TKE-2

Table-Top Communication Unit

DEVELOPMENT PRODUCTION SOFTWARE HARDWARE ELECTRONICS CONSULTING

FunkTronic

Competence in electronics

Content

Ordering Information

Order No	**Item**
691430	TKE-2 - version with 2 buttons
691431	TKE-2 - version with 1 button

Technical Data

Power Supply	
voltage	+12V DC +/- 25%
current consumption	min. ca. 50mA, max. ca. 320 mV (at max. loudspeaker volume)
AF Levels	
input	ca. 50 ... 700mV, 200 / 600Ω ex factory: ca. 100mV, 600Ω (for internal level: 500mV at Pin 8 / U1)
output	ca. 3,7 ... 750mV (range according to JP1) at 200Ω for 5mV microphone level ex factory: ca. 400mV (JP1 open)
Weight	ca. 420g
Dimensions	
pedestal (width x depth x height)	ca. 135 x 170 x 30mm
gooseneck microphone, length	ca. 280mm

General

Our table-top communication unit TKE-2 is designed for multi-purpose communication applications, e.g., for use with one radio, public address systems or for use in conference rooms. The TKE-2 is avaible with a single button or with 2 buttons. Customer-specific versions (e.g., without loudspeaker, different colours) are available on demand.
With TKE-2 you have the additional possibility to **connect several devices in parallel** because the microphone lines are only open, when PTT is activated.

One-Button Version:

An external reference voltage is applied to ST1/pin3.
ST1/pin6 (PTT) is switched to the reference voltage.

Two-Button Version:

PTT (right button): ST1/pin6 switches to GND.
ZBV (left button): ST1/pin3 switches to GND.

Connectivity

ST1 - RJ45 modular jack (rear of pedestal)

1 - AF in A, symmetrc
2 - AF in B, symmetric
3 - PTT Ref (one-button version) or
ZBV - special function (two-button version)
4 - GND
5 - 12V in
6 - PTT out
7 - AF out A, symmetric
8 - AF out B, symmetric

ST2 - Power supply socket (rear of pedestal)

ST3 - Internal multi-pin connector

1 - GND
2 - microphone (+) and supply voltage for electret microphone (ca. 5V)
3 - GND

LS1 - Internal 2-pin connector

1 - AF in A
2 - AF in B

LS2 - Internal 2-pin connector

1 - loudspeaker (+)
2 - loudspeaker GND

Jumpers und Potentiometers

Potentiometers

P1: output amplification
P2: input amplification
P3: volume control for loudspeaker

Jumpers

JP1: Microphone output range: 200 ohm / 600 ohm(ex factory)
open (factory setting): ~ 70-780 mV
right side closed: ~ 11-130 mV
left side closed: ~ 3.7-41 mV

JP2: PTT (1-button version)
right side closed (factory setting): relais output open (ST1 / pin3+pin6)
left side closed: PTT keying vs. GND at ST1 / pin6

JP2: PTT (2-button version)
left side closed (factory setting): PTT keying vs. GND at ST1 / pin6
May not be changed!

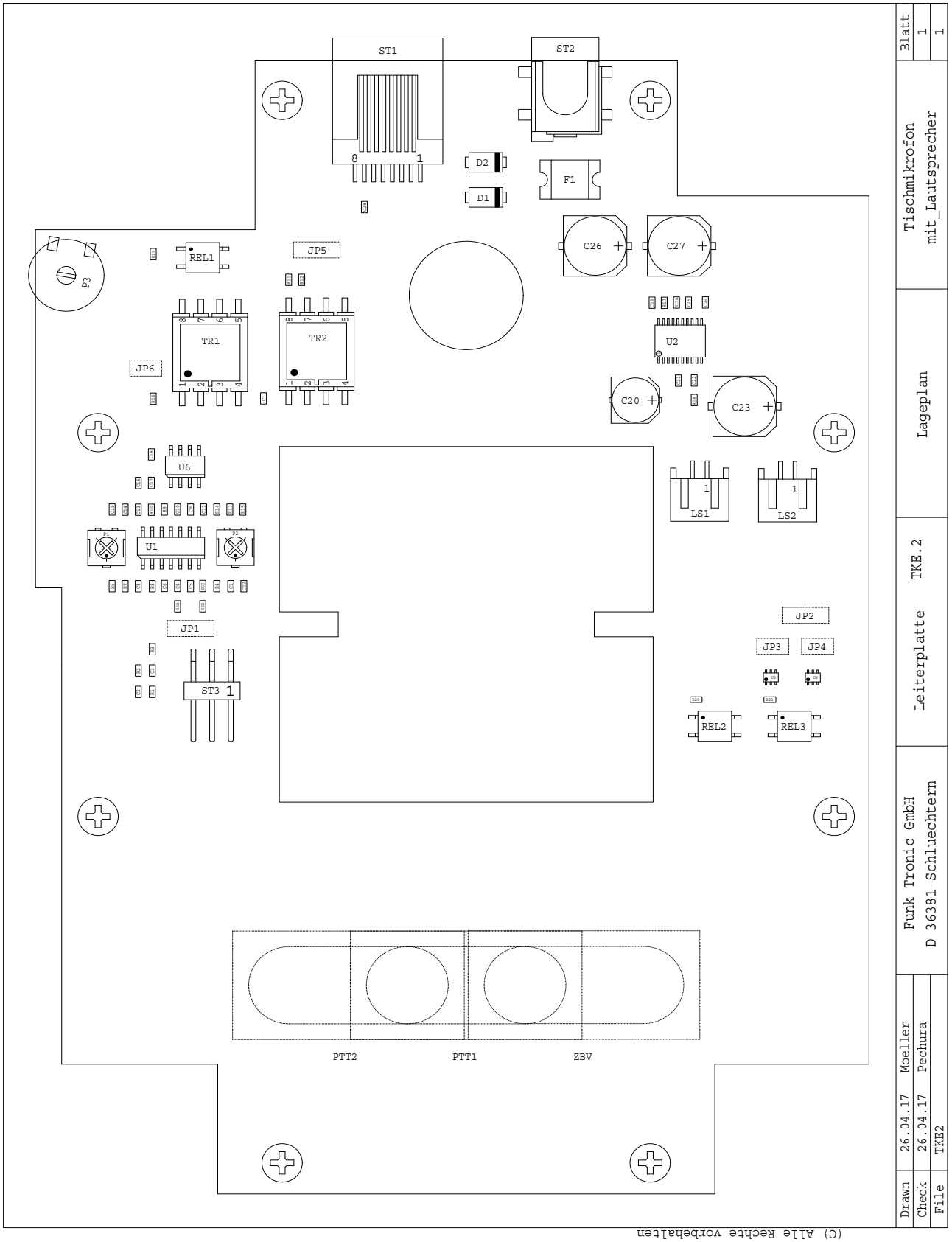
JP3: Microphone output
open (factory setting): microphone output is only open when PTT
closed: microphone output is open when ZBV is pressed (w/o PTT)

JP4: Loudspeaker setting
open: LS is always active
closed: LS is muted when PTT is pressed

JP5: Input impedance
open: 4.2 kohm
right side closed: 600 ohm
left side closed: 200 ohm

JP6: Residual volume (when P3 is at minimum)
open: residual volume remains (factory setting)
closed: volume is off

Board Layout



General Safety Information

Please read the operating instructions carefully before installation and setup.

The relevant regulations must be complied to when working with 230V line voltage, two-wire-lines, four-wire-lines and ISDN-lines. It is also very important to comply to the regulations and safety instructions of working with radio installations.

Please comply to the following safety rules:

- All components may only be mounted and maintained when power is off.
- The modules may only be activated if they are built in a housing and are scoop-proof.
- Devices which are operated with external voltage - especially mains voltage - may only be opened when they have been disconnected from the voltage source or mains.
- All connecting cables of the electronic devices must be checked for damage regularly and must be exchanged if damaged.
- Absolutely comply to the regular inspections required by law according to VDE 0701 and 0702 for line-operated devices.
- Tools must not be used near or directly at concealed or visible power lines and conductor paths and also not at and in devices using external voltage – especially mains voltage - as long as the power supply voltage has not been turned off and all capacitors have been discharged. Electrolytic capacitors can be still charged for a long time after turning off.
- When using components, modules, devices or circuits and equipment the threshold values of voltage, current and power consumption specified in the technical data must absolutely be complied to. Exceeding these threshold values (even if only briefly) can lead to significant damage.
- The devices, components or circuits described in this manual are only adapted for the specified usage. If you are not sure about the purpose of the product, please ask your specialized dealer.
- The installation and setup have to be carried out by professional personnel.

Returning of Old Equipment

According to German law concerning electronic devices old devices cannot be disposed off as regular waste. Our devices are classified for commercial use only. According to § 11 of our general terms of payment and delivery, as of November 2005, the purchasers or users are obliged to return old equipment produced by us free of cost. FunkTronic GmbH will dispose of this old equipment at its own expense according to regulations.

Please send old equipment for disposal to:

FunkTronic GmbH
Breitwiesenstraße 4
36381 Schlüchtern
GERMANY

>>> Important hint: freight forward deliveries cannot be accepted by us.

February 2nd , 2006

Subject to change, Errors excepted

Release Notes

2017-Oct-27 - First English version

2018-Sep-10 - Clarification of button positions for two-button version