

PARTS & SERVICE NEWS

REF NO.	AA05006
DATE	January 19, 2005

SUBJECT: NEW PAYLOAD METER III™ SCOREBOARD KITS

PURPOSE: To introduce new scoreboard kits to the field.

APPLICATION: Komatsu Electric Drive Dump Trucks:
 730E: 32530-32845, A30079 & Up;
 830E: 31320-32825, A30544 & Up;
 930E: 32604-32816, A30019, A30026-A30120;
 930E-2: A30012, A30098, A30100, A30121-A30293, A30295-A30303;
 930E-2SE: A30183;
 930E-3: A30294, A30304 & Up;
 930E-3SE: A30171, A30318, A30319 & A30322

FAILURE CODE: 7P70Z9

DESCRIPTION:

Komatsu is releasing an improved version of the Payload Meter Scoreboards (part number PC1137). The new scoreboards (Figure 1) are ultra-rugged LED electronic display units designed to withstand the vibration, dust, heat, and extreme temperature ranges associated with mining operations. These scoreboard kits will only work with trucks equipped with Payload Meter III systems. Multiple scoreboard kits (Table 1) were created that allows the choice of installing a single scoreboard (driver's side) or dual scoreboards (both sides) for various truck models.



FIGURE 1. SCOREBOARD (PC1137)

TABLE 1. SCOREBOARD KITS	
Truck Model	Part Number
SINGLE SCOREBOARD KITS	
730E	AK5066
830E	AK5093
930E	AK5139
DUAL SCOREBOARD KITS	
730E	AK5059
830E	AK5092
930E	AK5138

New Payload Meter III kits (Table 2) are also being introduced. These new kits include the improved pressure sensors (released on PSN AA04133) and the attenuator (released on PSN AA04036).

TABLE 2. PAYLOAD METER III KITS	
Truck Model	Part Number
730E	AK5032
730E Trolley	AK5033
830E	AK5030
930E	AK5031

SCOREBOARD FEATURES

Display Messages

The new scoreboard can display the following messages:

1. **S u S** if suspension is flat.
2. **- - -** if a sensor input error occurred.
3. A final payload estimate if the final estimate is larger than 0.
If Last Swing Load is larger than 0,
then it will display the estimated load at **1-Second Intervals** (default)
or it will display the **Last Swing Load** (special mode to be set by PDM)
4. When truck haul cycle state is in Tare or Empty mode,
Cb will be displayed if a Carry Back Alarm is triggered,
blank will be displayed when the truck is empty (default),
or, if Carryback Estimate is more than 3.5% rated load,
the scoreboard will display the Carry Back Estimate (special mode to be set by PDM)

NOTE: When the power is first applied to the display, the display software revision number will show for a short time. This indicates that the processor is working.

LED Lights

Processor LED (2, Figure 2)

This LED blinks when the power is applied and the processor is running. It blinks approximately once per second under normal conditions. Fast blinking indicates data reception.

Data Receive LED (3, Figure 2)

This LED blinks every time data is received. The LED is electrically connected to the receive pin of the display. It will illuminate only while data is present on the wire.

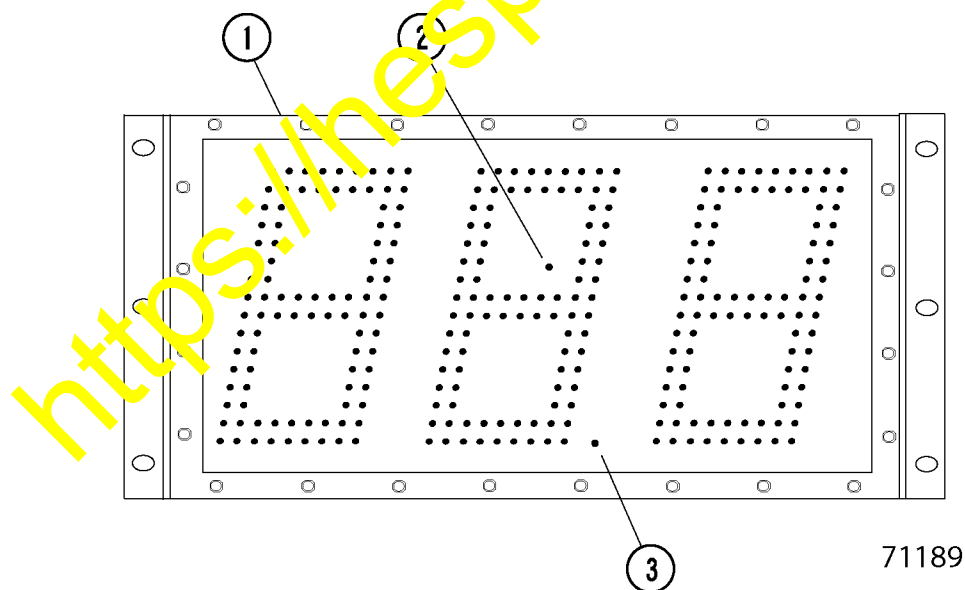


FIGURE 2. SCOREBOARD (PC1137)

1. Scoreboard
2. Processor LED

3. Data Receive LED

Option Switches

These ten switches (Figure 3) are located inside the scoreboard. The rear cover with the harness connectors must be removed to access the switches. The default switch setting and description of each switch is shown in Figure 3.

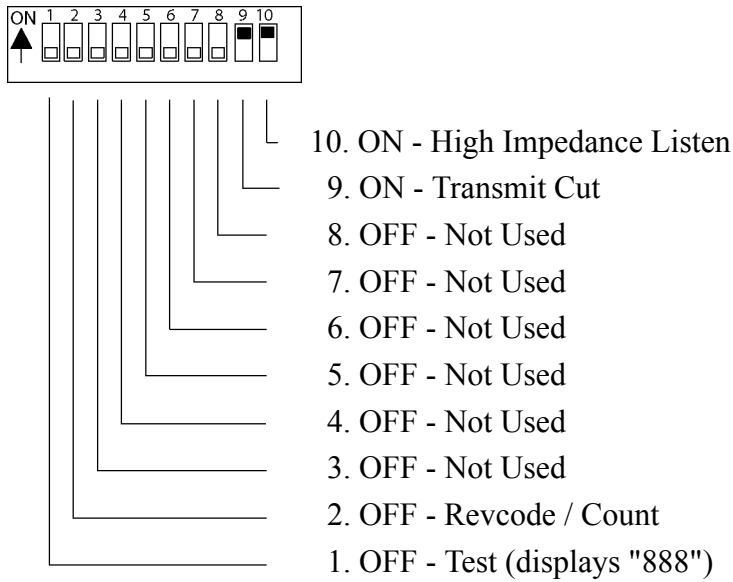


FIGURE 3. OPTION SWITCHES

SWITCH 1 - TEST (Displays "888")

This switch causes "888" to be shown on the scoreboard for testing purposes.

SWITCH 2 - COUNT

This switch, in conjunction with Switch 1, will cause the scoreboard to count.

SWITCH 9 - TRANSMIT CUT

When this switch is OFF, the transmit feature of the scoreboard is disabled. This is useful if the scoreboard is sharing the RS232 port with another device and the other device is responsible for all communications with the Payroll Meter system.

SWITCH 10 - HIGH IMPEDANCE LISTEN

When this switch is OFF, the remote scoreboard is placed in high impedance mode to share the RS232 connection to the PLM III system.

TABLE 3. TROUBLESHOOTING CHART		
SYMPTOM	POSSIBLE CAUSE	REMEDY
No numbers on remote display.	No power to remote display.	Turn power OFF and back ON. The remote display should show revision number (i.e. 012), or check to see if Processor LED is ON.
No Processor LED .	No power to remote display or remote display is defective.	Remove back panel and measure voltage. Should be 18 to 30 DC volts coming into board. If there is power and no processor LED, the unit should be returned to the factory.
Processor LED blinks but no data displays.	No data being received or receive circuit in remote display is dead.	Check Data Receive LED . It should blink on each time the truck computer unit transmits to the remote display.
Data Receive LED never blinks.	No connection from PLM III to remote display.	Check connections to the PLM III unit to see if they are connected and transmitting data.
Remote display shows 888 all the time.	Option switches set to test position.	Turn OPTION SWITCHES 1 and 2 OFF.
First remote display works but second remote display does not work.	Cabling between displays is bad or output from first remote display is dead or input to second remote display is dead.	First, check cabling between the displays. See if power and signal is arriving at second display (see above). It could be the first remote display output or the second remote display input is not working. First, check the Data Receive LED on the second remote display. It may be necessary to swap the two remote displays to determine the problem.