

installation
guide

Digital Channel Processor

6520



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Specifications are subject to change without notice. 10/12

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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.
- The unit must not be exposed to any source of heat (sun, heater,...).
- 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 climats (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

1 INTRODUCTION

PRODUCT DESCRIPTION

The 6520 offers 4 super-selective SAW filters in one compact sized zamak diecast housing. These filters can be used to convert 4 digital terrestrial channels to another frequency in the UHF band. Of course it can also be used as a super-selective single-channel filter in case a normal UHF filter is not sufficient (e.g. strong interference from an LTE source, or adjacent channel interference).

The 6520 can also be used as an extension with an existing Profiler Plus or Super Profiler. By connecting the 6520 to the AUX input of the Profiler, 4 frequency converting SAW filters are added to the system. And of course, it is also possible to interconnect several 6520's to provide more frequency converting single-channel filters.

The 6520 can be controlled by means of a remote control (ref. 6565) or with the advanced Universal User Interface (UUI) for extended configuration possibilities.

- 4 super selective single-channel filters: 40 dB @ 1.25 MHz
- 4 frequency converters to convert a digital channel to another UHF frequency
- auto install functionality: device automatically finds all digital channels, and lets the user choose the channels of interest
- interconnection of several 6520's or use in combination with a Super Profiler or Profiler Plus
- medium gain: 40 dB

PACKAGE CONTENTS

Be sure all items listed below are included:

1 Digital Channel Processor (ref. 6520)

1 power cord

1 user manual

ACCESSORIES



Control Unit » REF. 6565

control different Johansson products

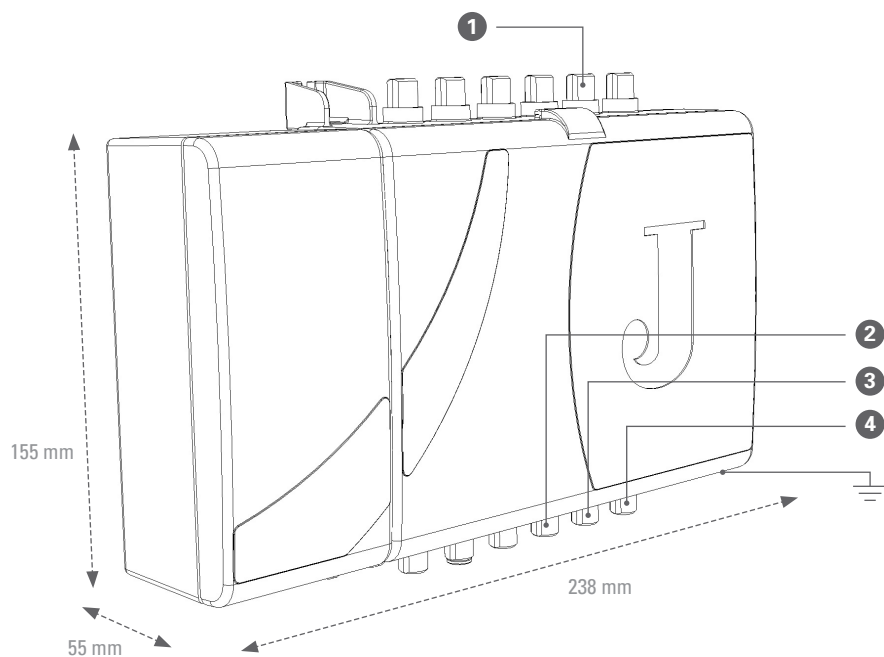
big OLED display for easy reading

operating voltage: 5-24V

power through coax cable or with delivered adapter

2 INSTALLATION OF THE HARDWARE

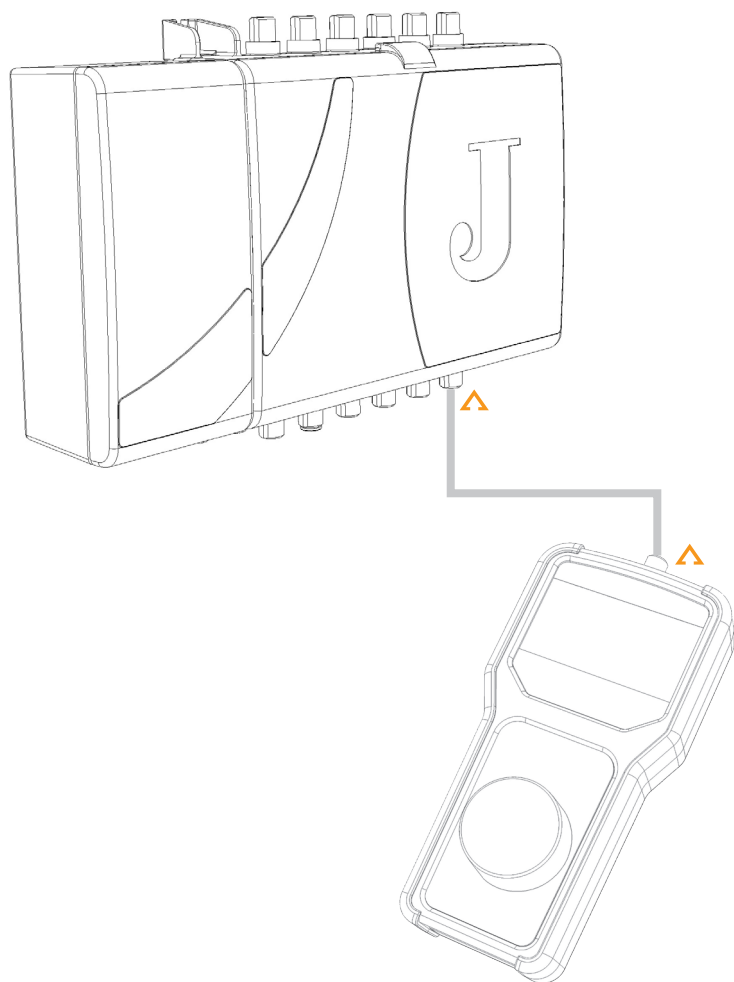
MODULE OVERVIEW



- ❶ UHF input
- ❷ Control port
- ❸ Bypass input
- ❹ Output

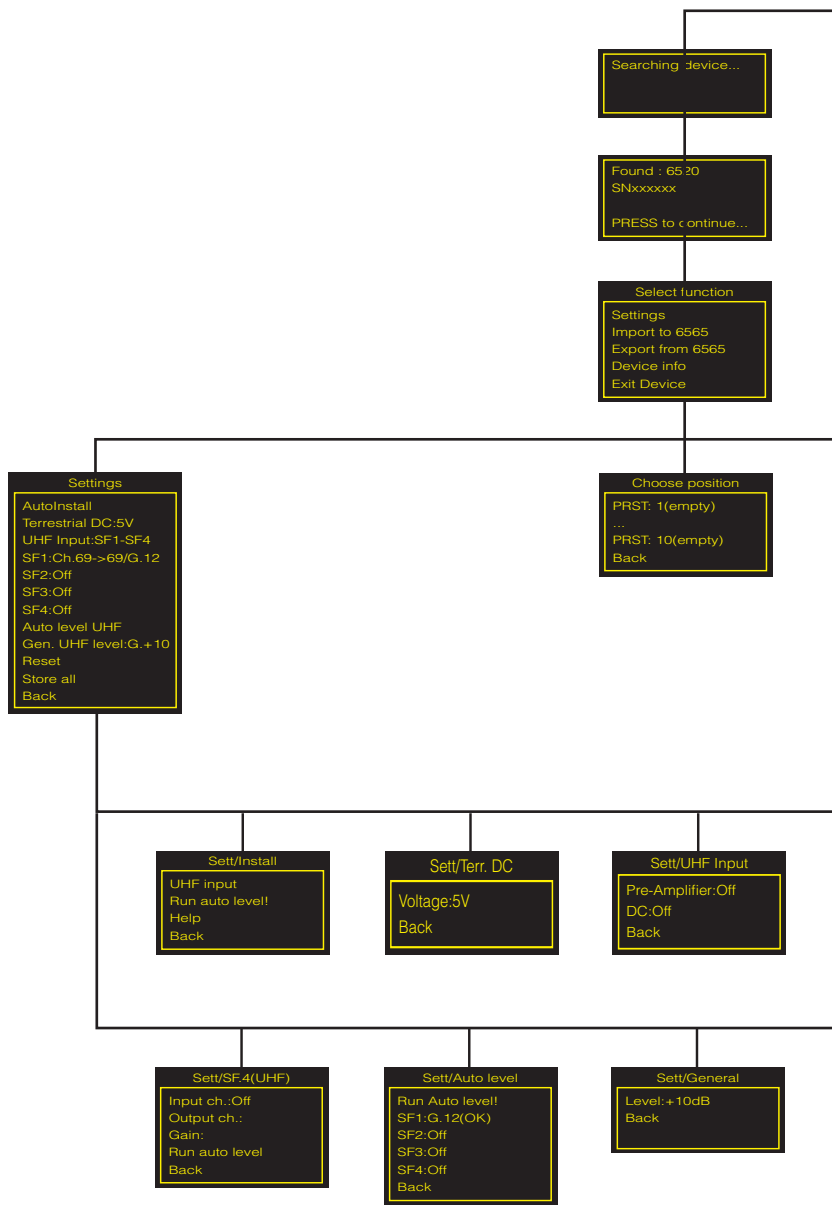
3 CONFIGURATION OF THE DEVICE

The device can be controlled by means of a separate control unit (ref. 6565), which is connected to the test output port of the unit.



Operation of the control unit is described in the user manual of the device (ref. 6565).

The operation of the control unit (ref. 6565) is explained in the manual of the 6565. The menu structure of the 6520 is shown in the following picture:



Control Unit Menu
Start Scan
Select language
Light: ON
About CU

Select language
English
Francais

Control Unit Menu
Start Scan
Select language
Light: ON
About CU

SNxxxxxx
FW ver. : xxx
BRAND ID : xxx

PRESS 3 SECONDS

Export preset
PRST: 1(empty)
...
PRST: 10(empty)
Back

ERASE ALL PRESETS?
Yes
No

type : 6520
SNxxxxxx
FW ver. : 1.2.0.R

PRESS 3 SECONDS

ERASE THIS PRESET?
Yes
No

Sett/UHF Input
Input ch.:69
Output ch.:69
Gain: 12dB
Run auto level
Back

Sett/SF.2(UHF)
Input ch.:Off
Output ch.:
Gain:
Run auto level
Back

Sett/SF.3(UHF)
Input ch.:Off
Output ch.:
Gain:
Run auto level
Back

Reset to defaults?
Yes
No
Back

Store all data?
Yes
No
Back

4 TECHNICAL SPECIFICATIONS

Inputs	-	UHF	Bypass input
FREQUENCY RANGE	MHz	470-790	
NUMBER OF IF CLUSTERS	-	4	-
FILTER BANDWIDTH	MHz	8 (single-channel)	-
GAIN	dB	40	-6
GAIN ADJUSTMENT	dB	30	-
MAX. INPUT LEVEL	dBµV	105	-
MAX. OUTPUT LEVEL*	dBµV	114	-
SELECTIVITY	dB/± 1 MHz	30	-
RETURN LOSS	dB	10	10
REMOTE POWER	-	VHF IN: +5 VDC / 12 VDC (100 mA) Bypass: 24 VDC power pass from OUT (1 A)	
OUTPUTS	-	1 x TV output/1x control port	
POWER CONSUMPTION	W	10	
OPERATING TEMPERATURE	°C	-5 to +50	
DIMENSIONS	mm	238 x 152 x 55	

5 CONDITIONS OF WARRANTY

PERIOD 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 is MMY format, example 0411 = April 2011.
For the serial number barcodes, the date corresponds to the 4 first numbers.

6 UHF FREQUENCY TABLE

TV band	Channel	Frequency MHz
IV	21	470-478
	22	478-486
	23	486-494
	24	494-502
	25	502-510
	26	510-518
	27	518-526
	28	526-534
	29	534-542
	30	542-550
V	31	550-558
	32	558-566
	33	566-574
	34	574-582
	35	582-590
	36	590-598
	37	598-606
	38	606-614
	39	614-622
	40	622-630
	41	630-638
	42	638-646
	43	646-654
	44	654-662
	45	662-670
	46	670-678
	47	678-686
	48	686-694
	49	694-702
	50	702-710
	51	710-718
	52	718-726
	53	726-734
	54	734-742
	55	742-750
	56	750-758
	57	758-766
	58	766-774
	59	774-782
	60	782-790
	61	790-798
	62	798-806
	63	806-814
	64	814-822
	65	822-830
	66	830-838
	67	838-846
	68	846-854
	69	854-862

7 POWER CONVERSION TABLE

$\mu\text{V } 75 \Omega$	$\text{dB}\mu\text{V}$	dBm	$\text{mV } 75 \Omega$	$\text{dB}\mu\text{V}$	dBm	$\text{V } 75 \Omega$	$\text{dB}\mu\text{V}$	dBm
1	0	-109	1	60	-49	1	120	+11
1.5	3.5	-105.5	1.5	63.5	-45.5	1.5	123.5	+14.5
2	6	-103	2	66	-43	2	126	+17
2.5	8.0	-101	2.5	68	-41	2.5	128	+19
3	9.5	-99.5	3	69.5	-39.5	3	129.5	+20.5
3.5	11	-98	3.5	71	-38	3.5	131	+22
4	12	-97	4	72	-37	4	132	+23
4.5	13	-96	4.5	73	-36	4.5	133	+24
5	14	-95	5	74	-35	5	134	+25
6	15.5	-93.5	6	75.5	-33.5	6	135.5	+26.5
7	17	-92	7	77	-32	7	137	+28
8	18	-91	8	78	-31	8	138	+29
9	19	-90	9	79	-30	9	139	+30
10	20	-89	10	80	-29	10	140	+31
15	23.5	-85.5	15	83.5	-25.5			
20	26	-83	20	86	-23			
25	28	-81	25	88	-21			
30	29.5	-79.5	30	89.5	-19.5			
35	31	-78	35	91	-18			
40	32	-77	40	92	-17			
45	33	-76	45	93	-16			
50	34	-75	50	94	-15			
60	35.5	-73.5	60	95.5	-13.5			
70	37	-72	70	97	-12			
80	38	-71	80	98	-11			
90	39	-70	90	99	-10			
100	40	-69	100	100	-9			
150	43.5	-66.5	150	103.5	-5.5			
200	46	-63	200	106	-3			
250	48	-61	250	108	-1			
300	49.5	-59.5	300	109.5	+0.5			
350	51	-58	350	111	+2			
400	52	-57	400	112	+3			
450	53	-56	450	113	+4			
500	54	-55	500	114	+5			
600	55.5	-53.5	600	115.5	+6.5			
700	57	-52	700	117	+8			
800	58	-51	800	118	+9			
900	59	-50	900	119	+10			
			1000	120	+11			



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