



## **Installation Sheet**

- TDC DUC**
- TDC BUZDUC**
- TDC BUZZER**
- TWO- / FOUR WAY SPLITTER**

**Date: 08 September 2004 Version 1.60**

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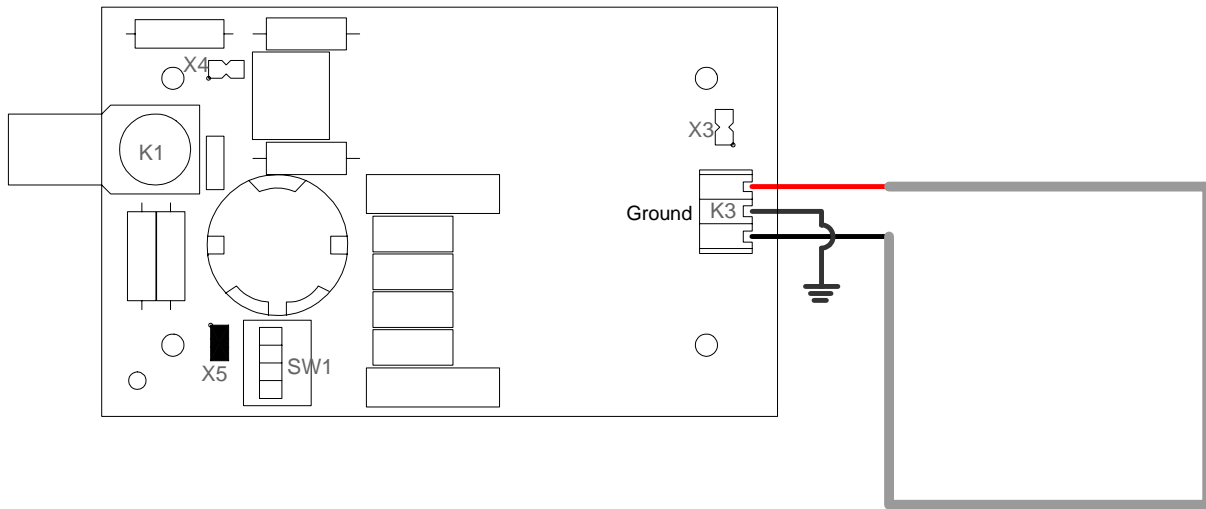
## TDC / SDC accessories

For the TDC / SDC are the following accessories available:

- TDC DUC
- TDC Buzzer
- TDC BuzDuc
- Two-way Splitter
- Four-way Splitter

## TDC DUC

This is a 50 ohms to O-shape (scanner) antenna coupling-unit.



The DUC is used to connect an O-shape antenna to a deactivator. It contains a four-fold dipswitch to switch four tuning capacitors. In this way it is possible to optimally adapt in 16 steps. With the present capacitors O-shapes of 450 uH up to 3500uH can be accommodated. This range is sufficient to accommodate the normal O-shape- and scanner antennas.

With jumper X3 it is possible to connect the system ground to the ground of the housing if necessary.

It is not recommended to do this to avoid ground loops. As a default factory setting, this jumper is not placed.

Jumper	Default setting	Application
X3	off	Ground to housing (jumper is present on PCB)
X4	off	X4 Off, X5 On, attenuation 3Db
X5	on	X4 On, X5 Off, attenuation 0Db

### Adjusting the dip switch SW1

Mount the preferred antenna loop and connect it to the DUC.

- The DUC must be as close as possible to the loop (maximum distance is 30cm)
- The wires to the DUC must be twisted

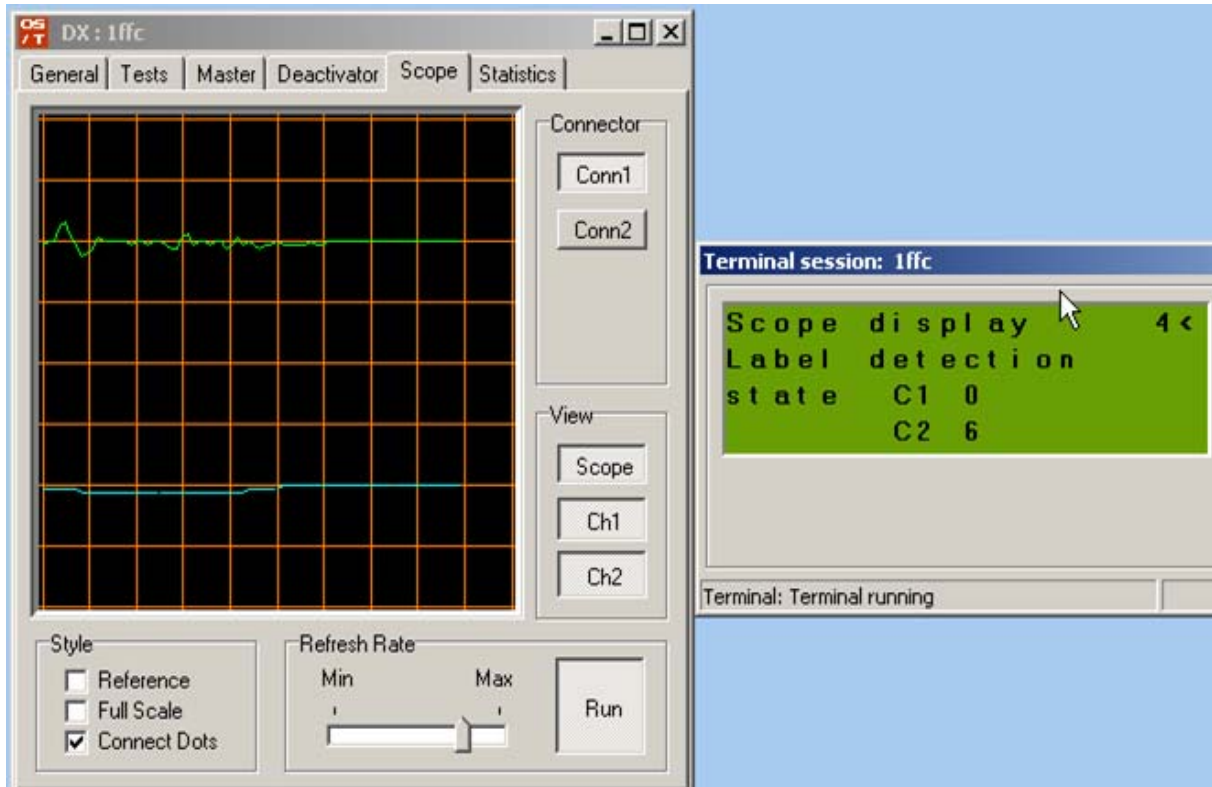
Connect the DUC to the TDC.

Turn on the TDC and choose for the antenna to be adjusted, in the hand terminal mux menu. Connect the scope to connector K9 and put jumper K8 to position 2-3.

### Scope settings

0,5V/div, 200uS/div. Take the channel with the directional coupler test cable. Put the four dipswitches in the "Off" position. A directional coupler signal with a maximum of 3Vtt is visible. Choose a combination of switch settings at which the directional coupler is as small as possible. ( $> 500\text{mVtt}$ ). This will be the most optimal setting.

### OST/Builder



At the terminal screen (7-7-2) use the options 3 or 4 to view the directional coupler signal.

Attenuate the DUC by using the dipswitch on the (Buz-)DUC PCB and the OS/T Builder. Try to get the blue line as horizontal as possible

### Connector K3

The add-on antenna will be connected to connector K3.

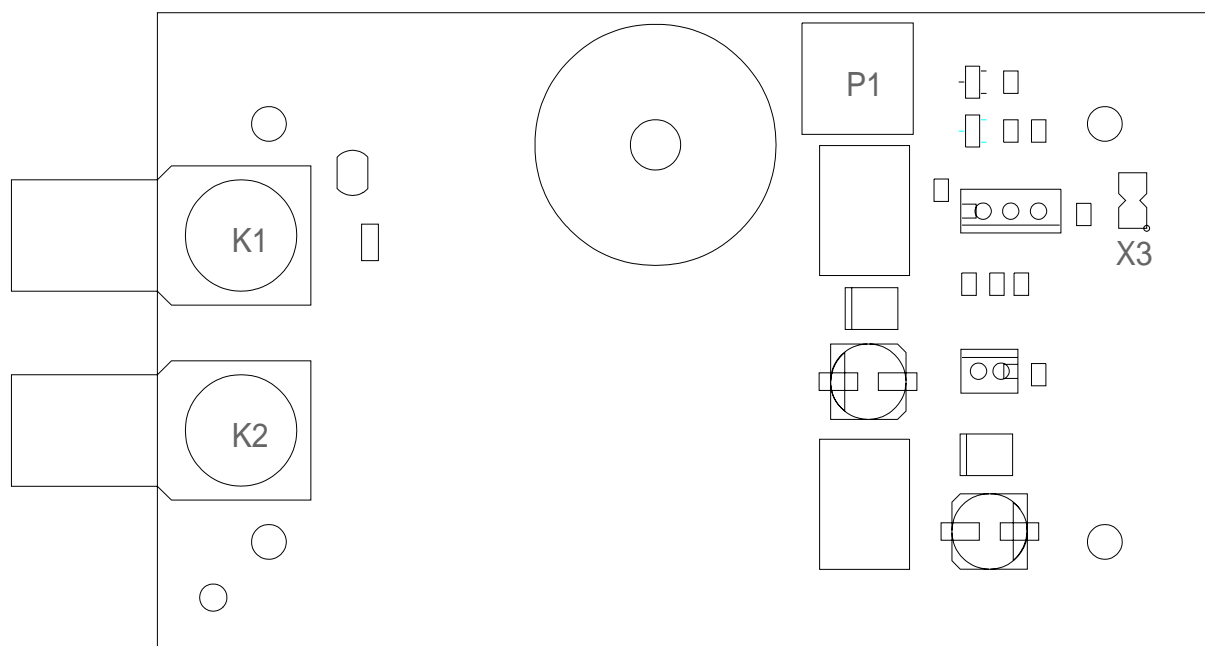
Version 1: two pole connector

The wires of the loop antenna will be connected to the two poles of the connector.

Version 2: three pole connector (April 2004)

The shielding of the cable will be connected to the middle pole, the other two wires to the other two poles of the connector.

## TDC Buzzer



The TDC contains two independent deactivator channels. When both channels are used, it is desired to have a sound at the antenna. The TDC buzzer is used to create sound when an event occurs. It will be placed in the coax cable going to the antenna and will be activated by the TDC. The buzzer volume is adjustable with pot-meter P1.

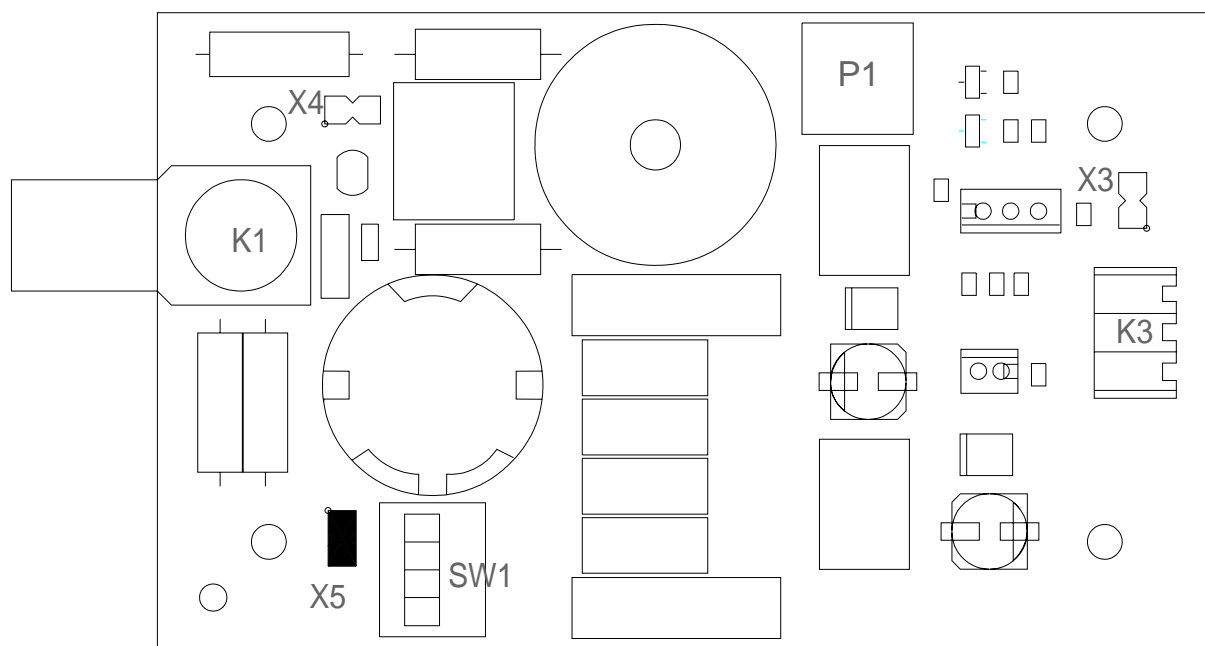
With jumper X3 the system ground can be connected with the ground of the housing. It is recommended not to do this to avoid ground loops. By factory default this jumper is not placed.

### **Adjusting the buzzer volume**

Mount the TD Buzzer and connect the antenna to the TDC. In the hand held terminal buzzer test menu the buzzer can be tested. Adjust P1 to the desired volume.



## TDC Buzduc



The TDC Buzduc is a combination of the TDC Duc and TDC Buzzer. With the TDC Buzduc a hand- or flatbed scanner antenna with a local buzzer can be realized. The Duc is meant to connect an O-shape antenna to a deactivator.

It contains a four-fold dipswitch to switch four tuning capacitors.

In this way it is possible to optimally adapt in 16 steps.

With the present capacitors O-shapes of 450uH up to 3500uH can be adapt.

This range is sufficient to adapt the normal O-shape- and scanner antennas.

The buzzer volume is adjustable with pot-meter P1.

With jumper X3 the system ground can be connected with the ground of the housing. It is recommended not to do this to avoid ground loops. By factory default this jumper is not placed.

Jumper	Default setting	Application
X3	off	Ground to housing (jumper is present on PCB)
X4	off	X4 Off, X5 On, attenuation 3Db
X5	on	X4 On, X5 Off, attenuation 0Db

Dip switch adjustments: Same as TDC Duc

Buzzer volume adjustments: Same as TDC Buzzer

### Connector K3

The add-on antenna will be connected to connector K3.

### Release versions

Version 1: two pole connector K3

The wires of the loop antenna will be connected to the two poles of the connector.

Version 2: three pole connector K3 (>April 2004)

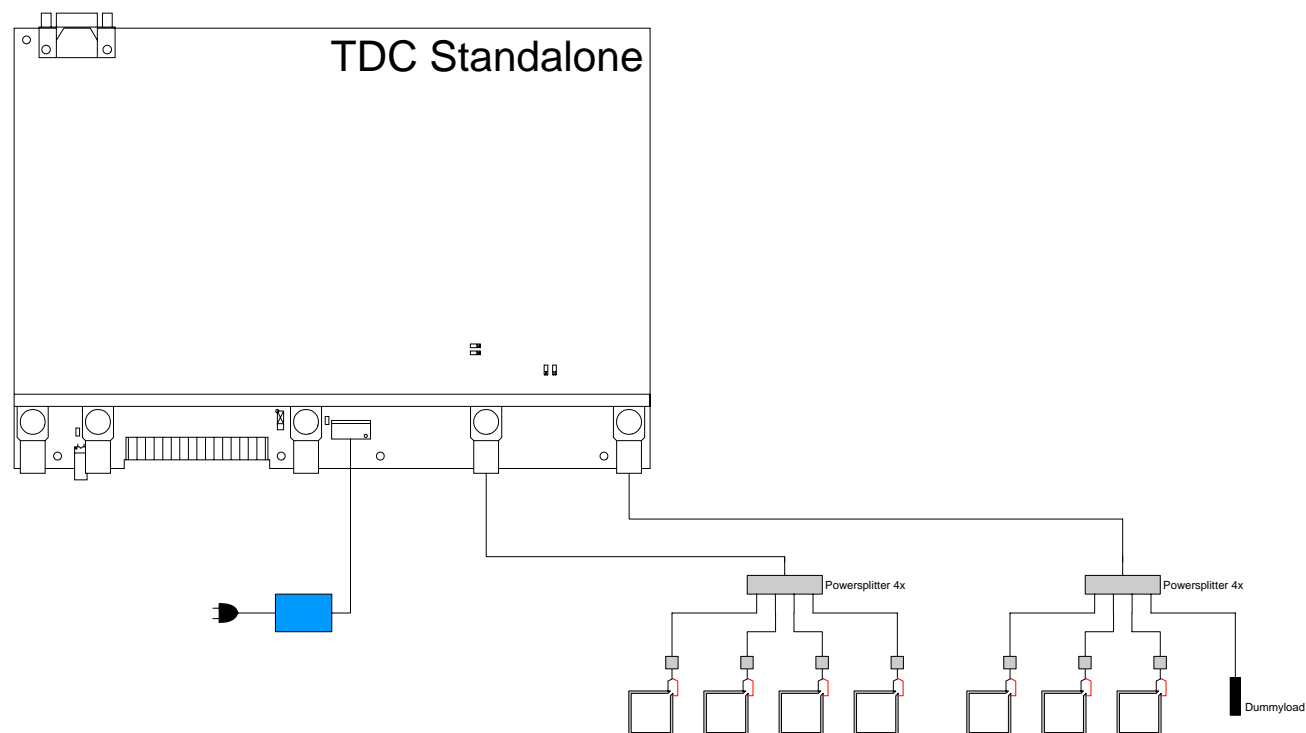
The shielding of the cable will be connected to the middle pole, the other two wires to the other two poles of the connector.

## Two- and four way splitters

The two- and four way splitters are used to expand the coaxial cable from a channel of the TDC to for two or four deactivator antennas.

### EAS<sup>i</sup>™/Net

It is not possible to watch the data of one specific antenna in EAS<sup>i</sup>™/Net. The counting will be done over the entire group of antenna's which are connected through the splitter to one channel of the TDC.



*Example: TDC with 2 four way splitters, 7 add-on antenna's and 7 TDC Ducs or 7 TDC Buzducs and a dummyload for the last channel*

## Filters

### **TDC Unit - 2 way splitter / 4 way splitter** (*Belden 9907*)

One filter at the TDC, one filter at the splitter and every 9 meters one filter.

### **2 way splitter / 4 way splitter - Antenna** (*Belden 9907*)

Every 9 meters one filter.

### **2 way splitter / 4 way splitter - DUC** (*Belden 9907*)

A filter at the DUC and every 9 meters one filter.

### **2 way splitter / 4 way splitter**

Use a 50 Ohm dummy load on every unused output of the splitter is not in use.

### **DUC - Add On antenna**

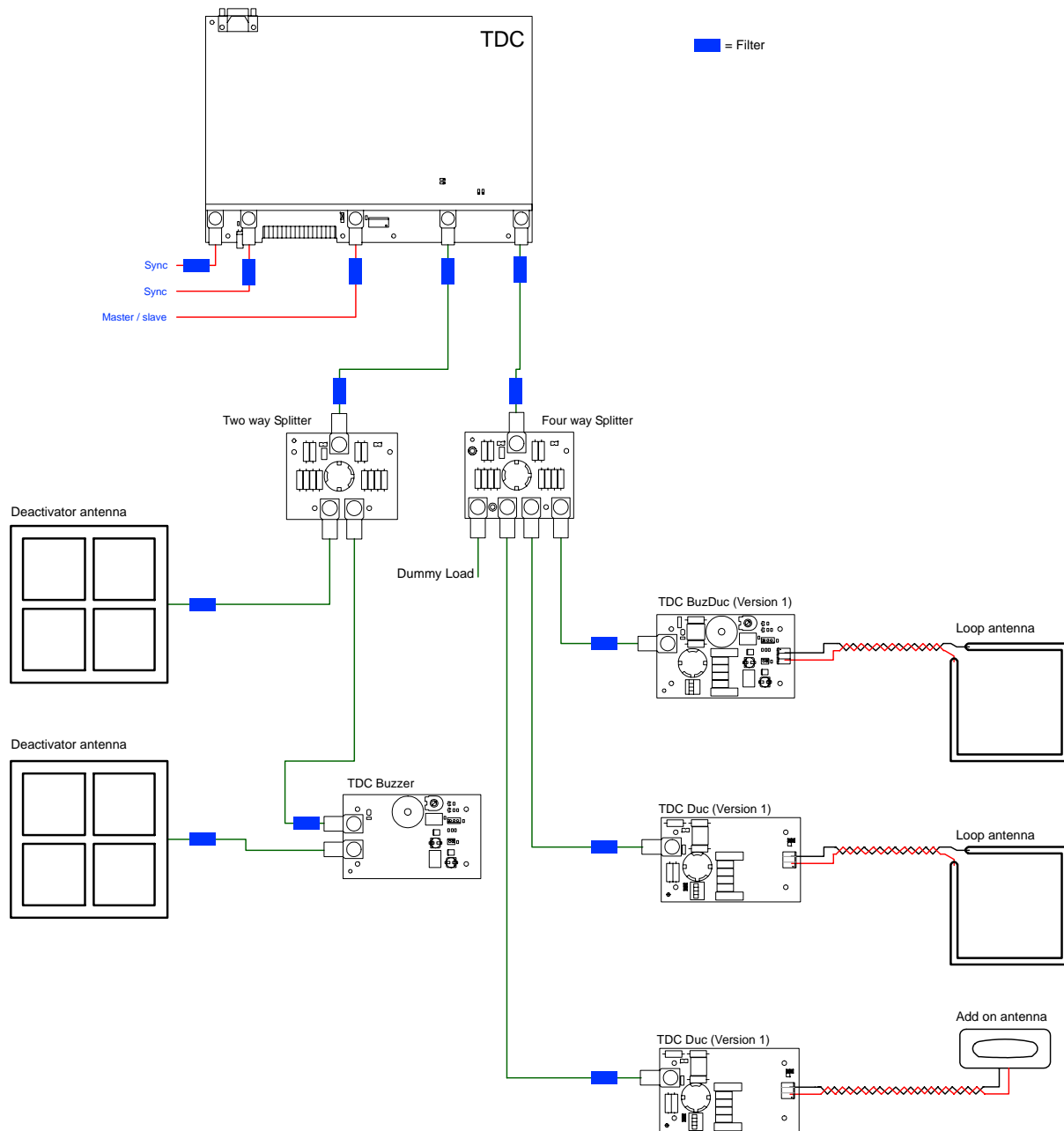
No filter, distance not longer then 30 centimeter.

### **Maximum cable length**

The maximum cable length from the output of the TDC to the antenna is 15 meters. A splitter must be placed as close as possible to the antennas.

# Examples Version 1

Examples how to connect deactivator antennas to the TDC. Version 1 Duc's and BuzDuc's are used.



## Examples Version 2

Examples how to connect deactivator antennas to the TDC. Version 2 Duc's and BuzDuc's are used.

