9	15	15
USB port	✓	✓	✓	✓	✓
RS485 port	—	—	—	✓	✓
Firmware Upgrade on site	✓	✓	✓	✓	✓

[1] Optional


S. & A.S. Co. Ltd


S. & A.S. Co. Ltd