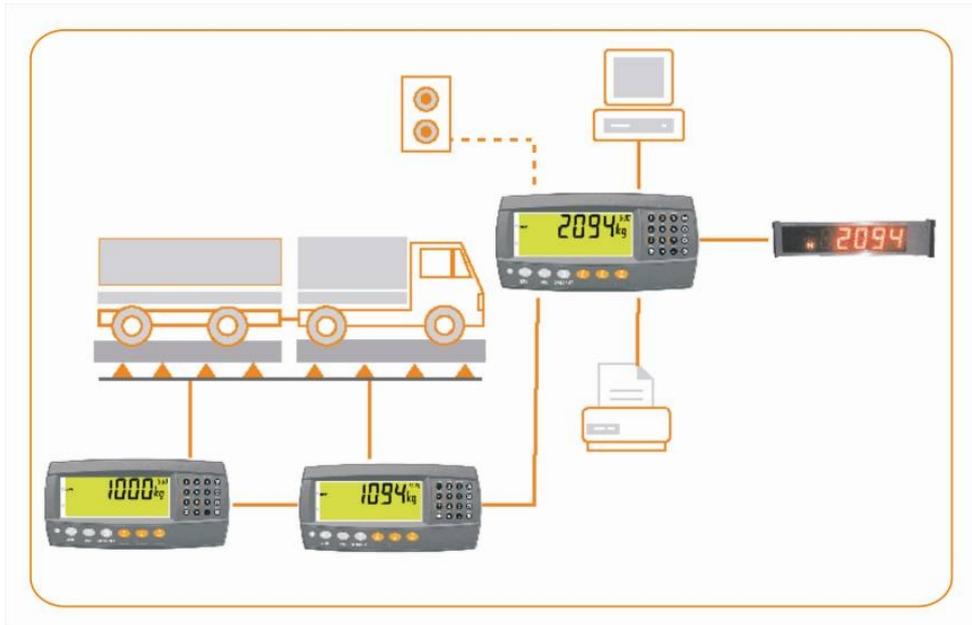


Application Note: R42x-K481 Summing – Multi-deck Weigh Bridge

Application:



This weighbridge setup sums two decks. Each deck is connected to an R420-K401 which is networked back using RS485 to an R420-K481 that provides the summing information.

- Each deck is connected to an R420-K401
- The R420-K401 units use RS485 networking to the R420-K481 summing unit.
- M4203 RS485/RS485 modules are used on each unit.
- The onboard RS232 serial port on the K481 would be used to support the printer/computer.
- The isolated transmit only RS485 port on the K481 RS485 module could be used for a remote display.
- The D740-6A is recommended as annunciators would be required on a trade approved installation.
- Two or more summing boxes would be required depending on the number of load cells used.
- Full customisable printing options with two different print formats.
- Along with standard auto transmitting formats, the two auto formats can be customised.

Components:



R420-K481-A or
R420 Summing Indicator



M4203
RS485/RS485 Module



R420-K401-A
R42x General Purpose
Indicator



M4203
RS485/RS485 Module
For each R420-K401



0071
Summing Box, 6 L/C
Input. Expandable



D640-6A-C
Or D740-6A-C
Large Remote Display

*Note1 either R420s or R423s could be used depending on if ABS or flush stainless steel housing is required.

*Note 2 Desk mount can be ordered with a power supply to suit your local requirements.

*Note 3 Large remote display can be ordered with either DC or AC supply requirements.

Operation:

1.Setup

Truck Identification -

- The K481 supports up to three User Defined Strings which allows the operator to be prompted to enter details. For example NAME.1 could be set to REGO or PLATE. A long press of the 5 key would then prompt the operator to enter the Truck identification (number plate for example). This can then be used on the print out if required.
- Alternatively the truck identification could be entered as a Product if required.

Enter a Print reference number if required.

Enter a preset tare value if required.

2. Truck Drives On

K481 Display



K481 would display the total



Press F1 to display Deck 1 – “Front” weight.



Press F1 to display Deck 2 – “REAR” weight.

K401 - FRONT



K401's would display the individual deck weight

K401 - REAR



K401's would display the individual deck weight

Error Condition

K481 will show a blanking screen (-----) using dashes as an error message if any of the slave weights are negative or if there is a mix of gross and net weights.

3. Print Docket or Record

The print out can a simple preset one or a fully customised one to suit what information that you require.

Record Print - FMT.B

(where truck id 123-ABC was entered as a product)

Joe's Gravel
 01/01/2003 11:30
 ID: 001234 123-ABC
 T: 1.0 t
 G: 100.4 t
 N: 99.4 t
 Thank You!

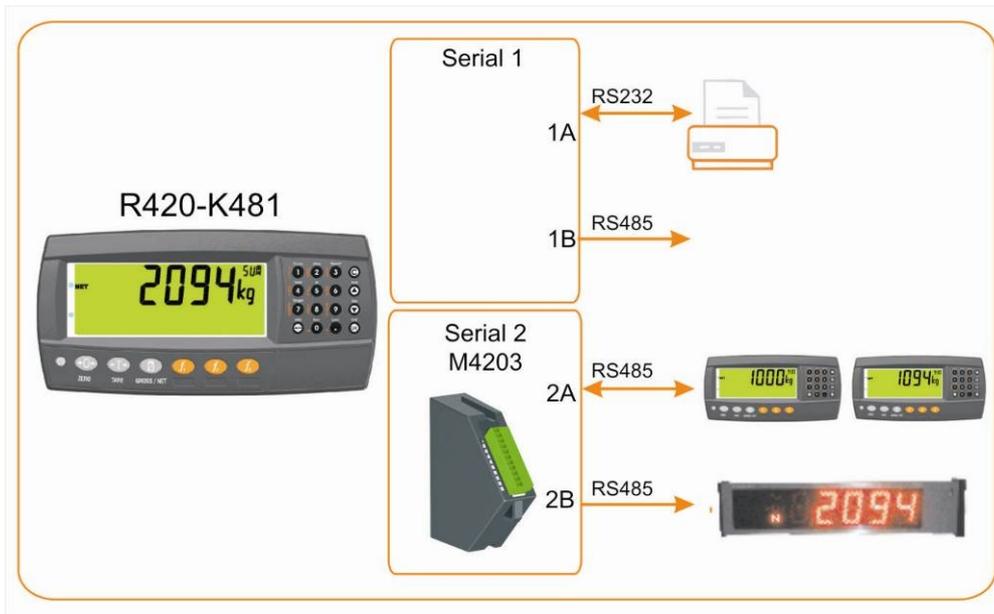
Custom Printing

Page 9 Tokens cover the Slave Name, Slave Weight and Sub Totals.

181 (B5H) Page 9: Summing Data
 215 (D7H) Slave 1 Weight
 ...
 228 (E4H) Slave 1 Name
 ...

* Note that viewing the Slave weight wouldn't normally be required in this application; it has been included for purpose of demonstrating the use of the special function SLAVE.

Configuration:



R420-K481 Summer Set up

(To enter the setup mode, hold down the **Power** and **F3** key for a few seconds.)

FUNC:NUM	2 or as required
FUNC:SF1	TYPE to SLAVE * KEY to F1 or as required
FUNC:SF2	TYPE to PRINT KEY to F2 or as required
H.WARE:SER1.HW	BAUD 9600 PARITY to NONE DATA to 8 STOP to 1 DTR to ON (connect to paper out detect on printer)
H.WARE:SER2.HW	BAUD 9600 (same baud rate as all the slaves) PARITY to NONE (all set the same) DATA to 8 (all set the same) STOP to 1 (all set the same) DTR to OFF (must be set off) TERM to ON
SER.SUM:SERIAL	SER2A **
SER.SUM:PROTO	NORMAL (summing R420 indicators via the RS485 network)
SER.SUM: SLAVES	2 (to the number of slaves to be summed)
SER.SUM:SLAV.1:NAME	Set name on each as required - Slave 1 "FRONT"
SER.SUM:SLAV.2:NAME	Set name on each as required - Slave 2 "REAR"
PRINT:PRINT1:SERIAL	Connection to Printer (other print settings to be set as required) SER1A
SER.AUT:NUM	1
SER.AUT:AUTO.1	Auto output to remote display TYPE to AUTO.LO SERIAL to SER2B FORMAT to FMT.C or as required

* Note that viewing the Slave weight wouldn't normally be required in this application; it has been included for purpose of demonstrating the use of the special function SLAVE.

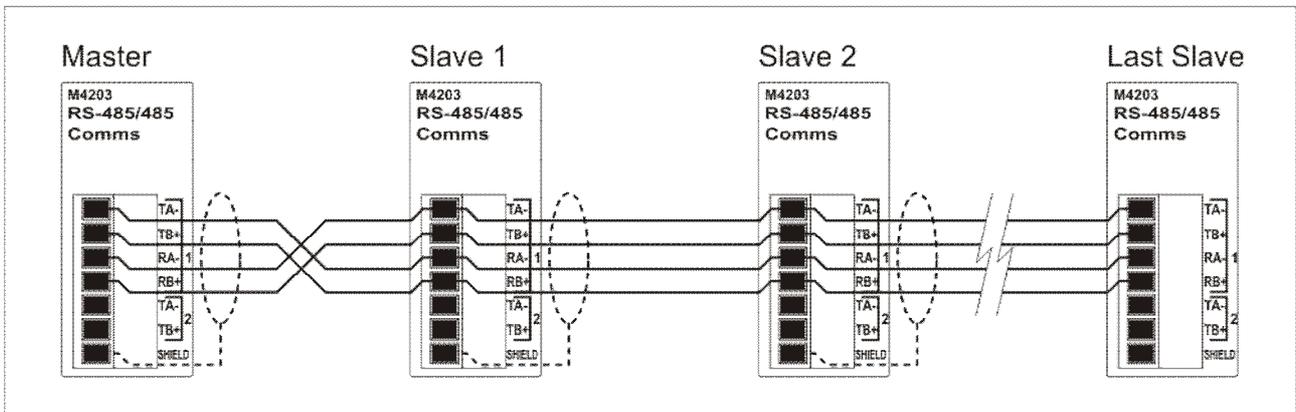
** Note that **SER.NET** needs to be **SER1A** in this scenario. To verify hardware set up check hardware HW allocation menu for **CLASH?**

App Note

R420-K401 Slave Set up

H.WARE:SER2.HW	BAUD 9600 (same baud rate as the summing indicator) PARITY to NONE DATA to 8 STOP to 1 DTR to OFF TERM to ON for the last slave in the network and off for all other slaves
SER.NET:TYPE	PROTOCOL.B
SER.NET:SERIAL	SER2A
SER.NET:ADDRESS	To a unique address consecutively starting at 1. Example; Deck 1 K401 – set to address 1 Deck 2 K401 – set to address 2

RS485 Network



For more information refer to the Reference Manual for this product