

CS-iTRF-01LW03
Trash Can Monitor
Communication Protocol
V1.0

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Trash Can Monitor

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This document defines the communication protocol between Trash Can Monitor device and gateway. The contents of this protocol is presented by asiic string, where “,” is used for data intervals.

1. Data Instructions:

*: Command header

CS: Manufacturer

ID: Device number (Eg: 0001= Number 1 trash can monitor)

SS: Equipment Type (Eg: 4 represents trash can monitor device)

FF: Function code (S1=power on, A3=low voltage alarm, T1=regular reporting)

AL: Alarm distance, indicate the distance between garbage and ultrasonic probe (Eg: 25=25CM)

D1: Regular reporting time (Eg: 00001= 1 minute)

F1: Current distance between garbage and ultrasonic probe (Eg: 00028= 28CM)

B1: Terminal device voltage (3000=3V), terminal sends data in mV

M1: Monitoring status (Eg: 0=Normal, 1=Alarm)

#: Command ending

2. Communication Information

2.1 Powered-on: S1

Figure 1 Powered-on Information (Data was sent from device to pc)

Command Header	Manufacturer	ID	Equipment Type	Function Code	Alarm Distance	Reserve	Regular Reporting	Current Distance	Battery Voltage	Monitoring Status	Command Ending
*	CS	ID	SS	FF	AL	--	D1	F1	B1	M1	#
*	CS	YYYY	4	S1	YY	00	YYYYY	YYYYY	YYYY	0	#

Eg: *CS,0001,4,S1,25,00,00001,00028,3500,0#

2.2 Low Voltage Alarm: A3

Figure 3 Low Voltage Alarm Information (Data was sent from device to pc)

Command Header	Manufacturer	ID	Equipment Type	Function Code	Alarm Distance	Reserve	Regular Reporting	Current Distance	Battery Voltage	Monitoring Status	Command Ending
*	CS	ID	SS	FF	AL	--	D1	F1	B1	M1	#
*	CS	YYYY	4	A3	YY	00	YYYYY	YYYYY	YYYY	0	#

Eg: *CS,0001,4,A3,25,00,00001,00028,2800,0#

2.4 Regular Reporting: T1

Figure 4 Regular Reporting Information (Data was sent from device to pc)

Command Header	Manufacturer	ID	Equipment Type	Function Code	Alarm Distance	Reserve	Regular Reporting	Current Distance	Battery Voltage	Monitoring Status	Command Ending
*	CS	ID	SS	FF	AL	--	D1	F1	B1	M1	#
*	CS	YYYY	4	T1	YY	00	YYYYY	YYYYY	YYYY	0	#

Eg: *CS,0001,4,T1,25,00,00001,00028,3500,0#

Note: "1" indicates the trash can is full and in alarm status; "0" indicates normal working conditions.

3. Contact Information:

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