Release Note: R300 and X320 V3 to V4 hardware change

Enhancements

Linearisation: All variants now have 10 points of linearisation and direct mV/V calibration.

Dual Range and Gravity Comp: The K35x and K37x variants include dual range and gravity compensation.

Livestock Weighing: Livestock weighing has been added to K35x and K376. (Note: the livestock weight register (002D) now holds the held weights and not the live weight like it used to).

Old firmware variants K301, K302, K303 and K305 on the R300 Series and K304, K306, K307 and K308 on the X320 are now fully superseded by the reintroduction of these features into the standard firmware.

New Features

- The programmable printing has been updated based on the A331 special to use the R420 style formatting tokens (see tokens table details in attachment).
- The auto out support has been re-implemented to use print tokens, this required the addition of the R420 status tokens 0-15. FMT.1 of the standard auto formats is now Ranger A with Condec as FMT.5.
- The totalisation is now tied to the print key functionality and not by printing the displayed weight token. This means you can add to totals with the print key even when you have the serial type set to a non-printing type.
- The print strings have been made bigger.
- Simple network protocol support has been added, similar to the R420 implementation.
- Read (16) and write (17) decimal support in RinCommand (protocol B) has been added.
- The streaming registers will now start streaming as soon as the speed register (0041) is set.

User Interface Changes

Number editor keys have been updated to include:

- Tare key to move the cursor left
- Zero key to decrement the number by 1
- Power key to EXIT the editor **without saving changes.**

Note you can continue to editor keys as before.

Menus:

- Power key can also be used in the menus to go **back to the previous item**.
- The option editor also supports going back to the previous item with the Gross/Net key, the power key will exit without saving changes.
- Both R300 (power + function) and X320 (power + gross/net) menu keys are supported in all variants.

Main firmware variants all preloaded

New APP.ID menu item in the factory menu allows you to choose between firmware, to save you re-flashing the unit.
P**asscodes are still required to change between variants**:

- R300 Series: K342, K344, K346, K354 and K356
- X320: K376 and K378

For catalogue products the passcode will be applied in the factory. If you change between firmware variants you will be prompted to enter the passcode for that variant as you were previously after re-flashing a unit.

Note: When changing variants factory defaults will be set.

Appearance Comparison

- Orange function key and all other keys grey
- Orange R in R320 and X in X320 model number
- V4 sticker on the electronics

Version 3	Version 4

Print Tokens

Same as v3 R320

Description	token
Standard short print	\7F
Standard long print	\8F
Date	\BF
Time	\C0
Gross weight	\CF
Net weight	\D0
Tare weight	\D8
Displayed weight	\D9
Print ID	\DA
Total weight (gross + net)	\DB
Number of weights added to total	\DC
Total in pieces	\DD
Total of Net weights	\DE
Total of Gross weights	\DF
Pieces in displayed weight	\F0

Changed:

Description	Old value	New value
Raw streaming registers	\E9	\F9

Removed

Description	Old value
Literal streaming registers	\E8

New, same as R420:

Description	Token
Weights as 5 chars	\95
Weights as 6 chars	\96
Weights as 7 chars	\97
Weights as 8 chars	\98
Weights as 9 chars	\99
Weights as 10 chars	\9A
No sign chars	\9B
Sign is positive ' ', negative '-'	\9C
Sign is positive '0', negative '-'	\9D
Sign is positive '+', negative '-'	\9E
No decimal point	\9F
Decimal point is '.'	\A0
Decimal point is ','	\A1
No leading chars	\A2
Leading chars are ' '	\A3
Leading chars are '0'	\A4
Show weight on error	\A5
Show dashes on error	\A6
Show spaces on error	\A7
Status tokens are upper case	\A8
Status tokens are lower case	\A9
No units (or status)	\AA
Always show decimal point	\AB
Toggle space between weight and units	\AD
Place sign adjacent to weight	\B1
Reverse direction of weight string	\B2

New (different to R420):

Description	Token
Units	\D1
Status 0	\E0
Status 1	\E1
Status 2	\E2
Status 3	\E3
Status 4	\E4
Status 5	\E5
Status 6	\E6
Status 7	\E7
Status 8	\E8
Status 9	\E9
Status 10	\EA
Status 11	\EB
Status 12	\EC
Status 13	\ED
Status 14	\EE
Status 15	\EF