Intelli-Feed™ Controller User’s Manual
Intelli-Feed™ Digital Tachometer and Hourmeter

Revision 10, 6-February-2012

Part #: 9047
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Intelli-Feed™ User Interface:

1. **ON/OFF Button:** - Turns Intelli-Feed™ feed roller valve operation on or off. (It does not affect RPM or Hours function. The chipper can still operate when the Intelli-Feed™ is off.

2. **RPM Button:** - Places Intelli-Feed™ in RPM mode, which displays the engine RPM on the display.

3. **HOURS / TEST Button:** - Places Intelli-Feed™ in Hours or Test mode, which displays the equipment run hours when in the HOURS mode, or the equipment parameters, when in the test mode. The HOURS mode is used when the Intelli-Feed™ is operating. The TEST mode must be initiated from a key-off position.

4. **Display:** - Displays RPM, Hours, and Messages regarding Intelli-Feed™ operation.

5. **Diagnostic lights:** - Provide status of customer connections to the Intelli-Feed™.
Equipment Diagnostic Indicators:

1. – Power On Indicator: When illuminated indicates that the Intelli-Feed™ controller is receiving power.

2. – Forward Valve or dump Indicator: When illuminated indicates that the primary control output is in operation.

3. – Reverse Valve Indicator: When illuminated indicates that the secondary control output is in operation.

4. – Alternator Charging Indicator: Normally off. Flashes to indicate potential problem with battery, alternator, or charging system.

5. – Input Pulses Indicator: When illuminated indicates speed signal is being received from magnetic pick-up, alternator or other input source. The Intelli-Feed also is capable of receiving an input speed signal from J-1939 sources (CAN-BUS).
**Machine Electrical Connections:**

A. – Speed/Signal Wire (white): Connect to Magnetic Pickup, Alternator, or other pulse input source.

B. – Ground Wire (black): Connect this wire to the equipment ground.

C. – Power Wire (red): Connect this wire to the equipment’s power source (12 to 24VDC).

D. – Primary Control Wire (green): Connect this wire to the negative (-) of the primary valve or device under control.

E. – Auxiliary Control Wire (yellow): Currently not configured (Do not use).

F. – Secondary Control Wire (brown): Connect this wire to the negative (-) of the secondary valve or device under control.

* If J-1939 is used as an input source, connections are made in the 10-pin special function connector as follows:

<table>
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<tr>
<th>Signal</th>
<th>10 Pin Connector Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN(+)</td>
<td>Pin F</td>
</tr>
<tr>
<td>CAN(-)</td>
<td>Pin D</td>
</tr>
</tbody>
</table>

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Customer Equipment / Machine Connections

Special Function 10-pin connector*

Packard Weather Pack Sealed – 6 position connector

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* If J-1939 is used as an input source, connections are made in the 10-pin special function connector as follows:
Operation and Diagnostics:

The Intelli-Feed™ is designed for ease of operation. Diagnostic lights tell of critical operations or malfunctions.

ON/OFF Operation:
When the key switch is turned on, the Intelli-Feed™ powers-up controlling the feed-roller valves.
To disable the feed-roller valve operation, press the ON/OFF button once.
RPM will continue to be displayed, and hours will continue to counted. To return to feed roller valve operation, press the ON/OFF button once more.

NOTE: THE ENGINE RPM MUST BE INCREASED ABOVE THE HIGH RPM SET POINT ONCE, TO RESTART NORMAL VALVE OPERATION.

Hour Meter Operation:
To display equipment total hours of use, press and release the HOURS button. Whole hours, as well as tenths of hours will now display, and remain displayed, until the RPM button is pressed and released; returning the unit to RPM mode, displaying engine RPM.
There may be a slight time delay to return to reading RPM.

If the key is left in the on position and the engine is not operating (0000 RPM) additional hours will NOT accumulate on the Intelli-Feed™ hour counter.
Self-Diagnostics (Self Test):

The Intelli-Feed™ is designed for troubleshooting ease. It will also help you determine that the program installed is for the correct equipment type. Contact your dealer for the proper calibration settings for your engine.

With the key switch OFF, Hold down HOURS / TEST button, then turn the equipment key to on. Release HOURS / TEST button when the word “TEST” is displayed.

Display indicates “PPR” and pulses per revolution will be displayed.

Display indicates “Fwd Spd” and feed-roller On speed will be displayed.

Display will automatically scroll to next screen in 1 second.
Self-Diagnostics (cont):

Display indicates “Rev Spd” and feed-roller Off speed will be displayed.

Display indicates “REV TIME” and feed-roller reverse time will be displayed.

Display indicates “TYPE” of valve system in use. Either Type 0000 or Type 0001 program.
Self-Diagnostics (cont):

Display will blank for ½ second while unit performs self-diagnostic check.

Unit Resumes normal operation, RPM is displayed.

If you receive “service unit soon” message, contact your equipment dealer at a suitable time.

If you have an equipment problem check other components on the equipment to locate the malfunction.
Temporary Settings Menu (Temp Set):

If special conditions are encountered that require different settings, the Intelli-Feed™ is designed to accommodate this need. The guidelines for when to do a temporary setting or which way to adjust the settings refer to your dealer. You can Increase or Decrease the Low RPM setting, or Add reverse time by simply following the instructions that display on the display screen. The display screen directions are the same as the ones below:

With equipment running and Intelli-Feed™ on, depress RPM button for 3 seconds. Release RPM button when display starts to show text messages.

Display will show “TEMP SET Menu”

Display will scroll “Push RPM To DECREASE LOW RPM”
Note: Displayed number represents number of presses. Each press will decrease by 100 RPM.

Display will go blank for ½ second between messages

Important:
Make your selection by pressing RPM while the screen is blank. If you don’t want to decrease low RPM, but want to increase low RPM or add reverse time, wait for their messages to appear on screen.

Display will go blank for ½ second between messages
Temporary Settings Menu (cont):

The new low RPM set-point will display after each button push.

If you made a selection, your setting will be stored.

Display will show “Push RPM To INCREASE LOW RPM”
Note: Displayed number represents number of presses. Each press will increase by 50 RPM.

You may only increase OR decrease low RPM. You may not do both.

Display will go blank for ½ second between messages.
Temporary Settings Menu (cont):

The new low RPM set-point will display after each button push.

Note: Maximum low RPM increase is 50 RPM below High RPM!

If you made a selection, your setting will be stored.

Display will show “Push RPM To DECREASE REVERSE TIME”
Note: Displayed number represents number of presses.

Display will go blank for ½ second between messages.
Temporary Settings Menu (cont):

Display shows the number of presses each time you press RPM.

If you made a selection, your setting will be stored.

Unit Resumes normal operation, current RPM is displayed along with the words “TEMP SET”.

**CAUTION:** All Temporary settings will be lost when equipment is turned off. Upon turning Intelli-Feed™ on again default (not temporary) settings will be restored.
Troubleshooting:

What to do if there is:

<table>
<thead>
<tr>
<th>1. No readout on the display</th>
<th>Check for Power on light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is power on light illuminated?</td>
<td>Yes</td>
</tr>
<tr>
<td>(Diagnostics light #1)</td>
<td>Contact Service Dealer</td>
</tr>
<tr>
<td>Check wiring</td>
<td>Check grounds</td>
</tr>
<tr>
<td>Check key switch</td>
<td>Check connections</td>
</tr>
</tbody>
</table>

| 2. Readout displays “STARTING” continuously or at times other than startup | Contact IEC to change the unit to the new style. |

| 3. There is readout on display but valves do not function | Push ON/OFF button. Decrease speed below low RPM and then increase speed above High RPM. Repeat if necessary. |
| | OR | Key equipment off and restart equipment. Intelli-Feed™ automatically initializes in the operational state. |
| | OR | This could also be a sticky valve solenoid(s) or a faulty valve. |
| | OR | This could be faulty valve wiring. |

| 4. Intelli-Feed™ light(s) for forward or reverse display but valve does not function | If valve has a cable equipped with a light, verify that the light on the cable comes on when the diagnostic light on the Intelli-Feed™ comes on. |
| | Are Intelli-Feed™ and valve cable light(s) on. (diagnostic light # 2 or # 3) | Yes | No |
| | Check the: equipment valve(s) | Check the: valve cables |

<p>| 5. Intelli-Feed™ Charge Indicator Light is flashing on for ½ and off for ½ second, (#4 diagnostic light) | Check equipment battery, alternator, and charging system. |</p>
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<tr>
<th></th>
<th>Speed signal indicator is not illuminated (#5 diagnostic light)</th>
<th>Check for possible damaged or defective speed signal source or wiring. Specifically a damaged or defective magnetic pick-up, or loose or broken wiring. A lack of a speed signal at start-up will not allow the STARTING phase to end.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>When pressing from Hours to RPM mode, it doesn’t change</td>
<td>Press RPM button and release, and then wait three seconds for the switch from Hours to RPM.</td>
</tr>
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<td>8</td>
<td>The display reads 457</td>
<td>Check for possible damage to, or defective speed signal source or wiring. The program PPR and speed source (magnetic pick-up) do not match. Call IEC for assistance and/or a replacement.</td>
</tr>
</tbody>
</table>
Technical Assistance:

Please feel free to call us at Industrial Electronic Controls Company for technical assistance at (815) 985-0383 or e-mail us at larry@indelecon.com we are available to you with extended service hours to help solve your Intelli-Feed™ problem.