– Description of Operation –

A. Speed/CDC Sensor (Speed/CDC Signal Transmitter)

a) Speed Reed Switch
Reed Switch generates a single pulse signal per wheel rotation.

b) CDC Reed Switch
Reed Switch generates a single pulse signal per crank rotation.

c) Pulse Shaper
Pulse Shaper adjusts waveform of the pulse signal from Reed Switch to transmit to CPU Controller.

d) CPU Controller
Fig. 1 shows reed switch signals, time intervals of the period calculation, and data signal at the transmitter coil.
A signal from pulse shaper is input into CPU, and the period of the signals in each time interval is calculated.
Data signal including signal period and number of signals are transmitted every time interval from 1.3 to 1.5 sec.

e) Data Signal Amplifier
Data Signal Amplifier amplifiers the data signal from CPU Controller and transmits to Data Signal Transmitter Coil.

f) Data Signal Transmitter Coil
As shown in Fig. 1, Data Signal Transmitter Coil transmits the amplified signal from Data Signal Amplifier as an electromagnetic wave of 26.4kHz±10%.

Reed Switch signal

1.5S   1.3S   1.4S   1.5S   1.3S   1.4S

Data Signal Transmitter Coil

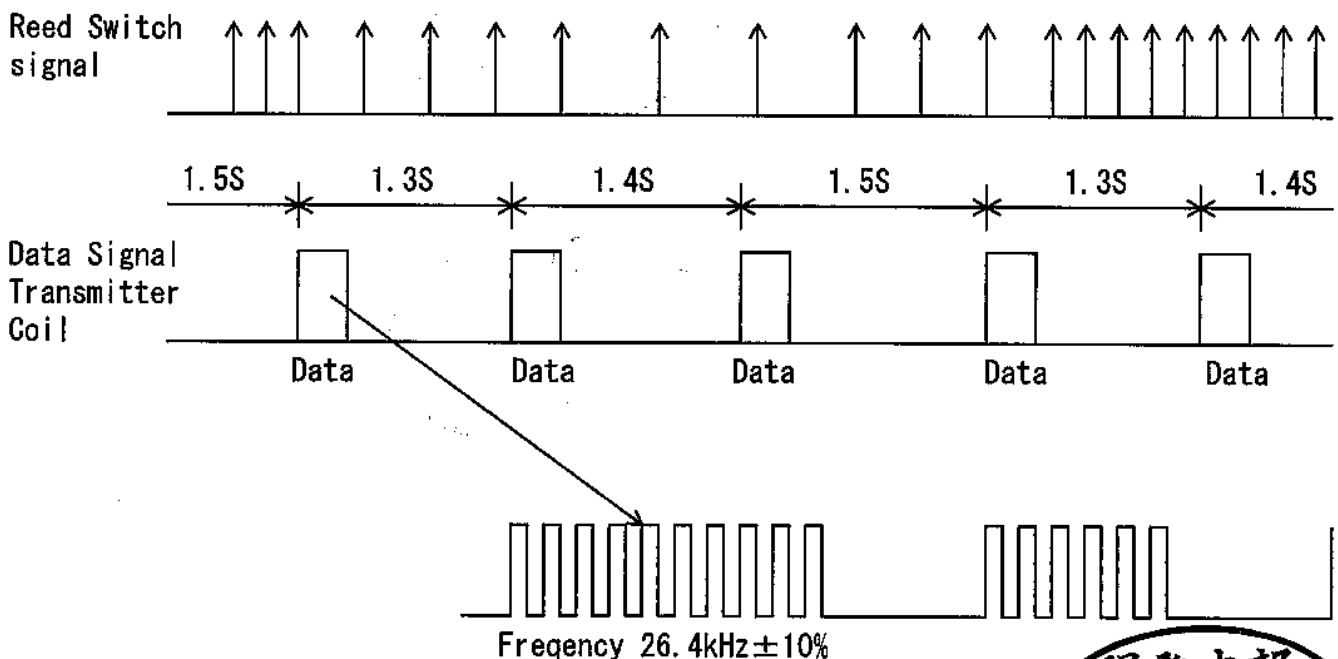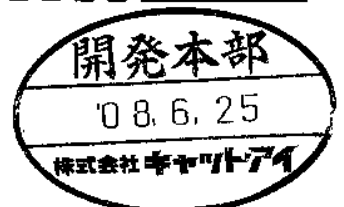Data   Data   Data   Data   Data

Freqency 26.4kHz±10%

Fig. 1

– Description of Operation –

B. Main Unit(Receiver)

a) Data Signal Receiver Coil
   Data Signal Receiver Coil detects anelectromagnetic wave of 26.4kHz.

b) Data Signal RF Amplifier
   Data Signal RF Amplifier amplifies the datasignal from Data Signal Receiver Coil.

c) Data Signal Pulse Shaper
   Data Signal Pulse Shaper adjusts waveform of the amplifired signal to
   CPU Controller.

d) CPU Controller
   CPU Controller computes information such as speed, CDC and distance by calculating
   the signal pulse from Data Signal Pulse Shaper.

e) LCD Display
   LCD Display represents the information computed by CPU Controller on the screen.