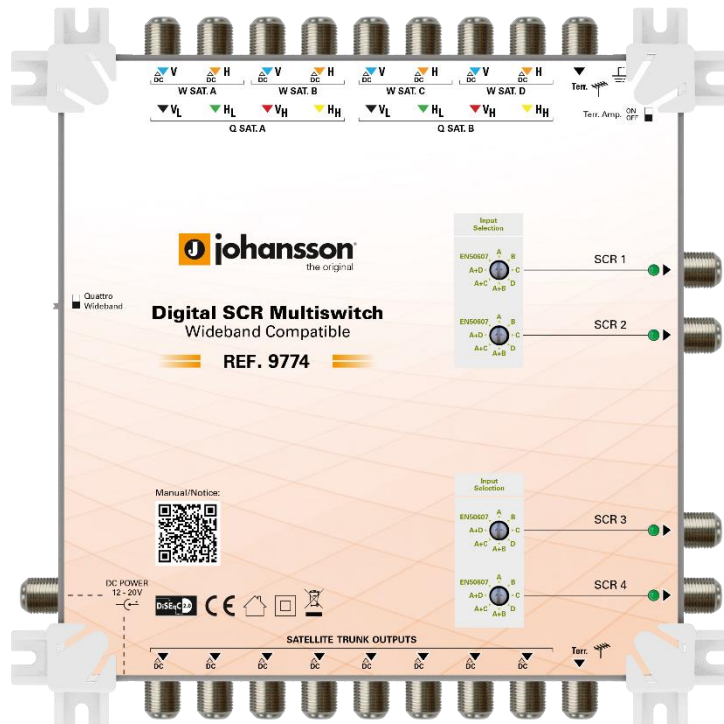




User Manual

Wideband Compatible Digital SCR Multiswitch

Ref. 9774



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1. PRODUCT DESCRIPTION

Over the last few years, standard (Legacy) multiswitches have been replaced by more efficient SCR Multiswitches. In these cases, the bandwidth was used 3 times better and 3 times less cables needed to be installed. With the new transition to digital SCR, we can easily make the installations more efficient, or improve the user experience by allowing each family to have 10 tuners installed per apartment. This is ideal for multiroom viewing experiences without sacrificing the possibility of watch-and-record features.

The 9774 has 8 satellite wideband inputs and 1 terrestrial input. This allows you to use 2 quattro LNBS or 4 wideband LNBS. The 4 SCR outputs have 16 user bands each.

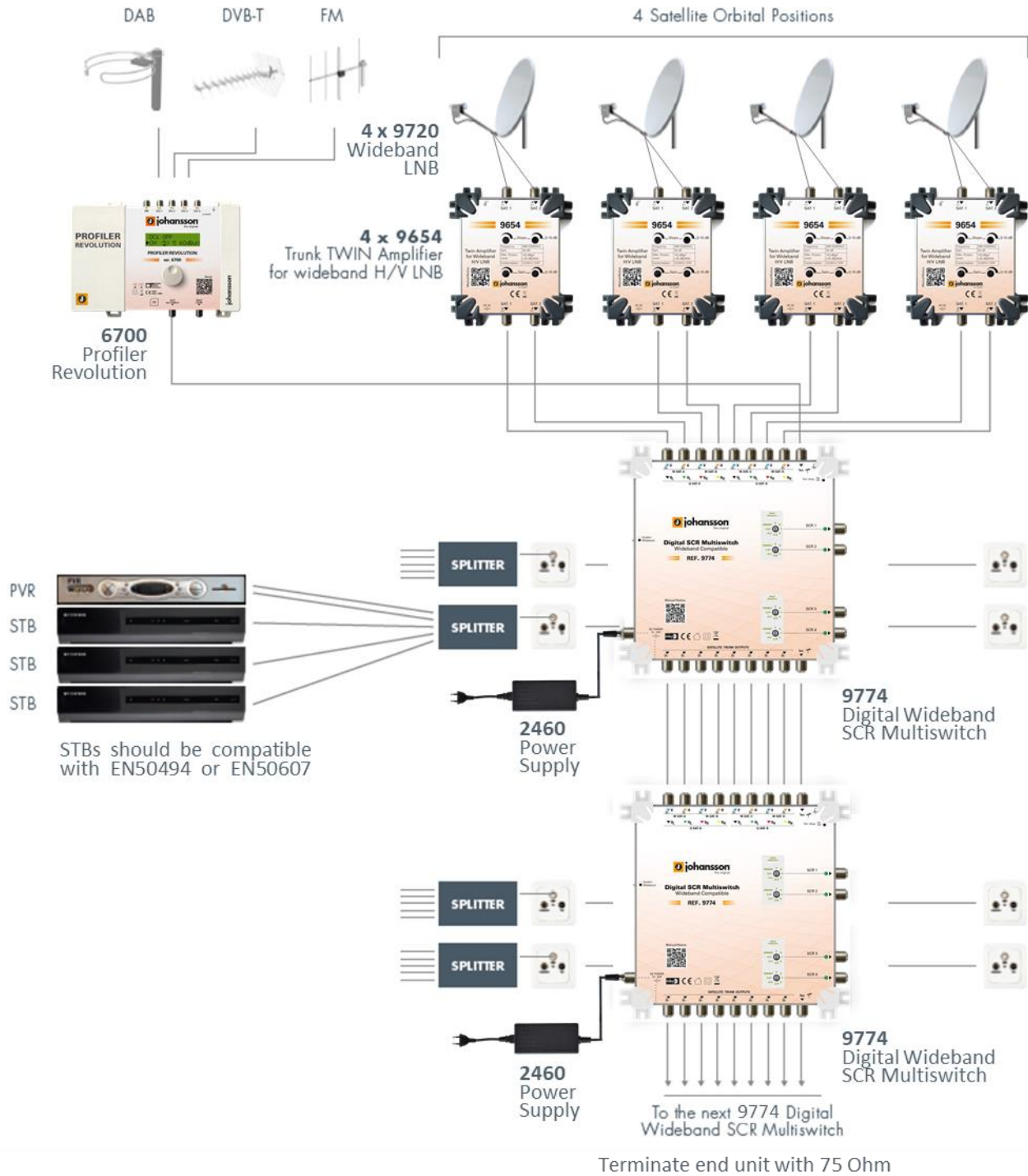
What makes the 9774 unique is the following:
on each individual output, you can select the input and channel plan.
This multiplies the available content and minimizes your equipment costs.

With the 9774, you can offer a wide range of video content in multi-dwelling units. For each single family unit, you can select a specific channel plan. When the family's preferences change, or there's a new family moving in, you can simply change the output settings. This gives you much more flexibility and you only need one Multiswitch.

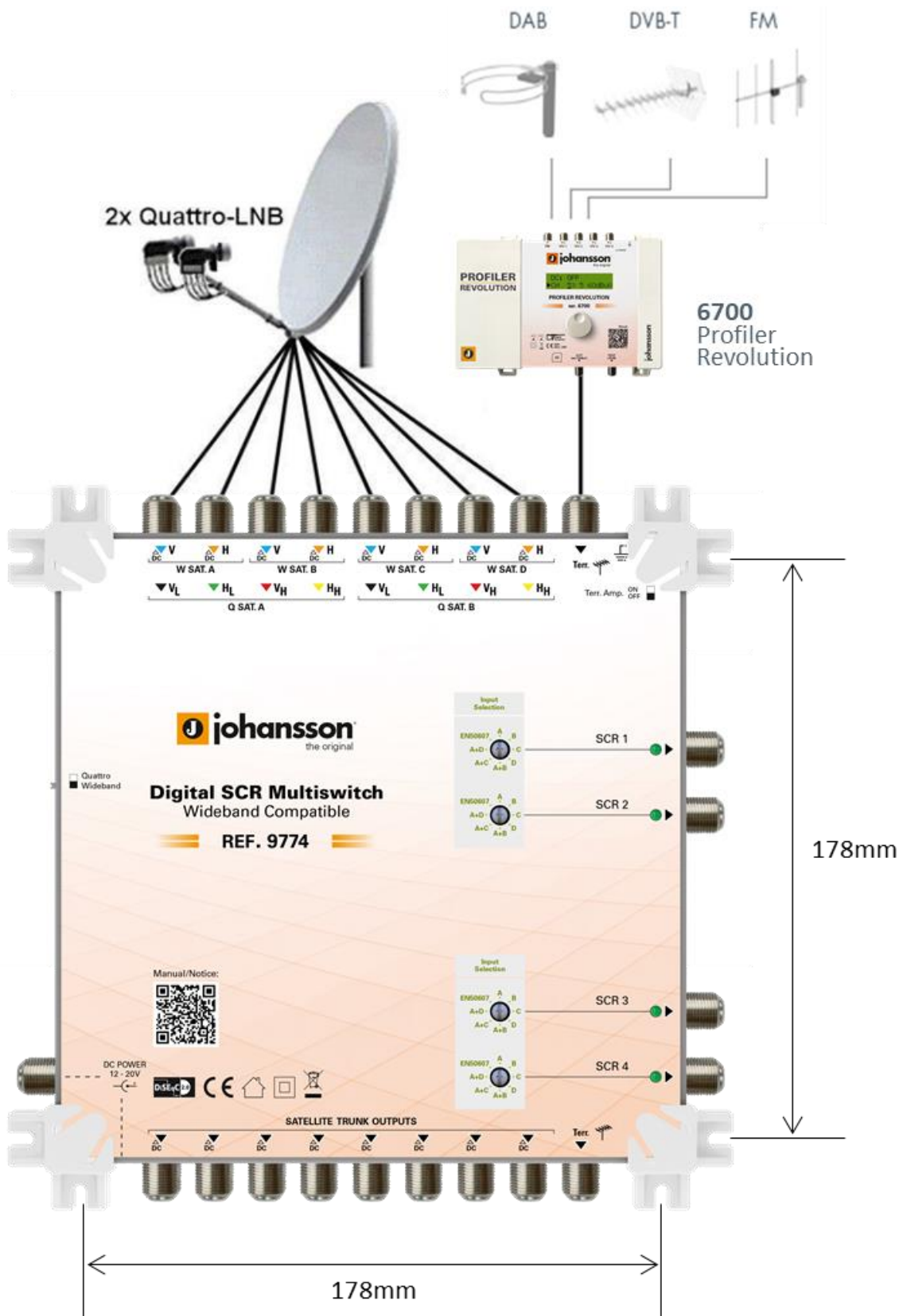
- 8 satellite wideband inputs
 - compatible with 4 wideband LNBS
 - compatible with 2 Quattro LNBS
- 4 SCR outputs with each 16 user bands
- 1 terrestrial input
- channel plan can be selected on each input individually

2. INSTALLATION OF THE HARDWARE

2.1. Wideband - 4 Satellite Orbital Positions



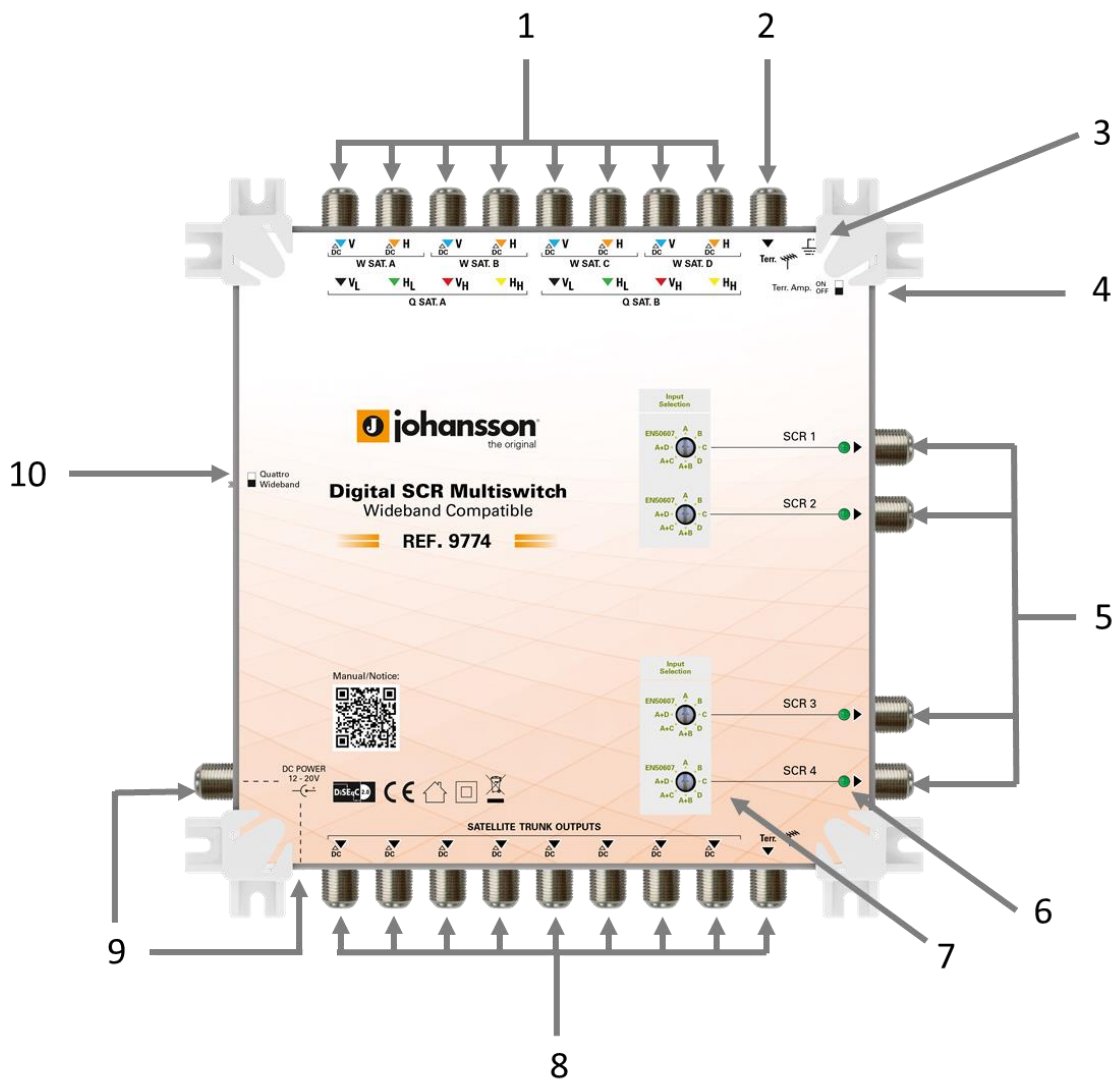
2.2. Quattro - 2 Satellite Orbital Positions



3. CONFIGURATION OF THE MODULE

CAUTION: for proper operation of the device, mount the Multiswitch vertically to a wall in a well-ventilated room, leave a minimum space of 15cm around the device

CAUTION: the back side of the device can get hot when in operation



1. connect the satellite trunk cables to the Multiswitch

- The satellite inputs are intended for satellite signals in the range of 290 to 2340 MHz. The supply voltage is applied on all satellite inputs.

2. connect the terrestrial cable to the module

- Depending on the application, an additional LTE blocking filter may be required.

- The terrestrial trunk should always be terminated with a 75-0hm F-terminator if it is not connected to a subsequent device

3. connect an earth wire to the grounding clamp

4. select to enable or disable the terrestrial amplifier

- With amplification the attenuation amounts to only 8 dB, without amplification it is 20 dB.

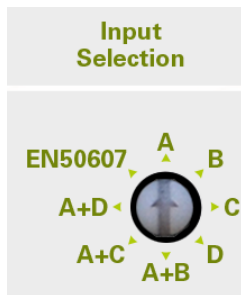
5. connect the SCR output cables to the Multiswitch

- There are 4 SCR outputs, each with 16 user bands, for each outputs the channel plans can be assigned separately.
- The 9774 (and the LNBS) cannot be powered via the STB. The 9774 (except the LNBS) can be powered via SCR output port with a power inserter. The LNBS can only be powered via an external power supply (see 9.)
- The STBs connected to the 9774 should be compatible with EN 50494 or EN50607

6. green LED = powered

green blinking LED = device is receiving commands

7. switch the rotary buttons to select the settings for each SCR output



Input selection:	A	B	C	D	A+B	A+C	A+D	EN50607
Quattro LNB	Q.SAT A	Q.SAT B	Q.SAT A	Q.SAT B	Q.SAT A + B	Q.SAT A + A	Q.SAT A + B	Q.SAT A + B
Wideband LNB	W.SAT A	W.SAT B	W.SAT C	W.SAT D	W.SAT A + B	W.SAT A + C	W.SAT A + D	W.SAT A or B or C or D

8. connect the satellite and terrestrial trunk output cables to the Multiswitch**9. power the device with 20 Vdc**

- You can use an F-connector (ref. 2460) or DC-jack.
The ref. 2460 can power two 9774 Multiswitches.
- note: the LED will become red when the power is too low or when the power supply has failed while the product is still getting power from the satellite trunk lines

10. select the type of LNBS that is used

- Ouattro: You can connect 2 Quattro LNBS for 2 Sat positions
- Wideband: 4 wideband LNBS (LO 10.41 GHz) can be connected
- A mixed operation is not possible!

4. CHANNEL PLAN

Sky UK		EN50607		EN50494	
UB	FREQ	UB	FREQ	UB	FREQ
3	1680	5	985	1	1210
9	1280	6	1050	2	1420
11	1380	7	1115	3	1680
14	1480	8	1275	4	2040
15	980	9	1340		
16	1030	10	1485		
17	1080	11	1550		
18	1130	12	1615		
19	1530	13	1745		
20	1580	14	1810		
21	1630	15	1875		
22	1730	16	1940		
23	1780				
24	1830				
25	1880				
26	1930				

5. TECHNICAL SPECIFICATIONS

Inputs		
Inputs	-	SAT: 8 TERR: 1
Frequency	MHz	SAT: 290 - 2340 TERR: 88 - 862
Input level	dB μ V dB μ V	SAT-Universal: 58 to 108 TERR: 100 (amplified)
Return loss IN/OUT	dB	SAT: -10 TERR: -10
Insertion loss	dB	SAT: 2 TERR: 3
SAT positions	-	Quattro: 2 Wideband: 4
Supported LNB types	-	Quattro (LO: 9750/10600) Wideband (LO:10410)
Outputs		
Trunk Outputs	-	SAT: 8 TERR:1
SCR Outputs	-	4 (with 16 userbands each)
dSCR channel power	dB μ V	86 (AGC controlled)
Output return loss	dB	10
Trunk insertion loss	dB	SAT.: -2 TERR: -3
TERR output loss	dB	-20 or -8 (switchable)
SCR channels (16 userbands/output)	MHz	Configurable between 950 and 2150
Supported standards	-	EN50494 / EN50607 / BskyB
General		
Trunk termination DC blocked required	Ohm	75 (SAT & TERR)
DC supply to SAT trunks from power adapter	V	20
DC supply from SAT trunks	V	20
DC power pass	-	SAT: Yes – TERR: No
Max LNB current /LNB	mA	500
Power: F Con DC input or DC jack 2,1mm	V V	20 20
DC power from output port	-	Yes
Consumption (without LNB)	W	24 (20V – 1.2A)
Dimensions	mm	220 x 220 x 50
Operating temperature	°C	0 to 50, indoor housing

6. SAFETY INSTRUCTIONS



Read these instructions carefully before connecting the unit



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 apparatus.
- 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 aery location and keep a minimum distance of 15 cm around the apparatus for sufficient ventilation
- Do not place any items such as newspapers, table-cloths, curtains, on the unit that might cover the ventilation holes.
- 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.
- The mains plug shall remain readily operable
- Pull out power plug to make the different connections of cables
- To avoid electrical shock, do not open the housing of adapter.



Maintenance



Only use a dry soft cloth to clean the cabinet.



Do not use solvent



For repairing and servicing refer to qualified personnel.



Dispose according your local authority's recycling processes

7. CONDITIONS OF WARRANTY

Unitron N.V. warrants the product as being free from defects in material and workmanship for a period of 24 months starting from the date of production indicated on it. See note below.

If during this period of warranty the product proves defective, under normal use, due to defective materials or workmanship, Unitron N.V, 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 supply, adapters...).
- Installation in a defect system.
- External cause beyond the control of Unitron N.V. such as drop, accidents, lightning, water, fire, improper ventilation...

THE WARRANTY IS NOT APPLIED IF

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

NOTE

Date of production can be found in the product's serial number code. The format will either be "YEAR W WEEK" (e.g., 2018W01 = year 2018 week 1) or "YYWW" (e.g., 1847 = year 2018 week 47).



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