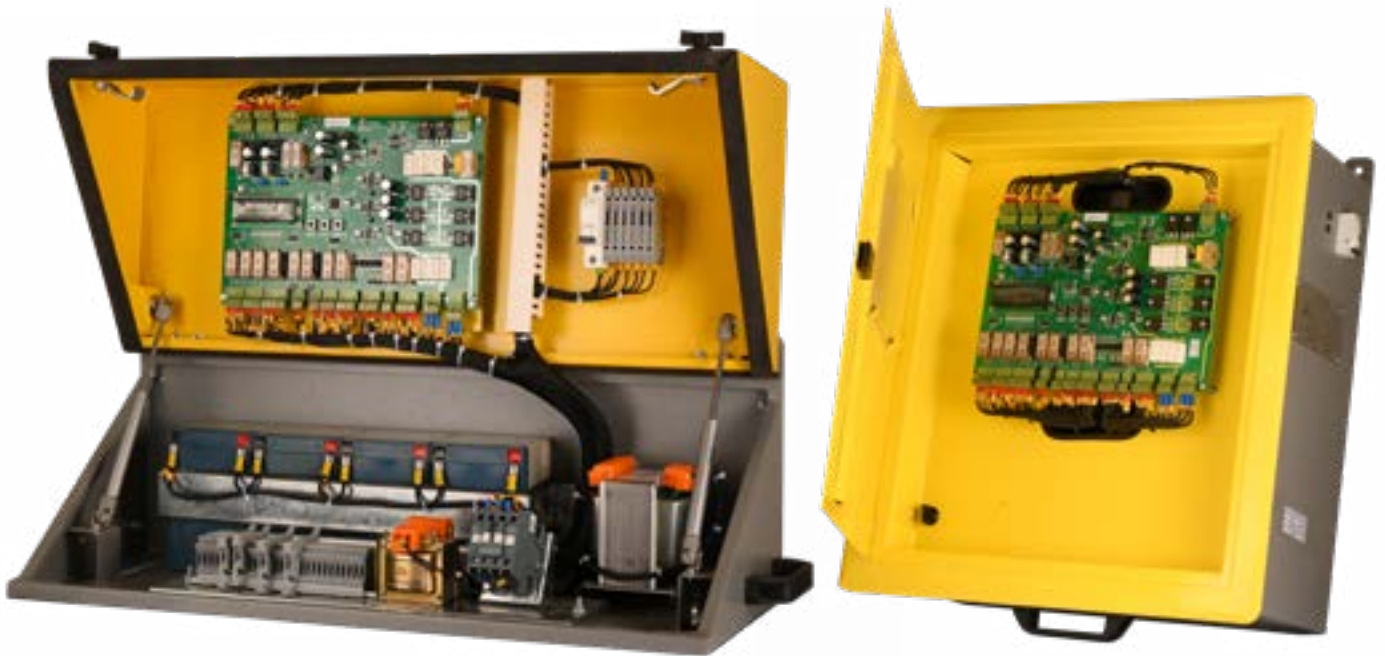


# U-RSKU Series

Automatic Rescue Devices for Traction Elevators

## User Manual

Version 1.0



## Table of Contents

1.0	General Description .....	04
1.1	Table of Locations .....	05
1.2	Safety Precautions .....	07
1.2.1	Transport and Inspection .....	07
1.2.2	Storage .....	07
1.2.3	Warnings and Hazards .....	08
2.0	Technical Specifications .....	09
2.1	U-RSKU Series Models Description .....	09
3.0	Installation and Connections .....	12
3.1	Three-Phase Power .....	12
3.2	Machine Motor .....	13
3.3	Machine Braking System .....	14
3.4	Retiring CAM .....	15
3.5	Shaft .....	16
3.6	Main Control Panel Transformer .....	17
3.7	Car Rescue Lamp .....	18
3.8	Safety Circuits .....	19
3.9	Automatic Doors .....	23
3.9.1	220V Single-Phase Automatic Doors .....	23
3.9.2	380V Three-Phase Automatic Doors .....	25
3.10	Folding Doors .....	26

---

4.0	General Programming .....	27
4.1	Program P1: Rescue Trials .....	28
4.2	Program P2: Wait Time .....	29
4.3	Program P3: Jog Time .....	30
4.4	Program P4: Safety Time .....	31
4.5	Program P5: Free Jog Time .....	32
4.6	Program P6: Automatic Door Time .....	33
4.7	Program P7: Motor Frequency .....	34
4.8	Program P8: Extra Time .....	35
4.9	Program P9: Door Type .....	36
4.10	Program P10: Brake Delay .....	37
4.11	Program P11: Battery Level .....	38
4.12	Program P12: Three-Phase Detect .....	39
4.13	Program P13: Stop Magnet Type .....	40
5.0	Malfunction Diagnosis .....	41
5.1	LCD Board Screen .....	41
6.0	Disclaimer .....	42
7.0	Warranty .....	43
	Index .....	44

## List of Tables and Figures

Table 1.0 U-RSKU Series Models .....	04
Table 2.0 Table of Locations .....	05
Table 3.0 Warnings and Hazards .....	08
Table 4.0 U-RSKU Series Models Description .....	09
Table 5.0 LCD Board Screen Error View .....	41
Figure 1.0 U-RSKU Series Board layout .....	06
Figure 2.0 Three-Phase Power Connections .....	12
Figure 3.0 Machine Motor Connections .....	13
Figure 4.0 Machine Braking System Connections .....	14
Figure 5.0 Retiring CAM Connections .....	15
Figure 6.0 Shaft Connections .....	16
Figure 7.0 Main Control Panel Transformer Connections .....	17
Figure 8.0 Car Rescue Lamp Connections .....	18
Figure 9.0 Safety Circuits Connections .....	20
Figure 10.0 Stop and Door Fork Connections .....	22
Figure 11.0 220V Single-Phase Automatic Door Installation Connections ...	23
Figure 12.0 220V Single-Phase Automatic Door Operation Connections .....	24
Figure 13.0 380V Three-Phase Automatic Door Connections .....	25
Figure 14.0 Folding Door Connections .....	26

**1.0 General Description**

The U-RSKU series is an elevator ARD (Automatic Rescue Device) series that is fully designed and manufactured at Ultimatrue Engineering Industries. The U-RSKU series user manual operates to serve multiple elevator U-RSKU models, which include (refer to Table 1.0 – U-RSKU Series Models):

Machine Power Rating	Product Model
10 hp (7.5 kW)	U-RSKU-D10
	U-RSKU-C10/380/M
	U-RSKU-C10/380/A220
	U-RSKU-C10/380/A380
	U-RSKU-C10/220/M
	U-RSKU-C10/220/A220
16 hp (12 kW)	U-RSKU-D16
	U-RSKU-C16/380/M
	U-RSKU-C16/380/A220
	U-RSKU-C16/380/A380
20 hp (15 kW)	U-RSKU-C20/380/M
	U-RSKU-C20/380/A220
	U-RSKU-C20/380/A380
30 hp (22.5 kW)	U-RSKU-C30/380/M
	U-RSKU-C30/380/A220
	U-RSKU-C30/380/A380

**Table 1.0 – U-RSKU Series Models**

The U-RSKU series contains safety circuits by hardware and by software designed to control the rescue operations. The U-RSKU series provide distinct battery charging operations and battery optimization for extended battery lifetime. The U-RSKU series provides a total of thirteen general software programs, accustomed with a user-friendly menu interface.

The U-RSKU series complies with the international lift safety standards EN 81-20 and EN 81-50.

Ultimatrue Engineering Industries is a certified ISO 9001:2015 and ISO 45001:2018 company.

### 1.1 Table of Locations

Pointer	Function
1	Main Control Panel Power Supply - Primary Transformer Charger Power Supply
2	Secondary Transformer Charger Power Supply
3	Batteries Charger DC Power Supply
4	Transformer Accessories Primary Power Supply
5	Safety Circuits
6	Automatic Door Power Supply
7	Automatic Door Signals
8	Machine Braking System DC Output
9	Retiring CAM DC Output
10	Machine Braking System and CAM Input Power Supply from the Accessories Transformer
11	Stop Magnet - Inspection Signal - Shaft Common
12	Main Three-Phase Input
13	Machine Motor Contactor Power Supply
14	Car Rescue Lamp Input and Output
15	Control Board Battery Power Supply
16	Machine Motor Terminals

**Table 2.0 - Table of Locations**

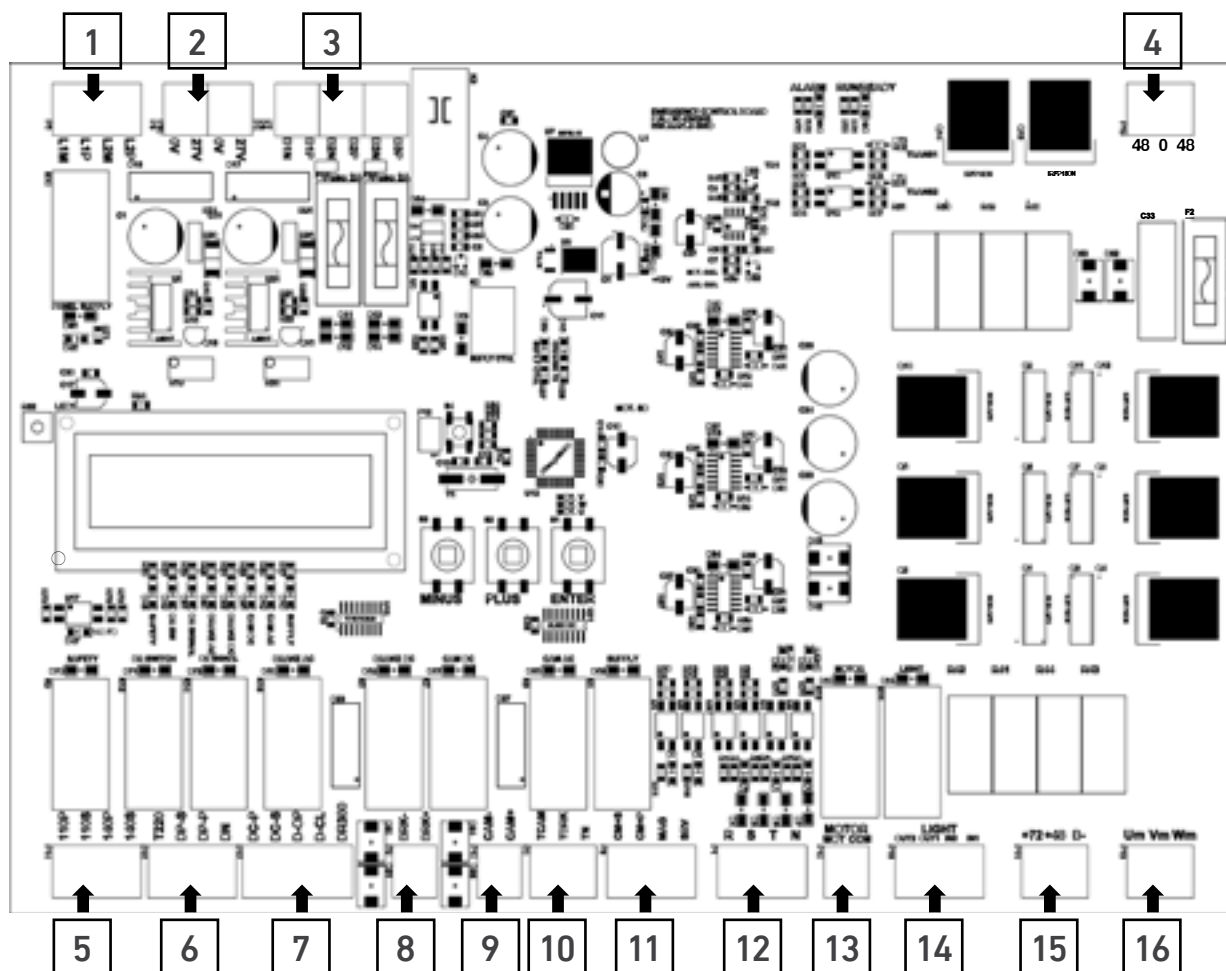


Figure 1.0 – U-RSKU Series Board Layout

Note:

Please head over to the Installation and Wiring section for more information on the individual inputs/outputs.

## 1.2 Safety Precautions

To fully benefit from using the U-RSKU series please read the user manual carefully before installation and initiating operation. Keep it nearby for future reference whenever necessary.

### 1.2.1 Transport and Inspection

The units are delivered from the factory and ready for installation.

Upon receiving the U-RSKU series units please check that the delivered equipment has not been damaged during transport. If any such damage occurs, a claim must be submitted to the carrier immediately.

After unpacking, the following must be checked:

- The U-RSKU series is not damaged.
- The U-RSKU series package is sealed.









### 1.2.2 Storage

The U-RSKU series must be stored under cover in a dry and well-ventilated area until it's installed and ready for operation.



### 1.2.3 Warnings and Hazards

Before initiating operations, make sure that all connections, wiring, and board connectors are connected properly.

<b>Warnings and Hazards</b>	
	Never touch the phase outlet on the U-RSKU series to avoid electric shock hazards.
	Never install the U-RSKU series in places subject to rain, direct sunlight, or places with a degree of high dust.
	All safety circuits (Stop, Fork, and Lock) must be connected to the terminals of the safety circuit in the U-RSKU.
	The cross-sectional area of the cable used for connecting the machine motor terminals should not be less than 4 mm <sup>2</sup> .
	The cross-sectional area of the cables used to connect the remaining terminals of the U-RSKU should be 1 mm <sup>2</sup> .
	Diodes used should be rated at least 2 A.
	The installer/operator must be a qualified individual.
	Electricity must be turned OFF during the removal or installation of the U-RSKU series.

**Table 3.0 - Warnings and Hazards**

## 2.0 Technical Specifications

### 2.1 U-RSKU Series Models Description

Model	U-RSKU-D10	U-RSKU-D16	U-RSKU-C10	U-RSKU-C16
Machine Power	10 hp (7.5 KW)	16 hp (12 KW)	10 hp (7.5 KW)	16 hp (12 KW)
Machine Type	Induction Geared Motor (One Speed – Two Speed)			
Door Type	Manual, Semi-Automatic, and Full-Automatic			
Operating Voltage	3 Phase (380V or 220V) / (50HZ or 60HZ) 1 Phase (220V or 110V) / (50HZ or 60HZ)			
Motion Direction	The direction of the least current or the lightest weight			
CAM / Brakes	65V DC / 75V DC / 85V DC / 110V DC / 220V DC			
Control Panels	Two Speed Control Panel and Inverter Control Panel			
Inputs	Stop Level Magnet, Safety Circuits, and Inspection Signal			
Car Lighting	Car rescue lamp (220V / 40W)			
Motor Speed	4 Hz / 6 Hz / 8 Hz / 10 Hz			
Device Screen	2x16 LCD to adjust programming and display rescue status and malfunctions			
Protection MCB	1P MCB 10A	1P MCB 16A	1P MCB 10A	1P MCB 16A
Number of Batteries	4 Batteries 12V-7Ahr SLA	4 Batteries 12V-12Ahr SLA	4 Batteries 12V-7Ahr SLA	4 Batteries 12V-12Ahr SLA
Device Shape	Vertical	Vertical	Horizontal	Horizontal
Dimensions (cm <sup>3</sup> )	L x W x H 55 x 49 x 23	L x W x H 62 x 53 x 23	L x W x H 55 x 30 x 23	L x W x H 70 x 30 x 23

Model	U-RSKU-C10/380/M	U-RSKU-C10/380/A220	U-RSKU-C10/380/A380	U-RSKU-C10/220/M	U-RSKU-C10/220/A220	U-RSKU-C16/380/M	U-RSKU-C16/380/A220	U-RSKU-C16/380/A380	
Machine Power	10 hp (7.5 KW)					16 hp (12 KW)			
Machine Type	Induction Geared Motor (One Speed – Two Speed)								
Door Type	Manual	220V Automatic and Semi-Automatic	380V Automatic and Semi-Automatic	Manual	220V Automatic and Semi-Automatic	Manual	220V Automatic and Semi-Automatic	380V Automatic and Semi-Automatic	
Operating Voltage	3 Phase (380V or 220V) / (50HZ or 60HZ)			1 Phase (220V or 110V) / (50HZ or 60HZ)		3 Phase (380V or 220V) / (50HZ or 60HZ)			
Motion Direction	The direction of the least current or the lightest weight								
CAM / Brakes	65V DC / 75V DC / 85V DC / 110V DC / 220V DC								
Control Panels	Two Speed Control Panel and Inverter Control Panel								
Inputs	Stop Level Magnet, Safety Circuits, and Inspection Signal								
Car Lighting	Car rescue lamp (220V / 40W)								
Motor Speed	4 Hz / 6 Hz / 8 Hz / 10 Hz								
Device Screen	2x16 LCD to adjust programming and display rescue status and malfunctions								
Protection MCB	1P MCB 10A			1P MCB 16A		1P MCB 16A			
Number of Batteries	4 Batteries (12V-7Ahr SLA)					4 Batteries (12V-12Ahr SLA)			
Dimensions (cm <sup>3</sup> )	L x W x H 55 x 30 x 23					L x W x H 70 x 30 x 23			

Model	U-RSKU-C20/380/M	U-RSKU-C20/380/A220	U-RSKU-C20/380/A380	U-RSKU-C30/380/M	U-RSKU-C30/380/A220	U-RSKU-C30/380/A380
Machine Power	20 hp (15 KW)			30 hp (22.5 KW)		
Machine Type	Induction Geared Motor (One Speed – Two Speed)					
Door Type	Manual	220V Automatic and Semi-Automatic	380V Automatic and Semi-Automatic	Manual	220V Automatic and Semi-Automatic	380V Automatic and Semi-Automatic
Operating Voltage	3 Phase (380V or 220V) / (50HZ or 60HZ)					
Motion Direction	The direction of the least current or the lightest weight					
CAM / Brakes	65V DC / 75V DC / 85V DC / 110V DC / 220V DC					
Control Panels	Two Speed Control Panel and Inverter Control Panel					
Inputs	Stop Level Magnet, Safety Circuits, and Inspection Signal					
Car Lighting	Car rescue lamp (220V / 40W)					
Motor Speed	4 Hz / 6 Hz / 8 Hz / 10 Hz					
Device Screen	2x16 LCD to adjust programming and display rescue status and malfunctions					
Protection MCB	2P MCB 25A					
Number of Batteries	4 Batteries (12V-12Ahr SLA)			6 Batteries (12V-12Ahr SLA)		
Dimensions (Cm <sup>3</sup> )	L x W x H 70 x 30 x 23			L x W x H 90 x 30 x 23		

**Table 4.0 – U-RSKU Models Description**

### 3.0 Installation and Connections

#### 3.1 Three-Phase Power

The terminals of the Three-Phase Power are connected as illustrated in Figure 2.0.

- The lettered R, S, T, and N terminals on the U-RSKU series are connected in parallel to the corresponding lettered terminals of the main control panel.

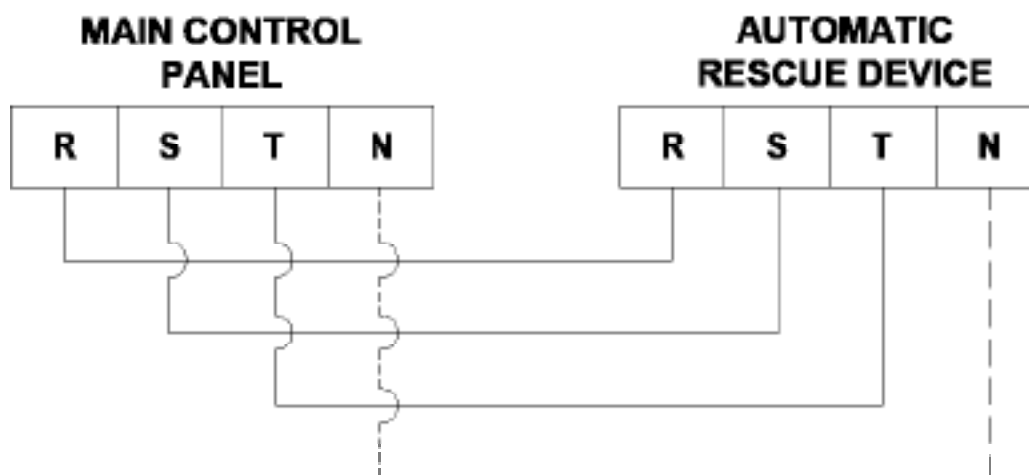


Figure 2.0 - Three-Phase Power Connections

### 3.2 Machine Motor

The terminals of the Machine Motor are connected as illustrated in Figure 3.0.

- The Um, Vm, and Wm terminals on the U-RSKU series are connected in parallel to the corresponding Fast Speed terminals of the main control panel.
- The Um terminal on the U-RSKU series should be connected in parallel to the Uf terminal of the main control panel.
- The Vm terminal on the U-RSKU series should be connected in parallel to the Vf terminal of the main control panel.
- The Wm terminal on the U-RSKU series should be connected in parallel to the Wf terminal of the main control panel.

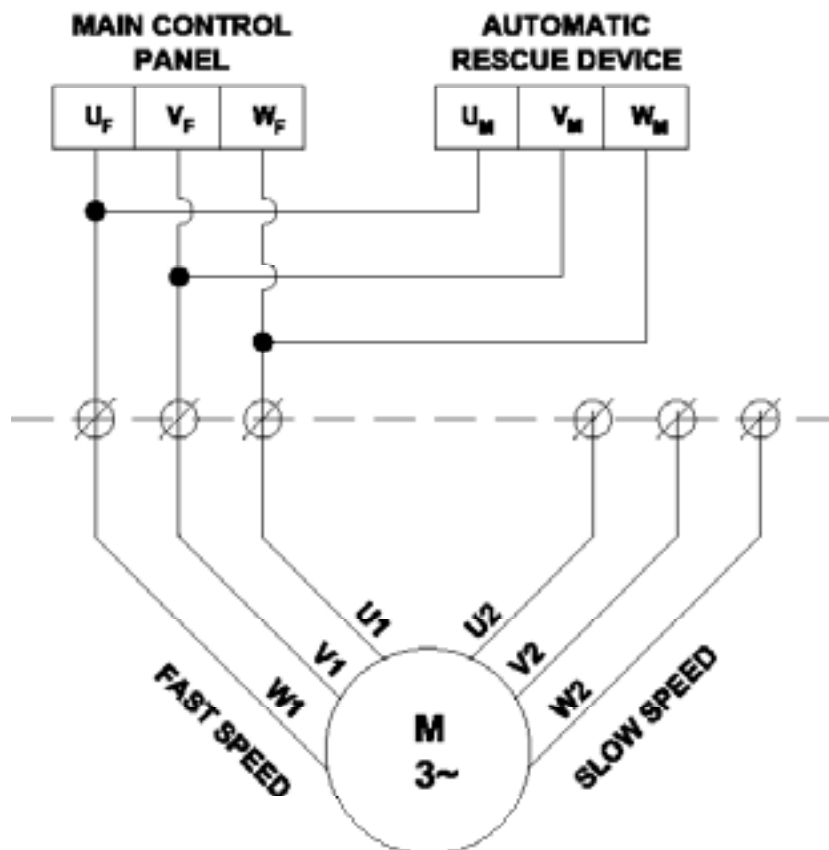


Figure 3.0 - Machine Motor Connections

### 3.3 Machine Braking System

The terminals of the Machine Brake System are connected as illustrated in Figure 4.0.

- The Machine Braking System terminals on the U-RSKU series are connected in parallel to the corresponding terminals of the braking system in the main control panel.
- The BR+ terminal on the U-RSKU series should be connected in parallel to the F+ terminal of the main control panel.
- The BR- terminal on the U-RSKU series should be connected in parallel to the F- terminal of the main control panel.

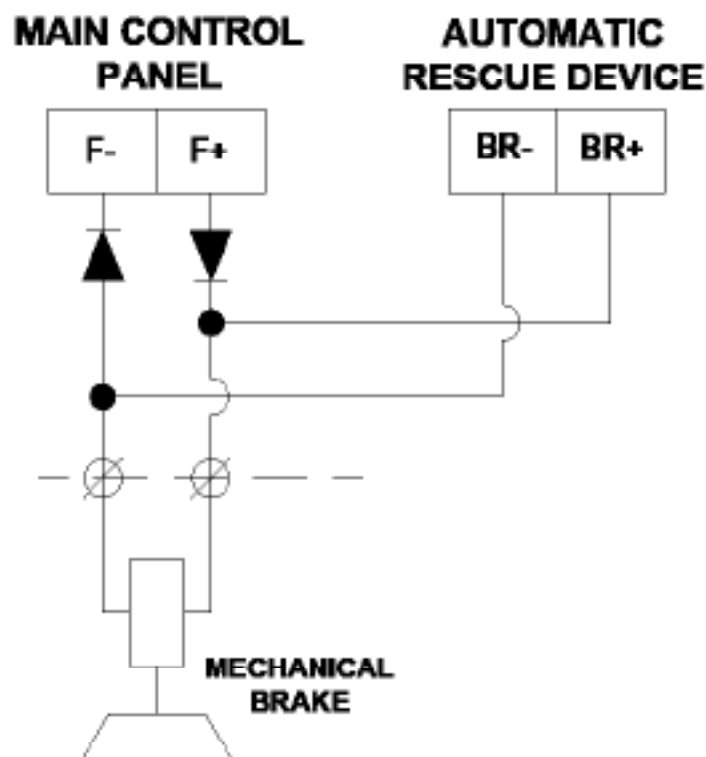


Figure 4.0 - Machine Braking System Connections

### 3.4 Retiring CAM

The terminals of the Retiring CAM are connected as illustrated in Figure 5.0.

- The CAM terminals on the U-RSKU series are connected in parallel to the CAM terminals in the main control panel.
- The CAM+ terminal on the U-RSKU series should be connected in parallel to the CAM+ terminal of the main control panel.
- The CAM- terminal on the U-RSKU series should be connected in parallel to the CAM- terminal of the main control panel.

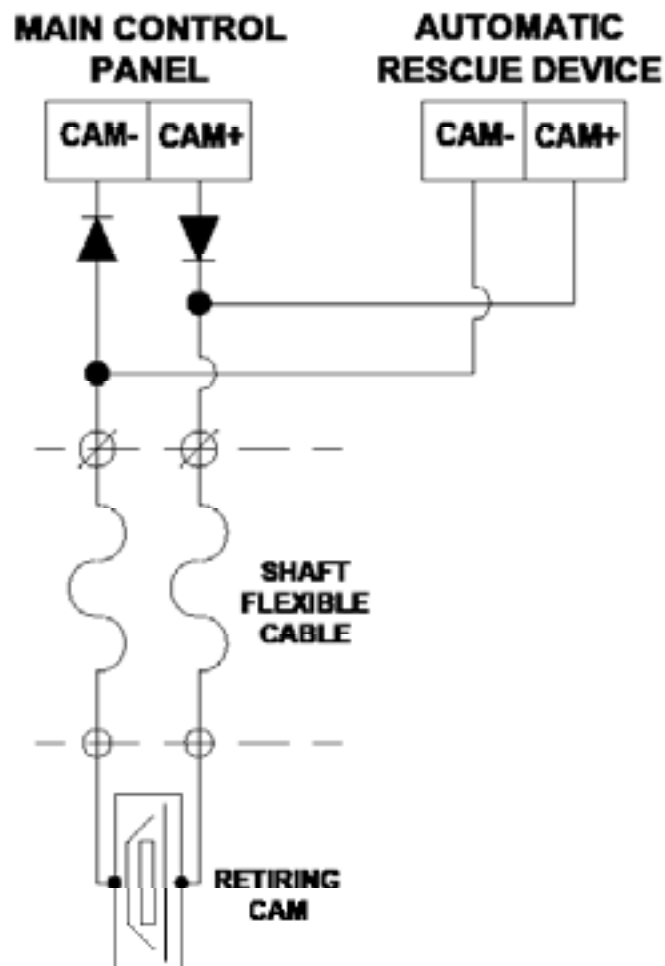


Figure 5.0 - Retiring CAM Connections



### 3.5 Shaft

The terminals of the Car and Shaft are connected as illustrated in Figure 6.0.

- The CM+P terminal on the U-RSKU series is connected to the Shaft Common terminal of the main control panel while disconnecting any terminal that was previously connected.
- The CM+S terminal on the U-RSKU series is connected to the terminals that have been disconnected from the Shaft Common terminal of the main control panel.
- The MAG terminal on the U-RSKU series is connected in parallel to the NC (Normally Closed) STP (Stop Magnet) terminal of the main control panel.
- The SERV terminal on the U-RSKU series is connected in parallel to the INSP (Inspection) terminal of the main control panel.

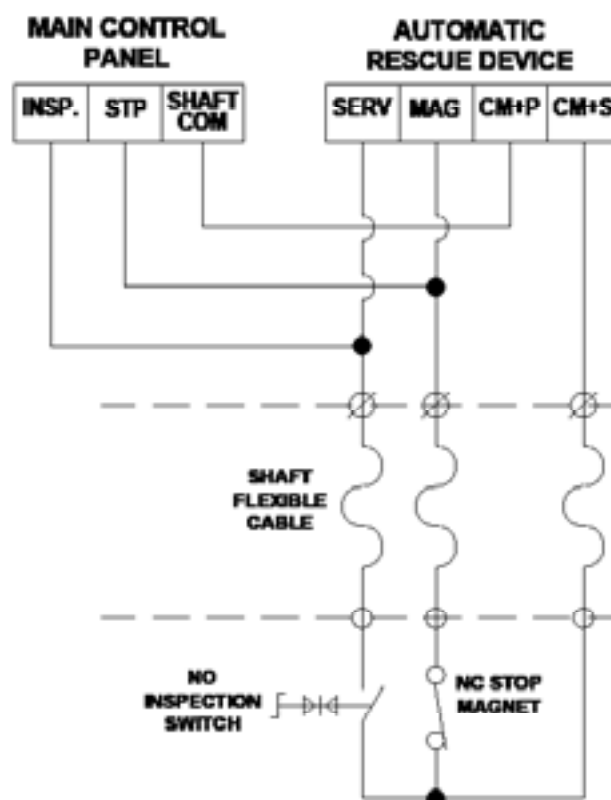


Figure 6.0 - Shaft Connections

### 3.6 Main Control Panel Transformer

The terminals of the Main Transformer are connected as illustrated in Figure 7.0.

- Disconnect the two primary winding tabs of the main transformer, whether fed by 380V or 220V.
- The terminals of Trans 0 and Trans 220 are used by the U-RSKU series, where they are connected to the primary windings input tabs of transformers 0 and 220.

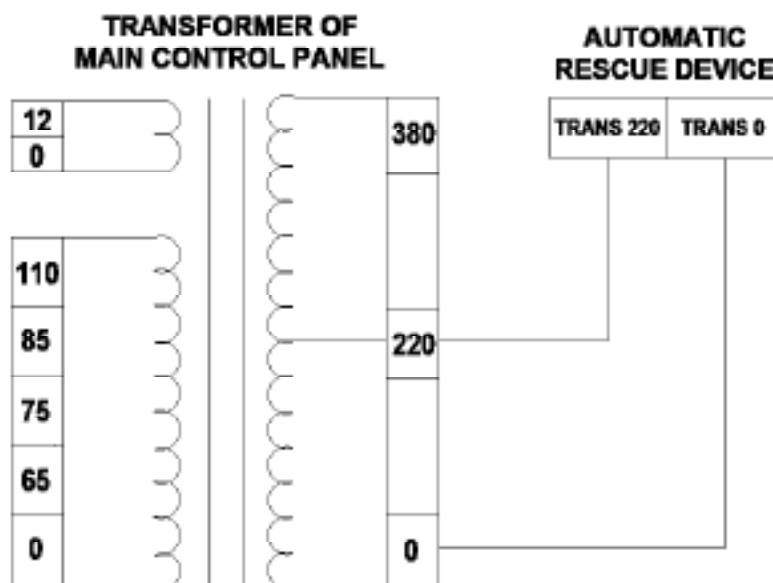


Figure 7.0 - Main Control Panel Transformer Connections

### 3.7 Car Rescue Lamp

The terminals of the Car Rescue Lamp are connected as illustrated in Figure 8.0.

- The two lamp terminals on the U-RSKU series are connected to a separate lamp used for lighting the car in case of rescue operations.
- These two lamp terminals must not be connected to the car lighting terminals which are used in normal conditions.

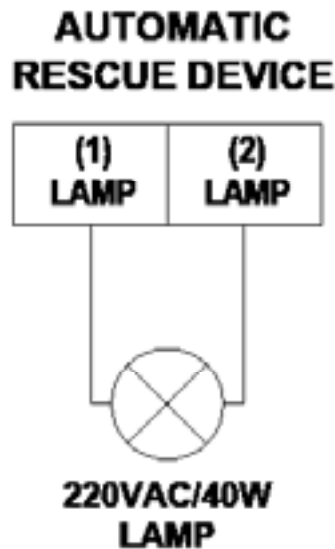


Figure 8.0 - Car Rescue Lamp Connections

### 3.8 Safety Circuits

The terminals of the Safety Circuits are connected as illustrated in Figure 9.0.

- All the Safety Circuits are connected in the following sequence:
  - Disconnect the positive terminal of the Safety Circuits bridge in the main control panel and connect it directly to the 110P terminal on the U-RSKU series.
  - Connect the 110S terminal on the U-RSKU series to the starting terminal of the safety circuits in the shaft, previously connected to the bridge positive terminal.
  - Disconnect the end of the safety circuits in the main control panel (Lock Relay terminal) then connect it directly to the 140P terminal on the U-RSKU series.
  - Connect the 140S terminal on the U-RSKU series to the end terminal of the safety circuit of the shaft, previously connected to the Lock Relay terminal.

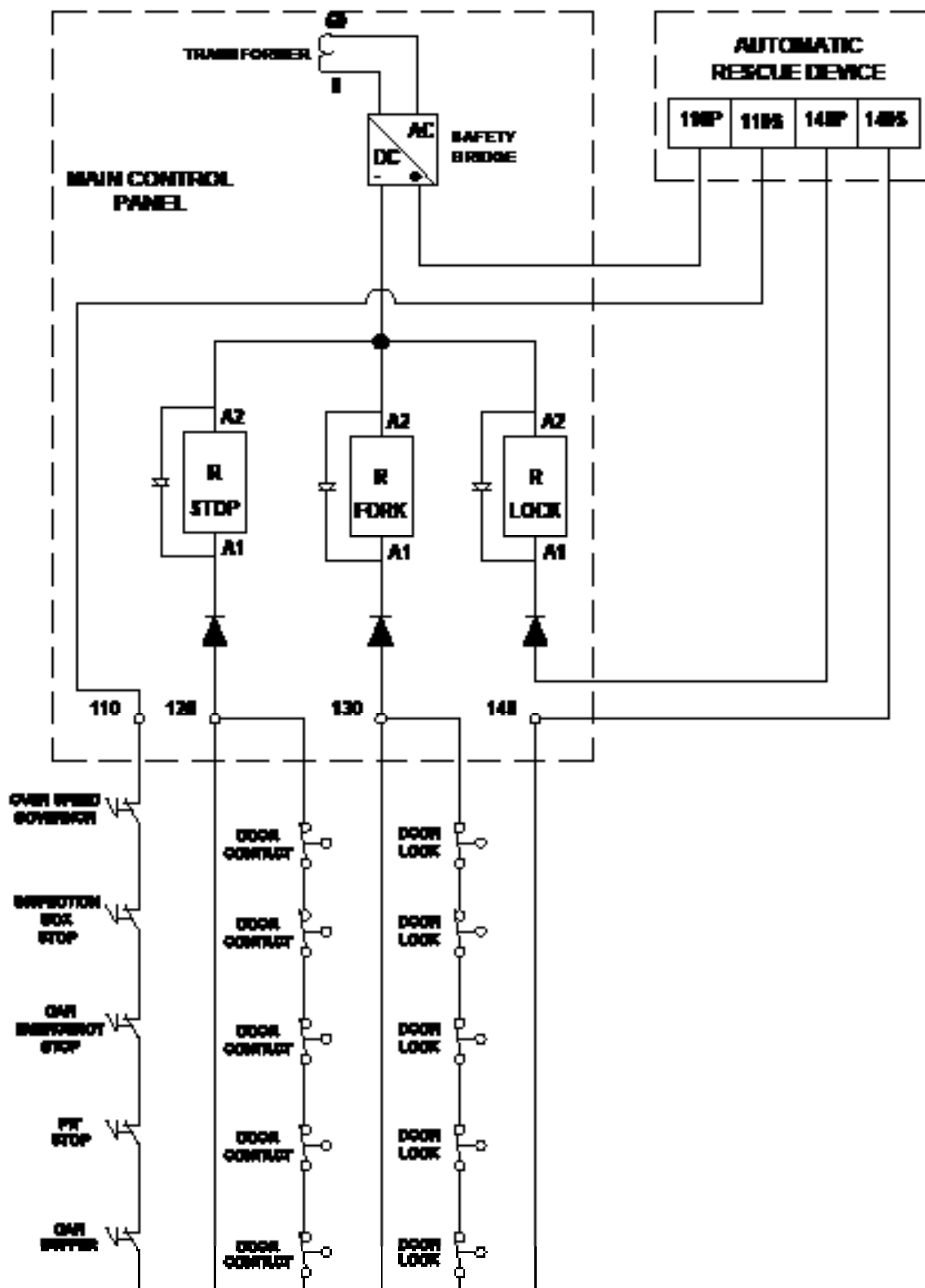


Figure 9.0 - Safety Circuits Connections

**Note:**

For manual doors, in the case of not connecting the Retiring CAM, connect the Stop and Door Fork terminals as illustrated in Figure 10.0.

- Disconnect the positive terminal of the Safety Circuits bridge in the main control panel and connect it directly to the 110P terminal on the U-RSKU series.
- Connect the 110S terminal on the U-RSKU series to the starting terminal of the safety circuits in the shaft, previously connected to the bridge positive terminal.
- Disconnect the end of the Fork circuits in the main control panel (Fork Relay terminal) then connect it directly to the 140P terminal on the U-RSKU series.
- Connect the 140S terminal on the U-RSKU series to the end terminal of the Fork circuits of the shaft, previously connected to the Fork Relay terminal.

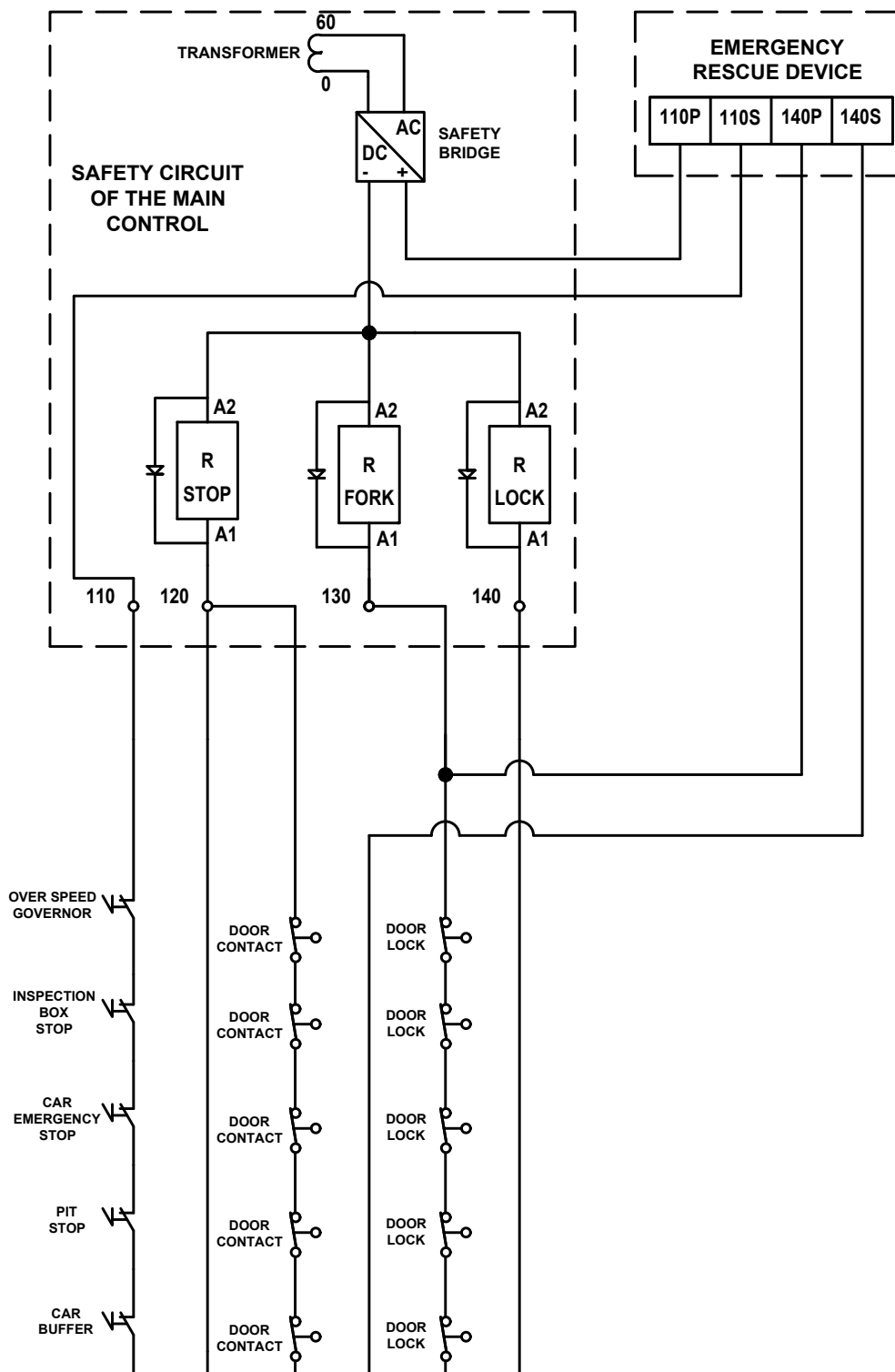


Figure 10.0 - Stop and Door Fork Connections

### 3.9 Automatic Doors

#### 3.9.1 220V Single-Phase Automatic Doors

The terminals of the 220V Single-Phase Automatic Doors are connected as illustrated in Figure 11.0.

- The door control board's common point is disconnected from the door's common outlet of the main control panel, and then connected to the DC.S (Door Common Shaft) terminal on the U-RSKU series.
- The DC.P (Door Common Panel) terminal on the U-RSKU series is connected to the door common outlet on the main control panel.
- The D.OP (Door Open) terminal on the U-RSKU series is connected in parallel to the open signal terminal of the main control panel.
- The D.CL (Door Close) terminal on the U-RSKU series is connected in parallel to the close signal terminal of the main control panel.

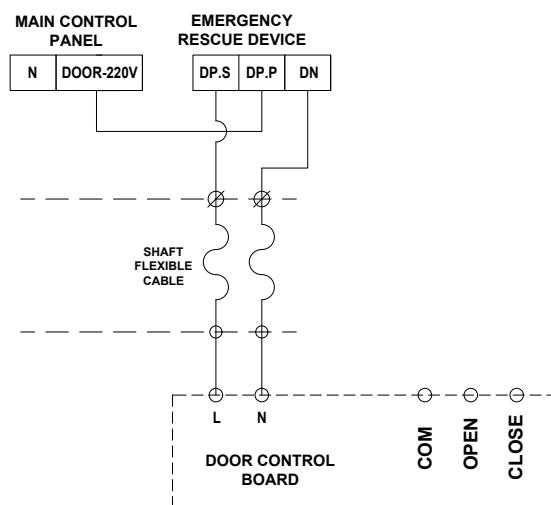


Figure 11.0 - 220V Single-Phase Automatic Door Installation Connections



The terminals of the 220V Single-Phase Automatic Doors are operated as illustrated in Figure 12.0.

- The door control board's supply terminal is disconnected from the 220V outlet of the main control panel and then connected to the DP.S (Door Phase Shaft) terminal on the U-RSKU series.
- The DP.P (Door Phase Panel) terminal on the U-RSKU series is connected to the 220V outlet in the main control panel.
- The N (Neutral) terminal of the door device is disconnected from the main control panel and connected to the DN terminal on the U-RSKU series.
- The DN (Door Neutral) terminal on the U-RSKU series is a Neutral terminal in the case that the three-phase power is active.

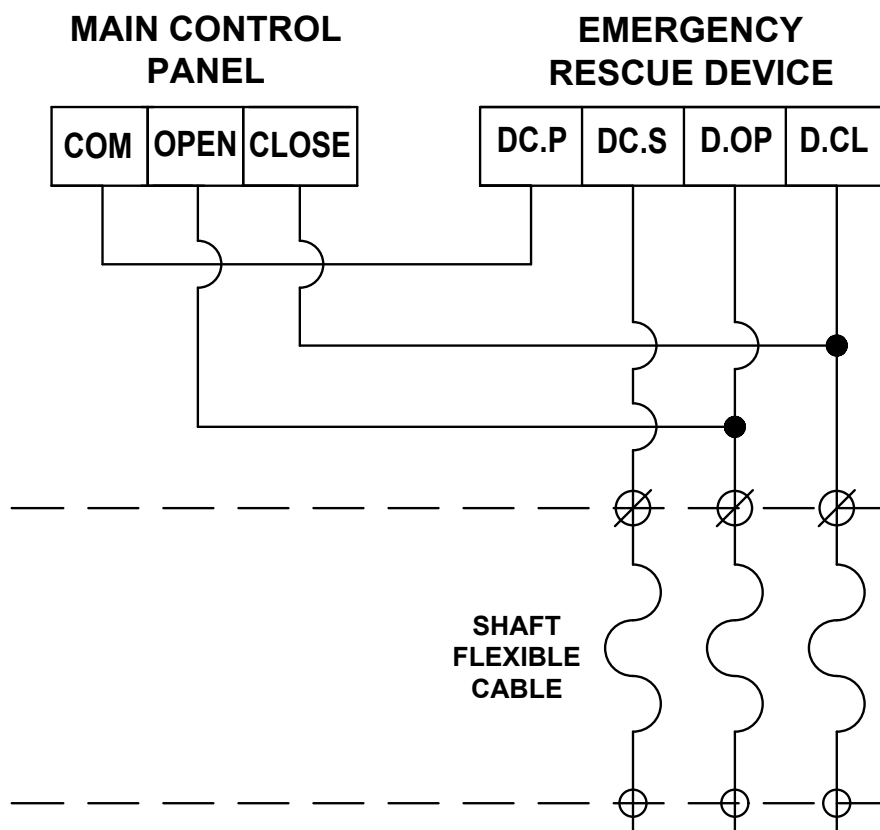


Figure 12.0 - 220V Single-Phase Automatic Door Operation Connections

### 3.9.2 380V Three-Phase Automatic Doors

The terminals of the 380V Three-Phase Automatic Doors are connected as illustrated in Figure 13.0.

- Ud, Vd, and Wd terminals on the U-RSKU series are connected in parallel to the door motor terminals of the main control panel.
  - The Ud terminal on the U-RSKU series should be connected in parallel to the Ud terminal of the main control panel.
  - The Vd terminal on the U-RSKU series should be connected in parallel to the Vd terminal of the main control panel.
  - The Wd terminal on the U-RSKU series should be connected in parallel to the Wd terminal of the main control panel.

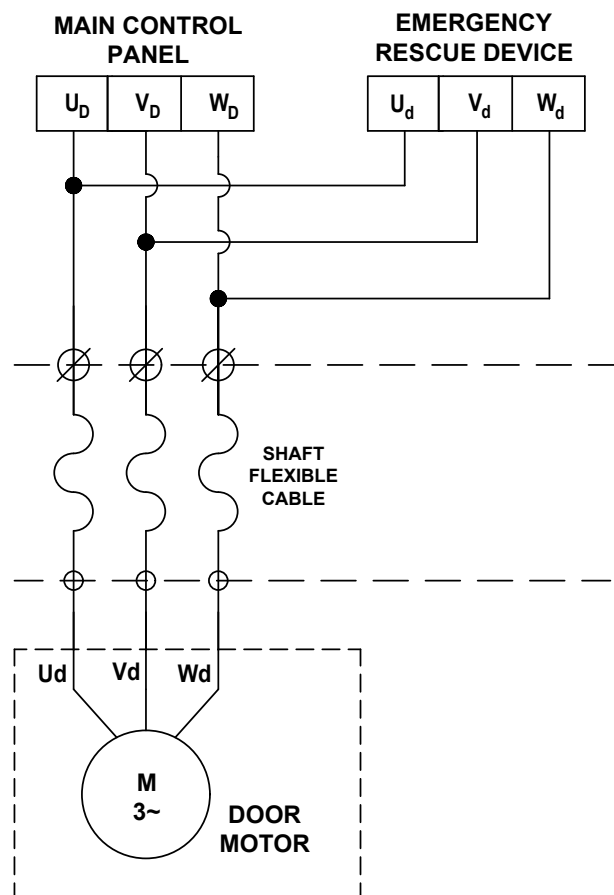


Figure 13.0 - 380V Three-Phase Automatic Door Connections

### 3.10 Folding Doors

The terminals of the Folding Doors are connected as illustrated in Figure 14.0.

- The door control board's supply terminal is disconnected from the 220V outlet of the main control panel, and connected to the DP.S (Door Phase Shaft) terminal on the U-RSKU series.
- The DP.P (Door Phase Panel) terminal on the U-RSKU series is connected to the 220V outlet of the main control panel.
- The N (Neutral) terminal of the door control board is disconnected from the main control panel and connected to the DN (Door Neutral) terminal on the U-RSKU series.
- Both terminals of the CAM (CAM+ and CAM-) on the U-RSKU series are connected in parallel to the respective terminals of the CAM (CAM+ and CAM-) in the main control.
- The DN (Door Neutral) terminal on the U-RSKU series is a neutral terminal in case the Three-Phase power is activated.

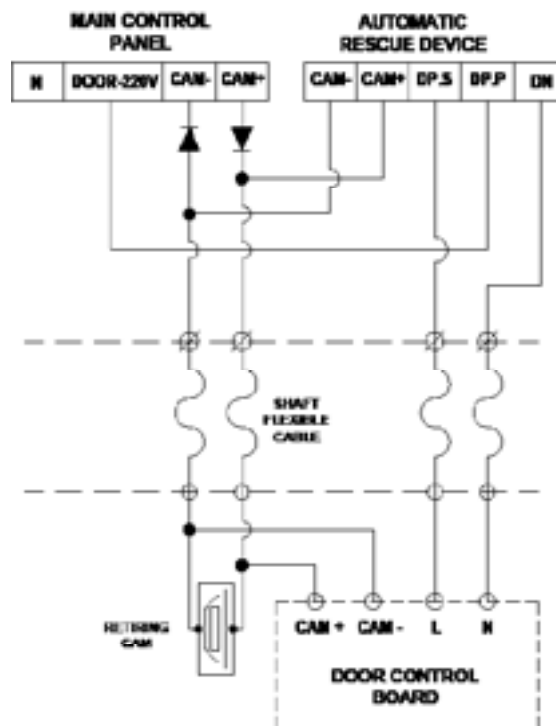
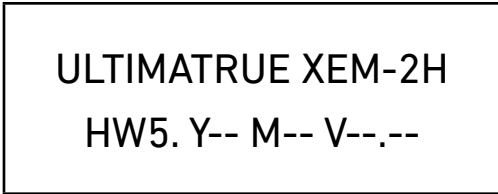


Figure 14.0 - Folding Door Connections

## 4.0 General Programming

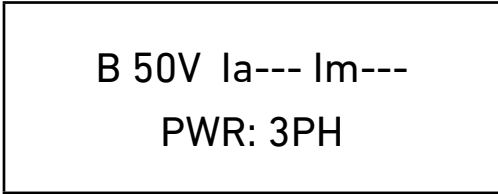
### General Programs Login

Once the U-RSKU series starts operating, the welcome message appears. The second line contains production and version information.



```
ULTIMATRUE XEM-2H  
HW5. Y-- M-- V--.--
```

The main screen of the U-RSKU series is as follows:



```
B 50V Ia--- Im---  
PWR: 3PH
```

To enter the programming mode, press the (+) and (-) buttons together, and then the first step of the programming steps will appear on the screen.

#### 4.1 Program P1: Rescue Trials

This program determines the number of rescue trials made by the U-RSKU series to reach the nearest floor in case the first trial fails.

- Press ENTER to access this program or (+ or -) to select another program.

P1: Rescue Trials

- After accessing this program press (+ or -) to set the required number of trials.

Rescue Trials: 3

- When finished, press ENTER to save and to go to the next program.

## 4.2 Program P2: Wait Time

This program determines the time period for the U-RSKU series to initiate the automatic rescue operation.

Note:

If a generator exists on site, this program is used as the time period for the activation of the generator, in case the determined time ends, the U-RSKU series will start the rescue operation.

- Press ENTER to access this program or (+ or -) to select another program.

P2: Wait Time

- After accessing this program press (+ or -) to set the required time in seconds.

Wait Time: 4 s

- When finished, press ENTER to save and to go to the next program.

### 4.3 Program P3: Jog Time

This program determines the maximum time elapsed to carry out the automatic rescue operation and reach the nearest floor when the car is located between two floors.

- Press ENTER to access this program or (+ or -) to select another program.

P3: Jog Time

- After accessing this program press (+ or -) to set the required time in seconds.

Jog Time: 50 s

- When finished, press ENTER to save and to go to the next program.

#### 4.4 Program P4: Safety Time

This program determines the time period when all safety circuits are closed and ensures all circuits are operating to ensure the car moves safely.

- Press ENTER to access this program or (+ or -) to select another program.

P4: Safety Time

- After accessing this program press (+ or -) to set the required time in seconds.

Safety Time: 10 s

- When finished, press ENTER to save and to go to the next program.



#### 4.5 Program P5: Free Jog Time

This program allows the car to continue moving for additional time or distance after reaching the stop magnet at floor level.

- Press ENTER to access this program or (+ or -) to select another program.

P5: Free Jog Time

- After accessing this program press (+ or -) to set the required time in seconds.

Free Jog Time: 0 s

#### Note:

The value zero indicates that the car will immediately stop as soon as it reaches the stop magnet floor level.

- When finished, press ENTER to save and to go to the next program.

#### 4.6 Program P6: Automatic Door Time

This program determines the elapsed time period for the U-RSKU series to open the door to ensure the safe exit of passengers.

- Press ENTER to access this program or (+ or -) to select another program.

P6: Auto Door Time

- After accessing this program press (+ or -) to set the required time in seconds.

Auto Door Time: 6 s

- When finished, press ENTER to save and to go to the next program.

#### 4.7 Program P7: Motor Frequency

This program determines the frequency or speed at which the U-RSKU series drives the machine motor during the automatic rescue operation.

- Press ENTER to access this program or (+ or -) to select another program.

P7: Motor Frequency

- After accessing this program press (+ or -) to set the required frequency in hertz.

Motor Frequency: 6 Hz

- When finished, press ENTER to save and to go to the next program.

## 4.8 Program P8: Extra Time

This program determines the additional car lamp time after the rescue operation is completed and the door is opened.

- Press ENTER to access this program or (+ or -) to select another program.

P8: Extra Time

- After accessing this program press (+ or -) to set the required time in seconds.

Extra Time: 3 s

- When finished, press ENTER to save and to go to the next program.

## 4.9 Program P9: Door Type

This program determines the door type according to different operating conditions.

- Press ENTER to access this program or (+ or -) to select another program.

P9: Door Type

- After accessing this program press (+ or -) to set the appropriate door type.

Door Type: Man/Drive

- After accessing this program press (+ or -) to set the appropriate door type.
- The door type mentioned above is used for Manual or 220V Automatic/ Semi-Automatic doors.

Door Type: Auto3Phase

- The door type mentioned above is used for 380V Automatic/ Semi-Automatic doors.
- When finished, press ENTER to save and to go to the next program.

## 4.10 Program P10: Brake Delay

This program determines the time delay between operating the machine motor's contactor in the U-RSKU series in relation to the machine braking system to initiate automatic rescue operations.

- Press ENTER to access this program or (+ or -) to select another program.

P10: Brake Delay

- After accessing this program press (+ or -) to set the required time in seconds.

Brake Delay: 1 s

- When finished, press ENTER to save and to go to the next program.

### 4.11 Program P11: Battery Level

This program is used to determine the accumulated battery group voltage used for the U-RSKU series.

- Press ENTER to access this program or (+ or -) to select another program.

P11: Battery Level

- After accessing this program press (+ or -) to set the required battery group voltage value (48V or 72V).

Battery Level: 48 V

Battery Level: 72 V

- When finished, press ENTER to save and to go to the next program.

## 4.12 Program P12: Three-Phase Detect

This program is used to determine the operating voltage of the machine motor, either three-phase (380V) or single-phase (220V).

- Press ENTER to access this program or (+ or -) to select another program.

P12: 3.PH Detect

- After accessing this program press (+ or -) to select between three-phase or single-phase operating conditions.

3 Phase Detect: 1

- By selecting '1' the selected operating voltage is three-phase (380V).

3 Phase Detect: 0

- By selecting '0' the selected operating voltage is single-phase (220V).
- When finished, press ENTER to save and to go to the next program.



### 4.13 Program P13: Stop Magnet Type

This program determines the magnetic switch type according to different operating conditions.

- Press ENTER to access this program or (+ or -) to select another program.

P13: STP MAG.Type

- After accessing this program press (+ or -) to select the required magnetic switch contact type, either NO (Normally Open) or NC (Normally Closed).

STP MAG.Type: NC

STP MAG.Type: NO

- When finished, press ENTER to save and to go to the next program.

## 5.0 Malfunction Diagnosis

As an advantage of the U-RSKU series, faults and errors can be viewed on the LCD board screen in both error codes and notations.

Error Code	Error Notation	Description
1	BLO	Battery Voltage Error
2	ERR: Acc. Inv. OVL	Inverter Overload Error (Responsible for the Accessories Transformer)
3	ERR: Acc. Inv. Fail	Inverter Circuit Error, (Responsible for the cam, the machine braking system, and the safety circuits.)
4	ERR: Safety 140	Safety Circuits Error
5	ERR: 3PH. Inv. OVL	Inverter Overload Error (Responsible for the Machine Motor)
6	ERR: 3PH. Inv. Fail	Inverter Circuit Error (Responsible for the Machine Motor)
7	ERR: Motor UVW	Motor Connection Error
8	ERR: Stop Magnet	Stop Magnet or Floor Magnet not reached after Automatic Rescue operations time is elapsed.
9	ERR: Elev. In Service	Maintenance Mode Error

**Table 5.0 - LCD Board Screen Error View**

## 6.0 Disclaimer

The manufacturer shall have no obligation for damage, injury, or any legal responsibility incurred directly or indirectly from the use of any of the products. The user shall observe safe and lawful practices including, but not limited to, those set forth in this document. Should further information be desired or should particular obstacles arise which are not specifically covered for the client's purposes, the matter should be referred to Ultimatrue Engineering Industries.

Ultimatrue Engineering Industries reserves the right to make technical changes or modify the contents of this document without prior notification. With regard to purchase orders, the agreed particulars shall prevail. Ultimatrue Engineering Industries does not accept any responsibility for possible lack of information in this document.

Ultimatrue Engineering Industries reserves all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties, or utilization of its content - in whole or in part - is forbidden without the prior consent of Ultimatrue Engineering Industries.

© Copyright 2024 Ultimatrue Engineering Industries.

All rights reserved.

## 7.0 Warranty

Ultimatrue Engineering Industries warrants the U-RSKU series against all manufacturing defects for a period of one year after the date of installation and operation, provided that the user strictly adheres to all technical specifications and instructions illustrated in the user manual. The warranty is not valid in the following cases:

1. Defects caused by failures or mistakes in the U-RSKU series board connections or wiring.
2. Defects caused by high or low voltage.
3. Defects caused by misuse and non-compliance with the illustrated operating instructions in the user manual.
4. Defects caused by intended damages or fire.

**Index:****A**

Automatic Doors 23-25, 36

**B**

Battery 4-5, 38, 41  
Brakes 9-11

**C**

Car 5, 9-11, 16, 18, 20, 22, 30-33  
Control Panel 5, 9-17, 19-21, 23-26

**F**

Folding Doors 26

**I**

Inverter 9-11, 41

**M**

Magnet 5, 9-10, 16, 32, 40-41  
Motor 5, 8-11, 13, 25, 34, 37, 39, 41

**S**

Shaft 5, 15-16, 19, 21, 23-26

**T**

Transformer 5, 17, 20, 22, 41

**U**

U-RSKU-C 4, 9-11  
U-RSKU-D 4, 9

**Ultimatrue Engineering Industries**  
14 Obour Buildings, Salah Salem St.  
11811 Cairo  
Egypt

+20 102 366 6065

[info@ultimatrue.com](mailto:info@ultimatrue.com)

[www.ultimatrue.com](http://www.ultimatrue.com)

As standards, specifications, and design vary over periods of time, please ask for confirmation of the information provided in this publication.

© 2024 Copyright Ultimatrue Engineering Industries. All rights reserved.

U-RSKU Series - Version 1.0.