

- Portable TETRA Gateway Repeater

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1 TETRA Gateway repeater

1.1 Description

This documentation covers the Motorola MTM5400 mobile radio installation in a Pelicase type 1430 with the following main parts.

1. Weatherproof IP67 carrying case
2. Mobile radio terminal
3. Mounting frame for terminal
4. Microphone for terminal
5. Load speaker for terminal
6. 230VAC /12VDC power supply
7. 12/12VDC power supply
8. Battery for min 4 hours operation
9. Whip antenna
10. GPS antenna

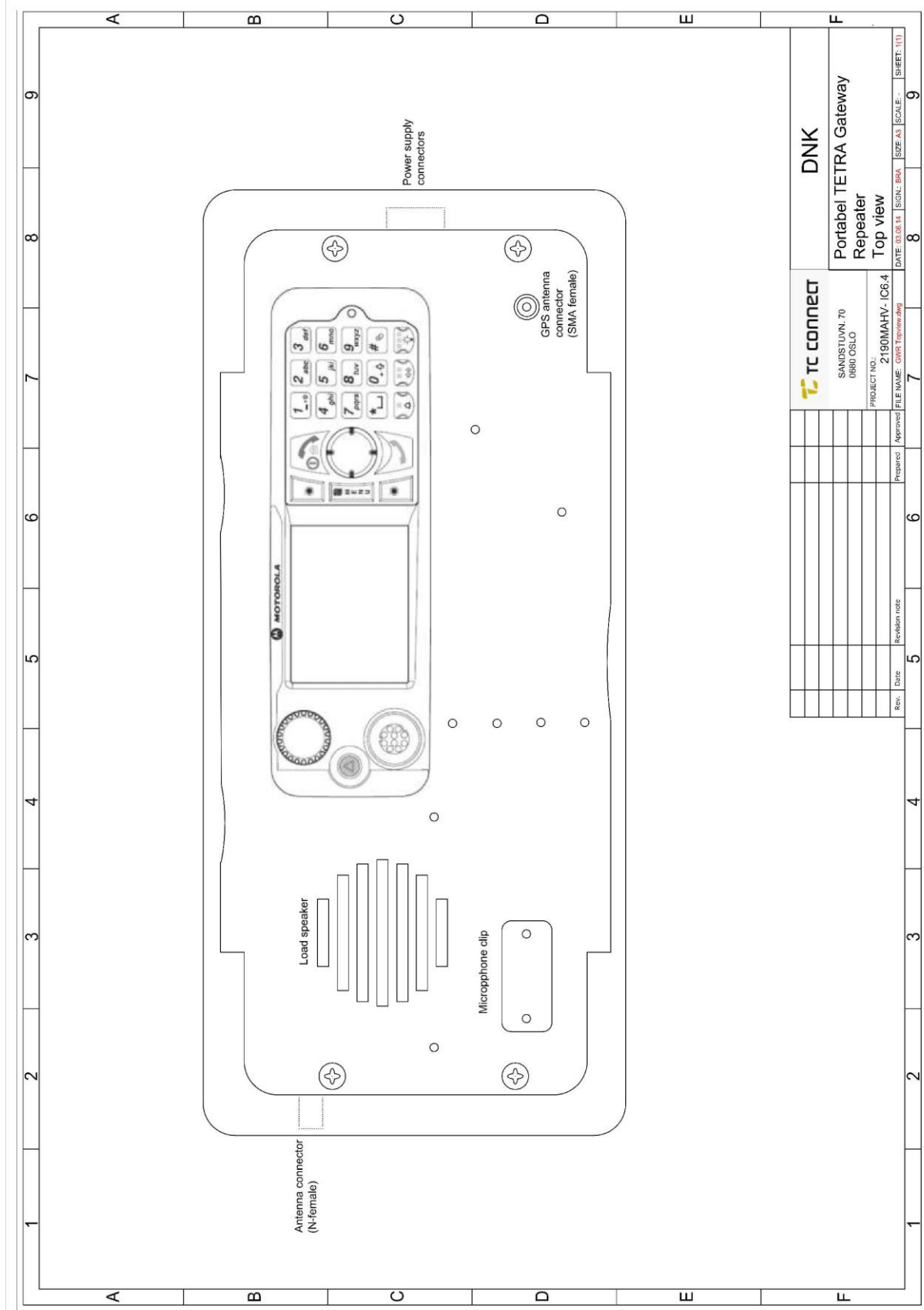
The mobile radio/mount frame with microphone, load speaker and power supplies are mounted on a special designed 3mm aluminum top plate that fits the panel frame of the Pelicase. The battery is mounted in the bottom of the Pelicase and the power supply connectors 230VAC and 12VDC connectors are on the «left» side with the antenna connector and ground plane on the «right» side. The GPS antenna is fixed in the lid and connected to the terminal via a chassis connector on the top plate. The main UHF antenna is to be mounted on the N-female bulkhead connector at the «right» side of the case when the unit is in use.

For connection to the mains 230VAC, use the the 3 meter long mains cable and plug it into the upper 3 pin connector at the side of the case. For 12VDC, use the 4 meter long cable with lighter plug in one end and plug it into the lower 2 pin connector. 230VAC and the 12VDC connections will power the radio terminal and charge the battery when connected. (The 12VDC input wil charge the battery with 13.8V when the input voltage is above 9.8VDC)

The unit is waterproof when the lid is closed.

NB! Because the radio terminal will drain the battery with approximateley 25mA when it is switched off, the unit must allways be connected for charging. If this is not possible the 12VDC should be disconnected from the radio terminal.

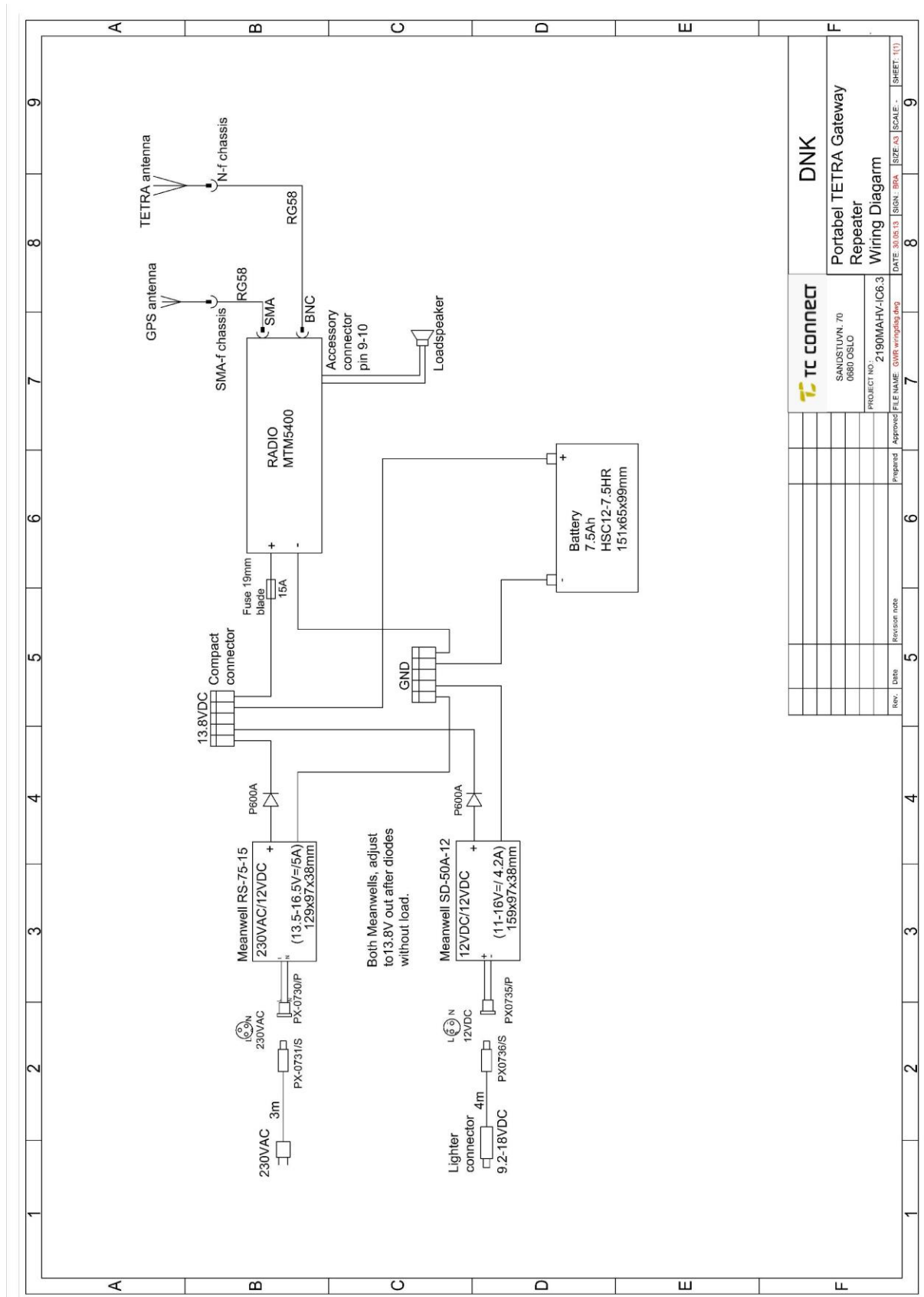
1.2 Top plate view



TC CONNECT		DNK	
SANDSTUJN 70 0880 OSLO		Portabel TETRA Gateway Repeater Top View	
PROJECT NO.: 2190MAHV-IC6.4		DATE: 10.08.14 SIGN: BBA SIZE: A3 SCALE: SHEET: 1/1	
FILE NAME: C:\IT\Tetra\img	Approved	Prepared	Revised note
Rev.	Date		

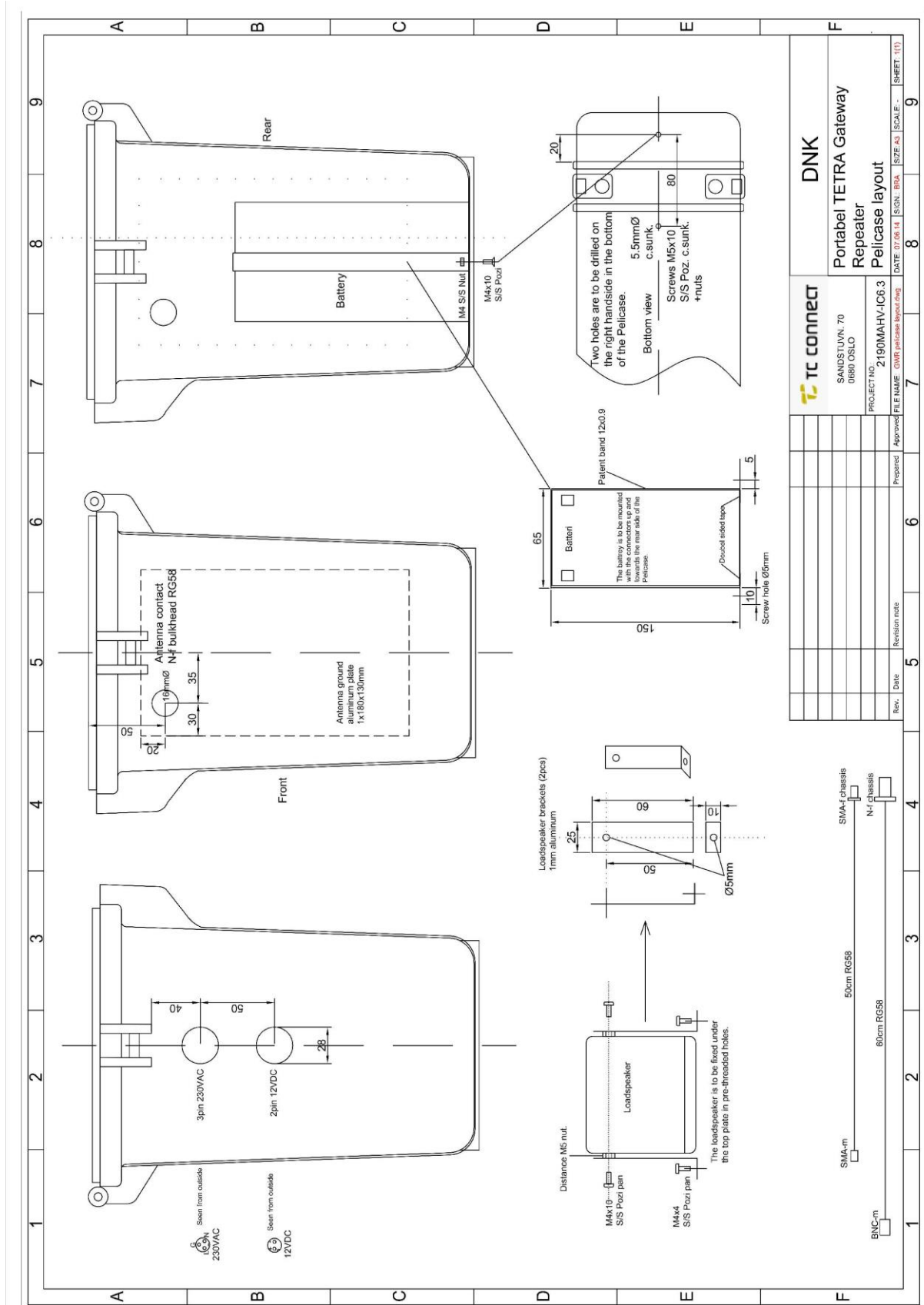


1.3 Wiring diagram





1.4 Pelicase layout



Rev.	Date	Revision note	Prepared	Approved

TC connect		DNK	
SANDS LUVN. 70	0680 OSLO	Portabel TETRA Gateway Repeater Pelicase layout	
PROJECT NO.	2190MAHV-IC6 3	DATE	07/06/14
FILE NAME	GWR pelicase layout.dwg	SIGN.	BDA
		SCALE	1:1
			SHEET (11)

1.5 Bill of material

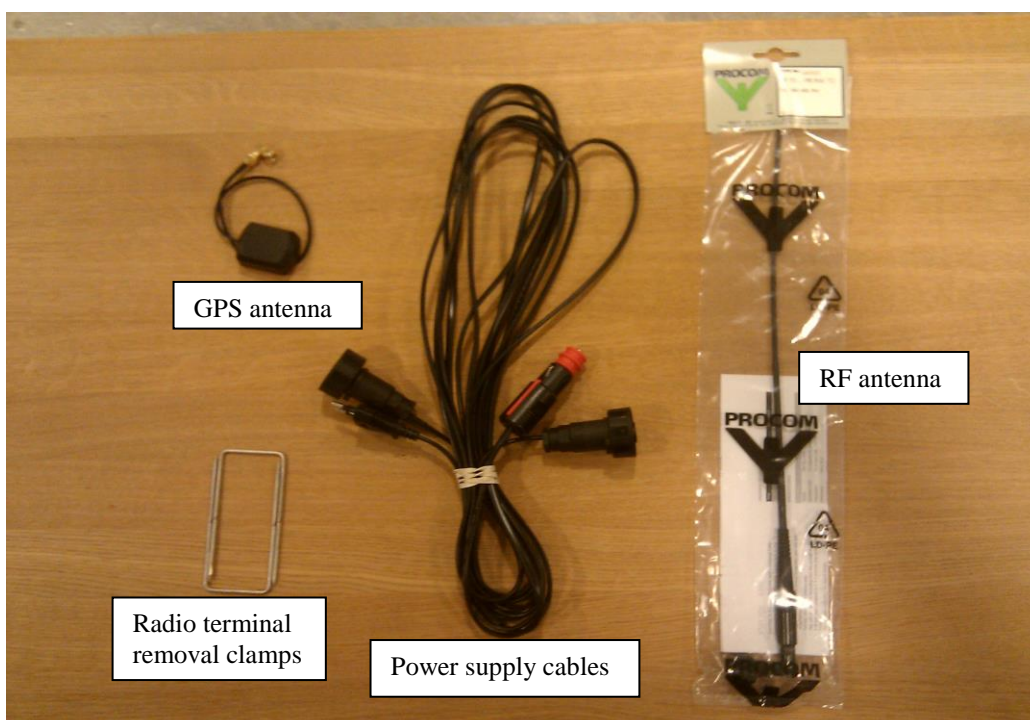
BOM Portable TETRA gateway Repeater		
Product	Supplier	Pcs./ case
Pelicas Type 1430	Pelican	1
Mounting frame (GA00130AA)	Motorola	1
Power cable (G722AA)	Motorola	1
Fist Microphone (GA0013400)	Motorola	1
Load speaker (GA00648AA)	Motorola	1
Panel frame for Pelicas 1430	Pelican	1
Chassis contact Buccaneer 12VDC 2-pin (PX0735/P)	Elfa	1
Chassis contact Buccaneer 230VAC 3-pin (PX-0730/P)	Elfa	1
Plug Buccaneer 12VDC 2-pin (PX0736/S)	Elfa	1
Plug Buccaneer 230VAC 3-pin (PX-0731/S)	Elfa	1
Cover Buccaneer (PX-0733)	Elfa	2
12VDC/12VDC converter (Meanwell SD-50A-12)	Metric	1
230VAC/12VDC converter (Meanwell RS-75-12)	Metric	1
GPS Antenna (JCA002-SMA/M-5M-MA)	Elfa	1
Antenna $\lambda/2$ N-male 90° FSP 70 (380-400MHz)	Procom	1
12V Battery (Haze HSC12-7.5HR)	Gylling	1
Diode 50V 6A	Elfa	2
Dust Cover for N-connector	TCC	1
N-f chassis to BNC-male cable 60cm RG58	TCC	1
SMA-f chassis to SMA -m cable 50cm RG58	TCC	1
Compact connector 5-way	Elfa	2
Lighter connector	Elfa	4m
Mains cable	Elfa	3m
Screw SS, Pozi, pan, M4x10mm		4
Screw SS, Pozi, pan, M4x4mm		2
Screw SS, Pozi, pan, M3x6mm		6
Screw SS, Pozi, pan, M6x12mm		4
Screw SS, Pozi, countersunk self tapping 2.9x16		8
Screw SS, Pozi, countersunk, M5x10		2
Nut SS M5		4
Top plate + antenna grounding plate + 2xLS clamps + battery bracket	NSI	1

1.6 Photo's

1.6.1 Gateway repeater in Pelicase



1.6.2 Accessories



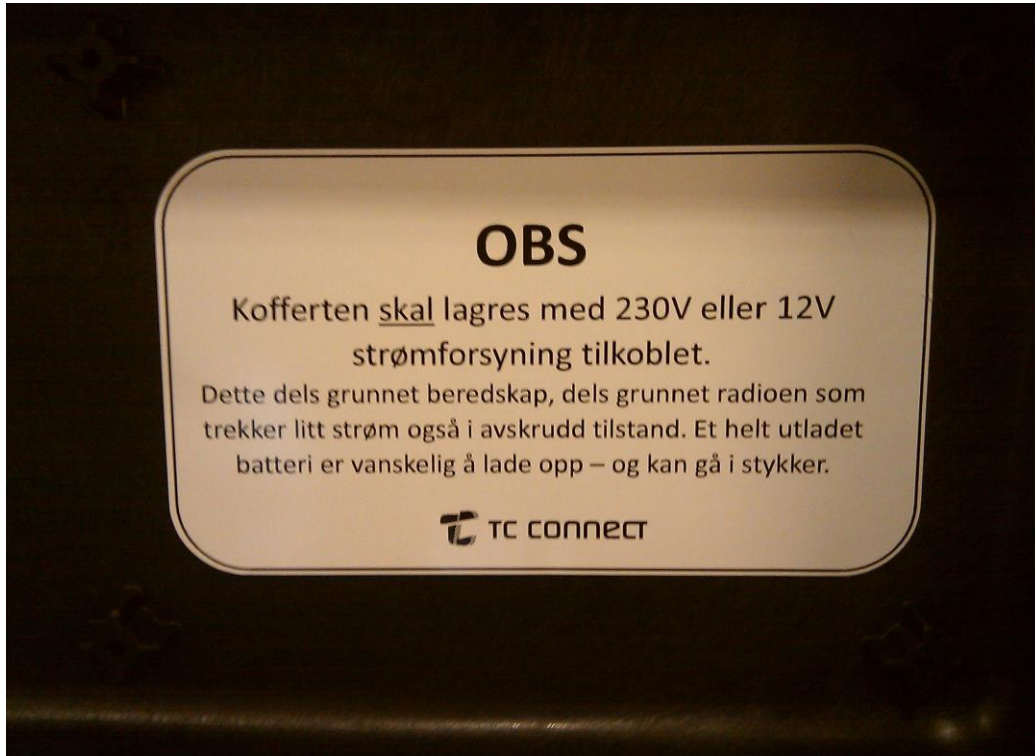
1.6.3 Gateway repeater without radio terminal



1.6.4 Cables to be connected to the radio terminal



1.6.5 Warning sign in Pelicase lid.



1.7 TC Connect contact information

Phone: 81500112
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