

CTI Key Divider / Delay (KDD) Interface Installation Notes



The USB interface inside is basically a USB – RS232 converter similar to those used on standalone converters. A set of Virtual Com Port Drivers (VCP) are included on the CD. Copy these onto the hard disk and then plug the KDD into the USB port. A “found new device” wizard should start and just point to where you put the VCP drivers. This is only required when the KDD is plugged in for the first time.

You can then check the Devices in the System and check / change the assigned comm. Port.

The control string is \$RDDDD,LLLLL<cr><lf> at 9600 8N1

Where : \$ is the string header
: R command the Divide processor to Reset (can be left as a space)
: DDDD is the divide ratio 1 to 9999

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: LLLLL is the delay in mS 0 to 65,536 (just over 1 minute)

When powered up for the first time default Divide and Delay parameters are used until a control string is received.

The default Divide Ratio is 10

The default Delay is 0mS

These will be changed on receipt of the first control sentence

The output will only change when the current timing cycle is finished (ie after an output pulse has been generated). The serial data is stored and when a key is output by either the divide or delay blocks the new data is read. This can lead to some long waits if for example a very long delay is executed in error with a slow key rate. To overcome this entering an "R" after the \$ will immediately reset the divide processor and the string read. The R can be set if the interface starts acting abnormally or at any other time.

I have also included a 1KHz clock that can be used in place of an external Master Key Input. Setting a link in the 1KHz position inside the interface (see jumper position drawing) will result in the KDD divide block reading the 1KHz clock instead of the Master Key Input. The 1KHz clock can be divided again by 1 to 9999 to generate an output key of anything between 10mS and 9.999 seconds. This key is also passed to the Delay Block and so can be delayed. The same control string is used for normal operation.

Both the Divided Key Output and the Delayed Key Output can have either 1mS or 10µS pulse width set by jumpers inside the KDD (see jumper location drawing).

An output string is also generated and output via the USB interface. The output string is sent every second and shows the last data received.

The output string is :

```
#DDDD,LLLLL<cr><lf> at 9600 8N1
```

The HDD does not perform any checks on the data so the user will need to do this.

For example:

If the Master Input Key is 500mS

The Divide is 1 (not divide is performed)

The Delay is 600 (600mS)

The above settings will result in an error condition because the delay is longer than the total cycle time.

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LED's are provided for Master Key In, Control Data Received, Divided Key Out and Delayed Key Out.

To access any of the internal jumpers:

Remove the two Phillips head screws from the REAR panel.

Remove the rear panel and bezel then slide of the cover toward the rear.