YAMATAKE

Heat Value Gas Chromatograph Fieldbus Adapter Hardware Description Model: HFA100

User's Manual

Yamatake Corporation

CM2-HFA100-2001
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Chapter 1 : Introduction

1-1 : Definition of term

Heat Value Gas Chromatograph Fieldbus Adapter (HFA)

HFA is an interface used to connect the HGM (HGC monitor) , Windows-based PC application, to Yamatake's state of the art analyzer, HGC (Heat value Gas Chromatograph) that operates on FOUNDATION™ fieldbus H1 network. Users are able to configure, monitor and maintain the HGC all from the PC by simply connecting the HFA to the Fieldbus network.

1-2: General

Please confirm the following items are contained in the box.

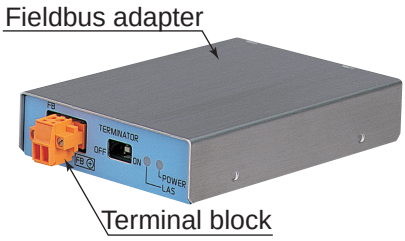

Figure 1-1 HFA

Table 1-1 Box Contents

Name	Quantity
Fieldbus Adapter	1
USB Cable A-B type 1m	1
Terminal Block	1
Fieldbus Cable TypeA	1
CD-ROM	1

Connection, Switch & LED

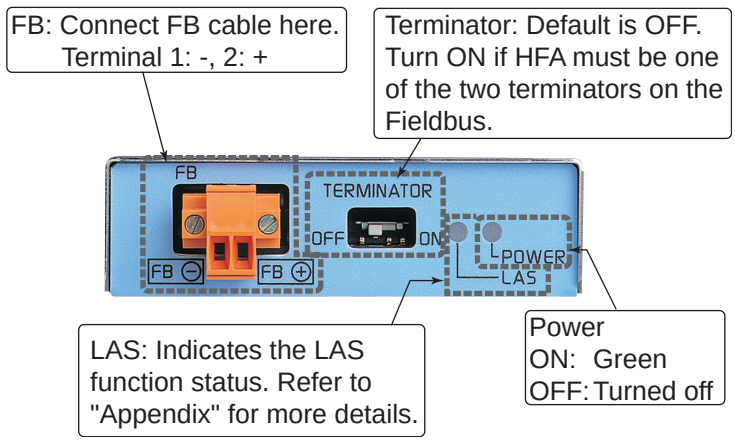

Figure 1-2 HFA front view

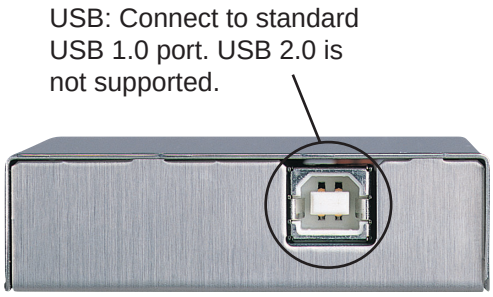

Figure 1-3 HFA rear view

Chapter 2 : Installation

To setup the Fieldbus connection, prepare a Fieldbus cable with following specifications:

Table 2-1 Fieldbus cable description

Type	Cable Description	Size	Maximum Length
A	Shielded, Twisted Pair	#18 AWG 0.8 mm2	1900 m (6232 ft)

Make sure the Terminator is switched to OFF.

2-1 : Connecting the fieldbus cable to the terminal block

(1) Detach the orange terminal block from the FB terminal of the HFA by unscrewing the 2 screws located in front of the terminal block. See Figure 2-1.

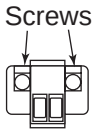

Figure 2-1 Front view

(2) Loosen the 2 screws located on the top of the terminal block. See Figure 2-2.

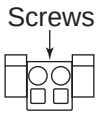

Figure 2-2 Top view

(3) Connect the Fieldbus cable to the terminal block. Negative Fieldbus cable goes into terminal '1' and the positive goes into terminal '2'

(4) Tighten the two screws on the top of terminal block to secure the connection. Lightly pull on the cable to make sure the cable does not slip off

2-2 : Connecting the USB and the terminal block to HFA

Plug in the terminal block into the socket labeled 'FB'. Tighten the screws to secure the terminal block. Then Connect the B-plug of the USB Cable to the USB connector of

HFA. Next, connect the A-plug of the cable to the USB port of your computer. See Figure 2-3 below.

Figure 2-3 Cable connections

2-3 : Conforming operation

If your computer is not on at this point, turn it on. After connecting the USB cable, make sure that the LED for POWER is ON, and LED for LAS is OFF. If not, check your connections.

Appendix

About Terminator Switch

In most cases, Terminator should be turned OFF. Turn it ON only if HFA must be one of the two terminators on the Fieldbus.

About Link Active Schedule (LAS) LED

The table below summarizes the meaning LAS LED

Table A-1 LAS LED

LED Condition	Meaning
OFF	HFA is set as "Basic Device." LAS function is not available
ON	HFA is set as "Link Master Device." LAS function is available and the function is active.
Blinking	HFA is set as "Link Master Device." LAS function is available but the function is not active.

~Note

1. *When HFA is powered up, it takes approximately 6~7 seconds to complete initialization. The current status of LAS will be shown on the LED after the completion of the initialization process.*
2. *When HFA is powered up, address value and HFA setup will be initialized into their default values. Default address is FC, and HFA will be set as "Basic device."*
3. *For HGM installation and operation, refer to HGC User's Manual (CM2-HG100-2001).*
4. *For HFA specifications, refer to HFA Specification Sheet (SS2-HFA-100-0100).*

Replacement Parts List

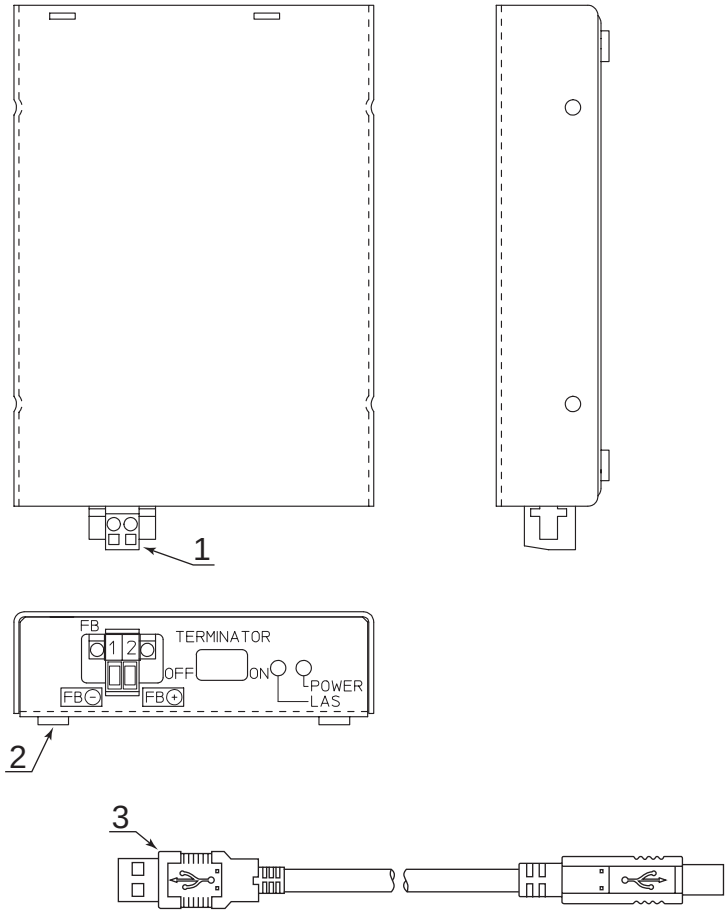

Table A-2 Replacement parts list

Key no.	Part	Qty.	Diaphragm number
1	Terminal block	1	80344399-001
2	Rubber	4	80340707-001
3	USB cable (length: 1 m)	1	80344409-001

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