

TROUBLESHOOTING GUIDE FOR FOUR POINT (4 LOAD CELL) SCALE SYSTEMS

WHILE USING THE TROUBLESHOOTING GUIDE, SEVERAL SECTIONS REFER TO STANDING OR HANGING YOUR WEIGHT OVER EACH LOAD CELL. THIS IS AN IMPORTANT PART OF TROUBLESHOOTING YOUR SYSTEM, (WE CALL IT WALKING THE CORNERS). WE DO THIS TO CHECK THE SCALES ABILITY TO WEIGH YOU CORRECTLY WITH ALL FOUR LOAD CELLS. ALTHOUGH IT IS SOMETIMES DIFFICULT TO GET YOUR WEIGHT DIRECTLY OVER EACH LOAD CELL, IT IS AN IMPORTANT PART OF THE TEST.

EQUIPMENT REQUIRED:
#2 PHILLIPS SCREWDRIVER
SMALL FLAT BLADE SCREWDRIVER
PENCIL AND PAPER

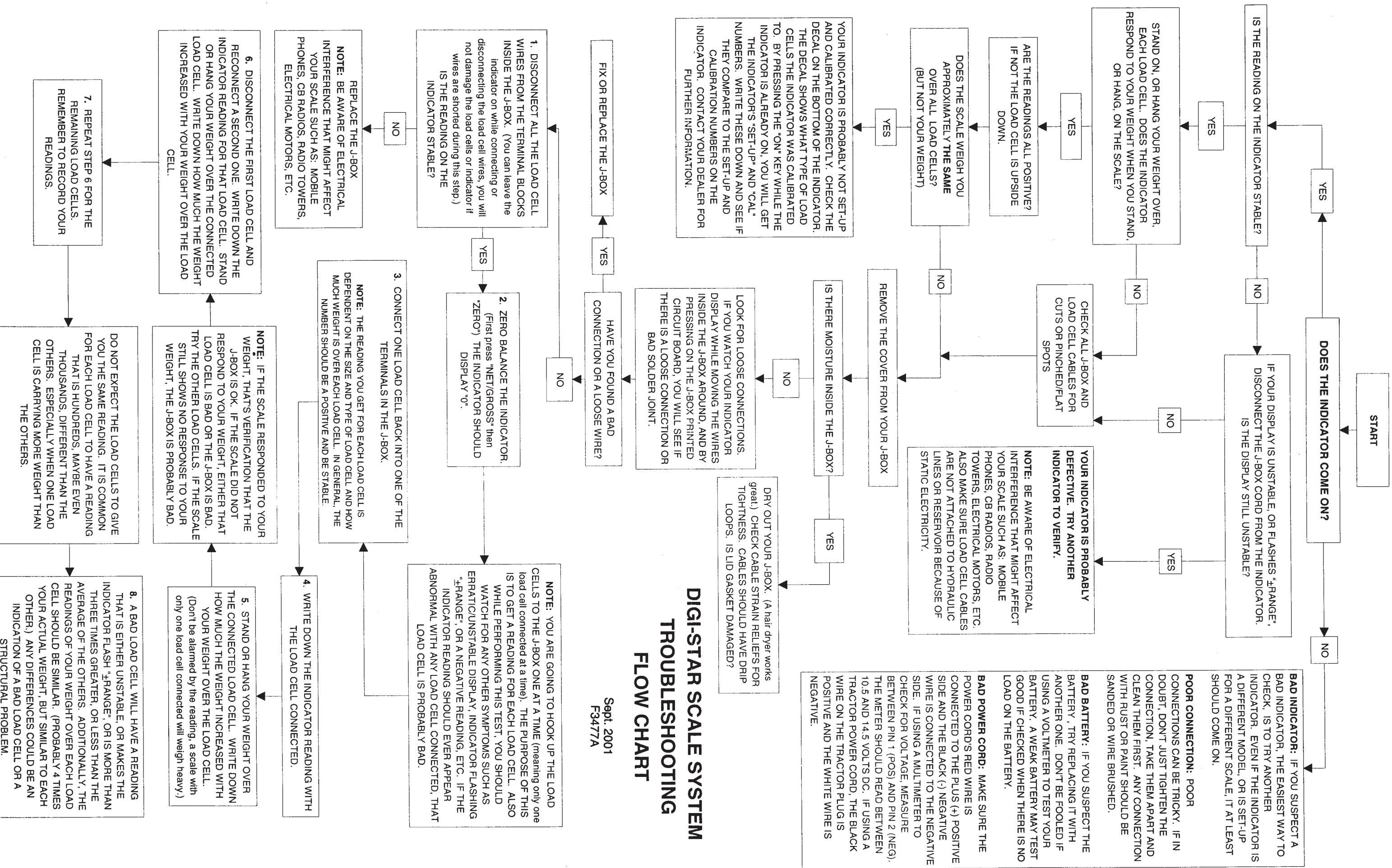
NOTE: THIS PROCEDURE WAS WRITTEN FOR DIGI-STAR (J-STAR) SCALE SYSTEMS UTILIZING EZ SERIES INDICATORS. IF YOU HAVE AN OLDER SCALE SYSTEM WHICH UTILIZES AN OMP SERIES INDICATOR, YOU SHOULD OBTAIN A DIFFERENT TROUBLESHOOTING PROCEDURE.

For future reference record this important information!

Dealer Name: _____ Date of Purchase: _____

Serial Number of Indicator: _____

Serial Number of Load Cells: _____



DIGI-STAR SCALE SYSTEM TROUBLESHOOTING FLOW CHART

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BAD INDICATOR: IF YOU SUSPECT A BAD INDICATOR, THE EASIEST WAY TO CHECK, IS TO TRY ANOTHER INDICATOR. EVEN IF THE INDICATOR IS A DIFFERENT MODEL, OR IS SET-UP FOR A DIFFERENT SCALE, IT AT LEAST SHOULD COME ON.

POOR CONNECTION: POOR CONNECTIONS CAN BE TRICKY. IF IN DOUBT, DON'T JUST TIGHTEN THE CONNECTION, TAKE THEM APART AND CLEAN THEM FIRST. ANY CONNECTION WITH RUST OR PAINT SHOULD BE SANDED OR WIRE BRUSHED.

BAD BATTERY: IF YOU SUSPECT THE BATTERY, TRY REPLACING IT WITH ANOTHER ONE. DON'T BE FOOLED IF USING A VOLTMETER TO TEST YOUR BATTERY. A WEAK BATTERY MAY TEST GOOD IF CHECKED WHEN THERE IS NO LOAD ON THE BATTERY.

BAD POWER CORD: MAKE SURE THE POWER CORD'S RED WIRE IS CONNECTED TO THE PLUS (+) POSITIVE SIDE AND THE BLACK (-) NEGATIVE WIRE IS CONNECTED TO THE NEGATIVE SIDE. IF USING A MULTIMETER TO CHECK FOR VOLTAGE, MEASURE BETWEEN PIN 1 (POS) AND PIN 2 (NEG). THE METER SHOULD READ BETWEEN 10.5 AND 14.5 VOLTS DC. IF USING A TRACTOR POWER CORD, THE BLACK WIRE ON THE TRACTOR PLUG IS POSITIVE AND THE WHITE WIRE IS NEGATIVE.

YOUR INDICATOR IS PROBABLY NOT SET-UP AND CALIBRATED CORRECTLY. CHECK THE DECAL ON THE BOTTOM OF THE INDICATOR. THE DECAL SHOWS WHAT TYPE OF LOAD CELLS THE INDICATOR WAS CALIBRATED TO. BY PRESSING THE "ON" KEY WHILE THE INDICATOR IS ALREADY ON, YOU WILL GET THE INDICATOR'S "SET-UP" AND "CAL." NUMBERS. WRITE THESE DOWN AND SEE IF THEY COMPARE TO THE SET-UP AND CALIBRATION NUMBERS ON THE INDICATOR. CONTACT YOUR DEALER FOR FURTHER INFORMATION.

YOUR INDICATOR IS PROBABLY DEFECTIVE. TRY ANOTHER INDICATOR TO VERIFY.

NOTE: BE AWARE OF ELECTRICAL INTERFERENCE THAT MIGHT AFFECT YOUR SCALE SUCH AS: MOBILE PHONES, CB RADIOS, RADIO TOWERS, ELECTRICAL MOTORS, ETC. ALSO MAKE SURE LOAD CELL CABLES ARE NOT ATTACHED TO HYDRAULIC LINES OR RESERVOIR BECAUSE OF STATIC ELECTRICITY.

LOOK FOR LOOSE CONNECTIONS. IF YOU WATCH YOUR INDICATOR DISPLAY WHILE MOVING THE WIRES INSIDE THE J-BOX AROUND, AND BY PRESSING ON THE J-BOX PRINTED CIRCUIT BOARD, YOU WILL SEE IF THERE IS A LOOSE CONNECTION OR BAD SOLDER JOINT.

NOTE: YOU ARE GOING TO HOOK UP THE LOAD CELLS TO THE J-BOX ONE AT A TIME (meaning only one load cell connected at a time). THE PURPOSE OF THIS IS TO GET A READING FOR EACH LOAD CELL. ALSO WHILE PERFORMING THIS TEST, YOU SHOULD WATCH FOR ANY OTHER SYMPTOMS SUCH AS ERRATIC/UNSTABLE DISPLAY, INDICATOR FLASHING "RANGE", OR A NEGATIVE READING, ETC. IF THE INDICATOR READING SHOULD EVER APPEAR ABNORMAL WITH ANY LOAD CELL CONNECTED, THAT LOAD CELL IS PROBABLY BAD.

REPLACE THE J-BOX

NOTE: BE AWARE OF ELECTRICAL INTERFERENCE THAT MIGHT AFFECT YOUR SCALE SUCH AS: MOBILE PHONES, CB RADIOS, RADIO TOWERS, ELECTRICAL MOTORS, ETC.

NOTE: THE READING YOU GET FOR EACH LOAD CELL IS DEPENDENT ON THE SIZE AND TYPE OF LOAD CELL AND HOW MUCH WEIGHT IS OVER EACH LOAD CELL. IN GENERAL, THE NUMBER SHOULD BE A POSITIVE AND BE STABLE.

6. DISCONNECT THE FIRST LOAD CELL AND RECONNECT A SECOND ONE. WRITE DOWN THE INDICATOR READING FOR THAT LOAD CELL. STAND OR HANG YOUR WEIGHT OVER THE CONNECTED LOAD CELL. WRITE DOWN HOW MUCH THE WEIGHT INCREASED WITH YOUR WEIGHT OVER THE LOAD CELL.

NOTE: IF THE SCALE RESPONDED TO YOUR WEIGHT, THAT'S VERIFICATION THAT THE J-BOX IS OK. IF THE SCALE DID NOT RESPOND TO YOUR WEIGHT, EITHER THAT LOAD CELL IS BAD OR THE J-BOX IS BAD. TRY THE OTHER LOAD CELLS. IF THE SCALE STILL SHOWS NO RESPONSE TO YOUR WEIGHT, THE J-BOX IS PROBABLY BAD.

7. REPEAT STEP 6 FOR THE REMAINING LOAD CELLS. REMEMBER TO RECORD YOUR READINGS.

DO NOT EXPECT THE LOAD CELLS TO GIVE YOU THE SAME READING. IT IS COMMON FOR EACH LOAD CELL TO HAVE A READING THAT IS HUNDREDS, MAYBE EVEN THOUSANDS, DIFFERENT THAN THE OTHERS. ESPECIALLY WHEN ONE LOAD CELL IS CARRYING MORE WEIGHT THAN THE OTHERS.

8. A BAD LOAD CELL WILL HAVE A READING THAT IS EITHER UNSTABLE, OR MAKES THE INDICATOR FLASH "RANGE", OR IS MORE THAN THREE TIMES GREATER, OR LESS THAN THE AVERAGE OF THE OTHERS. ADDITIONALLY, THE READINGS OF YOUR WEIGHT OVER EACH LOAD CELL SHOULD BE SIMILAR. (PROBABLY 4 TIMES YOUR ACTUAL WEIGHT, BUT SIMILAR TO EACH OTHER.) ANY DIFFERENCES COULD BE AN INDICATION OF A BAD LOAD CELL OR A STRUCTURAL PROBLEM.