

CHAPTER 6

MAINTENANCE

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1 Maintenance Intervals

The following maintenance work must be performed at regular intervals:

Maintenance interval	Task	Procedure described in:
2x per year	<input checked="" type="checkbox"/> Check the operating values (e.g. output power, control values, etc)	
1x per year	<input checked="" type="checkbox"/> Check and, if necessary, change the backup battery of the transmitter control unit (R&S NetCCU800)	Chapter "Maintenance" in the R&S NetCCU800 manual
After 5 years and then 1x per year	<input checked="" type="checkbox"/> Check whether the two rack fans make noises when in operation; replace them if necessary	Chapter "Service" in this manual
After 5 years and then 1x per year	<input checked="" type="checkbox"/> Check whether the fans make noises when in operation; replace them if necessary	Chapter "Maintenance" in the exciter manual

1.1 Maintenance of Subcontractor Products

Subcontractor products such as external air filters must be maintained in accordance with the maintenance instructions from the respective manufacturer and for the respective product.

2 Maintenance Tasks

2.1 Replacing BIOS Battery in R&S NetCCU800

Note The chapter "Maintenance" in the R&S NetCCU800 manual describes how to replace the BIOS battery.

2.2 Replacing Fans on SX800 Exciter

Note The chapter "Maintenance" in the exciter manual describes how to replace the fans.

2.3 Software Update

You can use the R&S NetCCU800 to install software updates for the R&S NetCCU800 itself as well as for all exciters connected to the R&S NetCCU800. The update data is first transferred to the R&S NetCCU800. The update for the connected exciters is then performed in a second step.

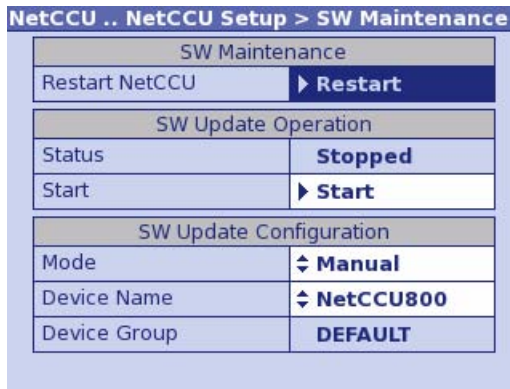
The software update is only possible if the R&S NetCCU800 is remotely connected to a network client on which the new software and the program for performing the update are installed.

You perform a software update for the NSU/NCU in the same way. It is also possible to update exciters via the NCU/NSU Update menu.

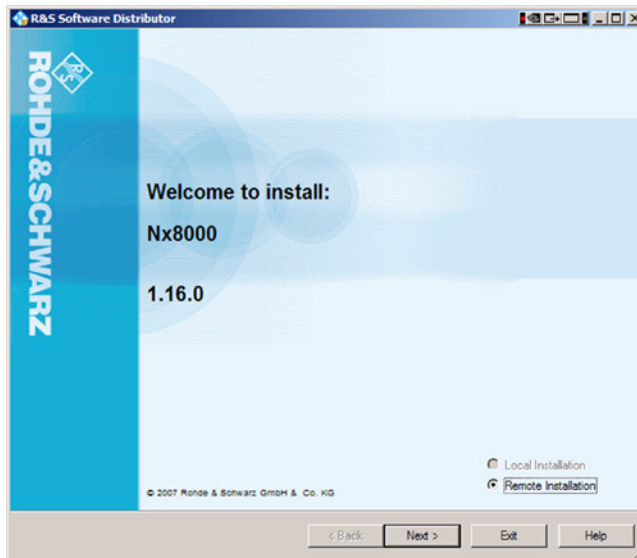
Note The update program was developed for performing updates of various Rohde&Schwarz software solutions. For this reason, some functions of the program which are not relevant to updating software via the R&S NetCCU800 are omitted in the description below.

The procedure for performing a software update is as follows.

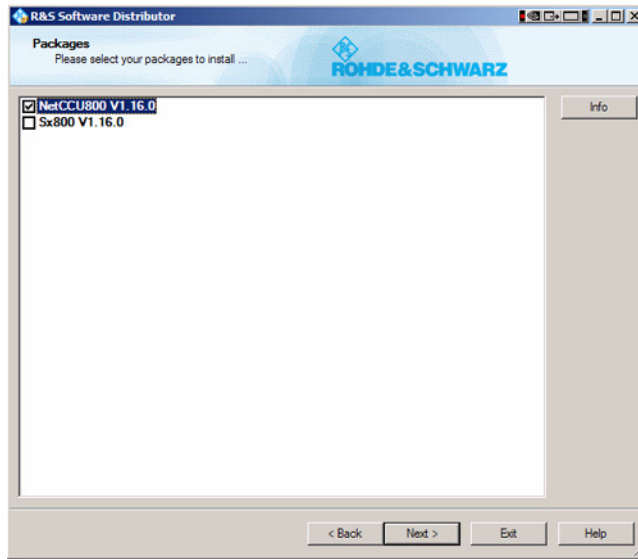
1. Log on as Maintenance in the menu operation.
2. Call up **NetCCU > NetCCU Setup > SW Maintenance**.
3. Set the R&S NetCCU800 to Update mode using the **Start** function under **SW Update Operation**.



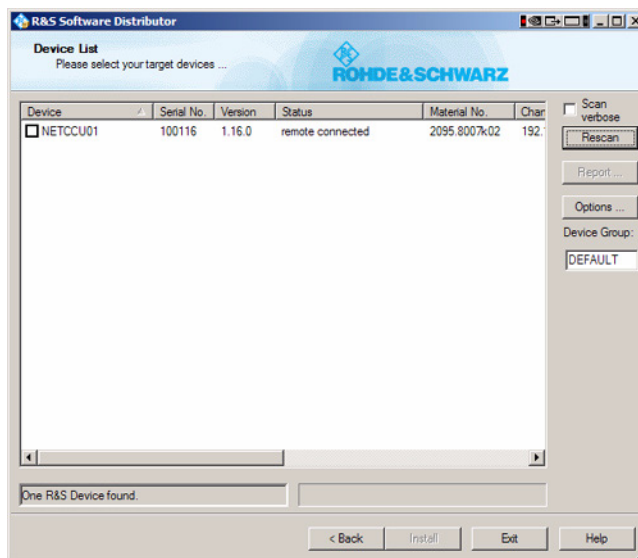
4. Start the installation software on the client computer.
The start window of the R&S Software Distributor opens.



5. Confirm the default setting **Remote Installation** by clicking on **Next**.
The software updates that can be installed will be displayed. You can obtain additional information about the update you select by highlighting it with the cursor and then clicking **Info**.



6. Select the required updates and confirm installation of the updates by clicking **Next**.
All instruments found in the network are displayed under the device name that you assigned in the **Maintenance** menu window.



7. Select the instrument and start the update by clicking **Install**.
After the update has been completed, a corresponding message will appear in the field at the bottom left of the window. The R&S NetCCU800 is rebooted automatically.

If connected transmitter components cannot be found because the R&S NetCCU800 was not in Update mode, the message "No R&S Device found" is displayed at the bottom left of the window.

You have the following option:

1. On the R&S NetCCU800, open the menu **NetCCU > NetCCU Setup > SW Maintenance** and start the Update mode using the **Start** function under **SW Update Operation**.

2. Click **Rescan** in the R&S Software Distributor window.

The special components are displayed and you can perform the update in the way described above.

Note

None of the remaining functions in the R&S Software Distribution window are relevant for updates via the R&S NetCCU800; settings that can be accessed using these functions must not be changed.

Performing software updates for exciters

When the update procedure described above is performed, the software updates for the exciter(s) are also transferred to the R&S NetCCU800. The update for the exciter(s) is started directly via the R&S NetCCU800.

1. Set the R&S NetCCU800 to the Update mode in the way described above.
2. Start the installation software.
3. Select the software package for the exciter.
4. Search for instruments in the network and select the exciter for which you want to perform a software update.
5. Install the update.

After the update procedure has been completed, the respective exciter is rebooted automatically.

CHAPTER 7

TROUBLESHOOTING

CONTENTS

1 Information 1

1 Information

Troubleshooting information will be provided at a later date.

CHAPTER 8

SERVICE

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1 Necessary Tools and Test Equipment

The specified tools and test equipment include only those items needed for removing system components and carrying out simple checks on them.

Depending on the service work to be performed, you will require the following tools:

- Screwdriver No. 0
- Screwdriver No. 1
- Screwdriver No. 2
- Phillips screwdriver No. 0
- Phillips screwdriver No. 1
- Phillips screwdriver No. 2
- Torx screwdriver No. 8
- Torx screwdriver No. 9
- Torx screwdriver No. 20
- Hexagonal socket No. 3
- Hexagonal socket No. 6
- Open-end wrench No. 7
- Open-end wrench No. 8
- Open-end wrench No. 13
- Multimeter

2 Overview

You can remove and exchange the following units and transmitter components if errors occur:

- Power distribution
 - Main switch
 - Motor protection switches
 - Automatic line fuses
 - Power distribution board
 - Auxiliary power supply
- Transmitter control unit
 - R&S NetCCU800
 - Rack controller
- Exciter components
 - Exciter
 - Exciter switch (for exciter standby)
- Output stage components
 - Amplifiers
 - Absorber
- Harmonics filter
- Cooling system
 - Fans
 - Starting capacitors
 - Differential pressure gages
 - Temperature sensors

3 Preparations

3.1 Safety



WARNING!

All service work should only be carried out by qualified personnel and only on components that have been disconnected from the power supply. Heavy components such as amplifiers must always be exchanged using a team of two people.

Note Full information on the subject of safety can be found in the section "Safety".

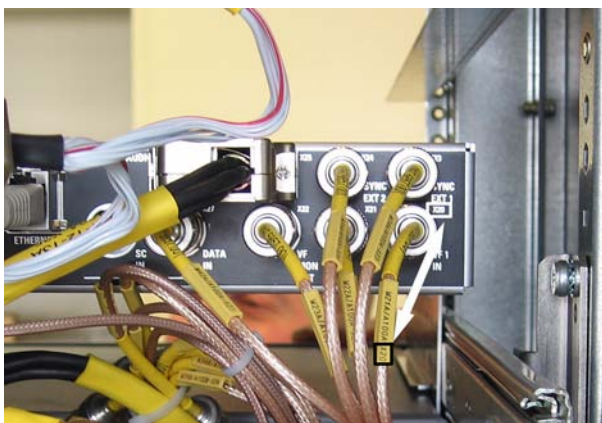
3.2 Rack Cabling

The standard components of the transmitter are fully cabled together on delivery. You need to reconnect the separate replacement instruments during service work.

Each cable has a yellow collar at each end, inscribed with the cable number (W...) and the intended purpose (module number A..., connector number X...). This makes it easier to connect the cable concerned to the intended slot or connection point, since the modules are provided with an engraved or self-adhesive circuit diagram.

For easy connection of replacement instruments or devices proceed as follows:

1. Find the plug (connector) number from the yellow collar on the cable.
2. Find the same number on the instrument you wish to connect (by looking for the female connector or circuit diagram).



3. Insert the plug connector into the corresponding female connector.

3.3 Removing Front Panel/Rear Panel

To remove the front panel/rear panel proceed as follows:

- ☞ Using a Torx screwdriver No. 20, remove the front or rear panel.



Fig. 1 Ground terminal of a front panel/rear panel

4 Power Distribution

You can replace the following power distribution components:

- Main switch (power supply terminal)
- Motor protection switch
- Automatic line fuse
- Power distribution board
- Auxiliary power supply

4.1 Replacing Main Switch



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

4.1.1 Removing Main Switch

To remove the main switch proceed as follows:

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution.
2. Unscrew the rotary knob and the main switch cover.

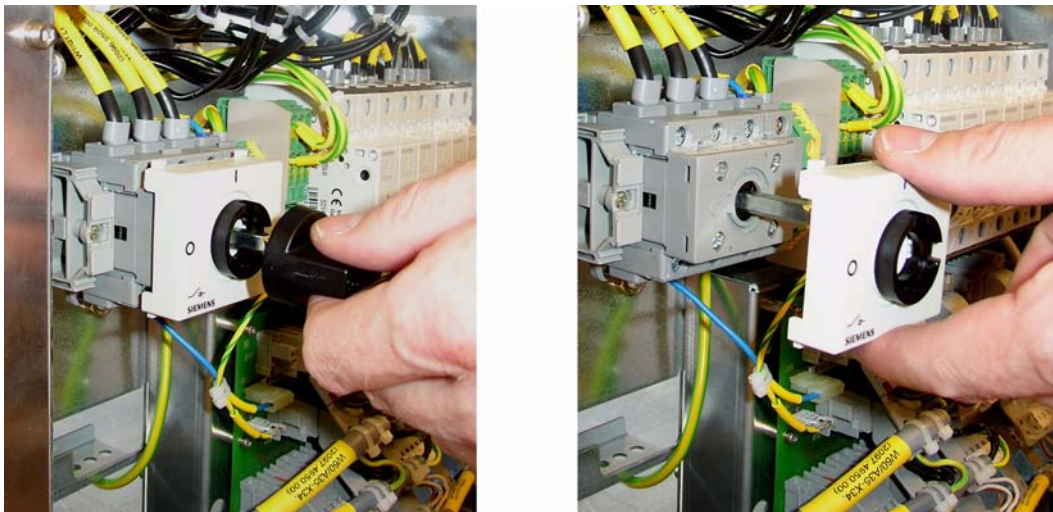


Fig. 2 Unscrewing the rotary knob and cover

3. Undo the screws on the switch housing (Phillips screwdriver No. 1) and remove the connected cables.

4. Undo the screws on the terminal rack on the left of the main switch and slide the terminal rack to the left.
5. Pull forward the black stop lever on the underside of the main switch.
6. Carefully take out the main switch.

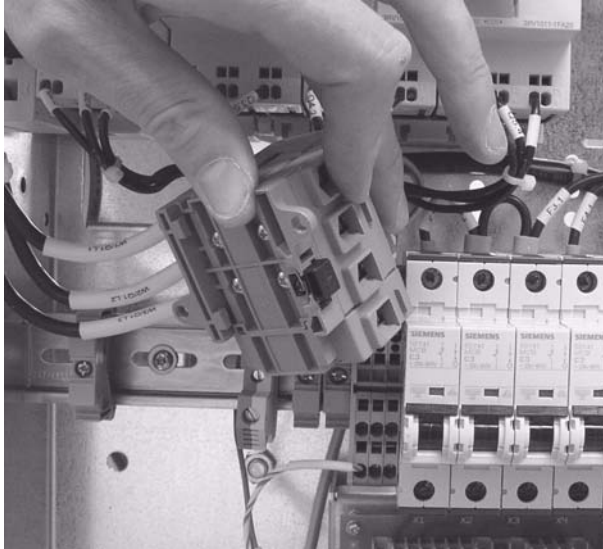


Fig. 3 Taking out the main switch

4.1.2 Installing Main Switch

1. Replace the main switch by proceeding in the reverse order.
2. Insert the cables into the corresponding openings and fasten them with screws.

Note Notice how the cables are labeled and make sure they are in the right sequence, since two of the three phase cables are the same color (black).

3. Measure the rotary field with the aid of a rotary field meter.

If the rotary field is correct, continue with the next step; if it is wrong, swap two wires from the cable and measure the rotary field again.

4. Screw the main switch cover and the rotary knob back on.

Note When working on the transmitter rack the main switch can be locked in the "OFF" position (see next figure).

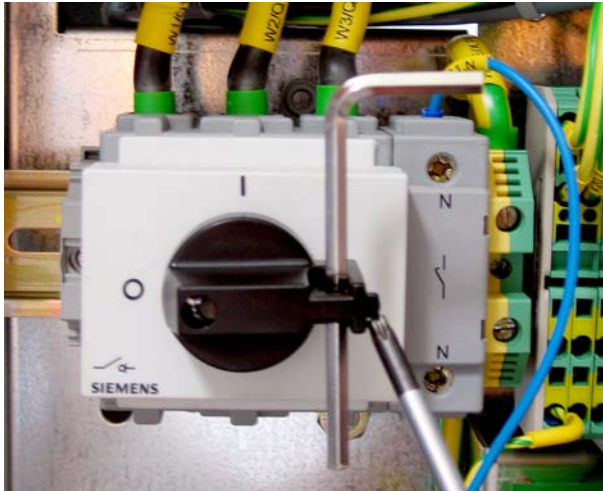


Fig. 4 Main switch locked

4.2 Replacing Motor Protection Switches



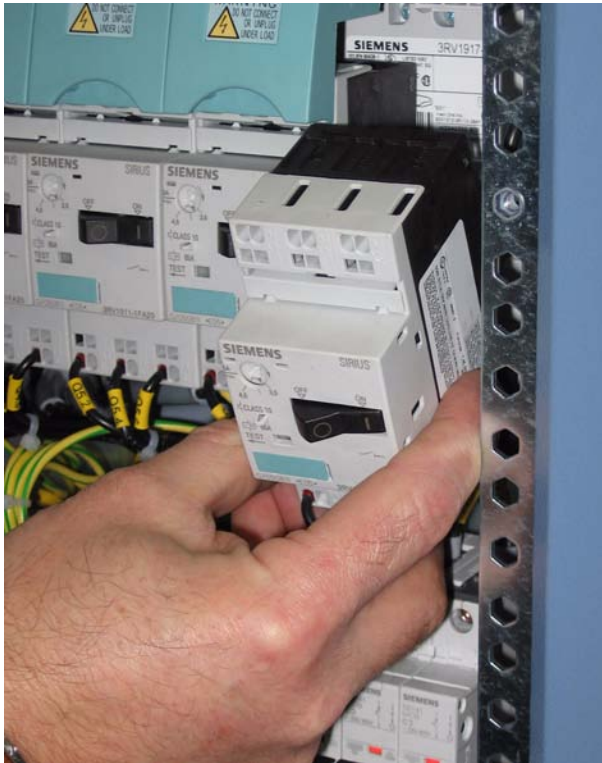
WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

4.2.1 Removing Motor Protection Switch

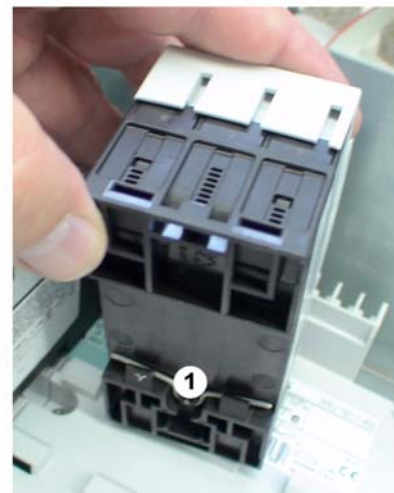
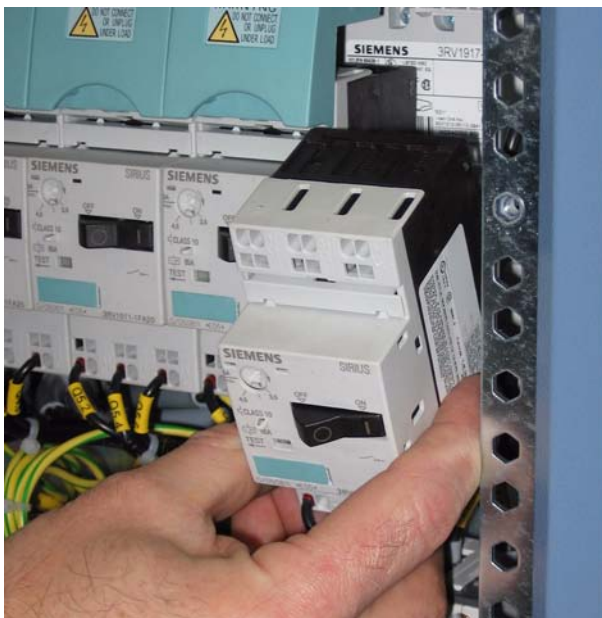
To remove the motor protection switch proceed as follows:

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution.
2. Pull the blue-green shorting plug forward.
If necessary you may use a screwdriver (No. 0) suited to the relatively high amounts of force that are needed.



3. Press the motor protection switch sharply downward and pull it forward by the bottom edge.

Because there is a spring clip behind the upper edge, you can only release the switch downward.



1) Spring clip

4. Use a screwdriver to open the cable clamps and pull out the connected cable (see figure).

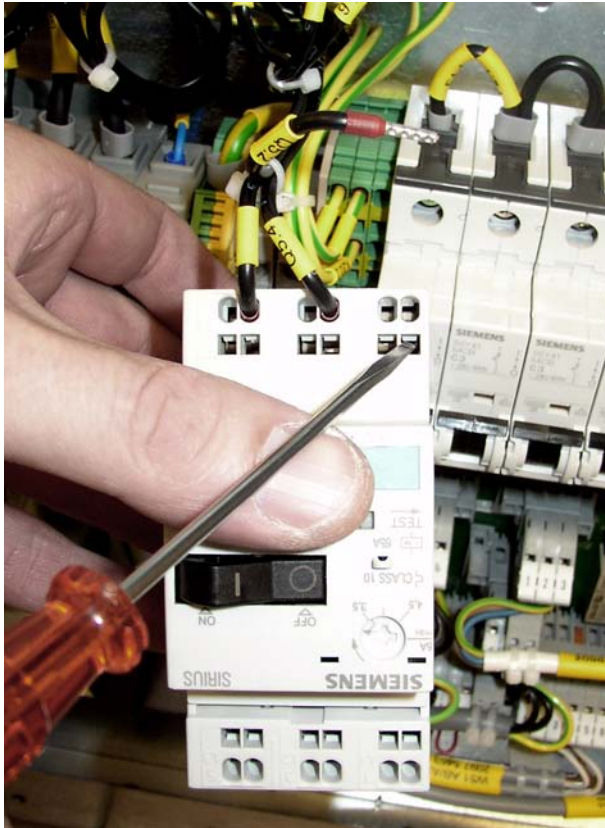


Fig. 5 Opening the cable clamp on the motor protection switch

4.2.2 Installing Motor Protection Switch

- ☞ Replace the motor protection switch by proceeding in the reverse order.

Note When replacing, feed the shorting plug right in and push the switch into place with some force.



Fig. 6 Installing the motor protection switch

- 1) Room for the shorting plug pins

4.3 Replacing Power Distribution Board



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

4.3.1 Removing Power Distribution Board

To remove the power distribution board proceed as follows:

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution.
2. Remove all plugs before removing the power distribution board.
3. Unscrew the SUB-D connector on the right of the longitudinal edge (two screws).
4. Use a Phillips screwdriver No. 1 to undo eight screws on the automatic line fuses.

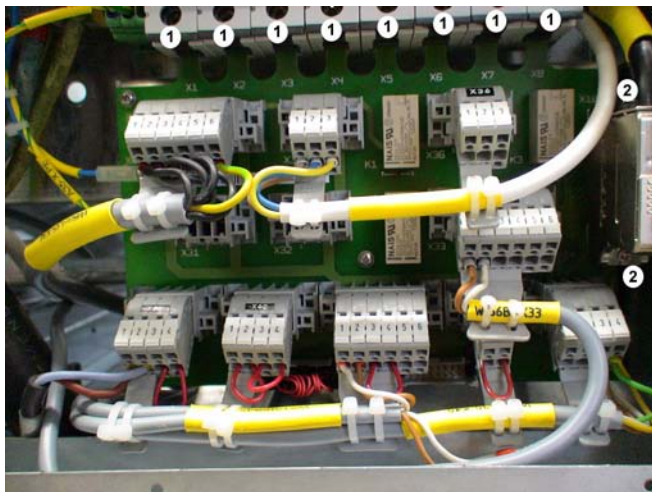


Fig. 7 Removing the power distribution board

- 1) Screws on the automatic line fuses
- 2) Screws on the SUB-D connector

5. Using a Torx screwdriver No. 8 remove seven fixing screws from the power distribution board.

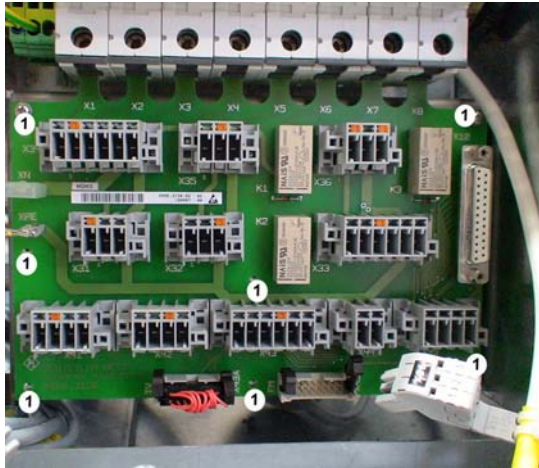


Fig. 8 Removing the power distribution board

1) Fixing screws on the power distribution board

6. To take out the PCB, first slide it downward.

4.3.2 Installing Power Distribution Board

☞ Replace the power distribution board by proceeding in the reverse order.

Note When replacing the power distribution board, make sure that it feeds into the right slots.

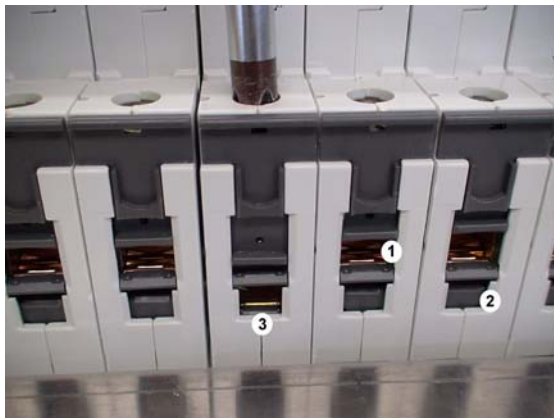


Fig. 9 Installing the power distribution board

- 1) Wrong
- 2) Right
- 3) Pressing with a screwdriver visibly opens the right chamber

4.4 Replacing Automatic Line Fuses



WARNING!

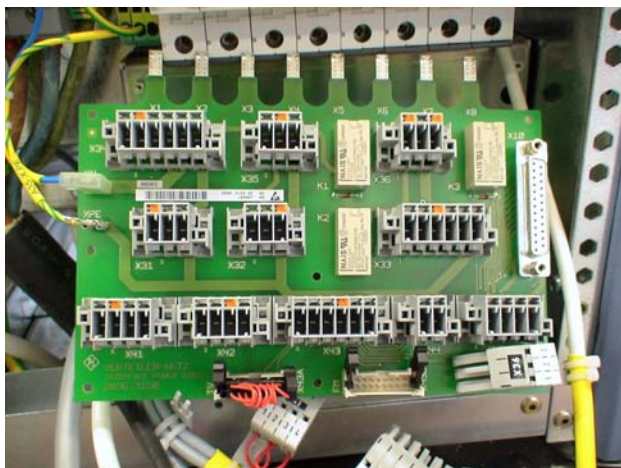
Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

4.4.1 Removing Automatic Line Fuse

Note Before removing an automatic line fuse, the power distribution board must be removed (see "Removing the Power Distribution Board").

To remove the automatic line fuse proceed as follows:

1. Remove the power distribution board.



2. From above, grip the back of the automatic line fuse you wish to remove and undo the white plastic springs.
3. Remove the automatic line fuse.

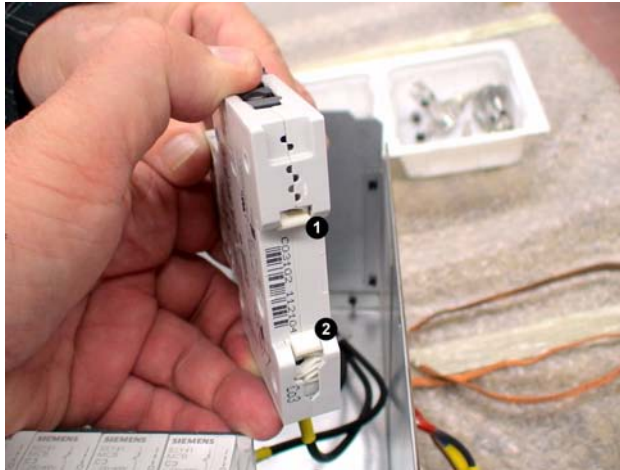


Fig. 10 Automatic line fuse

- 1) Upper plastic spring
- 2) Lower plastic spring

4.4.2 Installing Automatic Line Fuse

☞ Replace the automatic line fuse by proceeding in the reverse order.

Note Before putting it back into operation, make sure that all terminals are correctly connected.

4.5 Replacing Auxiliary Power Supply Unit



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

4.5.1 Removing Auxiliary Power Supply Unit

To remove the auxiliary power supply proceed as follows:

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution.
2. Undo the auxiliary power supply cables (X35, X45) from the power distribution board. Trace the two cables and if necessary cut off the cable ties.
3. Undo two Torx screws on the front of the power supply unit.
4. Remove the power supply unit.

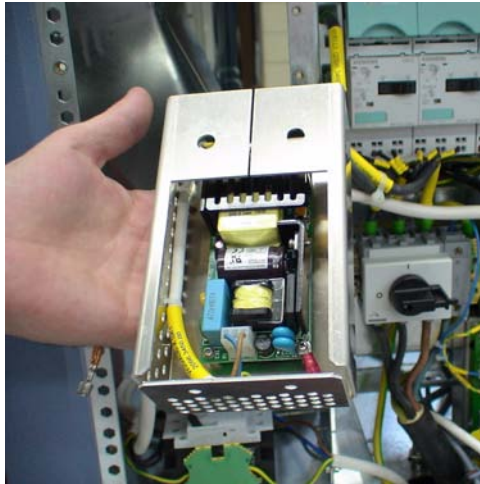


Fig. 11 Removing the power supply unit

4.5.2 Installing the Auxiliary Power Supply Unit

- ☞ Replace the power supply unit by proceeding in the reverse order.

5 Transmitter Control Unit

You can replace the following transmitter control unit components:

- R&S NetCCU800
- Rack controller

5.1 Replacing R&S NetCCU800



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

5.1.1 Removing R&S NetCCU800

Note Removing the R&S NetCCU800 does not affect transmitter operation.

1. Switch off automatic line fuse F1.
2. Undo the two captive screws (Torx screwdriver No. 20) at the front brackets of the R&S NetCCU800 and exciter (the screws are next to the handles).
3. Grip the handles and slowly pull the rackmount out of the rack as far as it will go (the guide rails engage and are locked in place).
4. Disconnect the power cable from the rear panel of the R&S NetCCU800.
5. Disconnect all cables from the rear panel of the R&S NetCCU800.



Fig. 12 Removing R&S NetCCU800 from transmitter rack

- 1) Captive screws at front panel of installed units (here: exciter and R&S NetCCU800)
 - 2) Screws securing R&S NetCCU800 to rackmount
 - 3) Guide rails
 - 4) Support bracket for R&S NetCCU800
 - 5) Safety lever for releasing guide rail catch
6. Undo the two fastening screws (Torx screwdriver No. 9) from the rackmount on both sides of the R&S NetCCU800.
- Note** *Removal should be performed by two persons. When pulled out by the handles, the R&S NetCCU800 must be supported from below as soon as the support brackets no longer support it.*
7. Pull the R&S NetCCU800 out of the rackmount.

5.1.2 Preparing R&S NetCCU800 for Installation

The replacement R&S NetCCU800 is delivered as a desktop unit and must be prepared for installation as follows.

- ☞ Remove the protective rubber caps on the rear feet of the instrument.

The replacement unit is as a rule preconfigured with the default configuration. So that the new R&S NetCCU800 does not adversely affect the operation of the transmitter when it is put into operation in the transmitter rack, it must first be configured specifically for the transmitter.

- ☞ Put the R&S NetCCU800 into local mode and configure the unit specifically for the transmitter concerned, as described in the chapter "Commissioning".

5.1.3 Installing R&S NetCCU800

To install the unit in the transmitter, reverse the procedure used to remove it.

1. Slide the R&S NetCCU800 horizontally into the rackmount on the lowest support brackets until the screw holes in the plug-in housing and on the side panels of the R&S NetCCU800 line up.
2. Fasten the R&S NetCCU800 with two screws on each side.
3. Connect the cables to the R&S NetCCU800 according to the labeling (see yellow cable collars).
4. Undo the latch on the guide rails. Push down the safety lever on the right while simultaneously pushing up the safety lever on the left and slide the rackmount into the rack.
5. Retighten the two captive screws on the front panel of the R&S NetCCU800 and exciter.
6. Switch the automatic line fuse F1 on again.

5.2 Replacing Rack Controller



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

5.2.1 Removing Rack Controller

Note The rack controller is underneath the R&S NetCCU800.

1. Remove the cover by undoing the two screws (Torx screwdriver No. 20).



Fig. 13 Removal of rack controller from transmitter rack: removing cover

2. Turn the two screws (Torx screwdriver No. 20) on the sides alternately by a few turns. This pushes the rack controller out of the rack and prevents it from tilting.



Fig. 14 Removal of rack controller from transmitter rack: undoing fastening screws

3. Remove the rack controller from the rack.



Fig. 15 Removal of rack controller from transmitter rack: removing rack controller

5.2.2 Installing Rack Controller

To install the rack controller in the transmitter, reverse the procedure used to remove it.

6 Exciter Components

You can replace the following exciter components:

- Exciter
- Exciter Switch

6.1 Replacing Exciter



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

6.1.1 Removing Exciter

1. Switch off automatic line fuse **F2** (exciter A) or **F3** (exciter B).
2. Undo the two captive screws (Torx screwdriver No. 20) from the R&S NetCCU800 and exciter on the front brackets (next to the handles).
3. Using the handles, slowly pull out the rackmount from the rack as far as it will go (the guide rails will engage and lock in place).
4. Disconnect all cables from the rear panel of the exciter.



Fig. 16 Removing the exciter from the transmitter rack

- 1) Captive screws at front panel of installed units (here: exciter and R&S NetCCU800)
 - 2) Screw-connections of the exciter on the rackmount
 - 3) Guide rails
 - 4) Safety lever for unlocking guide rail latch
5. On both sides of the exciter undo the two fixing screws (Torx screwdriver No. 9) from the rackmount.
 6. Pull the exciter from the rackmount.

6.1.2 Configuring Exciter

Before installing the replacement unit and restarting the transmitter, you should check whether the correct transmitter operating mode is set on the exciter. Proceed as follows:

1. Connect the exciter via the front-panel Ethernet port to a PC and put the unit into local mode.

Note For more information on operating the separate unit, please refer to the Appendix to the exciter manual, section "Remote Operation of the Exciter".

2. Start the web browser GUI and log in with "Configuration" rights.
3. Call the **Exciter *** > Setup > Tx Setup** menu, go to **Tx Mode** and set the transmitter operating mode to "Med./High Power with NetCCU".
4. Call the **Exciter *** > Setup > Exciter Setup > Common** menu and under **Digital Standard** set the appropriate digital TV standard to which the R&S NetCCU800 is already configured.

Note *All the other exciter settings can be checked after installation in the transmitter and if necessary adjusted via the R&S NetCCU800.*

6.1.3 Installing Exciter

To install the unit in the transmitter, reverse the procedure used to remove it.

1. Slide the exciter into the cabinet horizontally on the support brackets until the screw holes on the cabinet and on the side panels of the exciter match.
2. Fasten the exciter with two screws on each side.
3. Connect the cables to the exciter according to the labeling (see yellow cable collars).
4. Undo the latch on the guide rails. Push down the safety lever on the right while simultaneously pushing up the safety lever on the left and slide the rackmount into the rack.
5. Retighten the two captive screws on the front panel of the R&S NetCCU800 and exciter.
6. Switch the automatic line fuse **F2** (exciter A) or **F3** (exciter B) on again.

6.2 Replacing Exciter Switch



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

6.2.1 Removing Exciter Switch

In transmitters with the exciter standby option (2 exciters), the exciter switch is located behind the two exciters.

Note *To allow the exciter switch to be removed easily, you first need to remove the R&S NetCCU and exciter from the rack.*

1. Undo the two captive screws at the front brackets of the R&S NetCCU800 and exciter (next to the handles).
2. Grip the handles and slowly pull the rackmount out of the rack as far as it will go (the guide rails engage and are locked in place).
3. Disconnect the power cable from the side of the exciter switch.

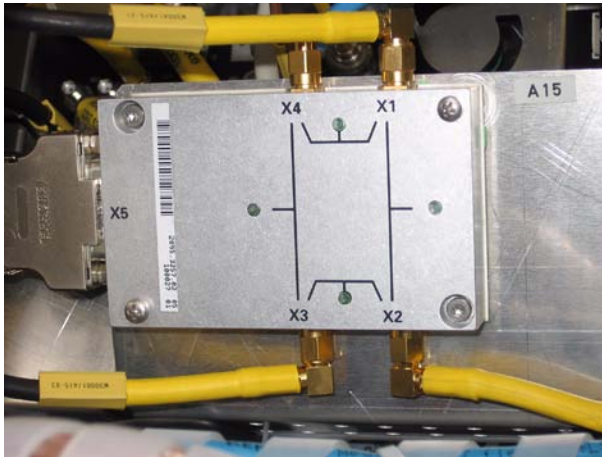


Fig. 17 Removing exciter switch from transmitter rack

4. Disconnect all cables from the rear of the exciter switch.
5. Undo the fastening screws on the exciter switch.
6. Pull the exciter switch from the transmitter rack.

6.2.2 Installing Exciter Switch

To install the unit in the transmitter, reverse the procedure used to remove it.

1. Connect the cables to the exciter switch according to the labeling (see yellow cable collars).
2. Undo the latch on the guide rails. Simultaneously press the safety lever on the right side down and on the left side up, and slide the rackmount into the rack.
3. Retighten the captive screws on the front panel of the R&S NetCCU800 and exciter.

7 Output Stage Components

You can replace the following output stage components:

- Amplifier
- Absorber

Note *Because of the extremely small probability of failure, replacement of the splitter-combiner unit will not be described.*

7.1 Replacing Amplifiers

When replacing an amplifier from the Rohde & Schwarz transmitters, you do not have to remove any of the lines since the connections on the rear panel of the device are connected to the rack using automatic connectors.

7.1.1 Removing Amplifier

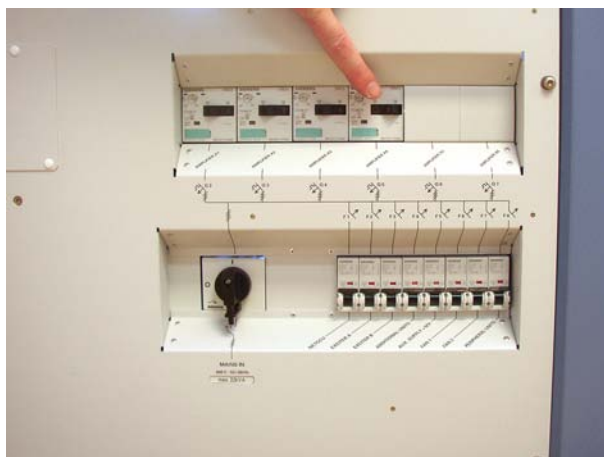


ATTENTION!

Prior to being removed, the amplifier must be switched free of all voltages in order to prevent any possible damage to the device due to contact consumption.

1. Switch off the amplifier via the AC distributor in the transmitter rack (turn the the appropriate protective switch to the "OFF" position).

Note *The other devices in the transmitter rack can remain connected. A transmitter with multiple amplifiers can remain in operation with reduced power during the exchange of the amplifier.*



2. Undo the four captive screws (Torx screwdriver No. 20) on each side of the front panel.



CAUTION!

Risk of burns on the heat sink. Let the amplifier cool down for about five minutes with the transmitter cooling switched on before you remove it from the transmitter rack.



CAUTION!

When you pull it out of the transmitter rack, do not allow the amplifier to fall. Support it from below. The amplifier weighs about 28 kg so we suggest that you use two people to handle it.

3. Slowly pull the amplifier from the rack using the handles.

The automatic connectors should release on the rear panel of the device.



ATTENTION!

To avoid damaging the connectors, do not place the amplifier on its back.

4. Put the amplifier down with the bottom of the instrument facing downward.
5. If the transmitter is to remain in operation with the remaining amplifiers, close the left and right vents at the vacant amplifier slot.

7.1.2 Installing Amplifier

To install the unit in the transmitter, reverse the procedure used to remove it.

7.2 Replacing Absorber



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

7.2.1 Removing Absorber

To remove the absorber proceed as follows:

1. Using a Torx screwdriver No. 20, remove the rear panel of the rack.
2. Disconnect the RF connecting cables **W1**, **W2** and **W3** to the splitter-combiner unit.
3. Using a Torx screwdriver No. 20 remove all six fixing screws.
4. Pull the absorber unit from the rackmount air outlet duct.



Fig. 18 Removing the absorber

7.2.2 Installing Absorber

To install the unit in the transmitter, reverse the procedure used to remove it.

8 Harmonics Filter

In this transmitter family the harmonics filter is built into the RF line.

8.1 Replacing Harmonics Filter



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

Note The harmonics filter is lacquered in order to reduce the surface temperature, but high temperatures are nevertheless to be expected.

8.1.1 Removing Harmonics Filter

Note The harmonics filter is connected to the RF chain by means of two rigid line brackets. So that the inner line of the lower rigid line (into the bandpass) stays fixed in place, the tensioning clamp of the lower rigid line bracket should be opened first.

To remove the harmonics filter proceed as follows:

1. Open the tensioning clamp of the lower rigid line bracket on the rigid connection of the combiner.



2. Open the tensioning clamp of the upper rigid line bracket using an open-end wrench No. 7 or a Phillips screwdriver No. 2.
3. Pull the harmonics filter of the combiner rigid line down and to the right.
4. Pull the harmonics filter downward from the upper rigid line bracket.



Fig. 19 Removing the harmonics filter

8.1.2 Installing Harmonics Filter

The replacement harmonics filter has no rigid line brackets.

- ☞ Remove the rigid line bracket from the old harmonics filter, attach the bracket to the new harmonics filter (top) and screw it firmly in place.

To install the unit in the transmitter, reverse the procedure used to remove it.

9 Cooling System

You can replace the following cooling system components:

- Fan
- Starting capacitor
- Differential pressure gage
- Temperature sensors

9.1 Replacing Fans



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

The transmitter rack contains two fans as standard; one of these can be reached only from the front and the other only from the back. However the removal sequence is the same in both cases.

9.1.1 Removing Fan

Note Prior to removal make sure which of the two fans needs to be replaced.

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution to replace the front fan, or the rear panel of the transmitter to replace the rear fan.
2. Switch off automatic line fuse **F6** (rear fan) or **F7** (front fan).

Note Wait two minutes before starting to remove the fan (to allow for the fan overrun time).

3. Undo the four screws on the fan housing and remove the cover.

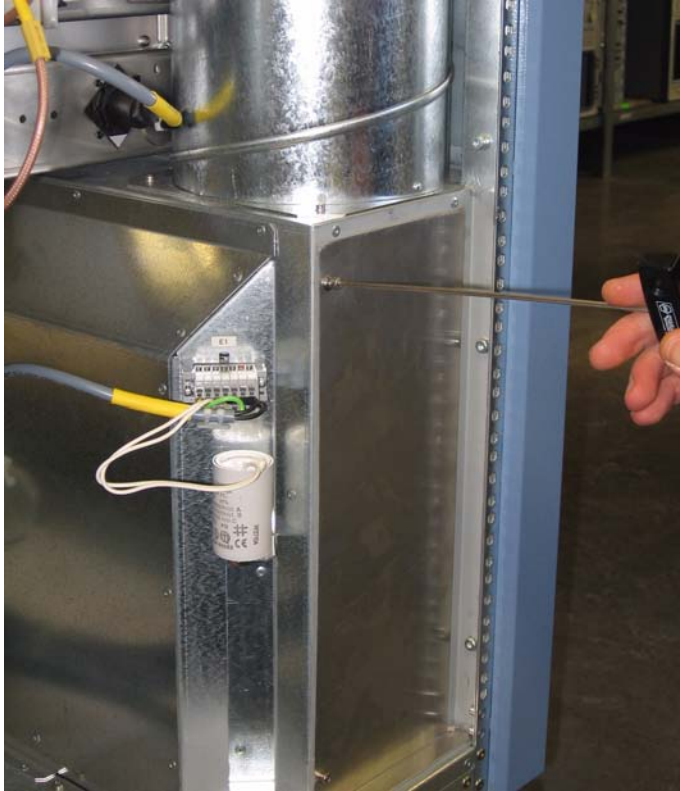


Fig. 20 Undoing the screws from the fan housing

4. On the upper side of the fan housing is a retaining device that must be unscrewed using a Torx screwdriver No. 20.



Fig. 21 Unscrewing the retaining device

5. Pull the power cable out of the connector and take away the air tube.

6. Slide the fan slightly to the side, then pull it toward yourself and out of the fan housing.
The fan is easy to remove due to the guide rails

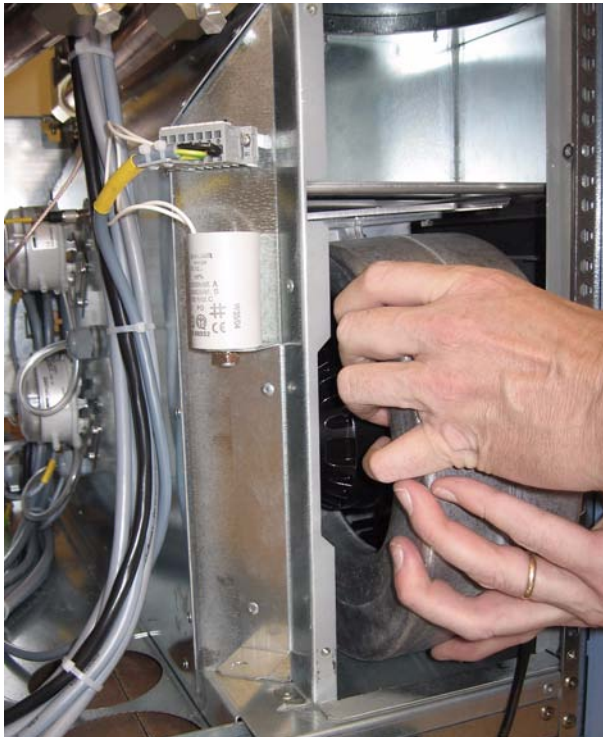


Fig. 22 *Removing a fan*

9.1.2 Installing Fan

To install the unit in the transmitter, reverse the procedure used to remove it.

9.2 Replacing Starting Capacitors



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

9.2.1 Removing Starting Capacitor

Note Prior to removal make sure which of the two starting capacitors needs to be replaced.

1. Using a Torx screwdriver No. 20, remove the front panel of the power distribution to replace the front starting capacitor, or the rear panel of the transmitter to replace the rear starting capacitor.
2. Switch off automatic line fuse F6 (fan 1, rear starting capacitor) or F7 (fan 2, front starting capacitor).
3. Remove the fan connector.
4. Undo the nut (M8, wrench width 13 mm) on the face plate of the capacitor.
5. Cut off the cable ties to free the cable.



Fig. 23 Removing the starting capacitor

- 1) Connector (and socket)
- 2) Cable ties
- 3) Lock washer
- 4) Nut (M8)

9.2.2 Installing Starting Capacitor

To install the unit in the transmitter, reverse the procedure used to remove it.

Note *The lock washer and M8 nut must be fastened together again.*

9.3 Replacing Differential Pressure Gages



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

9.3.1 Removing Differential Pressure Gage

Note *Prior to removal make sure which of the two differential pressure gages needs to be replaced.*

1. Using a Torx screwdriver No. 20, remove the rear panel of the rack.
2. Remove the air connector (plastic tube).
3. Disconnect the associated cable from the connector on **X45** of the power distribution board.
(Pins 1 and 2 for differential pressure gage 1, or pins 3 and 4 for differential pressure gage 2.)
4. Cut off the cable ties to free the cable.
5. Undo the two screws on the bracket.
6. Remove the differential pressure gage.
7. Unscrew the round cover and remove the cable (6.3 mm connector).



Fig. 24 *Removing the differential pressure gage*

9.3.2 Installing Differential Pressure Gage

To install the unit in the transmitter, reverse the procedure used to remove it.

- ☞ Check whether the protective cap for the air nozzle on the left-hand differential pressure gage has already been removed and if not, remove it (see figure).



Fig. 25 Differential pressure gage without protective cap

Note After installation the differential pressure gage must be set to the switching point of 200 Pa again.

1. Remove the transparent top cover.
In the middle is an adjuster with a scale.
2. Use a screwdriver to turn the adjuster until the arrow points to the value 200.

9.4 Replacing Temperature Sensors



WARNING!

Always make sure that the power supply is disconnected before commencing any service work on the transmitter rack. This will prevent injury due to electric shock and avoid damage to the instruments.

The transmitter rack contains two temperature sensors which measure the intake and outlet air temperatures. They are located on the intake and outlet lines on the rack.

9.4.1 Removing Temperature Sensor

Note Prior to removal make sure which of the two temperature sensors needs to be replaced.

1. Using a Torx screwdriver No. 20, remove the rear panel of the rack.
2. Unplug the connector of the temperature sensor concerned.



Fig. 26 Removing the temperature sensor

3. Using a Phillips screwdriver No. 0, undo the two screws (M3) on the temperature sensor flange.



- 1) Openings for fixing screws (M3)

4. Carefully remove the temperature sensor from the aperture in the air duct.

9.4.2 Installing Temperature Sensor

To install the unit in the transmitter, reverse the procedure used to remove it.

Interface Description

TRANSMITTER

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1 Interface Description

1.1 Front-Panel Interfaces

1.1.1 Q1 – AC Supply Input / Protective Earth

Signal name	Direction	Value range	Contact	Remark
PHASE L1	Input	400 V \pm 15%	Q1.T1	Three-phase current input L1
PHASE L2	Input	400 V \pm 15%	Q1.T2	Three-phase current input L2
PHASE L3	Input	400 V \pm 15%	Q1.T3	Three-phase current input L1
NEUTRAL N	Input	0 V	Q1.N	Neutral-conductor input N
PROTECTION EARTH PE	Input	0 V	X.PE	PE terminal
PROTECTION EARTH PE	Input	0 V	PE pin	PE station

1.1.2 X57 – Optional Connector Kit ZR800Z1

Signal name	Direction	Value range	Contact	Remark
PHASE L1	Input	230 V	X57.L1	Separate circuit
NEUTRAL N	Input	0 V	X57.N	
PROTECTION EARTH PE	Input	0 V	X57.PE	

1.1.3 X33 – External Fan (Optional): (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remark
PHASE L1	Input	230 V	X33.1	Line protection F8 [3A]
NEUTRAL N	Input	0 V	X33.2	

Signal name	Direction	Value range	Contact	Remark
PROTECTION EARTH PE	Input	0 V	X33.3	

External fan for dummy antenna (optional): (Wago plug-in terminal)

Signal name	Direction	Value range	Contact	Remark
PHASE L1	Input	230 V	X33.4	Line protection F8 [3A]
NEUTRAL N	Input	0 V	X33.5	
PROTECTION EARTH PE	Input	0 V	X33.6	

1.1.4 X34 – AC Power Supply for Control Units and Exciters (Single-Phase): (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remarks
PHASE L1	Output	230 V	X34.1	Line fuse F1 [3A] R&S NetCCU800 connection
PHASE L1	Output	230 V	X34.2	Line fuse F2 [3A] Sx800 A connection
PHASE L1	Output	230 V	X34.3	Line fuse F3 [3A] Sx800 B connection
PHASE L1	Output	230 V	X34.4	Line fuse F4 [3A] Add-on equipment connection
NEUTRAL N	Input	0 V	X34.5	
PROTECTION EARTH PE	Input	0 V	X34.6	

1.1.5 X36 – External Absorber Cooling System (Optional): (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remarks
PHASE L3	Output	230 V	X36.1	Line fuse F8 [3A]

Signal name	Direction	Value range	Contact	Remarks
NEUTRAL N	Input	0 V	X36.2	
PROTECTION EARTH PE	Input	0 V	X36.3	

1.1.6 X41 – RF Carrier Loop: (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remark
MAIN TX LOOP	Input	-12 V \pm 2 V	X41.1	-12 V floating
LOOP COM (+)	Output	+12 V \pm 2 V	X41.2	+12 V floating
RESERVE TX LOOP	Input	-12 V \pm 2 V	X41.3	-12 V floating
LOOP COM (+)	Output	+12 V \pm 2 V	X41.4	+12 V floating

1.1.7 X42 – Absorber Monitoring: (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remark
FAULT SYSTEM ABSORBER	Input	TTL	X42.1	Jumper to 0 V
REF RACK SIGNALS	Output	0 V	X42.2	Reference 0 V
FAULT RACK ABSORBER	Input	TTL	X42.3	Jumper to 0 V
REF RACK SIGNALS	Output	0 V	X42.4	Reference 0 V

1.1.8 X43 – Cooling Monitoring: (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remarks
FAULT COOLING 2	Input	TTL	X43.1	Jumper against 0 V
REF RACK SIGNALS	Input	0 V	X43.2	Reference 0 V

Signal name	Direction	Value range	Contact	Remarks
FAULT COOLING 1	Input	TTL	X43.3	Jumper against 0 V
REF RACK SIGNALS	Input	0 V	X43.4	Reference 0 V
WARNING COOLING	Input	TTL	X43.5	Jumper against 0 V
REF RACK SIGNALS	Input	0 V	X43.6	Reference 0 V

1.1.9 X44 – Overcurrent Monitoring for External Fan: (Wago Plug-In Terminal)

Signal name	Direction	Value range	Contact	Remark
FAULT EXT: COOLING	Input	TTL	X44.1	Jumper to 0 V
REF RACK SIGNALS	Output	0 V	X44.4	Reference 0 V

1.2 Interfaces on the Transmitter Top

1.2.1 X100A – Ethernet A Remote (Standard): (8-Contact Female)

Signal name	Direction	Value range	Contact	Remark
TX+	Output	Ethernet	X100A.1	Transmitting line
TX-	Output	Ethernet	X100A.2	Transmitting line
RX+	Input	Ethernet	X100A.3	Receiving line
	Bidirect.	75 Ω termination	X100A.4	
	Bidirect.	75 Ω termination	X100A.5	
RX-	Input	Ethernet	X100A.6	Receiving line
	Bidirect.	75 Ω termination	X100A.7	

Signal name	Direction	Value range	Contact	Remark
	Bidirect.	75 Ω termination	X100A.8	

1.2.2 X100B – Ethernet B Remote (N+1 Option): (8-Contact Female)

Signal name	Direction	Value range	Contact	Remark
TX+	Output	Ethernet	X100B.1	Transmitting line
TX-	Output	Ethernet	X100B.2	Transmitting line
RX+	Input	Ethernet	X100B.3	Receiving line
	Bidirect.	75 Ω termination	X100B.4	
	Bidirect.	75 Ω termination	X100B.5	
RX-	Input	Ethernet	X100B.6	Receiving line
	Bidirect.	75 Ω termination	X100B.7	
	Bidirect.	75 Ω termination	X100B.8	

1.2.3 X232 – RS-232-C: (9-Contact D-Sub Female)

Signal name	Direction	Value range	Contact	Remark
n.c.			X232.1	Transmitting line
RS232_TX	Output	RS-232	X232.2	Transmitting line
RS232_RX	Input	RS-232	X232.3	Receiving line
n.c.			X232.4	
GND	Bidirect.		X232.5	
n.c.			X232.6	
n.c.			X232.7	
n.c.			X232.8	

1.2.4 X101A – CAN-Bus Rack Bus A: (9-Contact D-Sub Female)

Signal name	Direction	Value range	Contact	Remark
12V_RED	Bidirect.	12 V \pm 1 V	X101A.1	Redundant 12 V supply
RC_A_CAN_L	Bidirect.	CAN-Level	X101A.2	CAN bus signal
CAN_GND	Bidirect.	0 V	X101A.3	CAN GND
12V_RED	Bidirect.	12 V \pm 1 V	X101A.4	Redundant 12 V supply
CAN_SHLD	Bidirect.	GND	X101A.5	Shield
GND	Bidirect.	GND	X101A.6	GND
RC_A_CAN_H	Bidirect.	CAN+Level	X101A.7	CAN bus signal
12V_ASI	Bidirect.	12 V \pm 1.5 V	X101A.8	
CAN_V+	Bidirect.	12 V \pm 1 V	X101A.9	

1.2.5 X101B – CAN-Bus Rack Bus A: (9-Contact D-Sub Female)

Signal name	Direction	Value range	Contact	Remark
12V_RED	Bidirect.	12 V \pm 1 V	X101B.1	Redundant 12 V supply
RC_A_CAN_L	Bidirect.	CAN-Level	X101B.2	CAN bus signal
CAN_GND	Bidirect.	0 V	X101B.3	CAN GND
12V_RED	Bidirect.	12 V \pm 1 V	X101B.4	Redundant 12 V supply
CAN_SHLD	Bidirect.	GND	X101B.5	Shield
GND	Bidirect.	GND	X101B.6	GND
RC_A_CAN_H	Bidirect.	CAN+Level	X101B.7	CAN bus signal
12V_ASI	Bidirect.	12 V \pm 1.5 V	X101B.8	
CAN_V+	Bidirect.	12 V \pm 1 V	X101B.9	

1.2.6 X102A – ANTENNA 1: (N Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
ANTENNA 1	Input	> 80 dB μ V	X102A.1	For DVB-T only Tx level depending on application
GND	Bidirect.	0 V	X102A.2	

1.2.7 X102B – ANTENNA 2: (N Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
ANTENNA 2	Input	> 80 dB μ V	X102B.1	For DVB-T only Tx level depending on application
GND	Bidirect.	0 V	X102B.2	

1.2.8 X121A – TS1 Exciter A: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remark
TS1	Input	ASI/SMPTE310M	X121A.1	TS1 Exciter A
GND	Bidirect.		X121A.2	GND/shield

1.2.9 X121B – TS1 Exciter B: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remark
TS1	Input	ASI/SMPTE310M	X121B.1	TS1 Exciter B
GND	Bidirect.		X121B.2	GND/shield

1.2.10 X122A – TS2 Exciter A: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remark
TS2	Input	ASI/SMPTE310M	X122A.1	TS2 Exciter A
GND	Bidirect.		X122A.2	GND/shield

1.2.11 X122B – TS2 Exciter B: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remark
TS2	Input	ASI/SMPTE310M	X122B.1	TS2 Exciter B
GND	Bidirect.		X122B.2	GND/shield

1.2.12 X123A – TS3 Exciter A: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remarks
TS3	Input	ASI	X123A.1	Only for DVB-T with hierarchical coding TS3 Exciter A
GND	Bidirect.		X123A.2	GND/shield

1.2.13 X123B – TS3 Exciter B: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remarks
TS3	Input	ASI	X123B.1	Only for DVB-T with hierarchical coding TS3 Exciter B
GND	Bidirect.		X123B.2	GND/shield

1.2.14 X124A – TS4 Exciter A: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remarks
TS4	Input	ASI	X124A.1	Only for DVB-T with hierarchical coding TS4 Exciter A
GND	Bidirect.		X124A.2	GND/shield

1.2.15 X124B – TS4 Exciter B: (BNC Female, 75 Ohm)

Signal name	Direction	Value range	Contact	Remarks
TS4	Input	ASI	X124B.1	Only for DVB-T with hierarchical coding TS4 Exciter B
GND	Bidirect.		X124B.2	GND/shield

1.2.16 X131A – TS1/2 IN Monitoring Exciter A: (BNC Female)

Signal name	Direction	Value range	Contact	Remark
TS1/2 IN Monitoring	Output	ASI/SMPTE310M	X131A.1	TS1/2 Monitoring Exciter A
GND	Bidirect.		X131A.2	GND/shield

1.2.17 X131B – TS1/2 IN Monitoring Exciter B: (BNC Female)

Signal name	Direction	Value range	Contact	Remark
TS1/2 IN Monitoring	Output	ASI/SMPTE310M	X131B.1	TS1/2 Monitoring Exciter B
GND	Bidirect.		X131B.2	GND/shield

1.2.18 X132A – TS3/4 IN Monitoring Exciter A: (BNC Female)

Signal name	Direction	Value range	Contact	Remarks
TS3/4 IN Monitoring	Output	ASI	X132A.1	Only for DVB-T with hierarchical coding TS3/4 Monitoring Exciter A
GND	Bidirect.		X132A.2	GND/shield

1.2.19 X132B – TS3/4 IN Monitoring Exciter B: (BNC Female)

Signal name	Direction	Value range	Contact	Remarks
TS3/4 IN Monitoring	Output	ASI	X132B.1	Only for DVB-T with hierarchical coding TS3/4 monitoring Exciter B
GND	Bidirect.		X132B.2	GND/shield

1.2.20 X141A – 1PPS Exciter A: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
1PPS_EXTERN	Input	TTL level (pos.edge)	X141A.1	Second pulse from external GPS receiver (exciter A)
GND	Bidirect.		X141A.2	GND/shield

1.2.21 X141B – 1PPS Exciter B: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
1PPS_EXTERN	Input	TTL level (pos.edge)	X141B.1	Second pulse from external GPS receiver (exciter B)
GND	Bidirect.		X141B.2	GND/shield

1.2.22 X142A – 1PPS Monitoring Exciter A: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
1PPS Monitoring	Output	TTL level (pos.edge)	X142A.1	Monitor output of internally used 1PPS (exciter A)
GND	Bidirect.		X142A.2	GND/shield

1.2.23 X142B – 1PPS Monitoring Exciter B: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
1PPS Monitoring	Output	TTL level (pos.edge)	X142B.1	Monitor output of internally used 1PPS (exciter B)
GND	Bidirect.		X142B.2	GND/shield

1.2.24 X143A – 10 MHz REF.INPUT Exciter A: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remark
10 MHz REF INPUT	Input	-5.0 dB to 20 dBm or TTL	X143A.1	10 MHz reference for exciter A
GND	Bidirect.		X142A.2	GND/shield

1.2.25 X143B – 10 MHz REF.INPUT Exciter B: (BNC Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remark
10 MHz REF INPUT	Input	-5.0 dB to 20 dBm or TTL	X143B.1	10 MHz reference for exciter B
GND	Bidirect.		X142B.2	GND/shield

1.2.26 RF Transmitter Output (EIA 1 5/8" Flange 50 Ohm)

Signal name	Direction	Value range	Contact	Remark
RF transmitter output	Output	$P_{\max\text{AVG}} = 1.8 \text{ kW}$	RF	RF transmitter output, fully equipped with 4 amplifiers
GND	Bidirect.		RF	GND/shield

1.3 Monitoring Outputs on Front Panel of R&S SV800 Exciter

1.3.1 X65A – 10 MHz Test Output for Exciter A: (SMA Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
10MHz_REF_OUT	Output	0 dBm (+2 dB to -1 dB)	X65A.1	10MHz reference monitoring for exciter A
GND	Bidirect.		X65A.2	GND/shield

1.3.2 X65B – 10 MHz Test Output for Exciter B: (SMA Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
10MHz_REF_OUT	Output	0 dBm (+2 dB to -1 dB)	X65B.1	10MHz reference monitoring for exciter B
GND	Bidirect.		X65B.2	GND/shield

1.3.3 X61A – RF Test Output for Exciter A: (SMA Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
RF_MONOUT	Output	-7dBm \pm 2dB	X61A.1	RF OUT monitoring for exciter A

Signal name	Direction	Value range	Contact	Remarks
GND	Bidirect.		X61A.2	GND/shield

1.3.4 X61B – RF Test Output for Exciter B: (SMA Female, 50 Ohm)

Signal name	Direction	Value range	Contact	Remarks
RF_MONOUT	Output	-7dBm \pm 2dB	X61B.1	RF OUT monitoring for exciter B
GND	Bidirect.		X61B.2	GND/shield

DATA SHEETS



TV - UHF

medium
power

System Manual

Volume 2

R&S[®] NV830x DTV Transmitter ATSC

Transmitter Series Nx8000

Only skilled personnel may perform the operations of the described instrument that are necessary for installing and putting it into operation as well as maintaining, troubleshooting and servicing it.

Printed in Germany



System Manual
Transmitter Series Nx8000
Edition: August 2009
Version: E 01.00

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Internet: www.rohde-schwarz.com

Printed in Federal Republic of Germany ^ Subject to change ^ Data without tolerances: typical values

DRAWINGS AND DIAGRAMS NV8301 **1**

DRAWINGS AND DIAGRAMS NV8302 **2**

DRAWINGS AND DIAGRAMS NV8303 **3**

DRAWINGS AND DIAGRAMS NV8304 **4**

SPARE PARTS LISTS **5**

6

7

8

9

Drawings and Diagrams

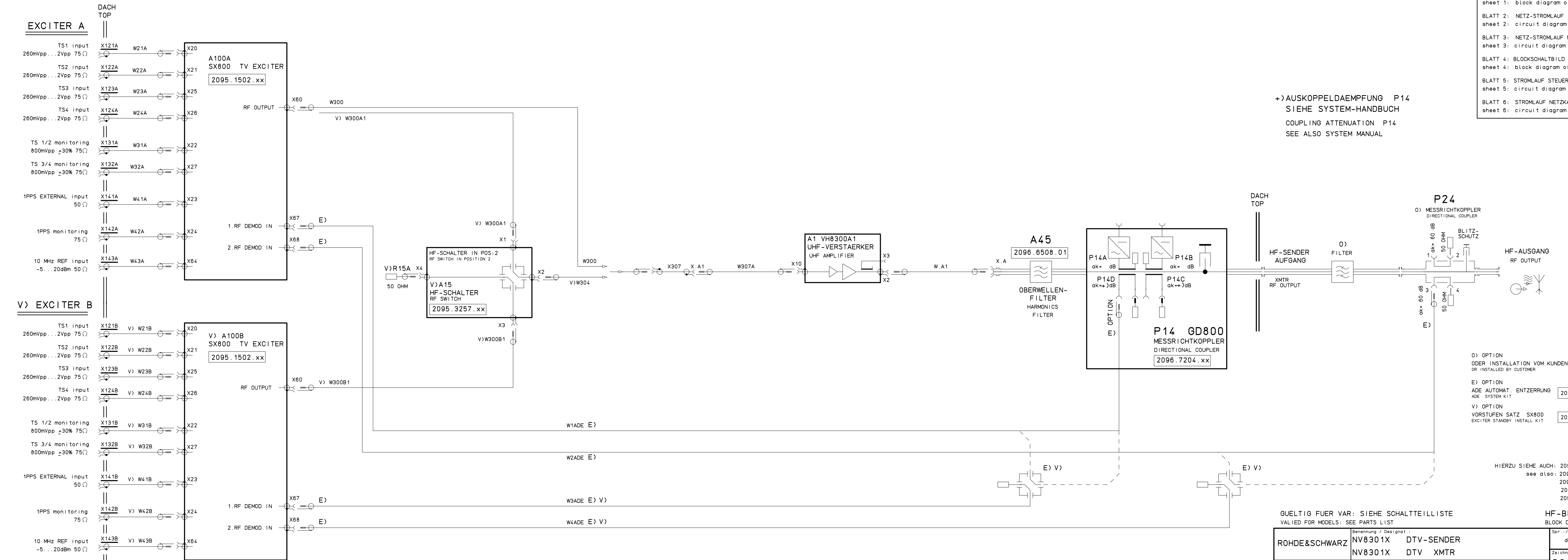
NV8301E/V

2098.0307.01

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BLATT 1:	HF-BLOCKSCHALTBILD
sheet 1:	block diagram of rf signal
BLATT 2:	NETZ-STROMLAUF
sheet 2:	circuit diagram
BLATT 3:	NETZ-STROMLAUF MIT USV
sheet 3:	circuit diagram with UPS
BLATT 4:	BLOCKSCHALTBILD STEUERLEITUNG
sheet 4:	block diagram of signal
BLATT 5:	STROMLAUF STEUERKABEL
sheet 5:	circuit diagram signal cable
BLATT 6:	STROMLAUF NETZKABEL
sheet 6:	circuit diagram power cable

+> AUSKOPPELDAEMPfung P14
SIEHE SYSTEM-HANDBUCH
COUPLING ATTENUATION P14
SEE ALSO SYSTEM MANUAL



- O) OPTION
ODER INSTALLATION VOM KUNDEN
OR INSTALLED BY CUSTOMER
 - E) OPTION
ADE AUTOMAT. ENTZERRUNG
ADE SYSTEM KIT
 - V) OPTION
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT
- | | |
|--|--------------|
| | SX800Z1 |
| | 2099.4006.01 |
| | ZR800V1 |
| | 2099.1507.01 |

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

GUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALID FOR MODELS: SEE PARTS LIST

ROHDE&SCHWARZ	Benennung / Designat.:	NV8301X DTV-SENDER	Spr.:/Lang.:	de	Aei./C.I.:	02.00	Blatt./Sh.:	1+	
	Datum:	08/07/18	Abteilung:	7TSK	Name:	rolf_a	Zeichn.Nr./Drawing No.:		
NV8301X	2098.0307.01 S								

VORSICHERUNG UND ANSCHLUSSQUERSCHNITT
SIEHE SYSTEM-HANDBUCH NV8301E/V
External fusing and cable cross-sections
see system manual NV8301E/V

ACHTUNG ! / CAUTION !
NETZVERSORGUNG VON EXTERNER USV
POWER SUPPLY FROM EXTERNAL UPS
230 AC max. 5A

Z5) OPTION
ZR800Z5 [2099.3400.xx]
BAUSATZ EXTERNE USV
UPGRADE KIT EXTERNAL UPS

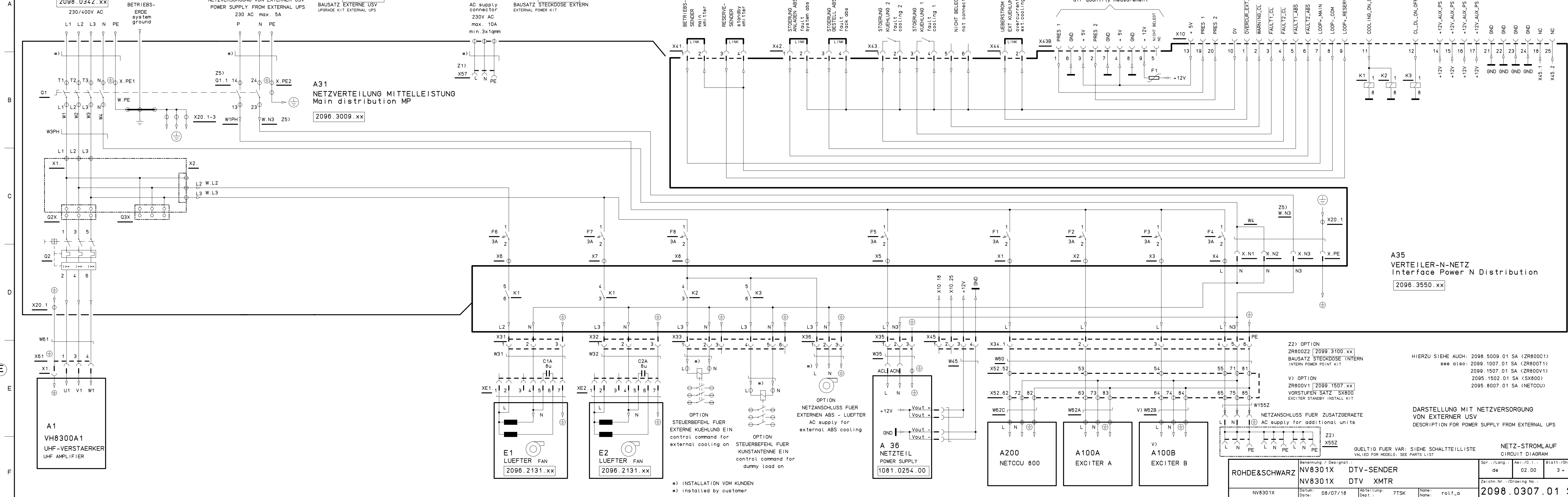
NETZSTECKDOSE
AC supply
connector
230V AC
max. 10A
min. 3x1qmm

Z1) OPTION
ZR800Z1 [2099.3000.xx]
BAUSATZ STECKDOSE EXTERN
EXTERNAL POWER KIT

RF LOOP
SCHUTZSCHLEIFE

OPTION
LUFTMAENGEN-MESSUNG
air quantity measurement

GESTELLSTEUERUNG / Rack controller



A1
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

A31
NETZVERTEILUNG MITTELLEISTUNG
Main distribution MP
2096.3009.xx

A35
VERTEILER-N-NETZ
Interface Power N Distribution
2096.3550.xx

E1
LUEFTER FAN
2096.2131.xx

E2
LUEFTER FAN
2096.2131.xx

A 36
NETZTEIL
POWER SUPPLY
1081.0254.00

A200
NETCCU 800

A100A
EXCITER A

A100B
EXCITER B

Z2) OPTION
ZR800Z2 [2099.3100.xx]
BAUSATZ STECKDOSE INTERN
INTERN POWER POINT KIT

V) OPTION
ZR800V1 [2099.1507.xx]
VORSTUFEN SATZ 'SX800'
EXCITER STANDBY INSTALL KIT

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

DARSTELLUNG MIT NETZVERSORGUNG
VON EXTERNER USV
DESCRIPTION FOR POWER SUPPLY FROM EXTERNAL UPS

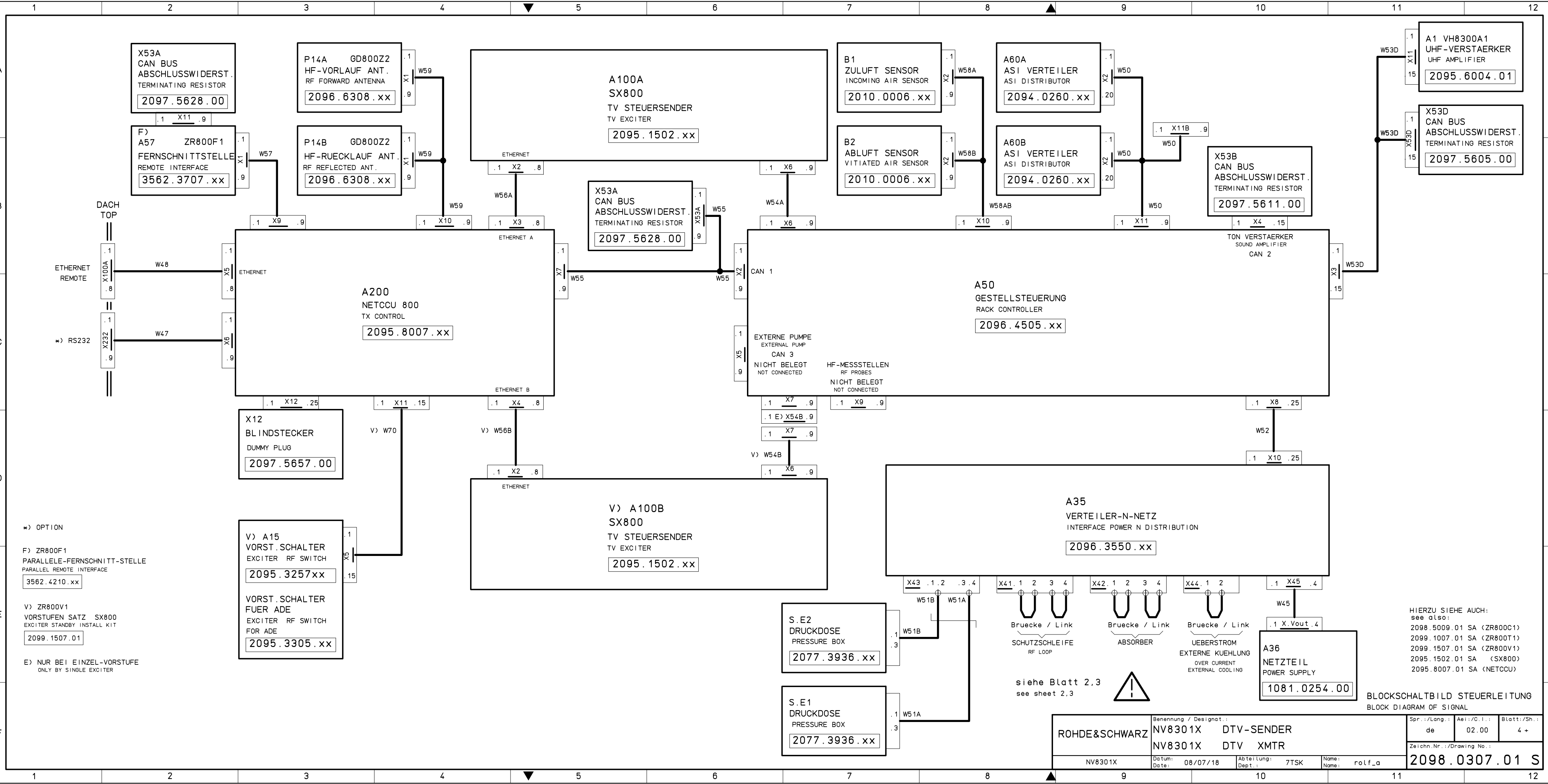
NETZ-STROMLAUF
CIRCUIT DIAGRAM
GUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALID FOR MODELS: SEE PARTS LIST

ROHDE&SCHWARZ	Benennung / Designat.:	NV8301X DTV-SENDER	Spr.:/Lang.:	de	Blatt:/Sh.:	3+
		NV8301X DTV XMTR	Abl.:/C. l.:	02.00		
NV8301X	Datum:	08/07/18	Abteilung:	7TSK	Name:	rolf_a
Zeichn.Nr./Drawing No.:						2098.0307.01 S

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#) INSTALLATION VOM KUNDEN
#) installed by customer

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- *) OPTION
- F) ZR800F1
PARALLELE-FERNSCHNITT-STELLE
PARALLEL REMOTE INTERFACE
2097.5628.xx
- V) ZR800V1
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT
2099.1507.01
- E) NUR BEI EINZEL-VORSTUFE
ONLY BY SINGLE EXCITER

HIERZU SIEHE AUCH:
see also:
2098.5009.01 SA (ZR800C1)
2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
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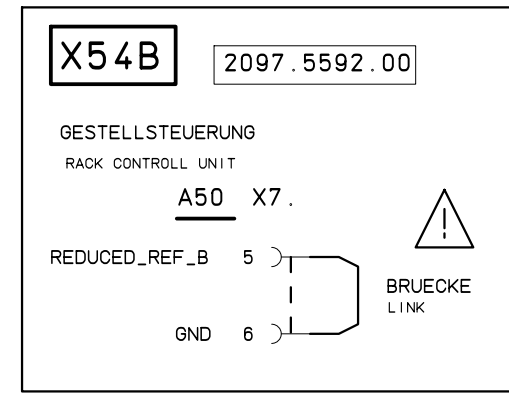
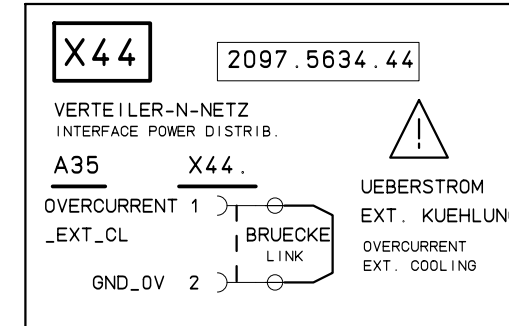
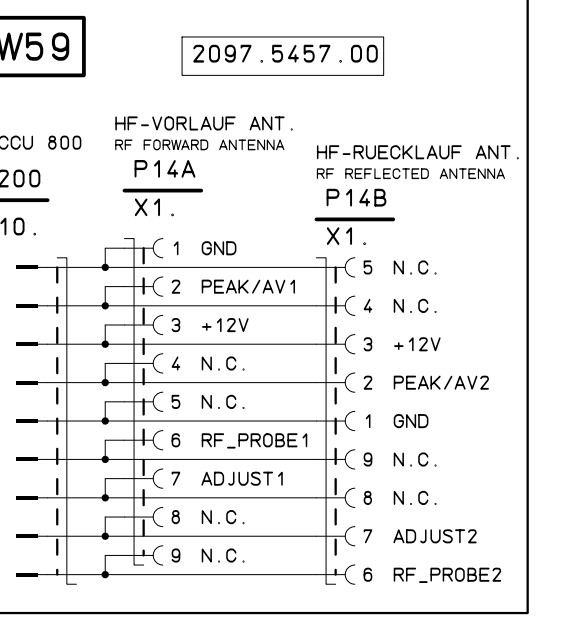
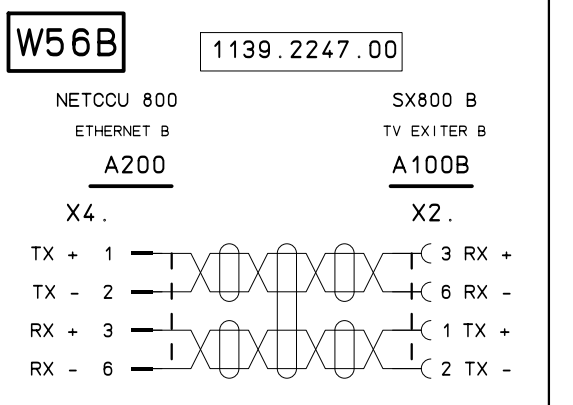
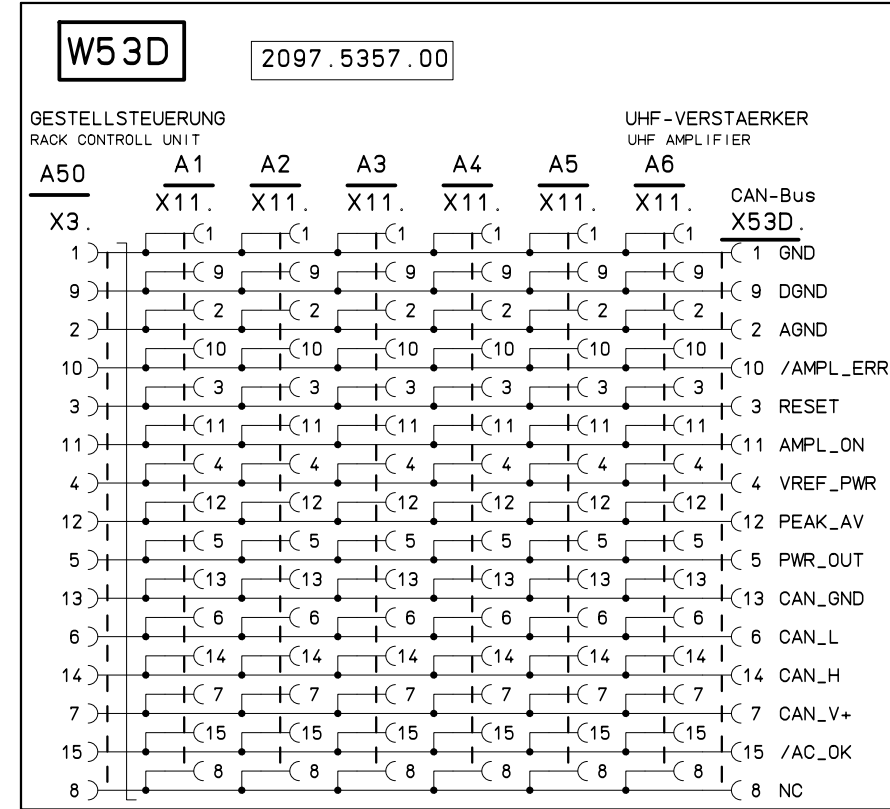
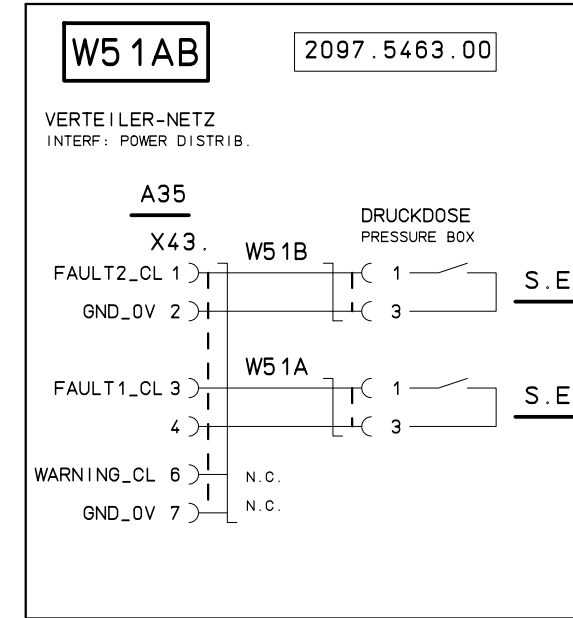
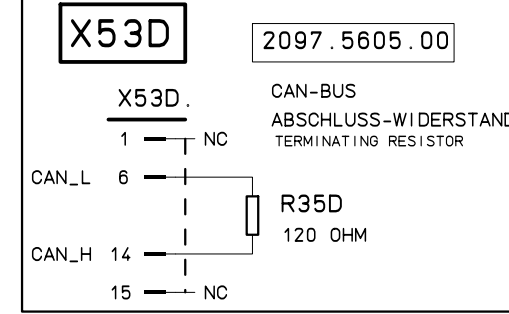
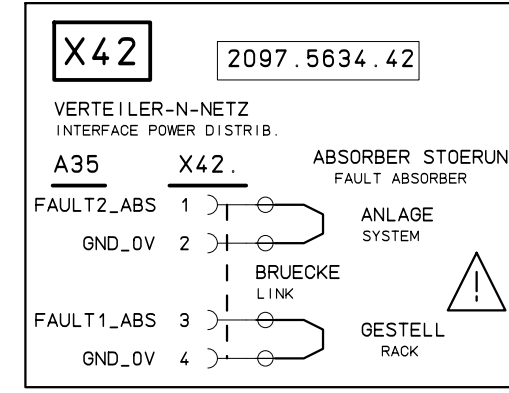
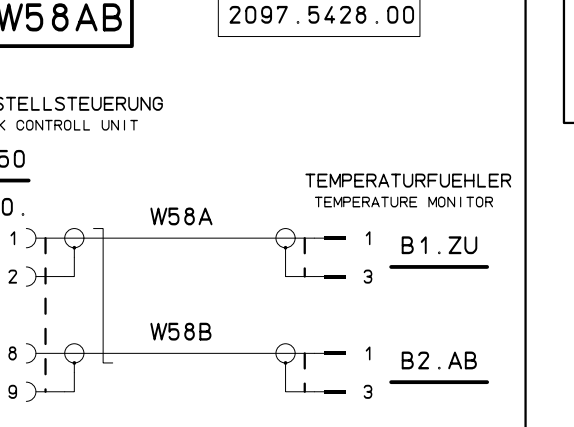
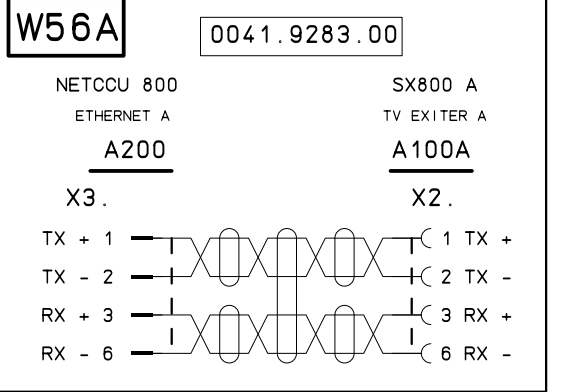
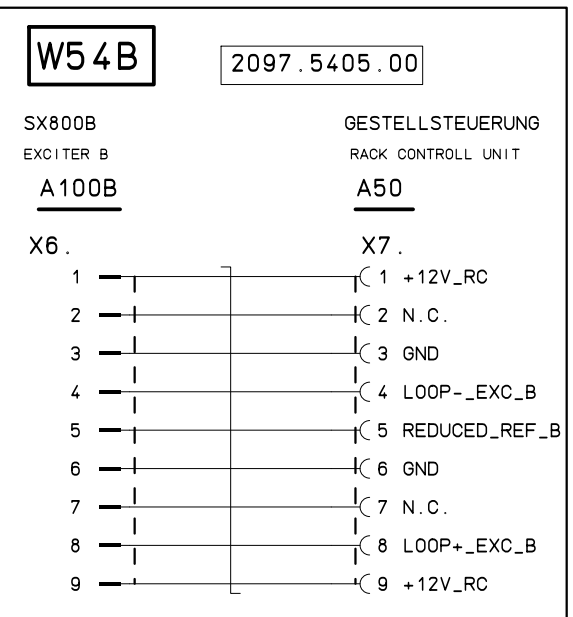
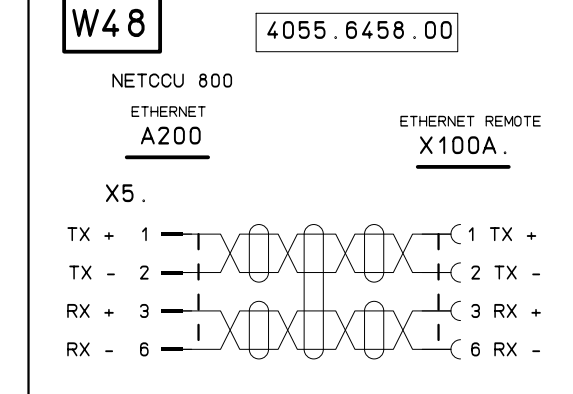
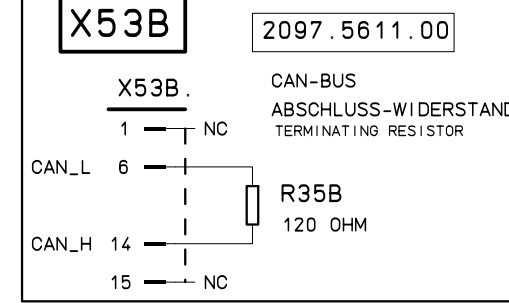
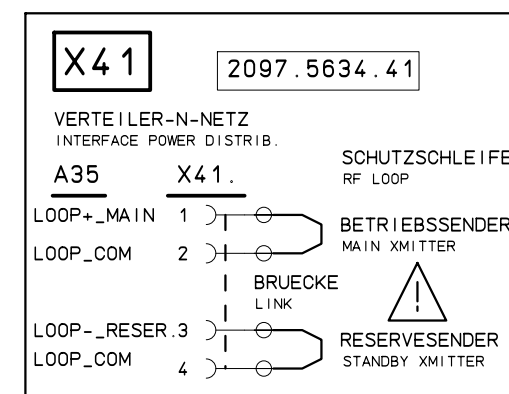
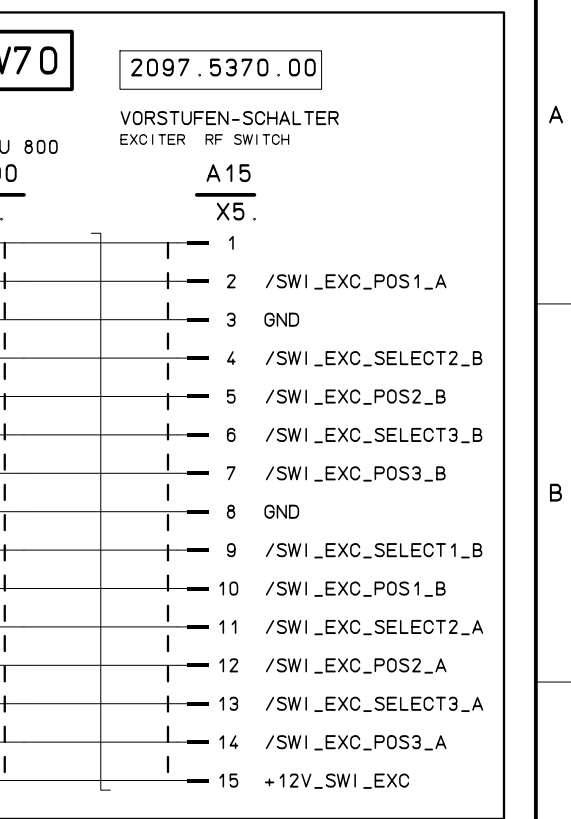
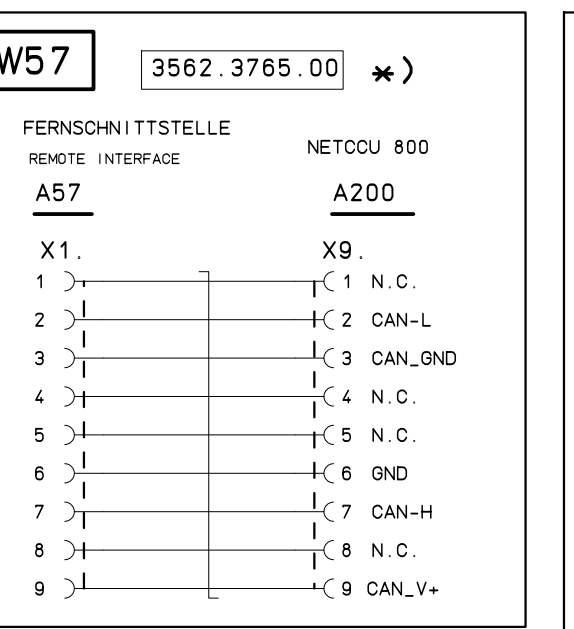
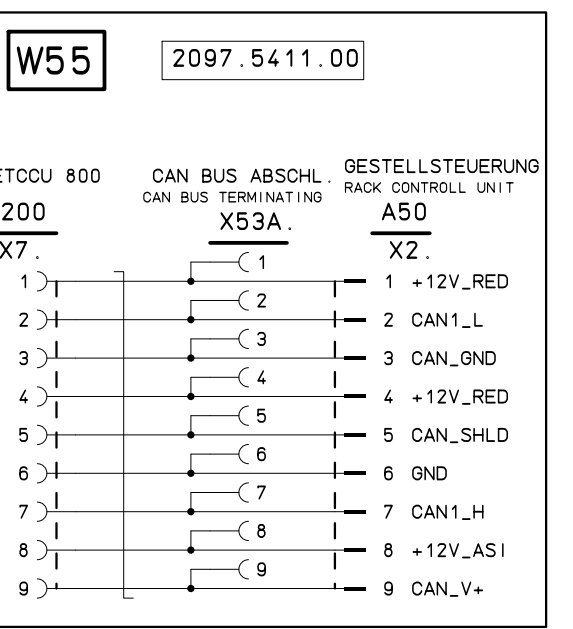
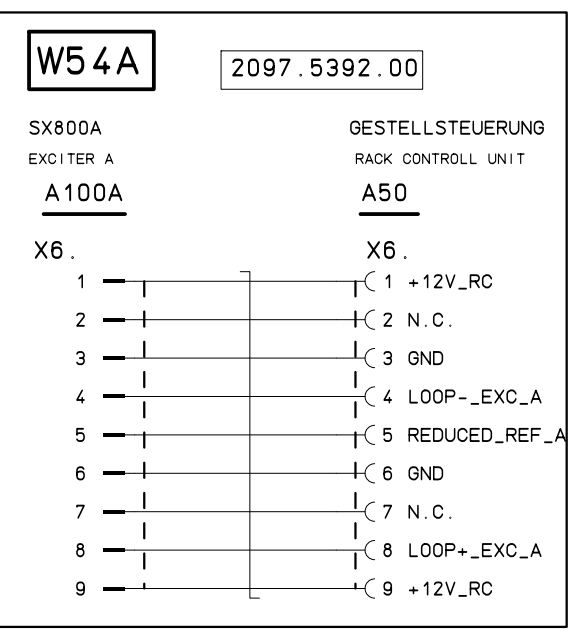
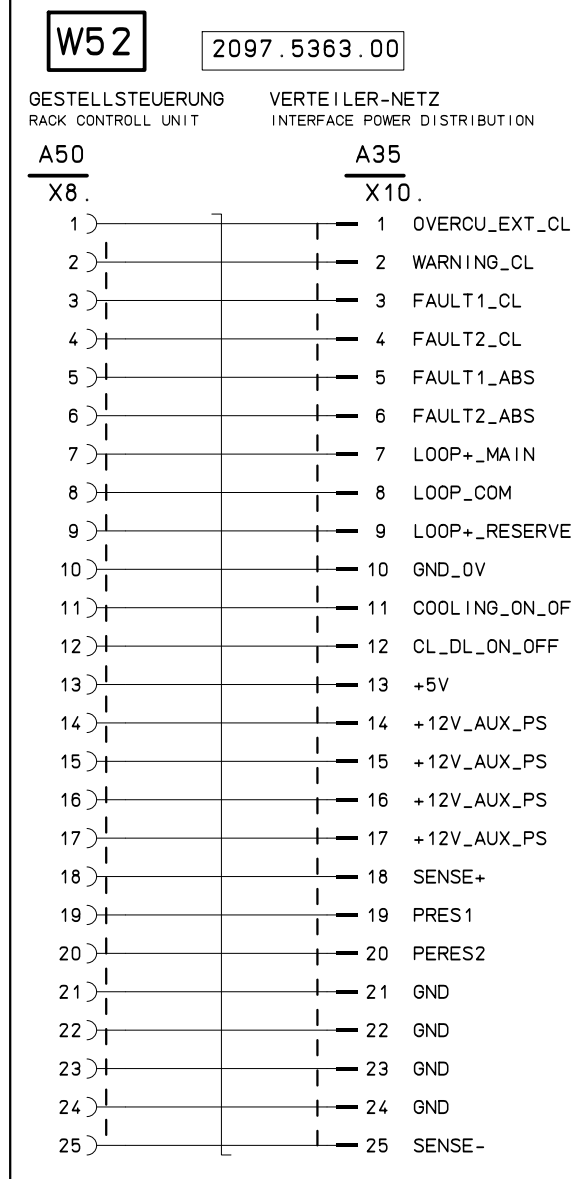
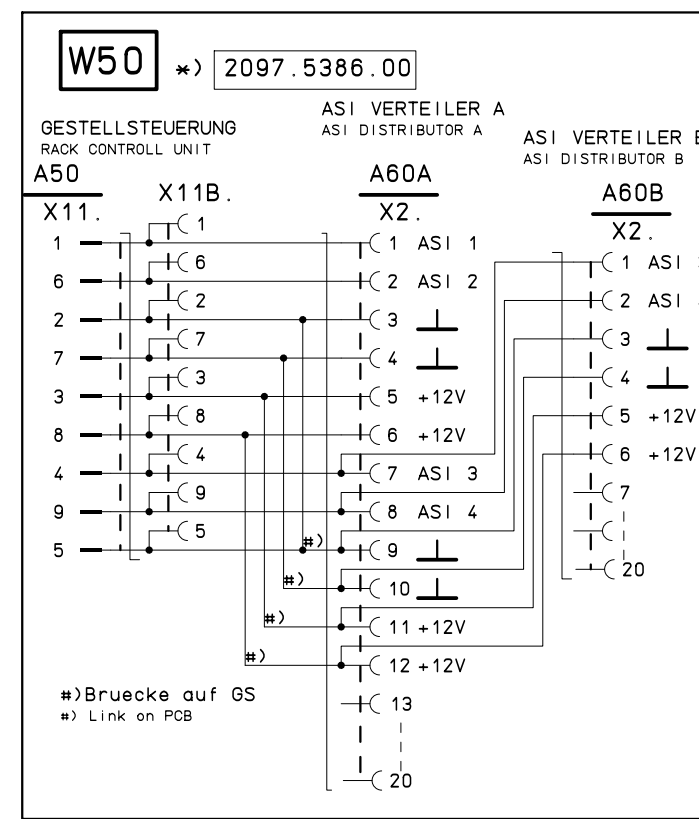
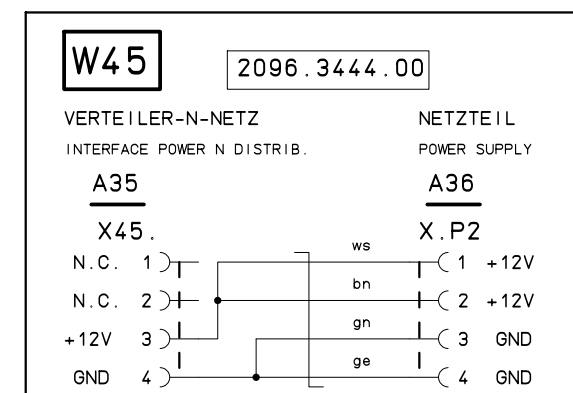
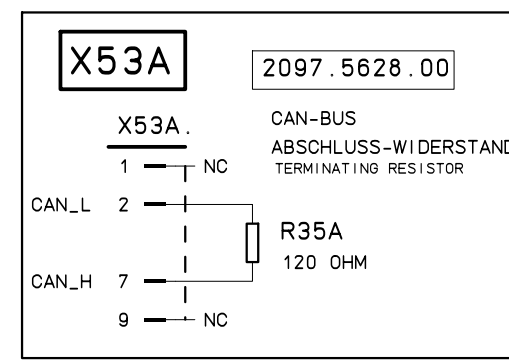
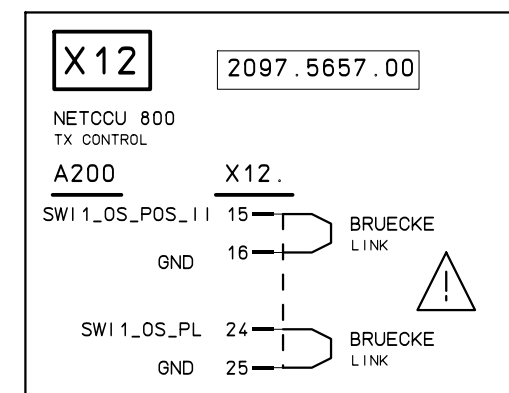
siehe Blatt 2.3
see sheet 2.3



BLOCKSCHALTBIKD STEUERLEITUNG
BLOCK DIAGRAM OF SIGNAL

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	Datum: Date: 08/07/18		Abteilung: Dept.: 7TSK		Name: Name: rolf_a
			2098.0307.01 S		

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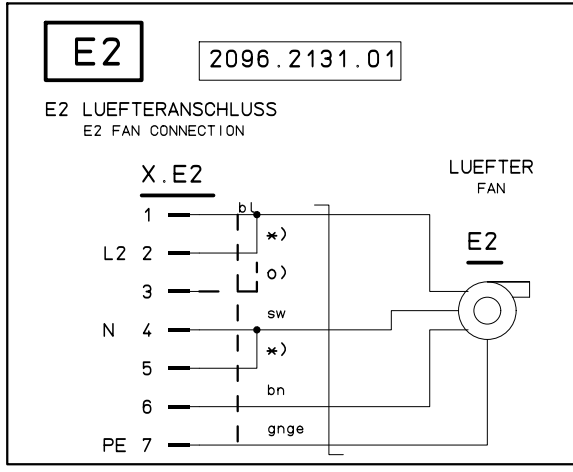
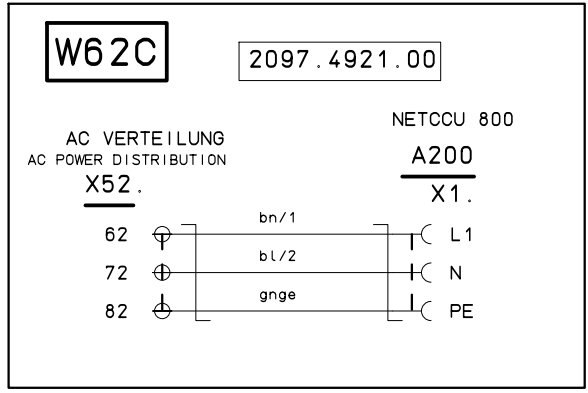
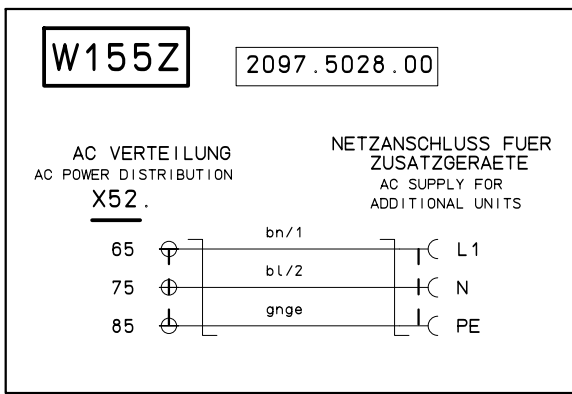
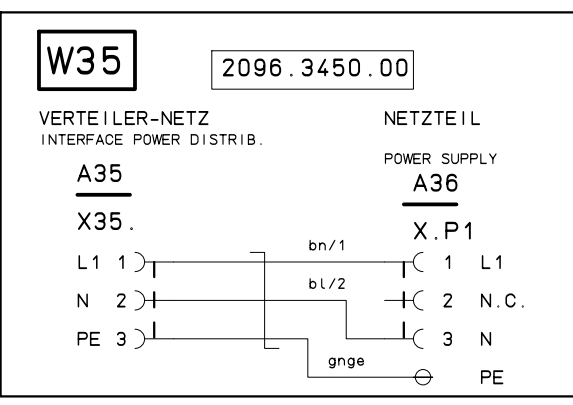
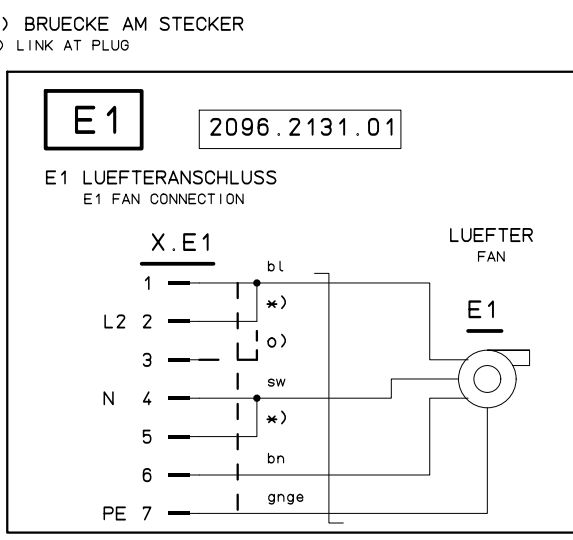
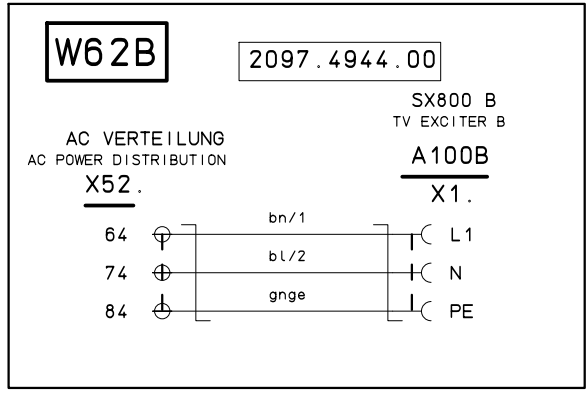
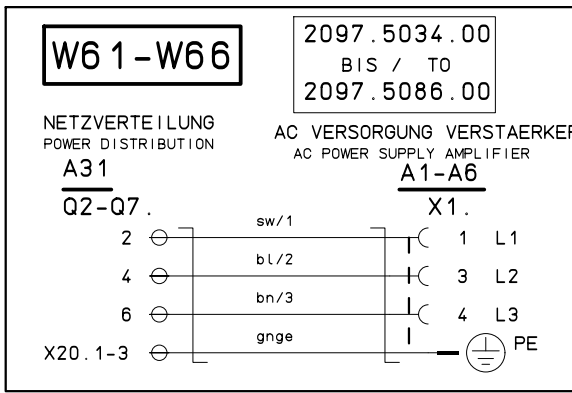
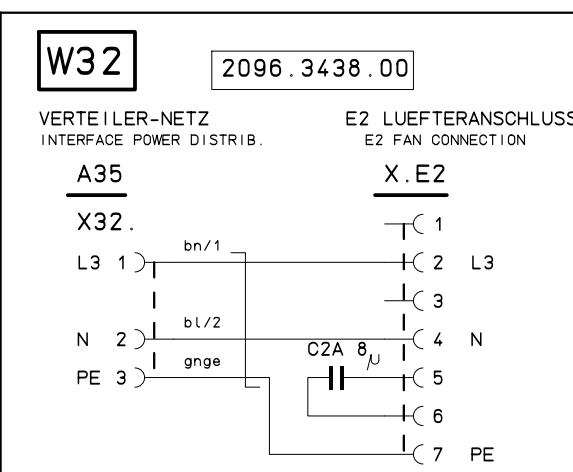
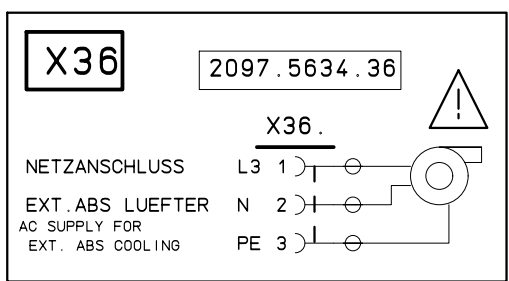
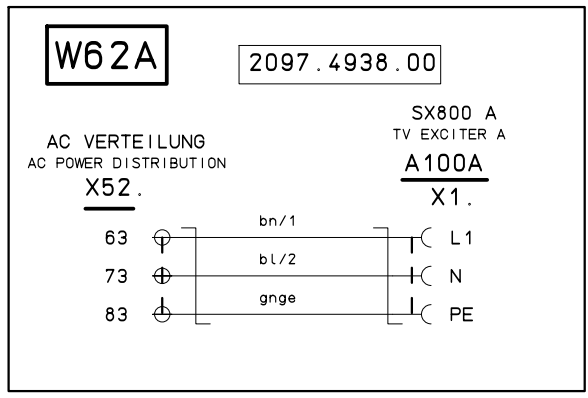
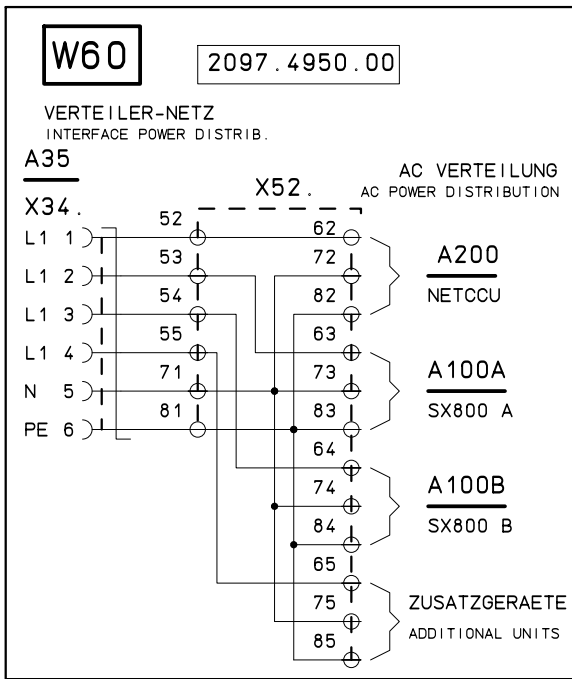
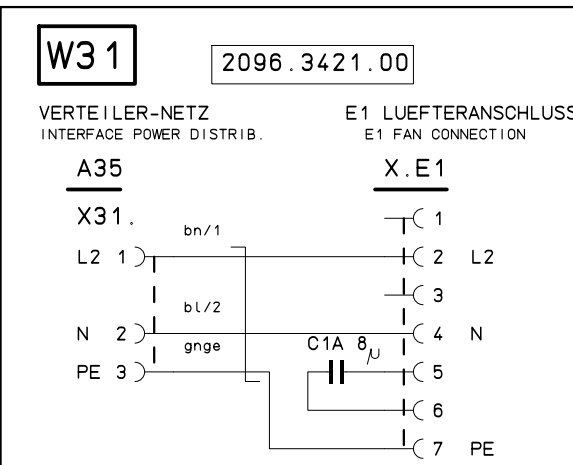
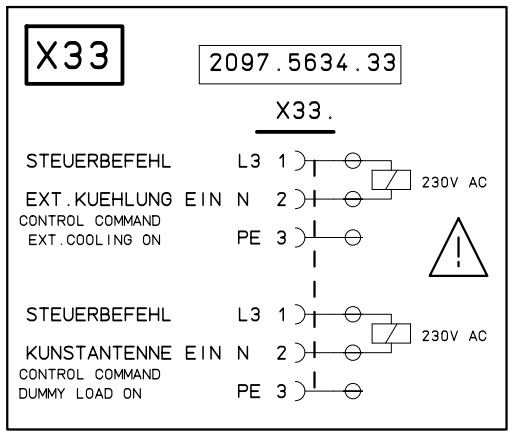


*) OPTION

STROMLAUF DER STEUER-KABEL
CIRCUIT DIAGRAM FROM THE SIGNAL CABLE

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	Datum: /Date:	08/07/18	Abteilung: /Dept.:	7TSK	Name: /Name:	rolf_a	Zeichn.Nr.:/Drawing No.:	
2098.0307.01 S								

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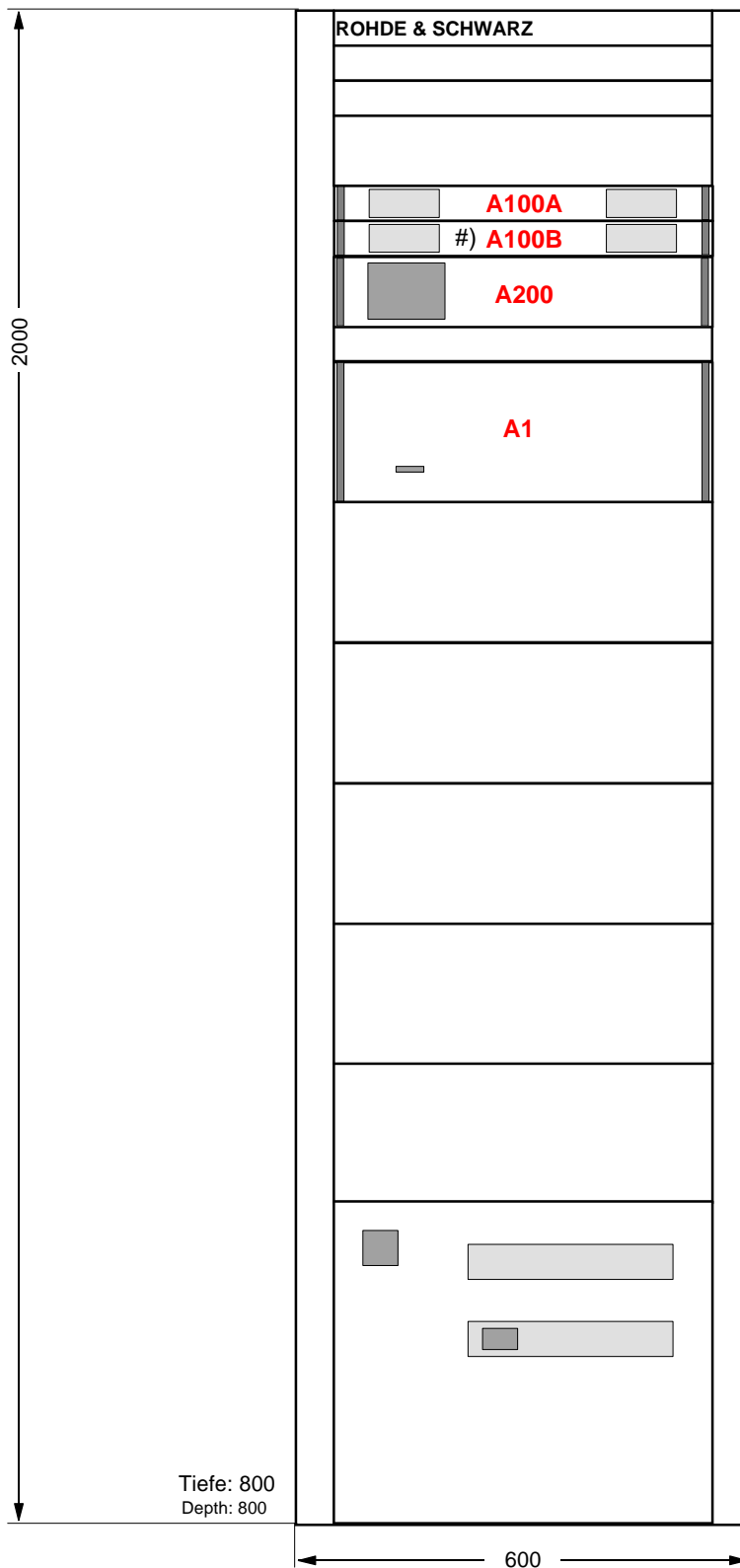
STROMLAUF DER NETZ-KABEL
 CIRCUIT DIAGRAM FROM THE POWER CABLE

ROHDE&SCHWARZ	Benennung / Designat.: NV8301X DTV-SENDER		Spr.:/Lang.: de	Aei./C.I.: 02.00	Blatt:/Sh.: 6 -
	NV8301X DTV XMTR		Zeichn.Nr./Drawing No.: 2098.0307.01 S		
NV8301X	Datum: 08/07/18	Abteilung: 7TSK	Name: rolf_a		

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el.Kennz Part	Benennung / Hinweise Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bestellbezeichnung Designation	enthalten in contained in
	ACHTUNG EGB /ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR04=NV8301E DTV-SENDER MIT EINZEL-VORSTUFE PROGNOSESENDER MOD04=NV8301E DTV- TRANSMITTER WITH SINGLE EXCITER VAR24=NV8301V DTV-SENDER MIT VORSTUFE-RESERVE OHNE ADE PROGNOSESENDER MOD24=NV8301V DTV TRANSMITTER WITH DUAL DRIVE WITHOUT ADE VAR50=NV8301X DTV-SENDER +++GRUNDESENDER+++ MOD50=NV8301X DTV- TRANSMITTER ++BASIC TRANSMITTER++				
A1	GG VH8300A1 UHF-VERSTAER. 3- Phasig VH8300A1 UHF-AMPLIFIER VAR 04 24	2095.6004.02			2098.0307.01
A20	GS ZR800T1 EINBAUS. SX800 ZR800T1 INSTAL. KIT VAR 04 24 DTV - Ausfuehrung	2099.1007.03			2098.0307.01
A21	GS ZR800C1 LEISTUNGSSATZ ZR800C1 POWER KIT VAR 04 24 Leistungssatz fuer 1 Verstaerker	2098.5009.41			2098.0307.01
A23	GS ZR800V1 VORST.SA SX800 ZR800V1 EXC.INST. KIT VAR 24 Vorstufensatz - DTV ohne ADE	2099.1507.04			2098.0307.01
A200	GG NETCCU 800 CONTROL UNIT NETCCU 800 CONTROL UNIT VAR 04 24	2095.8007.02			2098.0307.01
A100A	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 04 24	2095.1502.71			2098.0307.01
A100B	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 24	2095.1502.71			2098.0307.01

	Benennung/Designation NV8301X DTV-SENDER NV8301X DTV XMTR			Sprach./Lang de en	Ä.I. / C./ 01.00	Blatt/Sheet 1 of 1
	NV8301X	Datum/ Date 2008-01-17	Abt. / Dept. 7TSK	Name / Name Ro	Dokument Nr. / Document No. 2098.0307.01 SA	



#) OPTION

Varianteerklärung siehe Schalteilliste
Valid for model see parts list

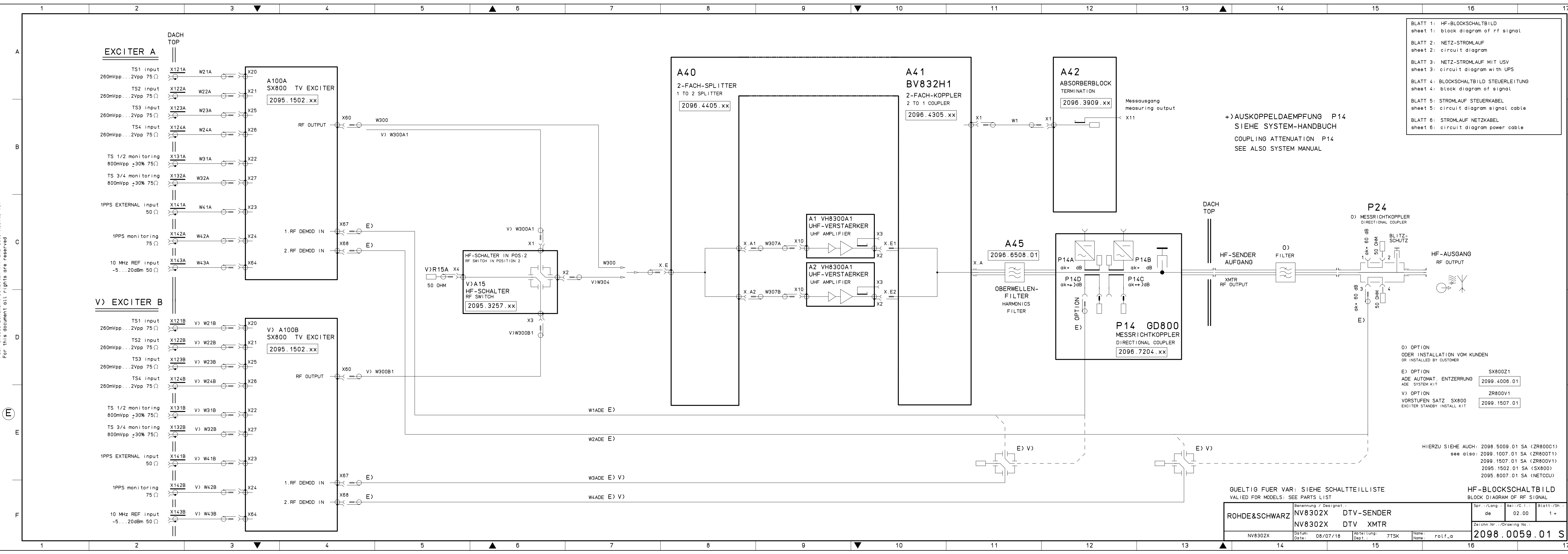
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				Norm			DTV-TANSMITTER BD.IV/V		
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					ROHDE & SCHWARZ		Zeichn.-Nr. 2098.0307.01		1
Änd. Zust.	Änderungs-Mitteilung	Tag	Name						zu Gerät

Drawings and Diagrams

NV8302E/V

2098.0059.01

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- BLATT 1: HF-BLOCKSCHALTBILD
sheet 1: block diagram of rf signal
- BLATT 2: NETZ-STROMLAUF
sheet 2: circuit diagram
- BLATT 3: NETZ-STROMLAUF MIT USV
sheet 3: circuit diagram with UPS
- BLATT 4: BLOCKSCHALTBILD STEUERLEITUNG
sheet 4: block diagram of signal
- BLATT 5: STROMLAUF STEUERKABEL
sheet 5: circuit diagram signal cable
- BLATT 6: STROMLAUF NETZKABEL
sheet 6: circuit diagram power cable

+> AUSKOPPELDAEMPFGUNG P14
SIEHE SYSTEM-HANDBUCH
COUPLING ATTENUATION P14
SEE ALSO SYSTEM MANUAL

- O) OPTION
ODER INSTALLATION VOM KUNDEN
OR INSTALLED BY CUSTOMER
- E) OPTION
ADE AUTOMAT. ENTZERRUNG
ADE SYSTEM KIT
- V) OPTION
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

GÜELTIG FÜR VAR: SIEHE SCHALTTEILLISTE VALID FOR MODELS: SEE PARTS LIST		HF-BLOCKSCHALTBILD BLOCK DIAGRAM OF RF SIGNAL	
ROHDE&SCHWARZ	Benennung / Designat.: NV8302X DTV-SENDER	Spr.:/Lang.: de	Blatt: /Sh.: 1 +
	Benennung / Designat.: NV8302X DTV XMTR	Akt.:/C.: 02.00	
NV8302X	Datum: 08/07/18	Abteilung: 7TSK	Name: rolf_a
			2098.0059.01 S

VORSICHRUNG UND ANSCHLUSSQUERSCHNITT
SIEHE SYSTEM-HANDBUCH NV8302E/V
External fusing and cable cross-sections
see system manual NV8302E/V

ACHTUNG ! / CAUTION !
NETZVERSORGUNG VON EXTERNER USV
POWER SUPPLY FROM EXTERNAL UPS
230 AC max. 5A

Z5) OPTION
ZR800Z5 [2099.3400.xx]
BAUSATZ EXTERNE USV
UPGRADE KIT EXTERNAL UPS

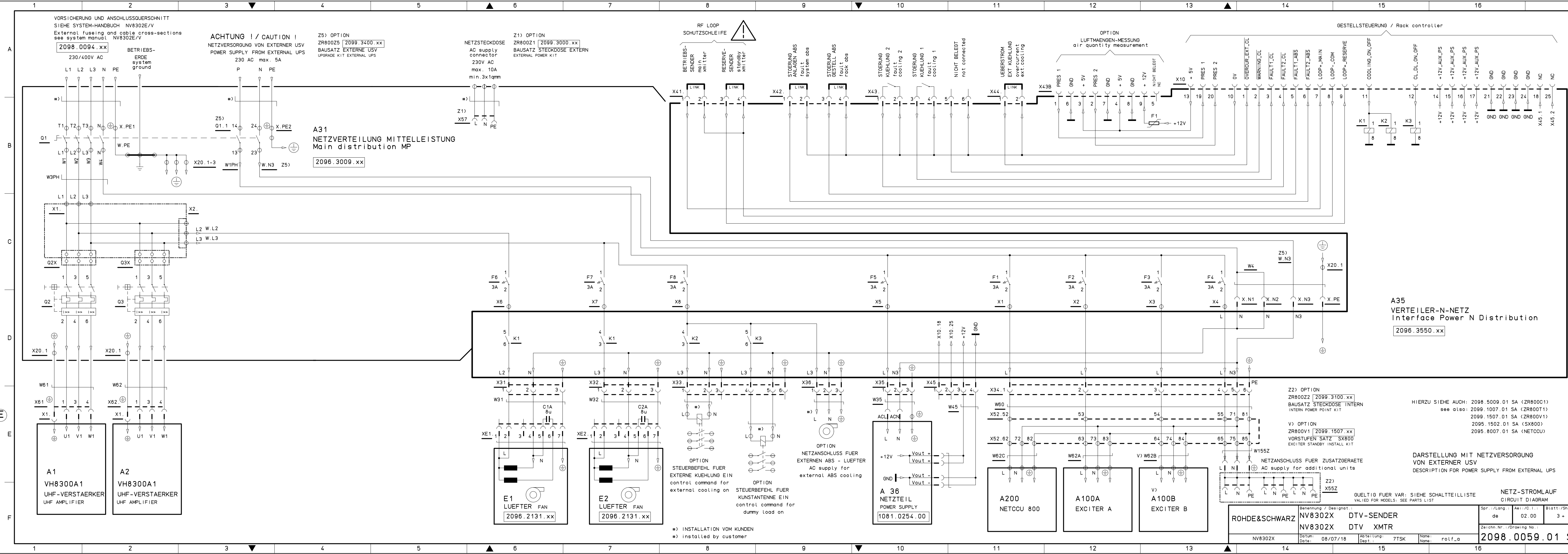
NETZSTECKDOSE
AC supply
connector
230V AC
max. 10A
min. 3x1qmm

Z1) OPTION
ZR800Z1 [2099.3000.xx]
BAUSATZ STECKDOSE EXTERN
EXTERNAL POWER KIT

RF LOOP
SCHUTZSCHLEIFE

OPTION
LUFTMAENGEN-MESSUNG
air quantity measurement

GESTELLSTEUERUNG / Rack controller



A31
NETZVERTEILUNG MITTELLEISTUNG
Main distribution MP
2096.3009.xx

A35
VERTEILER-N-NETZ
Interface Power N Distribution
2096.3550.xx

A1
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

A2
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

E1
LUEFTER FAN
2096.2131.xx

E2
LUEFTER FAN
2096.2131.xx

A 36
NETZTEIL
POWER SUPPLY
1081.0254.00

A200
NETCCU 800

A100A
EXCITER A

A100B
EXCITER B

Z2) OPTION
ZR800Z2 [2099.3100.xx]
BAUSATZ STECKDOSE INTERN
INTERN POWER POINT KIT

V) OPTION
ZR800V1 [2099.1507.xx]
VORSTUFEN SATZ 'SX800'
EXCITER STANDBY INSTALL KIT

NETZANSCHLUSS FUER ZUSATZGERAETE
AC supply for additional units

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

DARSTELLUNG MIT NETZVERSORGUNG
VON EXTERNER USV
DESCRIPTION FOR POWER SUPPLY FROM EXTERNAL UPS

QUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALID FOR MODELS: SEE PARTS LIST

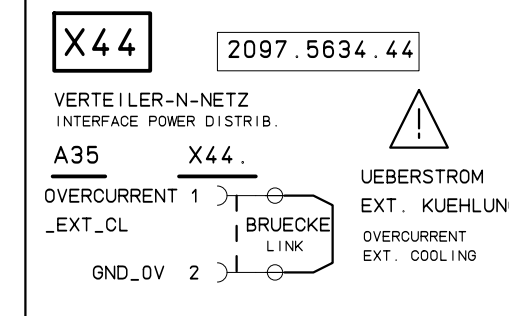
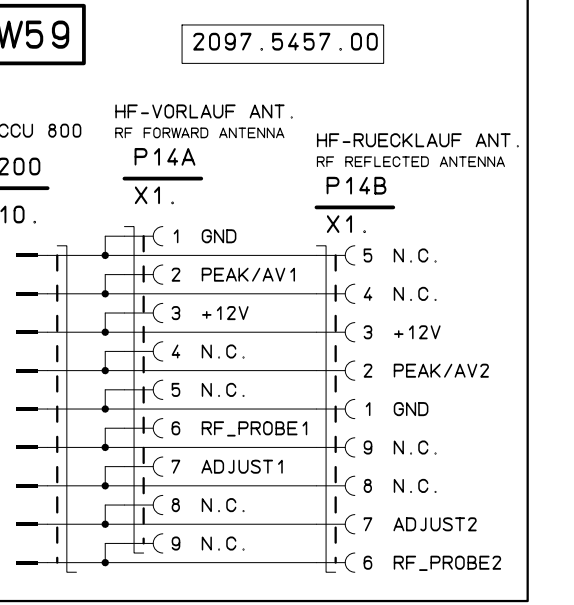
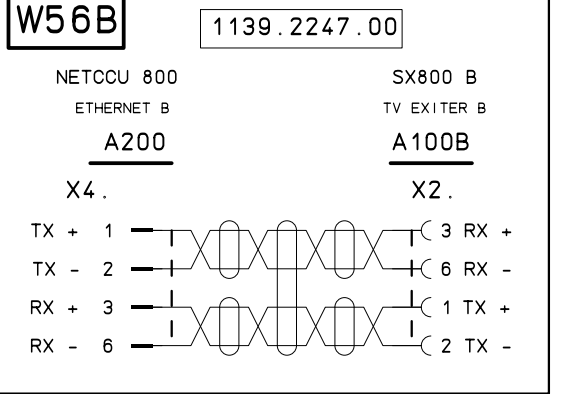
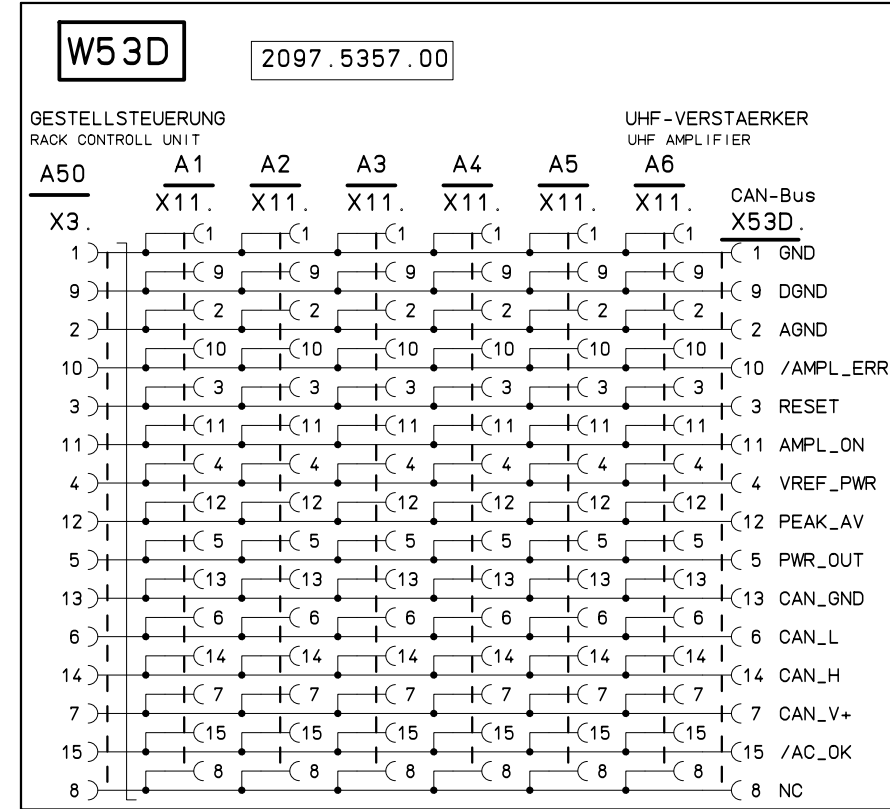
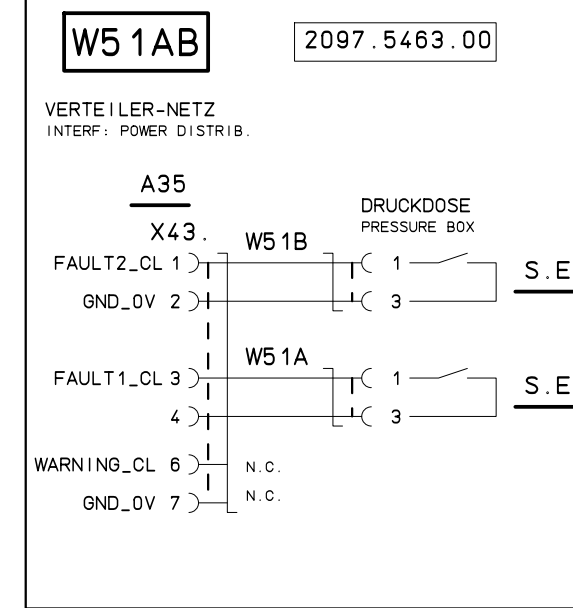
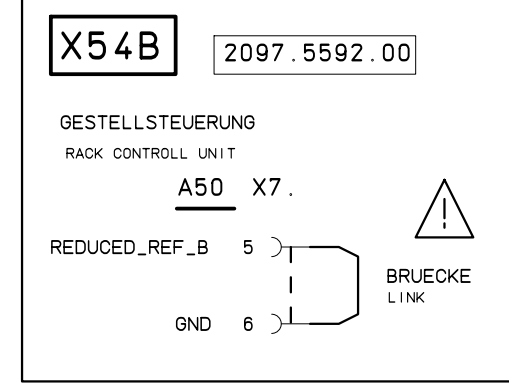
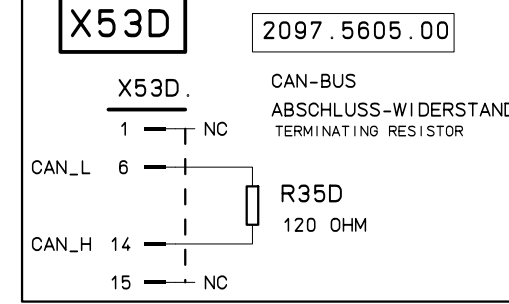
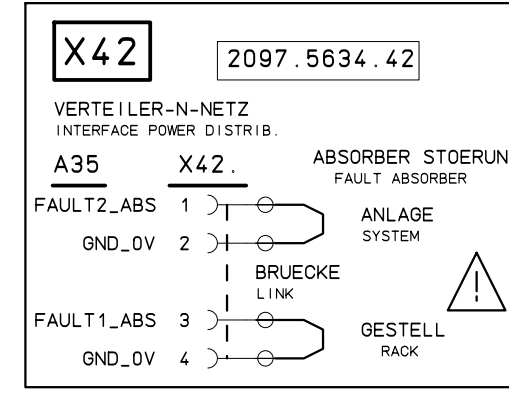
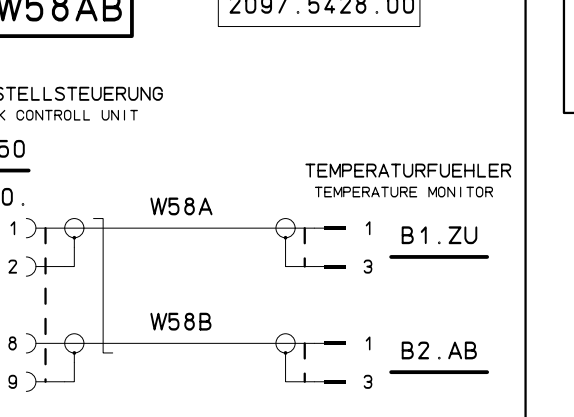
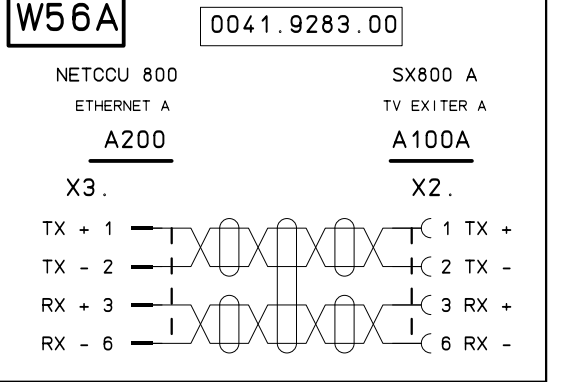
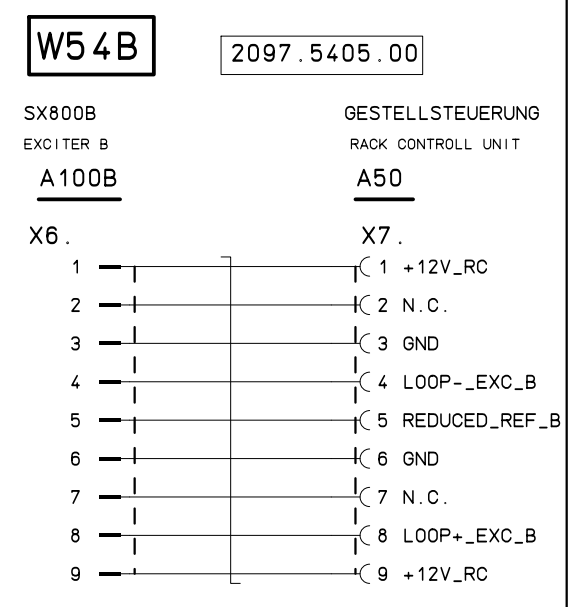
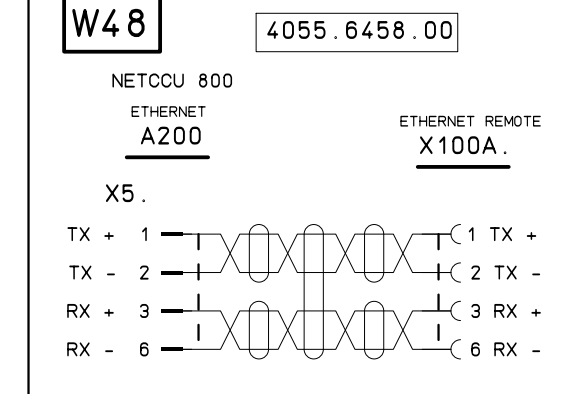
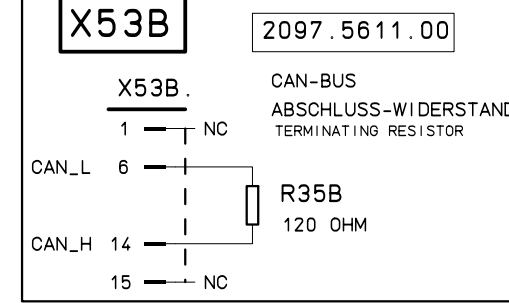
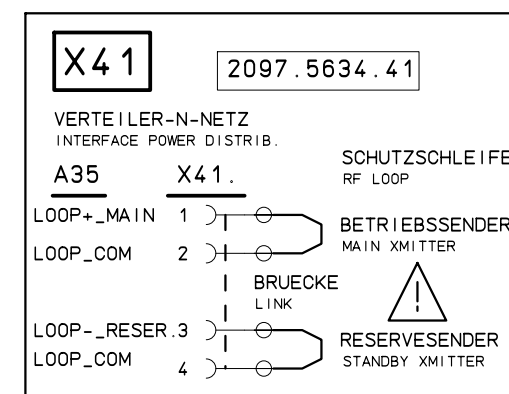
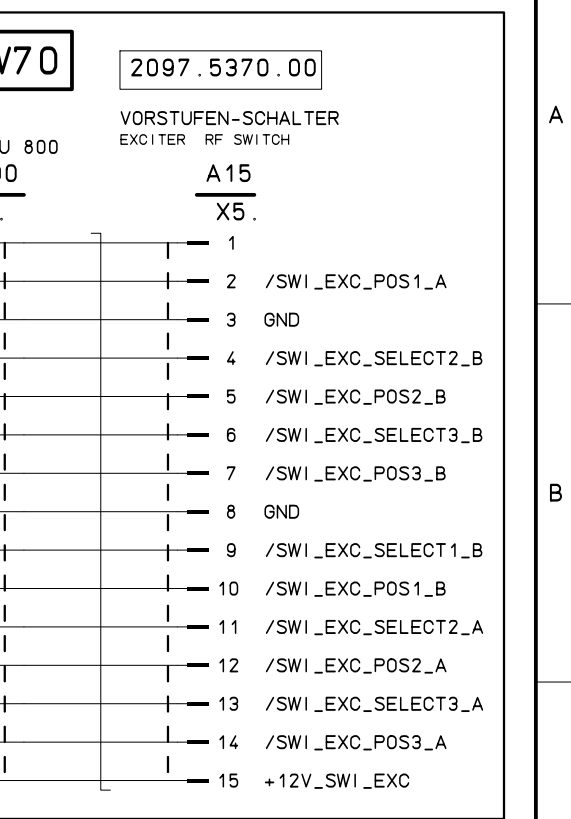
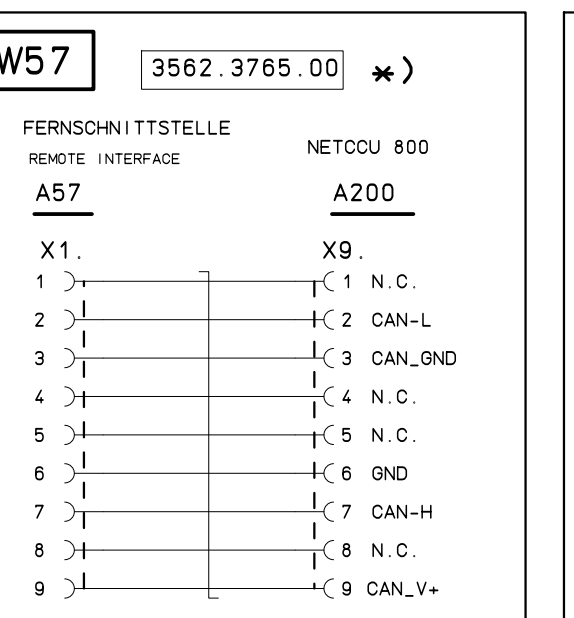
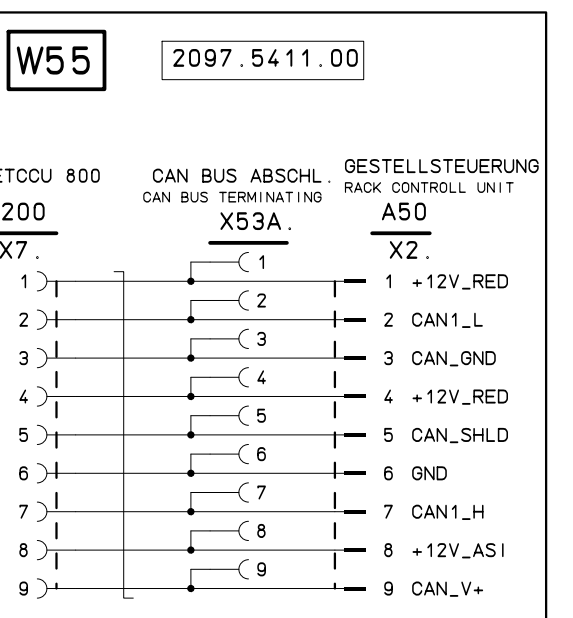
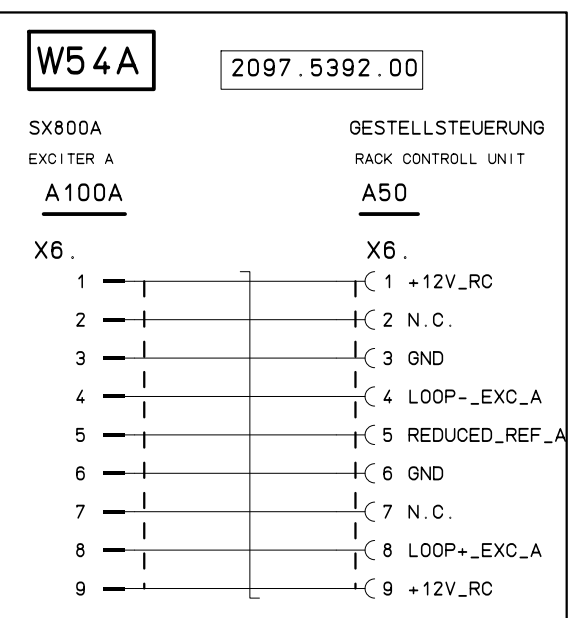
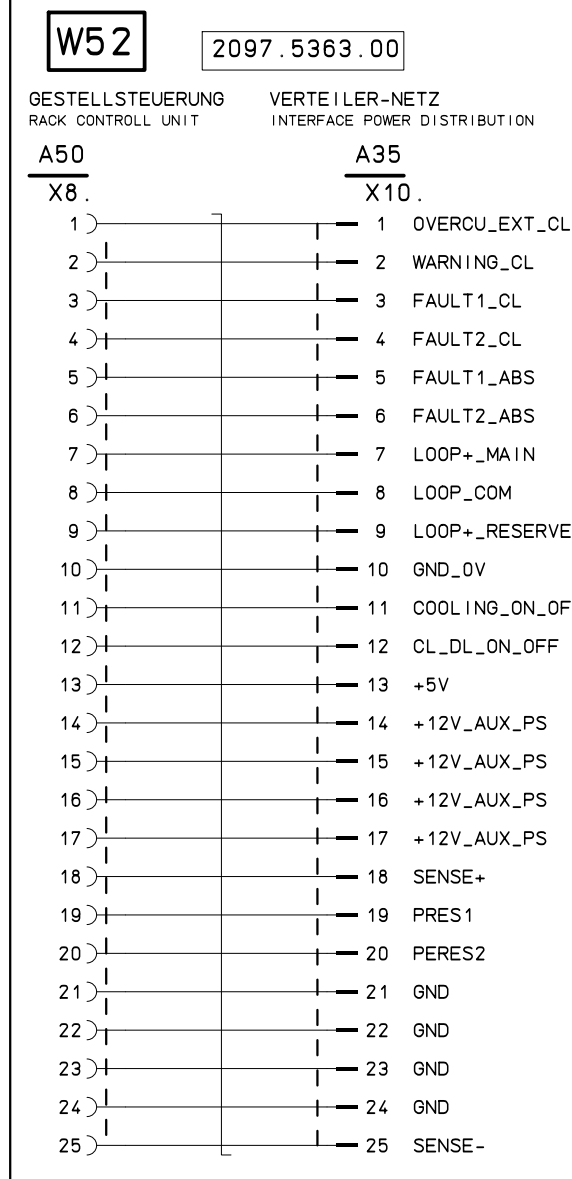
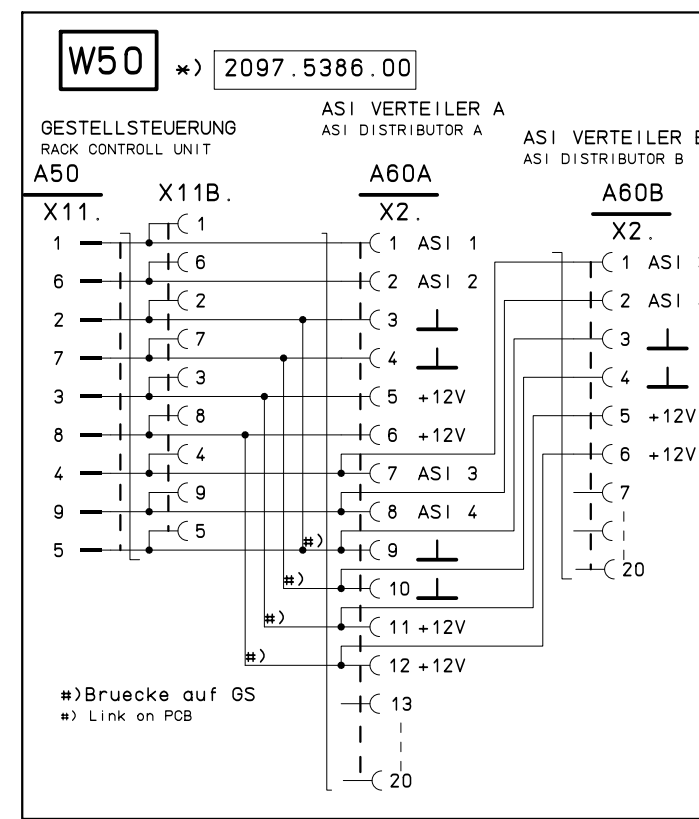
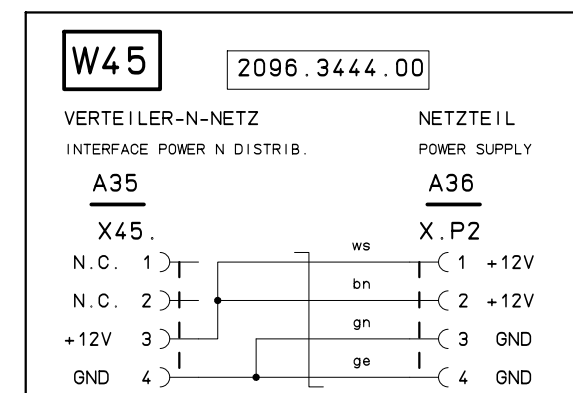
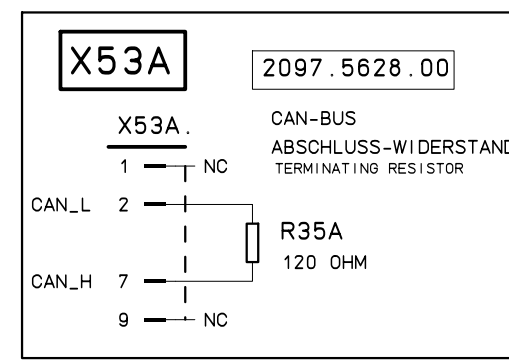
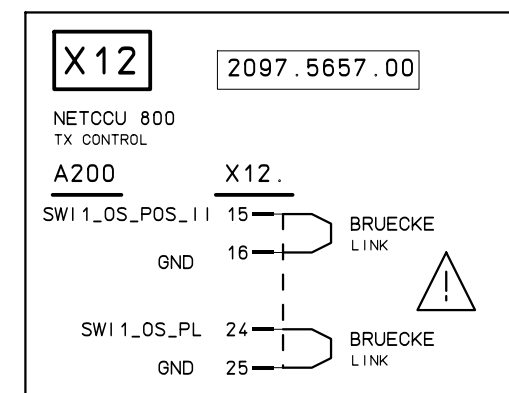
NETZ-STROMLAUF
CIRCUIT DIAGRAM

ROHDE&SCHWARZ	Benennung / Designat.:	NV8302X	DTV-SENDER	Spr.:/Lang.:	de	Blatt:/Sh.:	3+
	Datum:	08/07/18	Abteilung:	7TSK	Name:	rolf_a	Zeichn.Nr./Drawing No.:
NV8302X							

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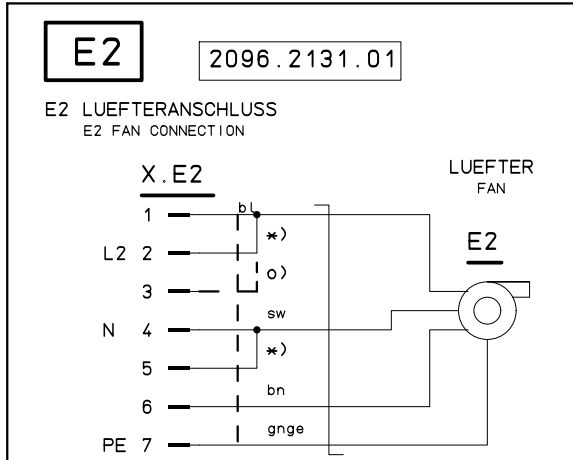
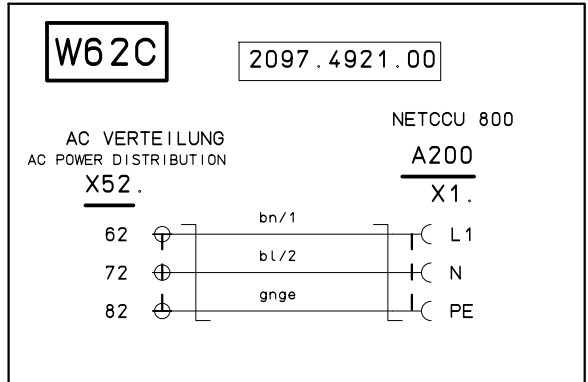
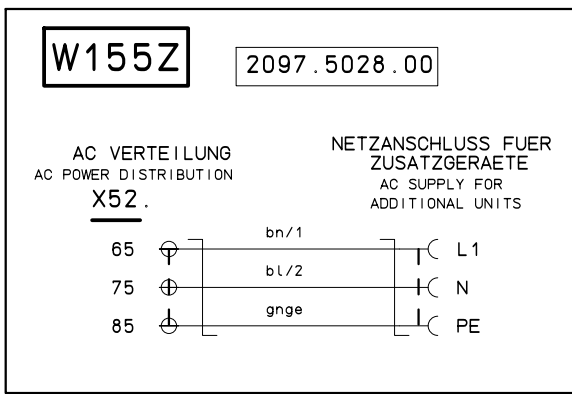
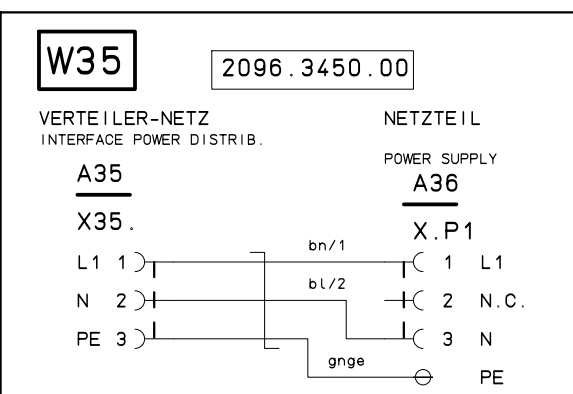
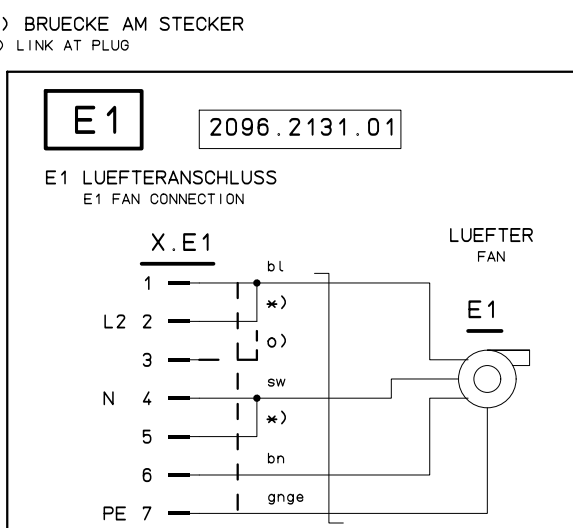
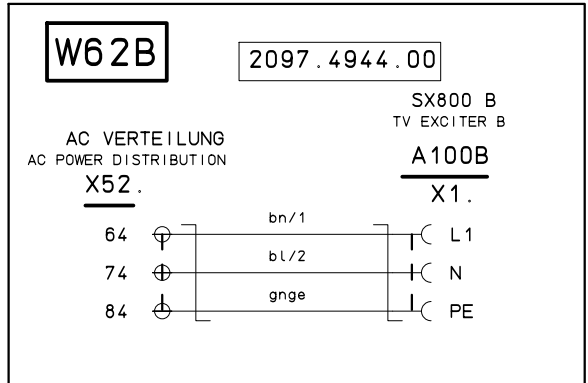
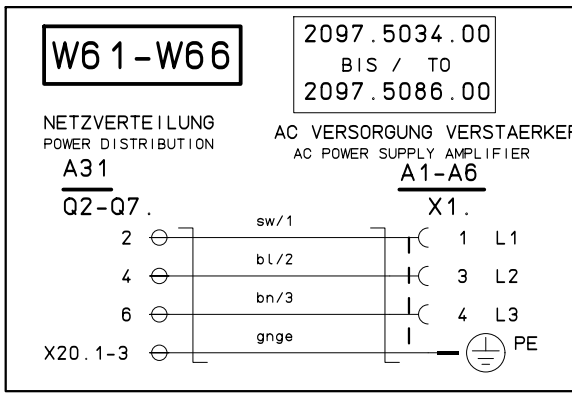
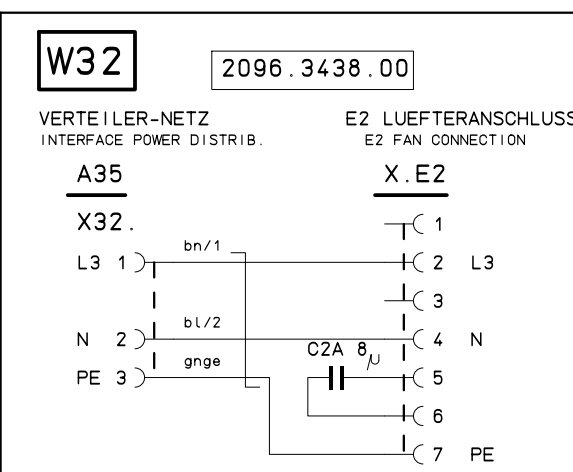
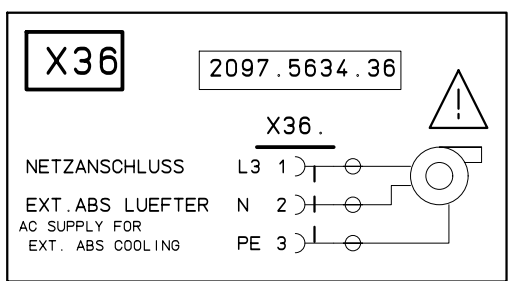
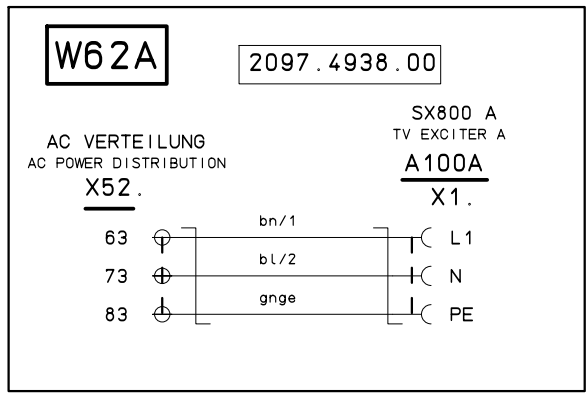
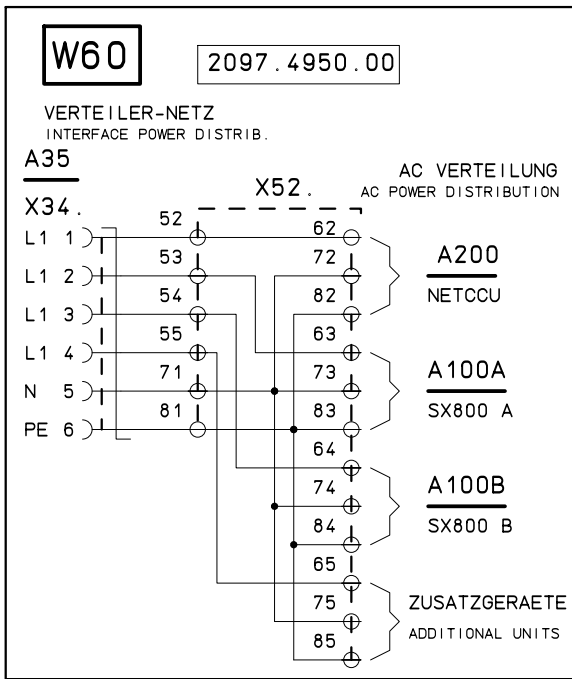
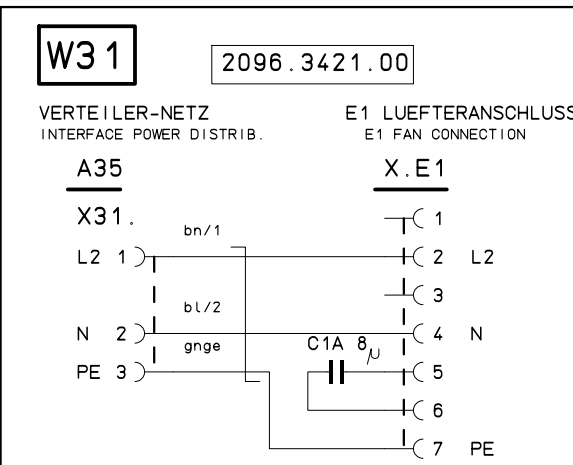
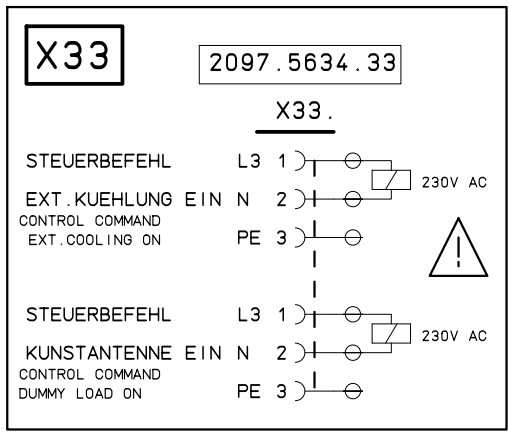


*) OPTION

STROMLAUF DER STEUER-KABEL
CIRCUIT DIAGRAM FROM THE SIGNAL CABLE

ROHDE&SCHWARZ	Benennung / Designat.:	NV8302X DTV-SENDER	Spr.:/Lang.:	de	Ael./C. I.:	02.00	Blatt:/Sh.:	5+
	Datum: /Date:	08/07/18	Abteilung: /Dept.:	7TSK	Name: /Name:	rolf_a	Zeichn.Nr.:/Drawing No.:	
						2098.0059.01 S		

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STROMLAUF DER NETZ-KABEL
 CIRCUIT DIAGRAM FROM THE POWER CABLE

ROHDE&SCHWARZ	Benennung / Designat.: NV8302X DTV-SENDER			Spr.:/Lang.: de	Aei./C.I.: 02.00	Blatt:/Sh.: 6 -
	NV8302X DTV XMTR			Zeichn.Nr./Drawing No.: 2098.0059.01 S		
NV8302X	Datum: Date: 08/07/18	Abteilung: Dept.: 7TSK	Name: Name: rolf_a			

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 Printed documents are not subject to revision

el.Kennz Part	Benennung / Hinweise Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bestellbezeichnung Designation	enthalten in contained in
	ACHTUNG EGB /ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR04=NV8302E DTV-SENDER MIT EINZEL-VORSTUFE PROGNOSESENDER MOD04=NV8302E DTV- TRANSMITTER WITH SINGLE EXCITER VAR24=NV8302V DTV-SENDER MIT VORSTUFE-RESERVE OHNE ADE PROGNOSESENDER MOD24=NV8302V DTV TRANSMITTER WITH DUAL DRIVE WITHOUT ADE VAR50=NV8302X DTV-SENDER +++GRUNDESENDER+++ MOD50=NV8302X DTV- TRANSMITTER ++BASIC TRANSMITTER++				
A1 - A2	GG VH8300A1 UHF-VERSTAER. 3- Phasig VH8300A1 UHF-AMPLIFIER VAR 04 24	2095.6004.02			2098.0059.01
A20	GS ZR800T1 EINBAUS. SX800 ZR800T1 INSTAL. KIT VAR 04 24 DTV - Ausfuehrung	2099.1007.03			2098.0059.01
A21	GS ZR800C1 LEISTUNGSSATZ ZR800C1 POWER KIT VAR 04 24 Leistungssatz fuer 2 Verstaerker	2098.5009.42			2098.0059.01
A23	GS ZR800V1 VORST.SA SX800 ZR800V1 EXC.INST. KIT VAR 24 Vorstufensatz - DTV ohne ADE	2099.1507.04			2098.0059.01
A200	GG NETCCU 800 CONTROL UNIT NETCCU 800 CONTROL UNIT VAR 04 24	2095.8007.02			2098.0059.01
A100A	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 04 24	2095.1502.71			2098.0059.01
A100B	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 24	2095.1502.71			2098.0059.01

	Benennung/Designation NV8302X DTV-SENDER NV8302X DTV XMTR			Sprach./Lang de en	Ä.I. / C./ 01.00	Blatt/Sheet 1 of 1
	NV8302X	Datum/ Date 2008-01-17	Abt. / Dept. 7TSK	Name / Name Ro	Dokument Nr. / Document No. 2098.0059.01 SA	

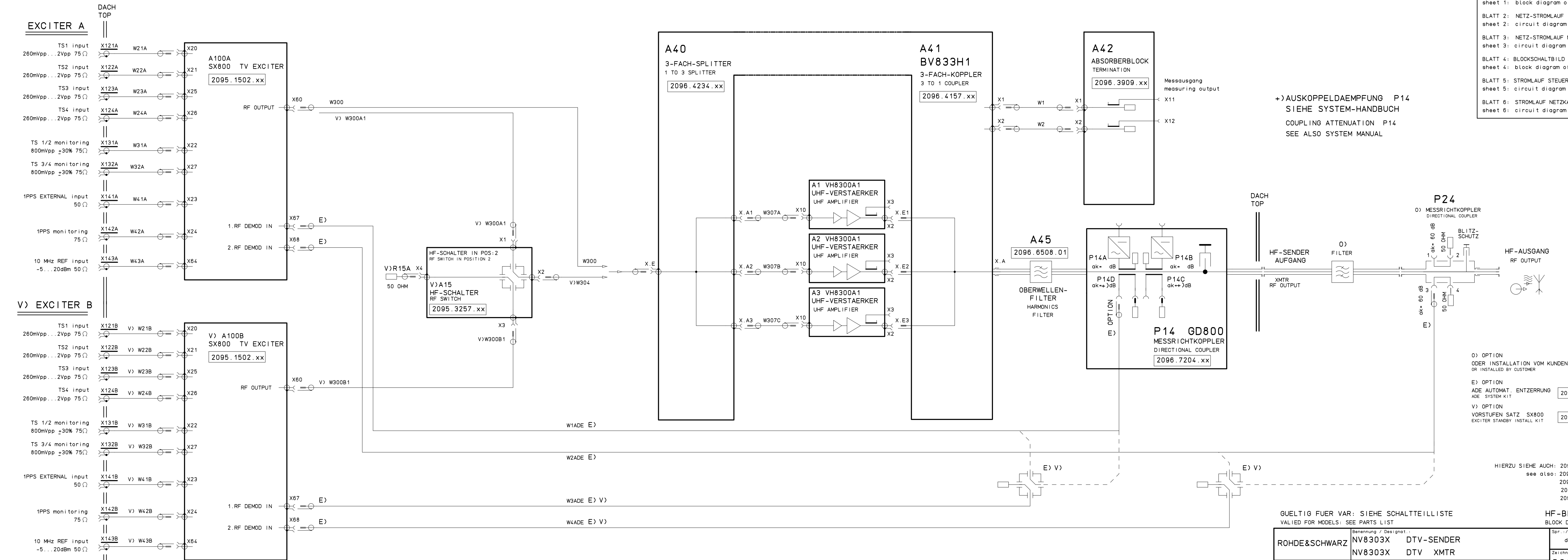
Drawings and Diagrams

NV8303E/V

2098.0107.01

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BLATT 1:	HF-BLOCKSCHALTBIKD
sheet 1:	block diagram of rf signal
BLATT 2:	NETZ-STROMLAUF
sheet 2:	circuit diagram
BLATT 3:	NETZ-STROMLAUF MIT USV
sheet 3:	circuit diagram with UPS
BLATT 4:	BLOCKSCHALTBIKD STEUERLEITUNG
sheet 4:	block diagram of signal
BLATT 5:	STROMLAUF STEUERKABEL
sheet 5:	circuit diagram signal cable
BLATT 6:	STROMLAUF NETZKABEL
sheet 6:	circuit diagram power cable



GUELTIG FUER VAR: SIEHE SCHALTTEILLISTE VALID FOR MODELS: SEE PARTS LIST		Benennung / Designat.: NV8303X DTV-SENDER		Spr.:/Lang.: de		Abl.:/C.I.: 02.00		Blatt:/Sh.: 1+	
ROHDE&SCHWARZ		NV8303X DTV XMTR		Zeichn.Nr./Drawing No.: 2098.0107.01 S					
NV8303X		Datum: 08/07/18		Abteilung: 7TSK		Name: rolf_a			

HF-BLOCKSCHALTBIKD
BLOCK DIAGRAM OF RF SIGNAL

VORSICHERUNG UND ANSCHLUSSQUERSCHNITT
SIEHE SYSTEM-HANDBUCH NV8303E/V
External fusing and cable cross-sections
see system manual NV8303E/V

ACHTUNG ! / CAUTION !
NETZVERSORGUNG VON EXTERNER USV
POWER SUPPLY FROM EXTERNAL UPS

Z5) OPTION
ZR800Z5 [2099.3400.xx]
BAUSATZ EXTERNE USV
UPGRADE KIT EXTERNAL UPS

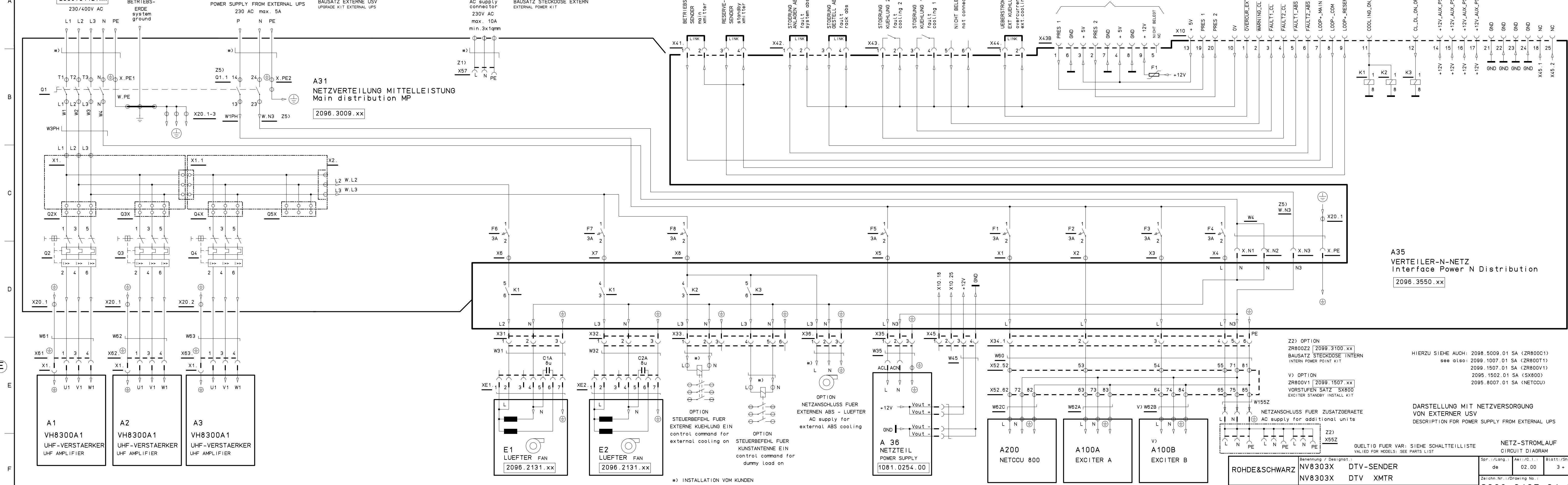
NETZSTECKDOSE
AC supply connector
230V AC
max. 10A
min. 3x1qmm

Z1) OPTION
ZR800Z1 [2099.3000.xx]
BAUSATZ STECKDOSE EXTERN
EXTERNAL POWER KIT

RF LOOP
SCHUTZSCHLEIFE

OPTION
LUFTMAENGEN-MESSUNG
air quantity measurement

GESTELLSTEUERUNG / Rack controller



A31
NETZVERTEILUNG MITTELLEISTUNG
Main distribution MP

A35
VERTEILER-N-NETZ
Interface Power N Distribution

A1
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

A2
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

A3
VH8300A1
UHF-VERSTAERKER
UHF AMPLIFIER

E1
LUEFTER FAN
2096.2131.xx

E2
LUEFTER FAN
2096.2131.xx

A 36
NETZTEIL
POWER SUPPLY
1081.0254.00

A200
NETCCU 800

A100A
EXCITER A

A100B
EXCITER B

Z2) OPTION
ZR800Z2 [2099.3100.xx]
BAUSATZ STECKDOSE INTERN
INTERN POWER POINT KIT

V) OPTION
ZR800V1 [2099.1507.xx]
VORSTUFEN SATZ 'SX800'
EXCITER STANDBY INSTALL KIT

NETZANSCHLUSS FUER ZUSATZGERAETE
AC supply for additional units

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

DARSTELLUNG MIT NETZVERSORGUNG
VON EXTERNER USV
DESCRIPTION FOR POWER SUPPLY FROM EXTERNAL UPS

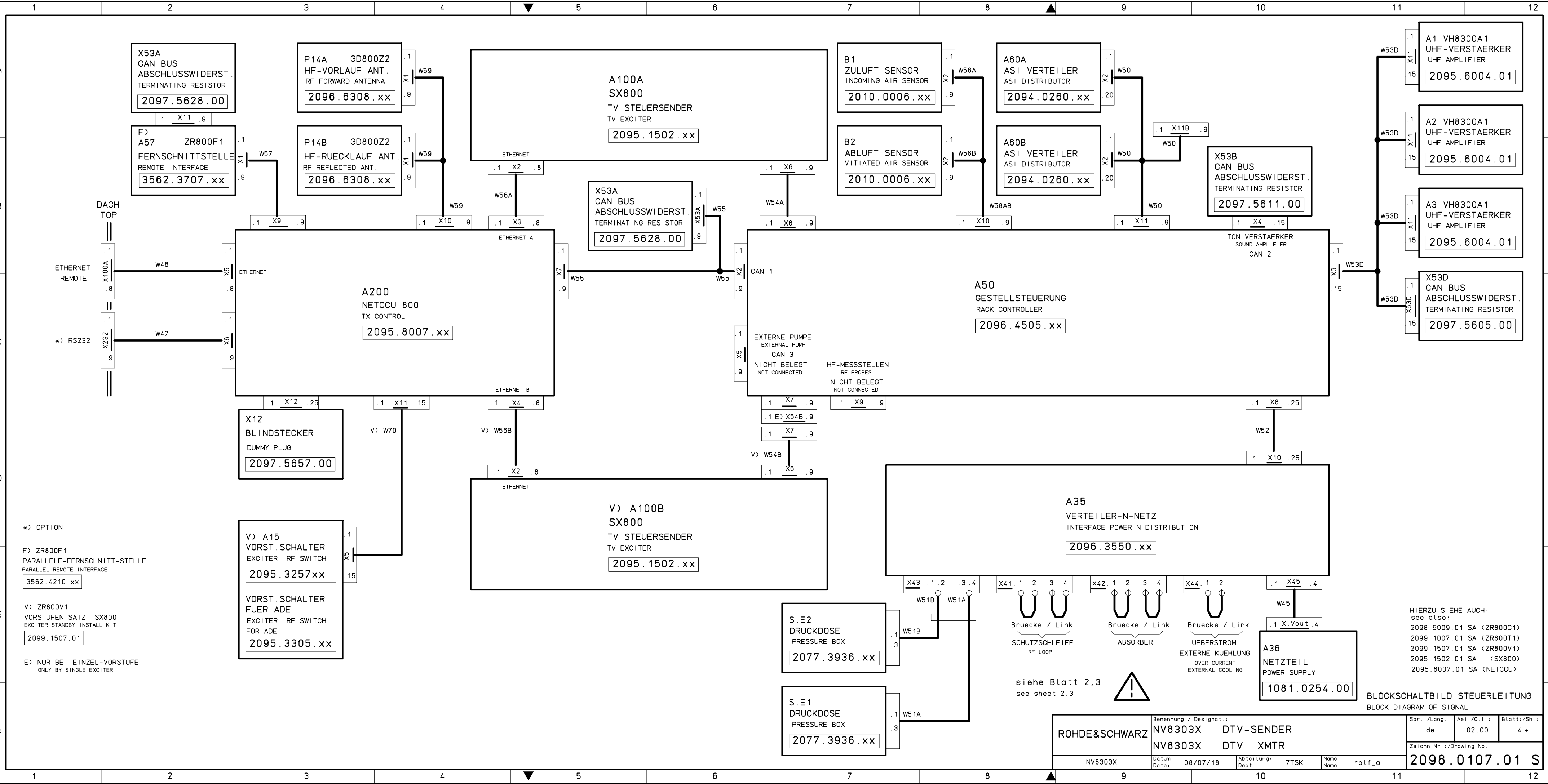
NETZ-STROMLAUF
CIRCUIT DIAGRAM

ROHDE&SCHWARZ	Benennung / Designat.: NV8303X DTV-SENDER		Spr.:/Lang.: de	Abl.:/C.I.: 02.00	Blatt:/Sh.: 3+
	NV8303X DTV XMTR				
Datum: 08/07/18		Abteilung: 7TSK		Name: rolf_a	
Zeichn.Nr./Drawing No.: 2098.0107.01 S					

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- *) OPTION
- F) ZR800F1
PARALLELE-FERNSCHNITT-STELLE
PARALLEL REMOTE INTERFACE
2097.5628.xx
- V) ZR800V1
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT
2099.1507.01
- E) NUR BEI EINZEL-VORSTUFE
ONLY BY SINGLE EXCITER

HIERZU SIEHE AUCH:
see also:
2098.5009.01 SA (ZR800C1)
2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

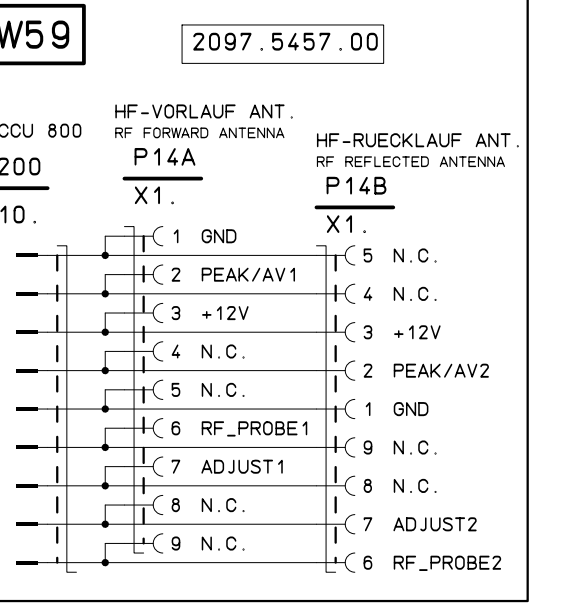
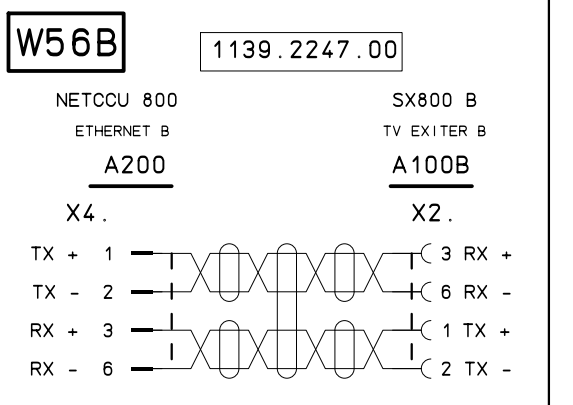
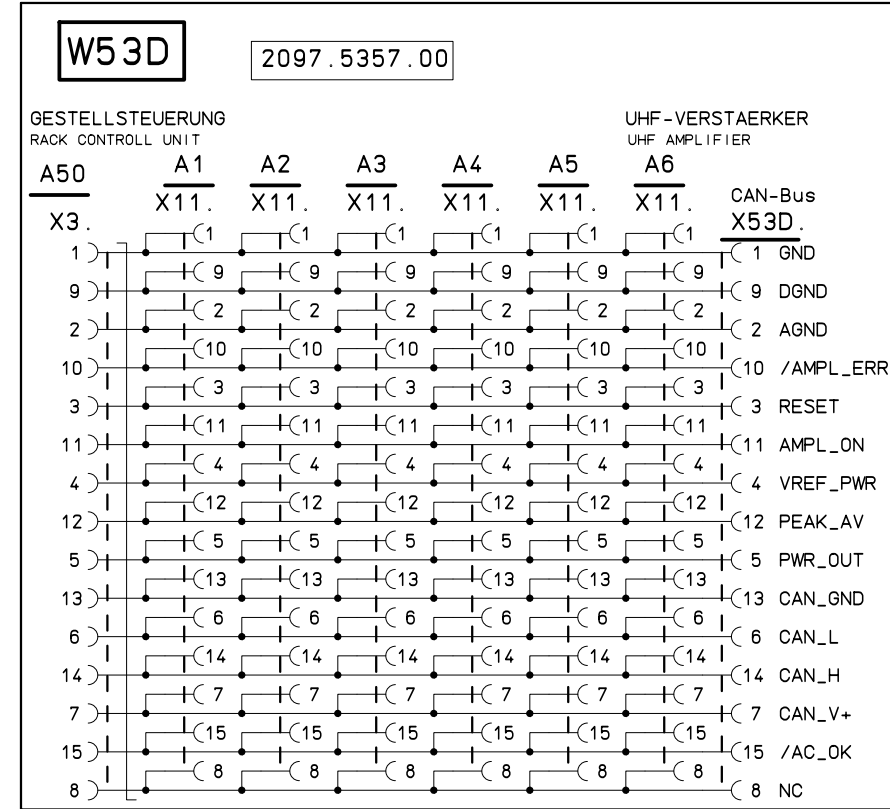
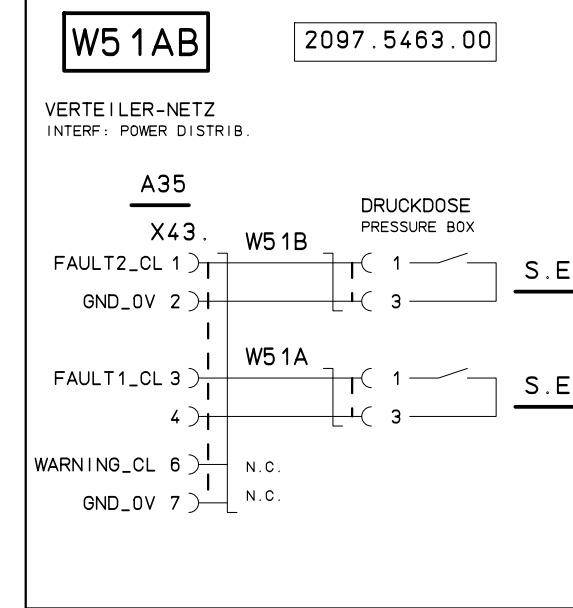
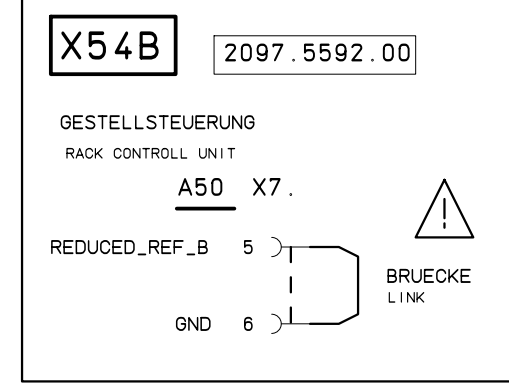
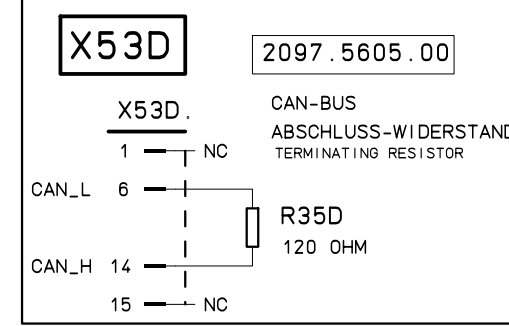
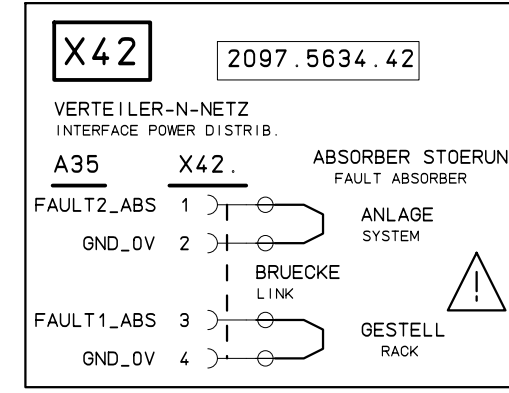
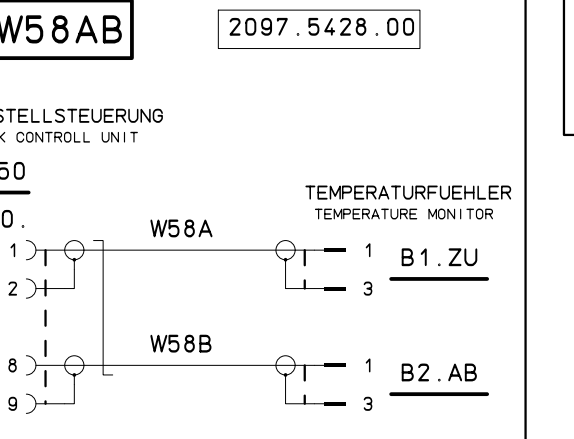
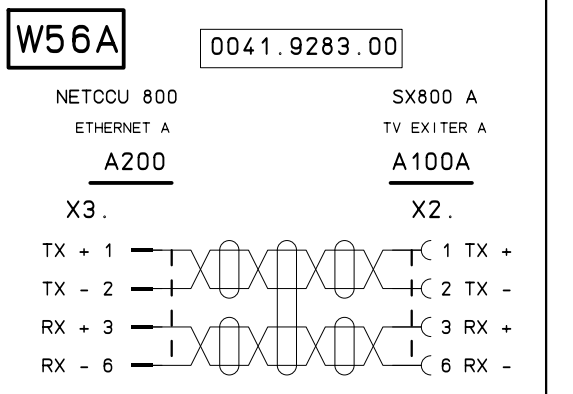
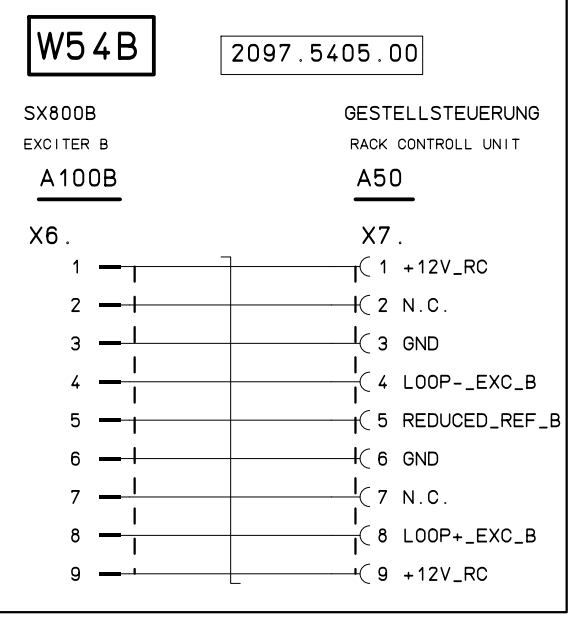
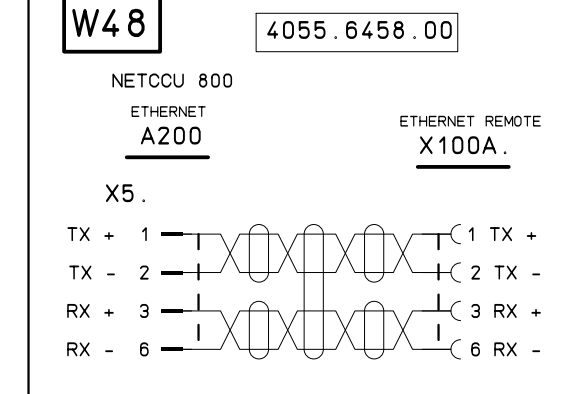
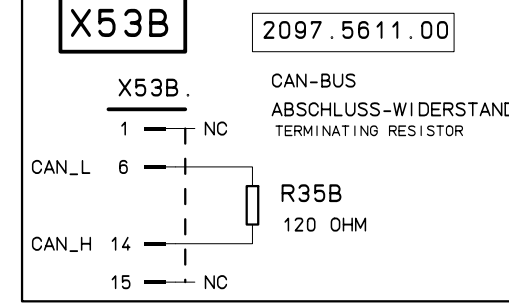
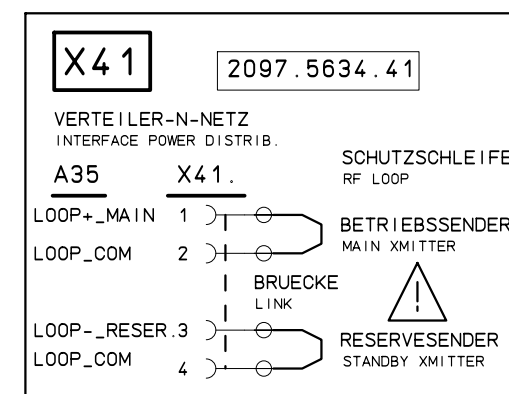
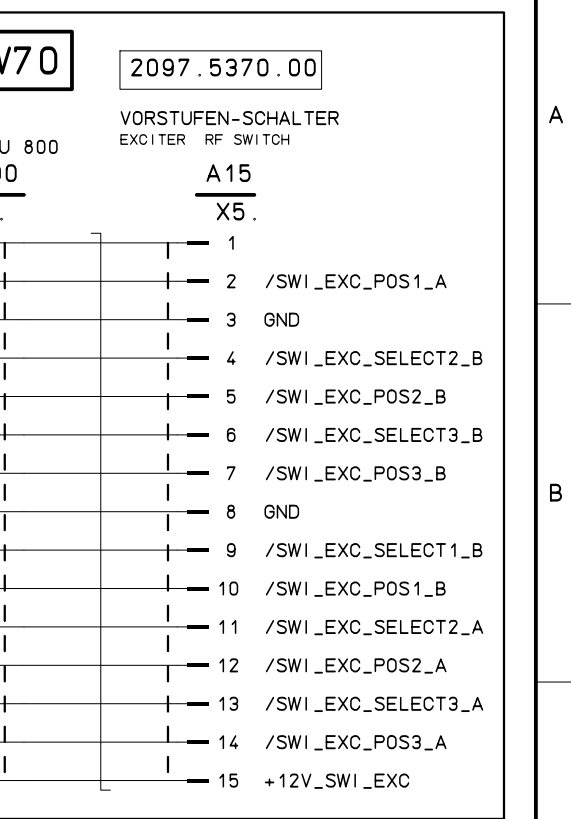
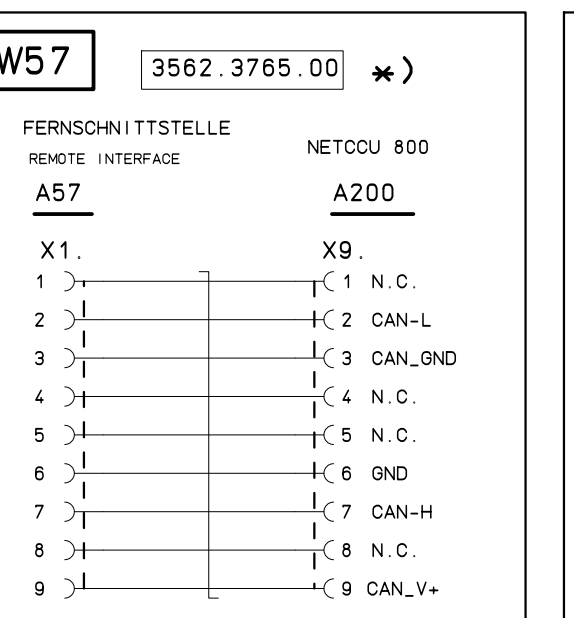
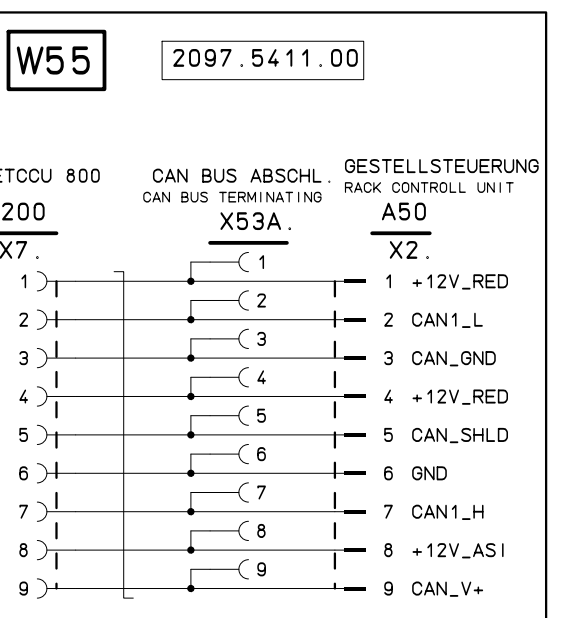
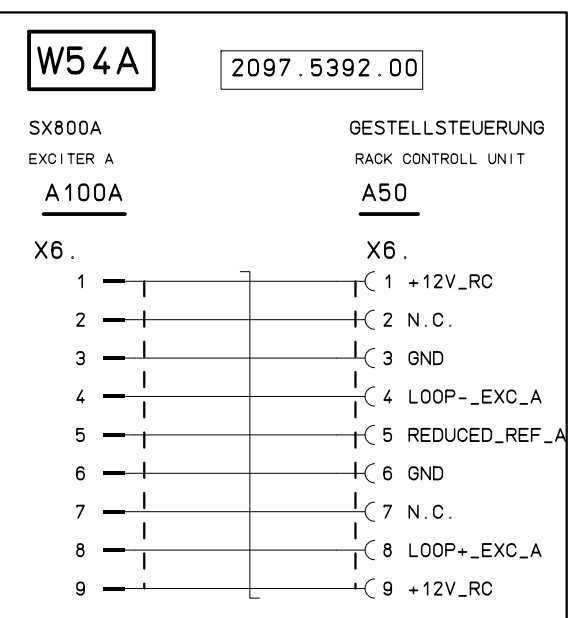
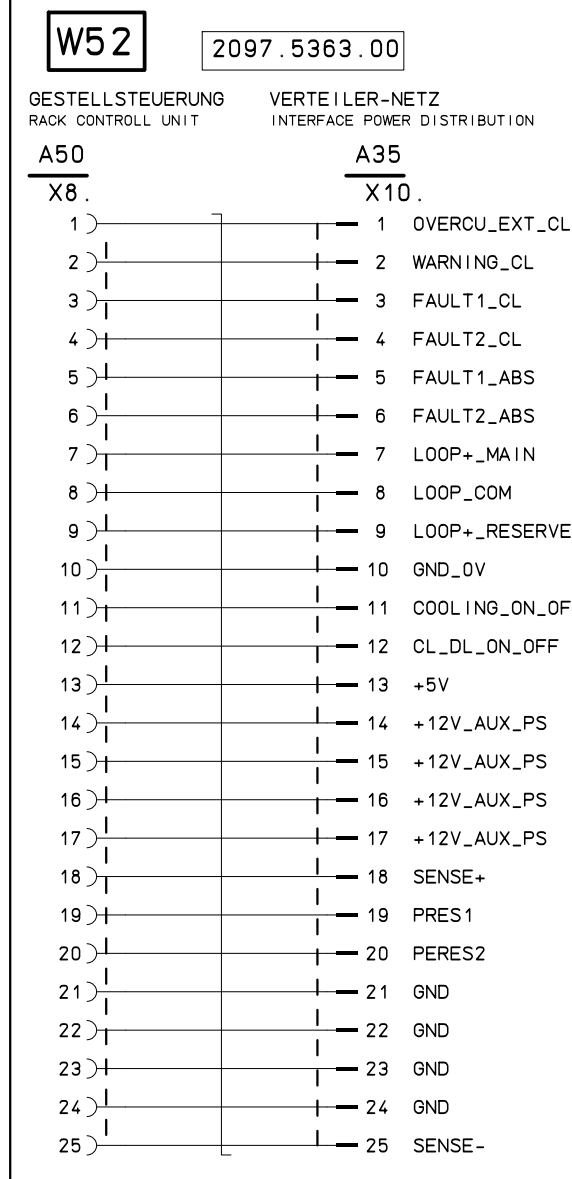
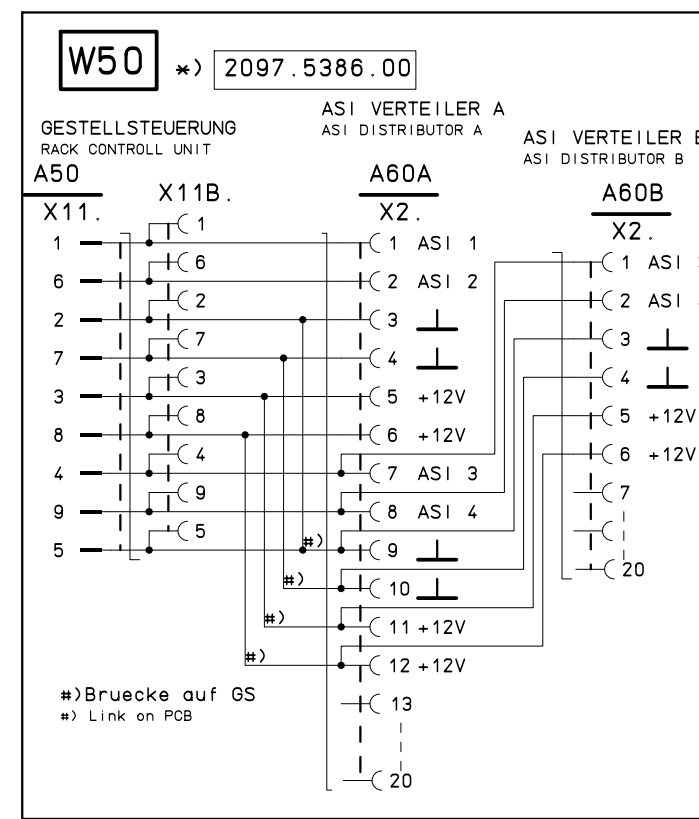
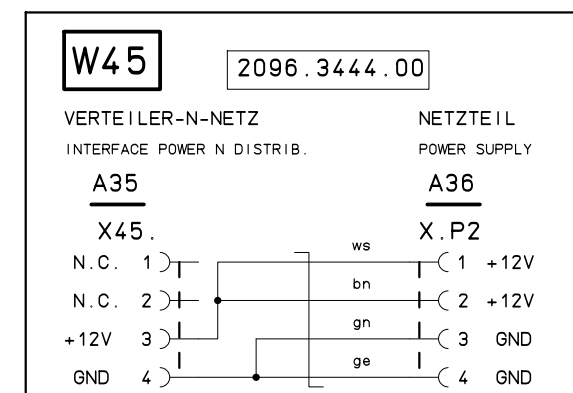
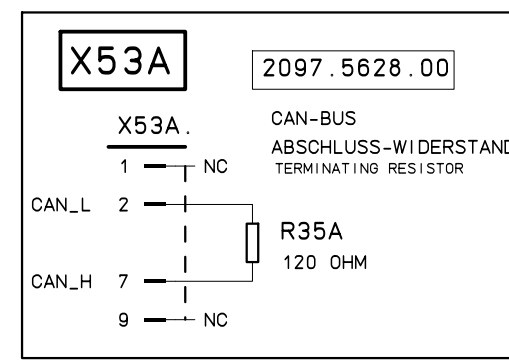
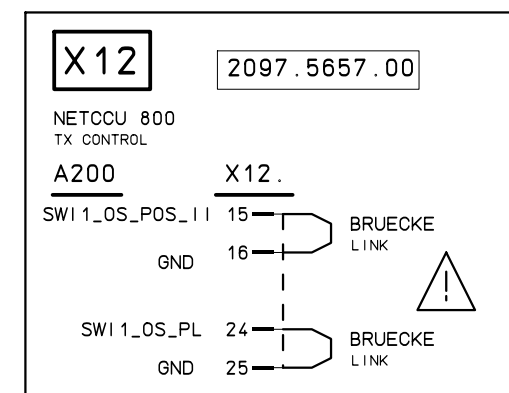
siehe Blatt 2.3
see sheet 2.3



BLOCKSCHALTBIKD STEUERLEITUNG
BLOCK DIAGRAM OF SIGNAL

ROHDE&SCHWARZ	Benennung / Designat.: NV8303X DTV-SENDER NV8303X DTV XMTR		Spr.:/Lang.: de	Ael./C.I.: 02.00	Blatt:/Sh.: 4 +
	Datum: Date: 08/07/18		Abteilung: Dept.: 7TSK	Name: Name: rolf_a	
NV8303X			2098.0107.01 S		

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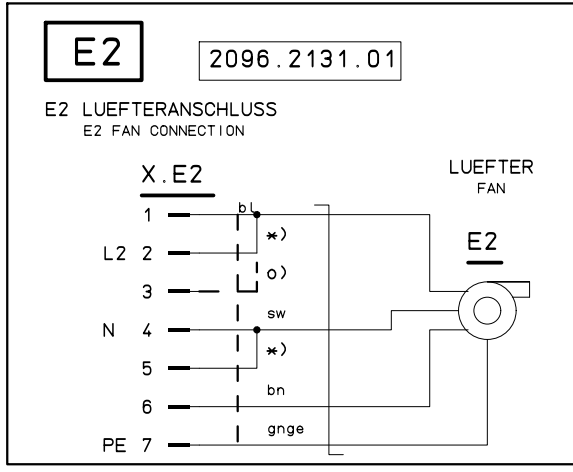
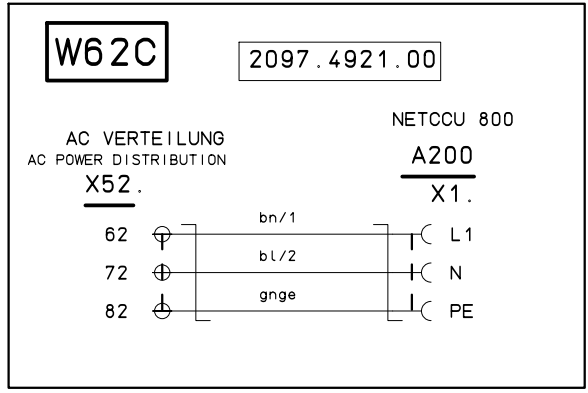
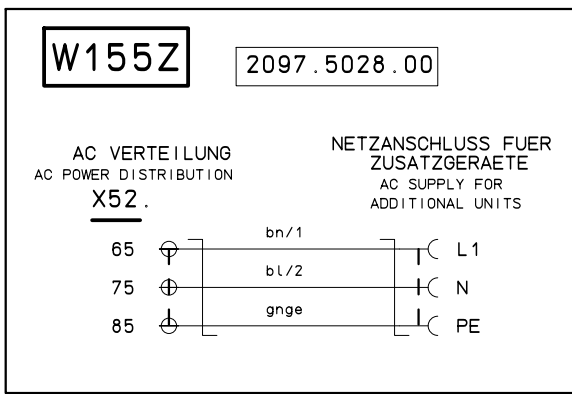
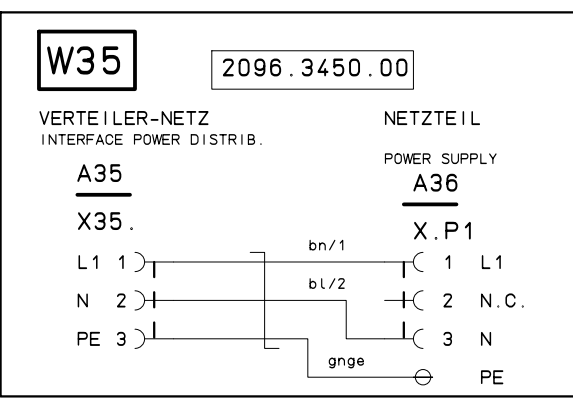
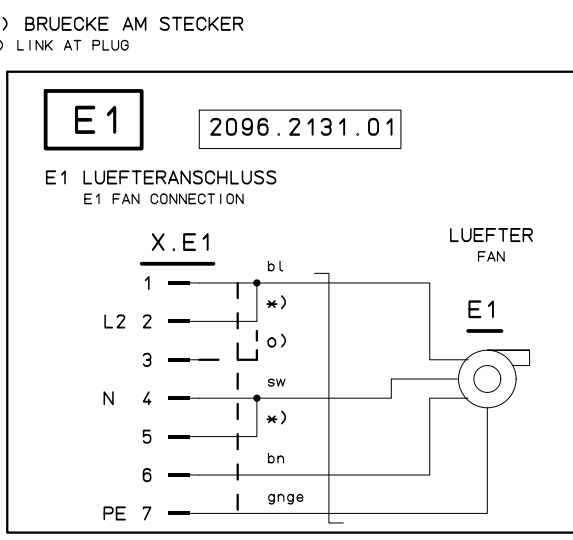
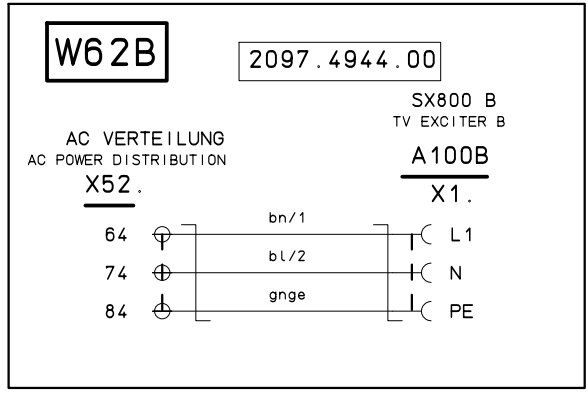
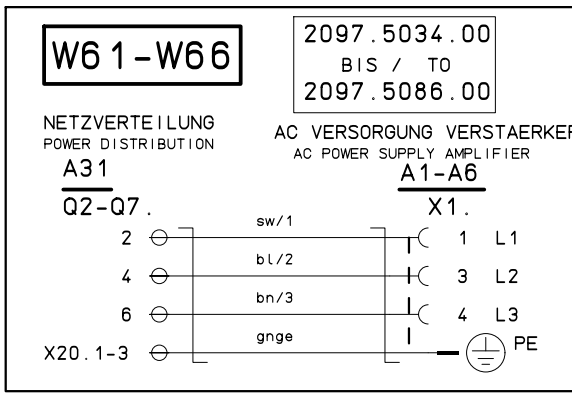
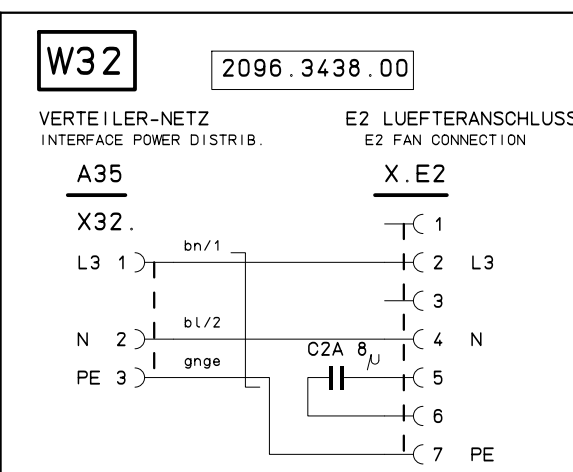
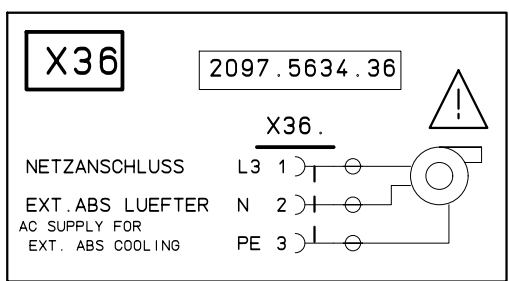
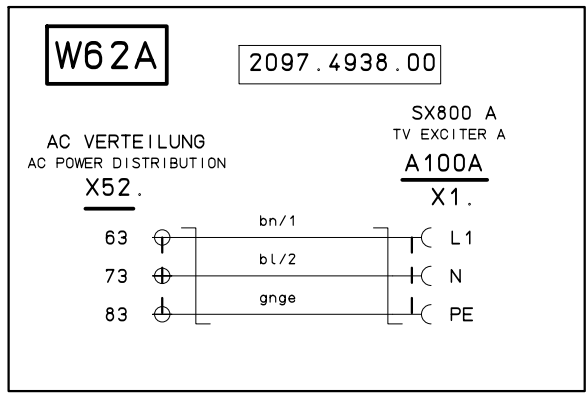
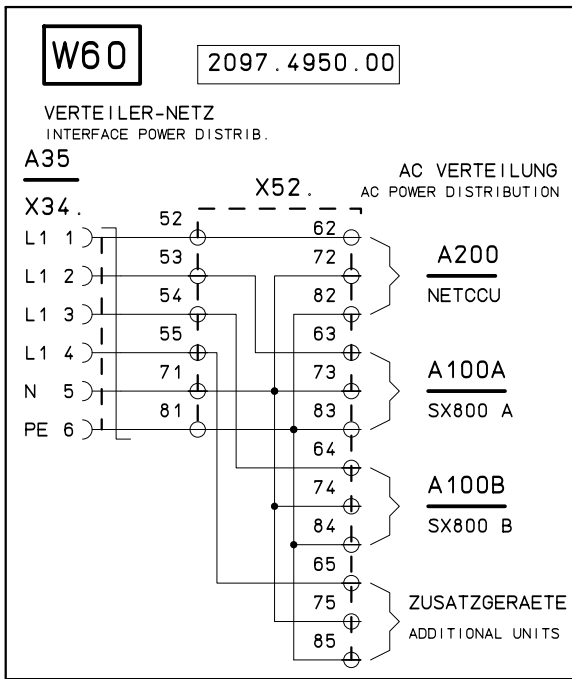
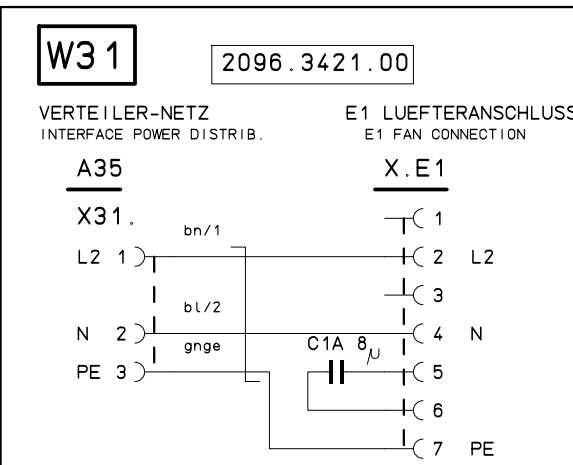
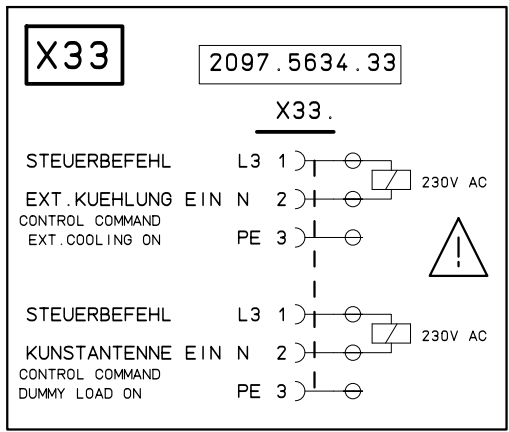


*) OPTION

STROMLAUF DER STEUER-KABEL
CIRCUIT DIAGRAM FROM THE SIGNAL CABLE

ROHDE&SCHWARZ	Benennung / Designat.:	NV8303X DTV-SENDER	Spr.:/Lang.:	de	Art./C. I.:	02.00	Blatt:/Sh.:	5+
	Datum:	08/07/18	Abteilung:	7TSK	Name:	rolf_a	Zeichn.Nr./Drawing No.:	
NV8303X				2098.0107.01 S				

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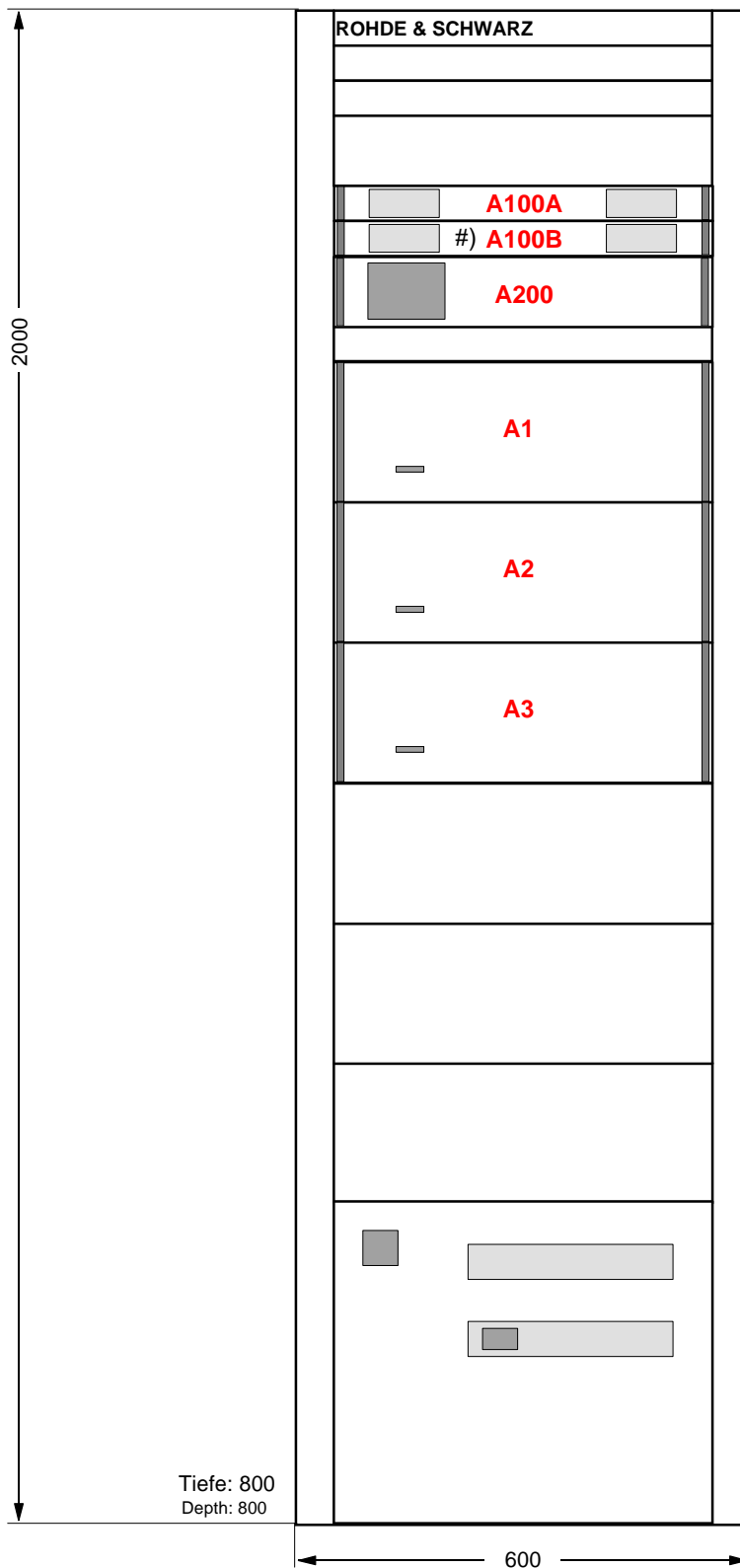
STROMLAUF DER NETZ-KABEL
 CIRCUIT DIAGRAM FROM THE POWER CABLE

ROHDE&SCHWARZ	Benennung / Designat.: NV8303X DTV-SENDER		Spr.:/Lang.: de	Aei./C.I.: 02.00	Blatt:/Sh.: 6 -
	NV8303X DTV XMTR		Zeichn.Nr./Drawing No.: 2098.0107.01 S		
NV8303X	Datum: Date: 08/07/18	Abteilung: Dept.: 7TSK	Name: Name: rolf_a		

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el.Kennz Part	Benennung / Hinweise Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bestellbezeichnung Designation	enthalten in contained in
	ACHTUNG EGB /ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR04=NV8303E DTV-SENDER MIT EINZEL-VORSTUFE PROGNOSESENDER MOD04=NV8303E DTV- TRANSMITTER WITH SINGLE EXCITER VAR24=NV8303V DTV-SENDER MIT VORSTUFE-RESERVE OHNE ADE PROGNOSESENDER MOD24=NV8303V DTV TRANSMITTER WITH DUAL DRIVE WITHOUT ADE VAR50=NV8303X DTV-SENDER +++GRUNDESENDER+++ MOD50=NV8303X DTV- TRANSMITTER ++BASIC TRANSMITTER++				
A1 - A3	GG VH8300A1 UHF-VERSTAER. 3- Phasig VH8300A1 UHF-AMPLIFIER VAR 04 24	2095.6004.02			2098.0107.01
A20	GS ZR800T1 EINBAUS. SX800 ZR800T1 INSTAL. KIT VAR 04 24 DTV - Ausfuehrung	2099.1007.03			2098.0107.01
A21	GS ZR800C1 LEISTUNGSSATZ ZR800C1 POWER KIT VAR 04 24 Leistungssatz fuer 3 Verstaerkern	2098.5009.43			2098.0107.01
A23	GS ZR800V1 VORST.SA SX800 ZR800V1 EXC.INST. KIT VAR 24 Vorstufensatz - DTV ohne ADE	2099.1507.04			2098.0107.01
A200	GG NETCCU 800 CONTROL UNIT NETCCU 800 CONTROL UNIT VAR 04 24	2095.8007.02			2098.0107.01
A100A	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 04 24	2095.1502.71			2098.0107.01
A100B	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 24	2095.1502.71			2098.0107.01

	Benennung/Designation NV8303X DTV-SENDER NV8303X DTV XMTR			Sprach./Lang de en	Ä.I. / C./ 01.00	Blatt/Sheet 1 of 1
	NV8303X	Datum/ Date 2008-01-17	Abt. / Dept. 7TSK	Name / Name Ro	Dokument Nr. / Document No. 2098.0107.01 SA	



#) OPTION

Varianteerklärung siehe Schalteilliste
Valid for model see parts list

01.00		01.08	RO	7TSK	Tag	Name	Benennung		D
				Bearb.	01.08	RO	NV8303x		
				Gepr.			DTV-Sender Bd.IV/V		
				Norm			DTV-TANSMITTER BD.IV/V		
							SIDESI-DAT\NV8300\NV8303x		
					ROHDE & SCHWARZ		Zeichn.-Nr. 2098.0107.01		Blatt-Nr.
									zu Gerät NV8303x
Änd. Zust.	Änderungs-Mitteilung	Tag	Name	erste Z. 0000.0000.00					

Drawings and Diagrams

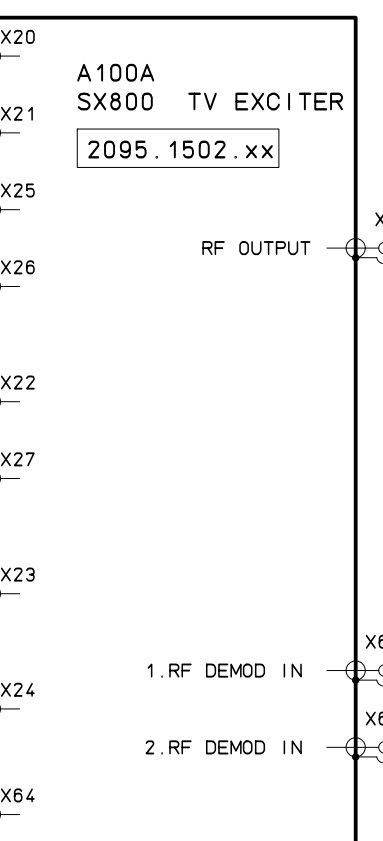
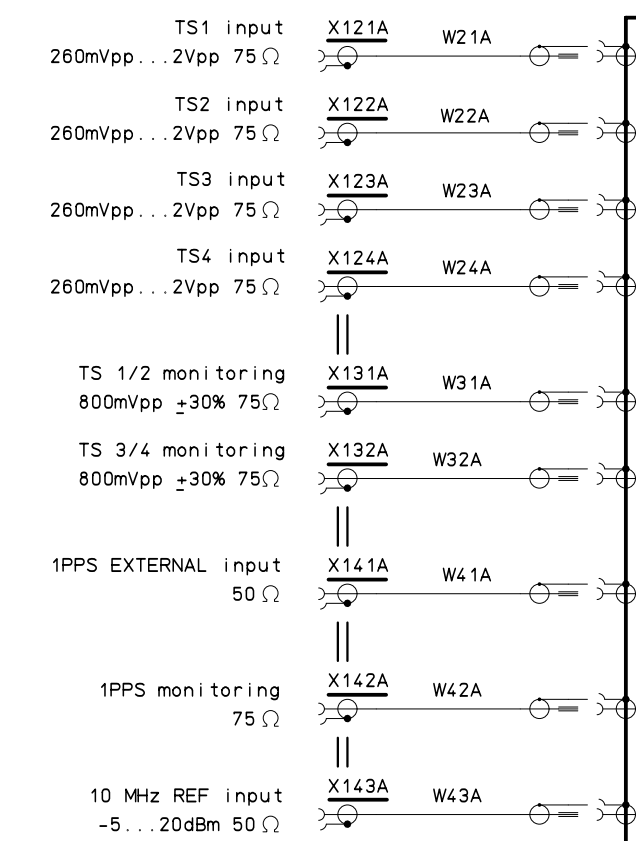
NV8304E/V

2098.0159.01

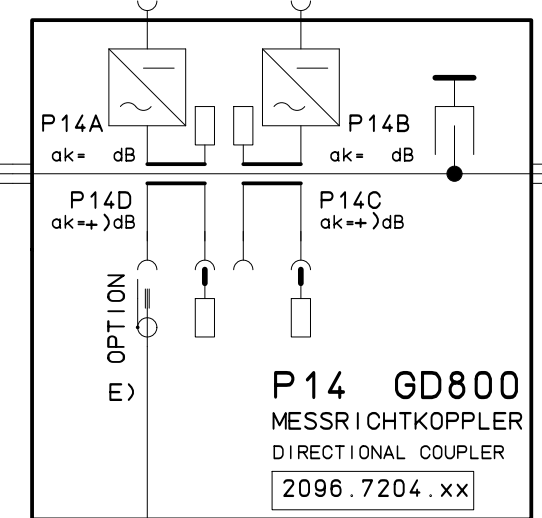
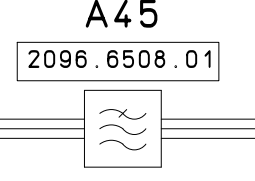
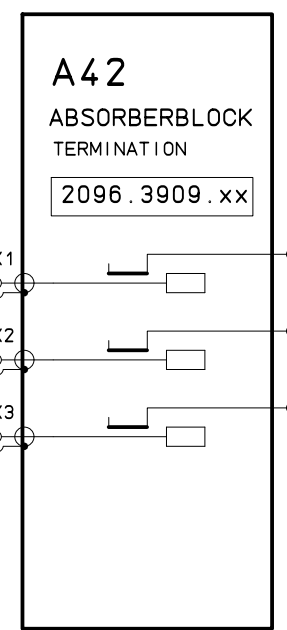
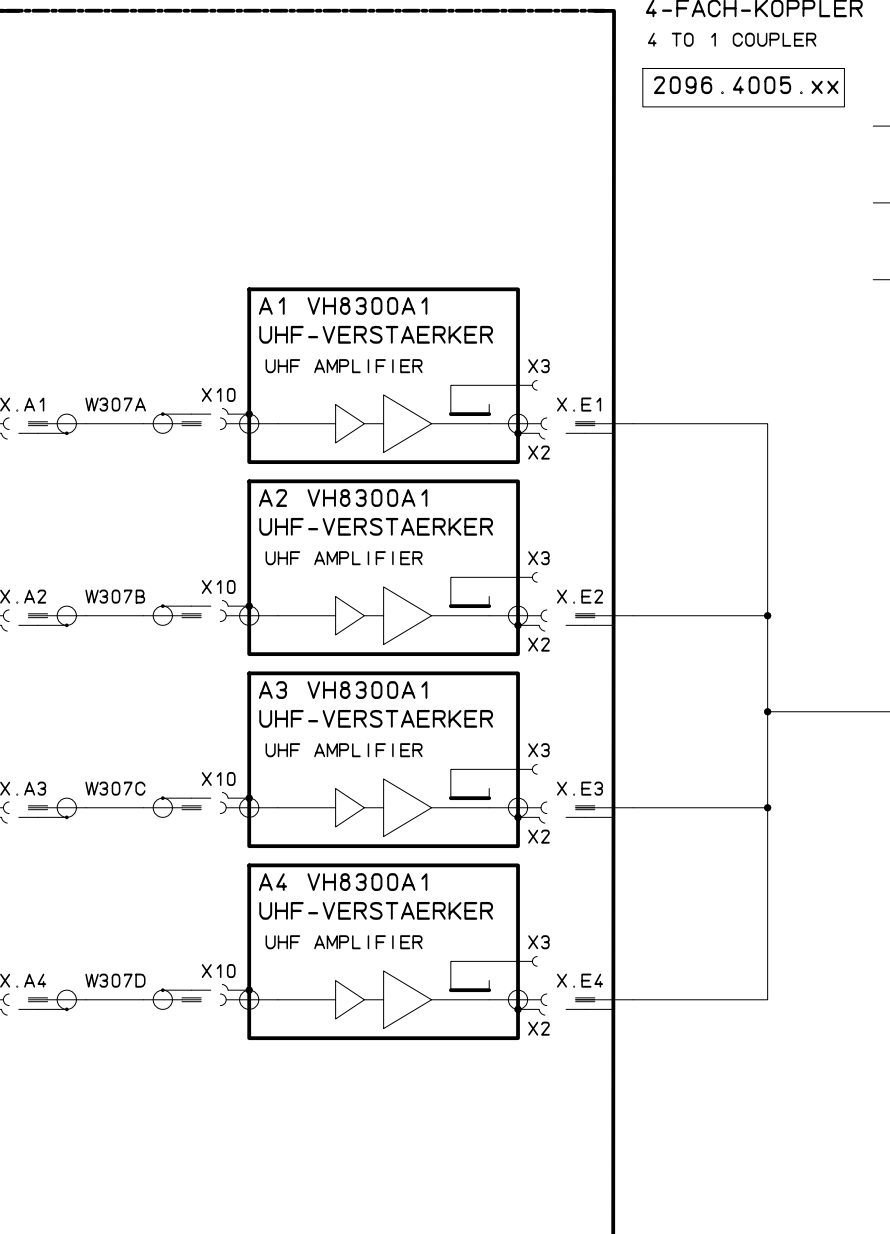
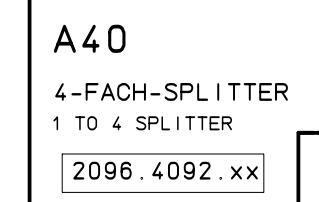
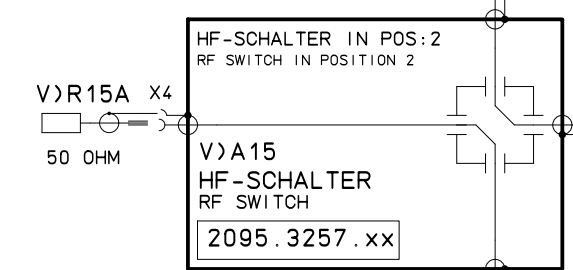
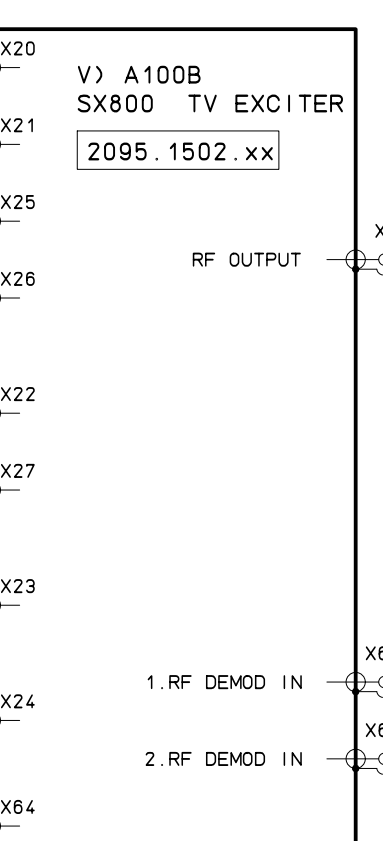
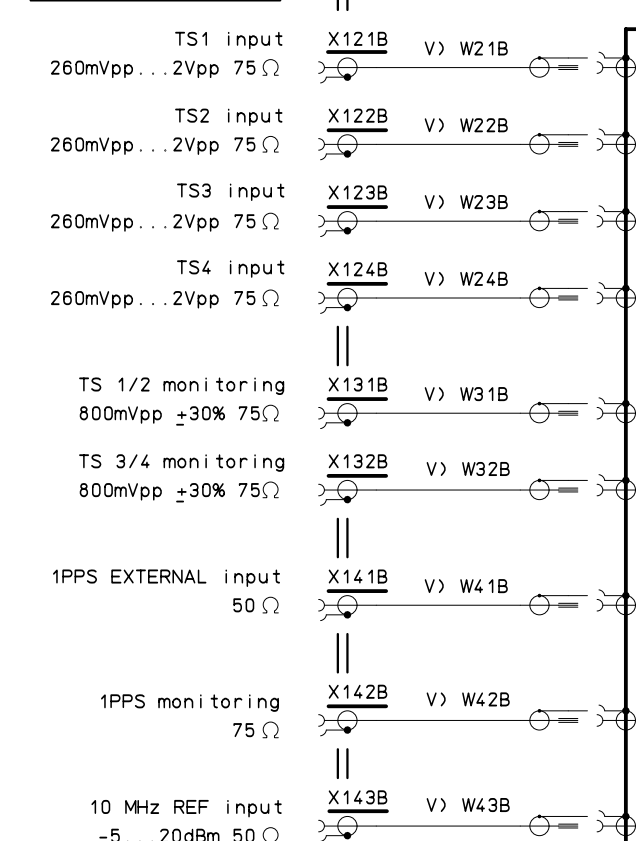
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- BLATT 1: HF-BLOCKSCHALTBIKD
sheet 1: block diagram of rf signal
- BLATT 2: NETZ-STROMLAUF
sheet 2: circuit diagram
- BLATT 3: NETZ-STROMLAUF MIT USV
sheet 3: circuit diagram with UPS
- BLATT 4: BLOCKSCHALTBIKD STEUERLEITUNG
sheet 4: block diagram of signal
- BLATT 5: STROMLAUF STEUERKABEL
sheet 5: circuit diagram signal cable
- BLATT 6: STROMLAUF NETZKABEL
sheet 6: circuit diagram power cable

EXCITER A



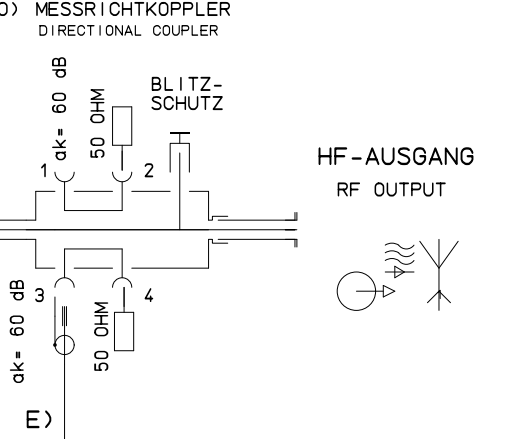
V) EXCITER B



+> AUSKOPPELDAEMPFGUNG P14
SIEHE SYSTEM-HANDBUCH
COUPLING ATTENUATION P14
SEE ALSO SYSTEM MANUAL

DACH TOP

P24



- O) OPTION
ODER INSTALLATION VOM KUNDEN
OR INSTALLED BY CUSTOMER
- E) OPTION
ADE AUTOMAT. ENTZERRUNG
ADE SYSTEM KIT
- V) OPTION
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

GUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALID FOR MODELS: SEE PARTS LIST

ROHDE&SCHWARZ	Benennung / Designat.:	NV8304X DTV-SENDER	Spr.:/Lang.:	de	Aei./C.I.:	02.00	Blatt./Sh.:	1+
	Datum:	08/07/17	Abteilung:	7TSK	Name:	rolf_a	Zeichn.Nr./Drawing No.:	
							2098.0159.01 S	

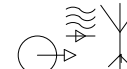
HF-BLOCKSCHALTBIKD
BLOCK DIAGRAM OF RF SIGNAL

DACH TOP

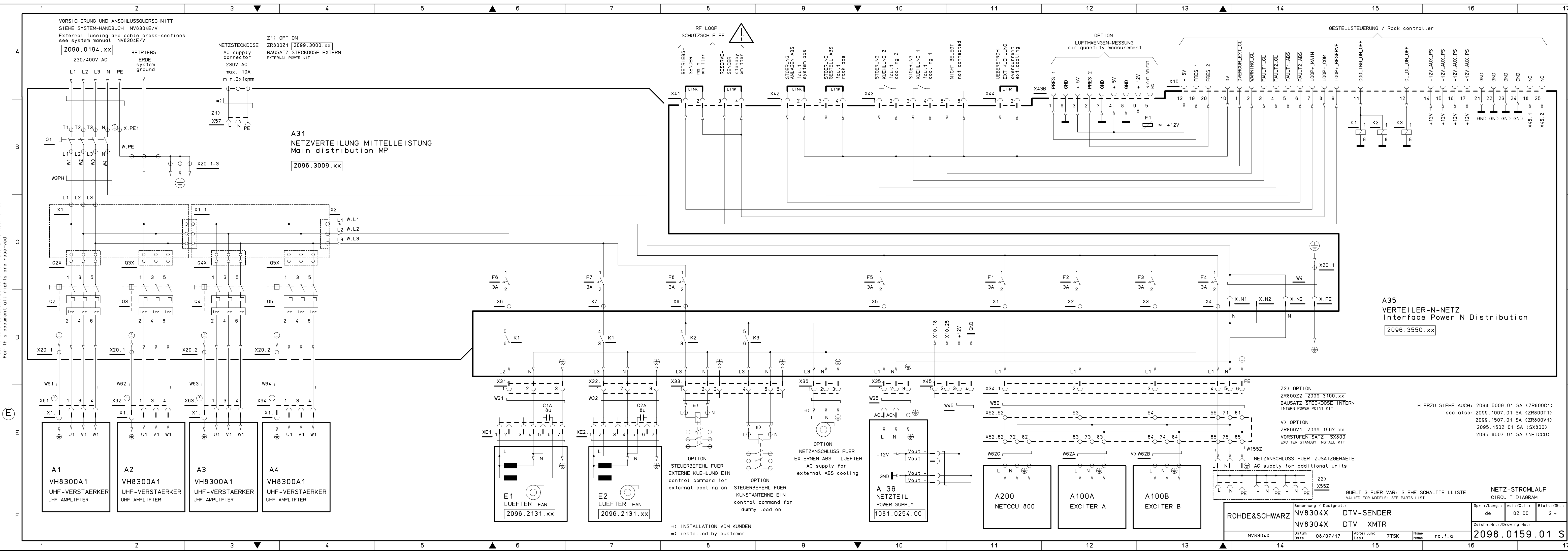
HF-SENDER AUFGANG

XMTR RF OUTPUT

HF-AUSGANG RF OUTPUT



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#) INSTALLATION VOM KUNDEN
#) installed by customer

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

QUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALIDED FOR MODELS: SEE PARTS LIST

ROHDE&SCHWARZ	Benennung / Designat.: NV8304X DTV-SENDER		Spr.:/Lang.: de	Aei:/C.I.: 02.00	Blatt:/Sh.: 2+
	NV8304X DTV XMTR				
Datum: 08/07/17		Abteilung: 7TSK	Name: rolf_a		
2098.0159.01 S					

VORSICHERUNG UND ANSCHLUSSQUERSCHNITT
SIEHE SYSTEM-HANDBUCH NV8304E/V
External fusing and cable cross-sections
see system manual NV8304E/V

ACHTUNG ! / CAUTION !
NETZVERSORGUNG VON EXTERNER USV
POWER SUPPLY FROM EXTERNAL UPS

Z5) OPTION
ZR800Z5 [2099.3400.xx]
BAUSATZ EXTERNE USV
UPGRADE KIT EXTERNAL UPS

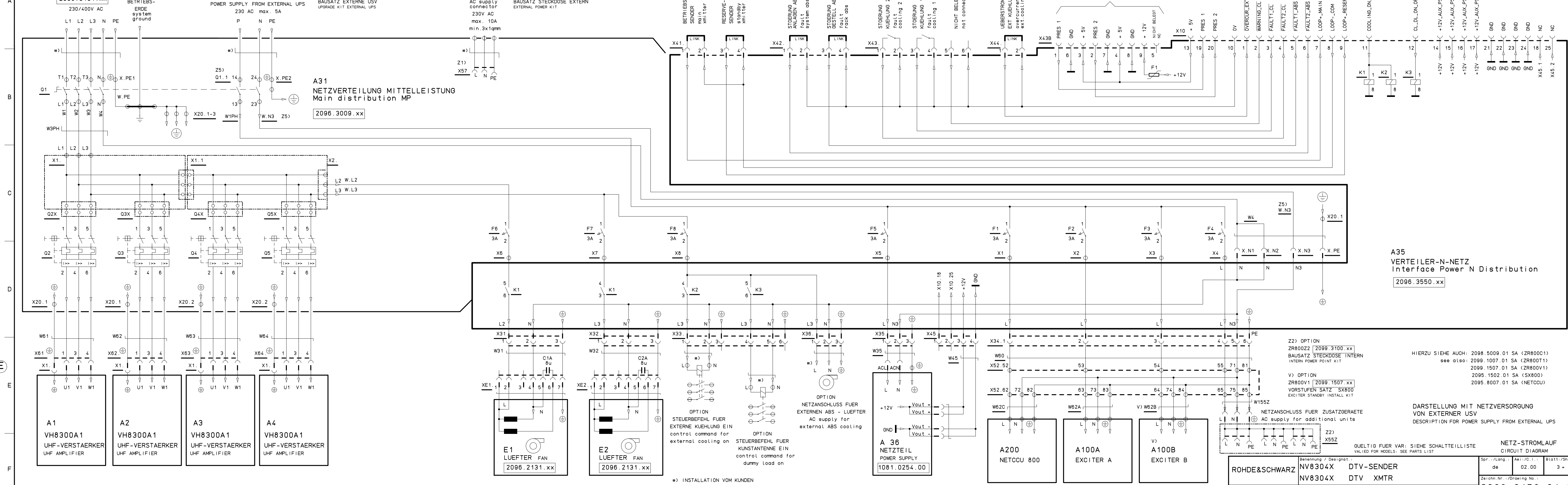
NETZSTECKDOSE
AC supply
connector
230V AC
max. 10A
min. 3x1qmm

Z1) OPTION
ZR800Z1 [2099.3000.xx]
BAUSATZ STECKDOSE EXTERN
EXTERNAL POWER KIT

RF LOOP
SCHUTZSCHLEIFE

OPTION
LUFTMAENGEN-MESSUNG
air quantity measurement

GESTELLSTEUERUNG / Rack controller



A31
NETZVERTEILUNG MITTELLEISTUNG
Main distribution MP

A35
VERTEILER-N-NETZ
Interface Power N Distribution

A1
VH8300A1
UHF-VERSTAECKER
UHF AMPLIFIER

A2
VH8300A1
UHF-VERSTAECKER
UHF AMPLIFIER

A3
VH8300A1
UHF-VERSTAECKER
UHF AMPLIFIER

A4
VH8300A1
UHF-VERSTAECKER
UHF AMPLIFIER

E1
LUEFTER FAN
2096.2131.xx

E2
LUEFTER FAN
2096.2131.xx

A 36
NETZTEIL
POWER SUPPLY
1081.0254.00

A200
NETCCU 800

A100A
EXCITER A

A100B
EXCITER B

ROHDE&SCHWARZ
NV8304X DTV-SENDER
NV8304X DTV XMTR

DARSTELLUNG MIT NETZVERSORGUNG
VON EXTERNER USV
DESCRIPTION FOR POWER SUPPLY FROM EXTERNAL UPS

HIERZU SIEHE AUCH: 2098.5009.01 SA (ZR800C1)
see also: 2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

Z2) OPTION
ZR800Z2 [2099.3100.xx]
BAUSATZ STECKDOSE INTERN
INTERN POWER POINT KIT

V) OPTION
ZR800V1 [2099.1507.xx]
VORSTUFEN SATZ 'SX800'
EXCITER STANDBY INSTALL KIT

NETZANSCHLUSS FUER ZUSATZGERAETE
AC supply for additional units

NETZ-STROMLAUF
CIRCUIT DIAGRAM

Benennung / Designat.: NV8304X DTV-SENDER
NV8304X DTV XMTR

Spr.:/Lang.: de
Abl.:/C.I.: 02.00
Blatt:/Sh.: 3+

Zeichn.Nr./Drawing No.: 2098.0159.01 S

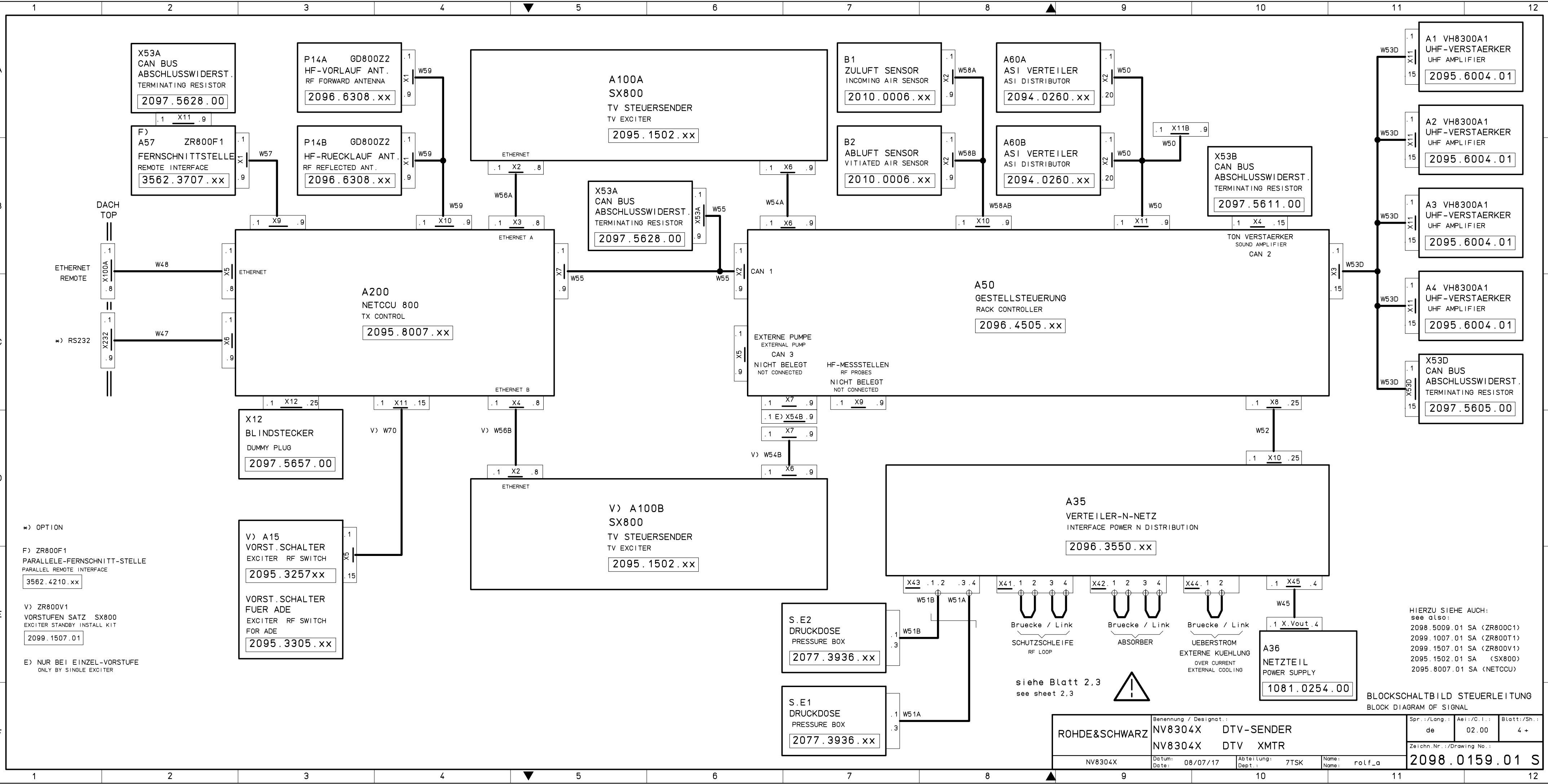
#) INSTALLATION VOM KUNDEN
#) installed by customer

QUELTIG FUER VAR: SIEHE SCHALTTEILLISTE
VALID FOR MODELS: SEE PARTS LIST

Datum: 08/07/17
Abteilung: 7TSK
Name: rolf_a

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- *) OPTION
- F) ZR800F1
PARALLELE-FERNSCHNITT-STELLE
PARALLEL REMOTE INTERFACE
2097.5628.xx
- V) ZR800V1
VORSTUFEN SATZ SX800
EXCITER STANDBY INSTALL KIT
2099.1507.01
- E) NUR BEI EINZEL-VORSTUFE
ONLY BY SINGLE EXCITER

HIERZU SIEHE AUCH:
see also:
2098.5009.01 SA (ZR800C1)
2099.1007.01 SA (ZR800T1)
2099.1507.01 SA (ZR800V1)
2095.1502.01 SA (SX800)
2095.8007.01 SA (NETCCU)

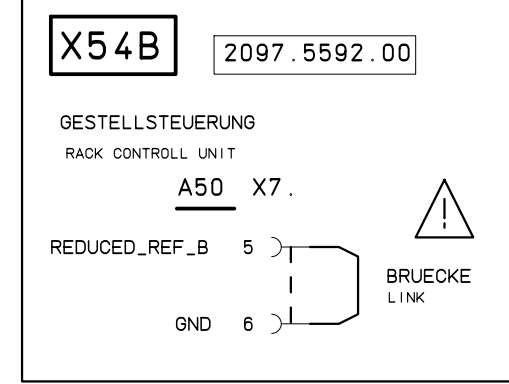
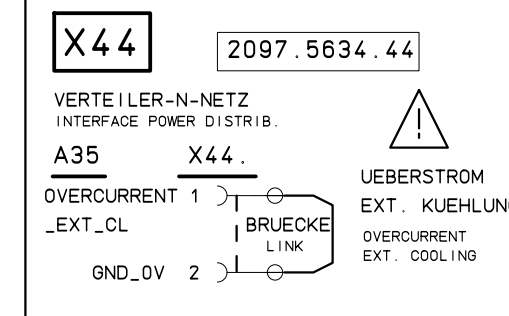
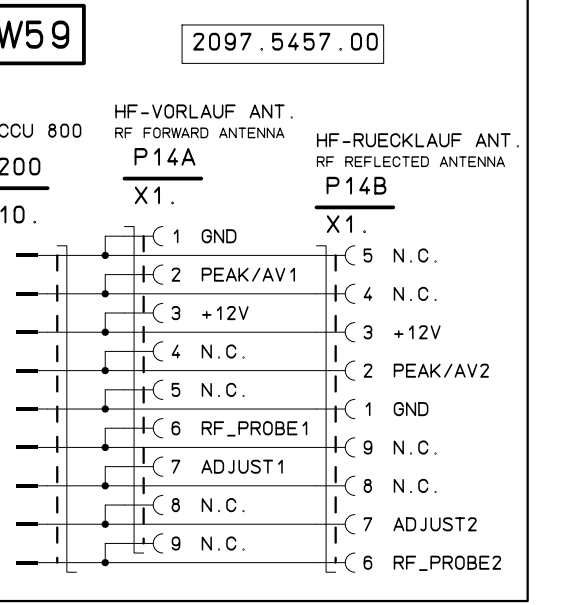
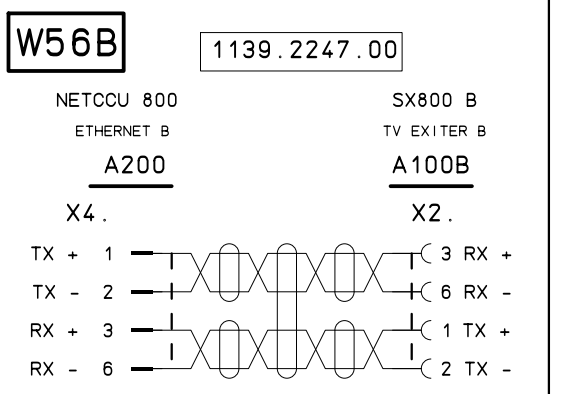
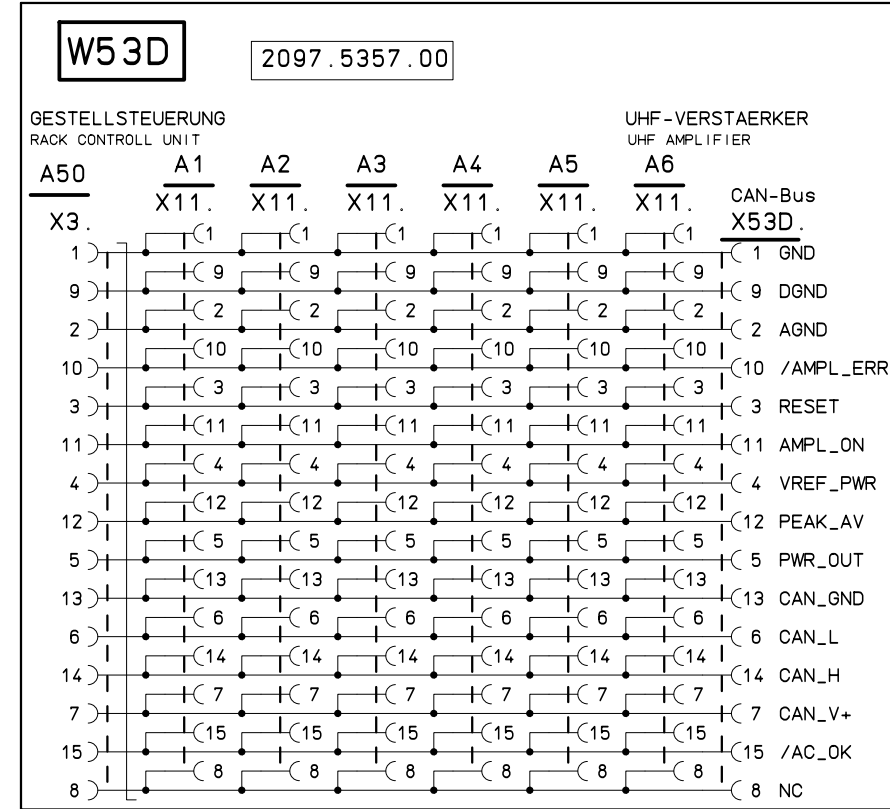
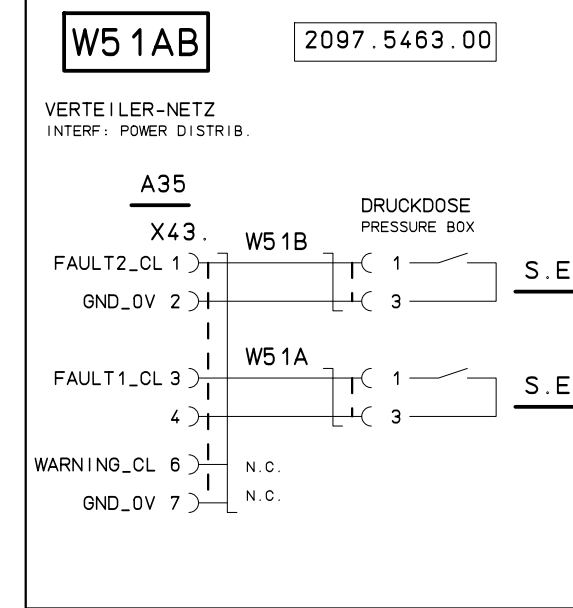
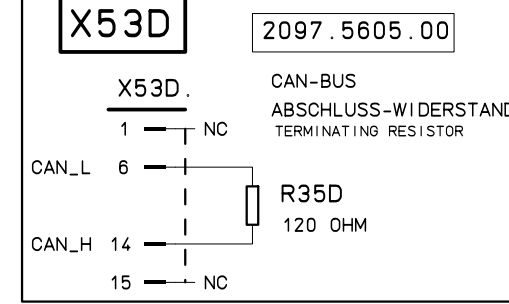
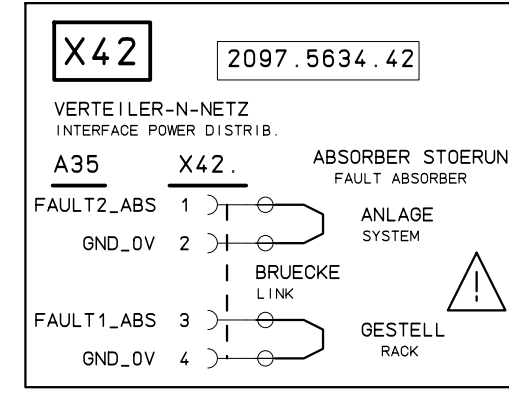
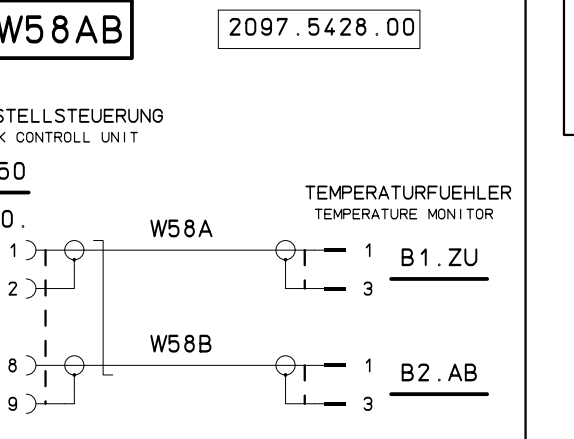
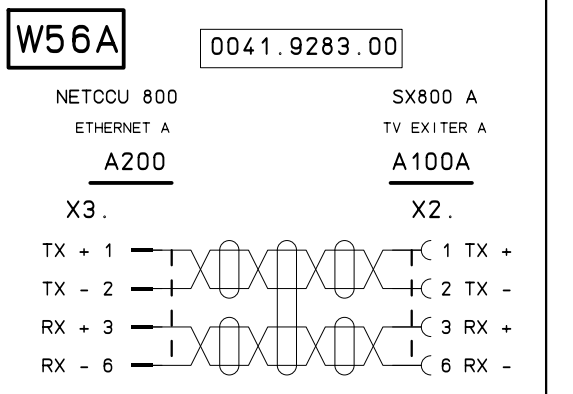
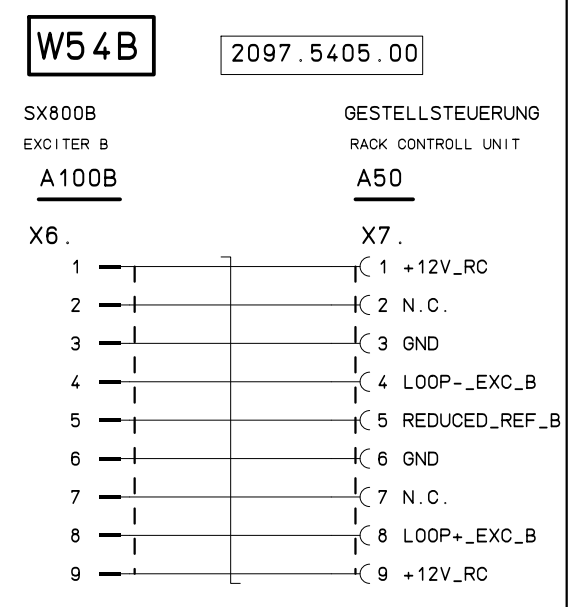
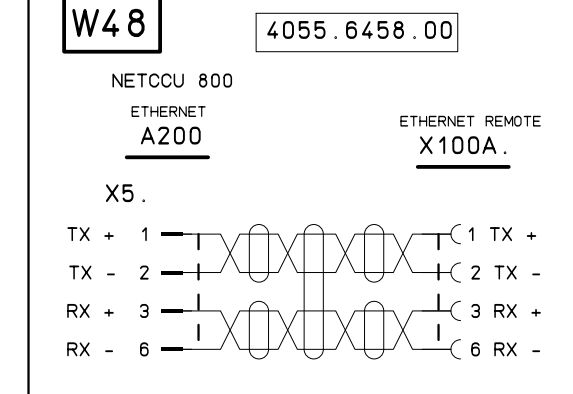
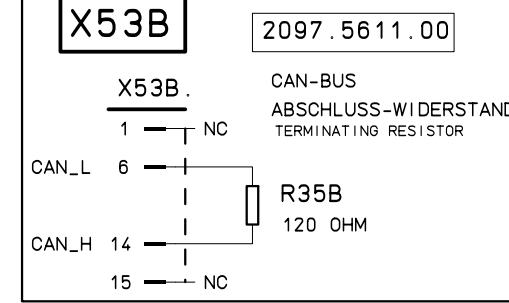
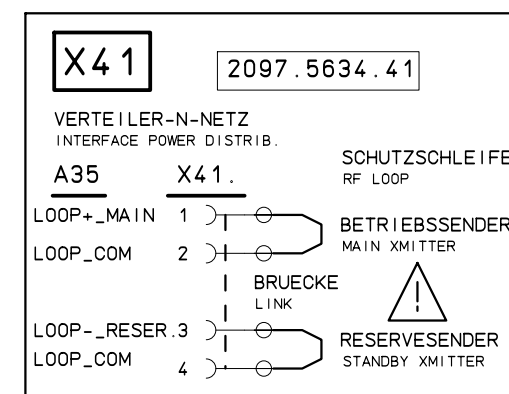
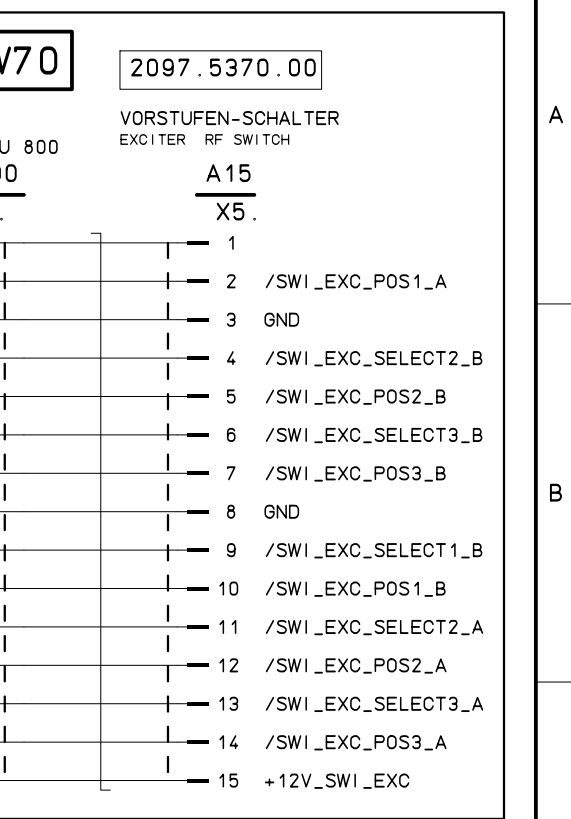
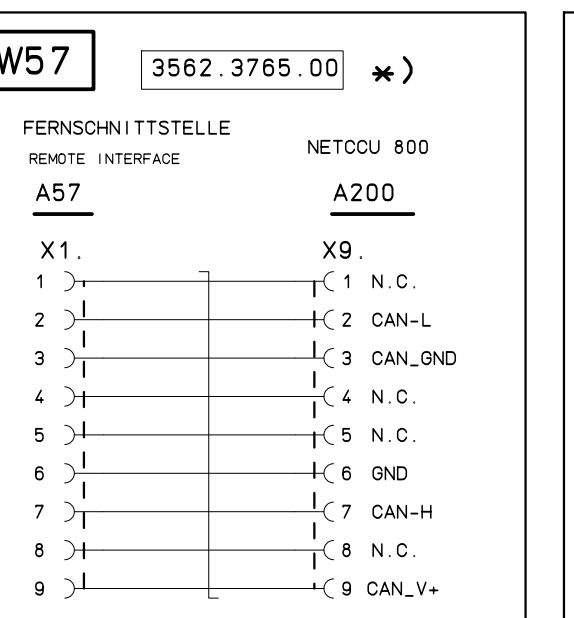
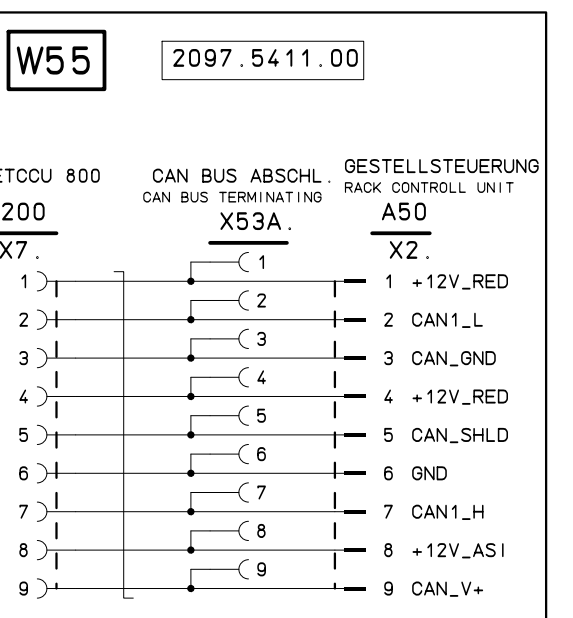
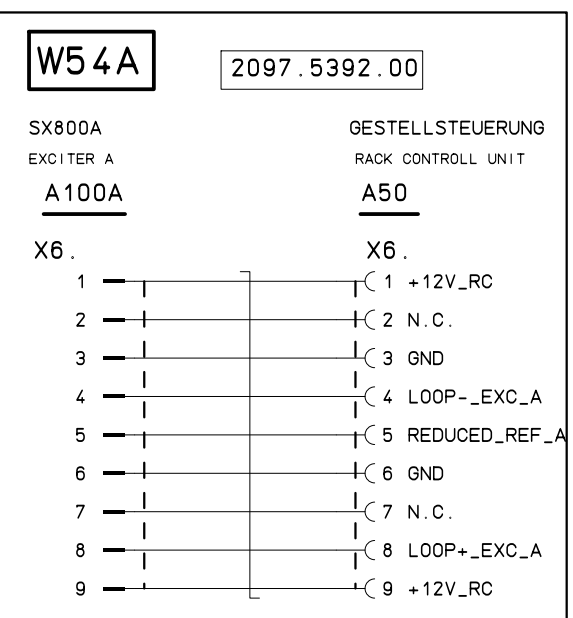
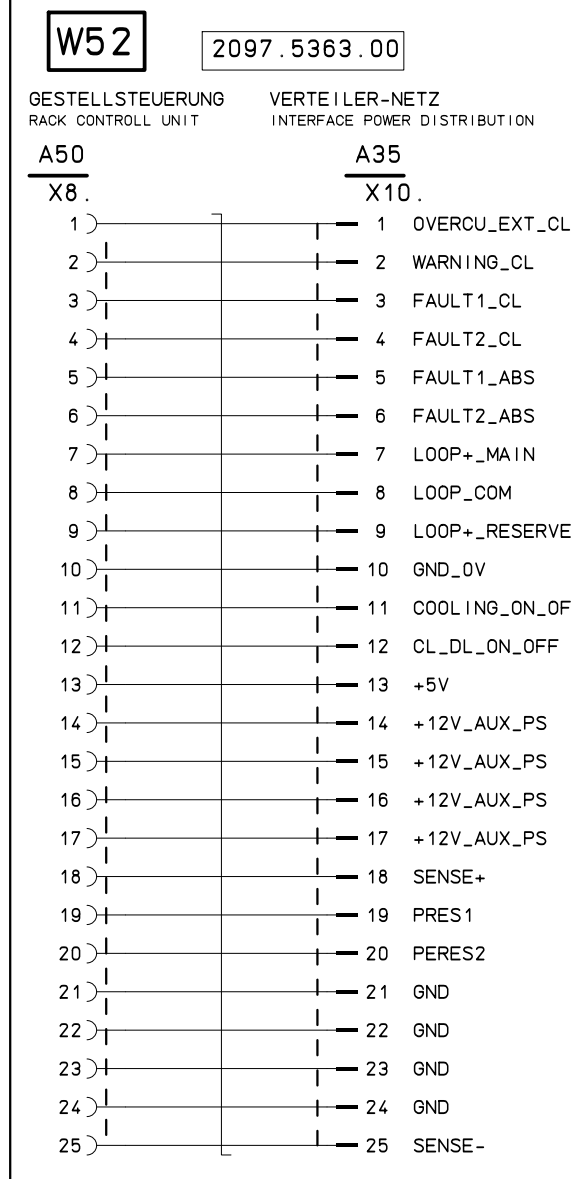
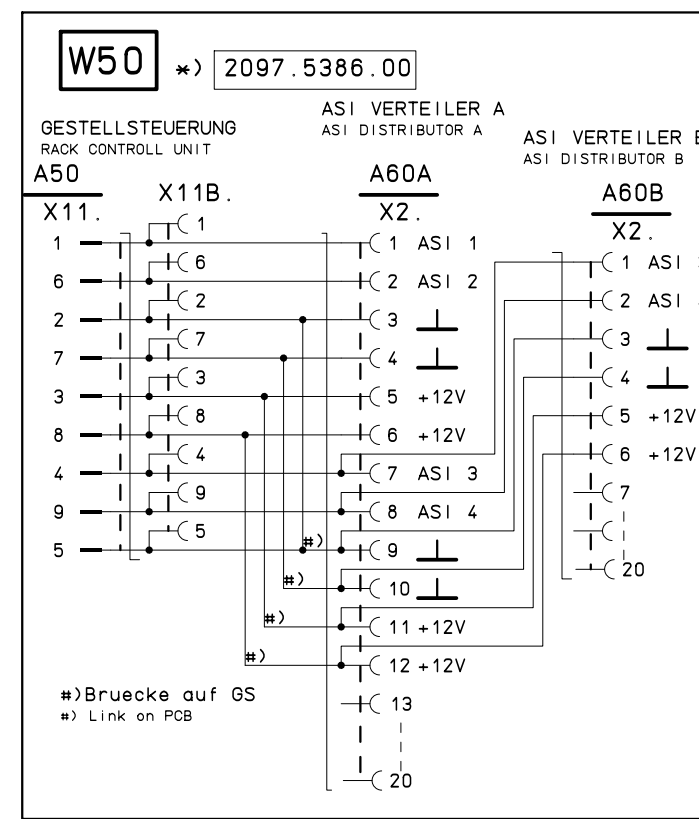
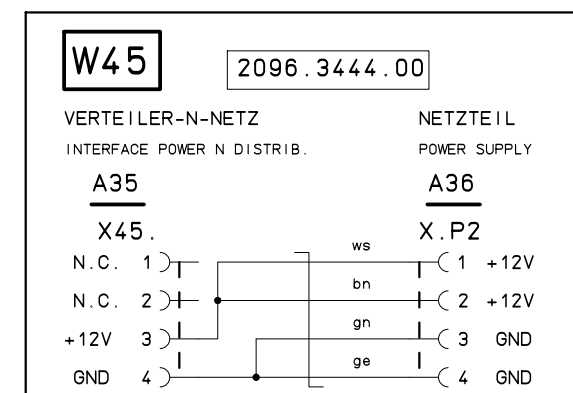
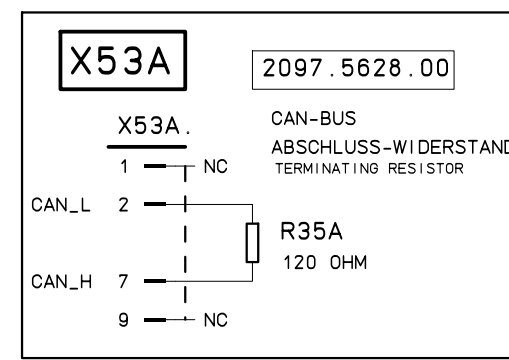
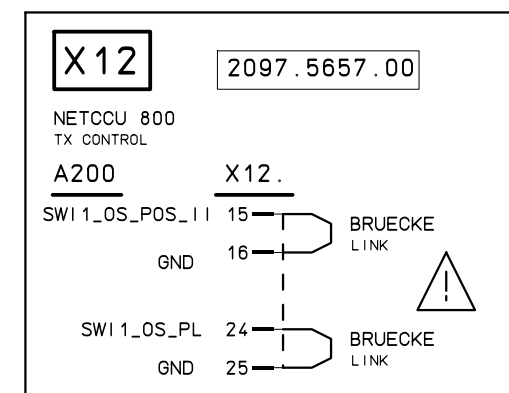
siehe Blatt 2.3
see sheet 2.3



BLOCKSCHALTBIKD STEUERLEITUNG
BLOCK DIAGRAM OF SIGNAL

ROHDE&SCHWARZ	Benennung / Designat.: NV8304X DTV-SENDER NV8304X DTV XMTR			Spr.:/Lang.: de	Ael./C.I.: 02.00	Blatt:/Sh.: 4 +
	Datum: Date: 08/07/17			Abteilung: Dept.: 7TSK		Name: Name: rolf_a
NV8304X			2098.0159.01 S			

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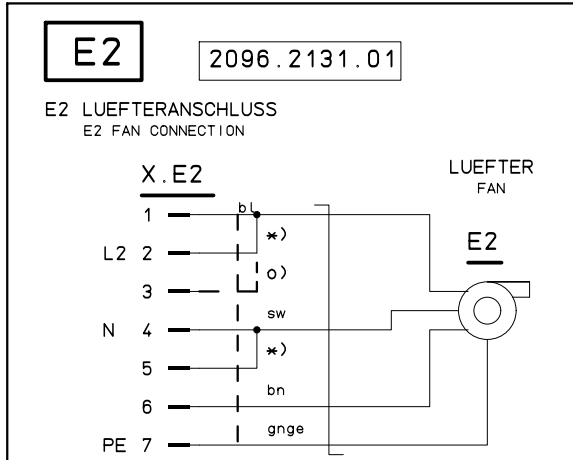
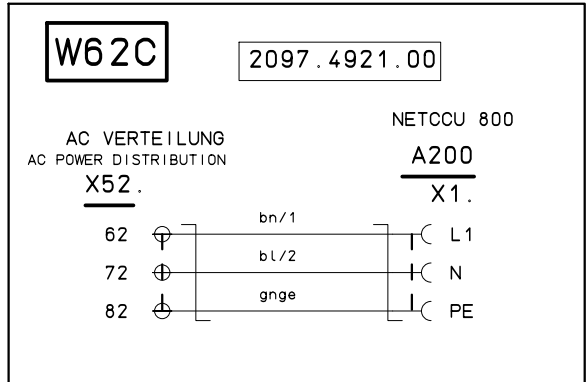
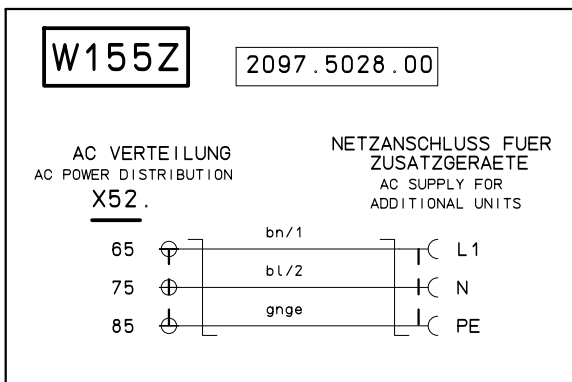
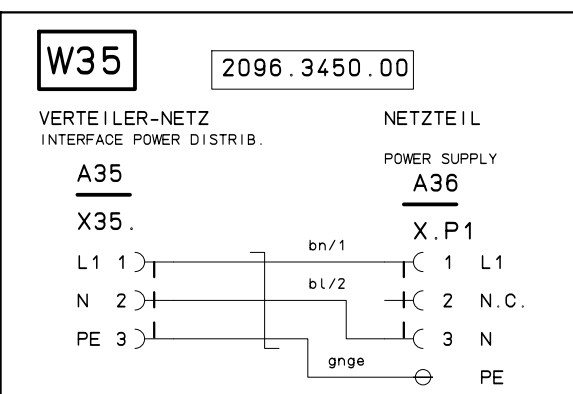
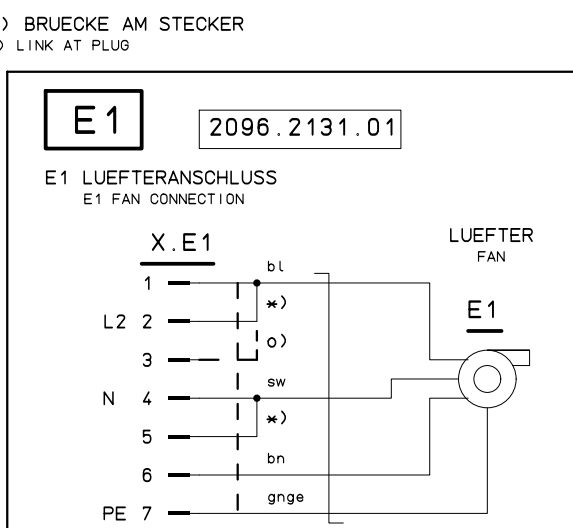
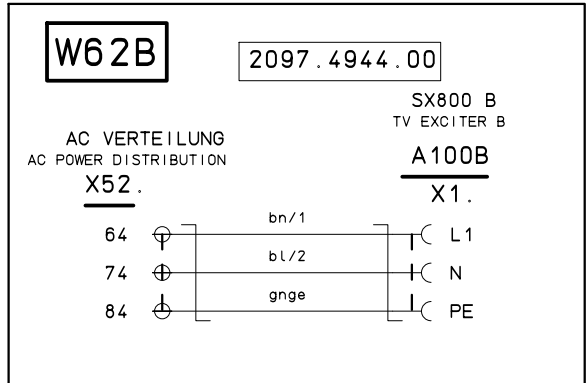
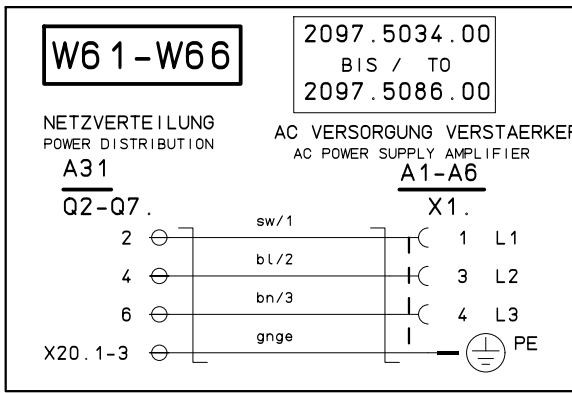
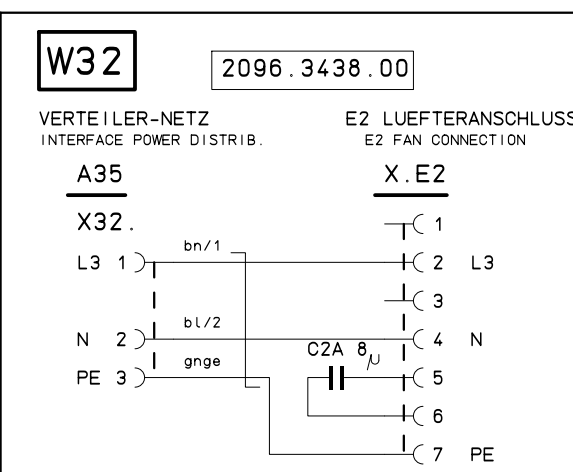
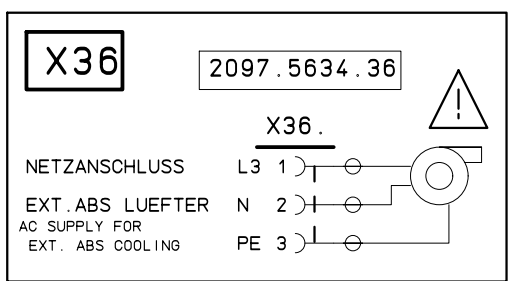
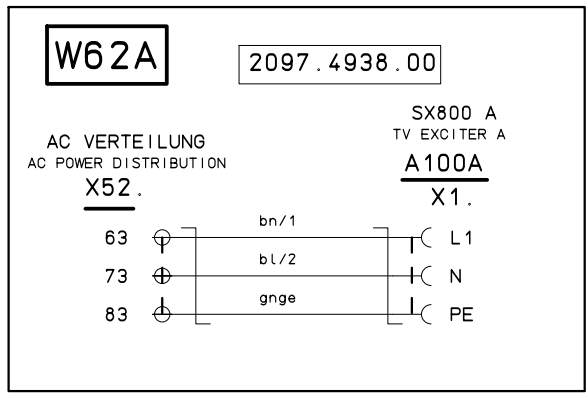
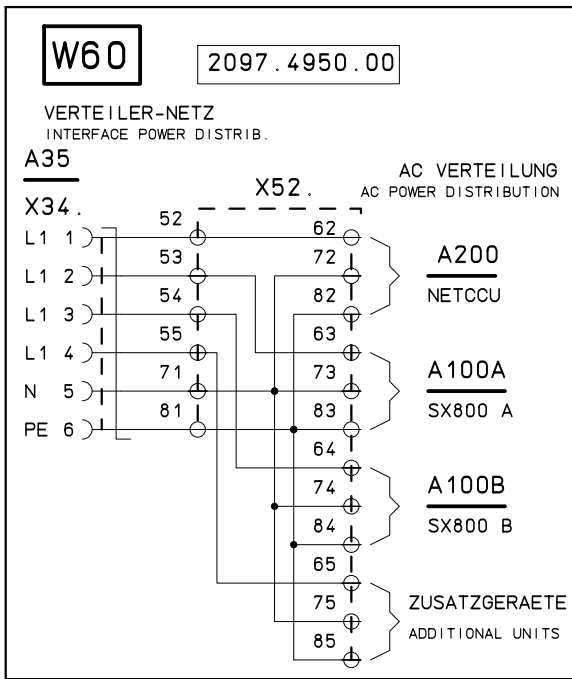
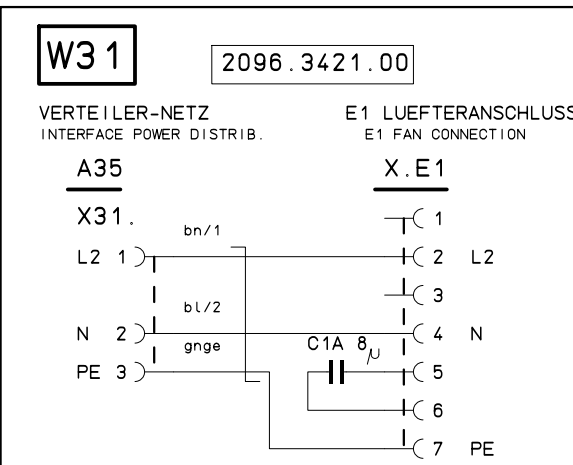
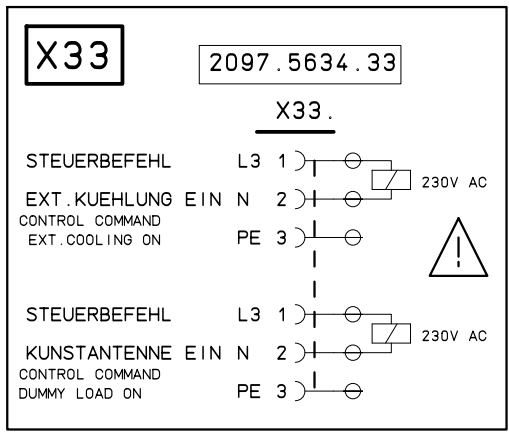


*) OPTION

STROMLAUF DER STEUER-KABEL
CIRCUIT DIAGRAM FROM THE SIGNAL CABLE

ROHDE&SCHWARZ	Benennung / Designat.:	NV8304X DTV-SENDER	Spr.:/Lang.:	de	Ael./C. I.:	02.00	Blatt:/Sh.:	5+
	Datum:	08/07/17	Abteilung:	7TSK	Name:	rolf_a	Zeichn.Nr./Drawing No.:	
NV8304X				2098.0159.01 S				

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STROMLAUF DER NETZ-KABEL
 CIRCUIT DIAGRAM FROM THE POWER CABLE

ROHDE&SCHWARZ	Benennung / Designat.: NV8304X DTV-SENDER		Spr.:/Lang.: de	Aei./C.I.: 02.00	Blatt:/Sh.: 6 -
	NV8304X DTV XMTR		Zeichn.Nr./Drawing No.: 2098.0159.01 S		
NV8304X	Datum: Date: 08/07/17	Abteilung: Dept.: 7TSK	Name: Name: rolf_a		

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el.Kennz Part	Benennung / Hinweise Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bestellbezeichnung Designation	enthalten in contained in
	ACHTUNG EGB /ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR04=NV8304E DTV-SENDER MIT EINZEL-VORSTUFE PROGNOSESENDER MOD04=NV8304E DTV- TRANSMITTER WITH SINGLE EXCITER VAR24=NV8304V DTV-SENDER MIT VORSTUFE-RESERVE OHNE ADE PROGNOSESENDER MOD24=NV8304V DTV TRANSMITTER WITH DUAL DRIVE WITHOUT ADE VAR50=NV8304X DTV-SENDER +++GRUNDESENDER+++ MOD50=NV8304X DTV- TRANSMITTER ++BASIC TRANSMITTER++				
A1 - A4	GG VH8300A1 UHF-VERSTAER. 3- Phasig VH8300A1 UHF-AMPLIFIER VAR 04 24	2095.6004.02			2098.0159.01
A20	GS ZR800T1 EINBAUS. SX800 ZR800T1 INSTAL. KIT VAR 04 24 DTV - Ausfuehrung	2099.1007.03			2098.0159.01
A21	GS ZR800C1 LEISTUNGSSATZ ZR800C1 POWER KIT VAR 04 24 Leistungssatz fuer 4 Verstaerkern	2098.5009.44			2098.0159.01
A23	GS ZR800V1 VORST.SA SX800 ZR800V1 EXC.INST. KIT VAR 24 Vorstufensatz - DTV ohne ADE	2099.1507.04			2098.0159.01
A200	GG NETCCU 800 CONTROL UNIT NETCCU 800 CONTROL UNIT VAR 04 24	2095.8007.02			2098.0159.01
A100A	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 04 24	2095.1502.71			2098.0159.01
A100B	GG SX800 TV EXCITER DTV UND ADE INT RF SX800 TV EXCITER VAR 24	2095.1502.71			2098.0159.01



ROHDE & SCHWARZ

Benennung/Designation
NV8304X DTV-SENDER
NV8304X DTV XMTR

Sprach./Lang de en Ä.I. / C./ 01.00 Blatt/Sheet 1 of 1

Dokument Nr. / Document No.

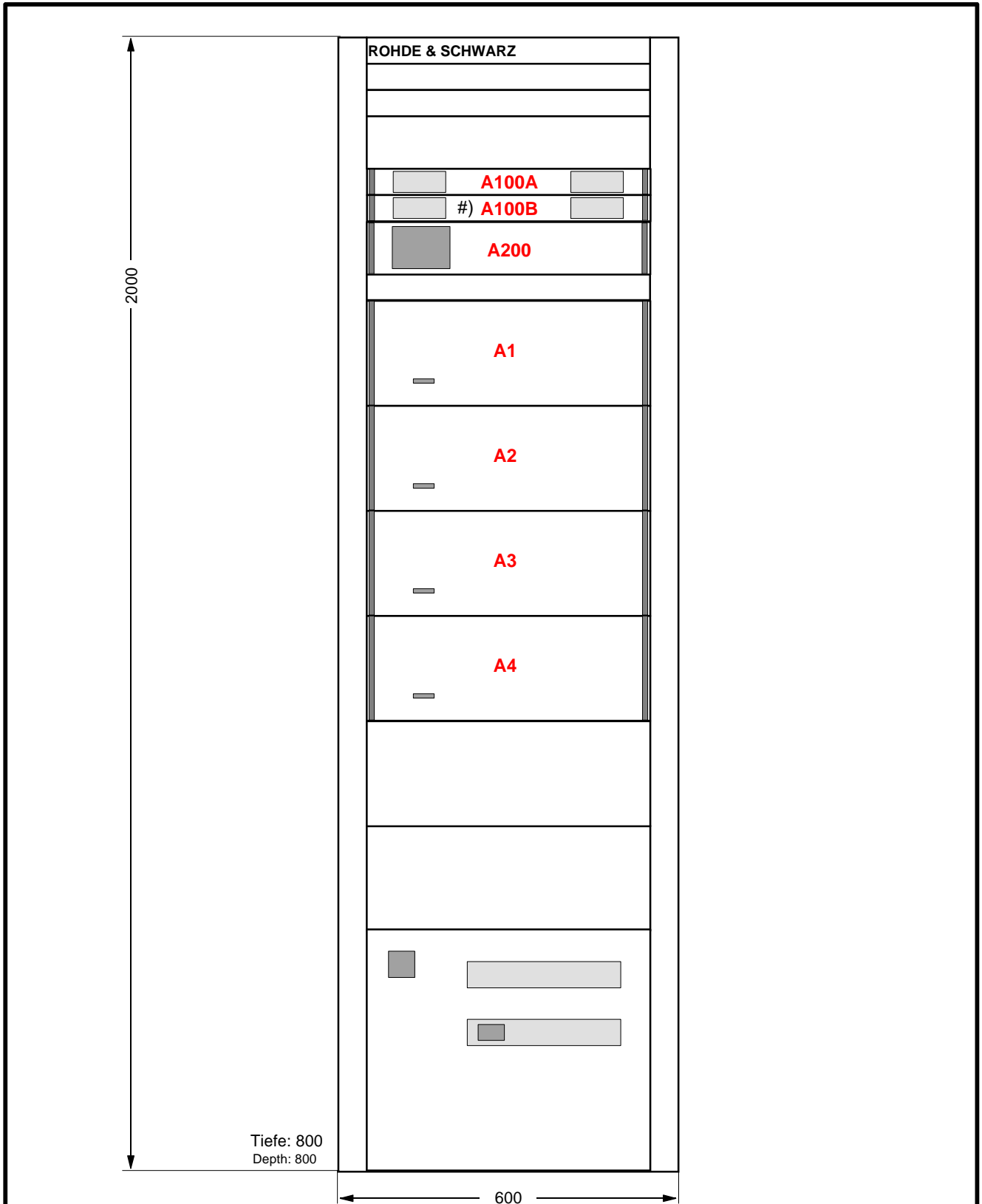
NV8304X

Datum/ Date 2008-01-17

Abt. / Dept. 7TSK

Name / Name Ro

2098.0159.01 SA



#) OPTION


Varianteerklärung siehe Schalteilliste
Valid for model see parts list

01.00		01.08	RO	7TSK	Tag	Name	Benennung		D
				Bearb.	01.08	RO	NV8304x		
				Gepr.			DTV-Sender Bd.IV/V		
				Norm			DTV-TANSMITTER BD.IV/V		
				SIDESI-DAT\NV8300\NV8304x			Zeichn.-Nr.		Blatt-Nr.
				 ROHDE & SCHWARZ			2098.0159.01		1
Änd. Zust.	Änderungs-Mitteilung	Tag	Name						zu Gerät
									v. 1 Bl.


Spare Parts Lists

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Pos.-Nr. ItemNo	Menge Quantity	ME Unit	El.Kennz Ref.Des.	Benennung / Bezeichnung Designation	Z	Sachnummer Stock No.	Ersatzteil Subst.part	BA	VH		
				ACHTUNG EGB/ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR11=MIT 1 VERSTAERKER BAND III MOD11=WITH 1 AMPLIFIER BAND III VAR12=MIT 2 VERSTAERKER BAND III MOD12=WITH 2 AMPLIFIER BAND III VAR13=MIT 3 VERSTAERKER BAND III MOD13=WITH 3 AMPLIFIER BAND III VAR14=MIT 4 VERSTAERKER BAND III MOD14=WITH 4 AMPLIFIER BAND III VAR15=MIT 5 VERSTAERKER BAND III MOD15=WITH 5 AMPLIFIER BAND III VAR16=MIT 6 VERSTAERKER BAND III MOD16=WITH 6 AMPLIFIER BAND III VAR21=MIT 1 VERSTAERKER BAND IV/V MOD21=WITH 1 AMPLIFIER BAND IV/V VAR22=MIT 2 VERSTAERKER BAND IV/V MOD22=WITH 2 AMPLIFIER BAND IV/V VAR23=MIT 3 VERSTAERKER BAND IV/V MOD23=WITH 3 AMPLIFIER BAND IV/V VAR24=MIT 4 VERSTAERKER BAND IV/V MOD24=WITH 4 AMPLIFIER BAND IV/V VAR25=MIT 5 VERSTAERKER BAND IV/V MOD25=WITH 5 AMPLIFIER BAND IV/V VAR26=MIT 6 VERSTAERKER BAND IV/V MOD26=WITH 6 AMPLIFIER BAND IV/V VAR31=FUER NX8300 MIT 1 VERSTAERKER BAND III MOD31=FOR NX8300 WITH 1 AMPLIFIER BAND III VAR32=FUER NX8300 MIT 2 VERSTAERKER BAND III MOD32=FOR NX8300 WITH 2 AMPLIFIER BAND III VAR33=FUER NX8300 MIT 3 VERSTAERKER BAND III MOD33=FOR NX8300 WITH 3 AMPLIFIER BAND III VAR34=FUER NX8300 MIT 4 VERSTAERKER BAND III MOD34=FOR NX8300 WITH 4 AMPLIFIER BAND III VAR35=FUER NX8300 MIT 5 VERSTAERKER BAND III MOD35=FOR NX8300 WITH 5 AMPLIFIER BAND III VAR36=FUER NX8300 MIT 6 VERSTAERKER BAND III MOD36=FOR NX8300 WITH 6 AMPLIFIER BAND III VAR41=FUER NX8300 MIT 1 VERSTAERKER BAND IV/V MOD41=FOR NX8300 WITH 1 AMPLIFIER BAND IV/V VAR42=FUER NX8300 MIT 2 VERSTAERKER BAND IV/V MOD42=FOR NX8300 WITH 2 AMPLIFIER BAND IV/V VAR43=FUER NX8300 MIT 3 VERSTAERKER BAND IV/V MOD43=FOR NX8300 WITH 3 AMPLIFIER BAND IV/V VAR44=FUER NX8300 MIT 4 VERSTAERKER BAND IV/V MOD44=FOR NX8300 WITH 4 AMPLIFIER BAND IV/V VAR45=FUER NX8300 MIT 5 VERSTAERKER BAND IV/V MOD45=FOR NX8300 WITH 5 AMPLIFIER BAND IV/V VAR46=FUER NX8300 MIT 6 VERSTAERKER BAND IV/V							
 ROHDE&SCHWARZ				Benennung/Designation ERSATZTEILLISTE ZR800C1 LEISTUNGSS. SPARE PART LIST FOR 2098.5009.01		Sprach./Lang de en		Ä.I. / C.I 04.00		Blatt/Sheet 1 of 10	
				Datum/ Date 2009-07-09		Abt. / Dept. 7TSK		Name / Name RO		Dokument Nr. / Document No. 2098.5067.01 ST	
ZR800C1											

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				MOD46=FOR NX8300 WITH 6 AMPLIFIER BAND IV/V VAR51=FUER NX8300X1 MIT 1 VERSTAERKER BAND III MOD51=FOR NX8300X1 WITH 1 AMPLIFIER BAND III VAR52=FUER NX8300X1 MIT 2 VERSTAERKER BAND III MOD52=FOR NX8300X1 WITH 2 AMPLIFIER BAND III VAR53=FUER NX8300X1 MIT 3 VERSTAERKER BAND III MOD53=FOR NX8300X1 WITH 3 AMPLIFIER BAND III VAR54=FUER NX8300X1 MIT 4 VERSTAERKER BAND III MOD54=FOR NX8300X1 WITH 4 AMPLIFIER BAND III VAR55=FUER NX8300X1 MIT 5 VERSTAERKER BAND III MOD55=FOR NX8300X1 WITH 5 AMPLIFIER BAND III VAR56=FUER NX8300X1 MIT 6 VERSTAERKER BAND III MOD56=FOR NX8300X1 WITH 6 AMPLIFIER BAND III VAR61=FUER NX8300X1 MIT 1 VERSTAERKER BAND IV/V MOD61=FOR NX8300X1 WITH 1 AMPLIFIER BAND IV/V VAR62=FUER NX8300X1 MIT 2 VERSTAERKER BAND IV/V MOD62=FOR NX8300X1 WITH 2 AMPLIFIER BAND IV/V VAR63=FUER NX8300X1 MIT 3 VERSTAERKER BAND IV/V MOD63=FOR NX8300X1 WITH 3 AMPLIFIER BAND IV/V VAR64=FUER NX8300X1 MIT 4 VERSTAERKER BAND IV/V MOD64=FOR NX8300X1 WITH 4 AMPLIFIER BAND IV/V VAR65=FUER NX8300X1 MIT 5 VERSTAERKER BAND IV/V MOD65=FOR NX8300X1 WITH 5 AMPLIFIER BAND IV/V VAR66=FUER NX8300X1 MIT 6 VERSTAERKER BAND IV/V MOD66=FOR NX8300X1 WITH 6 AMPLIFIER BAND IV/V							
1000	0	S		PB BEMERKUNG NOTE Pos.: 1010 bis 1990 HF - Komponenten		0999.9610.00		B	O		
1020	1	S	A41	ZE BV822M1 2FACH-KOPPLER BV822M1 TWOF. COUPLER VAR 12 32 52 ## Verwendet in: ## 2098.5009.01	Z	2099.5502.02		M			
1030	1	S	A41	ZE BV823M1 3FACH-KOPPLER BV823M1 3F. COUPLER VAR 13 33 53 ## Verwendet in: ## 2098.5009.01	Z	2099.5702.02		M			
1040	1	S	A41	ZE BV824M1 4FACH-KOPPLER BV824M1 QUADRUPLE COUPLER VAR 14 34 54 ## Verwendet in: ## 2098.5009.01	Z	2099.5602.02		M			
1050	1	S	A41	ZE BV825M1 5FACH-KOPPLER	Z	2099.5802.02		M			
				Benennung/Designation		Sprach./Lang		Ä.I. / C.I		Blatt/Sheet	
				ERSATZTEILLISTE ZR800C1 LEISTUNGSS.		de en		04.00		2 of 10	
ZR800C1				Datum/Date		Abt./Dept.		Name/Name		Dokument Nr. / Document No.	
				2009-07-09		7TSK		RO		2098.5067.01 ST	

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1060	1	S	A41	BV825M1 5F. COUPLER VAR 15 35 55 ## Verwendet in: ## 2098.5009.01	Z	2099.5902.02		M	
1120	1	S	A41	ZE BV826M1 6FACH-KOPPLER BV826M1 6F. COUPLER VAR 16 36 56 ## Verwendet in: ## 2098.5009.01	Z	2096.4305.02		M	
1130	1	S	A41	ZE BV832H1 2FACH-KOPPLER BV832H1 2 WAY COUPLER VAR 22 42 62 ## Verwendet in: ## 2098.5009.01	Z	2096.4157.02		M	
1140	1	S	A41	ZE BV833H1 3FACH-KOPPLER BV833H1 TRIPLE COUPLER VAR 23 43 63 ## Verwendet in: ## 2098.5009.01	Z	2096.4005.02		M	
1150	1	S	A41	ZE BV834H1 4FACH-KOPPLER BV834H1 FOURFOLD COUPL VAR 24 44 64 ## Verwendet in: ## 2098.5009.01	Z	2096.4705.02		M	
1160	1	S	A41	ZE BV835H1 5FACH-KOPPLER BV835H1 FIVEFOLD COUPL VAR 25 45 65 ## Verwendet in: ## 2098.5009.01	Z	2096.3750.02		M	
1220	1	S	A42	ZE BV836H1 6FACH-KOPPLER BV836H1 SIXFOLD COUPL. VAR 26 46 66 ## Verwendet in: ## 2098.5009.01	Z	2096.3909.32		M	
1240	1	S	A42	ZE ABS-BLOCK ML NX8000 ABS BLOCK MP NX8000 VAR 12 13 32 33 52 53 ## Verwendet in: ## 2098.5009.01	Z	2096.3909.35		M	
1320	1	S	A42	ZE ABS-BLOCK ML NX8000 ABS BLOCK MP NX8000 VAR 14 15 16 34 35 36 54 55 56 ## Verwendet in: ## 2098.5009.01	Z	2096.3909.03		M	
1340	1	S	A42	ZE ABS-BLOCK ML NX8000 ABS BLOCK MP NX8000 VAR 22 23 42 43 62 63 ## Verwendet in: ## 2098.5009.01	Z	2096.3909.02		M	
1410	1	S	A45	ZE ABS-BLOCK ML NX8000 ABS BLOCK MP NX8000 VAR 24 25 26 44 45 46 64 65 66 ## Verwendet in: ## 2098.5009.01	Z	2096.7304.00		M	O
1450	1	S	A45	ZM FM825 OWF - BD. 3 FM825 H.FILT. BD. 3 VAR 11 12 13 14 15 16 31 32 33 34 35 36 51 52 53 54 55 56 ## Verwendet in: ## 2098.5009.01	Z	2096.6508.02		M	O



ROHDE & SCHWARZ

Benennung/Designation
ERSATZTEILLISTE ZR800C1 LEISTUNGSS.
SPARE PART LIST FOR 2098.5009.01

Sprach./Lang de en Ä.I. / C./ 04.00 Blatt/Sheet 3 of 10

Dokument Nr. / Document No.

2098.5067.01 ST

ZR800C1

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1510	1	S	P14	VAR 21 22 23 24 25 26 41 42 43 44 45 46 61 62 63 64 65 66 ## Verwendet in: ## 2098.5009.01 ZE GD800 MESSRICHTKOPPLER DIRECTION COUPLER VAR 11 12 13 14 15 16 31 32 33 34 35 36 51 52 53 54 55 56 ## Verwendet in: ## 2098.5009.01	Z	2096.7204.34		M	
1520	1	S	P14	ZE GD800 MESSRICHTKOPPLER DIRECTION COUPLER VAR 21 22 23 24 25 26 41 42 43 44 45 46 61 62 63 64 65 66 ## Verwendet in: ## 2098.5009.01	Z	2096.7204.44		M	
1530	1	S	P14A	ZM GD800Z2 MESSSYSTEM GD800Z2 MEASURING SYST VAR 11 12 13 14 15 16 31 32 33 34 35 36 51 52 53 54 55 56 ## Verwendet in: ## 2096.7204.01	Z	2096.6308.30		M	O
1540	1	S	P14A	ZM GD800Z2 MESSSYSTEM GD800Z2 MEASURING SYST VAR 21 22 23 24 25 26 41 42 43 44 45 46 61 62 63 64 65 66 ## Verwendet in: ## 2096.7204.01	Z	2096.6308.40		M	O
1550	1	S	P14B	ZM GD800Z2 MESSSYSTEM GD800Z2 MEASURING SYST VAR 11 12 13 14 15 16 31 32 33 34 35 36 51 52 53 54 55 56 ## Verwendet in: ## 2096.7204.01	Z	2096.6308.30		M	O
1560	1	S	P14B	ZM GD800Z2 MESSSYSTEM GD800Z2 MEASURING SYST VAR 21 22 23 24 25 26 41 42 43 44 45 46 61 62 63 64 65 66 ## Verwendet in: ## 2096.7204.01	Z	2096.6308.40		M	O
1570	1	S	P14C	ZM GD800Z1 MESSSYSTEM GD800Z1 MEASURING SYST ## Verwendet in: ## 2096.7204.01	Z	2096.6208.02		M	O
1580	1	S	P14D	ZM GD800Z1 MESSSYSTEM GD800Z1 MEASURING SYST ## Verwendet in: ## 2096.7204.01	Z	2096.6208.03		M	O
1590	1	S	P14ZP	ED RF-AUSGANG Z2 RF_OUTPUT Z2 ## Verwendet in: ## 2096.7204.01 Zum Einstellen der Auskoppeldämpfung fuer P14A, P14B, P14C und P14D.	Z	2096.6408.02		M	O
1610	1	S	W.A1	DH KABEL L=1M S/S 7/16 CABLE VAR 11 21 31 41 51 61 ## Verwendet in: ## 2098.5009.01		2087.7111.00		B	O
1620	1	S	X.A	ZM UEBERGANG 7/16BU-RL13/30M Adaptor 7/16BU-RL13/30M VAR 11 21 31 41 51 61 ## Verwendet in: ## 2098.5009.01	Z	2096.7004.00		M	O



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1630	1	S		DV RG400 2XN/W U 1,4M RF-CABLE VAR 12 13 14 15 16 22 23 24 25 26 32 33 34 35 36 42 43 44 45 46 52 53 54 55 56 62 63 64 65 66 ## Verwendet in: ## 2098.5009.01	Z	2097.5792.00		M	O
1640	1	S		DV RG400 2XN/W U 0,6M RF-CABLE VAR 15 16 25 26 35 36 45 46 55 56 65 66 ## Verwendet in: ## 2098.5009.01	Z	2097.5805.00		M	O
1650	1	S		DH KABEL SCF 2XN-W 1.1M U RF CABLE VAR 14 15 16 24 25 26 34 35 36 44 45 46 54 55 56 64 65 66 ## Verwendet in: ## 2098.5009.01		2097.5863.00		B	O
1710	1	S		ZM UEBERGANG 1 5/8EIA-RL13/30R Adaptor 1 5/8EIA-RL13/30R ## Verwendet in: ## 2098.5009.01	Z	2096.6966.00		M	O
1720	1	S		FK KUPPLUNG EIA 1 5/8 ADAPTOR FOR TRANSMISSION LINE 1 5/8 ## Verwendet in: ## 2098.5009.01		0656.2279.00		B	V
2000	0	S		PB BEMERKUNG NOTE Pos.: 2010 bis 2990 Netzverteilung - Komponenten		0999.9610.00		B	O
2010	1	S	X1	SL 3PH SAM.SCH. EINSPI. LI 3PH CURR. DISTRIB. LEF VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01		2096.5053.00		B	O
2020	1	S	X1.1	SL 3PH SAM.SCH. ERWEIT.2X 3PH CURR. DISTRIB. 2X VAR 13 14 16 23 24 26 33 34 36 43 44 46 ## Verwendet in: ## 2096.3344.01		2096.5060.00		B	O
			X1.2						
2030	1	S	X1.1	SL 3PH SAM.SCH. ERWEIT.3X 3PH CURR. DISTRIB. 3X VAR 15 25 36 46 ## Verwendet in: ## 2096.3344.01		2096.5076.00		B	O
2040	1	S	X2	VK KLEMMBLOCK 0.5-6QMM TERMINAL BLOCK VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01		2096.5124.00		B	B
2050	1	S	F1	SS SCHUTZSCHALTER T-M 1P 3A - C PROTECT SWITCH 1P 3A - C VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01		2096.5030.00		B	O
			F2						
			F3						
			F4						
			F5						
			F6						



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2090	1	S	F7 F8 W1PH	DX W1PH VERTEILER N-NETZ W1PH MAIN DISTRIBUTOR VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01	Z	2096.3538.02		M	
2110	1	S	Q1	SL LEISTUNGSTRENNER 32A/400V MAINSWITCH 32A/400V VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01		2093.8522.00		B	O
2120	1	S	Q1.N	SL 4.SCHALTGLIED (N-LEIT) 4. SWITCH N-CONTACT VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01		2096.5024.00		B	O
2130	1	S	Q2	SS SCHUTZSCHALTER T-M 3P 3.5-5A PROTECT SWITCH 3P 3.5-5A VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01		2096.5153.00		B	O
2140	1	S	Q3 Q4 Q5 Q6 Q7 Q2X	SL 3PH VERBINDUNGSSTECKER 3PH PLUG LINK VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01		2096.5082.00		B	O
2150	1	S	Q3X Q4X Q5X Q6X Q7X X20.1	VK SCHUTZLEITERKL.2.5QMM VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01		2091.9773.00		B	V
2400	1	S	X20.2 X20.3 X33	DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01	Z	2097.5634.33		M	O
2410	1	S	X36	DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01	Z	2097.5634.36		M	O
2420	1	S	X41	DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in:	Z	2097.5634.41		M	O



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2430	1	S	X42	## 2096.3344.01 DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01	Z	2097.5634.42		M	O
2440	1	S	X44	DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3344.01	Z	2097.5634.44		M	O
2500	1	S	A35	ED VERTEILER-N-NETZ INTERFACE POWER DISTR. VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01	Z	2096.3550.02		M	
2510	1	S	A36	NJ SCHALTNETZT. AC90-264V POWER SUPPLY 12V/40W VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01		1081.0254.00		B	B
2610	1	S	W35	DX W35 NETZKAB.-HILFSSPG. W35 MAIN POWER KABLE VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01	Z	2096.3450.00		M	O
2620	1	S	W45	DX W45 DC-KABEL-HILFSSPG. W45 DC CABLE VAR 11 12 13 14 15 16 21 22 23 24 25 26 31 32 33 34 35 36 41 42 43 44 45 46 ## Verwendet in: ## 2096.3009.01	Z	2096.3444.00		M	O
3000	0	S		PB BEMERKUNG NOTE Pos.: 3010 bis 3990 Gestell - Komponenten		0999.9610.00		B	O
3010	1	S	A50	EE RACK CONTROLLER RACK CONTROLLER ## Verwendet in: ## 2098.5009.01	Z	2096.4505.02		M	O
3110	1	S	X53A	DX CAN ABSCHL. 9POL.X53A CAN TERMINATING X53A ## Verwendet in: ## 2098.5009.01	Z	2097.5628.00		M	O
3120	1	S	X53B	DX CAN ABSCHL. 15POL.X53B CAN TERMINATING X53B ## Verwendet in: ## 2098.5009.01	Z	2097.5611.00		M	O
3130	1	S	X53D	DX CAN ABSCHL. 15POL.X53D CAN TERMINATING X53D ## Verwendet in: ## 2098.5009.01	Z	2097.5605.00		M	O
3150	1	S	X54B	DX BRUECKEN-ST REF.SPG.-REDUZ. A50/X7 DUMMY PLUG REDUCED_REF_B A50/X7 ## Verwendet in: ## 2098.5009.01	Z	2097.5592.00		M	



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3500	1	S	W48	DG PATCHKABEL 2M 1-1 BL PATCHKABEL 2M 1-1 BL ## Verwendet in: ## 2098.5009.01		4055.6458.00		B	T
3600	1	M		WW DICHTUNGSSCHAUMBAND PVC 8X6 14SH SEALING TAPE ## Verwendet in: ## 2096.2002.01		2096.2119.00		B	B
3710	1	S		KZ FUEHLSTIFT RD2.7X17.5 GUIDE PIN VAR 11 12 13 14 21 22 23 24 31 32 33 34 41 42 43 44 51 52 53 54 61 62 63 64 ## Verwendet in: ## 2096.2231.01		0043.5727.00		M	V
3720	1	S		MF ANSCHLUSSHALTER CONNECTION HOLDER VAR 11 12 13 14 21 22 23 24 31 32 33 34 41 42 43 44 51 52 53 54 61 62 63 64 ## Verwendet in: ## 2096.2231.01		2096.2290.00		M	O
3800	1	S		MZ ABDECKUNG 2 COVER 2 VAR 11 12 13 14 15 21 22 23 24 25 31 32 33 34 35 41 42 43 44 45 51 52 53 54 55 61 62 63 64 65 ## Verwendet in: ## 2099.5019.00		2096.2925.00		M	O
3900	1	S	E1	ZE LUEFTERSATZ ML FAN KIT MP VAR 11 12 13 14 15 16 21 22 23 24 25 26 ## Verwendet in: ## 2096.2377.01	Z	2096.2131.02		M	
3910	1	S	E2	SL LEISTUNGSTRENNSCHALTER 63A 63A MAIN POWER SWITCH VAR 51 52 53 54 55 61 62 63 64 65 ##Verwendet in: ##2096.2154.01		2096.5001.00		B	O
3920	1	S		SL 4.SCHALTGLIED (N-LEIT) 4. SWITCH N-CONTACT VAR 51 52 53 54 55 61 62 63 64 65 ##Verwendet in: ##2096.2154.01		2096.5018.00		B	O
3930	1	S		SL LEISTUNGSSCHALT.4P125A POWER SWITCH 4P 124A VAR 56 66 ##Verwendet in: ##2096.2154.01		2093.8839.00		B	O
3940	1	S		SS SCHUTZSCHALTER TM 2P 15A / C PROTECT SWITCH 2P 15A - C VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01		2096.5224.00		B	O
3950	1	S		SS SCHUTZSCHALTER T-M 1P 3A - C PROTECT SWITCH 1P 3A - C VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01		2096.5030.00		B	O
3960	1	S		SS SCHUTZSCHALTER T-M 1P 6A - C PROTECT SWITCH 1P 6A - C VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01		2096.5047.00		B	O



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3970	1	S		ED VERTEILER-N-NETZ INTERFACE POWER DISTR. VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2096.3550.02		M	
3980	1	S		DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.5634.33		M	O
3990	1	S		DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.5634.36		M	O
4000	1	S		DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.5634.41		M	O
4010	1	S		DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.5634.42		M	O
4020	1	S		DX WAGO BRUECKEN-STECKER DUMMY PLUG VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.5634.44		M	O
4030	1	S		NJ SCHALTNETZT. AC90-264V POWER SUPPLY 12V/40W VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01		1081.0254.00		B	B
4040	1	S		DX AC 1PH A1.VERST. KAB. W61 AC 1PH A1.AMPLIF.CAB. W61 VAR 51 52 53 54 55 56 61 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.4850.00		M	
4050	1	S		DX AC 1PH A2.VERST. KAB. W62 AC 1PH A2.AMPLIF.CAB. W62 VAR 52 53 54 55 56 62 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.4867.00		M	
4060	1	S		DX AC 1PH A3.VERST. KAB. W63 AC 1PH A3.AMPLIF.CAB. W63 VAR 53 54 55 56 63 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.4873.00		M	
4070	1	S		DX AC 1PH A4.VERST. KAB. W64 AC 1PH A4.AMPLIF.CAB. W64 VAR 54 55 56 64 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.4880.00		M	
4080	1	S		DX AC 1PH A5.VERST. KAB. W65 AC 1PH A5.AMPLIF.CAB. W65 VAR 55 56 65 66 ##Verwendet in: ##2096.2154.01	Z	2097.4896.00		M	
4090	1	S		DX AC 1PH A6.VERST. KAB. W66 AC 1PH A6.AMPLIF.CAB. W66	Z	2097.4909.00		M	



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				VAR 56 66 ##Verwendet in: ##2096.2154.01					



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				ACHTUNG EGB/ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR02=ATV-SPLIT AUSFUEHRUNG MOD02=ATV SPLIT VERSION VAR03=ATV-COMB. AUSFUEHRUNG MOD03=ATV COMBINED VERSION VAR04=DTV - AUSFUEHRUNG MOD04=DTV VERSION VAR05=DTV - AUSFUEHRUNG MIT ADE MOD05=DTV VERSION WITH ADE VAR06=DAB - AUSFUEHRUNG ML MIT SX801 MOD06=DAB VERSION MP WITH SX801 VAR24=DTV - KLEINLEISTUNG MOD24=DTV LOW POWER VAR25=DTV+ADE KLEINLEISTUNG MOD25=DTV+ADE LOW POWER					
100	1	S	A15	ED HF-STEUERS.UMSCH. RF-EXCITER SWITCHING VAR 02 03 05 25 ## Verwendet in: ## 2099.1507.01	Z	2095.3305.02		M	O
200	1	S	A15	ED RF-SWITCH RF-SWITCH VAR 04 06 24 ## Verwendet in: ## 2099.1507.01	Z	2095.3257.02		M	O
300	1	S	W11B	DX AF-Kabel W11-12-13B AF-Cable W11-12-13B VAR 02 03 ## Verwendet in: ## 2099.1507.01	Z	2097.5440.00		M	O
			W12B W13B						
400	1	S	W21B	DV RG179D BNC BU-E/BNC ST RF-CAB. 75 OHM 2000MM VAR 02 03 04 05 06 ## Verwendet in: ## 2099.1507.01	Z	2097.5857.00		M	
			W22B W23B W24B W31B W32B W34B W35B W42B						
500	1	S	W41B	DV RG316 BNC-St/EBU 2000MM RF CABLE 50 OHM 2XBNC VAR 02 03 04 05 06 ## Verwendet in: ## 2099.1507.01	Z	2088.3503.00		M	
			W43B						
510	1	S	A100R	ED RACK CONTROLLER SV8000 RACK CONTROLLER SV8000 VAR 24 25 ## Verwendet in: ## 2099.1507.01	Z	2098.9740.02		M	



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				ACHTUNG EGB/ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR02=ATV-AUSFUEHRUNG FUER ML MOD02=ATV VERSION FOR MP VAR03=DTV-AUSFUEHRUNG FUER ML MOD03=DTV VERSION FOR MP VAR04=DAB-AUSFUEHRUNG FUER ML MIT SX801 MOD04=DAB VERSION FOR MP WITH SX801 VAR22=ATV-AUSFUEHRUNG FUER HL MOD22=ATV VERSION FOR HP VAR23=DTV-AUSFUEHRUNG FUER HL MOD23=DTV VERSION FOR HP VAR24=DAB-AUSFUEHRUNG FUER HL MIT SX801 MOD24=DAB VERSION FOR HP WITH SX801					
100	1	S	W11A	DX AF-KABEL W11-12-13A AF-CABLE W11-12-13A VAR 02 22 ## Verwendet in: ## 2099.1007.01	Z	2097.5434.00		M	O
			W12A W13A						
200	5	S	W21A	DV RG179D BNC BU-E/BNC ST RF-CAB. 75 OHM 2000MM ## Verwendet in: ## 2099.1007.01	Z	2097.5857.00		M	
			W22A W23A W24A W31A W32A W34A W35A W42A						
300	2	S	W41A	DV RG316 BNC-St/EBU 2000MM RF CABLE 50 OHM 2XBNC ## Verwendet in: ## 2099.1007.01	Z	2088.3503.00		M	
			W43A						
400	1	S	X100A	FT EINBAUADAPTER 8P.GER 2XRJ45 COUPLER JACK STRAIGHT ## Verwendet in: ## 2099.1007.01		1093.9122.00		B	V
410	1	S	W48	DG PATCHKABEL 2M 1-1 BL PATCHCABEL 2M 1-1 BL VAR 22 23 24 ## Verwendet in: ## 2099.1007.01		4055.6458.00		B	T
420	1	S	W54A	DY RACK CONT.-EXC. A W54A RACK CONT.-EXC. A W54A VAR 22 23 24 ## Verwendet in: ## 2099.1007.01	Z	2097.5392.00		M	O
430	1	S	W55	DY RACK CONT.-NETCCU W55 RACK CONT.-NETCCU W55 VAR 22 23 24 ## Verwendet in: ## 2099.1007.01	Z	2097.5411.00		M	O
440	1	S	W56A	DG PATCHKABEL CAT6. 0.5M PATCHCABLE CAT.6. 0.5M VAR 22 23 24		0041.9283.00		B	T



ROHDE & SCHWARZ

Benennung/Designation
ERSATZTEILLI. ZR800T1 EINBAUS.SX800
SPARE PART LIST FOR 2099.1007.01

Sprach./Lang de en Ä.I. / C.I 04.00 Blatt/Sheet 1 of 2


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2099.1013.01 ST

ZR800T1

Datum/Date 2009-07-03 Abt./Dept. 3TSS Name/Name KA

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Pos.-Nr. ItemNo	Menge Quantity	ME Unit	El.Kennz Ref.Des.	Benennung / Bezeichnung Designation	Z	Sachnummer Stock No.	Ersatzteil Subst.part	BA	VH
450	1	S	X54B	## Verwendet in: ## 2099.1007.01 DX BRUECKEN-ST REF.SPG.-REDUZ. A50/X7 DUMMY PLUG REDUCED_REF_B A50/X7 VAR 22 23 24 ## Verwendet in: ## 2099.1007.01	Z	2097.5592.00		M	

 ROHDE & SCHWARZ	Benennung/Designation			Sprach./Lang	Ä.I. / C./	Blatt/Sheet	
	ERSATZTEILLI. ZR800T1 EINBAUS.SX800 SPARE PART LIST FOR 2099.1007.01			de en	04.00	2 of 2	
ZR800T1	Datum/ Date	2009-07-03	Abt. / Dept.	3TSS	Name / Name	KA	Dokument Nr. / Document No. 2099.1013.01 ST

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Pos.-Nr. ItemNo	Menge Quantity	ME Unit	El.Kennz Ref.Des.	Benennung / Bezeichnung Designation	Z	Sachnummer Stock No.	Ersatzteil Subst.part	BA	VH
				ACHTUNG EGB/ATTENTION ESD *VARIANTENERKLAERUNG *EXPLANATION OF MODELS VAR02=ZULUFT OBEN MOD02=AIR INLET TOP VAR03=ZULUFT UNTEN MOD03=AIR INLET BOTTOM VAR04=ABLUFT OBEN MOD04=AIR OUTLET TOP VAR05=ABLUFT UNTEN MOD05=AIR OUTLET BOTTOM VAR10=LUEFTERSATZ ML 210L/S 50/60HZ MOD10=FAN KIT ML 210L/S 50/60HZ VAR12=LUEFTERSATZ ML 190L/S - 115V AC 50/60HZ MOD12=FAN KIT ML 190L/S - 115V AC 50/60HZ					
10	1	S		ZM TEMPERATURFUEHLER THERMOMETER PROBE VAR 04 05 ## Verwendet in: ## 2096.2377.01	Z	2010.0006.00		M	
20	1	S		ZE LUEFTERSATZ ML FAN KIT MP VAR 10 ## Verwendet in: ## 2096.2377.01	Z	2096.2131.02		M	
30	1	S		ZE LUEFTERSATZ ML FAN KIT MP VAR 12 ## Verwendet in: ## 2096.2377.01	Z	2096.2131.12		M	
120	1	S		CM 8UF 400V D40 L70 M8 MOTOR CAPACITOR VAR 02 ## Verwendet in: ## 2096.2131.01		2092.8287.00		B	V
130	1	S		CM 32UF 5% 400V RD45XH95 KABEL 250MM MOTOR CAPACITOR 32UF 5% 400V VAR 12 ## Verwendet in: ## 2096.2131.01		2096.2548.00		B	O



ROHDE & SCHWARZ

Benennung/Designation
ERSATZTEILLISTE KL830M1 LUFTSATZ ML

Sprach./Lang de en	Ä.I. / C.I 02.00	Blatt/Sheet 1 of 1
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Dokument Nr. / Document No.
2096.2383.01 ST

KL830M1

Datum/ Date	2008-08-01	Abt. / Dept.	7TSK	Name / Name	RO
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