

Description

System	Page NO.	Title
MARC Ax BOX	1	Cover page
	2	Description
	3	Part List
	4	Power Wiring
	5	Handle Input
	6	Input device 1
	7	Input device 2
	8	Output device
	9	Ax BOX Supply distribution
	10	Ax BOX Communication
	11	Ax BOX Teensy input
	12	Ax BOX Teensy Output
	13	Ax BOX Relay channel

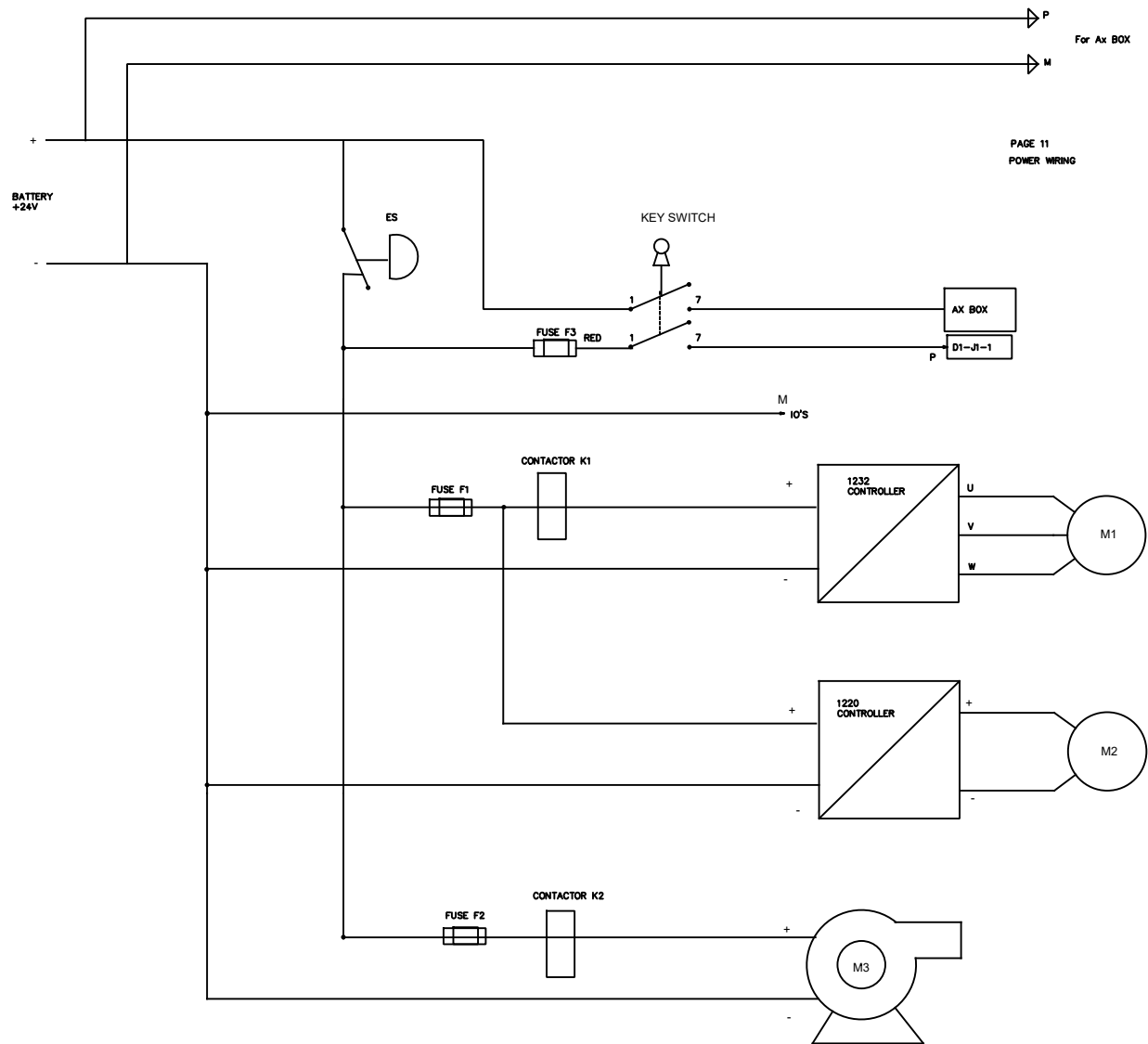
Previous page No. 1	Client:	Title: AMR BOPT	Next page No. 3
	End Client:	Discription: Index	DWG No. AX/1
	Remarks:	Detail:	Page No. 2 /13

Part List

Part Name	Description	Quantity	Device tag
Ax BOX	MARC controller, 24v DC 8A. USB, Ethernet	1	MARC Ax
Sick safety sensor	Safety Lidar Sick TIM320–1131000 vision 270 degree, 24V DC, Digital 3 i/p, Digital 3 o/p, M12 female connector,	3	SSF, SSL, SSR
Ultrasonic Sensor	Boumer Ultrasonic sensor U500.DA0.2–UA1B.72F	2	UL1, UL2
Toggle Switch	Toggle switch with illumination, 1 NO contact, 24V DC	1	Auto/Man
Indicator	Red light indicator, 24V	1	Lt
Stack Light	Boumer Stack light, Red, Yellow, Green, Buzzer, 24V, PNP type	1	TL
Spot light	Primeforklift Spot Light Blue color, 24V	1	Spot It
LIDAR	RP LiDAR A1, USB connection range 40M, 360 degree, Rotational parts protected	1	LIDAR
Camera	IntelRealsence Depth camera, RGBD, USB connection	1	CAM
Emergency Button	Red MASHroom type Emergency button, 2 NC contact, Side EMG button	2	EMG
IOT dongle	Dongle for communication to internet via sim network	1	Dounge
CAN to USB	CAN to USB converter, Drive communication	1	CANbus
1232 E	Curtis 1232 e AC driver for ACIM motor, PUMP motor	1	D1
1220 EPS	Curtis 1220 EPS steering controll drive for DC motor	1	D2

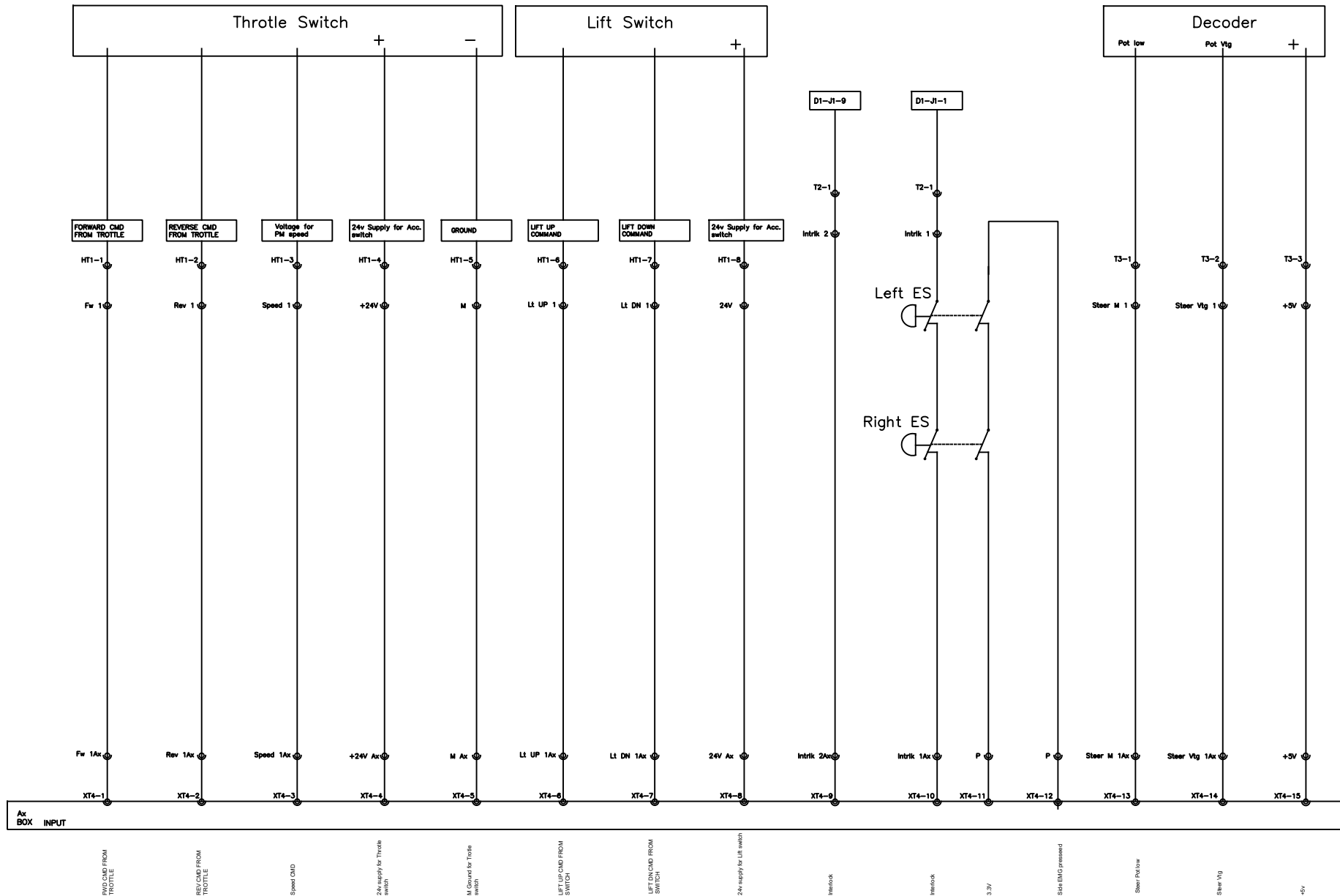
Previous page No. 2	Client:	Title: AMR BOPT	Next page No. 4
	End Client:	Discription: Part list	DWG No. AX/1
	Remarks:	Detail: 24v 240 amp power distribution	Page No. 3 /13

Power Wiring

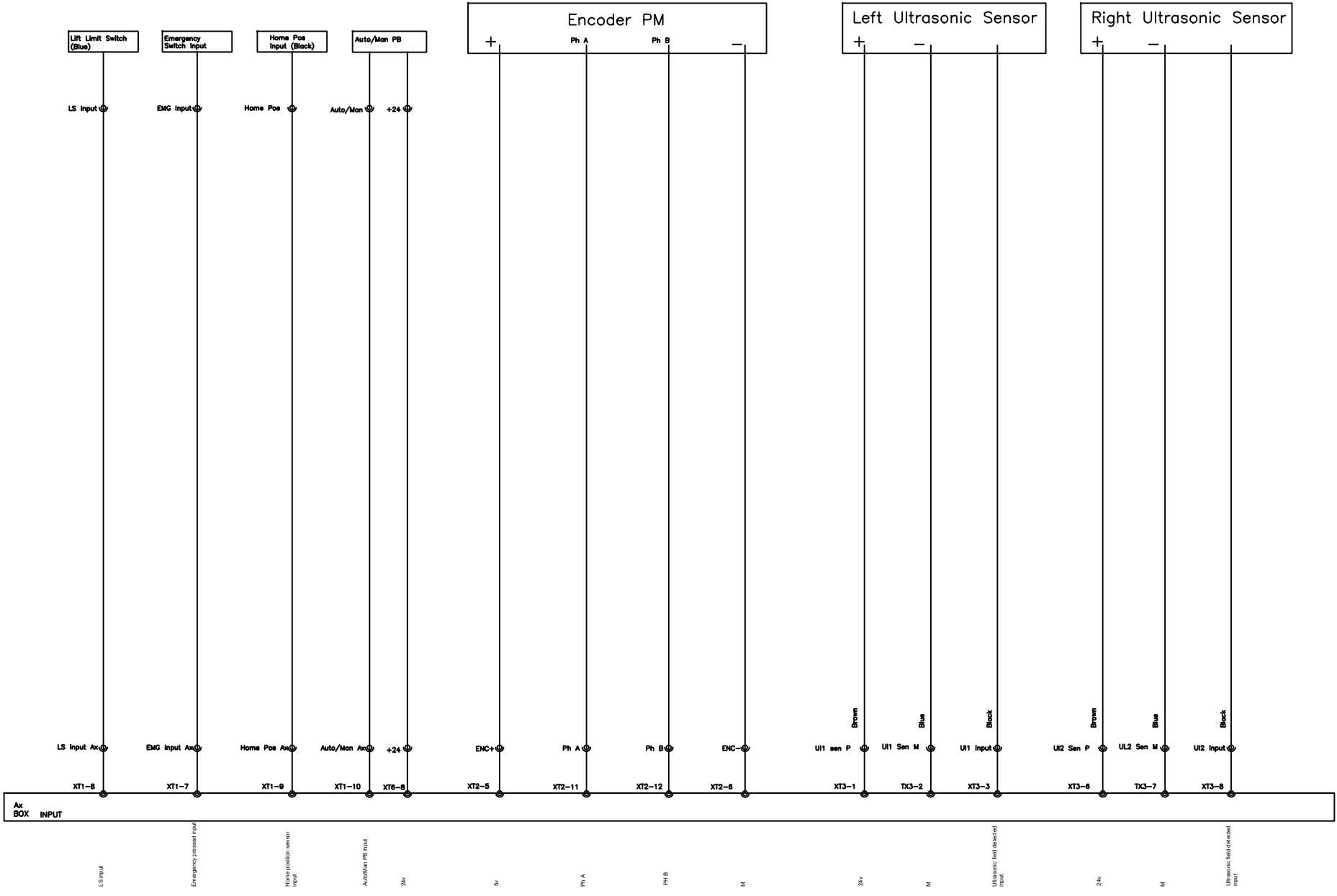


Previous page No.	3	Client:	Title: AMR BOPT	Next page No.	5
		End Client:	Discription: Power Wiring	DWG No.	AX/1
		Remarks:	Detail: 24v 240 amp power distribution	Page No.	4 /13

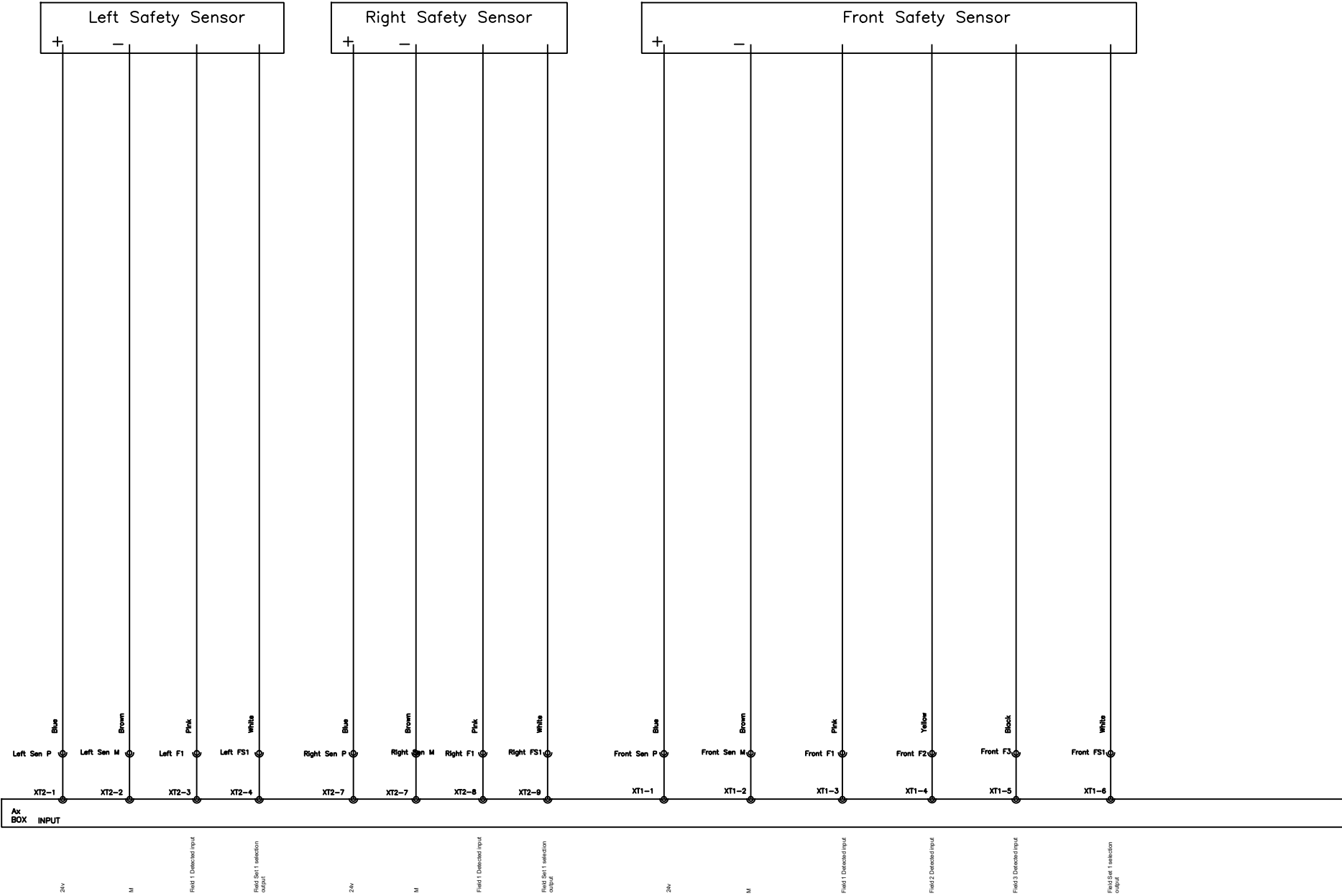
Handle Input



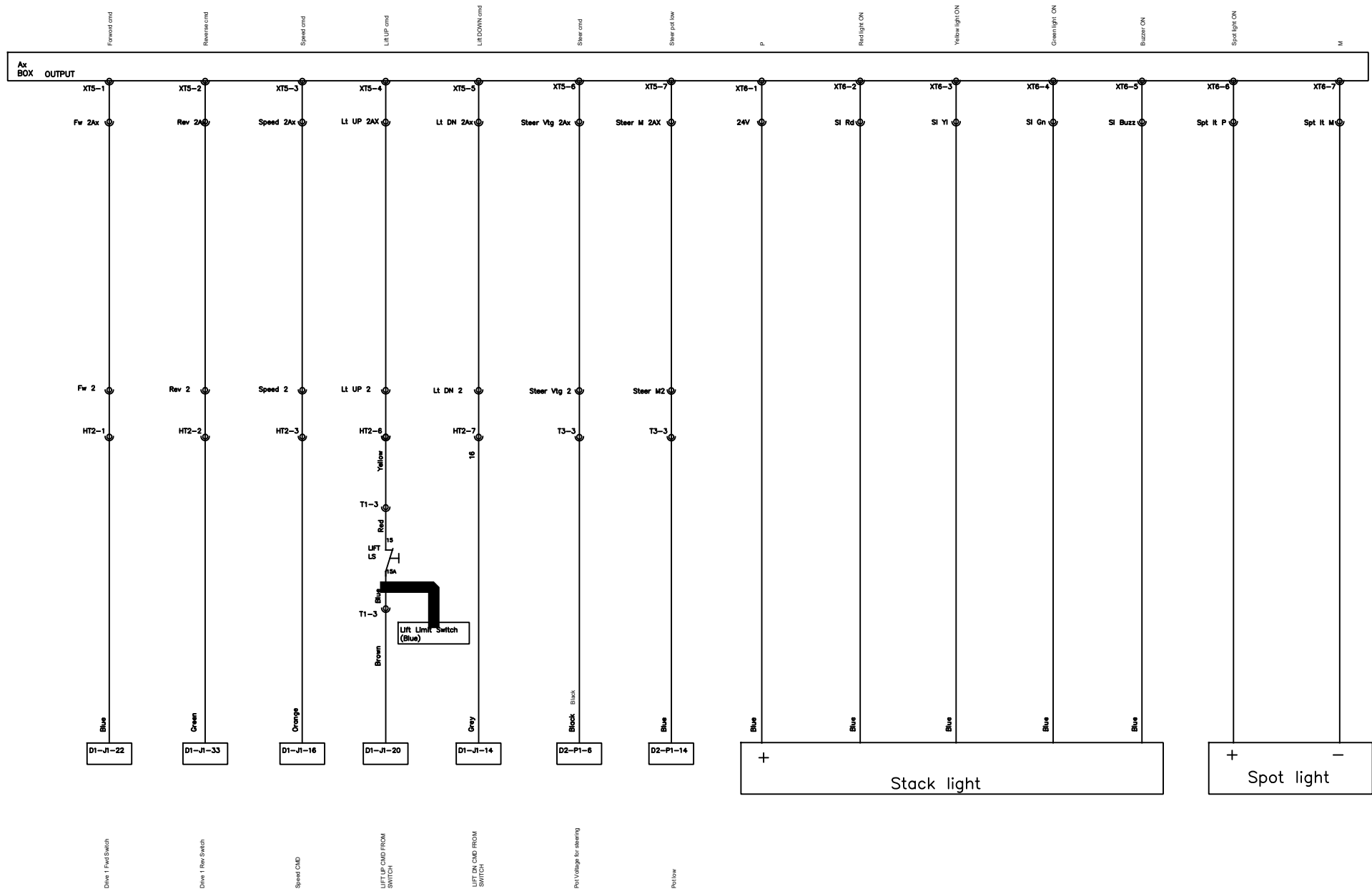
Input Device 1



Input Device 2



Output device



Previous page No.

7

Client:

End Client:

Remarks:

Title: AMR BOPT

Discription: Power Wiring

Detail: 24v 240 amp power distribution

Next page No.

9

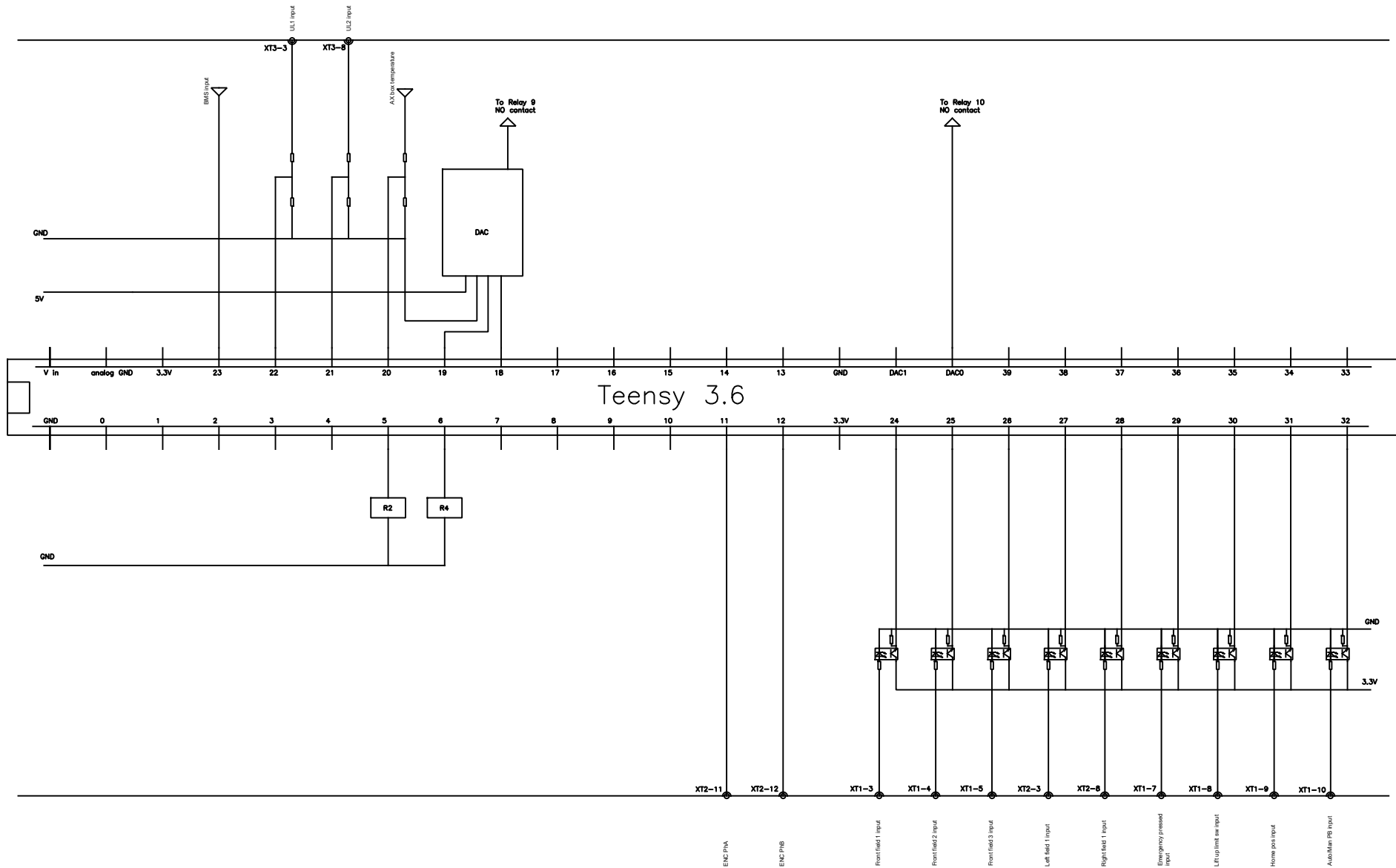
DWG No.

AX/1

Page No.

8 /13

Ax BOX Teensy Input



Previous page No. 10

Client:

End Client:

Remarks:

Title: AMR BOPT

Discription: Ax BOX Teensy input

Detail: Input circuit

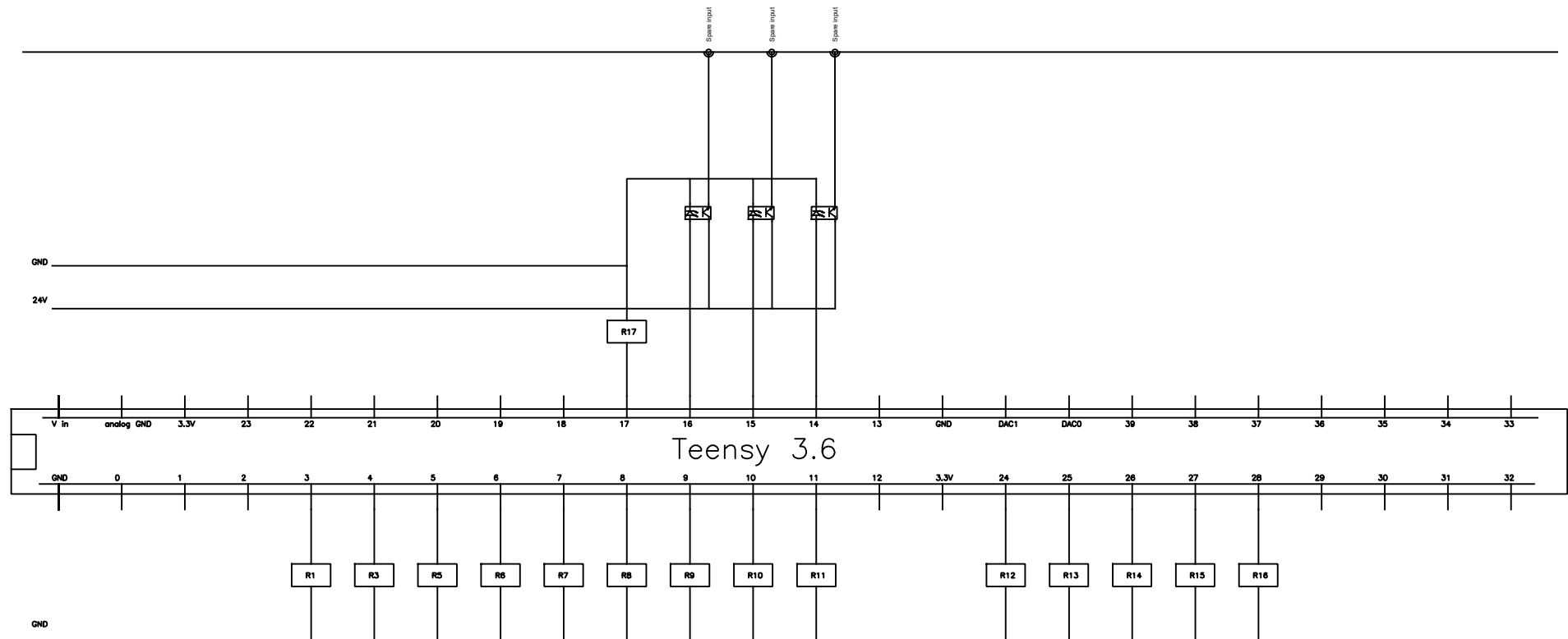
Next page No. 12

DWG No. AX/1

Page No. 11 / 13

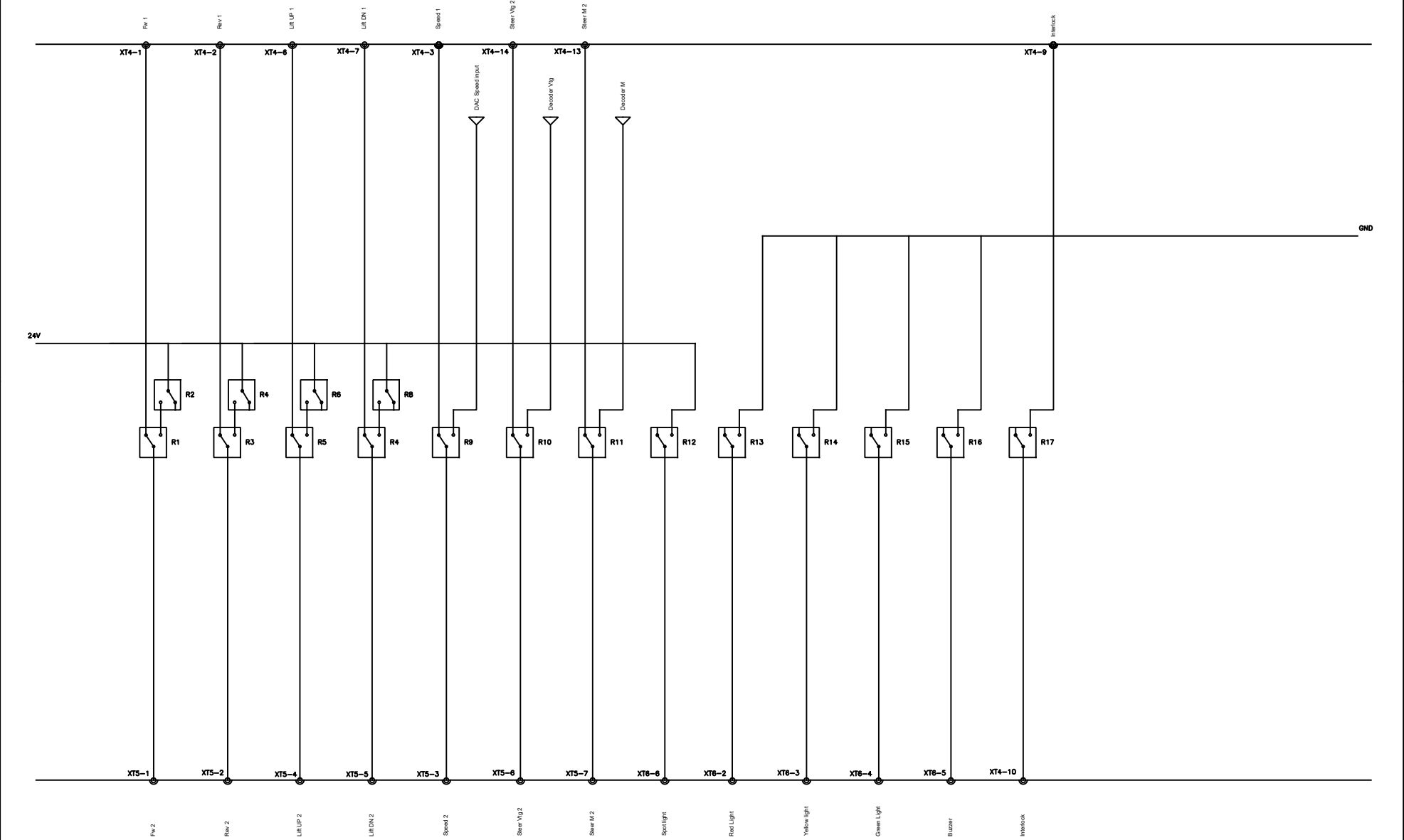
Ax BOX

Teensy Output



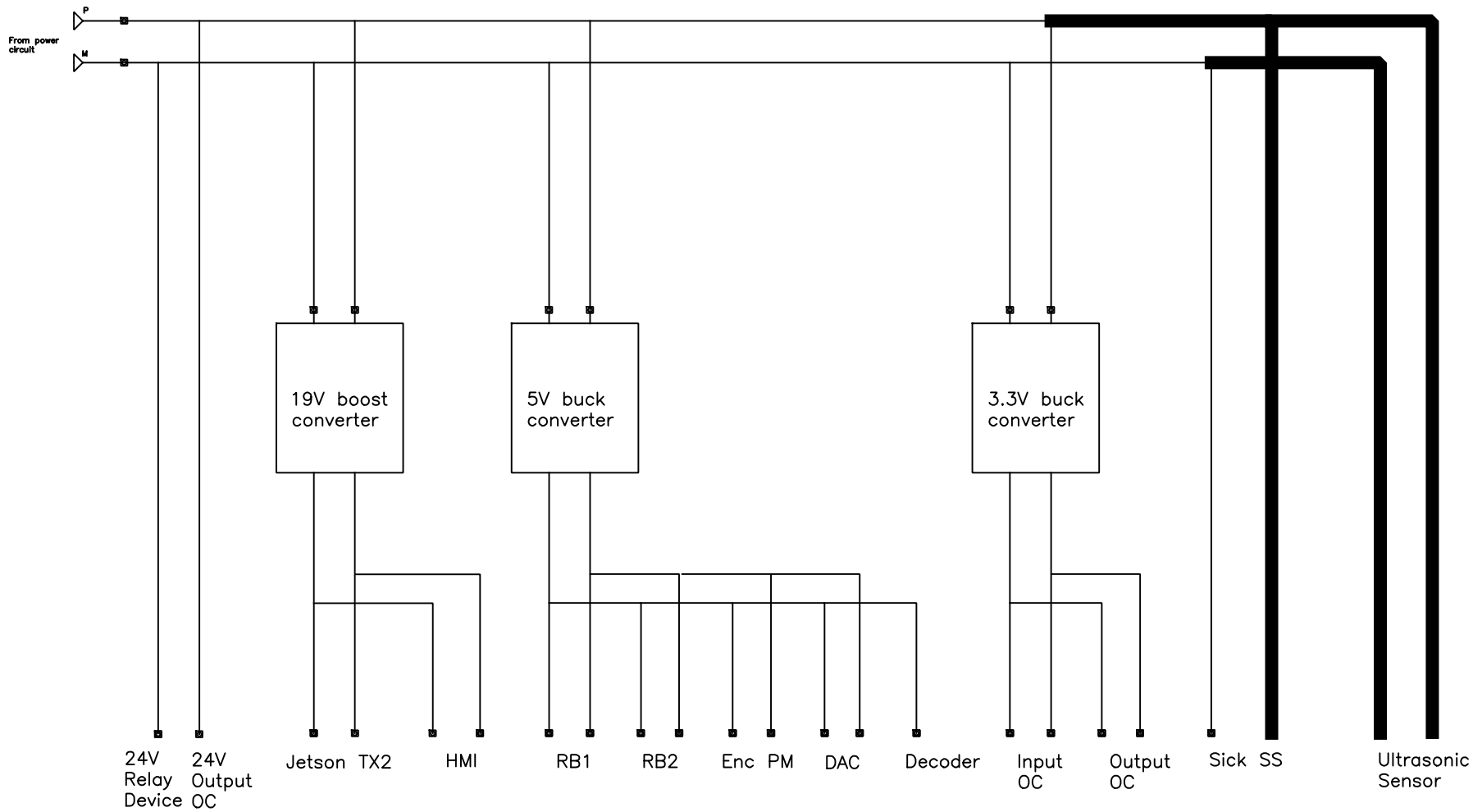
Previous page No.	11	Client:	Title: AMR BOPT	Next page No.	13
		End Client:	Discription: Ax BOX Teensy output	DWG No.	AX/1
		Remarks:	Detail: Output circuit	Page No.	12/13

Ax BOX
Relay channel

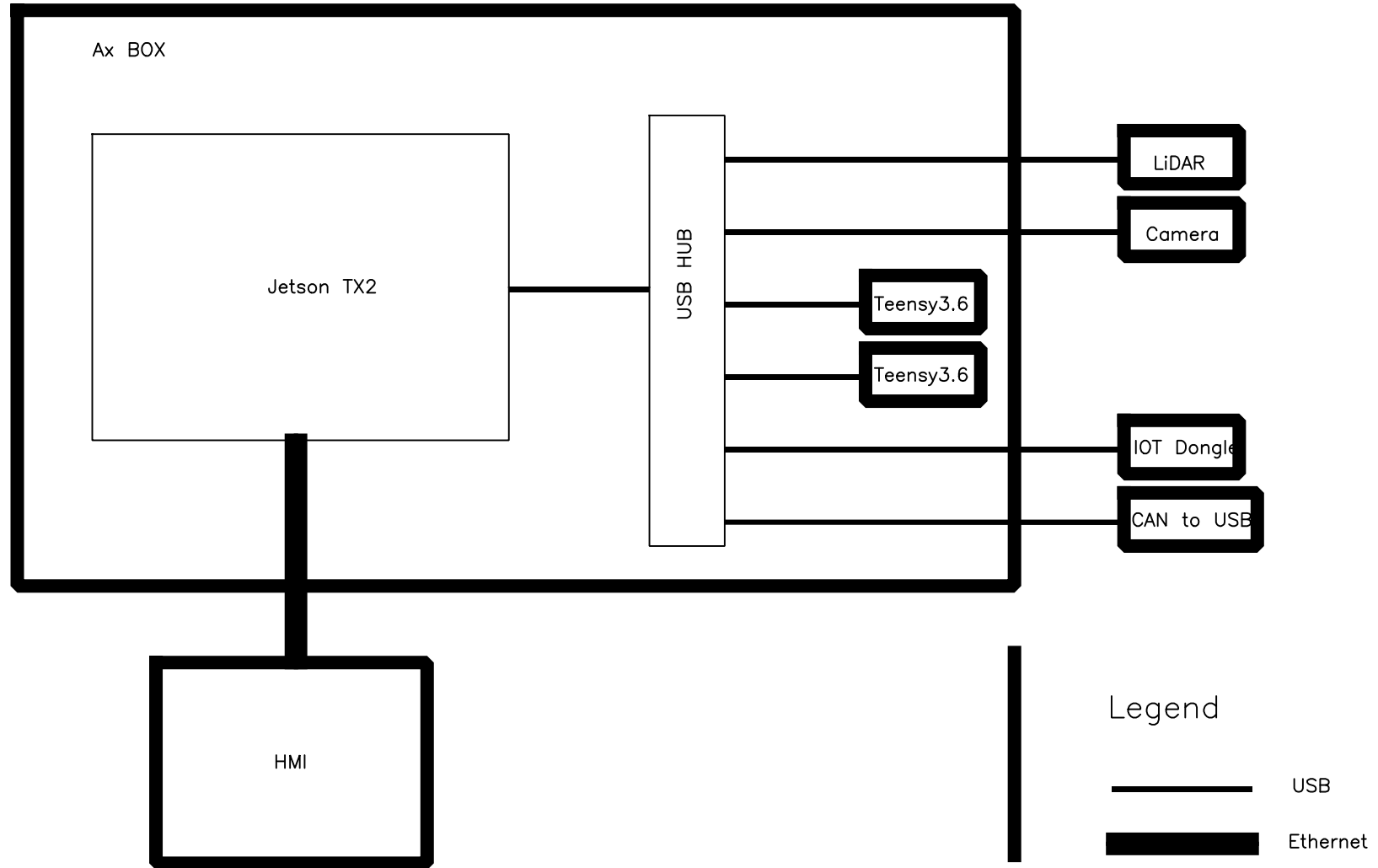


Previous page No.	12	Client:	Title: AMR BOPT	Next page No.
		End Client:	Discription: Ax BOX Relay channel	DWG No. AX/1
		Remarks:	Detail: Relay circuit	Page No. 13/13

Ax BOX
Supply Distribution



Ax BOX Communication



Previous page No. 9	Client:	Title: AMR BOPT	Next page No. 11
	End Client:	Discription: Ax box Communication	DWG No. AX/1
	Remarks:	Detail: USB Ethernet commincation	Page No. 10/13