 <b>McCORMICK</b>	<b>Service Bulletin</b> <b>Product Upgrade Programme</b>		<b>DBT6008/2GB</b>
	Replaces: DBT6008/1 which should be destroyed.		
	DBT Model Range: <b>C, CX, MC &amp; MTX Series</b>		
Date:           August 2003	Paper Colour - Blue	Binder:	<b>Agricultural Tractors</b>
Reference:	Issued by:       Product Support, Doncaster		

**Models Affected:**     MC80, MC90, MC100 and MC115  
MC120 and MC135 Power6  
MTX110, MTX125 and MTX140  
MTX155 and MTX175

**Subject:**               **Speed Sequencer Upgrade – Range Modulation**

A new speed sequencer upgrade kit has been released to improve fwd/rev clutch pack modulation when a gear change requiring a range change is made (i.e. 4<>5, 8<>9, 12>13 or 13>11).

**Action Required:**

If the owner of a tractor detailed under “Units Involved”, is not satisfied with the operation of the speed sequencer, a speed sequencer upgrade kit should be ordered from McCormick Parts and fitted to the subject tractor.

**Units involved**

Tractors to be upgraded must meet the following criteria:

- speed sequencer MC or MTX tractor.
- built prior to the introduction of **Bosch** auxiliary valves (see note 1 below).
- not previously modified to improve range modulation.
- **the owner is not satisfied with the speed sequencer range modulation.**

**Note 1:** Bosch auxiliary valves were introduced from the following transmission serial numbers:

Transmission Serial No.

MC	600495
MC Power6	650348
MTX110 to 140	300646
MTX155/175	Not yet in production.

**Note 2:** This Product Upgrade Programme does not apply to MTX200 tractors.

**Note 3:** This Product Upgrade Programme does not apply to MC and MTX Tractors with Bosch auxiliary valves.

**Parts Affected:**

Part Number	Qty	Description
705354A1	1	Kit, Speed Sequencer Upgrade

This is a non-safety critical (blue) product upgrade bulletin authorising the upgrading of designated tractors only

Kit 705354A1 consists of:

704450A1	1	Bracket, Valve
704451A1	1	Valve Block
704440A1	1	Plug, Valve Block
701-900	1	Cap
704470A1	1	Pipe, Valve Block
700-101	2	Connector, 10mm ORFS x M14 ORB
223971A1	1	Valve, Check
700-401	1	ORFS Straight Thread 10 x 10 x M14
704469A1	1	Pipe, Valve Block
700-315	1	Elbow, 45 ADJ 10mm ORFS x M14 ORB
704495A1	1	Pipe, Valve Block
704468A1	1	Pipe, Valve Block
700-304	2	Elbow, 90 deg adjustable 10mm ORFS x M14 ORB
704500A1	1	Harness, speed sequencer modulation kit
814-6050	2	Bolt, M6 x 50 class 8.8 zinc plated
895-11006	2	Washer, 6.6 x 12.5 x 1.6mm
704499A1	1	Module, speed sequencer control
237-6012	1	'O' Ring

### Warranty Reimbursement

After the work is completed, submit a Warranty Claim Form (WCF) covering the work carried out. Forward the WCF to Warranty Administration, Doncaster within 30 days of the work being carried out and before the programme expiry date.

Update Programme Reference	MT0185	Prime Part Replaced	No
Prime Part Number	176304A5	Service Code	275
Machine Location	62317	Job Code	62317RT
Labour Time Allowed	Stock Tractors	4.0 Hours	
	Retailed Tractors	5.0 Hours	

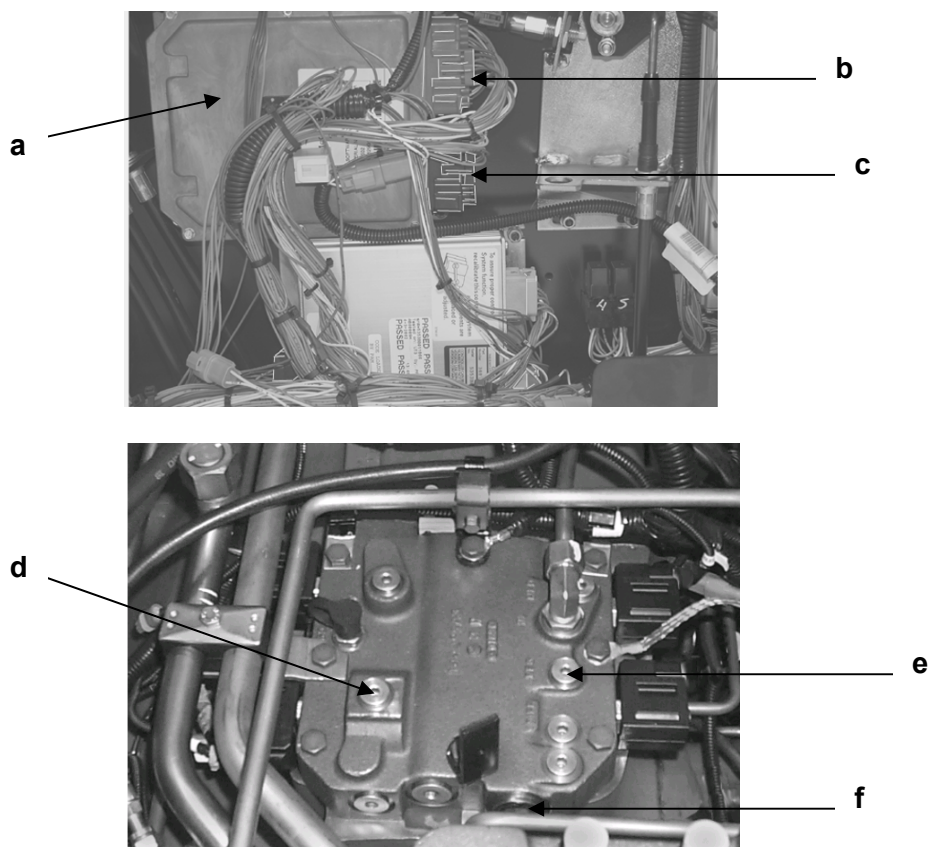
Programme Expiry date: 31<sup>st</sup> November 2003

### Fitting Instructions

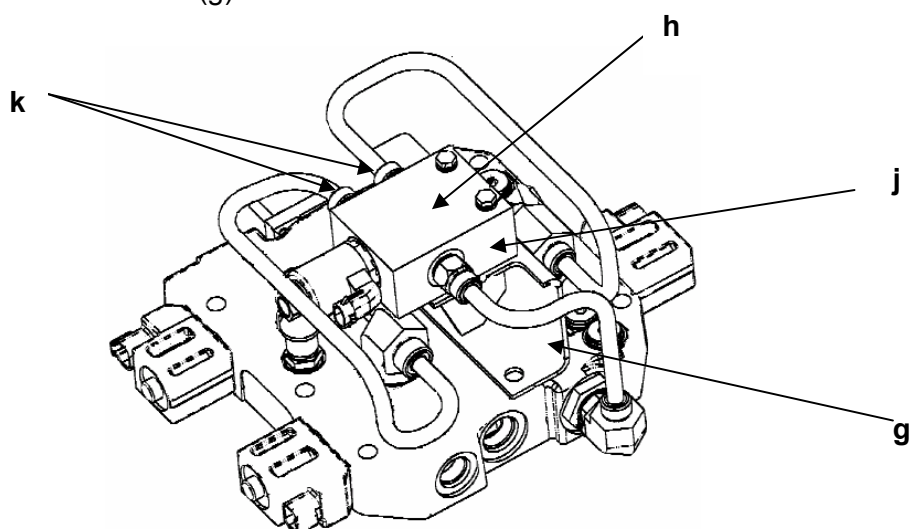
Before carrying out any work ensure the tractor is parked on firm ground with the handbrake applied and shuttle in neutral. Select mechanical neutral in the gearbox by starting the engine and pressing the shift up and shift down buttons simultaneously and holding until the speed display reads **0**.

- 1) Remove R/H console side panel.
- 2) Remove speed sequencer control module (a)
- 3) Fit new speed sequencer control module - at this point **do not** connect the red and black plugs to the new control module (b and c)
- 4) Remove rear cab skirt (if fitted), to gain access to shuttle valve.
- 5) Remove plug (d) and replace with elbow 700-304
- 6) Remove plug (e) and replace with 'T' piece 700-401 ( Use Cap 700-900 if required )

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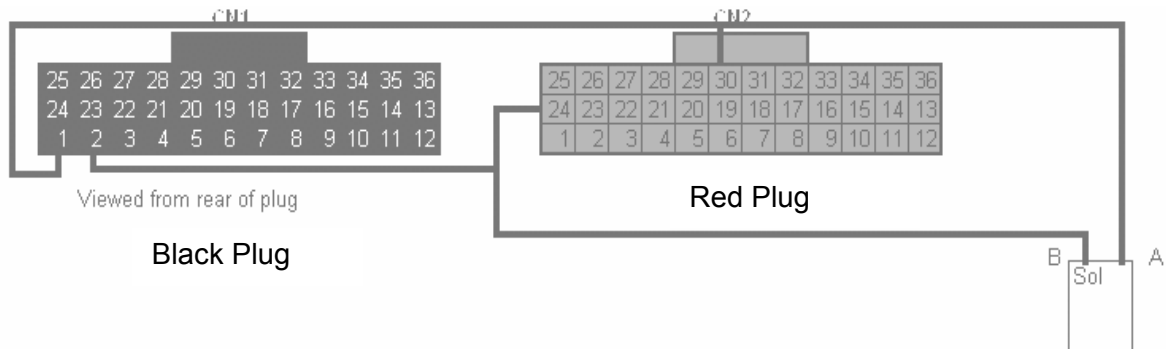
- 7) Remove plug (f) and replace with plug 704440A1
- 8) Assemble into plug 704440A1
  - Elbow 700-304 (MC and MTX110 to 140)
  - Elbow 700-315 (MTX155 to 200)
- 9) Fit bracket 704450A1 (g) to shuttle valve.



- 10) Mount modulation valve 704451A1 (h) to bracket (g) and secure.
- 11) Fit check valve 223971A1 (j) to modulation valve.

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- 12) Fit connectors 700-101 (k) to modulation valve.
- 13) Connect pipework between shuttle valve and the new modulation valve.
- 14) Connect new harness to the modulation valve solenoid.
- 15) Route new harness along transmission and through cab floor into front of R/H console.
- 16) Connect red wires to speed sequencer module connectors black cavity 1 and red cavity 30.
- 17) Connect tan wires to speed sequencer module connectors black cavity 2 and red cavity 24.



- 18) Re-connect speed sequencer module connectors to module.
- 19) Re-fit R/H console side panel.
- 20) Re-fit rear cab skirt, if removed.
- 21) Re-calibrate speed sequencer.
- 22) Configure speed sequencer with or without delay as follows:

To change to incorporate the one second button press ( default ) :

- Ignition switch in the off position.
- Press the skipshift and and gear down buttons simultaneously and hold.
- Turn the ignition on, release the skip shift and gear down buttons, turn the ignition off.

To change to delete the one second button press :

- Ignition switch in the off position.
- Press the skipshift and and gear up buttons simultaneously and hold.
- Turn the ignition on, release the skip shift and gear up buttons, turn the ignition off.

**Note:** the new controller and software gives the opportunity to read error codes which may be stored by the speed sequencer controller, see service manual 8-11502 section 10004 (publication SM 8-11430).