Complete Controls™ - Installation Instructions for Smart Actuator II™ Engine Controls

BASIC SYSTEM COMPONENTS

ACTUATOR: You will use (1) actuator for each engine. Smart Actuator II™ (PN-11415-C2)

CP CONTROL HEAD(S): You must use (1) CP HEAD for each system:

REMOTE STATION CONTROL HEAD(S): You can use (1) remote station head for each system.

CABLES & HARNESS:

PRE-INSTALLATION PLANNING

TWIN ENGINES:
- Mechanically controlled engine & trimberaw
- Full-station operation: 1-6 buttons possible
- Integrated Trim Control capability shown
- Routes communication cables (2 for each system)
- Standard cable connections
-wiring diagrams shown
-Connect Start Interlock & Trim Harness

Install Smart Actuator(s):

1. Insert actuator(s) into the control console, smart actuator needs to be able to see the engine..smart actuator needs to be able to see the engine. Make sure they are seated securely. Note: smart actuator needs to be able to see the engine.

Install the Control Head(s):

1. Select location
- Control head must be mounted above the cockpit
- Make sure there is sufficient space to install the control head

Connect DC Power Harness & Bonding Wire:

1. Use (2) station communication cables. In this arrangement the (2) terminating resistors would be installed, one at each control head.

Route Communication Cables:

1. Be sure to:
- Route cables so they do not interfere with the operation of the system
- Ensure that there is enough slack in the cables to allow for normal operation of the system

Connect Remote Enable Switch:

1. Use (2) station communication cables. In this arrangement the (2) terminating resistors would be installed, one at each control head.

Connect Start Interlock & Trim Harness:

1. Be sure to:
- Route communication cables so they do not interfere with the operation of the system
- Ensure that there is enough slack in the cables to allow for normal operation of the system

Install Tachometer Inputs:

1. Connect tachometer inputs to the Smart Actuator II™ system by use of (2) connections

Install Control Cables at Engine:

1. Use (2) station communication cables. In this arrangement the (2) terminating resistors would be installed, one at each control head.

Cable Connection at Actuator:

1. Be sure to:
- Route communication cables so they do not interfere with the operation of the system
- Ensure that there is enough slack in the cables to allow for normal operation of the system

NOTE: Installation is NOT COMPLETE until endpoint calibration & verification is performed, see reverse side or consult the Manual - Section 4.0 for wiring diagrams, see Section 7.1.
**Smart Actuator II™ Endpoint Calibration Instructions:**

1. Ensure that all systems are powered down and the system is in the Idle mode.
2. Place the system in Troubleshooting Mode by holding down the SYNC button for 5 seconds.
3. The system will respond by emitting a series of blinking LEDS. The LEDS will indicate the system status.
4. Once in Troubleshooting Mode, the system will prompt you to enter Idle mode for calibration.
5. Enter Idle mode by pressing the NEXT button. The system will emit a series of LEDS indicating the system is in Idle mode.
6. Verify that all levers are in the NEUTRAL position. The LEDS will indicate the current position.
7. If the levers are not in the NEUTRAL position, press the UP or DOWN button to move the levers to the NEUTRAL position.
8. Once in NEUTRAL position, press the NEXT button to enter Calibration mode.
9. The system will emit a series of LEDS indicating the Calibration mode is active.
10. The system will prompt you to move the levers to the desired endpoints. The LEDS will indicate the current position.
11. Move the levers to the desired endpoints and press the NEXT button to confirm.
12. The system will emit a series of LEDS indicating the endpoints have been calibrated.
13. Verify the endpoints by moving the levers to the endpoints and checking that the LEDS indicate the correct position.
14. Once verified, press the NEXT button to exit Calibration mode.

**System Test & Checkout / Troubleshooting Mode - Alarm Code Retrieval:**

- **Enter Troubleshooting Mode:**
  - Press and release the SYNC button until the TAKE LED begins to flash.
  - The system is now in Troubleshooting Mode.

- **To View Alarm Codes:**
  - Press and release the BLK button to view the alarm codes.
  - The LEDS will indicate the active alarm codes.

- **Delete Codes & Reset Count:**
  - Press and release the RED button to delete the alarm codes.
  - The LEDS will indicate the alarm codes have been deleted.

- **Exit Troubleshooting Mode:**
  - Press and release the SYNC button until the Alarm Mode is exited.