



TORQUE LOGIC

MORE THAN JUST TORQUE

Installation, Operating and Troubleshooting Manuals





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PREFACE

Please read and follow this Operations Manual carefully, before installation and operation of the Product. Not following the individual points and recommendation in the operations manual can lead to personnel accident or damaged to the product and equipment.

Operation of the system is only permitted with equipment and spare parts supplied by Digga or listed in the spare parts and its consumables lists. Using other peripherals or alternative parts may void the warranty of the product.

The specifications and descriptions in this manual are subject to change without prior notice. Digga reserves the right to improve the product in order to sustain the highest quality, delivered to our customers.

Some product improvements may have been in place after this manual was printed. For the updates and information about the product, please contact Digga or your local Digga Dealer.

PRODUCT INTRODUCTION

TORQUE LOGIC is a revolutionary new torque monitoring and data logging system that can fit any type of drive head. Where conventional differential hydraulic pressure readings can be 30 - 50% out, the TORQUE LOGIC monitoring system offers true torque readings that are 99%+ accurate! TORQUE LOGIC works simply by replacing your current OEM drive head mounting pin(s). There is absolutely no loss of boom height which can occur with other systems.

TECHNOLOGY

Utilizing strain gages, internal CPU, RAM and other electronics, the TORQUE LOGIC can guarantee highly accurate, real time torque readings. An inclinometer built into the TORQUE LOGIC ensures that you maintain a consistent angle of insertion. The TORQUE LOGIC software records important data such as pile number, final torque, peak torque and elapsed time. This data can be exported to an Excel spread- sheet and transferred by e-mail or memory stick to your engineer/customer.

SAFETY

Consistent and real time monitoring of torque will prevent over-torque which can often result in pile failures (piles sheared or buckled). The inclinometer also removes the need (and associated risk) for personnel to stand beneath the drive head to assist the operator in maintaining a proper insertion

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7" PR3820 DISPLAY OPERATING MANUAL

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SAFETY SYMBOLS AND STATEMENTS

DANGER



THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

WARNING



THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

CAUTION



THIS STATEMENT IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



THIS STATEMENT REPRESENTS TO CALL YOUR ATTENTION INVOLVING USERS SAFETY AND PRODUCT PERFORMANCE REQUIREMENTS. FAILURE TO FOLLOW THE INSTRUCTIONS CAN RESULT TO INJURY, DEATH OR PRODUCT PERFORMANCE DEGRADATION.

GENERAL SAFETY PRECAUTIONS

WARNING



Always wear the proper personal protective equipment for the job you're doing.

WARNING



When working on or near heavy equipment, approved hard hat and steel toe boots are recommended.

WARNING



Lower the boom of the machine onto solid footing before attempting to remove the OEM Pin.

WARNING



Turn off the power and apply the parking brake.

WARNING



Use your knees not your back when picking up and placing heavy Torque Logic Pins

CAUTION



Wear approved welding shield when welding stopper into place.

CAUTION



Inspect tools, be sure proper guards are in place.

WARNING



Safety is the responsibility of the individual. Observe all safety procedures as outlined by your employer.

GENERAL SAFETY PRECAUTIONS

WARNING



Inspect the product prior use for any defects such as cracks, chipped, open wirings, deformation, etc.

WARNING



Inspect all parts, be sure all parts are installed properly and in a safe condition

WARNING



Follow decal labels on the product and safety signs in the work area.

WARNING



Emergency preparedness is necessary and be sure to follow all instructions from the safety officer during evacuation.

WARNING



Remove all tools and unused parts from equipment before beginning the operations.

PRODUCT WASTE DISPOSAL



Disposal of Product

Do not dispose the smart pins, screens and harnesses in the domestic waste!

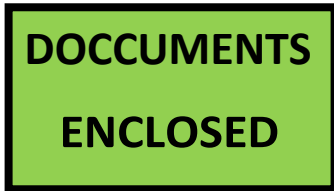
Electronics devices and batteries have to be dispose according to the regional directives on electronic and electrical waste disposal.

In case of further questions, please ask your local waste management authorities.

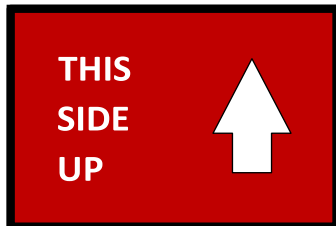
PRODUCT/SAFETY DECALS



THIS INFORMATION STATED THAT HITTING THE PIN BY HAMMER OR A HARD OBJECT IS NOT ALLOWED



THIS INFORMATION STATED THAT THE INSTALLATION AND OPERATING MANUALS ARE COMPLETE INSIDE THE BOX.



THIS INFORMATION STATED THAT THE PRODUCT CANNOT BE STORED OR ORIENTED ON UPSIDE DOWN POSITION. DAMAGE TO PRODUCT MAY OCCUR.



THIS INFORMATION STATED THAT THE PRODUCT NEEDS TO BE HANDLED WITH CARE, DROPPING MAY RESULT TO A DAMAGED PRODUCT



THIS INFORMATION STATED THAT DO NOT LOAD OR TRANSPORT PACKAGE IF DAMAGED. RISK OF FIRE IF THE BATTERY IS DAMAGED.



THESE INFORMATIONS STATED THAT DO NOT EXPOSED TO HEAT/FIRE AND DO NOT WELD WHEN INSTALLED OR GROUND-ED ON THE BODY OF THE EQUIPMENT

PRODUCT GENERAL INFORMATION

Harness:

12V to 32 V DC – Under no circumstances switch on the device if the voltages do not correspond.

Inlet fuse rating: 3 Amp

Switch



- Supplies Monitors and Pin from 12V to 32V DC

Prevent unplugging of Inlet supply without turning off the Switch.
Data Corruption may occur.

Pin

- ☐ Modula weight: 2.64 lbs (8"); 1.25 lbs. (4")

Operating supply voltage range: 12V to 32V: Supplied by the Harness



- System available for all major drive heads up to 375,000 Ft. lbs.
- Built in digital Inclinator for piling angle referencing
- Uses SAE J1939 Can-Bus Communication



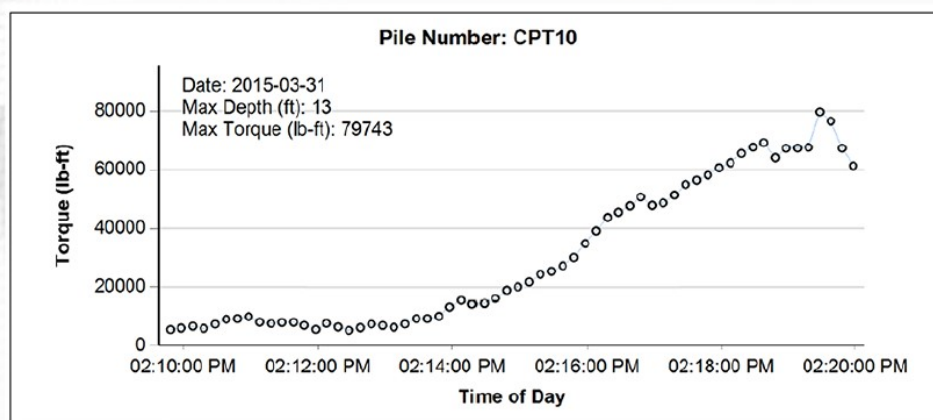
TORQUE LOGIC

MORE THAN JUST TORQUE

Installation Manual



REPORT GENERATION SOFTWARE



INSTALLATION INSTRUCTIONS

WARNING!



THE TORQUE LOGIC HAS A COMPUTER PROCESSOR BOARD INSERTED IN THE END OF THE PIN THESE ACTIONS WILL VOID THE WARRANTY!

Hitting the Torque Logic with a hammer or any other object. Grounding to the Torque Logic while welding. Using excessive heat on or close to the Torque Logic Dropping the Pin



Tools Required For Installation

Level
Zip Ties
Hex Socket Set
Welder & Rods
Hammer Wrench
Combination Wrench
Stopper
Shop Rags

Personal Protective Equipment

Safety Glasses	Steel Toe Boots
Coveralls	Gloves
Hard Hat	Safety Glasses

Torque Logic Installation Kit

Torque Logic
Dowel & End Cap
Steel socket capscrew
2 Washers
3 Nuts
Threaded Rod

Cables

Main Cable Jib Cable
Extension Cable
Junction Box

Pran

Display

7" Display

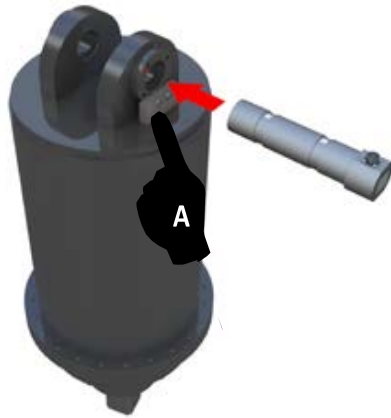
Pran Harness Ram

Mount

INSTALLATION INSTRUCTIONS

DIRECTIONS

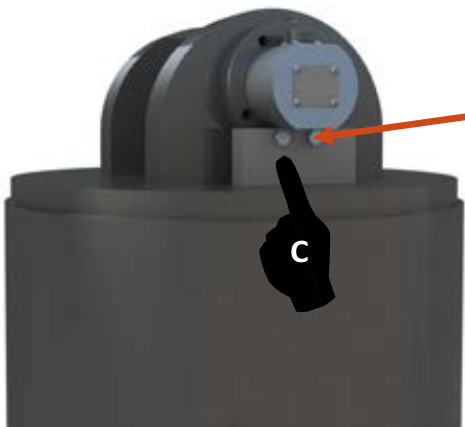
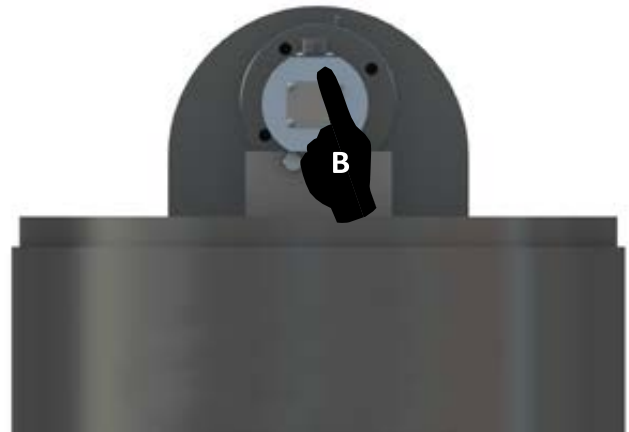
1. Fasten the drive in a sturdy position and remove the OEM pin out from the top of the drive.



Manufacturer may have Stop Block in place.

- A. Insert the Torque Logic into the holes of the bails/ ears to align pin placement.

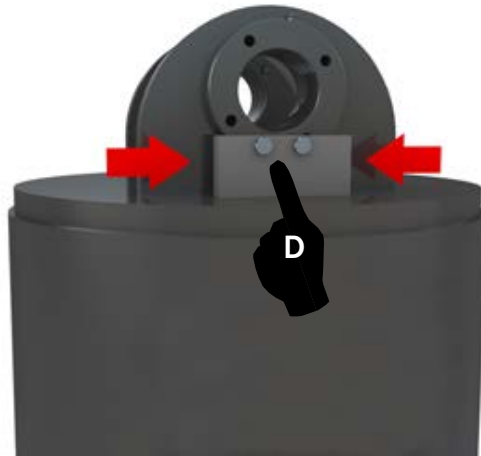
- B. The connector on the Torque Logic must be facing up and parallel with the drive. (Use a level to assure correct placement).



- C. The Torque Logic has a flat spot on the bottom. Mark the placement of the flat area as this is where you will need to secure the pin with a bolt on, or a bar welded to the bails/ears. This will keep the Torque Logic in position with the drive to ensure accurate torque readings.

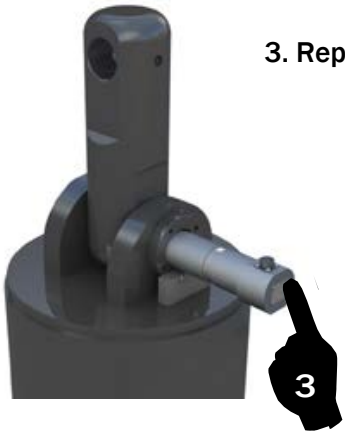
INSTALLATION INSTRUCTIONS

D. Bolt or weld a stopper into place



WARNING: Do not ground to the Torque Logic. Tack the sides of the stopper, then remove the Torque Logic before solidly welding the stopper in place. Too much heat may affect the –CPU|| board.

3. Replace the knuckle/wishbone and push the Torque Logic into the drive as far as it will go, ensuring the connector is always facing up.



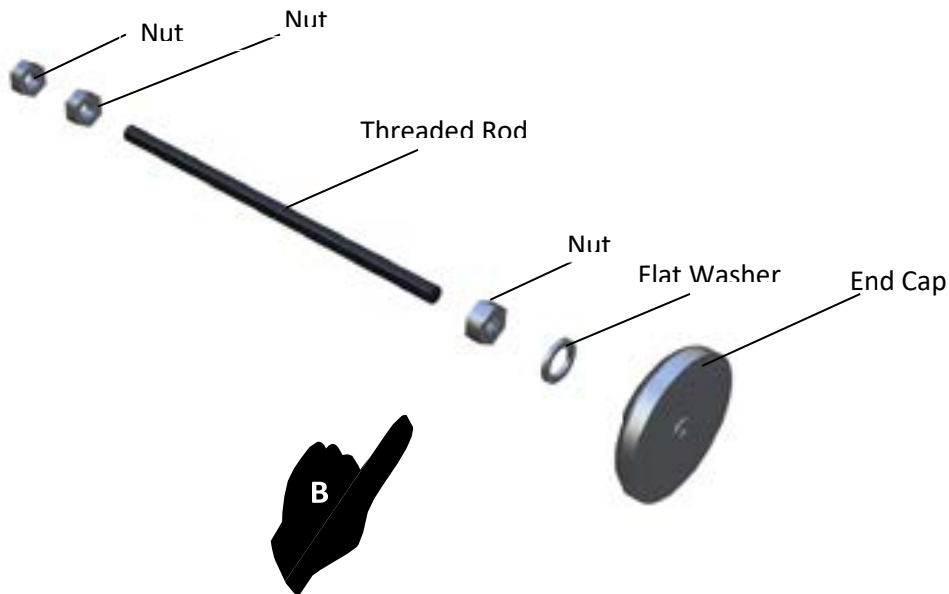
WARNING: Do not hammer or tap the Torque Logic into place. This action will damage the –CPU|| and void the warranty.

INSTALLATION INSTRUCTIONS

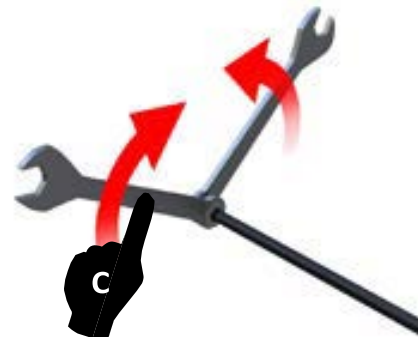
A. When placing a large heavy Torque Logic, it is advisable to use the threaded rod and nuts (supplied) to draw the Torque Logic through the bails/ears.



B. Assemble rod as shown



C. Position the 2 end nuts on the rod and adjust according to the amount of rod you will require to effectively pull the Torque Logic through the bails. Using 2 wrench's tighten the end nuts against one another.



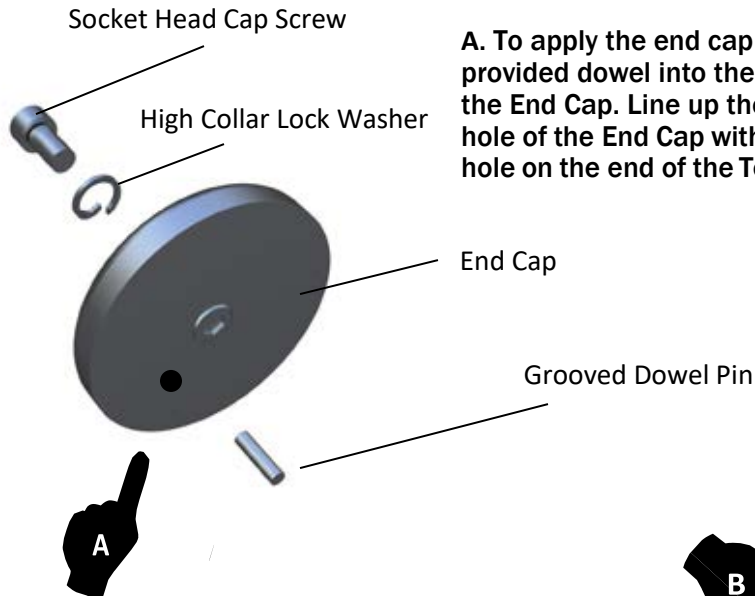
INSTALLATION INSTRUCTIONS

D. Hold the 2nd nut tight while steadily turning the nut closest to the end cap in a clockwise motion. This action will draw the Torque Logic through the bails/ears. Be careful not to apply too much pressure as this may damage the threaded hole in the end of the Torque Logic.



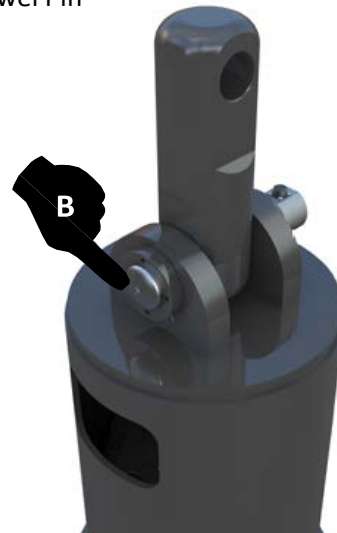
INSTALLATION INSTRUCTIONS

END CAP



A. To apply the end cap to the Torque Logic, insert the provided dowel into the unthreaded hole in the end of the End Cap. Line up the dowel hole and the threaded hole of the End Cap with the dowel hole and the threaded hole on the end of the Torque Logic.

B. Secure the End Cap to the Torque Logic using steel socket cap screw and lock washer (provided). It is recommended to use BLUE LOCK TIGHT on the cap screw.



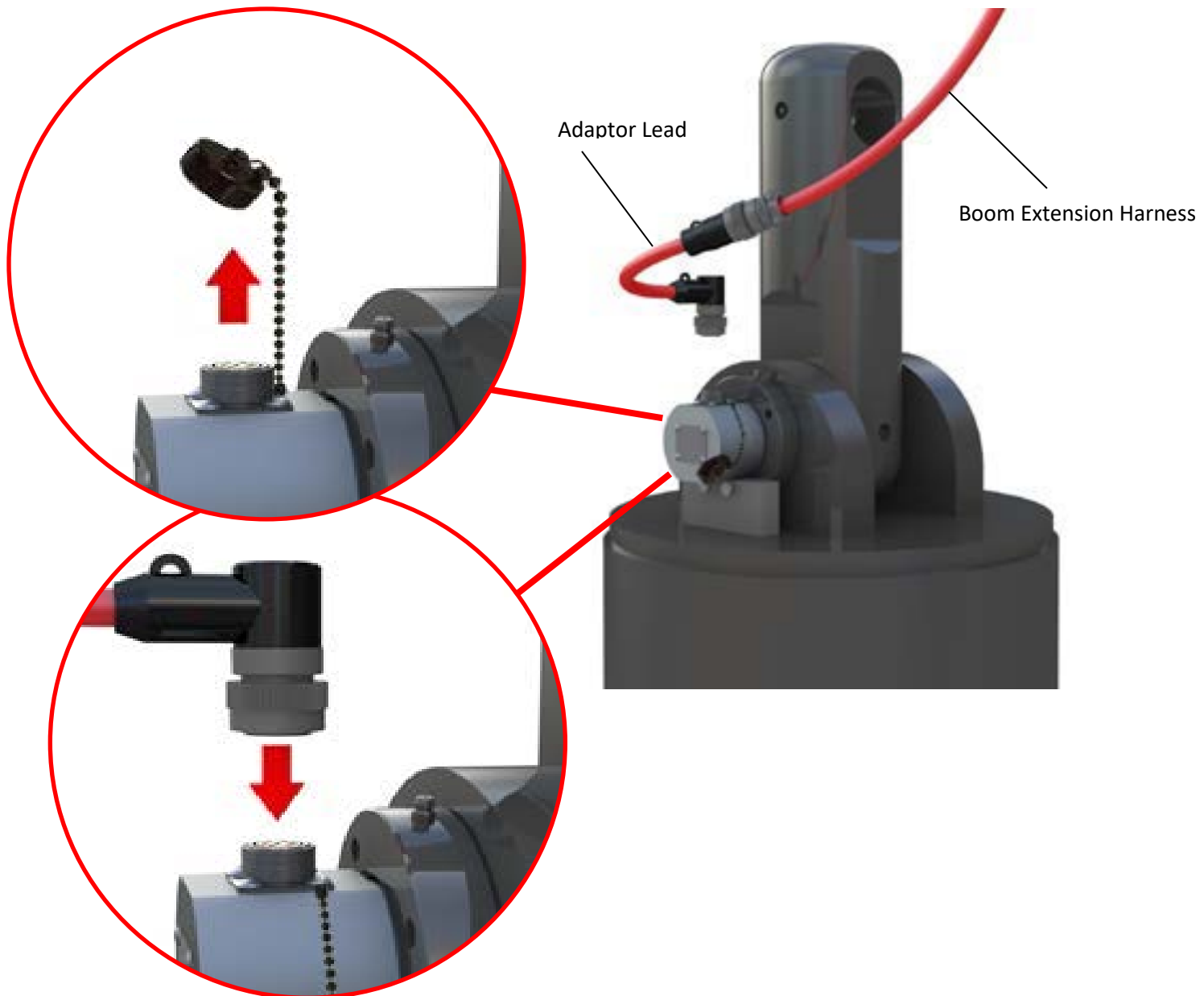
INSTALLATION INSTRUCTIONS

CABLING



A Jib cable (adaptor lead) is recommended between the Torque Logic and the disconnect of your drive. Using a jib cable in this area will prevent damage to the main cable and is easier to replace in the event it does get damaged.

A). Unscrew dust cover and attach the cable to the Digga Torque Logic. Be sure to align the pins inside the cable connector with the holes on the Digga Torque Logic connection.



INSTALLATION INSTRUCTIONS



B) Tuck and weave all cables in and behind the hydraulic lines running along the boom, zip tying into place as you go. At the end of the boom run the main cable between the body of the vehicle and the cab.

INSTALLATION INSTRUCTIONS

- C. Attach the Pran Harness (provided) to the main cable. Make sure to avoid pinch points when routing the Pran Harness inside the cab of the machine.
- D. Decide where to mount the Pran Display, which will be convenient to the operator, close to a power source
- E. Use the Ram Mount (provided) and attach it to the area inside the cab that you have selected.



Triple Suction Cup Ram Mount

- F. Attach the Pran Harness to the Pran Display, then the Display to the Ram Mount. Ensure all connections are secure.
- G. Do a final check outside the cab to ensure the Torque Logic and end cap are secured properly, and all cable connections are tight, with cabling free and clear of pinch points.



Warning: Protect the Pran Display by carefully following the recommendations below.

When using the display always use the on/off switch on the harness to control power. Never disconnect the power by pulling the plug from the power source. This can result in corruption of data stored in your Display.

Do not tap on the screen of the Pran Display with any object other than your finger. Hard or pointed object may damage the screen.

Important Note: The Pran Harness is equipped with battery back up in the event of accidental disconnection, however it is not recommended for steady use.

See Pran Display Operating Manual for complete instructions.

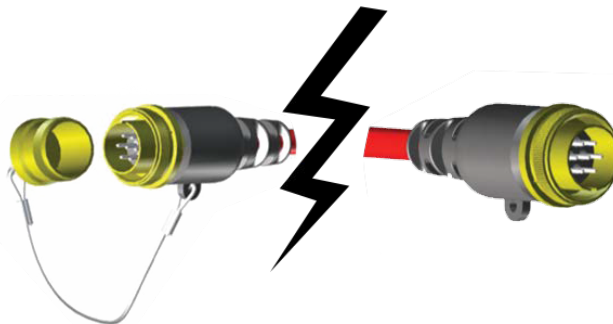


TORQUE LOGIC

MORE THAN JUST TORQUE

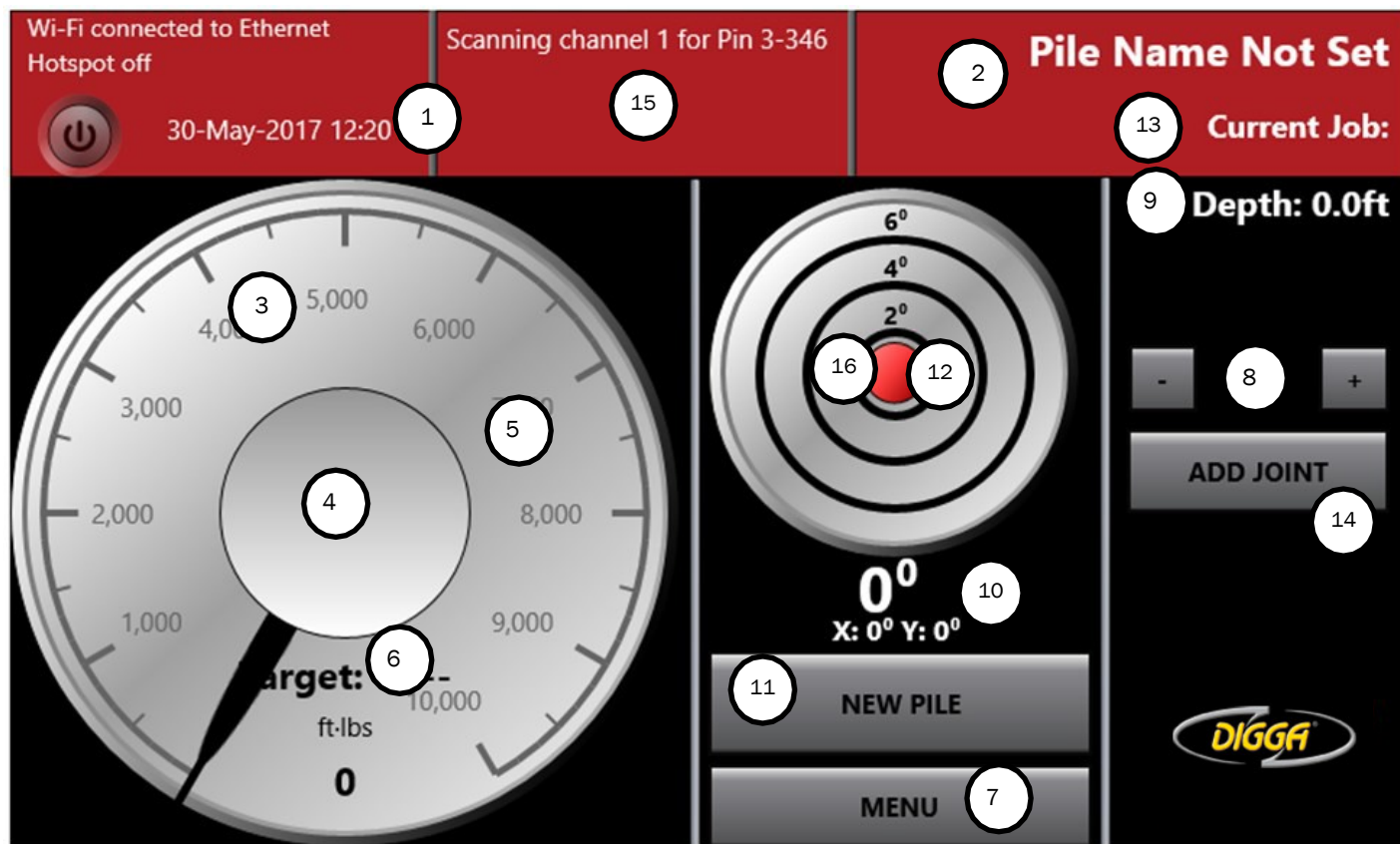
Operating Manual

DIGGA 7" MULTI TOUCH DISPLAY



MAIN SCREEN FUNCTIONS

The DIGGA PR3843 Color Display at a Glance



- | | |
|--|--------------------------------|
| 1. Date | 8. Manually Enter Joint length |
| 2. Pile Name | 9. Depth |
| 3. Dial Indicator Live Torque | 10. X-Y |
| 4. Change dial range or Set Zero Calibration | 11. New pile |
| 5. Numeric Indicator Live Torque | 12. Inclinator |
| 6. Target Torque for Indicator | 13. Current job |
| 7. Main Menu | 14. Add Joint |
| | 15. Serial # for wireless |
| | 16. Pin orientation |



Step 1

Attach the black harness to the back of the display and plug the other end into the cigarette lighter in the machine, it must be plugged it at all times to work.

Step 2

Turn on the display the power button is located on the top left of the display. Be sure when turning it off you use the shutdown button located in the menu or on the top left side of the display, select shutdown. Using the power button to turn off could cause the display to corrupt.

Connect to Pin



1. Hardwired version will connect automatically.

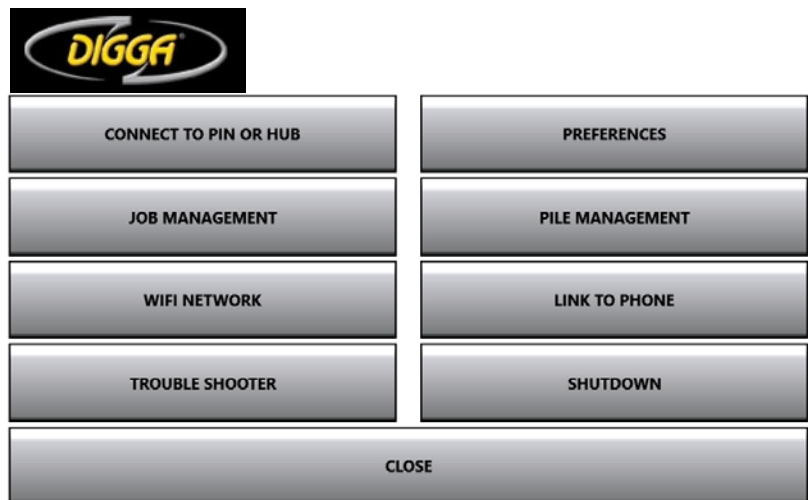
DIGGA 7" DISPLAY OPERATING GUIDE

Job Creation and selection

2. Touch the menu button.



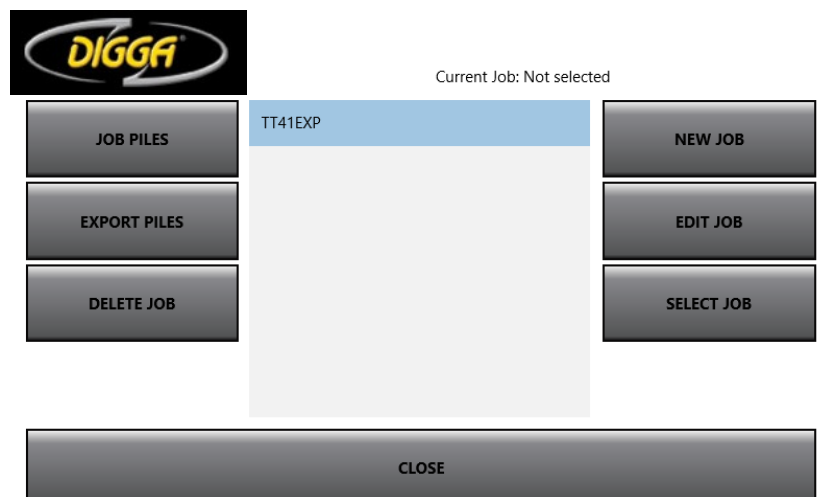
3. Touch the Job Management



4. Touch new job

Job information Screen will appear, enter job name. Touch select job.

Note: As many new jobs many be entered as required



DIGGA 7" DISPALY OPERATING GUIDE

Job Creation and Selection

5. Touch new pile from main screen.
6. Touch new pile enter pile name using the pop up keyboard.

Note: Pile name is a mandatory entry as it appears on your data report when downloaded to the Excel Report.

8. Touch Save when complete.

Note: Filling out the rest of the fields is not mandatory, but is recommended for data export to the Excel Report

After completing the Data information Input. Touch the save button

Highlight the Job that you've created.

Touch Select pile to show it on the Current Job

Note: At any time you can click on the pile name on the main screen to see the information of that pile

Note: If at any time you need to edit the pile, touch menu, job management, highlight the pile that needs edit click edit, enter the information and click save.



Pile Name	PILE 57A
Target Torque (ft-lbs)	
Target Depth (ft)	
GPS Latitude	0
GPS Longitude	0
CLOSE SAVE	

DIGGA 7" DISPLAY OPERATING GUIDE

Setting Target/Optimum Torque/Torque Range

1. On the main screen, touch anywhere in the circle on left to Zero calibration, then click Zero calibration, this may take up to 20 seconds.

2. To Set the Torque Range Selector
Touch anywhere on the live torque dial indicator Main screen to bring up the Range

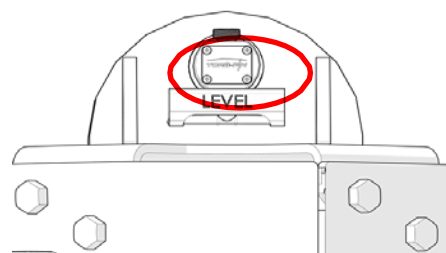
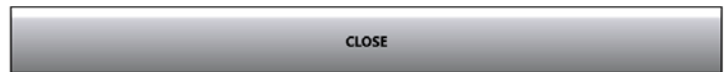
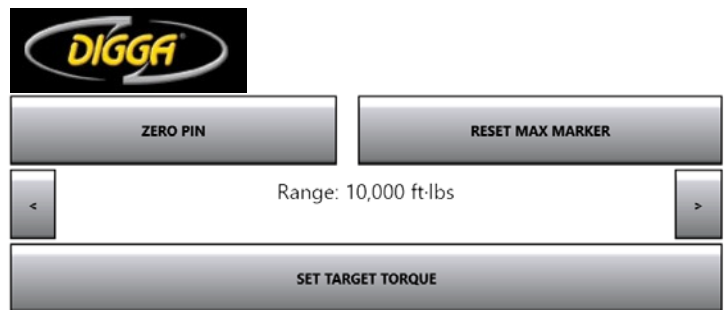
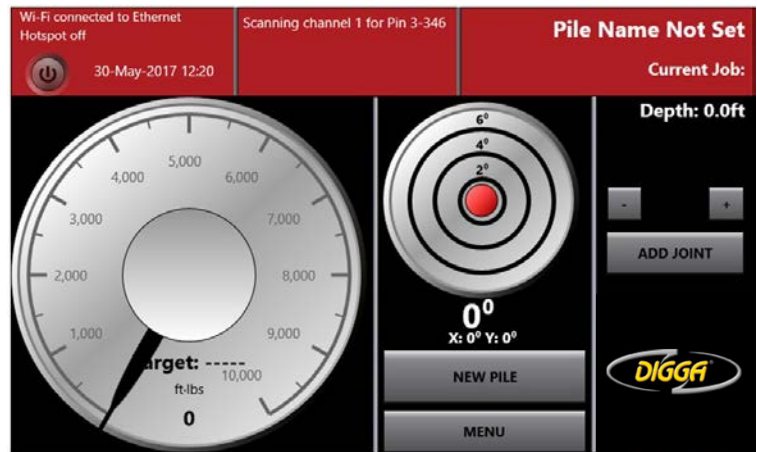
Use the arrow keys to set the desired range. Press close

3. To set the target Torque
On main screen touch anywhere in the circle on the left, click Set target torque, enter desired Torque.
Touch Set target torque, touch close
When target is reached the indicator will turn green.

Note: If the torque shows a non-zero value when the drive is hanging free, user may press ZERO CALIB to calibrate the display. This may take a few seconds.



It is mandatory to level the pin perpendicular to the Drive Head and prevent it from rotating by inserting a block on the Torque Pin head. This is to make sure that it gives an accurate Torque reading.



DIGGA 7" DISPLAY OPERATING GUIDE

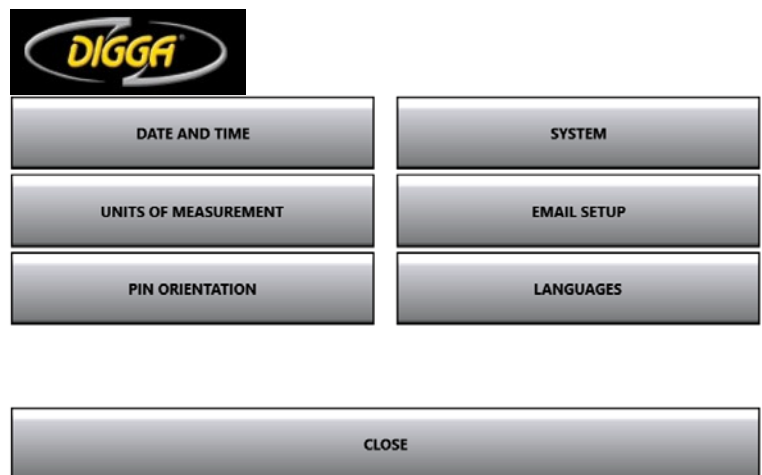
Pin Orientation

Note: In order to calibrate the inclinometer properly and orientate the pin, install the Torq-Pin in the drive head the direction you wish, cable head up.

Sitting in Prime Mover select one of the 4 options based on the direction the pin is installed.

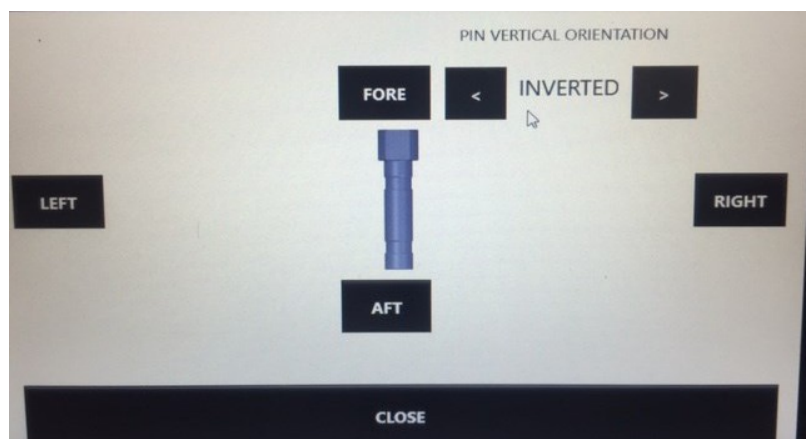


1. Touch Menu
2. Touch Preferences
3. Touch pin orientation



4. Pin Orientation can be manipulated by touching any of the 4 grey "position boxes" (Fore, Aft, Right, Left) surrounding the pin image.

You have 2 options to install the pin, normal or inverted.



DIGGA 7" DISPLAY OPERATING GUIDE

Inclinometer Bull's Eye Resolution Selector

1. To zero the Bull's Eye:

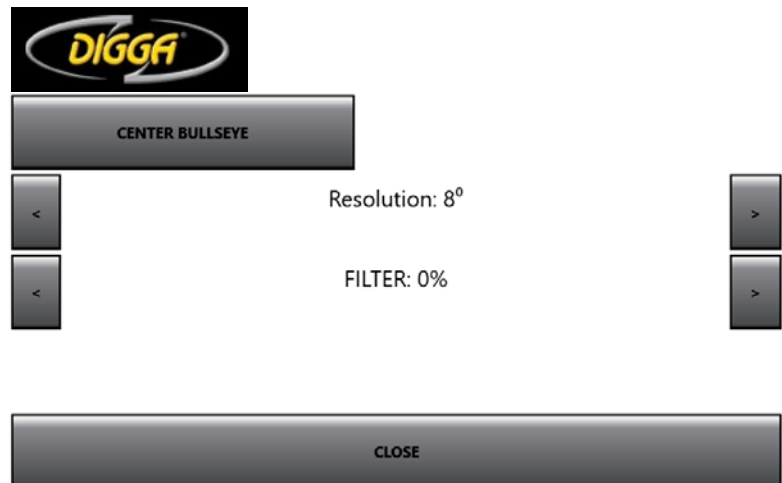
Insertion touch anywhere on the Inclinometer. (Click center bullseye)



2. To set resolution:

Use the arrow keys to set resolution. Resolution available: (degree allowance):

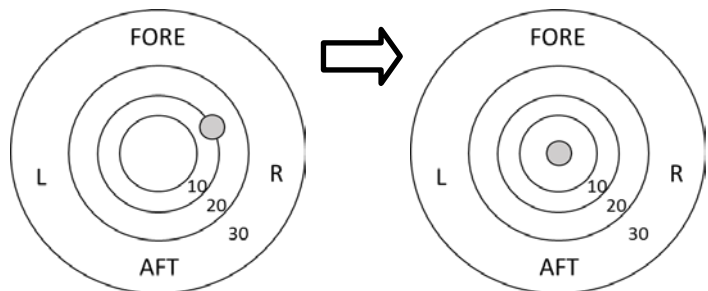
3. To set the filter, this is to increase or decrease the sensitivity of the bullseye only



Note:

For angled (battered) piles:
User can select the desired angle of insertion by centering the green dot in the Bull's Eye.

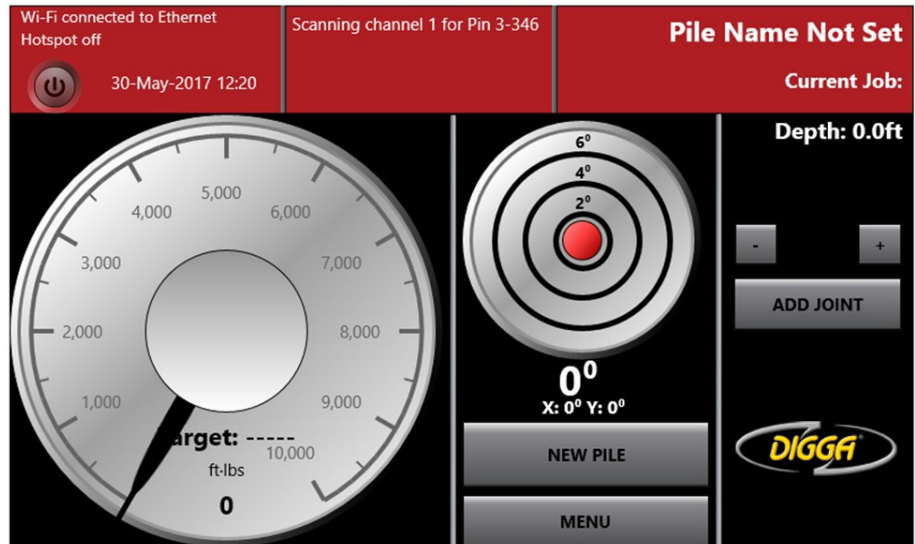
Move prime mover forward or back until the desired angle is achieved, as indicated in the upper corner of the display. Once the angle is reached, touch the Inclinometer, Center Bull's Eye & OK on pop up. This will make the chosen angle the new "center" of the bull's eye.



DIGGA 7" DISPLAY OPERATING GUIDE

Add a joint.

1. In the event you need to add Joint. Touch add joint.



2. Enter the extended joint length on the on screen keypad.

3. Click enter

Once joint is added you can use the Plus or minus to add in 1 foot increments.

Enter length of new joint in ft

CANCEL

0	1	2	3	4	5
6	7	8	9	.	ENTER

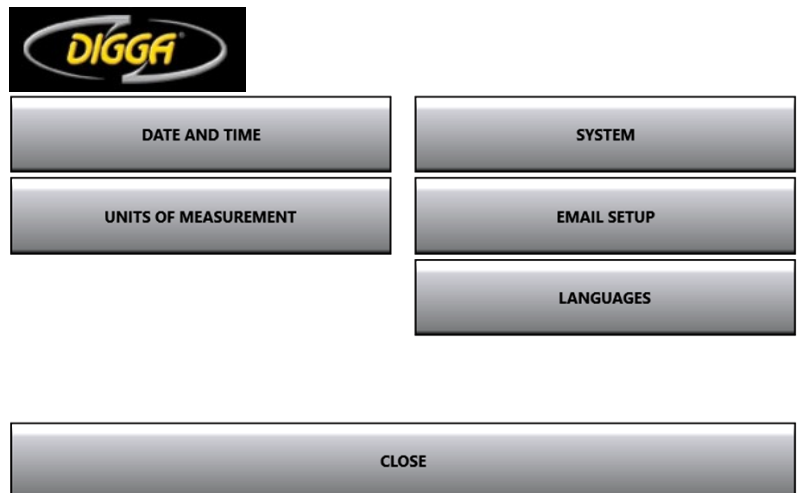
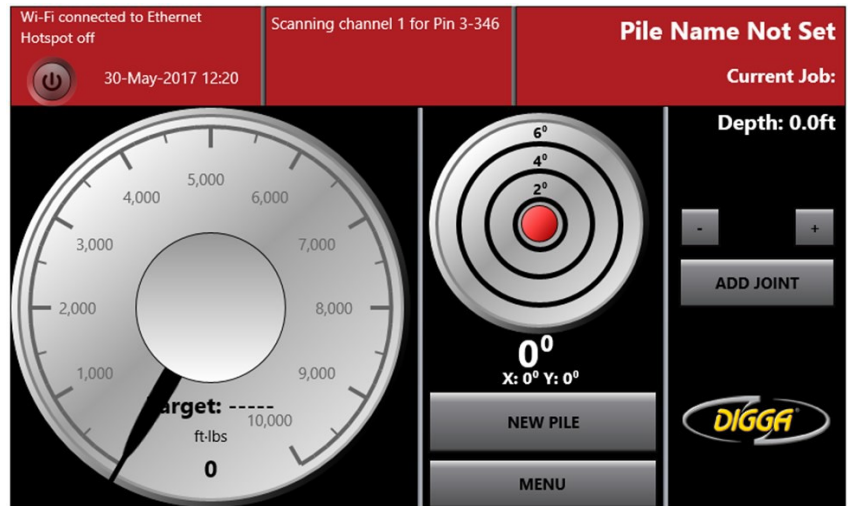
DEL CLR

DIGGA 7" DISPLAY OPERATING GUIDE

Setting Units of Measurement, and Language

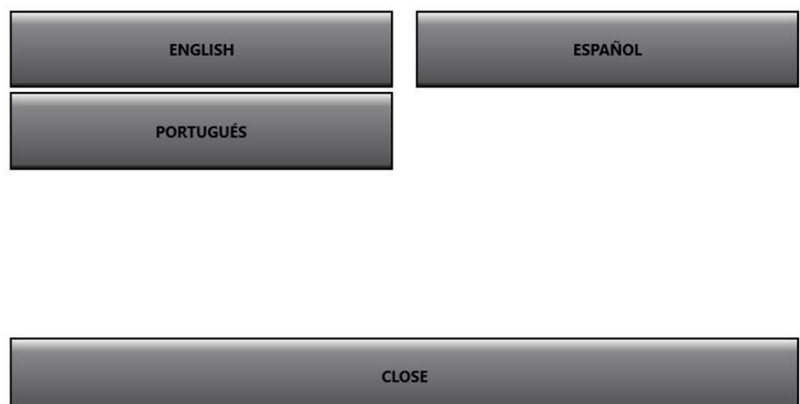
To set the unit of measurement:

1. Touch menu.
2. Preferences.
3. Set unit of measurement.
4. Touch select Torque unit and change to ft./lbs. or N.m.
5. Touch length unit select ft. or meters.
6. Touch close menu.



To set Language:

7. Touch menu, Language and choose from the following.
8. Touch Close menu.



DIGGA 7" Display OPERATING GUIDE

Exporting Piling jobs

NOTE: You can export to USB

1. Touch Menu

2. Touch job management



3. Highlight the job you wish to export, click export piles, or you can just preview.



EXPORTING PILES CONTIUNED

Torque-report

TT41EXP Torque Report

Job: TT41EXP

This report covers the following piles

Pile	Date Drilled	Target Torque	Torque Achieved	Page
PILE 67A		0lb.ft 0N.m		

CLOSE



Troubleshooting Guide



DTL DISPLAY OPERATING GUIDE
Troubleshooting Guide: Wired Connections

Problem Description	Indication of the problem	Potential Solutions
No Power on the Screen	Black Out Screen No LED Indicator on the Screen	• Check Fuse of the Socket • Check if power switch is turned on • Check if Cable connection to Monitor is connected
Power Switch doesn't turn on	No Supply coming out of the Socket	• Check Fuse on the inlet of the Power Supply • Check switch if working: Check Continuity of switch contact • Check harness continuity
Monitor Intermittently Flickering, White Screen	White Screen, Slow Start on the Screen	• Vehicle Alternator voltage Low <13 v • Check harness continuity
Monitor has no communication to the Pin	Absence of SP symbols on the Screen	• Check wiring Connection to the Pin Module • Check connection of the cable to the Pin • Check continuity of Cables • Check Pin Socket if Contaminated by oil or Grease • Pin is Faulty
Inclinometer Not working on Tilt	Tilting the Pin doesn't move the indicator	• Incompatible Firmware: See Firmware compatibility list.

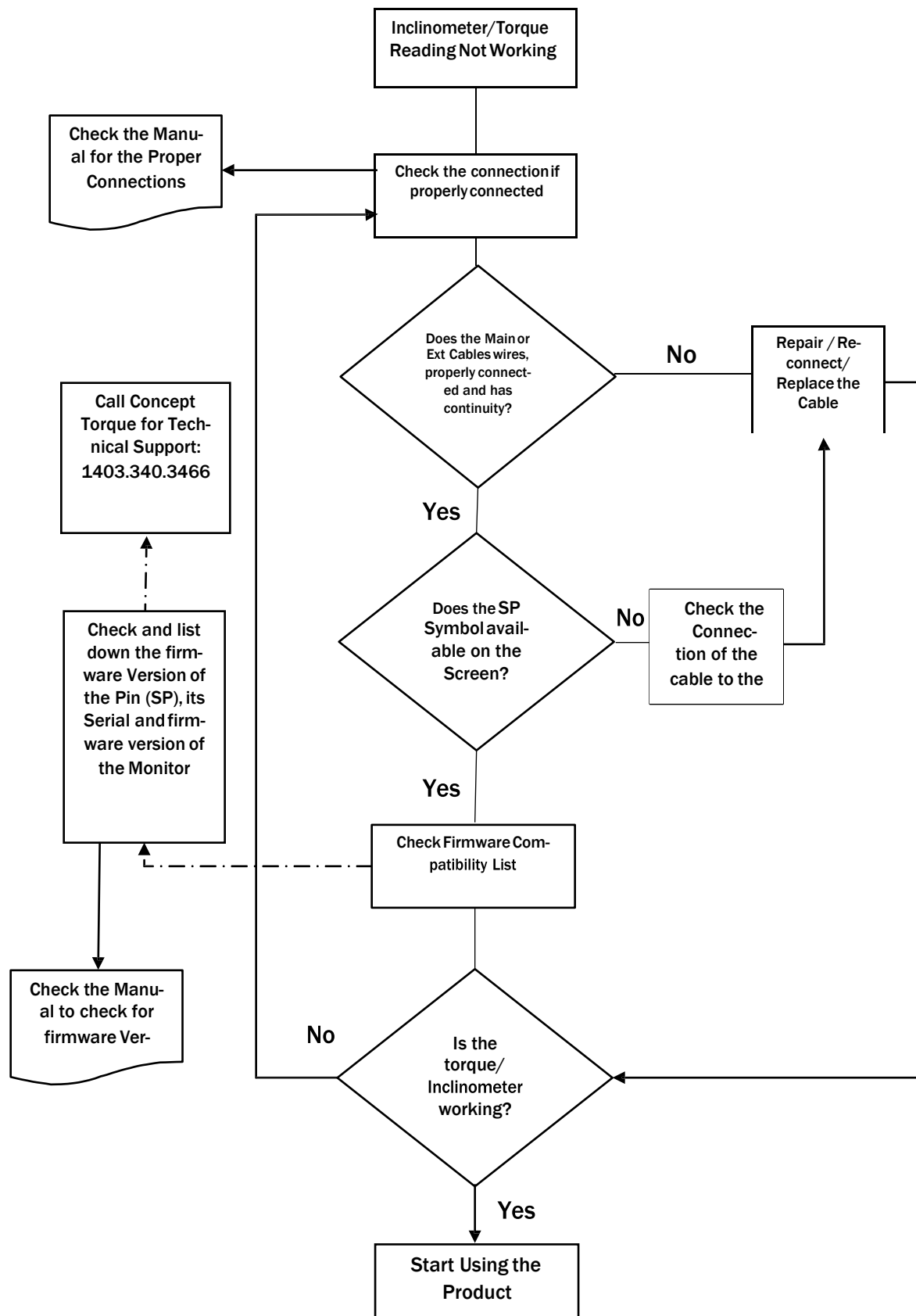
DTL DISPLAY OPERATING GUIDE
Troubleshooting Guide: Wired Connections

Inclinometer Not Working at all but with SP symbol	Inclinometer Not Moving	Firmware and screen Software incompatible; See firmware Compatibility list.
Tilting the Pin doesn't change the value or doesn't show movement on the Inclinometer indicator	No movement of the Inclinator indicator	- Check if SP symbol "communication connection to Inclinator") available on Screen - Check Wiring to the Pin if connected or has a loose connection. - Corrupted Firmware of the Inclinator module/Faulty inclinometer Module Incompatible Firmware
Inclinometer Indicator moving intermittently outside the Center of Bull's eye without tilting the boom.	The Indicator was moving Intermittently to upper left portion.	- Check wiring loose connection to inclinometer module - Check if all connectors are locked and well connected - Check continuity of the cable going to inclinometer module
Laser not Working	No pop-up message on the Monitor to calibrate the Screen/ No Calibrate Sensor on the Menu	- Check Junction box if connected properly - Check wiring connections of Sensor - Faulty Sensor Wire. Faulty Laser Sensor.
Graph on the Data gives a few data points	Graph shows weird on few points	- Record Interval (sec) was set to longer Time - Mode was set to Depth based instead of Time based
Date and Time Keeps on resetting to a default	Date and Time is not the current date and Time	Drained Battery Inside the Screen

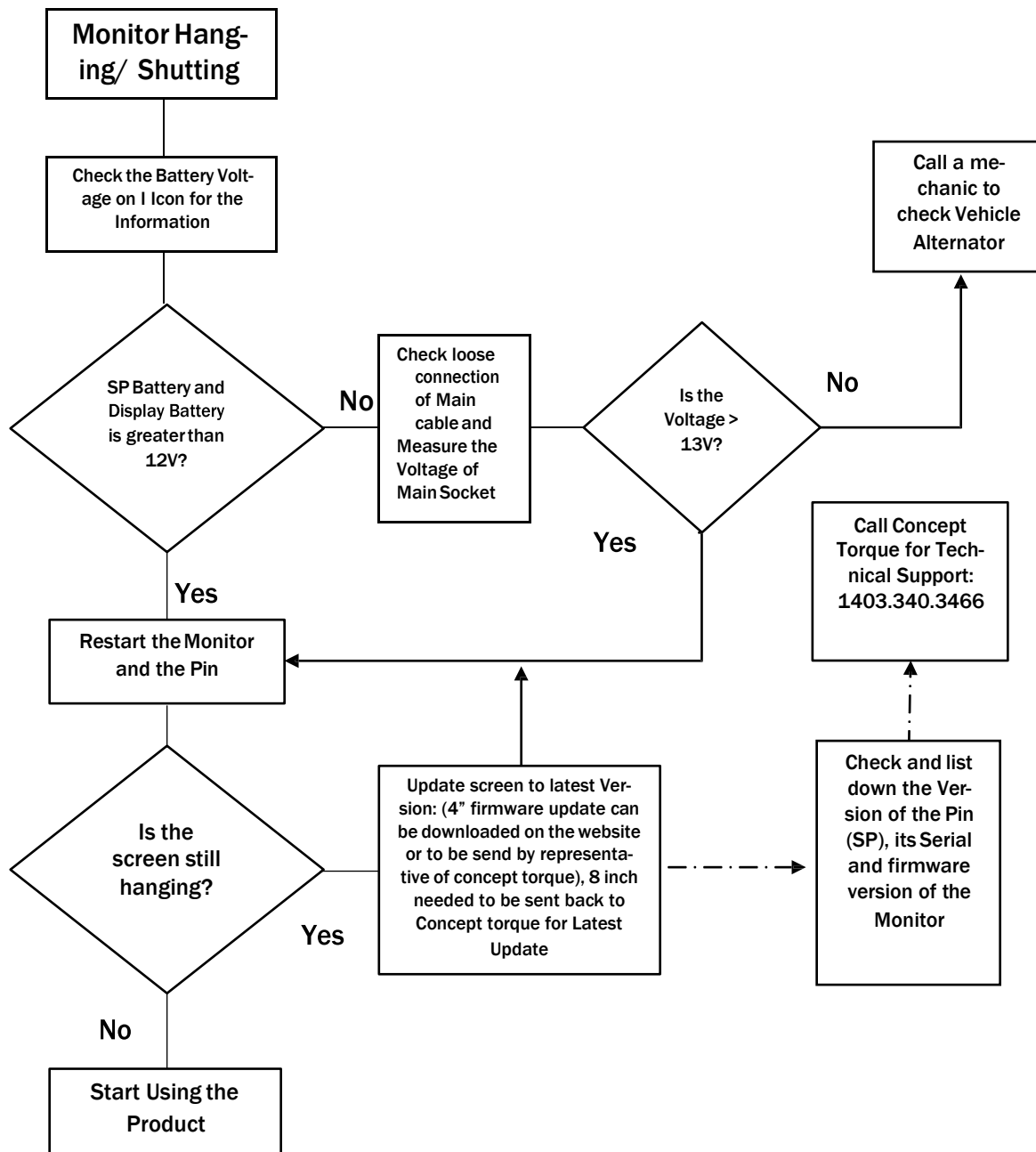
DTL DISPLAY OPERATING GUIDE
Troubleshooting Guide: Wired Connections

Cannot Export the file from Job Management	No file exported	No log done during piling No USB installed
Not Beeping when Exceeds the target torque	No sound indicator Exceeding the Torque	• Buzzer Under System configuration Disabled. • Target Torque Set Too High or out of range
Torque is giving a weird values on the Screen Data Logging Not working	Monitor Reads mil- lions of torque or 500 Thousand of torque etc.	• Check for pinched wirings causing intermittent short-circuit
	Pressing Start Pile doesn't start the Logging	• No current job selected on the Job management • No pile # was created • Start log Torque (lb-ft.) is defined at a certain torque limit before it starts to log • No Pin is connected • Check SP symbol if available.

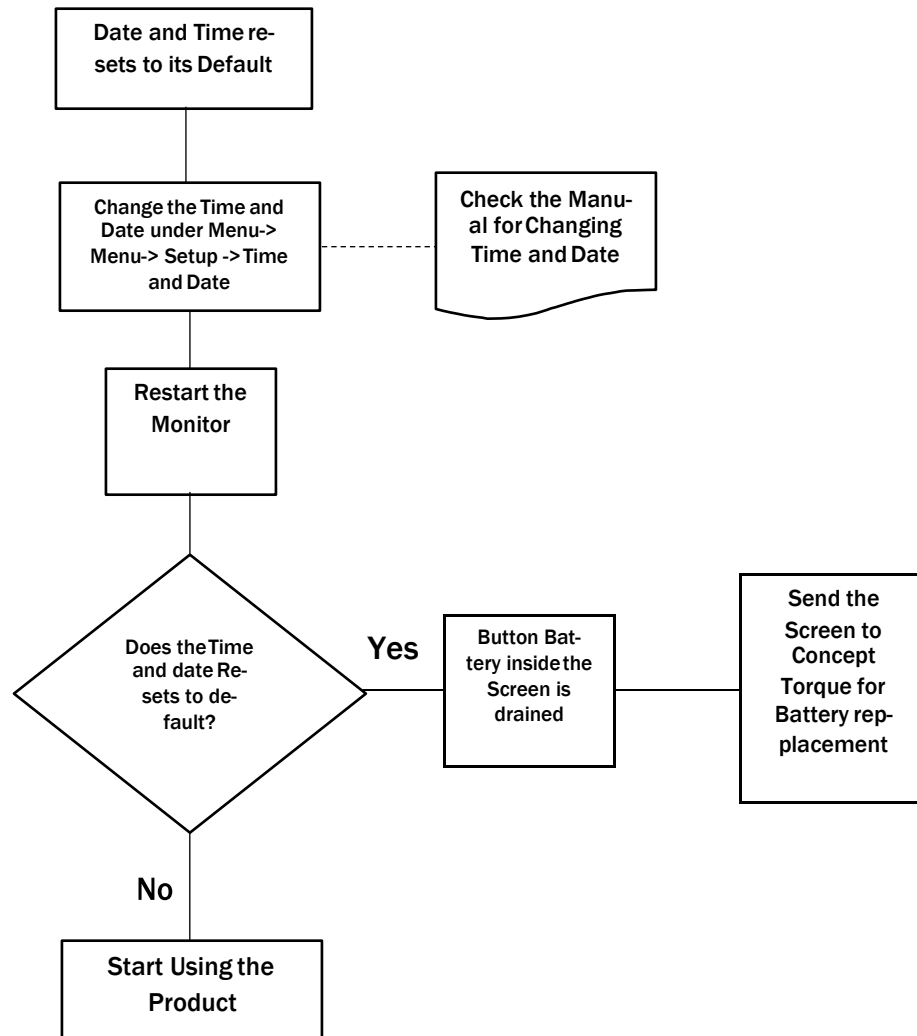
“Inclinometer/Torque reading not working”



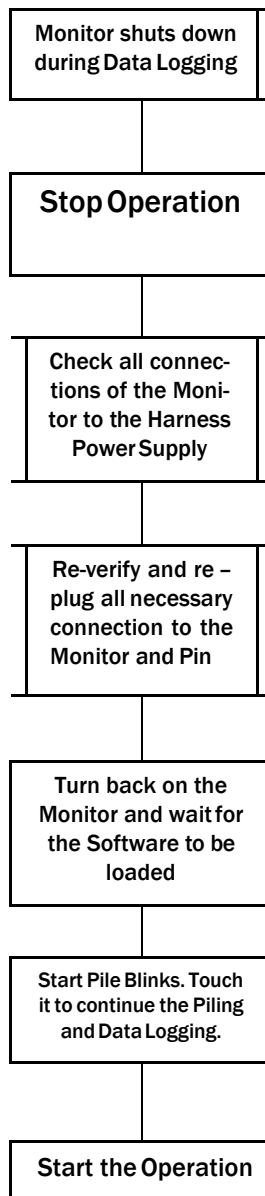
“Monitor Hanging”



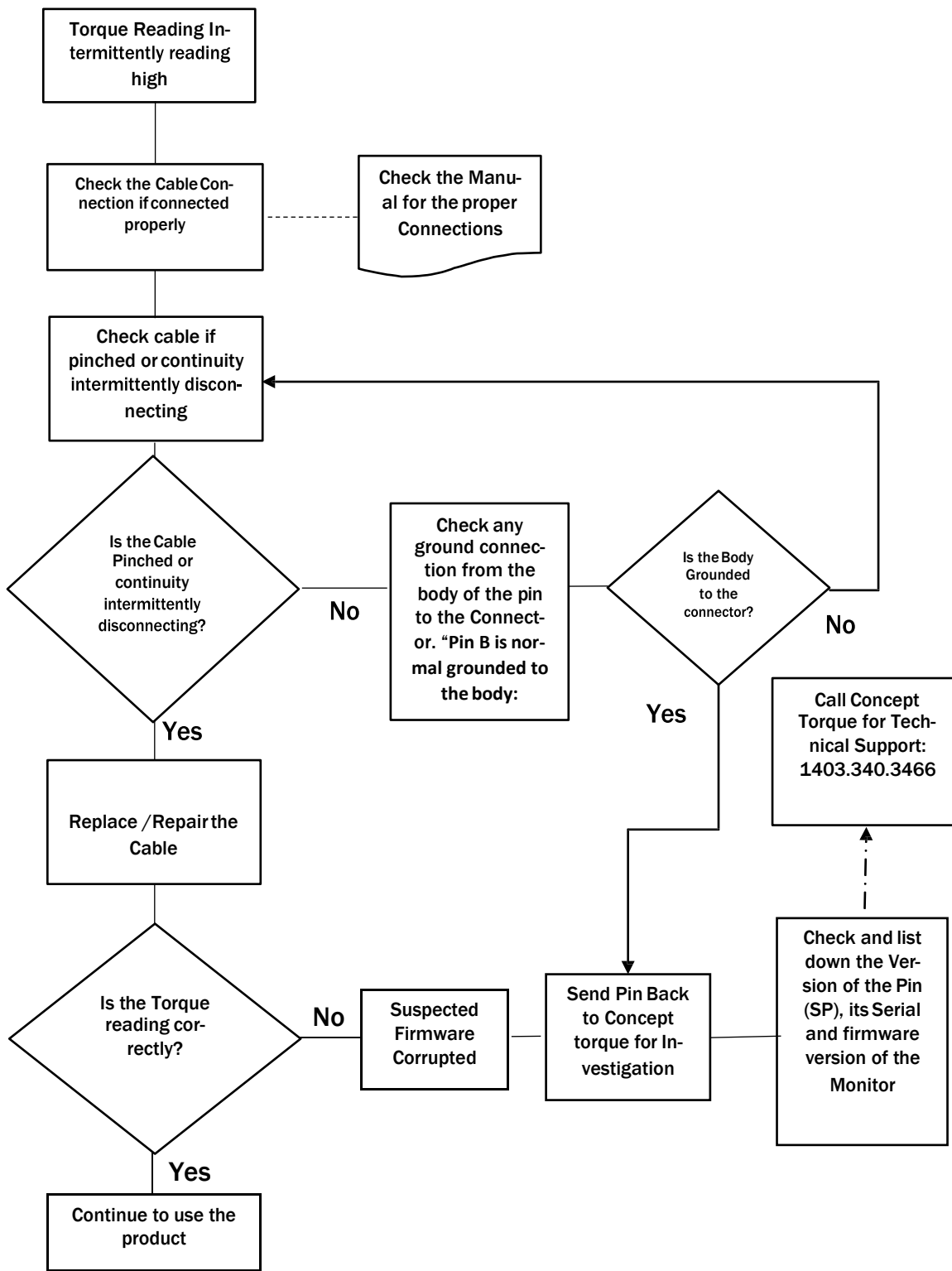
“Date and Time keeps resetting to its default”



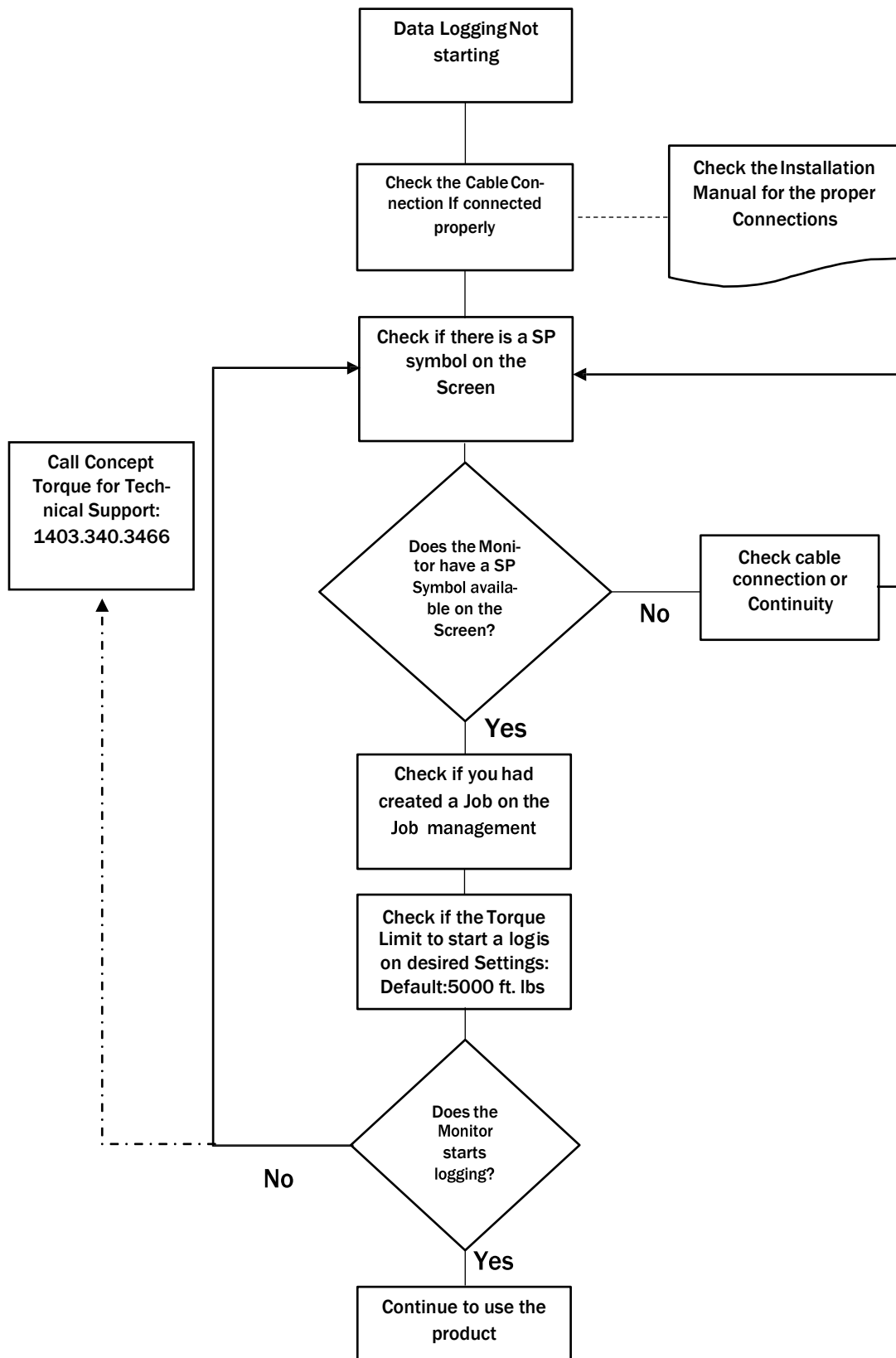
“Monitor Accidentally Shuts Down During Data logging”



“Torque Reading Intermittently Reading High”



“Data logging not starting”



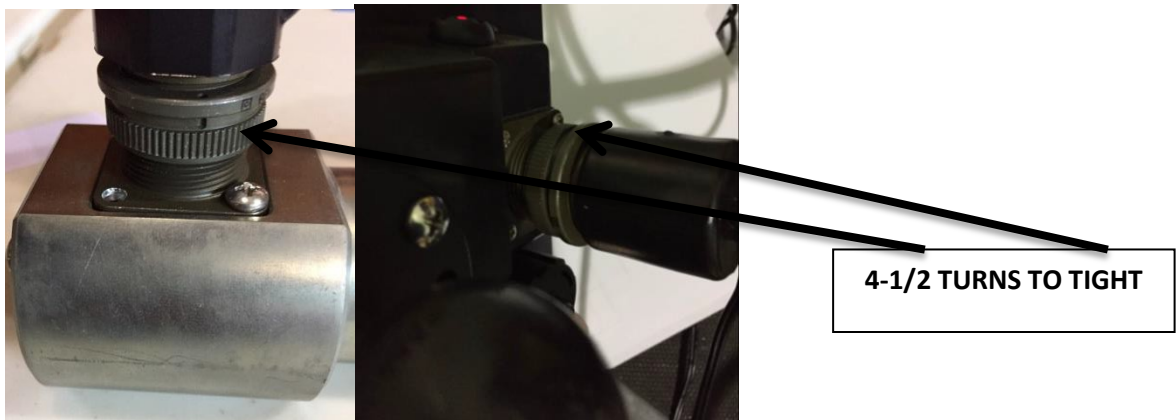


TROUBLESHOOTING – RS485

TORQ PIN – HARDWIRED (RS485)

NO POWER TO DISPLAY

1. Ensure all cable connections are tight. These should be about 4 turns to tight. The connections will have paint on when new – you will need to wiggle the connection & continue to tighten, until the connectors are bottomed out & you can no longer feel any free movement when wiggling the cable. The male thread on the connector may require cleaning with a wire brush to remove excess paint.
2. Ensure the harness (cable connecting display to cigarette socket) is not laying on the floor where an operator's foot can dislodge the cigarette plug and cause a power interruption. Also, please ensure the cable is not strung beneath the operator's seat (or any other feature) that could move and cause the same disruption.
3. Cable connector pins – please examine the pins to ensure there isn't a bent pin preventing proper makeup of the connection. Gently bend the pin back to straight, if required.
4. The cigarette socket itself should be a reasonably snug fit. If the cigarette plug is loose in the socket, repair/ replace the socket (or wire direct to machine battery).
5. Check cigarette socket for continuous power supply – it should be over 11v. Please note, some machines may have intermittent power loss – this is most likely a bad connection leading to the cigarette socket – please inspect and repair (when required) all wiring leading to the cigarette socket.





TROUBLESHOOTING – RS485

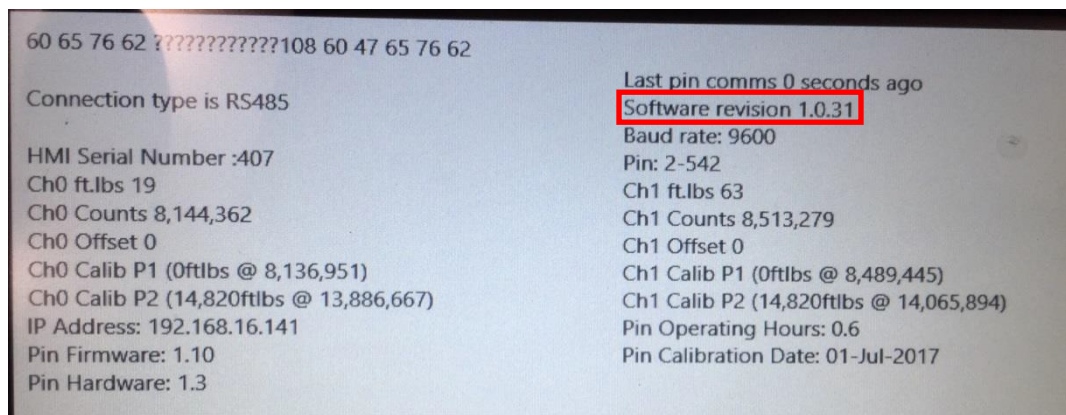
DISPLAY – V2.0 TROUBLESHOOTING

IMPROPER TORQUE READING

6. Refer to engineering doc # cts-002 torq-pin installation design guide & ensure all recommendations are met.
7. If torque value is reading negative – relieve all torque & “zero” the unit. Touch torque dial  then touch “zero pin”. The display may have inadvertently been “zeroed” with torque applied – which causes a negative number to be displayed when there is no torque applied to the unit.
8. If the torque displayed is fluttering from zero to <135 Nm, with no torque applied, it is likely you are in an area with high amount of background noise. Frequent “zeroing” of the system with no torque applied is the best solution for this. Also check the cab / enclosure to ensure there is not an rf radio antenna near the display – moving this away from the display will reduce this flutter.

MOMENTARY BLACK SCREEN

1. Press “menu” → then press “troubleshooting” to get this screen:



2. Ensure “software revision” states 1.0.31 or higher. If not, return the display to Digga for a free software upgrade (which will eliminate this bug). An added benefit to the upgrade will be **much faster** pile report generation.



TROUBLESHOOTING – RS485

TORQ PIN NOT COMMUNICATING

1. Ensure all cable connections are tight. These should be about 4 turns to tight. The connections will have paint on when new – you will need to wiggle the connection & continue to tighten, until the connectors are bottomed out & you can no longer feel any free movement when wiggling the cable.

REPORT EXPORT PROBLEMS

2. Ensure the usb (thumb) drive you are using has been formatted. To format a drive for first use, it simply needs to be plugged into a computer (or laptop) once – the computer will automatically format the drive.
3. Report export speed very slow (longer than 10 minutes) – refer to software version noted under “momentary black screen” – software version should be 1.0.31 or higher.

ERRATIC INCLINOMETER

1. Touch the “bullseye” to launch the inclinometer adjustment menu. Adjust resolution to higher value (suggest 40° for new operators), and adjust filtration to 70% or higher. This will settle the inclinometer down considerably & once an operator gets familiar with the system, he can adjust both these back to a more sensitive level, if he likes.



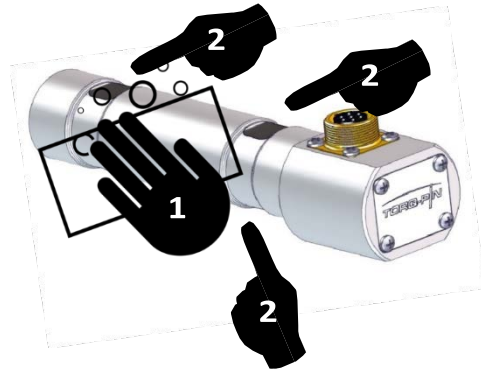
Preventive Maintenance



DTL MAINTENANCE GUIDE

Preventive Maintenance

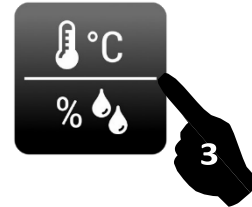
1. Clean the Torque Logic using rags or light brushes, before and after using it. This is to prevent sand or hard materials on scratching the Pin during piling.



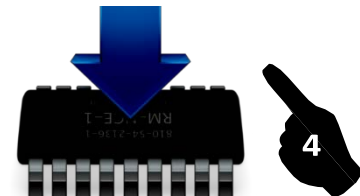
2. Remove or wipe any grease or oil on the Four Pockets after use. This is to prevent the oil penetrating the Sensors inside it. Do not clean the Pockets by Lacquer thinner or Acetone. The Rubber coverings will react to the solvent and may damage the protective layer of the pockets.



3. Store the Pins on a Cool Dry place and prevent it from exposure for a long period of time outside a non covered storage. Desired Temperature: 15–23 degrees Celsius and not greater than 65% RDH.



4. Always ensure that your Pin has the latest updated firmware by sending the Pin and Monitor together to Digga during re-certification. This is to make sure you receive the highest performance of the Pin and its functions.



5. Do Not Hammer, Weld while pin was installed, Exposed to Extreme Heat Flame or Drop the Pin and its accessories. These actions will invalidate the warranty of the product.



Action	Frequency	Medium
Cleaning of Pockets and Pins	After Every Use	Use of Rags, Tissues, light brushes. Steel Brushes are not allowed to be used in the pockets
Checking of connector, cables and harnesses	Once a week or As needed	Use of Contact Cleaner, Multi tester for continuity check or short circuit
Checking of Accessories like Monitors, Harness.	Once a week or As needed	Turning on the screens, Use of Multi-tester on the output of harness must be greater than 12V

WARRANTY POLICY

LIMITED WARRANTY

DIGGA, warrants its product against faulty design, material, and workmanship for the periods listed below. The warranty starts on the delivery date to the retail owner and is non-transferable.

WARRANTY PERIOD From the delivery to the original user Torque Logic System: 12 months on all components.

WARRANTY SERVICE

All new DIGGA product are warranted to be free from defect in material and workmanship, which may cause failure under normal usage and service when used for the purpose intended. The DIGGA warranty covers faulty workmanship and defective parts manufactured by DIGGA. The warranty does not extend to transportation cost of parts nor does it cover consequential loss. DIGGA Equipment must be operated in accordance with the recommended procedures and within the ranges as specified in the Operating Manual.

Any claims under this warranty must be made within fourteen (14) days after the buyer learns of the facts upon which claim is based. All claims not made in writing and not received by DIGGA within the time specified above may be deemed waived. DIGGA will not be responsible for or accept any charges for work carried out by any repairs, or for any charges for any spare parts fitted to any DIGGA product without written approval from DIGGA. DIGGA'S liability for any and all losses and damages to buyer resulting from any cause whatsoever, including DIGGA

negligence irrespective of whether such defect are discoverable or latent, shall in no event exceed the purchase price of the particular parts, with respect to which losses or damages are claimed, or, at the discretion of DIGGA the repair or replacement of defective or damaged parts.

VOID WARRANTY

This warranty is void if field repairs or modifications have been made to the Torque Logic system without prior written approval. The complete unit must be available for inspection in its original but alleged failed condition. This warranty does not apply to normal wear or to damage resulting from accident, abnormal use, abuse or neglect.

DIGGA makes no other warranty. All other warranties, whether expressed or implied, such as warranties of merchantability or fitness for a particular purpose, are hereby excluded and disclaimed to the extent that they exceed the warranties expressly granted in this limited warranty. In no event shall DIGGA be liable for consequential or incidental damages.

RETURNED GOODS POLICY

DIGGA reserves the right to determine whether product claimed to be defective shall be inspected when returned to the factory. If judged by DIGGA to be defective in material or workmanship, the product will be replaced or a credit issued at the option of DIGGA.

Upon notification of defect, DIGGA'S warranty department will issue a Return Materials Authorization (RMA) number. All returns for replacement or credit **MUST** be accompanied by a RMA number. Product returned without an RMA number will be rejected and returned to the sender freight collect. All returns must be shipped prepaid. Products shipped collect will be refused. Proof of purchase such as invoice number must accompany returns.

All RMA's must be returned within 30 days of the request.

DIGGA SPARE PARTS

For further information on spare parts please contact one of the Digga sales office below your closest authorised Digga Dealer.



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