# SERVICE MANUAL

FASTRAC (AGRICULTURAL TRACTOR)
**4160, 4190, 4220**

EN - 9813/3600 - ISSUE 3 - 07/2018

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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# Foreword

## The Operator's Manual

⚠

You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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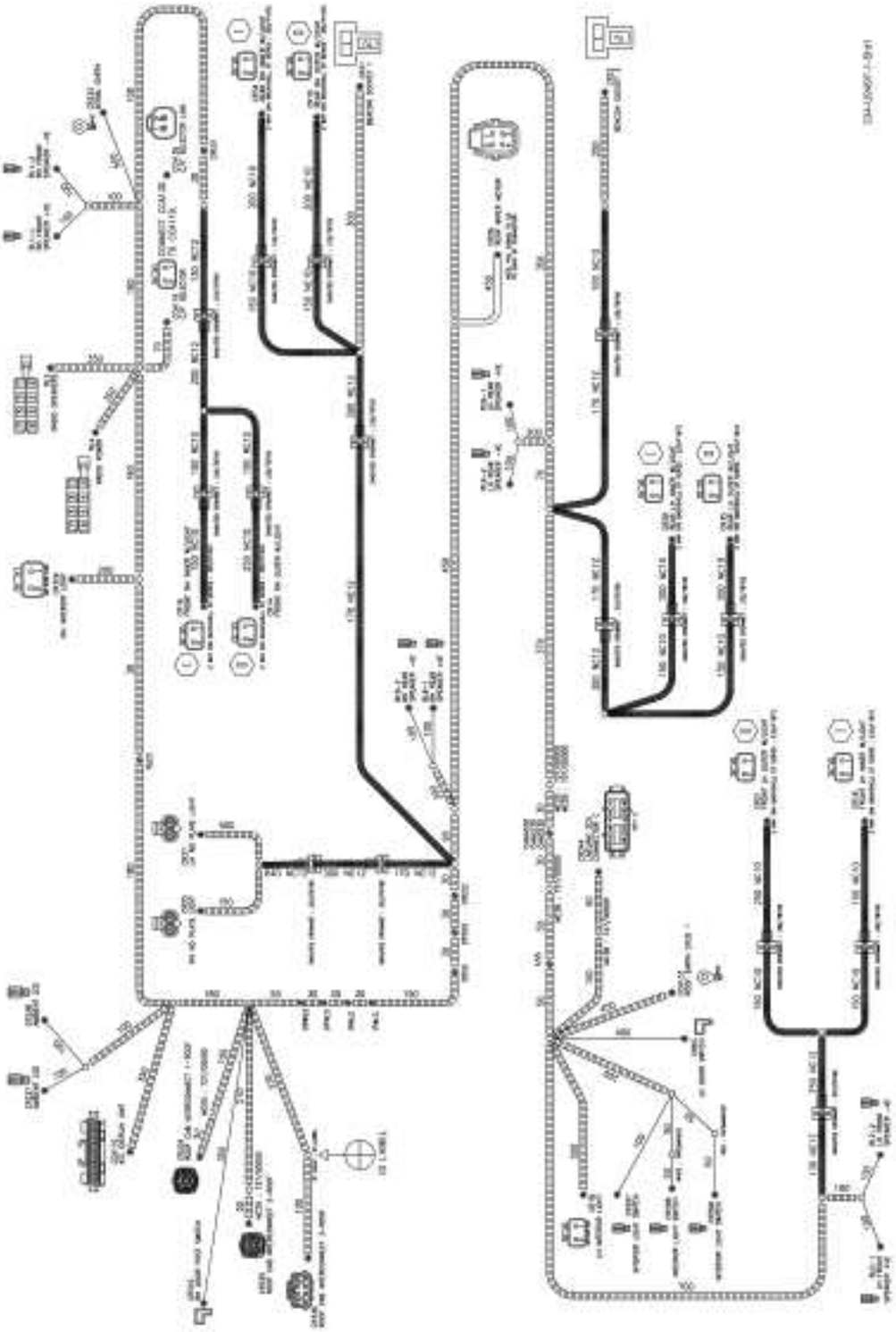




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## Interior Roof Harness (Standard)

Figure 882. 334-U9497 (Sheet 1 of 2)





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| Error Code | Description |
|---|---|
| A2449 | Safety Controller: intercontroller communication: timeout occurred |
| A2450 | Safety Controller: intercontroller communication: checksum error |
| A2452 | Pressure Sensor Cross Check: ADC values implausible |
| A2479 | High Voltage; greater than 32 volts |
| A2482 | Low Voltage; disable system functions |
| A2483 | Low Voltage whilst moving; disable system functions |
| A2484 | System pressure below 2.5 bar |
| A2485 | System pressure below 2.5 bar while moving |
| A2493 | Too long Service Brake application |
| A2495 | Valve Plausibility Monitoring: Illegal valve activation detected |
| A2496 | Valve Plausibility Monitoring: ABS activation; detected in Safety Controller |
| A2498 | Valve Plausibility Monitoring: Dynamic fault |
| A2527 | Acceleration sensor self test failure; sensor is broken |
| A2554 | P21 Leakage |
| A2555 | P21 Uncontrollable |
| A2556 | P21 Backup Valve |
| A2557 | P22 Leakage |
| A2558 | P22 Uncontrollable |
| A2559 | P22 Backup Valve |
| A2560 | P2 Leakage |
| A2561 | P2 Uncontrollable |
| A2562 | P1 Implausible |
| A2581 | Voltage supply line resistance high |
| A2582 | Ground missing on BCAG Power connector pin3. |
| A2583 | Valve supply missing |
| A2586 | EEPROM Configuration is corrupted |
| A2587 | Main ABSconfiguration is inconsistent |
| A2588 | Configuration of auxiliary IO & functions is inconsistent |
| A2589 | Intercontroller communication: checksum error |
| A2590 | ABS activity too long (add info = 0) or too frequent (add info = 1) |
| A2591 | Default configuration in FLASH corrupted (check sum error) |
| A2601 | ECU has not been configured for theABS or ABS/Hill Hold/Traction Control option. |
| A2602 | The automated ABS system test has not been run, and passed. |
| A2607 | P28 Load Solenoid electrical error |
| A2609 | AUX3 internal charge-pump error |
| A2610 | AUX3 internal charge-pump error (EM supply) |
| A2611 | Valve Plausibility Monitoring: ABS activation; detected in Main Controller |
| A2612 | Valve supply missing |
| A2615 | EBM in Factory Test Mode; don't use on public roads |
| H0001 | Auxiliary Controls ECU Memory Error |



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| Clamping range | Part number | Torque values |
|---|---|---|
| 70 –90 mm | 2201/0014 | 5 -0/+0.5 N·m |
| 80 –100 mm | 2201/0015 | 5 -0/+0.5 N·m |
| 90 –110 mm | 2201/0016 | 5 -0/+0.5 N·m |
| 100 –120 mm | 2201/0021 | 5 -0/+0.5 N·m |
| 120 –140 mm | 2201/0017 | 5 -0/+0.5 N·m |
| 130 –150 mm | 2201/0018 | 5 -0/+0.5 N·m |
| 150 –170 mm | 2201/0019 | 5 -0/+0.5 N·m |
| 160 –180 mm | 2201/0020 | 5 -0/+0.5 N·m |

**Table 267. Heavy Duty Worm Drive Clip**

| Clamping range | Part number | Torque values |
|---|---|---|
| 172 –194 mm | 2201/0022 | 10 -0/+0.5 N·m |
| 184 –206 mm | 2201/0023 | 10 -0/+0.5 N·m |

**Table 268. Spring Assisted Worm Drive Clip**

| Clamping range | Part number | Torque values |
|---|---|---|
| 16 –27 mm | 2206/1627 | 5 -0/+0.5 N·m |
| 20 –32 mm | 2206/2032 | 5 -0/+0.5 N·m |
| 25 –40 mm | 2206/2540 | 5 -0/+0.5 N·m |
| 30 –45 mm | 2206/3045 | 5 -0/+0.5 N·m |
| 35 –50 mm | 2206/3550 | 5 -0/+0.5 N·m |
| 40 –60 mm | 2206/4060 | 5 -0/+0.5 N·m |
| 50 –70 mm | 2206/5070 | 5 -0/+0.5 N·m |
| 60 –80 mm | 2206/6080 | 5 -0/+0.5 N·m |
| 70 –90 mm | 2206/7090 | 5 -0/+0.5 N·m |

**Table 269. Constant Torque Worm Drive Clips**

| Clamping range | Part number | Torque values |
|---|---|---|
| 14 –27 mm | 334/J4514 | 5 N·m |
| 25 –45 mm | 334/J9549 | 10 N·m |
| 32 –54 mm | 333/K2259 OR 400/P2870 | 10 N·m |
| 45 –67 mm | 821/10236 | 10 N·m |
| 54 –79 mm | 821/10191 | 10 N·m |
| 70 –92 mm | 821/10192 | 10 N·m |
| 83 –105 mm | 332/K3479 | 10 N·m |
| 95 –118 mm | 332/S8033 | 10 N·m |



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(For: 4160 [T4F], 4190 [T4F], 4220 [T4F], Double Acting)

Figure 682.




A Accumulator - front suspension cylinders (rod side)

B Suspension cylinder - front RH side



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- Throttle Switch: Signal derived from a switch installed to the machine throttle pedal. Used to interact with the Automatic Mode of gear-shifting.
- Pressure Switch: Signal derived from the transmission mounted Low Oil Pressure Switch.
- Kickdown Switch: Signal derived from a momentary button used to temporarily select the next lowest gear.
- Oil Temp Switch: Signal derived from the transmission oil temperature switch.

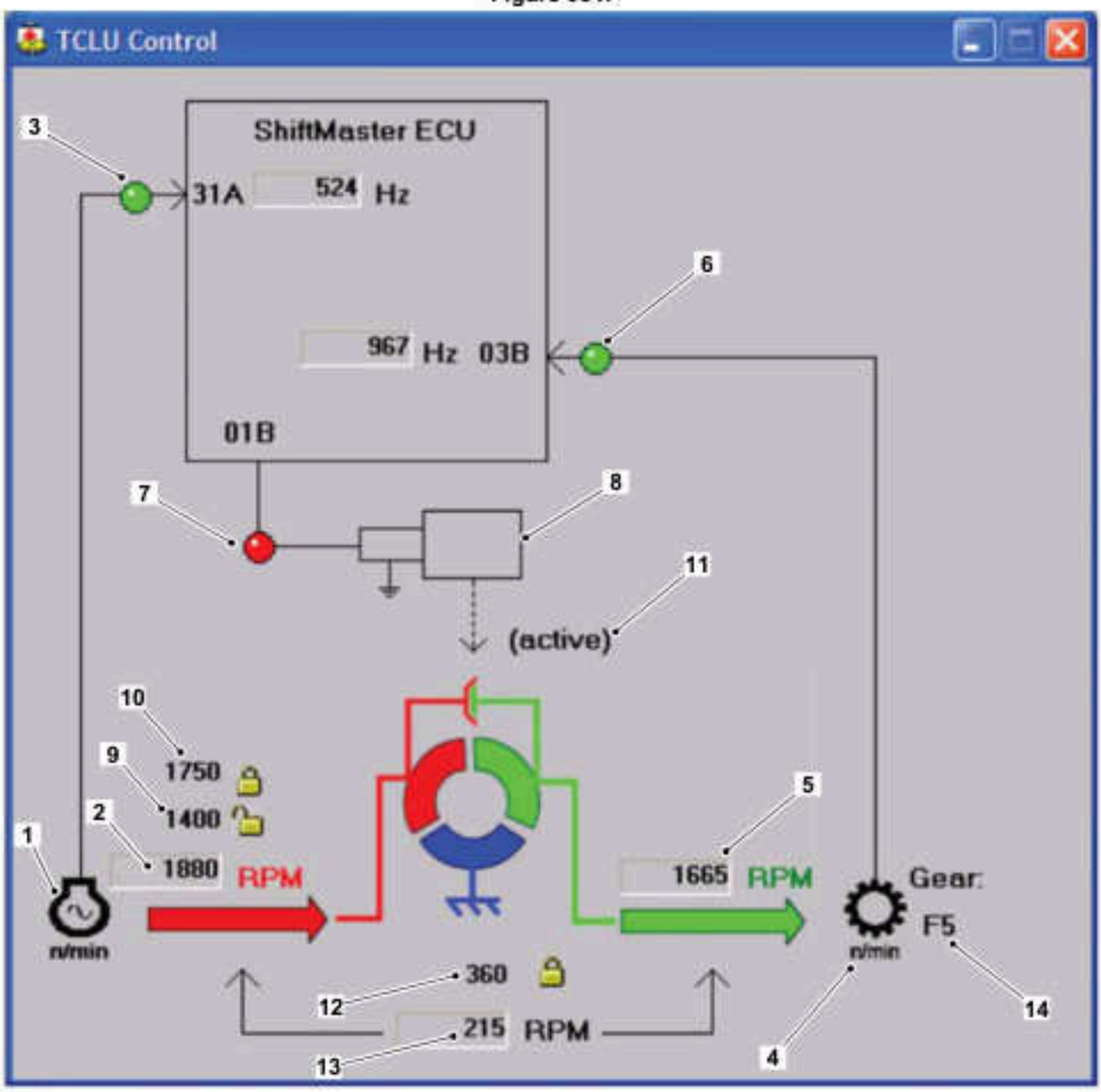
**Misc Outputs**

These are the additional ECU outputs, generally used to control cab instrumentation such as a Driver Indicator (lamp and buzzer where fitted), low Oil Pressure Lamp and Kickdown Indicator. The output status is indicated by a coloured LED, grey - output OFF, red - output ON.

**Torque Converter Lock Up (TCLU) Page**

The TCLU control page displays information relating to the torque converter lock up operation.

**Figure 981.**




1 Engine speed sensor

2 Engine speed RPM (Revolutions Per Minute) (real time)



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