

YHC5150X FieldMate Handheld Communicator Getting Started Guide

Introduction

YHC5150X FieldMate Handheld Communicator is a full function HART® Communicator supporting Universal, Common Practice & Device Specific commands.

**HART® Connection**

**Display and Touch Screen  
(No Stylus Required)**

**Keyboard, Full QWERTY**

**Keys, Direction Arrows**

**Keys, Information and Advance**

**Keys, Numeric**

**Key, Power On/Off**

**Key, Backlight**

**Charging Indicator**  
There is a multicolor light on the recharging cradle. This light indicates the current charging mode.  
**Off**  
– No battery pack inserted, or power disconnected  
**Solid Green**  
– Battery is charged  
**Flashing Amber**  
– Battery is charging  
**Solid Amber**  
– Battery temp out of charging range  
**Flashing Red**  
– Battery fault  
**Solid Red**  
– Charger fault

**Battery Pack Installation & Removal**

**NOTICE** Do not over-tighten battery case screws. Maximum torque should not exceed 7 in-lb.

**NOTICE** Battery should be charged completely (4.5 hours) before using the first time.

6-32 screws with 7/64" hexagonal socket

µSD memory card access

**NOTICE** This card should only be replaced by Yokogawa part 1W-9P780, or its successor, and only under the direction of Yokogawa personnel. Use of a non-system memory card will void safety certifications.

**WARNING** Recharging Cradle is not rated for intrinsic safety and should only be used in a non-hazardous area. See the “Hazardous Area Use” section of the Control Drawing in the Instruction Manual IM 01R01A30-01EN.

Battery Pack Installation & Removal

Pack is held into the communicator by two standard 6-32 screws with hex sockets that require a 7/64" hex wrench. **Do not over-tighten battery case screws**  
**Installation:** Set the communicator enclosure with the display downward on a flat stable surface. Rest the battery pack in the battery pack compartment of the enclosure leaving a ½" gap between the battery pack and the connector on the communicator enclosure. Slide the battery pack upward along the enclosure until the connectors mate completely and the screws are aligned with the threaded inserts on the communicator body. Thread the screws into the insert to complete the installation.  
**Removal:** Reverse the order of the operations.

**NOTICE** The battery pack contains an advanced battery fuel gauge that actively monitors the battery capacity and therefore does not require any “battery training” throughout the life of the battery pack.

**NOTICE** The Recharging Cradle is not intended to recharge a battery separately. To properly charge a battery pack it is required to be inserted into a communicator prior to being placed on the charger.

Powering On the YHC5150X FieldMate Handheld Communicator

Push the power button for 1 full second, then release. After approximately 2 seconds a splash screen will appear & YHC5150X FieldMate Handheld Communicator application will load.

Connecting to a HART® Device

The main system menu is the initial menu at power turn on. It is also accessible from any HART® menu.

**Svstem Menu**

**Focus Pane  
(Red Box)**

**HART® Connections**

5150 Field Communicator 2:06PM

**Battery/ Time** There are three distinct areas on a System Menu (Top, Center, Bottom)

**System Navigation**  
(Touch the icon or Press the number)  
1. Handheld Setup Icon  
2. HART® Setup Icon  
3. System Info Icon

**HART® Polling Address Range Selection**  
Allows you to select a range of addresses to poll, or to select a tag or long tag to use in polling for a HART® enabled device.

**Repolling**

HART® Connection descriptions

*no device found*

Devices Found: 2 0

*Initiating Device*

EJA- 5C-449 0

Indicates that no device is detected in the active polling range. The communicator is still actively polling the HART® address range you have selected in the HART® setup. If the poll address range is a single address, and a device is found at that address the communicator will immediately initiate connection, and additional polling is terminated. If the poll address range is not a single address and a device is found the communicator will continually search throughout the full range of addresses to find any available connections.

Indicates that multiple devices were found in the polling range and you must select which device to communicate with. Pressing the yellow icon will bring up a list box with all devices that were found in the polling address range. Once you choose a device and press “Accept”, the box will collapse and the communicator will initiate connection.

Indicates that the device selected is connecting and the Device Description (DD) is loading.

Initialization is complete and a device is actively connected to the HART® network. The communicator does not continue to poll for other devices. If the green bar is selected the communicator will exit the system menus and go to the online HART® menu.

Online HART® Menu - (SDC-625)

HART® Device Menus are only accessible when a HART® communication enabled device is connected and communicating with the YHC5150X FieldMate Handheld Communicator.

**Device Information**  
Manufacture  
Model:  
Tag Info

**Online Hart® Device Menu**

**HART® Menu Path System Navigation**

There are four distinct areas on a HART® menu (Top, Middle Left, Middle Right, Bottom)

YTA: AREA 17

1 Tag  
2 PV Unit&Damp  
3 Range values  
4 Snsr 1 config  
5 Snsr1 snsr s/n

AREA 17 0

**Battery Level, Time**

**Return to System Menu**

**Create Shortcut**

**Store/Retrieve Configuration**

**Hot Key**

**Device Status**

**Commit Changes**

**User Created Shortcut**

**Basic setup**

**Online ▶ Device setup ▶ Basic setup**

**NOTICE** User defined test fields (such as HART parameters like Tag and Long Tag, file names, and shortcut labels) do not support multiple language translations.

**NOTICE** It is invalid to create a shortcut on the home menu (often labeled “Online”). If a primary menu has submenus (designated by 0 –MORE- in the tenth line) the shortcut created will be to the primary menu regardless of the submenu currently being displayed.

**\*\*Please, read the User’s Manual for detailed description of all menus and features.\*\***

**NOTICE**

Any online modifications to parameters done prior to restoring a configuration that were not committed to the device are lost, if those parameters are in the stored configuration.

**CAUTION**

*Serious injury or death may result from explosions. Before making electrical connections to an Intrinsically Safe model at the HART<sup>®</sup> jacks, verify the HART<sup>®</sup> instrument of interest is installed in accordance with intrinsically safe field wiring practices.*

*Note: Restrictions apply to the use of Intrinsically Safe units in hazardous areas. Refer to the Intrinsic Safety Control Drawing in the Instruction Manual IM 01R01A30-01EN. Yokogawa reserves the right to revise the Intrinsic Safety Control Drawing in the Instruction Manual IM 01R01A30-01EN without notice. Contact Yokogawa (phone 800.888.6400) for the current Intrinsic Safety Control Drawing.*

*For Intrinsically Safe model YHC5150X, consult the Intrinsic Safety Control Drawing in the Instruction Manual IM 01R01A30-01EN for restrictions, for special instructions in use, and for electrical connections allowed.*

**WARNING**

*For Intrinsically Safe model YHC5150X, verify the instruments in the loop are installed in accordance with intrinsically safe field wiring practices before making connection from the field device to the Unit’s loop communication jack. See the Hazardous Area Use Section of this manual and the Intrinsic Safety Control Drawing in the Instruction Manual IM 01R01A30-01EN.*

**WARNING**

*Note the following WARNINGS and REQUIREMENTS for YHC5150X models:*

- Substitution of components may impair Intrinsic Safety
- To prevent ignition of flammable or explosive atmospheres;
  - Disconnect power before servicing
  - Do not use battery charger in a hazardous atmosphere.
  - **DO NOT** attempt to open the battery pack and replace the batteries.

SAFETY NOTICES

**WARNING**

*Do not subject the batteries to intense heat. This could cause overheating, fire, rupture or explosion.*

**CAUTION**

*If an electric shock is felt when touching the charger or YHC5150X docked in the charger, unplug charger immediately from outlet. Remove the YHC5150X from the charger immediately after you determine it is safe.*

**CAUTION**

*If there is any deformation, cracks or other damage to the charger base, power cord, or power adapter, unplug the charger and discontinue use.*

**CAUTION**

*Do not disassemble or modify any component. This could cause failure or injury, invalidate certification and void the warranty.*

**CAUTION**

*Plug power adapter directly into an outlet. Do not use power adapter with an extension cord.*