TRIAX

Single Cable Multi Switch Series

TMU 5/9/17x3 C

Model	Item no.
TMU 5/9/17x3 C	

Version	891760A	07 — 2014	EN

triax.com

Before you Install

1. Introduktion

The Triax TMU Single Cable Multi Switch family provides state-of-the-art switching technology for both legacy- and SCR- (Single Cable Router) type satellite receivers.
The capability of each attached satellite receiver is automatically detected by the multi switch and compatible 'Legacy mode' or 'SCR Mode' signals are transmitted accordingly.
The Triax TMU Single Cable Multi Switches are ideal for appartment buildings requiring multi-room signal transmission. Up to three SCR capable satellite receivers can be connected per output port on the TMU multi switch. Uniform signal-level distribution to each attached satellite receiver is ensured through built-in automatic AGC functionality.

2. Features

- Automatic Legacy/SCR output switching
- 4/8/16 satellite polarity inputs (1, 2 and 4 satellite positions)
- 1 x passive terrestrial input
- 4 or 8 subscriber outputs
- Auto Legacy setting = one satellite receiver (STB) per subscriber output line
- Auto SCR setting = 3 x SCR satellite receivers (STB) per subscriber output line
- Wide satellite input level range (60 to 91 dBµV)
- High output power (AGC controlled)
- Supports satellite receivers with auto tuning
- Low trunk throughloss
- Multi standard DiSEqC support (Legacy/EN50494/EN50607/BSkyB)
- DC input for LNB powering (TMU unit itself is powered via STBs)
- Product Items: 1 SAT position: 307340, TMU 543 C and 307344, TMU 583 C
- Product Items: 2 SAT positions: 307348, TMU 943 C and 307352, TMU 983 C
- Product Items: 4 SAT positions: 307356, TMU 1743 C and 307360, TMU 1783 C

3. Before You install read this

NOTE: It is NOT possible to connect both a Legacy STB AND an SCR STB on the same cable! Connecting up to 3 x SCR STBs on same subscriber output cable is possible using either TAPs, SPLITters or Loopthrough type Outlets. These must support DC pass through.

To prevent fire, short circuit or shock hazard:

- Do not expose the unit to rain or moisture.
- Install the unit in a dry location without infiltration or condensation of water.
- Do not expose it to dripping or splashing.
- Do not place objects filled with liquids, such as vases, on the units.
- If any liquid should accidentally fall into the cabinet, disconnect the power plug.

To avoid any risk of overheating:

- Install the unit in a well aired location and keep a minimum of 15 cm around the apparatus for sufficient ventilation.
- Do not place any items such as newspapers, table-cloths, curtains, etc. on the unit that might cover the ventilation holes.
- The unit must not be exposed to any source of heat (sun, heater, etc.).
- Do not place any naked flame sources, such as lighted candles, on the apparatus.
- Do not install the product in a dusty place.
- Use the apparatus only in moderate climates (not in tropical climates).
- Respect the minimum and maximum temperature specifications.

To avoid any risk of electrical shocks:

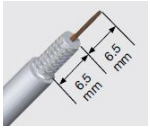
- Connect apparatus only to socket with protective earth connection.
- Ther mains plug shall remain operable.
- Pull out power plug to make the different connections of cables, and secure attached satellite receivers are not powered.
- To avoid electrical schock, do not open the housing.

4. Maintenance

Beware:

- Only use a dry soft cloth to clean the cabinet
- Do not use solvent
- For repair and servicing refer to qualified personnel.

5. Connecting



It is highly recommended only to use high quality coax cables observing the requirements for shielding in your environment as well as securing the lowest passive SAT-IF loss possible. Signal and quality losses due to the use of low quality coax cables can be very expensive or directly impossible to remedy later in the distribution network. Only use high-quality compression type F-connectors on all coax cables. All unused, open trunk outputs must be terminated with a DC-blocking 75Ω terminator.

6. Recycling

The products are manufactured in compliance with current EU environmental and recycling requirements and standards (WEEE, RoHs, etc.). Dispose according to your local authority's recycling processes.

7. Warranty

Period of Warranty

Triax A/S warrants the products as being free from defects in material and workmanship for a period of 24 months starting from date of production indicated on product serialnumber label.

If during this period of warranty the product proves defective, under normal use, due to defective materials or workmanship, Triax A/S, at its sole option, will repair or replace the product. Return the product to your local dealer for reparation.

THE WARRANTY IS APPLIED ONLY FOR DEFECTS IN MATERIAL AND WORKMANSHIP AND DOES NOT COVER DAMAGE RESULTING FROM

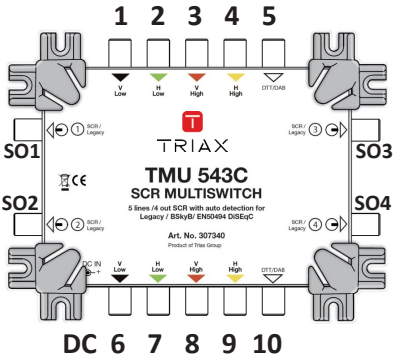
- Misuse or use of the product out of its specifications
- Installation or use in a manner inconsistent with the technical or safety standards in force in the country where the product is used
- Use of non-suitable accessories (power supplies, adaptors, etc.)
- Installation in a defect system
- External cause beyond the control of Triax A/S such as drop, accidents, lightning, water, fire, improper ventilation.

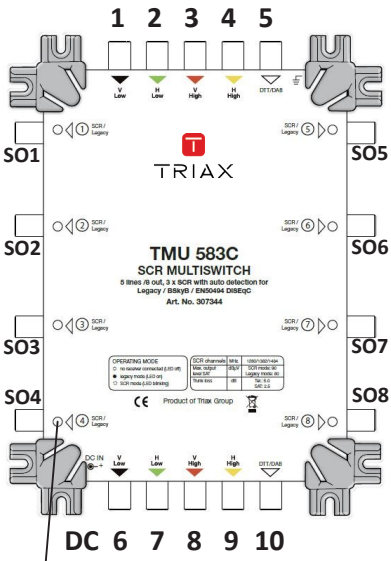
THE WARRANTY IS NOT APPLICABLE IF

- Production date or serial number of the product is illegible, altered, deleted or removed
- The product has been opened or repaired by a non-authorized person.

Connecting the hardware—TMU 5x3 C

307340, TMU 543 C and 307344, TMU 583 C





Connectors

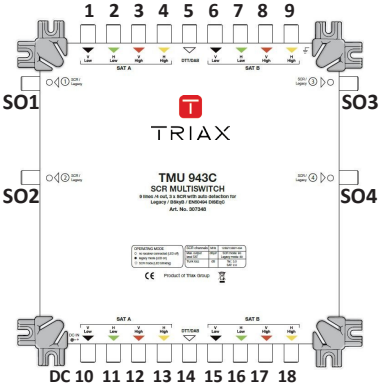
Satellite receiver outputs	
Ref.	Type
SO1	Subscriber/satellite receiver output 1
SO2	Subscriber/satellite receiver output 2
SO3	Subscriber/satellite receiver output 3
SO4	Subscriber/satellite receiver output 4
SO5	Subscriber/satellite receiver output 5
SO6	Subscriber/satellite receiver output 6
SO7	Subscriber/satellite receiver output 7
SO8	Subscriber/satellite receiver output 8

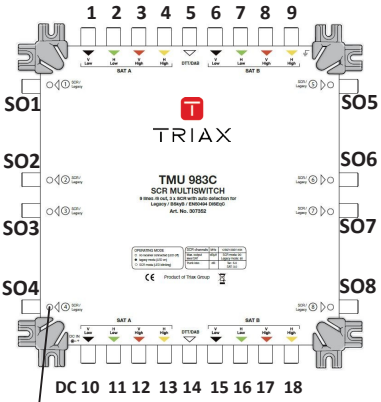
OPERATING MODE
- ○ no receiver connected (LED off)
- ● legacy mode (LED on)
- ☼ SCR mode (LED blinking)

Trunk SAT-IF/TER and DC connectors					
Ref.	Polarity	Band	Signal	Trunk	Type
1	Vertical	Low	SAT pos A	cascade	Input
2	Horisontal	Low	SAT pos A	cascade	Input
3	Vertical	High	SAT pos A	cascade	Input
4	Horisontal	High	SAT pos A	cascade	Input
5	Passive	N/A	TERRESTRIAL	cascade	Input
6	Vertical	Low	SAT pos A	cascade	Output
7	Horisontal	Low	SAT pos A	cascade	Output
8	Vertical	High	SAT pos A	cascade	Output
9	Horisontal	High	SAT pos A	cascade	Output
10	Passive	N/A	TERRESTRIAL	cascade	Output
DC	18VDC	N/A	DC for LNB	cascade	Input

Connecting the hardware—TMU 9x3 C

307348, TMU 943 C and 307352, TMU 983 C





Connectors

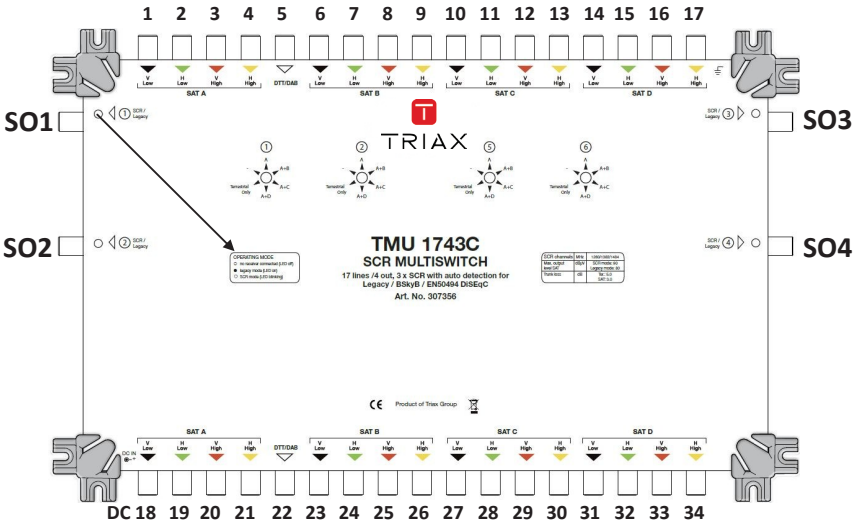
Satellite receiver outputs	
Ref.	Type
SO1	Subscriber/satellite receiver output 1
SO2	Subscriber/satellite receiver output 2
SO3	Subscriber/satellite receiver output 3
SO4	Subscriber/satellite receiver output 4
SO5	Subscriber/satellite receiver output 5
SO6	Subscriber/satellite receiver output 6
SO7	Subscriber/satellite receiver output 7
SO8	Subscriber/satellite receiver output 8

OPERATING MODE
- ○ no receiver connected (LED off)
- ● legacy mode (LED on)
- ☼ SCR mode (LED blinking)

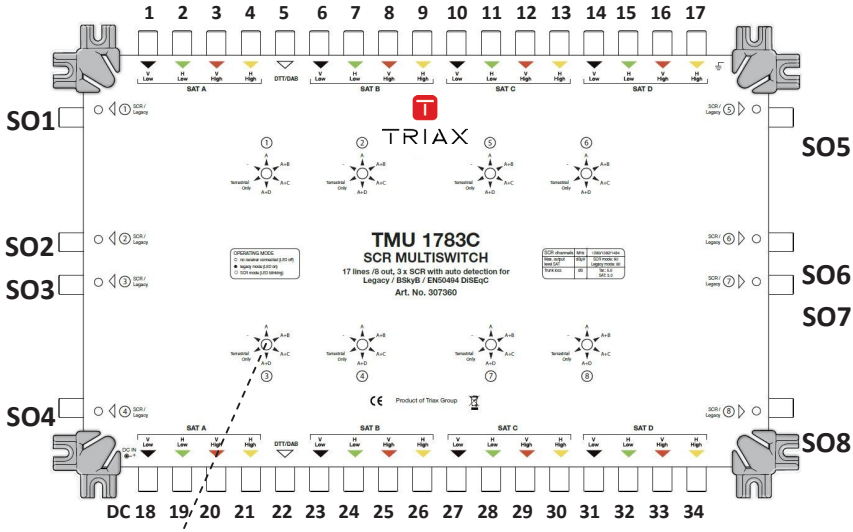
Trunk SAT-IF/TER and DC connectors					
Ref.	Polarity	Band	Signal	Trunk	Type
1	Vertical	Low	SAT pos A	cascade	Input
2	Horisontal	Low	SAT pos A	cascade	Input
3	Vertical	High	SAT pos A	cascade	Input
4	Horisontal	High	SAT pos A	cascade	Input
5	Passive	N/A	TERRESTRIAL	cascade	Input
6	Vertical	Low	SAT pos B	cascade	Input
7	Horisontal	Low	SAT pos B	cascade	Input
8	Vertical	High	SAT pos B	cascade	Input
9	Horisontal	High	SAT pos B	cascade	Input
10	Vertical	Low	SAT pos A	cascade	Output
11	Horisontal	Low	SAT pos A	cascade	Output
12	Vertical	High	SAT pos A	cascade	Output
13	Horisontal	High	SAT pos A	cascade	Output
14	Passive	N/A	TERRESTRIAL	cascade	Output
15	Vertical	Low	SAT pos B	cascade	Output
16	Horisontal	Low	SAT pos B	cascade	Output
17	Vertical	High	SAT pos B	cascade	Output
18	Horisontal	High	SAT pos B	cascade	Output
DC	18VDC	N/A	DC for LNB	cascade	Input

Connecting the hardware—TMU 17x3 C

307356, TMU 1743 C

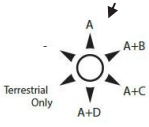


307360, TMU 1783 C



Rotary switch function per satellite output:

N/A = normal support for all 4 SAT positions



STB type on output - >	Legacy	SCR capable STB EN50494	SCR capable STB EN50607
Rotary switch selection			
Terrestrial only	No SAT channels	No SCR EN50494	No SCR EN50607
A	N/A	Only SAT pos A	Only SAT pos A
A+B	N/A	SAT pos 1 = SAT A SAT pos 2 = SAT B	N/A
A+C	N/A	SAT pos 1 = SAT A SAT pos 2 = SAT C	N/A
A+D	N/A	SAT pos 1 = SAT A SAT pos 2 = SAT D	N/A

Connectors

Satellite receiver outputs	
Ref.	Type
SO1	Subscriber/satellite receiver output 1
SO2	Subscriber/satellite receiver output 2
SO3	Subscriber/satellite receiver output 3
SO4	Subscriber/satellite receiver output 4
SO5	Subscriber/satellite receiver output 5
SO6	Subscriber/satellite receiver output 6
SO7	Subscriber/satellite receiver output 7
SO8	Subscriber/satellite receiver output 8

OPERATING MODE
- ○ no receiver connected (LED off)
- ● legacy mode (LED on)
- ☼ SCR mode (LED blinking)

Trunk SAT-IF/TER and DC connectors					
Ref.	Polarity	Band	Signal	Trunk	Type
1	Vertical	Low	SAT pos A	cascade	Input
2	Horisontal	Low	SAT pos A	cascade	Input
3	Vertical	High	SAT pos A	cascade	Input
4	Horisontal	High	SAT pos A	cascade	Input
5	Passive	N/A	TERRESTRIAL	cascade	Input
6	Vertical	Low	SAT pos B	cascade	Input
7	Horisontal	Low	SAT pos B	cascade	Input
8	Vertical	High	SAT pos B	cascade	Input
9	Horisontal	High	SAT pos B	cascade	Input
10	Vertical	Low	SAT pos C	cascade	Input
11	Horisontal	Low	SAT pos C	cascade	Input
12	Vertical	High	SAT pos C	cascade	Input
13	Horisontal	High	SAT pos C	cascade	Input
14	Vertical	Low	SAT pos D	cascade	Input
15	Horisontal	Low	SAT pos D	cascade	Input
16	Vertical	High	SAT pos D	cascade	Input
17	Horisontal	High	SAT pos D	cascade	Input
18	Vertical	Low	SAT pos A	cascade	Output
19	Horisontal	Low	SAT pos A	cascade	Output
20	Vertical	High	SAT pos A	cascade	Output
21	Horisontal	High	SAT pos A	cascade	Output
22	Passive	N/A	TERRESTRIAL	cascade	Output
23	Vertical	Low	SAT pos B	cascade	Output
24	Horisontal	Low	SAT pos B	cascade	Output
25	Vertical	High	SAT pos B	cascade	Output
26	Horisontal	High	SAT pos B	cascade	Output
27	Vertical	Low	SAT pos C	cascade	Output
28	Horisontal	Low	SAT pos C	cascade	Output
29	Vertical	High	SAT pos C	cascade	Output
30	Horisontal	High	SAT pos C	cascade	Output
31	Vertical	Low	SAT pos D	cascade	Output
32	Horisontal	Low	SAT pos D	cascade	Output
33	Vertical	High	SAT pos D	cascade	Output
34	Horisontal	High	SAT pos D	cascade	Output
DC	18VDC	N/A	DC for LNB	cascade	Input

TRIAX
connecting the future

Technical Specifications

TYPE Art. No.		TMU 543C 307340	TMU 583C 307344	TMU 943C 307348	TMU 983C 307352	TMU 1743C 307356	TMU 1783C 307360
Number of SAT inputs		4	4	8	8	16	16
Number of TER inputs		1	1	1	1	1	1
Number of SAT positions		1	1	2	2	4	4
Number of trunkline outputs		5	5	9	9	17	17
Subscriber outputs		4	8	4	8	4	8
No. of SCR STB per output		3	3	3	3	3	3
Frequency range SAT	MHz	950-2150	950-2150	950-2150	950-2150	950-2150	950-2150
Frequency range TER	MHz	5-862	5-862	5-862	5-862	5-862	5-862
Insertion loss trunkline SAT	dB	2.0	2.5	2.0	3.0	3.0	3.0
Insertion loss trunkline TER	dB	3.0	5.0	3.0	5.0	5.0	5.0
Tap loss - passive TER (typ.)	dB	24.0	24.0	24.0	24.0	24.0	24.0
Max. input level SAT	dBµV	60-91	60-91	60-91	60-91	60-91	60-91
Max. output level SAT Legacy	dBµV	80	80	80	80	80	80
Max. output level SAT SCR	dBµV	90	90	90	90	90	90
Return loss inputs	dB	> 10	> 10	> 10	> 10	> 10	> 10
SCR channels		1280 / 1382 / 1484		1280 / 1382 / 1484		1280 / 1382 / 1484	
SKY channels		9 / 11 / 14		9 / 11 / 14		9 / 11 / 14	
Connectors	F-con	female	female	female	female	female	female
Impedance input/output	Ohm	75	75	75	75	75	75
LNB current supply	mA	500	500	500	500	500	500
STB current load	mA	85	85	85	85	85	85
DC input	VDC	15	15	15	15	15	15
DC power jack	mm	2.1	2.1	2.1	2.1	2.1	2.1
Colourcoding on inputs		Yes	Yes	Yes	Yes	Yes	Yes
Temperature range	°C	-20...+50	-20...+50	-20...+50	-20...+50	-20...+50	-20...+50
Dimensions (H x D x W)	mm	122 x 51 x 158	202 x 51 x 158	122 x 51 x 222	222 x 51 x 222	350 x 50 x 222	350 x 50 x 222
Supported standards		Legacy / BSkyB / EN 50494 / EN 50607 / DiSEqC					

triax.com/support

TRIAX A/S | Bjørnkærvej 3 | DK-8783 Hornsyld | Denmark