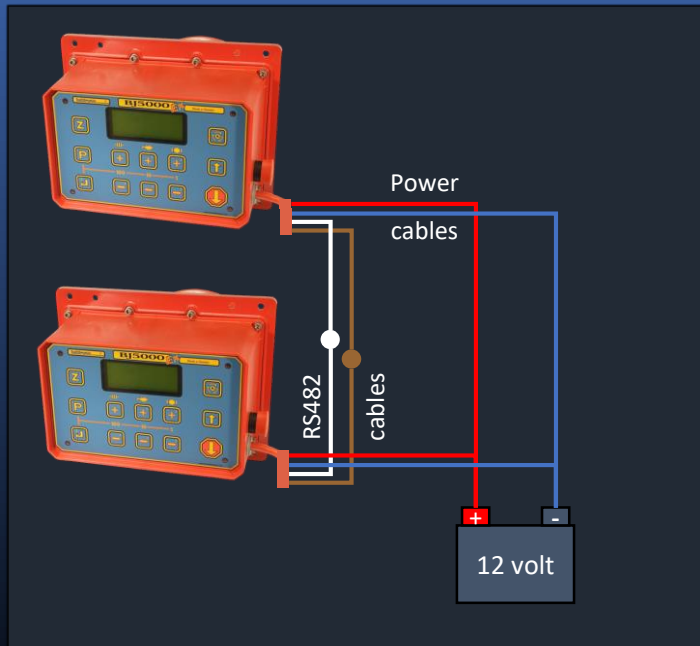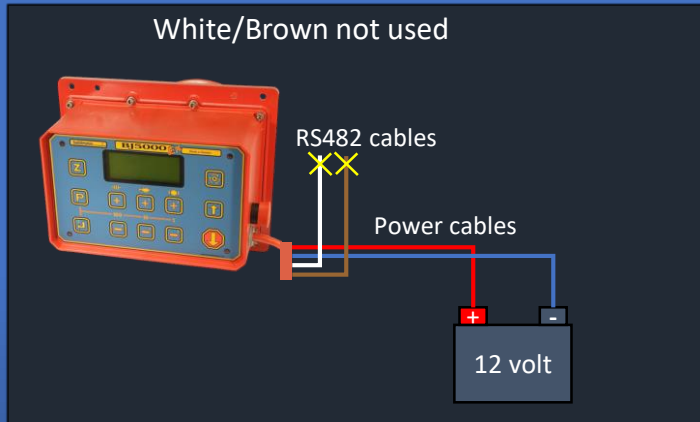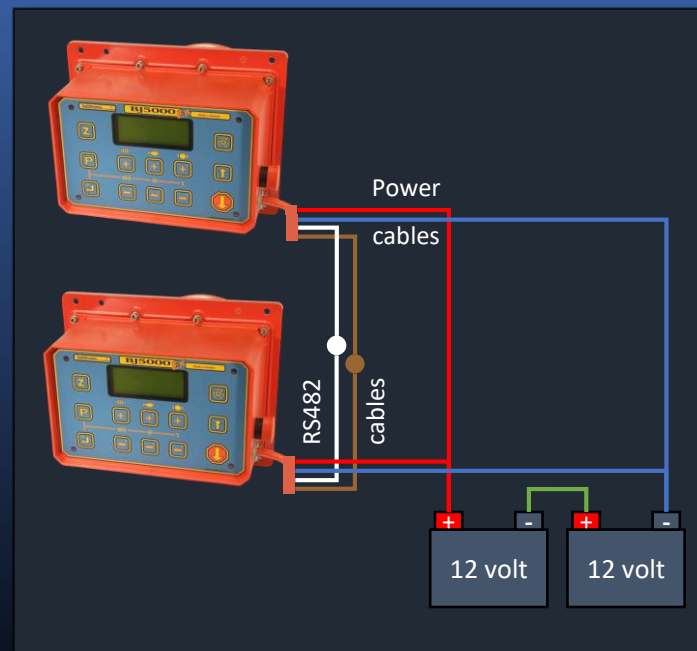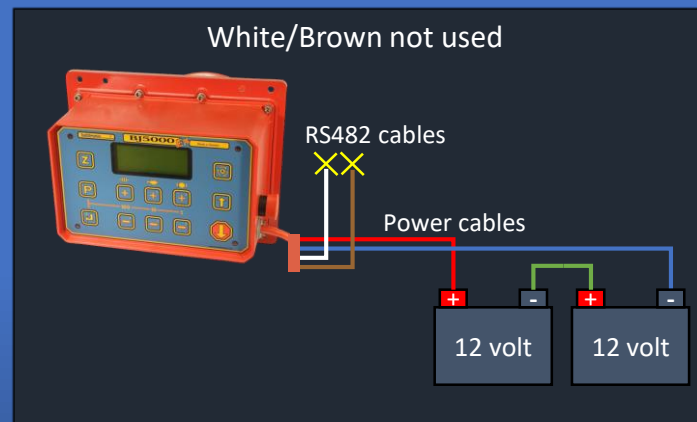# Quick start manual with trouble guide BJ5000 Ex.

- Page 1 - Electrical installation
- Page 2 - Basic setup before fishing.
- Page 3 - Fine tuning Ex during fishing.
- Page 4 - Trouble guide flow chart for motor/wheel and cluch problems.

Electrical installation

12 volt DC system

White/Brown not used

RS482 cables

Power cables

+ 12 volt -

24 volt DC system

White/Brown not used

RS482 cables

Power cables

+ 12 volt -   + 12 volt -

No communication between machines

Power cables

RS482 cables

+ 12 volt -

Power cables

RS482 cables

+ 12 volt -   + 12 volt -

Communication between machines

The diagram shows 4 different electrical installations. 12 or 24 volt DC system with or without communication cables (White and Brown)

It is important that all of the machines are connected to same battery system. The battery system must also be able to handle (receive) charching current from an alternator/generator such as a normal Car or Boat acid/lead battery types. Newer battery types also exist today, but they must be chargeble. This is because the BJ5000 Ex machine generates current when wheel/motor is turned backwards. This generated current must be sent back to the battery system, or else the machines will get damaged due to high voltage.

If using only one machine or if no communication is needed, isolate the Brown and White cables.

When communication is needed, connect all Brown cabes together. Connect all White cables together.

If extention of the power supply cables is needed above 20 meter. The cross area needs to be increased from 4x2,5 mm² to 4x 4mm² or more. Indication of undersized cable is the Warning message in display with sounder beep, or if machine restarts.
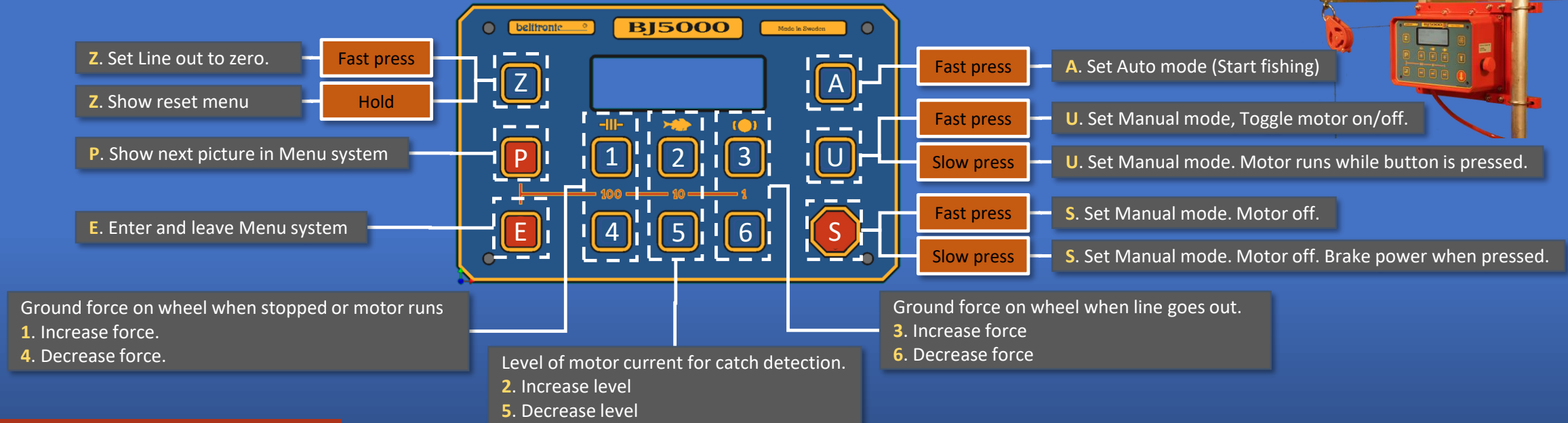
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Button functions and lables in manual

Z. Set Line out to zero. — Fast press
Z. Show reset menu — Hold

P. Show next picture in Menu system

E. Enter and leave Menu system

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Fast press — **A**. Set Auto mode (Start fishing)

Fast press — **U**. Set Manual mode, Toggle motor on/off.
Slow press — **U**. Set Manual mode. Motor runs while button is pressed.

Fast press — **S**. Set Manual mode. Motor off.
Slow press — **S**. Set Manual mode. Motor off. Brake power when pressed.

Ground force on wheel when stopped or motor runs
1. Increase force.
4. Decrease force.

Level of motor current for catch detection.
2. Increase level
5. Decrease level

Ground force on wheel when line goes out.
3. Increase force
6. Decrease force

Prepare the Counter for correct display of **Line out**

➢ Set line measurement unit.
  • Press [E] to enter Menu system
  • Press [4] for WHEEL settings.
  • Press [3] for COUNTER settings.
  • Use [3][6] to select Meter, Fathoms or Feet.
➢ Set correct motor/wheel direction (continue from above)
  • Press [P]. This shows Counter Direction.
  • Press [U]. Motor starts. Note motor direction.
  • Press [S]. Motor stops.
  • If direction of wheel is incorrect press [3][6] for changing direction. Repeat Start and Stop again to check rotation. Never change direction when motor runs.
➢ Set numbers of magnets in wheel. (continue from above)
  • Press [P]. Shows Wheel sensors.
  • Press [Z]. To clear the counter.
  • By hand rotate wheel exactly one lap.
  • Note what the counter in upper right corner shows ?
  • Press [P]. Shows Wheel magnets.
  • Use [3][6] to enter same value as counter showed from last picture.

Spooling line on wheel

  • Adjust Drag to 10-20% using [1][4]
  • Attach the end of line to wheel.
  • Start the motor by [U].
  • Stop motor when enough line is on wheel.
  • Attach hooks and a sinker at end of line.
  • Press [Z] to set "surface" stop point.

Adjust fishing line

  • Use the [U] and [S] to start and stop motor. Hold [S] to let line out. Press [Z] to set stop point.

Start fishing.

  • By Pressing [P] several times the main values for the selected program will show. Most common is to adjust the Fishing depth and Jig length, but fishing programs contains more settings, use [P] to step to next and [3][6] for minor adjustments. [2][5] for +/-10 and [1][4] for adjust +/- 100.
  • Pressing[A] will set machine in Auto mode and start fishing.

BJ5000Ex can detect catch in five ways, by....

➢ **Motor current.**
  • **High motor current.** When motor current exceeds Catch [2][5] for more then 1 second (Catch time up [E3]) machine temporarily gets into Catch mode (if used), followed by Hauling up mode to surface.
  • **Low motor current.** Fishes, line tangle or lost hooks can result in too low motor current. See [E141]
➢ **Wheel movement.**
  • **Time down** [E3P] Is used to detect catch when wheel goes too slow out.
  • **Speed brake** [E3PP] is used to detect catch when wheel goes too fast out.
  • **Wheel laps** [E3PPP] is used when wheel is pulled out by fishes backwards.

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Fine tuning Ex during fishing.

Fine tuning BJ5000Ex

➢ Catch
  o If Ex registers catch on motor current too easy.
    • Increase Catch [2]
    • Increase Catch time up [E3]
  o Ex registers catch when line is pulled out or line slackens.
    • Increase Brake [3]
    • Increase Catch by wheel laps [E3PPP].

➢ Line does not go down to set depth.
  o Catch depth memory might be activated that temporarily sets a new depth.
    • Press another time on [A] button within 1 second, or
    • Disable "Cooperation" [E651 PPP] (Permanent solution)
  o In Bottom fishing, increase Bottom timer [PPP PP]

➢ Wheel starts too slowly or goes out slow.
    • Use RP pulses by setting [E45 PP] to 1,2 or 3, or more.
    • Decrease Brake [6]
    • Increase sinker weight. Normally 2-4 kilo, in Mackerel fishing 5kg.

➢ Line hits bottom, but slacks too much.
    • Increase Brake [3]. If wheel then moves too slow, activate RP pulses [E45 PP] to 1,2 or 3 and maybe add some sinker weight.
    • In Bottom fishing, decrease Bottom timer [PPP PP]

➢ Line goes down but wheel never stops.
    • Make sure no "-"(minus) character in display shows in front of the value LINE OUT. In this case the counter counts wrong way. Change Direction [E43P]. This also changes wheel rotation direction.

➢ Line goes down, but does not start Jig.
    • In bottom fishing, too long Bottom timer [PPP PP] will delay the Jig start.
    • Except in bottomfishing the fihsing line must be pulled out more then set Fishing depth before Jig starts. Exception is when Catch down is used.

➢ Line does not stop when Line out shows 000.
    • If Stop at zero [E441] is "Off" the wheel will continue to pull indefinitely. Intended for the line to be mechanilcally stopped.

➢ Line goes out too fast
    • Increase Brake [3]. (Constant brake)
    • Speed brake [E51] can slow down the wheel when it starts to rotate too fast.

➢ Line has too high speed when reaching fishing depth.
    • Increase Brake [3] to constant apply more brake force, but if this slows down the line speed too much use Depth brake [E52] for extra brake force just before line reaches set fishing depth. (Using bottom fishing this will not help when searching bottom)

➢ Ex Catch LED blinks and sounder beeps
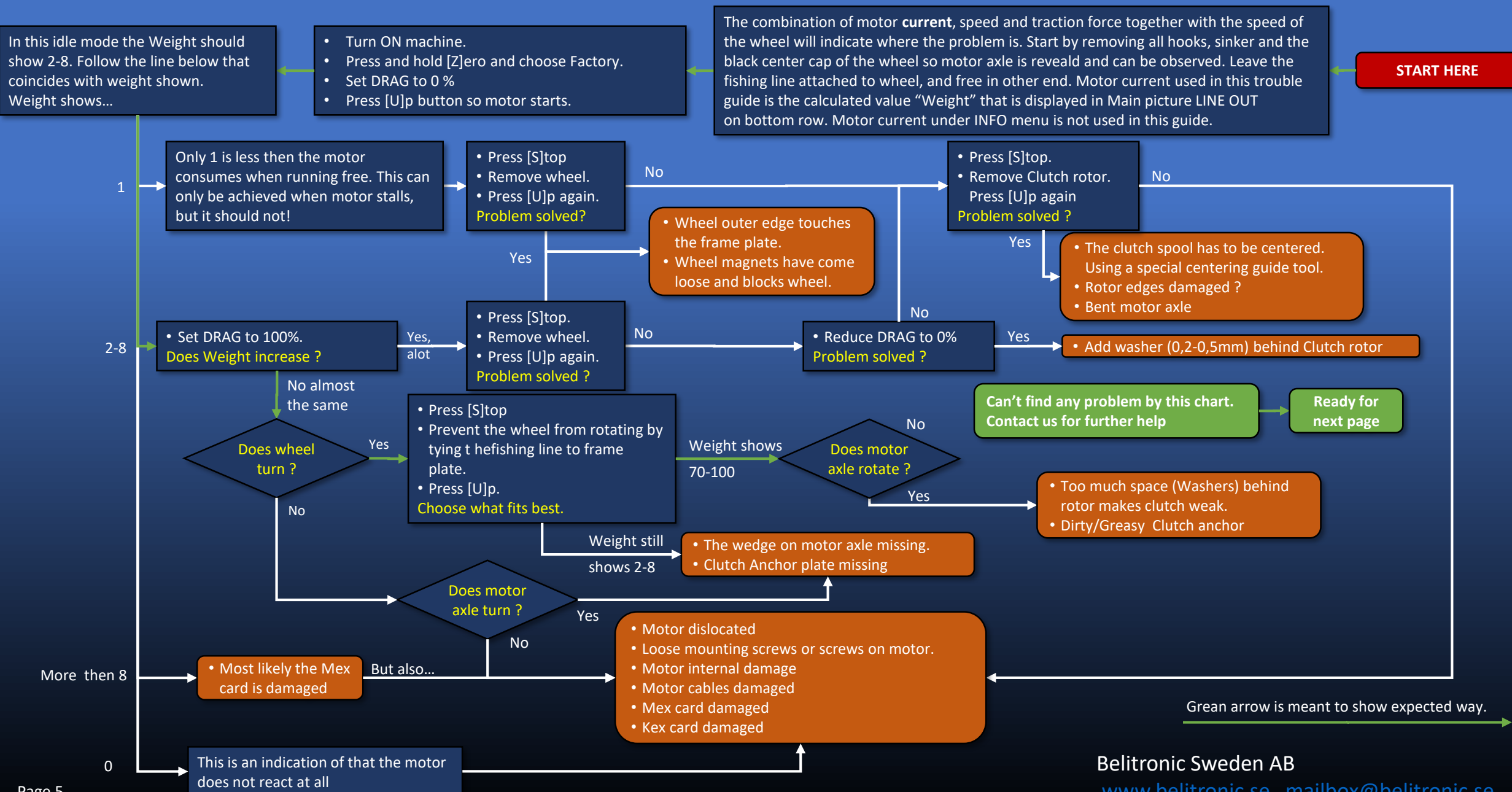   • Ex has5 ways to register catch (see page 3). To know which sensor that triggers catch the option to display Wheel status [E615 P] is a good help in understanding whats going on with the motor and wheel. This enables symbols and texts in main picture Line out that can be of help, when having problems.

Button functions and lables in manual

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Flow chart to solve troubles when motor does not start. (Complete this flow without problems before next page)

In this idle mode the Weight should show 2-8. Follow the line below that coincides with weight shown. Weight shows…

- Turn ON machine.
- Press and hold [Z]ero and choose Factory.
- Set DRAG to 0 %
- Press [U]p button so motor starts.

The combination of motor **current**, speed and traction force together with the speed of the wheel will indicate where the problem is. Start by removing all hooks, sinker and the black center cap of the wheel so motor axle is reveald and can be observed. Leave the fishing line attached to wheel, and free in other end. Motor current used in this trouble guide is the calculated value "Weight" that is displayed in Main picture LINE OUT on bottom row. Motor current under INFO menu is not used in this guide.

START HERE

1

Only 1 is less then the motor consumes when running free. This can only be achieved when motor stalls, but it should not!

- Press [S]top
- Remove wheel.
- Press [U]p again.
Problem solved?

No

- Press [S]top.
- Remove Clutch rotor. Press [U]p again
Problem solved ?

No

Yes

- Wheel outer edge touches the frame plate.
- Wheel magnets have come loose and blocks wheel.

Yes

- The clutch spool has to be centered. Using a special centering guide tool.
- Rotor edges damaged ?
- Bent motor axle

2-8

- Set DRAG to 100%.
Does Weight increase ?

Yes, alot

- Press [S]top.
- Remove wheel.
- Press [U]p again.
Problem solved ?

No

No

- Reduce DRAG to 0%
Problem solved ?

Yes

- Add washer (0,2-0,5mm) behind Clutch rotor

No almost the same

Does wheel turn ?

Yes

- Press [S]top
- Prevent the wheel from rotating by tying t hefishing line to frame plate.
- Press [U]p.
Choose what fits best.

Weight shows 70-100

Does motor axle rotate ?

No

Can't find any problem by this chart. Contact us for further help

Ready for next page

Yes

- Too much space (Washers) behind rotor makes clutch weak.
- Dirty/Greasy Clutch anchor

No

Weight still shows 2-8

- The wedge on motor axle missing.
- Clutch Anchor plate missing

Does motor axle turn ?

No

Yes

More then 8

- Most likely the Mex card is damaged

But also…

- Motor dislocated
- Loose mounting screws or screws on motor.
- Motor internal damage
- Motor cables damaged
- Mex card damaged
- Kex card damaged

Grean arrow is meant to show expected way.

0

This is an indication of that the motor does not react at all

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Flow chart to solve problems when the wheel goes too slow out or does not pay out line at all

Please first follow the Trouble guide on prior page first and make sure it passes, before following this one. This solves much of the common problems.

Continue here from prior page

No ← • Turn OFF machine
Is the wheel "Easy to rotate" ? (1) → **Yes**

Can wheel slide 0,5-1,0mm on motor axle ?
— **Yes** → If the test flow from next page went well, it should not be any problem to continue here, else do the "Trouble with motor start" on next page first. →
— **No** ↓

• Turn ON machine
• Set DRAG and BRAKE to 0
Is it easy to rotate now ? (4) — **Yes** →

Machine works, but the problem can be.
• Too light sinker, use 2 kilo as minimum. 3-4 is normal.
• Too much Brake.
• Damaged or to many pulleys stops line

• Loosen the center screw
Solved the problem?
— **No** →

Some possible failures
• Bent motor axle.
• Motor dislocated, check screws.
• Wheel blocked by loose magnets.
• Wheel outer edge touches against frame plate.
• Wheel bearings worn out.

No ↓ (from Turn ON machine)

• Add RP Pulses (3)
• Press Auto button

Yes ↓ (Loosen center screw)

Decrease washers thickness behind Clutch rotor.

Is wheel easy to rotate ? / Does Anchor plate (2) slide of?
— **No** Try again →
— **Yes** →

Problem was temporary magnetized Clutch anchor plate.

No RP does not help at all ↓

Clutch cables might be damaged. Check if they are squeezed between frame plate and Mex card. →

If cables are fine the problem is Mainboard

This flow chart covers many of all troubles that have been discovered in Ex, but not all, so we are happy to receive feedback for keep it up to date, if Your case doesn't get solved by it.

1) "Easy to rotate" means that user can rotate the Wheel or Clutch rotor by hand without much force
2) Clutch anchor plate is the "disc" between the clutch rotor and wheel that transfer the motor torque.
3) Activate RP (**R**everse **P**olarity Pulses) by setting Pulses=3, Puls time=0,1, Puls pause=0,1, Strength=50%. See user manual chapter **[E45]**
4) The motor is always easier to rotate one way compared to the other.

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