ADCOP PROJECT - SPECIAL NOTES FOR WIRING DIAGRAMS WD09258

General Operation

Actuator's "LOCAL/ REMOTE" selector knob is for indication to the operator at the ICS of its position, it does **not** select the required control mode (Local or Remote).

The position of the selector is fed back via the Pakscan Generic Modbus database to status bit AUX1 for the particular actuator. AUX1 is active for the remote position and inactive for Local and Local Stop positions.

The ICS selects the control mode required using Modbus commands to the Pakscan Generic Database, see publication PUB059-003. For each actuator:

> Local mode = relays DO5 to DO7 should be de-selected
> Remote mode = relays DO5 to DO7 should be selected

The Pakscan selects the actuator control mode using commands received from the ICS (logic is to be developed by ICS vendor) by operating actuator relays under Pakscan control.

Under normal conditions, the ICS shall retain **Remote** control status of the actuator. The LOCAL/REMOTE selector knob is in the Remote position and Local operation will be inhibited.

The setting tool enables Pakscan FCU baud rate and address to be configured.

There will be a provision of time out (predefined time) at ICS logic, which means whenever the request for Local or Remote control is made, a timer will be ON in ICS. If "REQUEST" is not "ACCEPTED" during that period of time, then the "REQUEST" will be withdrawn at ICS logic.

In Local mode

Local and Local Stop are available using the selector knob. Whilst in the Local position, the actuator local controls will operate as normal. In the Local Stop position the actuator will cease to operate. Remote operation is not possible. The "REMOTE" selector knob position is invalid.

If it is required to operate an actuator locally (from the field), the selector knob shall be set to the "LOCAL" position by the field operator. Switching the knob to this position will request Local operation from the ICS (signal passed via Modbus communication to the Pakscan Master Station). Local operation will become active after permission is granted by the control room operator in a predefined time; otherwise Local operation remains inactive.

After the Local control mode is active, any Remote commands (ICS or Pakscan Master Station) are inhibited. The ICS will continue to indicate the status (position, fault, diagnostics, etc.) of the actuator.

In Remote mode

The actuator will only respond to Remote commands and the selector knob position will have no effect on the actuator.

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Following Local operation, if it is required to operate an actuator remotely (from the control room), the knob shall be set to the "REMOTE" position by the field operator. Switching the knob to this position will request Remote operation from the ICS (signal passed via Modbus communication to the Pakscan Master Station). Remote operation will become active after control is accepted by the control room operator in a predefined time; otherwise Remote operation remains inactive.

After the Remote control mode is active, all Local commands are inhibited.

During Remote control mode, the actuators shall be operated from a single location (control room console or Pakscan Master Station). If the actuator command power is made available at the control room console the operation from the Pakscan Master Station shall be inhibited (interface logic to be developed by the Rotork-ICS teams). Logic of the command power handover between remote locations (e.g. from Habshan to IPS) shall be developed by ICS vendor.

Communication Loss

If the actuator is in Remote mode, when loosing the communication between ICS and Master Station the actuator will be operable only from the Master Station. If required to be operated on Local mode the actuator shall be powered off and then powered on again.

If the actuator is in Local mode, when loosing the communication between the actuator and ICS/Master Station, the actuator will remain operable from local.

Power Loss

After a power cycle of an actuator (being in Remote mode), the actuator will initially power up in Local mode. In order to retain Remote mode, the ICS must accept again the command power (assuming that the LOCAL/REMOTE switch is still in REMOTE position) if the ICS does not accept command power, Local mode is active.

Warning

When in Remote mode, selecting "LOCAL STOP" by using the Local control selector **will not** stop the actuator.

Protection

A locally mounted Stop can be added to the actuator using the following method:

1) Enable the actuator interlock feature (Refer to PUB002-040)
2) Connect terminal 4 to 31 on the terminal bung.
3) Connect the actuator interlock terminals (37 and 38) together and wire them to one side of Normally Closed (NC) contact of a switch.
4) To the other side of the NC contact, wire the actuator 24 Volt customer supply (5).

P3 Masterstation PIN system security

Overview

This document summarises the P3 Masterstation Personal Identification Number (PIN) protection feature and how to setup the PIN and web page security functions. For further information see Rotork publication S720E.

PIN Operation

The Masterstation provides the option of setting a PIN to protect local operation of the system. The default for the system security requires a PIN to be entered before any settings can be changed, but does not protect operation of actuators. This setting can be easily altered from the Security Setting menu to protect both settings and actuator operation.

When first accessing any PIN protected feature the correct PIN will need to be entered using the Masterstation buttons. The Masterstation will then allow access until approximately 5 minutes from the last key press, when the PIN protection will automatically be enabled again.

Setting up PIN protection via Masterstation

To setup PIN security using the Masterstation buttons, starting from the initial home screen select the following menus:

You will now be asked to set the security "Level Set" and a PIN code. If you have already enabled a PIN, enter it if prompted to do so, see **Entering a PIN** section.

Set the "Level Set" according to the options below, "Setup and Command" will give the most complete protection.

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None — All settings and control commands accessible via the keypad without protection by a PIN.

Setup — Control commands accessible via the keypad without a PIN, but all setting changes via the keypad require the PIN to be entered first.

Setup and Command — Any control command action or setting changes via the keypad require the PIN to be entered.

Locked — Only available via the web page. No keypad access permitted for any control commands or setting changes whilst there is host activity on any of the serial or Ethernet data links.

Setting up PIN protection via web page

To setup PIN security via the web page, first connect to the Masterstation with a PC or Laptop via Ethernet. You will need to make sure you know the IP address of the Masterstation and have correctly configured the computer's IP address and subnet mask so the devices can communicate.

Now open an internet browser such as Internet Explorer and type the IP address of the Masterstation in the address bar. You should see the screen below; see the **Default Values** section for default log in details.

Once logged in as an administrator you should see the screen below. Click the Admin tab circled in red.

A list of users will now be shown as well as an additional set of tabs. Select the Masterstation Config tab circled in red below.

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The following screen enables the PIN and level of protection to be set, shown circled in red. See above section for details of the levels of protection that can be set. **Note that the current PIN will be shown, so to prevent access to this information, the web pages should either be disabled or the login password changed.**
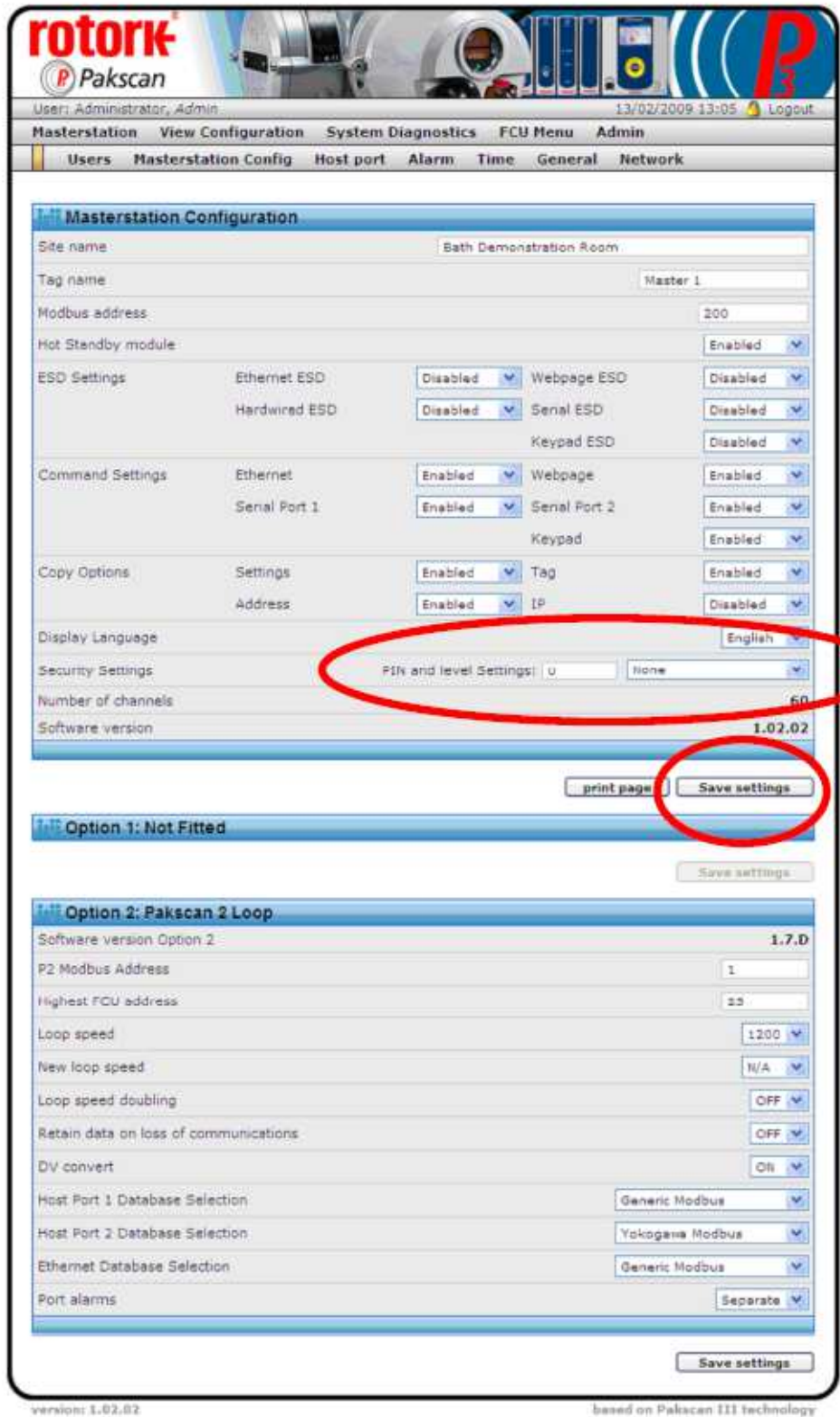
Remember to click Save settings for the appropriate section when you have made changes.

Entering a PIN

Whenever a PIN protected function is accessed locally on the Masterstation, the user will be prompted to enter a PIN, which is variable between 0 and 9999.
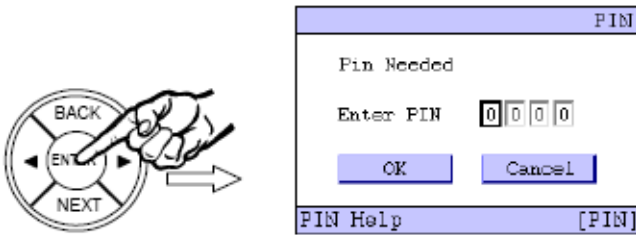
To enter a PIN, or accept the number, press **ENTER** and the first digit will flash. The value can be changed by using the left or right arrow keys. Once the number is correct, press **ENTER** once more. When all 4 digits of the PIN are entered correctly, select the OK button with the arrow keys and press **ENTER.**

Default Values

The default PIN number is **0000**.

The default IP address of the P3 Masterstation is **10.200.1.1** the default username and password for the web are both **admin.**

Changing these defaults provides greater security. However, note that if both the PIN and web page codes are lost, then there is no way to retrieve the codes and the system must be restored to factory defaults. This is only possible by shutting down the system and opening the cover to make an internal link. The consequence of this will be that all settings will be lost and the system will need to be re-commissioned.

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