



# Satellite dishes with partnerships

Dishes, LNBS, switches and a partner  
delivering the expected results to both  
end-users and distributors

Simply **more**  
- more simply





# **B**usiness results do not come out of the blue sky

Satellite dishes are not only mass volume products in their own right, but are also keys to a much broader market for TV entertainment, including network subscriptions and a wide range of systems and products giving the end-user maximum benefit.

Triax's range of dishes includes competitive and leading products for mainstream markets, and also includes products needed to serve and develop end-user segments with special and more sophisticated requirements.

Our contribution to market development is however much greater than superb products. By simplifying logistics we enable our partners to operate efficiently and profitably in their markets. And by offering more in terms of innovation and added-value products we make an effort in developing the business of our partners.

- DAP Fibre Glass Dishes with high durability even in coastal areas and mountain regions
- Triax Basic Dishes offering value-for-money and probably the best dish you can offer as promotion
- LNBs and all other complementary items for direct-to-home or community network installations
- Accessories such as different types of LNB brackets, splitters, plugs and outlets

Apart from the dishes and accessories presented in this brochure, the Triax product range covers all the systems and products needed in the distribution of TV-signals, including set-top boxes, aerials, systems for community networks, etc.

We can deliver satellite dishes as complete systems including set-top boxes and LNBs and in consumer packaging. And we can deliver dishes in bulk to your stock or packaging line, with brackets and other components packed in bulk or as individual sets.

Cooperation on efficient logistics can go far beyond packaging and delivery. Triax is well prepared for electronic handling of orders and for offering for example online support to your customers. A simple and less sophisticated example of cost saving logistics is the clear and detailed instructions enclosed with all our products, saving our distributors a lot of support time.



## **Satisfying consumer demands**

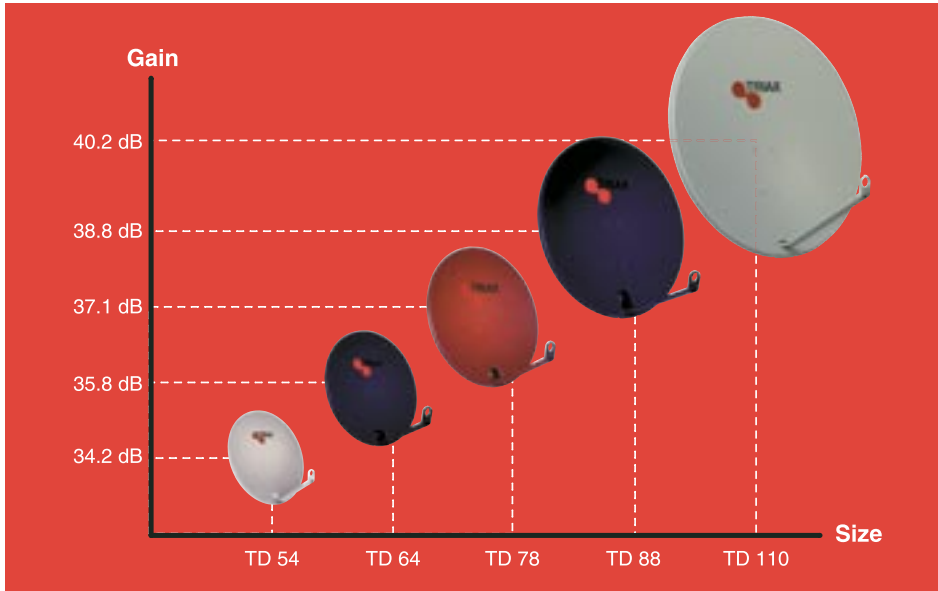
Triax's range of satellite dishes includes

- TD dishes for end-users demanding long lasting quality solutions and for installers who want to minimize the time spent on installations
- Unique Multi Reception Dishes covering up to 4 different satellites with one dish developed by comprehensive research

## **Saving costs through efficient partnerships**

All Triax products can be ordered, packed and delivered in different ways optimizing your handling and distribution. We can deliver in bulk and packed exactly in the way, that best enables you to save costs and achieve your desired results.





TRIAX offers a series of dishes with appropriate small gain intervals of approx. 1.5 dB between each variant from which the different dish sizes result.

## Sustaining your brand image

All our dishes can be delivered as own label products – in the colours and with the branding you desire, provided that ordering quantities are sufficient. Triax's efficient quality control guarantees a consumer experience reflecting positively on your brand.



## Quality in all processes is the basis

All Triax dishes are manufactured at our own production plants and with the use of robots and precision tools to achieve uniform, high quality. Triax is of course ISO 9001 certified and our quality management system encompasses all processes from the reception of coils and other raw materials to order handling.



Automation and robots ensure that each and every dish has the optimum geometry developed by Triax

## Partnership



All Triax dishes are wind-tunnel tested according to ETSI standard ETS 300784. This requires the dish to be exposed to varying wind velocities of up to 42 m/s from all directions and elevations.



The anti-corrosive coating process is fully automated and includes cleaning, phosphating and polyester powder coating. The efficiency of the process is tested in large-scale salt mist chambers and in long-term tests at the North Sea.



Mechanical strength is tested by exposing the dish to 100000 vibrations at resonance frequencies.



# A lasting result mounted in two minutes

## TD dishes

Almost any dish can provide the signals needed to get a clear TV-picture. But will consumer satisfaction last, if signals deteriorate due to corrosion of the reflector or if the dish is damaged by a storm?

TD dishes minimize problems of any kind. Long-term corrosion is prevented by an extremely thorough anti-corrosive process and polyester coating. A solid construction of all parts, including the non-slip mast brackets, ensures that the dish remains in its correct position, when other dishes are torn down or twisted by a heavy storm.

## Mounted and adjusted in two minutes

Saving trouble and money is not only a long-term consumer benefit. TD dishes allow a substantial reduction in time used for mounting and adjusting:

1. The elevation bracket is pre-mounted and is easily fixed to the mast with non-slip mast brackets
2. A setting scale on the elevation brackets facilitates precise adjustment to the required satellite
3. The pre-mounted feedarm just needs unfolding, and the LNB holder with the LNB is simply clicked on

## A dish for any job

TD dishes are available in sizes, materials and colours for any job ranging from single to multiple use applications and any type of environment:

- 5 sizes ranging from 50 x 55 cm (34.2 dBi gain) to 100 x 105 cm (40.2 dBi gain)
- Delivered in aluminium or galvanized steel
- Available in a number of standard colours and any other colour and own label branding can be supplied against a minimum quantity

- Available in DeLuxe version with anti-corrosive coating also on the feedarm and the elevation and mast bracket
- Delivered in individual packaging, but also available in bulk packs minimizing costs of transportation and handling

TD dishes are of course manufactured according to Triax's quality standards - with precision tools and robots ensuring absolute uniform and optimum geometry for perfect reception,

and with mechanical tests (100000 vibrations) and wind tunnel tests (ETS 300784) ensuring consumers a solid and lasting product.



The coaxial cable is led through the feedarm to the back of the dish where an extra plastic locking device ensures safe fixture of the feedarm.



The precise scale setting ensures quick adjustment to the required satellite.



# Accessories for perfect installations



The feedarm, pre-mounted on the reflector bracket, is simply unfolded and clicked in place.



A cover can be added on to give the dish a perfect visual touch and to protect the feed-arm system.



The UV-resistant plastic Ø40 mm LNB-holder is quickly clicked in place. An adaptor is provided for Ø23 mm LNBs.



## 6° Duo-Block

The 6° Duo-Block for Ø40 mm LNBs is an elegant solution for reception from two satellite positions: e.g. Eutelsat (Hotbird) and ASTRA. Available in black and grey.



## LNB weather protection cap

Complete cover for protecting the LNB for example in coastal areas. Fits all LNB types, angular as well as axial. Available in four colours

## 3° to 10° Flexi-Block

A Flexi-Block (3° to 10°) for two Ø40 mm LNBs is also available for the TD-series.



## 3° to 20° Multi-Block

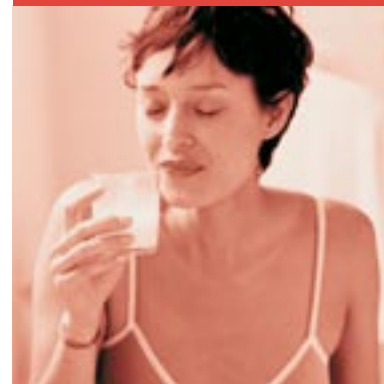
A Multi-Block (3° to 20°) for four Ø40 mm LNBs with min. 4 degrees between the satellite positions is available for the TD-series.



## Polarmount for TD dish

Used with a motor for adjusting the elevation of the TD dish on one axis and access to all geostationary satellites along this axis

Quality



## Flexible solution

We can deliver satellite dishes as complete systems including set-top boxes and LNB's in consumer packaging.

We can also deliver dishes in bulk to your stock or packaging line, with brackets and other components packed in bulk or in individual sets.



## Wall brackets

TRIAx has various types of mounting brackets.







# One dish covering up to 4 different satellites

## Unique Multi Reception Dish

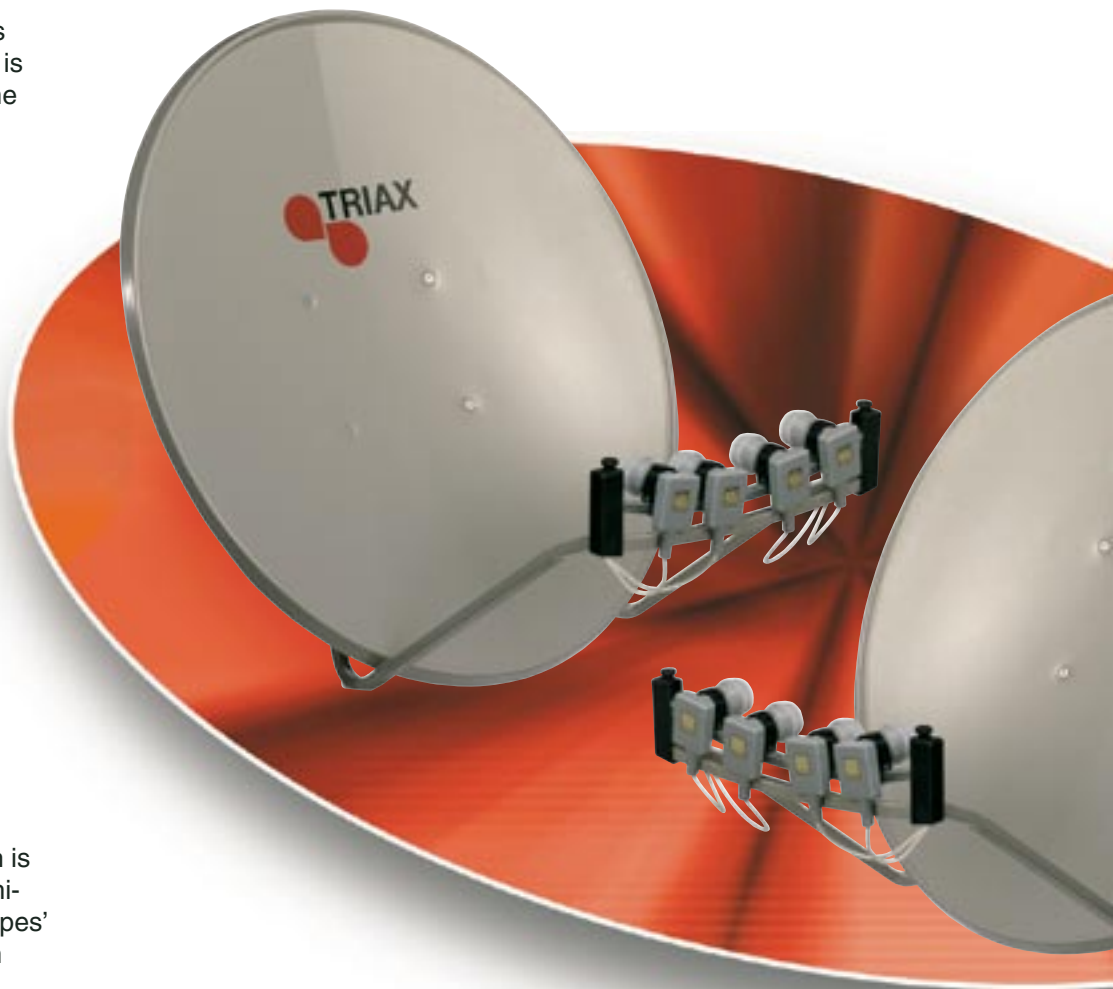
With the increasing number of satellites there follows a consumer wish to receive signals from different satellite positions. Furthermore access to extra satellites is an idea with promotional potential, as it gives consumers more freedom of choice, including lots of free, un-encoded entertainment.

Using one dish for each satellite is both expensive and impractical. It is also unnecessary, as Triax with the Unique Multi Reception Dish has developed the right alternative.

### A great idea and easy to execute

As the dish has no moveable parts it is as quick and easy to mount as a traditional dish. Each of the up to four LNB-holders can be adjusted separately.

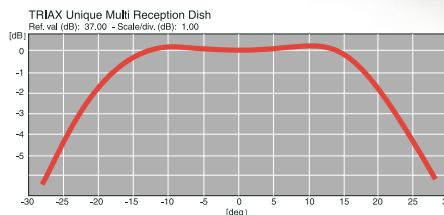
Later, if and when a new satellite becomes relevant to the user, it is furthermore easier to adjust an LNB-holder or mount an additional holder when compared to the time needed for mounting separate dishes.



### High gain in a 30° range

Triax Unique Multi Reception Dish is the result of our research into semi-parabolic shapes and into the shapes' influence on available gain in both main and side directions.

Through a special shaping of the reflector, we have stretched the focal point into a focal line whilst still letting each LNB utilize the whole of the dish surface. Thus the Unique dish successfully combines efficient area utilization of side mounting with the broad and uniform azimuth beam coverage of the alternative, but less efficient torus antenna.



Gain distribution vs. azimuth beam angle using the Unique Multi Reception Dish compared with a high-quality 70x78 cm dish (TD 78). It is obvious, how the Multi Reception design retains gain even at large changes of azimuth beam angles.

## Lasting Triax quality

The now conventionally shaped Multi Reception Dish is as resistant to corrosion and mechanical strain as other Triax dishes.

It is manufactured of pre-galvanised steel and is finished with a strong polyester coating.

Tests of mechanical strength include wind-tunnel testing according to ETSI standard, ETS 300784.



Innovation





# Best buy for effective promotions TRIAX Basic Dishes

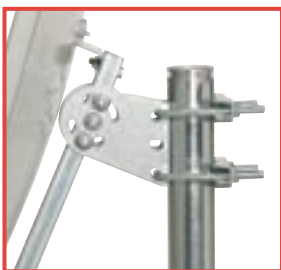
When you want to promote dishes and satellite-TV at bargain prices, Triax Basic Dish is probably the best buy you can offer to consumers.

Although a budget product, Triax Basic Dishes are computer designed like all our other dishes and manufactured with the same high precision as all our other Triax dishes. The finish is an effective anti-corrosive treatment and tests of mechanical strength include wind-tunnel testing according to ETSI standard, ETS 300784.

## Triax Basic Dishes are

- Available in 60, 75 and 85 cm size with gains ranging from 35.8 dBi to 38.8 dBi
- Easy to mount with the solid mast bracket and an elevation scale for easy adjustment
- Available from stock in 100 pcs. bulk and packed to minimize costs of transportation

Triax Basic series has enormous market penetration in most European countries, the Middle East and North Africa. It is the default dish choice of many leading retailers and satellite networks. The present products and the efficient order-handling logistics have thus been optimized for satisfying consumers and installers as well as distributors.



## Accessories for multi satellite reception

With the 6° Duo-Block, Flexi-Block or the Multi-Block, Triax Basic Dishes are suitable and easy to use for reception of signals from up to 4 different satellites.







## Flexible solution

We can deliver dishes in bulk to your stock or packaging line, with brackets and other components packed in bulk or as individual accessories sets.



Simply more





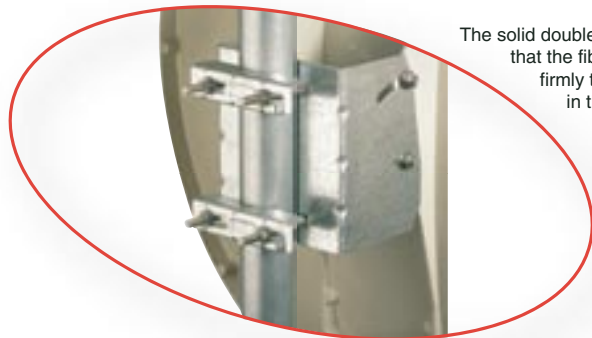
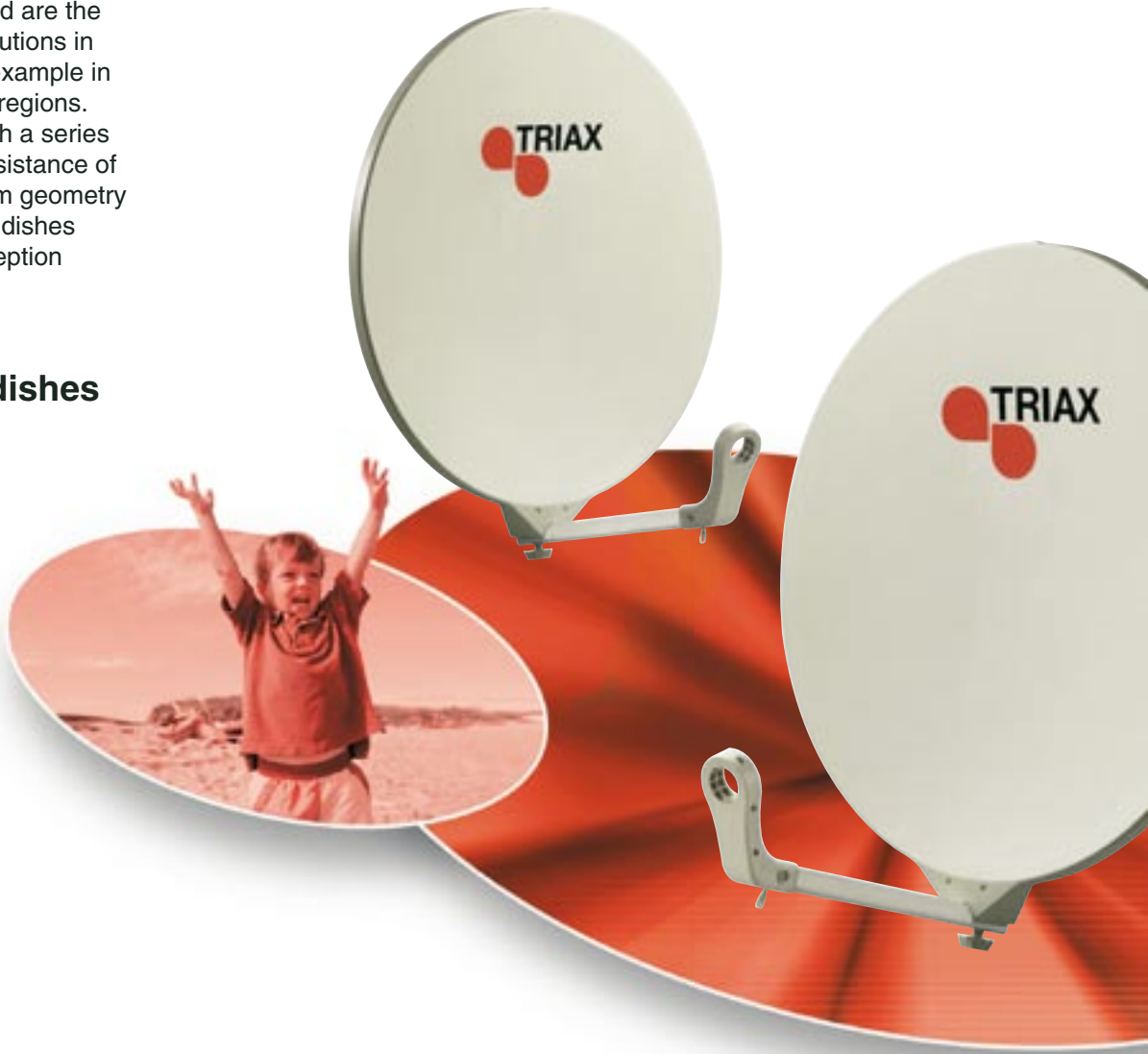
# Durability and perfect reception DAP Fibre Glass Dishes

Fibre glass dishes are the preferred choice in some markets and are the most durable long-term solutions in difficult environments, for example in coastal areas or mountain regions. Triax fulfils the demand with a series of dishes combining the resistance of glass fibre with the optimum geometry that characterises all Triax dishes whilst ensuring perfect reception quality.

## DAP Fibre Glass dishes are available in

- 60, 70, 80 and 90 cm sizes with gains from 35.5 dB to 39.0 dB
- light grey and anthracite colour

The mast bracket and the LNB holder are both easy to mount and absolutely stable with strength and stability tested in wind-tunnels and through mechanical tests with exposure to more than 100000 vibrations at resonance frequencies.



The solid double mast bracket ensures that the fibre glass dish is fixed firmly to the mast, and locked in the desired position



Accessories to DAP Fibre Glass Dishes include a 3°-10° Flexi-Block for reception of signals from two different satellites



## Elliptical dishes

The Triax range of elliptical dishes has been designed specifically for reception of digital satellite signals. The dishes are available in 2 sizes, 44 cm and 60 cm, and both have been approved by BSKYB, who is the world leader in digital platforms, and also used by NSAB on the Scandinavian market.

The dishes can be used with “plug-in” optimised elliptical feed LNBS for maximum performance, or with standard universal LNBS using a 40 mm feed clamp.

The elliptical shape is also beneficial for upgrade to multisat reception.

Available in perforated or solid zinc coated steel, both dishes come with the following features:

- Tilt movement/skew adjustment
- Integrated spirit level for correct alignment first time
- Upgradeable for multisat reception
- Polyester powder coated reflector and bracketry
- Pole or pole/wall mounting
- Packed in singles, 5-packs or bulk

## Market focus







# **A**dds quality at almost no extra cost **Triax Universal LNBs**

LNBs (Low Noise Block Converters) are the signal's "way in" to distribution systems, and accuracy in LNB conversion of high frequency satellite signals is critical to the end-result, the TV-pictures.

Triax supplies a full-range of quality LNBs, complementing our range of satellite dishes and available as individual items or in bulk and packed together with dishes, in the combinations and packaging form that optimizes your distribution.

## **State-of-the-art in LNB units**

Triax Universal LNBs meet all the most critical demands. With extremely low noise figures of 0.6 dB in both high and low band, and with excellent cross polar isolation.

To facilitate the work of the installer, all our LNBs have a positive gain slope, that compensates differences in high/low frequency cable attenuation and ensures approximately equal strength of high and low band signals.

## **Triax Universal LNBs in brief**

- Available as single, dual and quad versions for connection to 1, 2 or 4 set-top boxes
- Also available in quattro version for community aerial systems
- Full Ku-band coverage for both analogue and digital reception
- Excellent noise figures – 0.6 dB in both high and low band
- High cross polarization performance, minimum 20 dB and typically >25 dB

- Outstanding 1700 MHz in-band spurious level
- Positive gain slope to prevent high band intermodulation problems
- Low power consumption
- Waterproof and qualified for harsh environments

Switching between low band (10.7 GHz-11.7 GHz) and high band (11.7 GHz-12.75 GHz) is accomplished by a 22 kHz tone signal.



### **Triax Universal Single LNB**

For the typical private home installation with 1 set-top box



### **Triax Universal Twin LNB**

For connection to two separate set-top boxes in individual homes or for example in semi-detached houses.



### **Triax Universal Quad LNB**

For connection to four separate set-top boxes for example in a multiapartment house.



# DiSEqC switches for switching between 2 or 4 LNBS

DiSEqC switches are used in multi satellite installations for switching between 2 or 4 LNBS each pointing at different satellites.

With the Triax MFD series you can offer both the installer and the consumer an extremely reliable and easy-to-install DiSEqC switch. Product features include:

- Available with 2 or 4 inputs for switching between 2 or 4 satellite positions
- High isolation ensures problem-free operation in multi user installations
- Housed in fully shielded, waterproof mast box for outdoor installation. Housing is compact and has snap lock lid
- Easy installation using F-connectors for cable mounting and a releasable strap for mast mounting

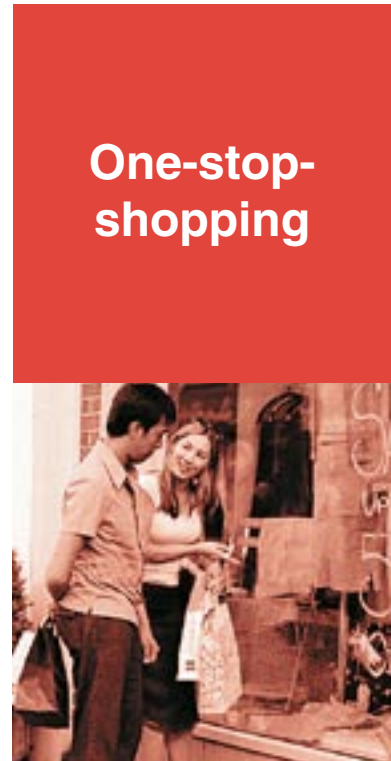
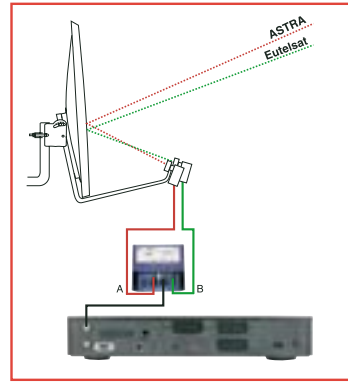


- LED-indicators for easy control of installation
- Instructions enclosed in the housing



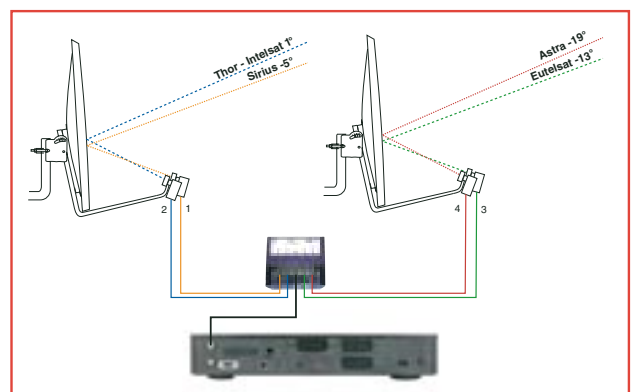
## Triax Universal Quattro LNB

For MATV/SMATV installations. This LNB is compatible with any kind of multi switch. Triax offers a range of different multi switch systems and all other units needed for complementing the installation.



**One-stop-shopping**

MFD DiSEqC switches can be used with single, dual and quad LNBS, i.e. with a DiSEqC switch connected to each of the set-top boxes having access to more than one satellite position.





# Individual solutions for individual customer needs

Not two customers are equal and therefore Triax is very flexible to find a solution that suits you as our customer.

When choosing a satellite dish we can offer different solutions when it comes to size, material, colour, packing and accessories.

## Aluminium or steel

Our TD-dishes are made of either aluminium or steel. Steel is the most preferred material of our customers.

## Colours

All TD-dishes are available in different colours. Naturally other colours can be chosen depending on order size.

## Packing methods

All Triax products can be ordered, packed and delivered in different ways optimizing your handling and distribution.

We can deliver either in single pack, mini-bulk or bulk, packed exactly in the way that best enables you to save costs and achieve your desired results.

We can deliver satellite dishes as complete systems including set-top boxes and LNBs and in consumer packaging. And we can deliver dishes in bulk to your stock or packaging line, with brackets and other components packed in bulk or as individual sets.

### Single carton optional:

- Plastic plate
- Colour
- Wall bracket
- LNB holder
- LNB
- (Receiver)



Should you have other demands please ask your Triax sales contact and we will try to meet your requests.



Parts Colour	Arm*	Plastic plate	Dish*	Back parts*
RAL 7016	X		X	X
RAL 7030	X	X	X	X
RAL 7035	X	X	X	X
RAL 8012	X		X	X
Black		X		
Unpainted	X			X

\* Other colours can be chosen depending on order size.

Mini bulk packings	Qty per packing method
	3
	5

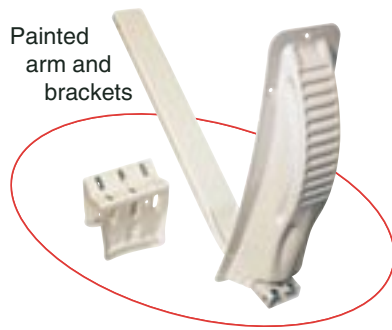
Bulk packings	Qty per packing method
	25
	50
	100
TD54 only	200

### Bulk packings optional:

- Single packed accessories
- Colour
- Plastic plate
- Screw set
- Mast bracket/south elevation bracket



# TD-galvanised steel dishes

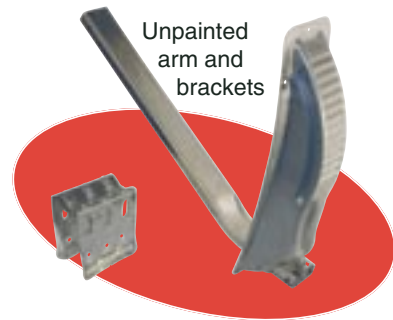


## Technical data

TYPE		TD 54	TD 64	TD 78	TD 88	TD 110
Size		50 x 55 cm	60 x 65 cm	70 x 78 cm	85 x 95 cm	100 x 105 cm
Part No.		Please look in your price list	Please look in your price list	Please look in your price list	Please look in your price list	Please look in your price list
Frequency range	GHz	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75
Gain @11.7GHz	dBi	34.2	35.8	37.1	38.8	40.2
G/T LNB 0.7dB	dB/K	14.2	16.0	17.3	19.2	20.6
X-polarisation	dB	> 27	> 27	> 27	> 27	> 27
Offset angle	degrees	26	26	26	26	26
Elevation range	degrees	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80
Reflector type	F/D 0.6	Offset	Offset	Offset	Offset	Offset
Beam width	degrees	3.7	3.1	2.6	2.0	1.8
Windload @42m/s	N	323	445	619	902	1222
Material		Galv. steel	Galv. steel	Galv. steel	Galv. steel	Galv. steel
Finish		Polyester powder coat	Polyester powder coat	Polyester powder coat	Polyester powder coat	Polyester powder coat
Plastic LNB holder	mm	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25
Mast dimension	mm	Ø32 - 60	Ø32 - 60	Ø32 - 60	Ø32 - 60	Ø32 - 60
Wall bracket		- optional extra	- optional extra	- optional extra	- optional extra	- optional extra



# TDA-aluminium dishes



## Technical data

TYPE		TDA 54	TDA 64	TDA 78	TDA 88	TDA 110
Size		50 x 55 cm	60 x 65 cm	70 x 78 cm	85 x 95 cm	100 x 105 cm
Part No.		Please look in your price list	Please look in your price list	Please look in your price list	Please look in your price list	Please look in your price list
Frequency range	GHz	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75
Gain @ 11.7GHz	dBi	34.2	35.8	37.1	38.8	40.2
G/T LNB 0.7dB	dB/K	14.2	16.0	17.3	19.2	20.6
X-polarisation	dB	> 27	> 27	> 27	> 27	> 27
Offset angle	degrees	26	26	26	26	26
Elevation range	degrees	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80	10 - 50 45 - 80
Reflector type	F/D 0.6	Offset	Offset	Offset	Offset	Offset
Beam width	degrees	3.7	3.1	2.6	2.0	1.8
Windload @ 42m/s	N	323	445	619	902	1222
Material		Galv. steel	Galv. steel	Galv. steel	Galv. steel	Galv. steel
Finish		Polyester powder coat	Polyester powder coat	Polyester powder coat	Polyester powder coat	Polyester powder coat
Plastic LNB holder	mm	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25	Ø40 + Ø25
Mast dimension	mm	Ø32 - 60	Ø32 - 60	Ø32 - 60	Ø32 - 60	Ø32 - 60
Wall bracket		- optional extra	- optional extra	- optional extra	- optional extra	- optional extra



# Accessories for TRIAX TD-dishes

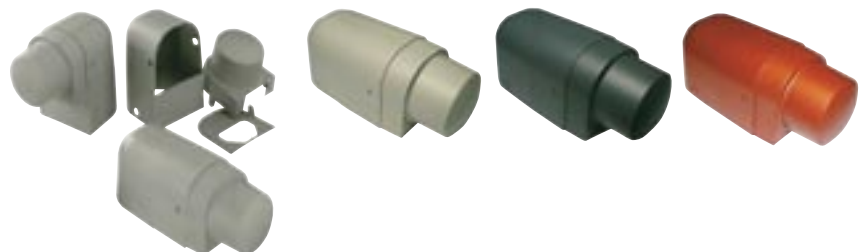
## LNB brackets

TYPE	TD 6° Duo Block	TD 6° Duo Block	TD Flexi Block	TD - 3 LNB Multi Block	TD - 4 LNB Multi Block
Part No.	300715	300717	300719	300728	300727
Colour	Black	Grey	Black	Black	Black
Angle	degrees	6	6	3 - 10	3 - 20
Plastic LNB holder	mm	Ø40	Ø40	Ø40	Ø40
Remarks	Ø25 adaptor - optional extra	Ø25 adaptor - optional extra	Ø25 adaptor - optional extra	Ø25 adaptor - optional extra	Ø25 adaptor - optional extra



## LNB covers

TYPE	TD LNB cover Ral 7035	TD LNB cover Ral 7030	TD LNB cover Ral 7016	TD LNB cover Ral 8012
Part No.	300771	300775	300776	300777
Colour	Grey	Light grey	Anthracite	Brickred
Remarks	For angular as well as axial LNBs	For angular as well as axial LNBs	For angular as well as axial LNBs	For angular as well as axial LNBs



## Accessories

TYPE	TD Plastic parts	Type "J"	Type "S"	Wall Bracket	TD Polarmount
Part No.	129420	128050	128070	300709	124078
Material	Plastic (Ral 7030)	Galv. steel	Galv. steel	Galv. steel	Steel
Tube dimension	mm	Ø25	Ø25	Ø45	Ø32 - 50
Packing size	Single pcs.	Single pcs.	Single pcs.	Single pcs.	Single pcs.
Angle	degrees				± 30
Remarks	All plastic spareparts for TD dish in a set	Incl. 2 plastic plugs	Incl. 2 plastic plugs		





# TRIAX Basic dishes and accessories

## Technical data

TYPE		Basic 60	Basic 75	Basic 85
Size		60 x 65 cm	70 x 78 cm	85 x 95 cm
Part No.		Please look in your price list	Please look in your price list	Please look in your price list
Frequency range	GHz	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75
Gain @11.7GHz	dBi	35.8	37.1	38.8
G/T LNB 0.7dB	dB/K	16.0	17.3	19.2
X-polarisation	dB	> 27	> 27	> 27
Offset angle	degrees	26	26	26
Elevation range	degrees	10 - 50	10 - 50	10 - 50
Reflector type	F/D 0.6	Offset	Offset	Offset
Beam width	degrees	3.1	2.6	2.0
Windload @42m/s	N	445	619	902
Material		Steel	Steel	Steel
Finish		Polyester powder coat	Polyester powder coat	Polyester powder coat
Plastic LNB holder	mm	Ø40	Ø40	Ø40
Mast dimension	mm	Ø28 - 60	Ø32 - 60	Ø32 - 60
Wall bracket		- optional extra	- optional extra	- optional extra



## LNB brackets

TYPE		Basic DuoBlock	Basic Flexi Block	Basic - 4 LNB Multi Block
Part No.		300722	300723	300729
Colour		Black	Grey (Ral 7030)	Black
Angle	degrees	6	3 - 10	3 - 20
Plastic LNB holder	mm	Ø40	Ø40	Ø40
Remarks		Ø25 adaptor - optional extra	Ø25 adaptor - optional extra	Ø25 adaptor - optional extra



DuoBlock



FlexiBlock



Multi Block

# TRIAX Unique dish

## Technical data

TYPE		TD Unique
Size		100 x 111 cm
Part No.		Please look in your price list
Frequency range	GHz	10.7 - 12.75
Gain @ 11.7GHz	dBi	37.1
G/T LNB 0.7dB	dB/K	
X-polarisation	dB	> 20
Offset angle	degrees	26
Elevation range	degrees	5 - 50
Reflector type	F/D 0.6	Offset
Beam width	degrees	2.6
Windload @ 42m/s	N	1230
Material		Galv. steel
Finish		Polyester powder coat
Plastic LNB holder	mm	Ø40 + Ø25
Mast dimension	mm	Ø32 - 60
Wall bracket		- optional extra



# TRIAX DAP and Region 1 & 2 dishes

## Technical data for DAP dishes

TYPE		DAP 600/601	DAP 700/701	DAP 800	DAP 900/901
Size		58 x 61 cm	65 x 72 cm	80 x 90 cm	87 x 100 cm
Single carton boxes					
Part No. (Grey)	DAPX00 Ral 7035	126310	126313	126318	126316
(Anthrazit)	DAPX01 Ral 7016	126311	126314	-	126317
Frequency range	GHz	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75
Gain @ 11.7GHz	dBi	35.5	36.5	37.9	39.0
G/T LNB 0.7dB	dB/K	13.6	14.7	15.8	16.9
X-polarisation	dB	> 27	> 27	> 27	> 27
Offset angle	degrees	26	26	26	26
Elevation range	degrees	10 - 50	10 - 50	10 - 50	10 - 50
Reflector type	F/D 0.6	Offset	Offset	Offset	Offset
Beam width	degrees				
Windload @42m/s	N	378	600	735	846
Material		Fibre glass	Fibre glass	Fibre glass	Fibre glass
Finish					
Plastic LNB holder	mm	Ø40	Ø40	Ø40	Ø40
Mast dimension	mm	Ø32 - 60	Ø32 - 60	Ø32 - 60	Ø32 - 60
Wall bracket		- optional extra	- optional extra	- optional extra	- optional extra
Remarks		Double U-bracket	Double U-bracket	Double U-bracket	Double U-bracket



## Accessorie for DAP dishes

TYPE	MFD850 DAP FlexiBlock	
Part No.	126309	
Colour	White/Black	
Angle	degrees	3 - 10
Plastic LNB holder	mm	Ø40



## Technical data for Region 1 & Region 2 dishes

TYPE		Region 1 perf.	Region 1 solid	Region 2 perf.	Region 2 solid
Size		52 x 42 cm	52 x 42 cm	72 x 58 cm	72 x 58 cm
Single carton boxes					
Anthrazit	Ral 7016	x	x	x	x
Frequency range	GHz	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75	10.7 - 12.75
Gain @ 10.70GHz	dBi	32.3	32.3	35.2	35.2
@ 12.75GHz	dBi	33.7	33.7	36.7	36.7
G/T LNB 0.7dB	dB/K	??	??	??	??
X-polarisation	dB	> ??	> ??	> ??	> ??
Offset angle	degrees	22.6	22.6	23.9	23.9
Elevation range	degrees	0 - 60	0 - 60	10 - 70	10 - 70
Reflector type	F/D 0.6	Offset	Offset	Offset	Offset
Beam width	degrees				
Windload @42m/s	N				
Material		Steel	Steel	Steel	Steel
Finish		Polyester powder coat	Polyester powder coat	Polyester powder coat	Polyester powder coat
Plastic LNB holder	mm	Ø40 or "Plug-in LNB"	Ø40 or "Plug-in LNB"	Ø40 or "Plug-in LNB"	Ø40 or "Plug-in LNB"
Mast dimension	mm	Ø30 - 50	Ø30 - 50	Ø30 - 50	Ø30 - 50
Wall bracket		- optional extra	- optional extra	- optional extra	- optional extra
Remarks		Double U-bracket	Double U-bracket	Double U-bracket	Double U-bracket





# TRIAX LNB units

## Technical data

TYPE			TSI 40U1 Single Universal	TTW 40U1 Universal Twin	TQD 40U1 Universal Quad	TQT 40U1 Universal Quattro
Part No.			300431	300407	300415	300437
Colour (light grey)			Ral 7035	Ral 7035	Ral 7035	Ral 7035
RF Input						
Input frequency range	Low band	GHz	10.7 ~ 11.7	10.7 ~ 11.7	10.7 ~ 11.7	10.7 ~ 11.7
	High band	GHz	11.7 ~ 12.75	11.7 ~ 12.75	11.7 ~ 12.75	11.7 ~ 12.75
IF Output						
Output frequency range	Low band	MHz	950 ~ 1950	950 ~ 1950	950 ~ 1950	950 ~ 1950
	High band	MHz	1100 ~ 2150	1100 ~ 2150	1100 ~ 2150	1100 ~ 2150
Output connector type			75 female	75 female	75 female	75 female
Output VSWR @ room temperature			2.0:1 (Typ.)	2.5:1 (Max.)	2.5:1 (Max.)	2.5:1 (Max.)
Local oscillator						
Frequency	Low band	GHz	9.75	9.75	9.75	9.75
	High band	GHz	10.6	10.6	10.6	10.6
Frequency stability		MHz	±1 (Max)	±1 (Max)	±1 (Max)	±1 (Max)
		MHz	±3 (-40 ~+60°C)	±3 (-40 ~+60°C)	±3 (-40 ~+60°C)	±3 (-40 ~+60°C)
Phase noise @ room temperature		dBc/Hz	-50 @ 1kHz (Max)	-50 @ 1kHz (Max)	-50 @ 1kHz (Max)	-50 @ 1kHz (Max)
		dBc/Hz	-75 @ 10kHz (Max)	-75 @ 10kHz (Max)	-75 @ 10kHz (Max)	-75 @ 10kHz (Max)
		dBc/Hz	-95 @ 100kHz (Max)	-95 @ 100kHz (Max)	-95 @ 100kHz (Max)	-95 @ 100kHz (Max)
		dBc/Hz	-105 @ 1MHz (Max)	-105 @ 1MHz (Max)	-105 @ 1MHz (Max)	-105 @ 1MHz (Max)
	dBc/Hz		-115 @ 10MHz (Max)	-115 @ 10MHz (Max)	-115 @ 10MHz (Max)	
Conversion performance @ room temp.						
Conversion gain		dB	55 (Typ.)	55 (Typ.)	55 (Typ.)	55 (Typ.)
		dB	60 (Max.)	60 (Max.)	60 (Max.)	60 (Max.)
Gain variation (over operating band)			5 p-p (Typ.)	8 p-p (Typ.)	8 p-p (Typ.)	8 p-p (Typ.)
Gain flatness (Across any 26 MHz segment)			±0.5 (Typ.)	±0.5 (Typ.)	±0.5 (Typ.)	±0.5 (Typ.)
Output power @ 1dB gain compression			5 (Typ.)	0 (Typ.)	0 (Typ.)	0 (Typ.)
Spurious level			-65 (Max.)	-60 (Max.)	-60 (Max.)	-60 (Max.)
Noise figure	Low band	dB	0.6 (Typ.)	0.6 (Typ.)	0.6 (Typ.)	0.6 (Typ.)
	High band	dB	0.6 (Typ.)	0.6 (Typ.)	0.6 (Typ.)	0.6 (Typ.)
Image rejection			45 (Min.)	45 (Min.)	45 (Min.)	45 (Min.)
Cross polarization isolation			25 Typ. (20 Min.)	25 Typ. (20 Min.)	25 Typ. (20 Min.)	25 Typ. (20 Min.)
Power requirements						
DC current consumption			110 Typ. (150 Max.)	170 Typ. (250 Max.)	270 Typ. (300 Max.)	240 Typ. (300 Max.)
Operating voltage	Vertical	VDC	11.5 ~ 14	11.5 ~ 14	11.5 ~ 14	11.5 ~ 14
	Horizontal	VDC	16 ~ 19	16 ~ 19	16 ~ 19	16 ~ 19
Band switching	Low band	Hz	0	0	0	0
	High band	KHz	22 ± 4	22 ± 4	22 ± 4	22 ± 4
Environmental						
Operating temperature range			-40 ~ +60	-40 ~ +60	-40 ~ +60	-40 ~ +60
Dimensions						
Diameter			40	40	40	40
Width x Height x Depth			67 x 103 x 34	59 x 132 x 76	59 x 132 x 76	59 x 132 x 76
Max. depth incl. feedhorn			113	145	145	145



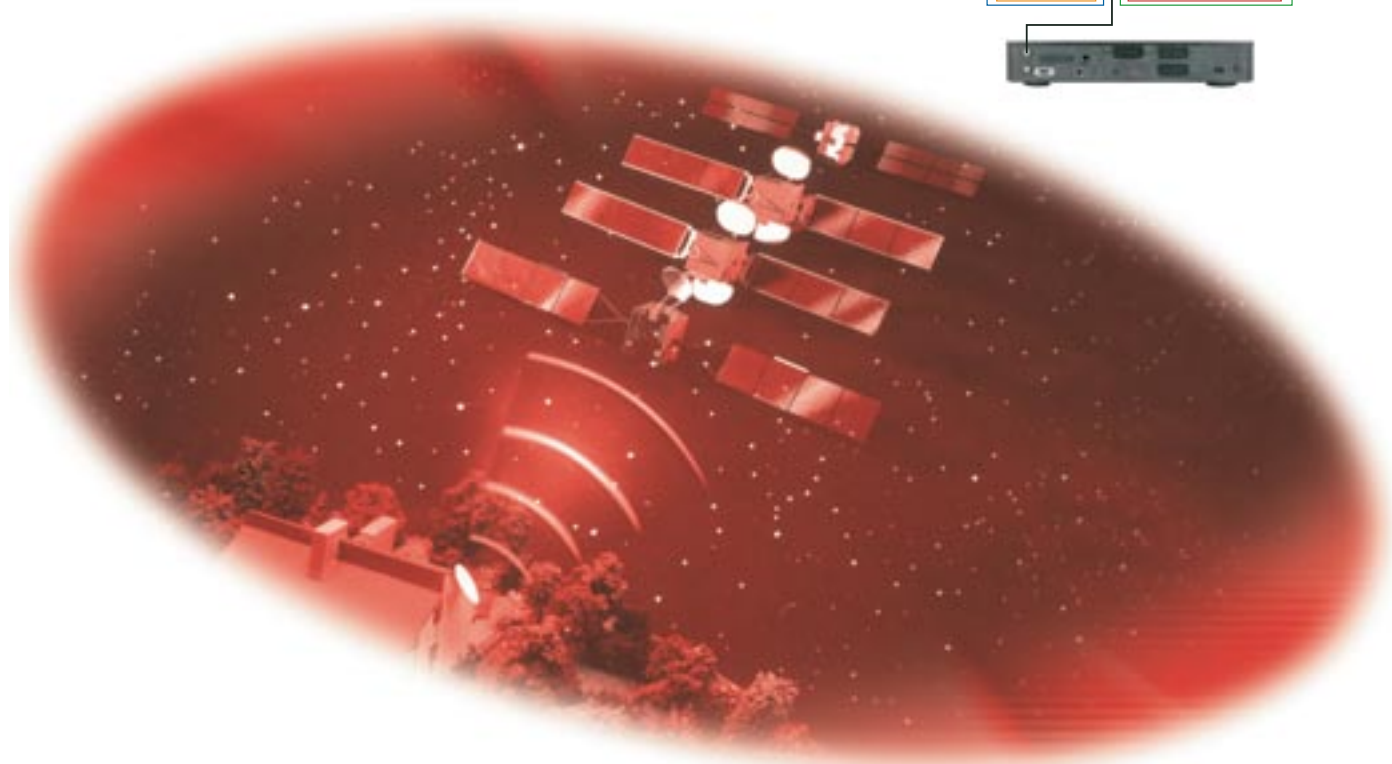
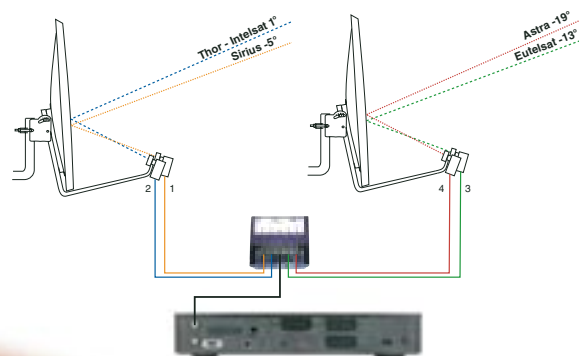
# TRIAx DiSEqC switches

## Technical data

TYPE		MFD 21R DiSEqC 2x1	MFD 21D DiSEqC 2x1	MFD 41D DiSEqC 4x1
Part No.		300508	300510	300509
Number of inputs (No. of positions)		2	2	4
Frequency range SAT	MHz	950 - 2200	950 - 2200	950 - 2200
Switch type		Relay	Diodes	Diodes
DiSEqC control		DiSEqC 1.0 and ToneBurst	DiSEqC 1.0 and ToneBurst	DiSEqC 1.0
Through loss	dB	1	1.5	2.5
Isolation	dB	> 25	> 40	> 30
Return loss	dB	> 10	> 10	> 8
Linearity	dB	± 1	± 1	± 1
Function(s)		Position/Option/Band	Position/Option/Band	Position/Option
Control LEDs	pcs	2	2	4
DC loop through	mA	500 max.	500 max.	500 max.
Current consumption	mA	< 30	< 30	< 30
Temperature range	°C	-30....+60	-30....+60	-30....+60
Dimensions (H x D x W)	mm	106 x 43 x 120	106 x 43 x 120	106 x 43 x 120



MFD DiSEqC switches can be used with single, dual and quad LNBS, i.e. with a DiSEqC switch connected to each of the set-top boxes having access to more than one satellite position.





# Protect your LNBs - mount a Para Protection System on your dish

## Para Protection System

Mist, rain, snow, hoarfrost, road dust and pollen that lays on the LNBs, can make a reduction in quality of the TV-pictures. The most exposed systems are the digital ones, because the problems may cause the TV- pictures to totally disappear.

Lots of users have also experienced that water and moisture penetrate the LNBs and result in considerable damages. The result is that the LNBs must be changed.

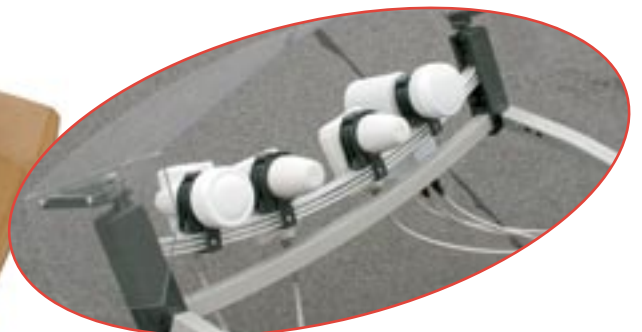
The product is simple. A bowed perspex-sheet, held to the LNB-arm, gives the LNBs very effective protection against bad weather and climate. The result: The picture quality becomes considerably increased. The Para Protection System is simply mounted by few screws in a couple of minutes. And it needs neither maintenance nor service.

The para protection system is found in two variants: one for the TD satellite dish (300708) and one for the Unique Dish (300707).



## Para Protection System

TYPE	TD Standard	TD Unique
Part No.	300708	300707
Material and finish	perspex-sheet and painted metal holder	perspex-sheet and painted metal holder
Arm dimension W x H max. mm	76 x 45	
Remarks	Fits on all Triax TD and Basic dishes	Fits on Triax Unique dish





# Thinking one step ahead...

Triax's philosophy is customer-orientation: In both our markets, TV-systems and enclosures, our objective is to save time and trouble for the installers, operators and distributors building their business on our products.

Simplicity and support are key words, expressed both in products and in service.

Our products offer more in performance and simplifying logic, and in our support customers have easy access to understandable, useful and competent answers.

Innovative thinking, service-oriented people and advanced technology has made Triax one of the leading European suppliers of both TV-systems and enclosures.

We offer everything that can be expected from a professional supplier within these fields. Triax is of course ISO 9001 certified and delivers products according to all acknowledged local and international quality standards.

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