



Photo courtesy of Bumi Armada

## Jastram Analog Input Devices

A complete Jastram steering system will include some or all of our Input Devices combined with the appropriate control and hydraulic systems. Analog Input Devices can be used with either the Jastram Digital or Analog control systems.

The current line of Jastram Analog Input Devices include:

- Helm Pumps
- Jog Levers
- Lever Controllers
- Electric Wheel Controllers



## H Series Helm Pumps

Helm pumps are the standard form of input device. The H model helm is a precision axial piston pump for manual steering systems or auxiliary back up.

For more details on Jastram helm pumps please see the H Model technical cut sheet.

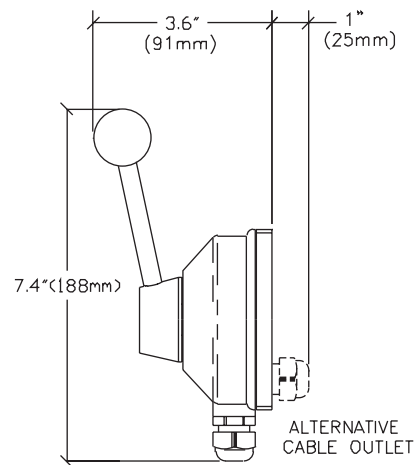
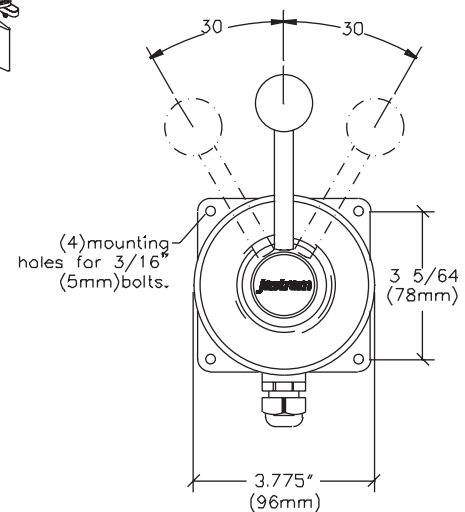
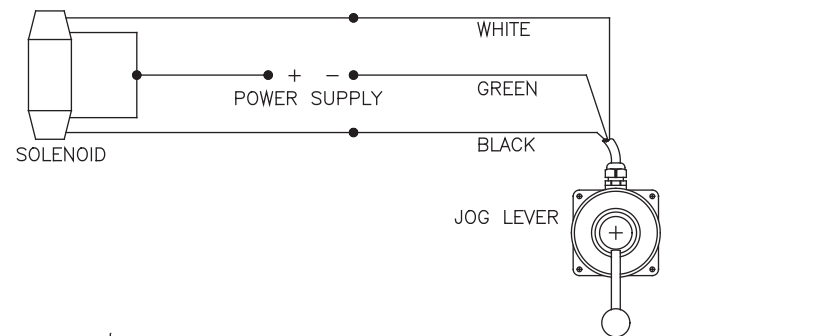
The Digital Helm is a unique input device which acts as a manual helm pump in emergency mode. Please see the Jastram Digital Input Device cut sheet for more information.

## Jog Levers (JO100, JO300)

The Jastram Jog Lever provides non follow-up (time dependent) electric control. Jastram Jog Levers operate either completely on (as long as the switch is activated) or completely off (when it is released).

- Compatible with all of Jastram's electro-hydraulic steering systems and most third party autopilots
- Four versions available
  - \* JO100-1 contains one set of microswitches
  - \* JO100-2 contains two sets of microswitches
  - \* JO300-1 yacht styling with one set of microswitches
  - \* JO300-2 yacht styling with two sets of microswitches
- The spring loaded jog switch returns to center when released (The rudder remains where positioned when the lever is released)
- Waterproof and corrosion resistant housings, with an IP 66 rating
- Supplied with 5ft (1.5m) of cable

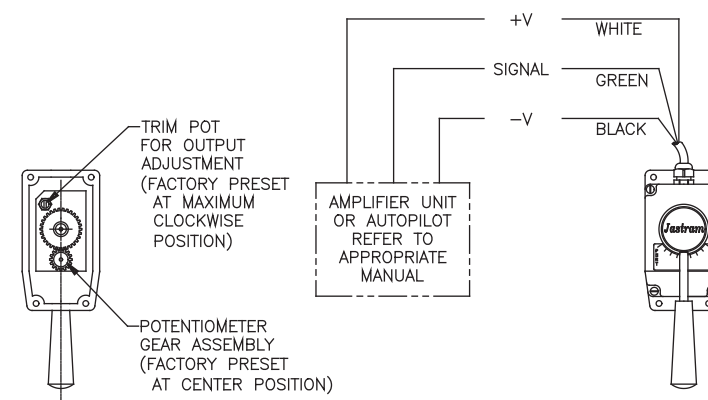
**Cable Requirements:** 18 AWG, 3 Conductor, Standard, Copper wire  
**Voltage:** 12, 24 or 36 VDC



## Lever Controllers (LC100, LC300)

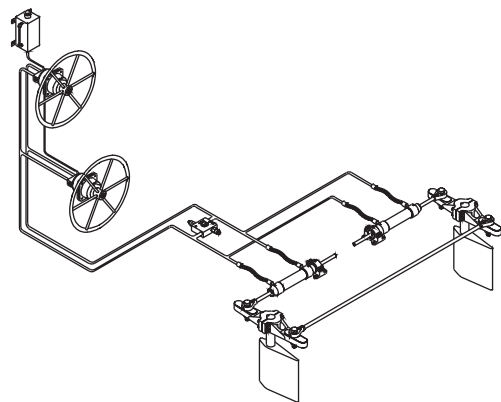
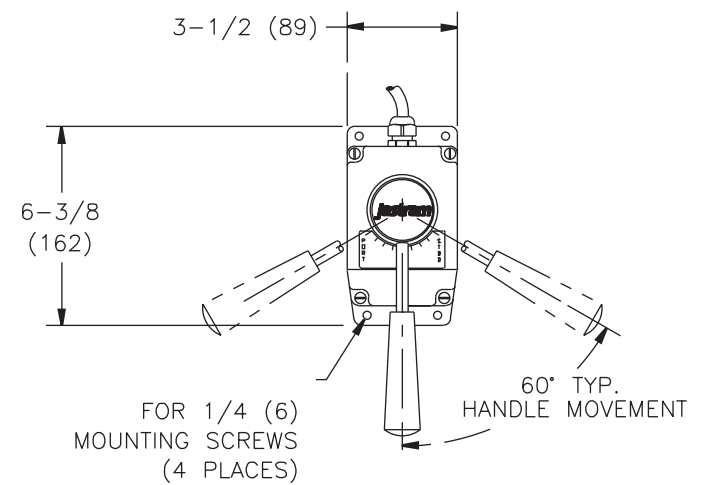
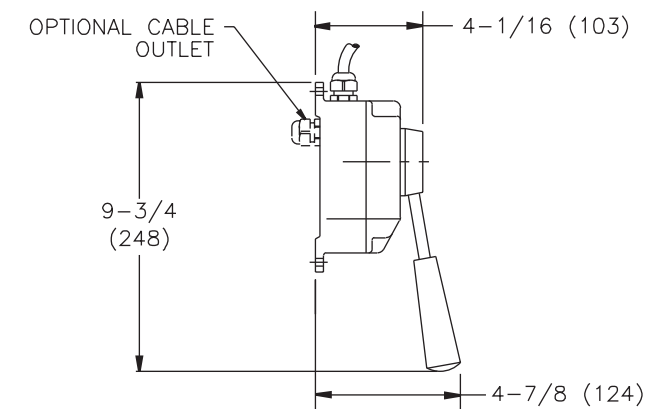
The Jastram Lever Controller provides full follow-up (way dependent) electric control. When the steering lever is moved to the desired rudder angle, the rudder will follow-up to the position requested by the lever.

- Smoother and more accurate steering than jog steering
- Compatible with all Jastram Full Follow-up steering systems and most third party autopilots
- The rudder position is displayed by an indicator strip below the lever arm of the LC. (A rudder order indicator is not required.)
- Four versions are available:
  - \* LC100-1 produces one output signal
  - \* LC100-2 produces two output signals - the second signal controls a second amplifier or an alarm circuit
  - \* LC300-1 yacht styling; produces one output signal
  - \* LC300-2 yacht styling; produces two output signals - the second signal controls a second amplifier or an alarm circuit
- Waterproof and corrosion resistant housings, with an IP 66 rating
- Supplied with 5ft (1.5m) of cable



**Cable Requirements:** 18 AWG, 3 Conductor, Standard, Copper wire  
**Voltage:** 12, 24 or 36 VDC

**Command Potentiometer Resistance:** 1kOhm  
**Linearity:** +/- 1.5%





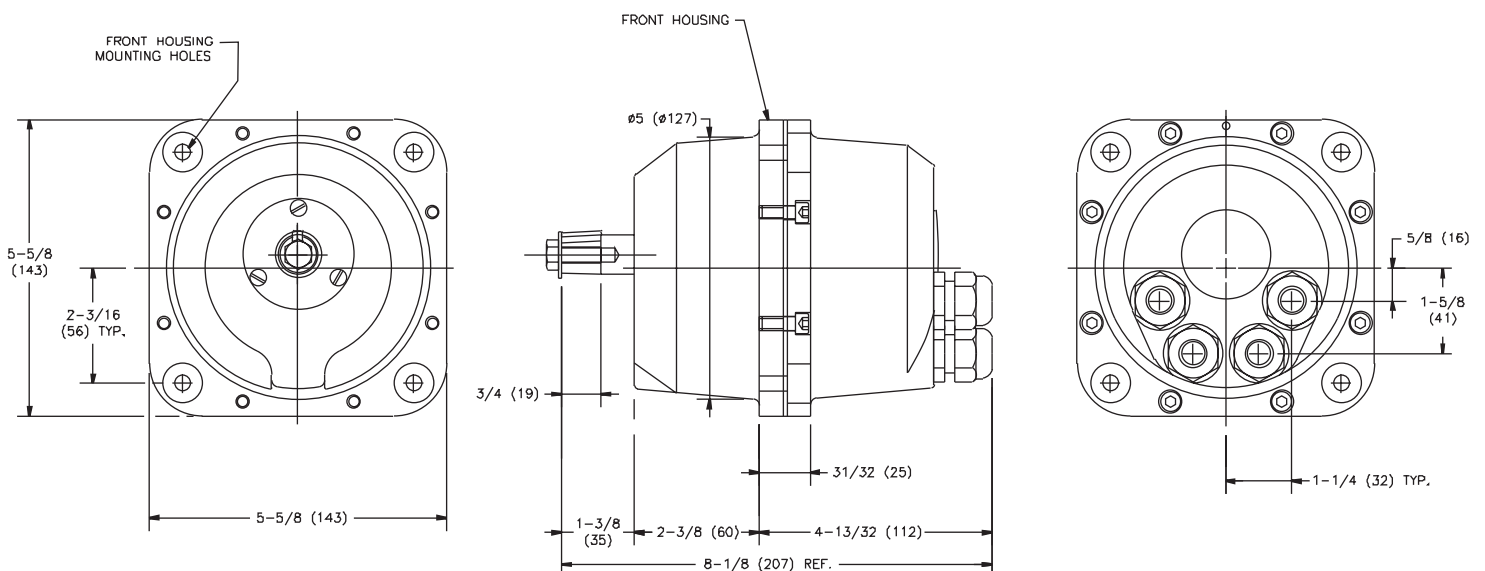
## Electric Wheel Controllers (EW200)

The EW provides full follow-up electric wheel control. When the traditional steering wheel is turned the EW produces an analog rudder command signal. The rudder will then follow-up to the position commanded by the movement of the wheel.

- Compatible with all Jastram Full Follow-up steering systems
- Standard shaft size for customer supplied wheel
- The EW200 provides 4 turns lock to lock
- Multiple output signals are available to control a second amplifier or a rudder order indicator
- Steering wheel "feel" is adjustable
- The internal mechanism is protected by a slip clutch to prevent damage to the unit
- Rudder Order Indicators driver boards are optional
  - \* ROIs are recommended so the helmsman knows where the rudder will follow-up to
- Waterproof and corrosion resistant housing, with an IP 66 rating

**Recommended Cable:** 20 AWG, 3 Conductor, Standard, Copper wire  
**Shaft Size:** Stainless steel shaft with 3/4" shaft, 1:12 Taper  
**Voltage:** 12, 24 or 36 VDC

**Command Potentiometer**  
**Quantity:** Up to 3  
**Resistance:** 1 kOhm +/-10%  
**Linearity:** 1.0%



*Data is subject to change without notice.*