



PAS T PLUS™

INSTRUCTIONS



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PAS T PLUS™

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Thank you for purchasing the Pas-T-Plus™ Pasture Gauge, the world's most sophisticated and up to date pasture measuring device. The Pas-T-Plus™ Pasture Gauge is a scientific instrument designed to measure the dry matter (DM) content of green, growing grass. With it you will be able to collect the vital information about your pasture growth and quantities that will help you to increase your farm's productivity.

Before You Start

Charge the Pasture Gauge monitor for 24 hours.

Take the time to read through Section One of this manual.

Familiarise yourself with the monitor's functions and practice using the Pasture Gauge on the lawn before you start measuring paddocks.

You Should Have

Pas-T-Plus Pasture Gauge monitor
 Pas-T-Plus Pasture Gauge stick
 Recharge cable
 USB to Serial download cable & software
 Bottle of Pasture Gauge Polish & cloth

Trial Optifeed & PGCom software (not shown)
 User Manual (not shown)
 Carry Case (not shown)



SECTION ONE – Getting Started

Battery

Charging the Battery

Charge battery from an AC outlet using battery charger for 24 hours.

When fully charged, the battery should last up to 3 months depending upon frequency of use before needing to recharge.

Low Battery

When the battery is charged the monitor will beep when switched on/off and with each pasture measurement.

When charge is running low the 'Low Battery' warning will show on the second line of the monitor screen and the 'beep' will stop. Continue to take measurement; sufficient charge remains to enable you to complete your rounds.

To prolong battery life, let the battery run down completely through use before recharging.

To conserve power the monitor will switch off after 5 minutes of inactivity unless in hold mode.

Care & Storage

Before use apply Pasture Gauge Polish to the full length of the stick with a soft cloth. Pasture Gauge Polish has been specially formulated to prevent water being absorbed into the stick, which would otherwise affect the accuracy of readings.

After use remove contaminants (mud, grass, etc.) from the stick and around the grounding pin at the base, then wipe the stick down with cloth dampened with Pasture Gauge Polish.

Regularly check and wipe the connection stubs between monitor & stick with the polish cloth.

Moisture can affect the readings. Store the Pasture Gauge monitor and stick in a warm, dry location.

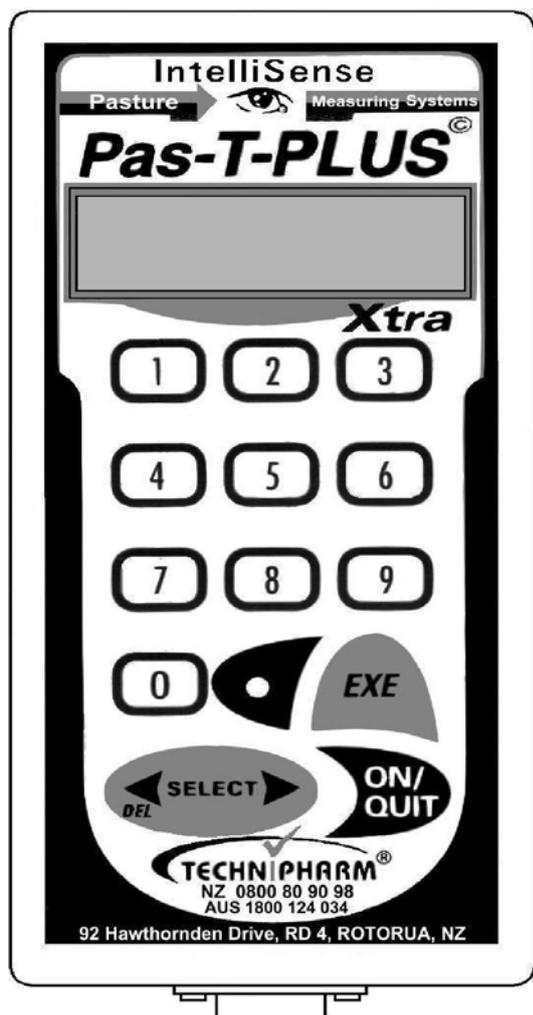
The monitor has been calibrated for use with the stick it came with. Keep them together.

Avoid contact with electric fences.

Physical damage to the monitor or stick from heat, water, electrical contact or misuse is not covered by the Warranty.

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The Monitor



Number pad (1 to 0, decimal point) – to select menu, paddock number, enter paddock size, etc.

Menus

- 1=Meas – Measure paddock
- 2=Info – Information review
- 3=RS232 – download info to computer
- 4=Clear
- 5=SetP – set paddock size
- 6=Equ – Equation set unit of measurement
- 7=SetI – Set Index
- 8=Upgrade – to upgrade to Xtra

functions

- 8=Break – Break-feed (PasT-Plus Xtra)

EXE – execute

ON/QUIT – switch unit on/off and to return to Main Menu.

◀ ▶ – scroll arrows & delete (◀)

9 pin socket (base) for recharging & data transfer.

Measuring

Switch on monitor ON

The Pas-T-Plus version number will show briefly. This number is unique to your Pasture Gauge.

Pas-T-Plus
V12345 Farm Tool

The Main Menu (menus 1 to 4) will show. Press ▶ to view menus 5 to 8.

1=Meas 2=Info
3=RS232 4=Clear

1=Meas 2=Info
◀ → # or QUIT

Press 1 on the number pad to select 1=Meas (measure)

P:1 Prev:0 □
◀ → # select=EXE

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Select paddock to be measured by either scrolling through the paddocks (P:1, P:2, ... P:999) or by directly entering the paddock number (#).

Press EXE to begin measuring

```
Measure now. . .
Eq=kg Pad:1
```

Start measuring paddock.

```
# kg □ R:#
Average: # □
```

kg = kg DM / ha for this reading

R = number of readings so far

Average = average kg DM/ha so far for this paddock

Press EXE

```
Avg: 973 kg □
Total=1753 kg
```

If paddock size has not been entered then "Total=0kg" will show.

Results will show briefly then the monitor will reset for the next paddock. Press EXE to continue with this paddock or select a different paddock.

To finish press QUIT to return to main menu, and QUIT to end.

Pause Function

The Pasture Gauge will switch off after 5 minutes of inactivity. If while in the middle of measuring a paddock you need to stop for a time or put the Gauge down to tend something else, press ◀ firmly.

```
Holding. . . .
[◀] to continue
```

This deactivates the measuring sensors and placed the monitor into hold mode.

Press ◀ when you are ready to continue measuring.

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Entering Paddock Sizes

Select Menu 5=SetP

```
Pad:1 0 □
#key+EXE =Qfind
```

Instructions to select, edit/alter and quit are displayed on the second line of the display.

To select paddock either enter the paddock number directly or using the scroll arrows and press EXE.

```
Pad:1 0 □
Padsiz#: _
```

Enter paddock size (hectares), for example 3.7

```
Pad:1 3.7 □
QUIT to finish
```

```
Pad:1 3.7 □
# key+EXE =Qfind
```

Select next paddock or quit to finish.

Setting Units of Measurement

Select Menu 6=Equ

```
1=Kg 2=Lb 3=CMR
```

Select the unit of measurement.

Note: CMR Corrected Metre Reading equation option is for scientific purposes.

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Using the Pasture Gauge

Before you Start

- ~ Polish the full length of the Pasture Gauge stick using the polish cloth dampened with Pasture Gauge Polish.
- ~ Take the polish cloth with you when measuring. Store it in a re-sealable plastic bag to keep it clean.
- ~ Attach monitor to stick, making sure it is clipped on securely.



Calibration

- ~ The Pas-T-Plus automatically calibrates to the conditions when turned on and between each measurement.
- ~ In wet or dewy conditions, before pressing EXE to commence measuring, wipe the length of the Pasture Gauge stick through the grass then hold it out away from all objects and press EXE. The Pas-T-Plus calibrates to the wet conditions before you start measuring.



Take Measurements

- ~ Keeping the stick upright, press the gauge into the grass until the Grounding Pin at the base comes into contact with the ground then lift the gauge clear of the grass, ready to take the next measurement.



- ~ The monitor will beep when a reading is recorded. Do not wait for the beep, just keep walking.

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- ~ The Grounding Pin contact with the ground needs to be firm but brief. The weight of your forearm resting on the stick is usually sufficient for this.
- ~ The Pasture Gauge 'read zone' extends the length of the stick. Keep stick upright as you withdraw it from the grass, especially when measuring longer grass.
- * Avoid withdrawing the stick at an angle as it will register grass further up the stick and distort measurements.



- ~ Aim to walk at a steady pace using a smooth firm motion to place the Pasture Gauge. Be consistent in how you lower and raise the gauge.
- ~ Take at least 30 measurements that are representative of the whole paddock.
- ~ When finished measuring the paddock press EXE.
- ~ Remove any soil, grass, etc. that may be on the stick and wipe with the polish cloth before starting the next paddock.



If the Pasture Gauge does not Beep

- ~ Check your pace. If you are walking too fast the gauge will not have enough time to measure and register a reading.
- ~ Is the stick being grounded firmly enough? The weight of your forearm is usually sufficient for this but certain soil conditions and ground cover may mean you need to press more firmly. See Section Three: Making the Most of your Pasture Gauge.
- ~ Is the battery charge low? The beep will stop and the Low Battery warning will show but there will be sufficient charge to complete your measuring rounds. See Section One: Battery.

Tips

- ~ Try to avoid watching where you are placing the Pasture Gauge as this can result in a tendency to select better areas of grass to measure, which can distort readings.
- ~ Avoid placing the Pasture Gauge too close to your boot, into mud, animal dung, etc. that could stick to the gauge and affect the readings.
- ~ Do not use within 100m of high voltage power lines (overhead or buried).
- ~ Develop a comfortable measuring technique and use it consistently.

See Section Three: Making the Most of your Pasture Gauge for further information about how the Pasture Gauge works and the various conditions that can affect measurement accuracy.

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Retrieving Information

Select 2=Info

Select paddock by either scrolling through the paddocks (P:1, P:2, ... P:999) or by directly entering the paddock number (#).

The dry matter weigh per hectare will be displayed.

Press EXE to view total weight for this paddock.
 "Total=NilPadSize" will show if paddock size has not been entered.

P:1	944 kg
Total=	1793kg

With Pas-T-Plus Xtra the Farm and Grow functions will also be displayed. See Section Two.

Scroll to next paddock or enter paddock number directly
 Or press ON/QUIT to return to main menu.

Entering Information to your Computer

This can be done by:-

Manually inputting measurements directly into your spreadsheet or feed management programme.

Using the **HyperTerminal** computer communication software. This is available on Windows operating systems up to and including Windows XP.

To locate on your computer go to:
 Start/All/Programs/Accessories/Communications/HyperTerminal.

For further assistance in setting up contact you computer supplier.

PGCom Pasture Gauge communication software that is supplied with the Pasture Gauge.
 Install the software for PGCom and for the USB/Serial download cable.

Paddock sizes need to be entered on the Pasture Gauge monitor, if not already done.

Connect monitor to computer with the USB/Serial download cable.

Open PGCom program and enter the weather conditions (temperature, humidity, wind speed & light gradient) as per the prompt in the lower left of the screen.



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Select COM Port (1 to 4) and press Connect. The prompt will tell you if this has been successful or if you need to try another com port.

Switch on Pas-T-Plus monitor and select menu 3=RS232

RS232; Press EXE
or QUIT

Press EXE

Range FROM# TO#
EXE or FROM:

Press EXE to download all paddocks or select the first paddock of the range of paddocks to be downloaded, e.g. 1.

Range FROM# TO#
EXE or FROM: 1

Press EXE

Select the last paddock in the range to be downloaded, e.g. 8.

Range FROM# TO#
TO: 8

Press EXE to start download.

Paddock numbers will scroll quickly passed on the monitor screen as they are downloaded and be displayed on the PGCom screen.

Information is saved as document (.doc) and text (.txt) files using the date of the download as the file name e.g. 28x3x2011 (day x month x year). These will be in the PG folder that will have been created in the Programs File on your c: drive when the PGCom & Optifeed software was installed.

If the information does not upload:-

- ~ Select a different com port and try again. PGCom may connect to more than one com port but may only upload on one of them.
- ~ Check the download cable connections are secure with the monitor.
- ~ Have the paddock sizes been entered on the monitor? PGCom will only upload measurements where paddock size is entered.

Note – downloading pasture readings does not delete them off the monitor.

Note – time-limited trial PGCom & Optifeed software is supplied with the Pas-T-Plus. For full version contact Technipharm (charges apply). A registration code will needed to be entered in the PGCom and Optifeed programs.

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Clearing/Erasing Measurements

Pasture measurement can be deleted from all the paddocks or a select range.

Select 4=Clear

```
DELETE readings
DELEte or QUIT
```

Select ◀ DEL

```
Range FROM # TO #
EXE or FROM: _
```

To delete all pasture readings select EXE.

To delete readings from a selected range of paddocks, enter the first paddock number, e.g. 1.

```
Range FROM# TO#
EXE or FROM: 1
```

Press EXE

Select the last paddock in the range to be deleted, e.g. 8.

```
Range FROM# TO#
TO: 8
```

Press EXE

```
Delete: 1-8?
DELEte or QUIT
```

Press DEL to continue or QUIT if you do not want to proceed.

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Setting Increments

Menu 7, Set Index (7=Set I) allows you to calibrate the monitor to accommodate virtually any growth pattern and measurement of non-pasture species such as wheat, oats, lucerne and green crop.

Note that in order to make an accurate adjustment to the index you will first need to define the actual DM kg/ha of the pasture/crop by Cut Weigh Dry the method.

Select 7=Set I

EXE=Gauge Index
Or QUIT

Press EXE

Set:0 600=600
High 3000=3000

Adjust increment by ◀ ▶

Set:-1 600=594
High 3000=2676



Set:1 600=612
High 3000=3495

Set:-2 600=558
High 3000=2266



Set:2 600=621
High 3000=3904

Set:-3 600=576
High 3000=1857



Set:3 600=630
High 3000=4314

Set:-4 600=567
High 3000=1447



Set:4 600=639
High 3000=4723

Set:-5 600=558
High 3000=1092



Set:5 600=648
High 3000=5133

Press EXE.

Index= #
EXE=Yes or QUIT

See also Section Three: What Else You Need to Consider.

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SECTION TWO - Pas-T-Plus Xtra

Pas-T-Plus Xtra has the additional functions of Eye Assessment, Farm Cover, Projecting Growth and Break Feed Calculations.

To upgrade to Xtra contact Technipharm with your monitor's version number. This is the five digit number starting with a V (e.g. V12345) that shows briefly when the monitor is turned on. Upgrade fee is applicable.

When you receive the upgrade code, select 8=Upgrade on the monitor and enter the numbers.

CAUTION – this code is time-limited. Enter it as soon as you receive it.

Eye Assessment

This allows manual input and/or overwrite of the reading for a specific paddock

Select 1=MEAS

Press [.] to go into eye assessment.

Enter # then EXE
Kg□: _

Enter your visual assessment, e.g. 1350

Press EXE

Farm Totals

This calculates the total and average cover for the whole farm (999 paddocks) or a range of consecutive paddocks, and to factor in the desired residual cover giving you the total and average available cover.

Select 2=INFO

Press EXE . This will display total kg for that paddock.

Press EXE a second time.

Range FROM# TO#
EXE or FROM: _

Select paddock range, eg From 1 (press EXE) To 18 (press EXE).

Residual? EXE=no
Amount: _

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To calculate total and average cover for the selected paddocks press EXE.

Total= 5320kg
 AvgCov:1043kg

To calculate available cover after residual (Rkg), enter desired level of residual e.g. 1000kg and press EXE

Total=950Rkg
 AvgCov:186Rkg

Projecting Growth

This projects how much growth will occur for a selected range of paddocks over a specified number of days if growing conditions remain the same.

Step 1 After you have taken a set of measurements go to the Information menu (2=Info) and calculate the total/average cover for the range of paddocks you want to project growth for. See Farm Cover.

Step 2 A few days later take another set of readings for the same range of paddocks.

Select 2=Info and press EXE to show paddock total.

P:1 1574kg
 Total=2857kg

P:1 1574kg
 EXE=Farm . =Grow

Select . (decimal point)

Prior growth?
 Days_

Enter how many days have passed between the first and second set of readings, e.g. 3

Press EXE

Days to project?
 Days:_

Enter the number of days you would like to predict growth for, e.g. 7.

Press EXE

Monitor asks 'Range Same as last time'

Range FROM# TO#
 EXE or FROM:_

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Press EXE for total paddocks (1-999) or select range of paddocks and press EXE.

G:4% T11650kg
Predict 7 days:

G:4% T11650kg
End=11650kg

If the paddock range has not been preselected then “No data valid next time” will show.

Determining a Break Size

Select 8=Break

Which Pad#:_

Enter Paddock number, e.g. 1

Press EXE

Cow count:_

Enter the number of cows, e.g.100.

Press EXE

kg/cow:_

Enter the amount you want each animal to eat while in this break, e.g 30.

Press EXE

Residual. . . .
Kg/ha: _

Enter the minimum level of residual grass you to remain after grazing, e.g. 1200.

Press EXE

Padwidth metres
Pwidth:_

Enter the width of the paddock, e.g. 100.

Press EXE

The gauge will tell you how wide to make the break to leave the amount of residual you selected. 100% utilization of the grass is presumed.

Break : 30 metres
60% of Paddock

SECTION THREE – Making the Most of Your Pasture Gauge

How to Pasture Gauge Works

Electronic Signal

The Pasture Gauge emits an electronic signal of a frequency that changes characteristics when interrupted by the dry matter content of grass. This signal extends for up to a 100mm (4") radius around the stick for the full length of the stick, and is progressively higher closer to the stick. Grass beyond this 100mm radius is not measured.

As the Pasture Gauge is lowered into the grass a microprocessor analysis the changes to the signal and when the level of change starts to decline, as the stick is withdrawn, it records the highest reading detected and beeps to signal this. It then calculates how much dry matter would be in a hectare, or acre, if the paddock's cover is identical to the measurement taken. This reading is displayed on the top line of the monitor screen.

The electronic sensing happens continuously but is the most accurate when the grounding pin at the base of the stick is in contact with the soil at the time the highest reading occurs. The known accuracy is high for the first 400mm (16") of the stick from the grounding pin.

IntelliSense Measuring Systems™ Calibration (ISM)

IntelliSense Measuring Systems™ alleviates the need to manually calibrate the Pasture Gauge before use. It also detects environmental changes (moisture, humidity, temperature) that may occur while measuring and automatically adjusts to them, giving improved and consistent accuracy.

Pasture Gauge Polish

This is a moisture resistant solution that has been specially formulated for use on the Pasture Gauge stick. This prevents moisture from being absorbed into the stick, which can affect reading accuracy. Apply Polish before each paddock to be measured and at the end of the measuring session.

Note – trials of other commercially available products have found they do not last as well or have the potential to create a surface that affects reading accuracy.

What it measures

Pas-T-Plus™ measures the dry matter content of green growing grass and records it in kilograms of dry matter per hectare (kg DM/ha) (lbs DM/acre).

To measure dry grass (hay, over mature, dormant grass) you will need to adjust your measurement to make it accurate. If you are doing a lot of this type of measurement, the Index Feature will allow you to adjust your readings up or down. See Setting Increments.

Pas-T-Plus is capable of readings as low as 450-550kg DM/ha (600lbs DM/acre). Areas with less cover will be read at this value.

Understanding Samples

It is important to take at least **30** measurement samples randomly across the whole paddock. This is because pastures do not grow evenly, even when they appear the same from one side of the paddock to the other there will variation within the growth.

Less than 30 samples will reduce the total measurement accuracy.

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Where there is high variation in the paddock's contour, aspect, ground conditions, etc, take more samples to be sure total measurement is representative of the whole paddock.

Samples taken from only a part of the paddock will result in a measurement that is not representative of the whole paddock.

Single or Few Measurement Situations

In situations where only a few measurements are being taken, consideration should be given to the following factors:-

- Pasture density – is the plant spacing close or wide? Even or uneven?
- Pasture height – is the pasture tall, short, or a mixture of both?
- Weather conditions – is it windy?

These factors can have a bearing on the amount of grass in the signal zone at the time of reading and so affect the quality of the measurement. If you are taking a lot of measurements, this is not an issue as these variables will even out.

The Pas-T-Plus takes calibration readings at first. Before measuring the small plot, air calibrate the Pas-T-Plus by holding it horizontal away from readable matter and press the EXE.

Other things to consider

Soil Conditions

Dry or very wet soil conditions can interfere with reading.

In dry/dusty situations the grounding pin's conductivity with the ground may be poor resulting in erratic or low readings.

In wet conditions mud or sand sticking to the Pasture Gauge will interfere with the readings, most likely making them too high.

In both situations check your measurements and make adjustments if necessary, either manually in your records or using the Index Setting.

Ground Cover

Pastures with a thatch or layer of dead material at the base of the new growth, and grass species with growth habit that creates a similar situation at their base can prevent the grounding pin from contacting the soil.

In most situations, press the stick through the thatch to get a good contact with the soil and the best reading.

Check your measurements and make adjustments if necessary, either manually in your records or using the Index Setting.

Rain, Dew or Irrigated

With IntelliSense the Pas-T-Plus can be used in wet/rain conditions. See Using the Pasture Gauge: Calibration. Recommend always to do this on pastures that have some degree of moisture in them.

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Weather conditions

Changing weather conditions can affect signal reception, just as for radio and television. The IntelliSense Management System has been designed to automatically detect changing weather conditions and compensate for most of these changes.

Pasture Length

For pasture over 400mm tall measurements may be less accurate. You may need to ascertain the height & density of the pasture and may need to adjust measurements accordingly.

Paddocks with Wide Plant Spacing

If you have taken a good number of random samples then usually no further consideration is needed as a representative amount of bare and grassed areas will have been measured.

However when plants are more widely spaced there will be areas with no cover to measure and so no sample will be recorded. In this situation you will need to determine the level of plant cover as a percentage (%) and multiply this by the Pasture Gauge measurement to get the dry matter total for the area.

Note – readings may also be affected if soil conditions are dry/dusty. See Soil Conditions.

Dry Grasses & Non-Pasture/Crop Species

The Pas-T-Plus is designed to measure Green Growing Grass. To measure dry, dormant, over mature grass, hay and non-pasture/crop species accurately you will need to determine if the dry matter content is higher or lower and adjust the Pas-T-Plus measurement accordingly, either manually or using the Index Setting. For dry grasses this will mean increasing the index by 2 or more. See Setting Increments

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Problem Solving

Blank Screen

Flat batteries. Recharge for 24 hours.

Pas-T-Plus™ turns off by itself

The unit is programmed to turn off after 5 minutes of inactivity (ie. no measurements taken, no keys pressed) unless it is in pause mode. If other than this, return your unit for servicing.

Erratic or High Readings

1/ The Pasture Gauge stick may be 'damp'. This can occur if it has been stored in damp location, such as a shed, and may have absorbed moisture into the stick and monitor. Readings will be ridiculously high. Put it in a warm, dry place to dry out.

2/ Check the contact stubs on the Pasture Gauge handle are clear of any material that could affect the connection. Use a clean cloth and the Pasture Gauge Polish to clean.

3/ Check you measuring technique.

Is the stick clean of solid matter (grass, mud, etc.) before each paddock?

Are you walking purposely or slowly looking at the monitor?

Is the grounding pin making good contact with the ground? The weight of your forearm is sufficient to do this.

Are you measuring long grass? If so, are you lifting the Pasture Gauge clear of the grass after each sample or tending to drag it clear 'walking stick' style. If it is being dragged clear then the Pasture Gauge will be sensing grass higher up the stick than it actually is.

Check you technique by measuring a freshly mown garden lawn – it should be around 900 – 1100kg. See Section One: Using the Pasture Gauge.

Erratic or Low Readings

1/ This can be as a result of either measuring dry/dormant grass or dry soil conditions. See Section Three: Other Things to Consider – Soil Conditions, and Dry Grasses.

2/ If you are measuring green grass then you are either measuring too fast, not giving the monitor time to register a reading, or not placing the gauge firmly enough. See Section One, Using the Pasture Gauge.

Batteries are not staying charged

The batteries will lose their charge ability after several years. Return the unit to the factory for new batteries at a nominal charge. Do not use other batteries or damage will result.

Keys don't seem to enter the right information

The key pad cover is designed to resist common pasture conditions, so if the keys are pressed too quickly or not firmly enough commands may not register.

Avoid pressing two or more keys at once. Avoid damage to the key pad cover.

The Pas-T-Plus™ reads in the air

The Pasture Gauge may be measuring water droplets, dirt or leaves that are stuck to the stick. Clean with Pasture Gauge Polish.

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The Pas-T-Plus™ reads before touching the soil (at the upper levels of grass growth)

This can happen in some tall, wet grass growth conditions. As the Pasture Gauge passes through the grass it is taking reading constantly. These readings rise and fall rather than continually rise. When they fall, the Pasture Gauge beeps and records the last highest reading. Check your technique and adjust as appropriate or wait until the grass dries out.

Readings seem inaccurate

This could be due to your measuring technique or the conditions (soil, pasture, etc.) on the day. See Section One, Using the Pasture Gauge, and Section Three Making the Most of Your Pasture Gauge.

The Screen Pulses or Flickers

Recharge the battery as soon as convenient, or measurements will become erratic. Note that the measurement beep is automatically disabled when battery is low to help conserve power and get you through the rounds.

Screen will not turn off

Leave as is until the battery is fully discharged and the screen goes blank. This may take a day or two, then recharge the batteries for 24 hours.

Monitor 'locks up'/ freezes on one screen

This can occur when:-

- 1/ keys are pressed too quickly for the monitor to keep up with. Leave as is, it should 'catch-up' within a minute or time-out after three minutes. Then continue as usual.
- 2/ the ON/QUIT key is pressed instead of EXE when paddock measurement has been completed. Monitor will 'freeze' then switch off without saving the measurements for that paddock.

Black Line across screen

This problem is rare and seems to be associated with static electricity.

1. Keep the power lead disconnected and discharge the PT+ fully. Leave for 24 hours at least, until pressing the [on] button does nothing, then wait another day.
2. Connect the power pack to mains and PT+, wait 30 seconds, press [on] and display will be weak, but the line will have gone, otherwise go to step 3. Continue to charge fully, your data will not be lost.
3. If the line still exists, disconnect power lead and repeat steps 1 & 2. If the line still exists at this stage it's a computer error and will require repair.

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IMPORTANT NOTE WHEN LOADING SOFTWARE KEYS

Failing to follow the instructions will result in a key rejection which means that a new key has to be bought. The cost for this is \$99 + GST.

BEFORE entering a PAS T PLUS™ software share key please ensure that you have read the HELP FILE, it is an extensive file and should contain everything you need for your PAS T PLUS to work correctly.

There is a minimum charge of \$25 for phonecalls relating to questions that are answered in this HELP FILE.

Please ensure that:

1. the computer time clock is set correctly; if the clock is set incorrectly, the key will not work and will be rejected. If the key is rejected you will be responsible for the purchase of a new key.
2. the key is registered on the day that you receive it. If left it may expire and you will be responsible for the purchase of a new key.
3. the software and the key are loaded onto the main drive of your computer (C for most people). If you load the key on any other drive it will be rejected and you will be responsible for the purchase of a new key.
4. the key is used to register the OPTIFEED and the PGCOM software both at the same time. Failing to do only one of these will invalidate the key and you will be responsible for the purchase of a new key.

The key is unique and can only be used once. Attempting to copy the key or load it on to more than one computer may render the key invalid and will invalidate your licence with TechniPharm.

YOUR KEY IS.....