HouseLink HL-10D

Installation and Operation Manual

HouseLink™ HL-10D
3/11/2014

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Installation Overview

This guide covers the mounting and wiring of the HouseLink HL-10D interface. HouseLink interfaces should be placed indoors and no more than 10 feet from the House Controls.

This symbol means the text has extra importance since it is describing the importance of a feature or explaining a step to which you should pay close attention to avoid problems, or to which safety is a concern.

Components

A BinTrac system consists of a number of basic components:

BinTrac Indicator

This is the main unit of the BinTrac system. The BinTrac Indicator communicates with the Smart Summing Boxes to register the weight of feed in the bins and peripheral devices including HouseLink HL-10D. The feed level is computed and displayed on the LED bar graph. One BinTrac Indicator can display up to four feed bins.

Load Cell Bracket

Four or more load cell brackets allow the BinTrac Indicator to accurately measure the feed level in your bins. The summing box averages the signals from all brackets to minimize errors that could result from voids (holes) in the feed.

Smart Summing Box

One Smart Summing Box per bin communicates the current reading on the leg brackets to the BinTrac Indicator.

BinTrac Power Supply

This provides the power for the BinTrac system. The power supply converts the line voltage to low voltage.

HouseLink Model HL-10D

HouseLink HL-10D provides a pulse output for loss in weight of all bins connected to a single BinTrac Indicator.

Installation

Mounting HouseLink HL-10D

Step 1: Securely mount the HouseLink Model HL-10D within 25 feet of the device that will be receiving the pulses.

Wiring the HouseLink HL-10D Box

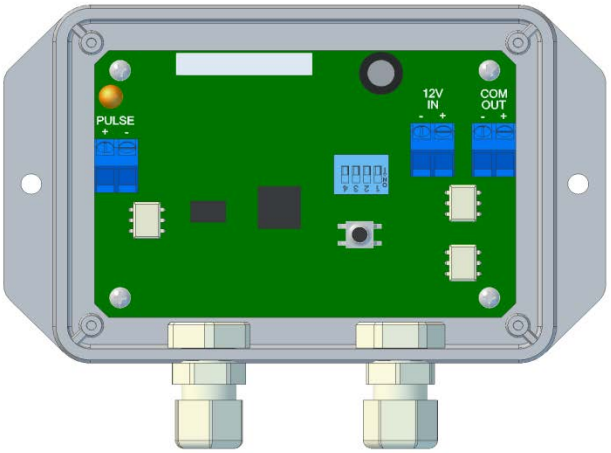


FIGURE 1

TABLE 1

BinTrac Indicator	HL-10D Interface
+12V	+12V (IN)
-12V	-12V (IN)
+12 SIG	+COM (OUT)
-12 SIG	-COM (OUT)
House Control	HL-10D Interface
+ Signal IN	+ PULSE
- Signal IN	- PULSE

Step 2: Connect the HouseLink HL-10D (+Pulse) to the positive side of the receiving device input pulse port and the HouseLink HL-10D (-Pulse) to the negative side of the receiving device input pulse port.

Step 3: Wire HouseLink HL-10D to the BinTrac Indicator BINS port. **EX. +SIG connects to COM (OUT) (+) and -SIG connects to COM (OUT) (-)** HouseLink HL-10D can be wired in series with a Loadcell Summing Box.

Step 4: Tighten all strain-reliefs (“dome nuts”) on the box. Tighten the dome nut until the cable cannot be pulled out of the box.

SETUP & CONFIGURATION

Setting the HouseLink Box

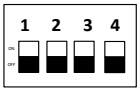
HouseLink	S1	S2	S3	S4	
Model HL-10D	OFF	OFF	OFF	OFF	

Table 2

Step 5: HouseLink must be programmed for the appropriate Model that represents the manner in which it will be used. Refer to Table 2 above for the selection options.

BinTrac Indicator Configuration

The BinTrac Indicator must be correctly configured for interfacing with a HouseLink HL-10D.

Configuration includes:
1) Setup Mode Configuration - Enabling the correct options within the Setup Mode.
2) Pulse Weight Configuration - Programming a Pulse weight within the Internal Mode.

Setup Mode Configuration

The option for enabling communications with a peripheral device (HouseLink HL-10D) must be enabled within the Setup Mode. Follow the instructions below to enable this feature.

Accessing the Setup Mode

Press and hold the BIN button down for approximately 10 seconds, at which time SETUP mode will be displayed.
Note: Prior to seeing SETUP, Bin will be displayed.

Segmented display:

SEtUP

Enabling Options in Setup Mode

Option Bin D “Enable communications to peripheral devices” must be enabled for communications with HouseLink HL-10D.

Setup

The Bin LEDs indicate configuration options as being enabled (solid on) or disabled (flashing).

Bin A – Configures BinTrac Indicator as a Remote Display.
A Remote Display is hardwared to a BinTrac Indicator for remotely viewing weight data.

Bin B – Enable ASCII Serial Communications Command Set. (See Below)
BinTrac Indicator or BinTrac Remote Display will transmit weight data based on received commands. Enable this feature when interfacing unit to a PC or serial type device.

Bin C – Enable Weight Broadcast.
ASCII weight data will be serially broadcast approximately once ever second.

Bin D – Enable communications to peripheral devices.
Must be enabled when BinTrac Indicator is connected to: 1) BinTrac Remote Display, and 2) HouseLink PW.

1. Press the BIN key to select the desired configuration option.
2. Use the UPPER  or LOWER  keys to enable or disable options.

Segmented display:

SEtup

Pulse Weight Configuration

Pulse weight is the operator programmed amount of weight loss for every pulse output supplied through a HouseLink HL-10D. The weight loss is the combined weight loss of all connected and enabled bins. The total weight loss for a day is also shown as USAGE (See Bintrac Operators Manual). Pulse weight parameter is stored within the Internal Menus. Follow the instructions below to access Pulse weight.

Accessing the Internal mode

Press and hold the BIN button down for approximately 15 seconds, at which time Internal (Intr) mode will be displayed.

Segmented display:

intr

Navigating Internal mode

To navigate through the menus in Internal mode, you can use the UPPER  and LOWER  keys to cycle through the options/parameters. See Figure 3 for the Internal menu flow chart.

Selecting an Option in Internal mode

To select an option/parameter to edit in Internal mode, you must navigate to the option you wish to edit, using the UPPER  and LOWER  keys, and then by pressing the BIN key when you reach the desired option.

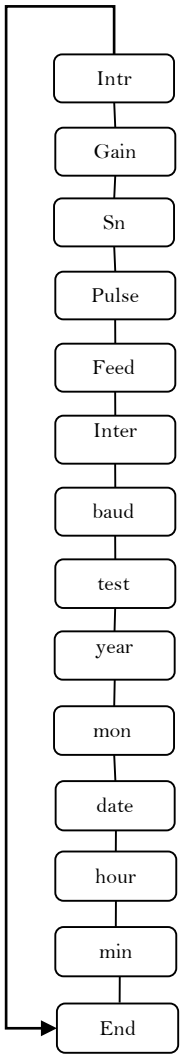


FIGURE 3

PULSE

The number of units weight loss of all enabled bins for every pulse output provided through a HouseLink HL-10D. Set to how many pounds or kilograms of weight loss of the combined enabled bins for every pulse output. When set to “0” pulse output is disabled.

1. Press the BIN key to display and allow editing of programmed value. Select the desired bin.
2. Use the UPPER  key to increase the pulse weight by 1.
3. Use the LOWER  key to decrease the pulse weight by 1.

Segmented display:

PULSE

BinTrac Error Messages

no.bin

This error message indicates that the BinTrac Indicator is not communicating with the Smart Summing Box of the indicated bin.

- *Disable bins that do not have an associated Smart Summing Box and bin.*
- *Verify wiring between Smart Summing Box and BinTrac Indicator is correct and has not been damaged.*
- *Verify Smart Summing Box has been programmed as the correct bin.*
    - *Verify Smart Summing Box dip switch settings are set for their selected bin (A,B,C,or D).*
    - *Verify that two Smart Summing Boxes are not programmed as the same bin as this will cause no.bin error for both.*
- *Inspect Smart Summing Box for flashing light.*
    - *A steady flashing light indicates the Smart Summing Box has power and is operating correctly.*
    - *An irregular flashing light indicates the Smart Summing Box has power but is unable to communicate with the BinTrac Indicator.*
        - *Confirm all wires are tight and secure.*
        - *Confirm dipswitches are set correctly.*
        - *Communications port on Summing Box or BinTrac Indicator may have been damaged.*
            - *If BinTrac Indicator is displaying no.bin for other connected bins, replace indicator.*
            - *Replace summing box*
    - *No Light indicates the Smart Summing Box does not have adequate power or has been damaged.*
        - *Confirm all wires are tight and secure.*
        - *Verify 12VDC is available to the Smart Summing Box.*
        - *Locate a shorted loadcell that could be shorting power within Smart Summing Box.*
- *If more than a single bin is displaying no.bin, isolate the problem Smart Summing Box by removing all connects except to a single Smart Summing Box.*

no.PUL

This error message indicates that the BinTrac Indicator has been programmed for a PULSE output and is unable to communicate with the HouseLink HL-10D.

- *If this system does not have a HouseLink HL-10D, set the programmable PULSE parameter within the "Intr" configuration settings to "0" for disabling this feature.*
- *Verify HouseLink HL-10D configuration dipswitches are properly set.*
- *Inspect wiring between BinTrac Indicator and HouseLink HL-10D and other Smart Summing Boxes are correct.*

Operational Specifications

Operating Temperature Range:	-40°C to +60°C (-40°F to +140°F)
Humidity:	5% to 95% (non-condensing)
Environmental Air:	No corrosive gasses permitted
Shock and Vibration:	N/A
Enclosure Type:	Unsealed
Agency Approvals:	N/A
Wiring Type:	Screw terminal block
Power Requirements:	8.0 VDC - 20.0 VDC, 35 mA (typ)
Pulse Output Signal Type:	NPN open collector rated at 15 VDC, 20mA
Pulse Period:	250msec Minimum
Serial Communication Interface Type:	Herdstar optically isolated (proprietary)