

Hydraulic master switch

⚠ WARNING

Moving parts!

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

⚠ WARNING

Misuse hazard!

Always use the hydraulic master switch to disable the front hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism. Failure to comply could result in death or serious injury.

W1792A

⚠ WARNING

Misuse hazard!

Always use the Hydraulic Master switch to disable the rear hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism. Failure to comply could result in death or serious injury.

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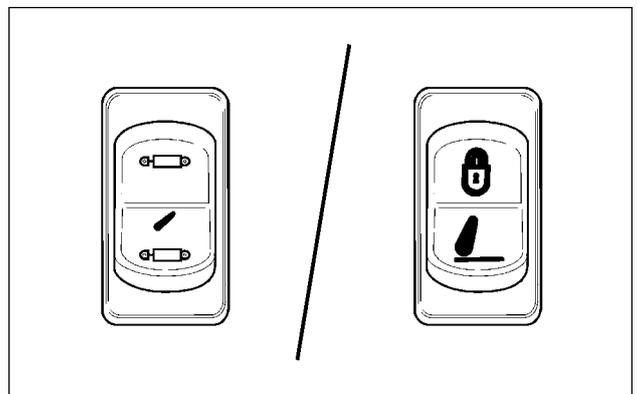
EHC/EHR transport lock

When travelling on the road the mid-mount remote control valves, the rear electronic remote control valves and the three-point hitch can be disabled to prevent inadvertent lowering of the implement which may cause damage to the tractor or road surface.

NOTE: Depending on the configuration of your tractor the symbol on the switch may differ.

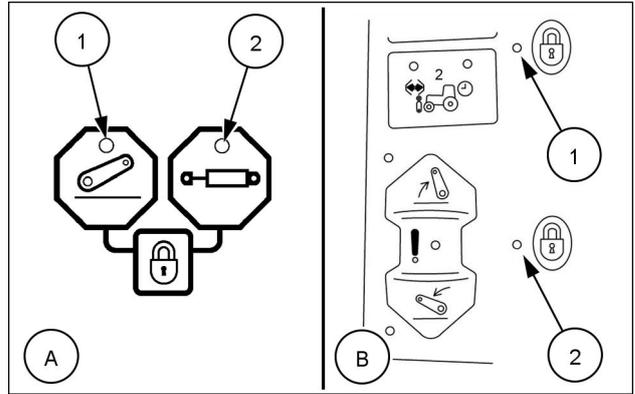
The switch on the cab rear-right pillar has three positions and carries out the following functions.

- Press the top of the switch to energise electrohydraulic rear and mid-mount remote valves (three-point hitch locked out, if fitted).
- Press the bottom of the switch to energise electrohydraulic rear and mid-mount remote valves (if fitted) and the rear three-point hitch.
- Mid position. Electronic remote valves and three-point hitch locked out.



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With the main switch in the central position (power supply disengaged), the warning lights on the integrated control panel (ICP) when a Multicontroller I (**A**) is fitted or those on the armrest switch panel when a Multicontroller II (**B**) is fitted, turn on to confirm deactivation of the EHR control valves **(1)** and the three-point hitch **(2)**.



Advanced joystick (where fitted) (Multicontroller II)

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W1587A

⚠ WARNING

Unexpected machine movement!

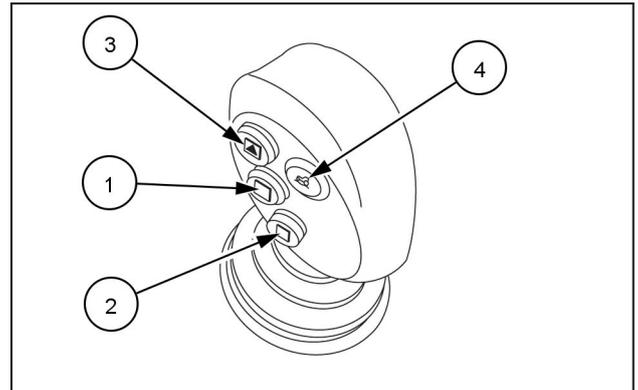
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

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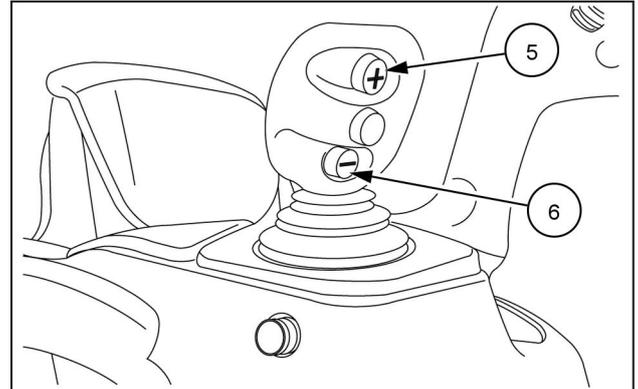
The advanced joystick (if fitted) allows one handed operation of several tractor functions, all of which are explained in more detail as you read through the manual.

1. Without monitor: Operates remote hydraulic service via relay and additional valve
With monitor: configurable (*)
2. Without monitor: Operates remote hydraulic service via relay and second additional valve
With monitor: configurable (*)
3. Without monitor: Switching from mid-mount control valves to rear control valves and vice versa
With monitor: configurable (*)
4. Change direction
5. Speed range upshift switch
6. Speed range downshift switch

(*) see **Right-hand console - Switch configurability (Multicontroller II) (90.151)** .



MOIL19TR02366AA 1



MOIL19TR02353AA 2

Integrated control panel

Integrated control panel ((ICP) — Multicontroller I

⚠ WARNING

Moving parts!

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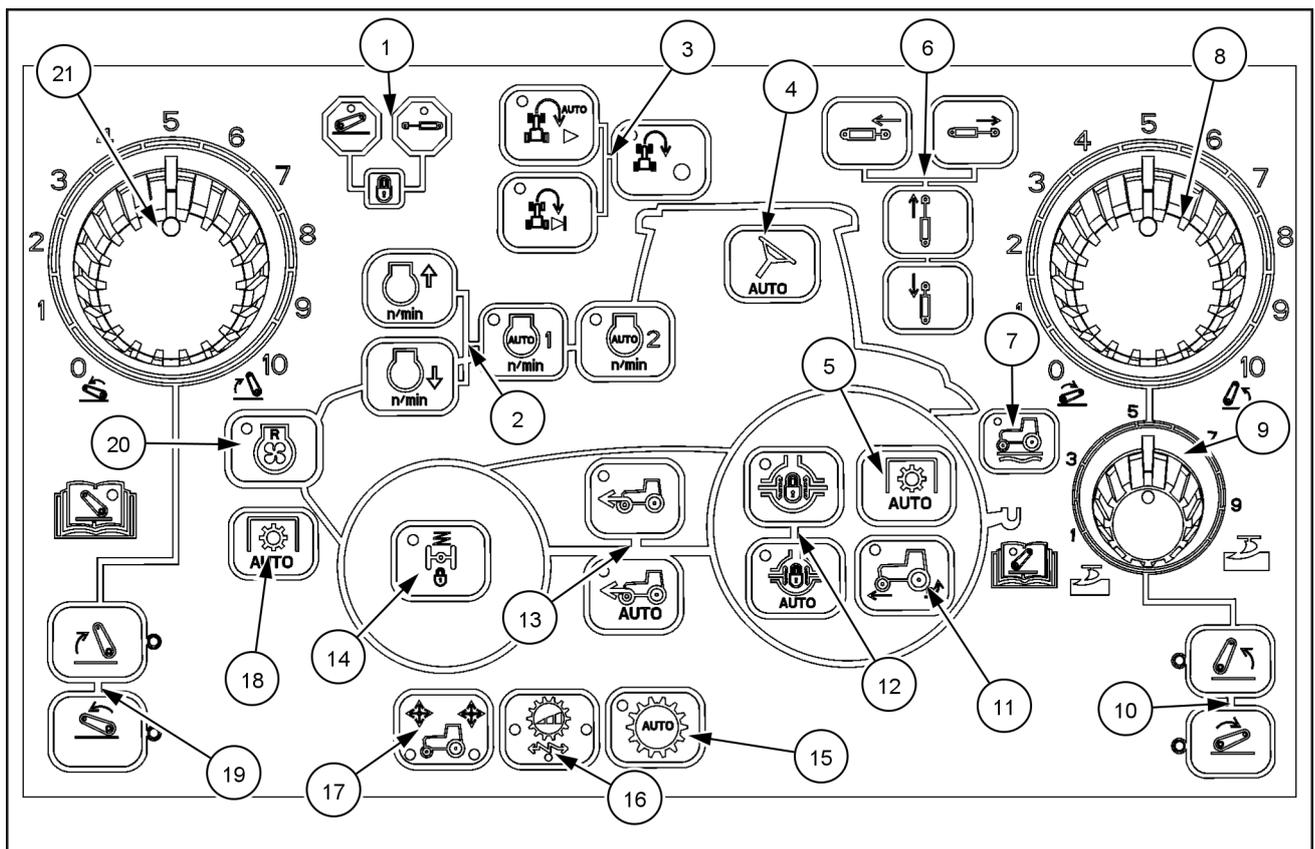
W1587A

⚠ WARNING

Unexpected machine movement!

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A



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Your tractor is equipped with a number of electronic controls located on the arm rest unit. A full explanation of individual switch operation can be found in the relevant sections of this manual.

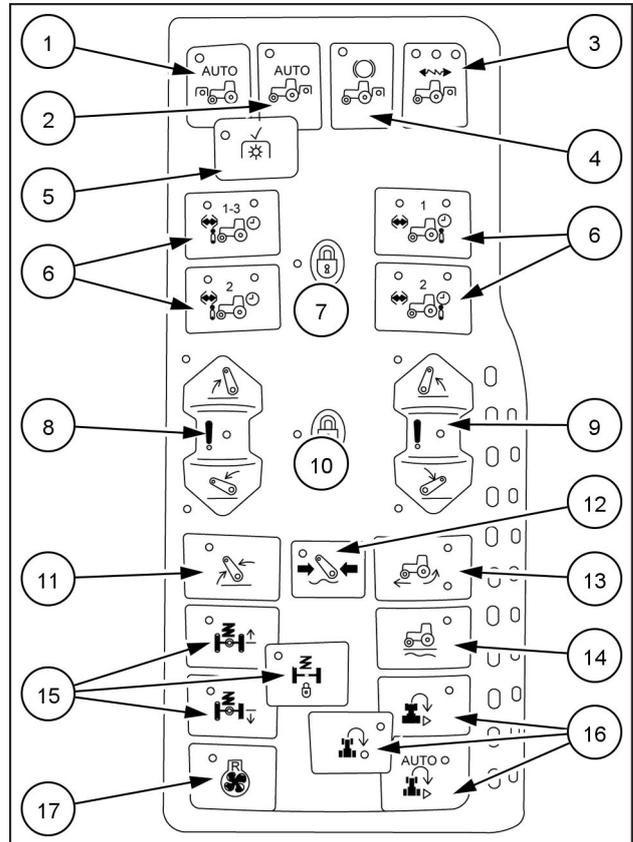
1. Electronic remote control valves and three-point hitch lock warning lights
2. Constant Engine Speed (CES) settings
3. Easy Tronic manual/automatic mode, recording/playback operations
4. Autoguidance function
5. Rear auto PTO control
6. Hydraulically adjusted top link and right-hand lift rod
7. Ride control system
8. Rear three-point hitch position control

9. Rear three-point hitch draft loading control
10. Rear three-point hitch raise/lower switches and operating lights
11. Slip Control
12. Auto/manual differential lock engagement
13. Auto/manual four wheel drive engagement
14. Front axle suspension lock
15. Transmission auto mode
16. Acceleration/deceleration rate control
17. Front/rear joystick selector switch
18. Front auto PTO control
19. Front hitch raise/lower switches and operating lights
20. Reversible engine fan control
21. Front hitch position control

Your tractor is equipped with a number of electronic controls located on the arm rest unit. A full explanation of individual switch operation can be found in the relevant sections of this manual.

Armrest switch panel — (Multicontroller II)

1. Front auto PTO control
2. Rear auto PTO control
3. Rear PTO aggressiveness control
4. Rear PTO brake
5. Stationary PTO operation button
6. Hydraulic control valves, activation of motor/timer mode
7. Status LEDs - hydraulic control valve lock/release
8. Front three-point hitch raising/lowering switches
9. Rear three-point hitch raising/lowering switches
10. Status LEDs - rear/front three-point hitch locking/releasing
11. Front three-point hitch double-acting mode
12. Status LEDs - front three-point hitch pressure control
13. Slip Control
14. Ride control system
15. Front axle suspension: raising, lowering, locking
16. Easy Tronic manual/automatic mode, recording/play-back operations
17. Reversible fan motor switch



Multicontroller I and II

⚠ WARNING

Moving parts!

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!

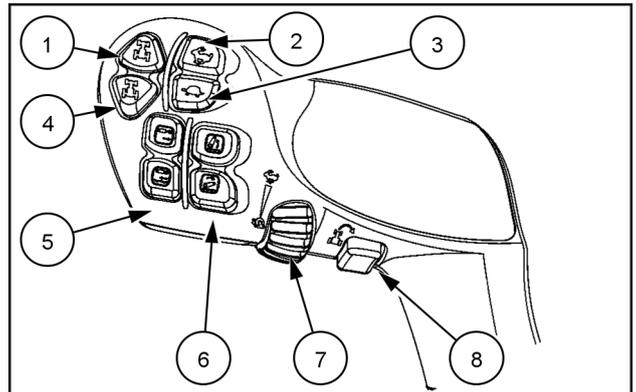
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

The Multicontroller lever I or II allows one handed operation of several tractor functions, all of which are explained in more detail as you read through the manual.

Multicontroller I

1. Transmission shuttle switch forward
2. Speed selection upshift switch
3. Speed selection downshift switch
4. Transmission shuttle switch backward
5. EHR controls
6. Hitch raise/lower switches
7. Speed range thumb wheel
8. Headland turn (where fitted)

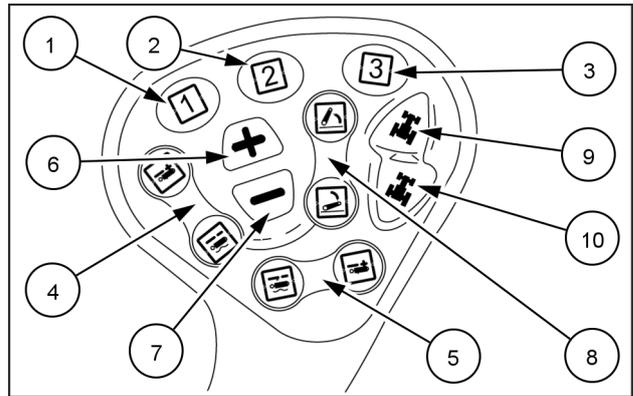


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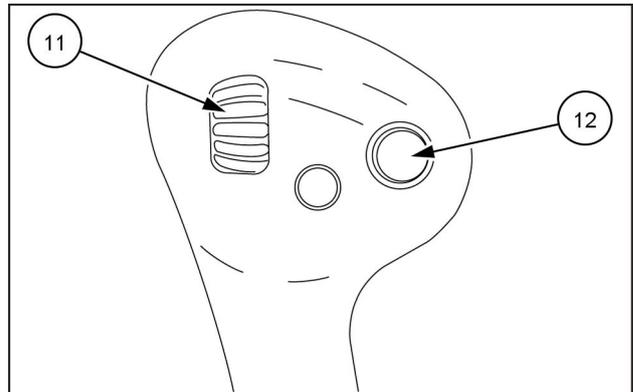
Multicontroller II

1. Without monitor: automatic speed adjustment (fixed function)
With monitor: configurable (*)
2. Without monitor: CRPM 1 - Constant rpm (fixed function)
With monitor: configurable (*)
3. Without monitor: Easy-Tronic STEP (fixed function)
With monitor: configurable (*)
4. EFH work/transport (EHR 2 when EFH not present)
Configurable with monitor (*)
5. EHR 1
Configurable with monitor (*)
6. Speed selection upshift switch
7. Speed selection downshift switch
8. Hitch raise/lower switches
Configurable with monitor (*)
9. Transmission shuttle switch forward
10. Transmission shuttle switch backward
11. Speed range thumb wheel
12. Second function button

(*) see **Right-hand console - Switch configurability (Multicontroller II) (90.151)**.



MOIL19TR02588AA 2



MOIL19TR02342AA 3

Remote control valves valves

⚠ WARNING

Unexpected machine movement!

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Failure to comply could result in death or serious injury.

W1789A

⚠ WARNING

Unexpected movement!

When starting the machine engine, make sure the remote valve levers are in the correct position **BEFORE** you operate the key switch. This prevents an attached implement from moving unintentionally.

Failure to comply could result in death or serious injury.

W0433A

⚠ WARNING

Escaping fluid!

If a hydraulic hose, line, or pipe shows signs of wear or damage, replace the component **IMMEDIATELY**.

Failure to comply could result in death or serious injury.

W0297A

⚠ WARNING

Escaping fluid!

Do not connect or disconnect hydraulic quick coupler under pressurized conditions. Make sure all hydraulic pressure is removed from the system before connecting or disconnecting hydraulic quick coupler.

Failure to comply could result in death or serious injury.

W0095B

⚠ WARNING

Pressurized system!

Before disconnecting the couplers, you must:

-lower the connected attachments,

-stop the engine,

-move the control levers forward and backward to discharge pressure from the hydraulic system.

Failure to comply could result in death or serious injury.

W0389A

⚠ WARNING

Pressurized fluid can penetrate the skin and cause severe injuries.

Keep hands and body away from any pressurized leak. **DO NOT** use your hand to check for leaks. Use a piece of cardboard or paper. If fluid penetrates the skin, seek medical attention immediately.

Failure to comply could result in death or serious injury.

W0158A

⚠ WARNING

Pressurized fluid can penetrate the skin and cause severe injuries.

Make sure all hydraulic hoses are properly secured, and not in danger of binding or being pinched. This could cause a hose to break, allowing pressurized fluid to escape.

Failure to comply could result in death or serious injury.

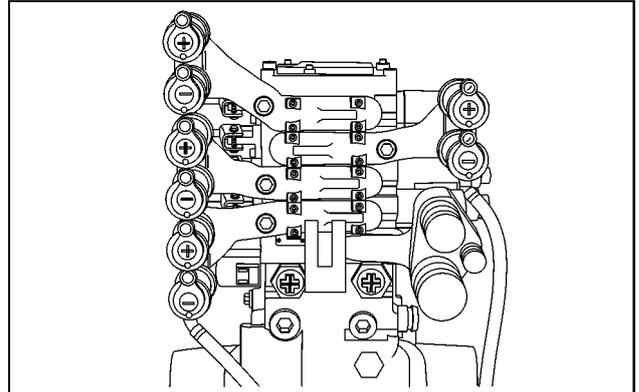
W0439A

NOTE: See page **Hydraulic oil level when using remote hydraulic equipment (21)** for available oil quantities when powering external hydraulic equipment.

The hydraulic remote valves described here are of the load sensing type. By automatically sensing oil demand from the implement, load sensing valves continually adjust the oil flow from the tractor to suit implement requirements.

The control valves are used to operate the external hydraulic cylinders, engines etc. Up to four remote valves can be fitted (2 configurable + 2 non-configurable), located on the rear of the tractor. All remote valves incorporate an automatic lock valve in the Raise (Extend) port to prevent in advertent leak down of the implement.

The valves are operated by levers which are located in the console to the right of the operator's seat. The levers and their respective valves are colour coded for identification.

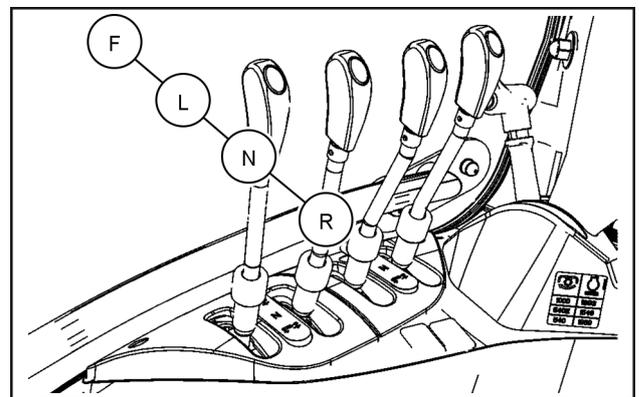


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Control levers

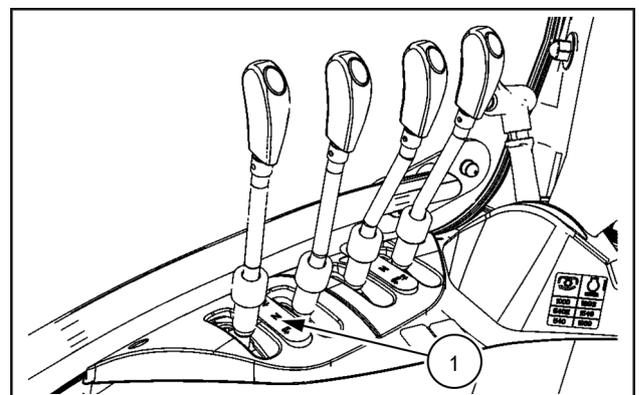
Each remote valve lever has four operating positions, as follows:

- **(R)** Raise (or extend)
Pull a lever rearward to extend the cylinder to which it is connected and raise the implement.
- **(N)** Neutral
Push the lever forward from the raise position to select neutral and deactivate the connected cylinder.
- **(L)** Lower (or Retract)
Push the lever further forward, past neutral to retract the cylinder and lower the implement.
- **(F)** Flotation
Push the lever fully forward, beyond the lower position, to select Float. This will permit the cylinder to extend or retract freely, thereby allowing equipment such as scraper blades to 'Float' or follow the ground contour.



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The Raise, Neutral, Lower and Float positions are identified by symbols on a decal **(1)** next to the control levers.



SVIL18TR00246AA 3

A detent holds the lever in the selected lifting (extension) or lowering (retraction) position until the auxiliary cylinder reaches the end stop; now return the control handle to neutral. Alternatively, the lever can be returned to Neutral manually.

NOTE: if placed in the Float position, the lever does not automatically return to the Neutral position,

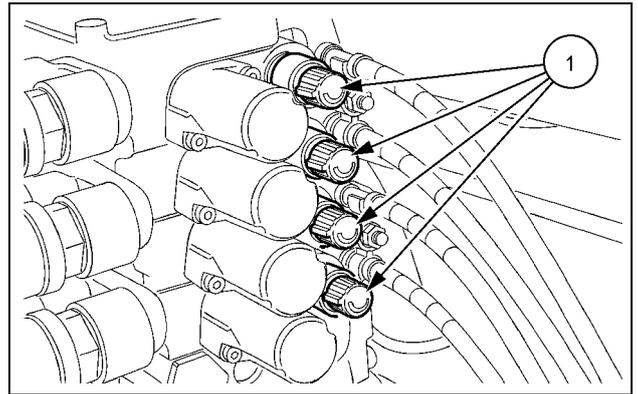
NOTE: do not hold the lever in the extended or retracted position after the auxiliary cylinder has reached the end stop: in this situation the hydro pump will bring the system to maximum pressure.

Maintaining maximum system pressure for extended periods may overheat the oil and cause premature failure of hydraulic or drive line components.

Flow Control

Each remote valve has its own flow control **(1)** this provides individual flow settings for each valve.

- Turn the flow control knob counterclockwise to increase the rate of oil flow.



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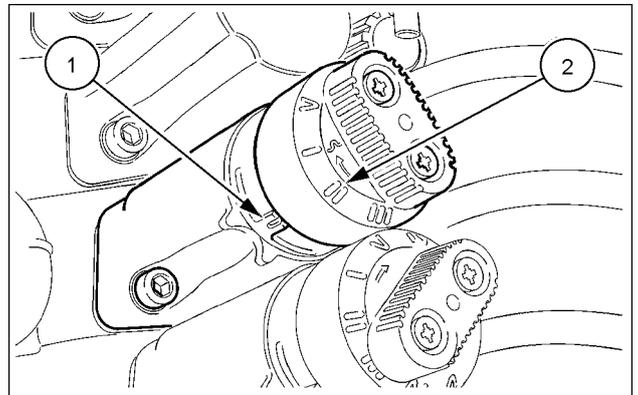
NOTE: For available flow rates, see the Specification section in this manual.

Configurable detent operation (where fitted)

Your tractor may be fitted with configurable detents on remote valve 1 and 2. The rotary control **(1)** is used to select one of five detent settings.

To select a setting:

- rotate the control until the number **(2)** on the end cap is aligned with the mark **(1)** on the valve body.



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NOTE: If the number on the rotary control is not aligned correctly with the reference mark on the valve body, the performance of the valve may be affected.

Before turning the selector, ensure any residual pressure in the hydraulic system is exhausted, in the following way:

- stop the tractor engine
- move the remote valve control lever to all the positions
- return it to the Neutral position.

Each position offers the following functions:

I.

Raise (**R**), Neutral (**N**), Lower (**L**) and Float (**F**) positions available. Detent position in Float only. No lever auto return to neutral (kick out).

II.

Raise, Neutral and Lower positions only. No Float facility. No detent positions available. No lever auto return to neutral (kick out).

III.

Raise, Neutral, Lower and Float positions available. Detents in Raise, Lower and Float. Lever auto return to neutral (kick out) in Raise and Lower positions.

IV.

Raise, Neutral, Lower and Float positions available. Detents in Raise, Lower and Float. No lever auto return to neutral (kick out).

V.

Lower and Float positions available. Detents in Raise and Float. No lever auto return to neutral (kick out).

To select position V:

- move the remote valve control lever to the Neutral position
- select position I or IV, then move the lever to the Float position.
- With the lever in Float select position V.

To deselect position V:

- Move the remote valve lever to the Float position
- turn the selector control to position I or IV
- move the remote valve lever to the Neutral position.
It is now possible to select positions I to IV.

NOTE: *With the selector in positions I to IV - Neutral. With the selector in position V - Float*

Electronic Draft Control (EDC)

⚠ WARNING

Misuse hazard!

Always use the Hydraulic Master switch to disable the rear hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.

Failure to comply could result in death or serious injury.

W1603A

The system described here is known as Electronic Draft Control (EDC). This electronically controlled hydraulic system senses changes in the draft loading via sensors in the lower link pins of the three-point hitch and changes in the position of the hitch via a sensor on the cross shaft. The system functions in position control or draft control.

NOTE: Always keep the rear hitch lower arms fully raised in the transport position when travelling on roads without implements connected to the lower arms.

Position Control provides accurate control of implements that normally operate above the ground. Once the implement height has been set, the system will maintain that height irrespective of any external forces acting upon it.

Draft control is designed for mounted or semi mounted implements operating in the ground. Draft control automatically compensates for changes in soil resistance which cause the implement draft loading to increase or decrease.

EDC control overview

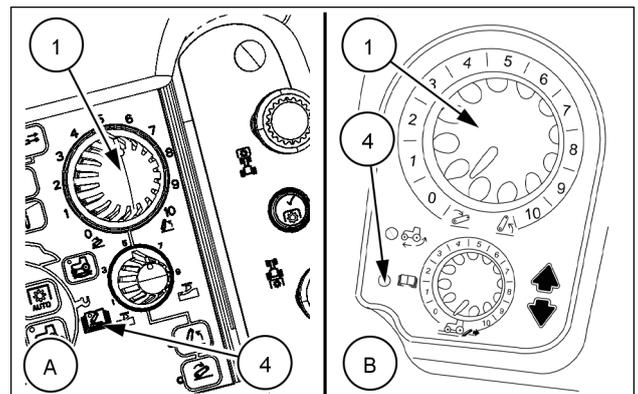
The controls for the electronic draft control (EDC) are on the integrated control panel (ICP) when a Multicontroller I (A) is fitted or on the armrest switch panel and side console when a Multicontroller II (B) is fitted.

The hitch position control knob (1) is used to set: the height of the implement when working with position control; the maximum depth of the implement while working in draft control mode.

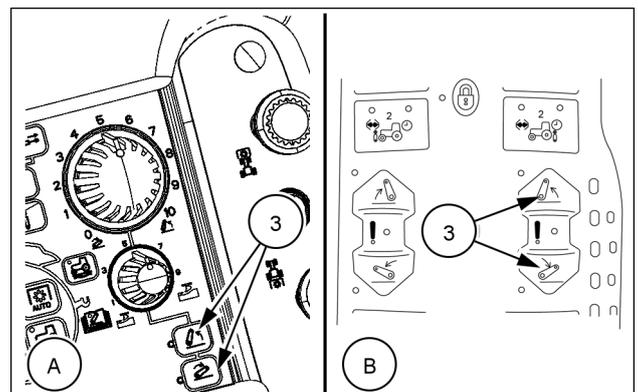
The malfunction warning light (4) serves two purposes:

- Flashing light indicates a malfunction in the system circuits.
- Steady light, the light remains illuminated when the hitch is not at the working height selected or at the preset height set by the height limiter. This may be caused by:
 - Operating the raise and lower switches (3)
 - EDC is stopped during the raise cycle
 - Using the fender switches
 - Moving the hitch controls after turning the ignition key to OFF.

The above lights will be accompanied by the hitch fault symbol appearing in the operational display. To clear the fault, cycle the hitch position control slowly through the full lift range.



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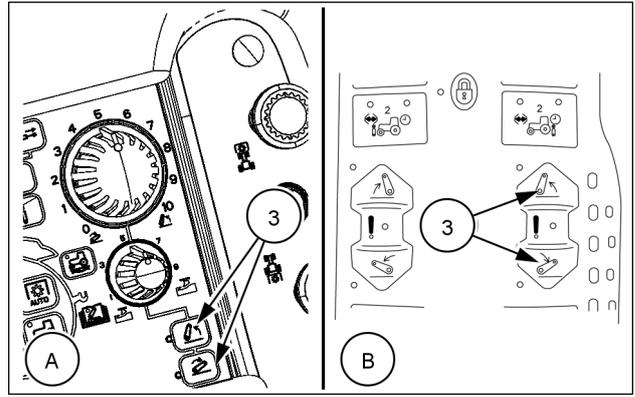
MOIL21TR00238AA 2

Incremental raise and lower switches

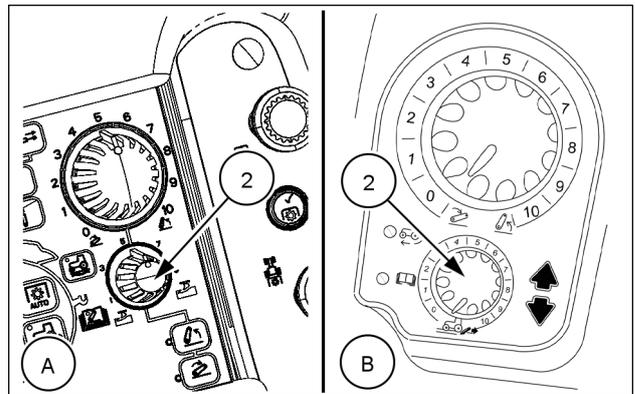
Where a small change in the height of the three-point hitch is required, pressing these switches (3) repeatedly will alter the height of the hitch in small increments.

The indicator lights in the raise and lower switches (3) illuminate when the position control is rotated to raise or lower the implement or when the incremental raise and lower switches are used. As draft corrections occur during normal tractor operation, the lower light will illuminate when the hitch lowers, the upper light will illuminate when the hitch raises.

The adjustment control for the draft load (2) determines the draft load, and therefore the working depth of the implement. Rotate fully counter-clockwise to provide maximum load and therefore maximum implement depth.



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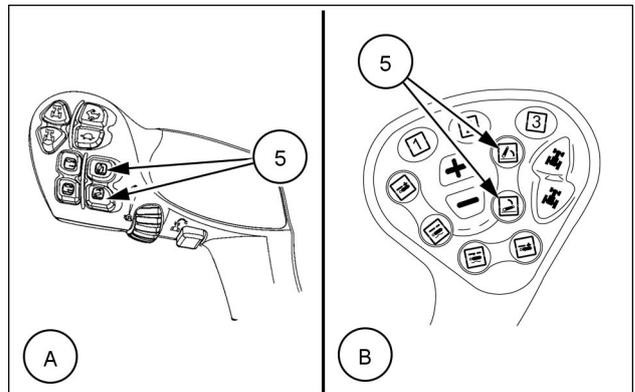


MOIL21TR00237AA 4

Lifting and lowering switches

Once the three-point hitch has been set to the required working position, these switches (5) can be used to raise and lower the hitch without affecting the draft or position control settings. The switches also provide for faster ground engagement, if required. For detailed information, see text on page **Electronic Draft Control (EDC) operation (55.130)** and the following.

NOTE: The raise/lower switch is a momentarily operated switch. The switch should be depressed and released within one second of operation and not held in a depressed state. Failure to observe this may result in a fault of the electronic system.



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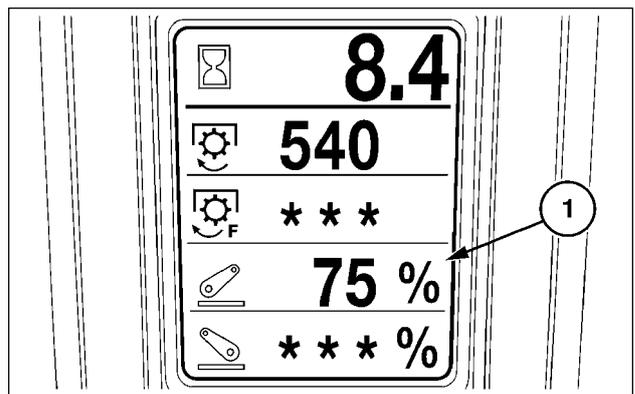
To: Multicontroller I

B: Multicontroller II

Hitch position display

The digital display in the instrument cluster indicates the position of the lower links (1) over a scale of '0' to '100'. A display of '0' indicates that the links are fully lowered. '100' indicates they are fully raised. When the draft control is active and the system has automatically adjusted the hitch height, the tractor symbol  will be displayed next to the position. Select the display using the appropriate keys on the keypad.

height, the tractor symbol  will be displayed next to the position. Select the display using the appropriate keys on the keypad.



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EDC panel

The EDC panel is located under the armrest; lift the padding to access the controls.

1. Rear wheel slip control.
2. Electro Hydraulic Remote (EHR) control valve program control (see EHR section).
3. Rear three-point hitch drop rate control.
4. Rear three-point hitch draft control sensitivity setting.
5. Rear three-point hitch height limiter.

The slip limit control knob **(1)** available only with the optional radar sensor unit, enables the operator to select a wheel slip threshold, above which the implement will raise until wheel slip returns to the set level. Depress the slip control switch on the armrest unit to activate.

A drop rate control **(3)** adjusts the speed at which the three-point hitch drops during the lowering cycle. The first position selects the slowest drop and is denoted by the tortoise symbol, the last position provides the fastest drop rate and is marked by the hare symbol.

The draft sensitivity control **(4)** is used to make the system more sensitive or less sensitive to changes in draft loading. Maximum sensitivity is obtained by rotating the control fully clockwise.

The height limit control knob **(5)** limits the height to which the hitch may be raised. Adjust this knob to avoid the possibility of a large implement damaging the tractor when fully raised.

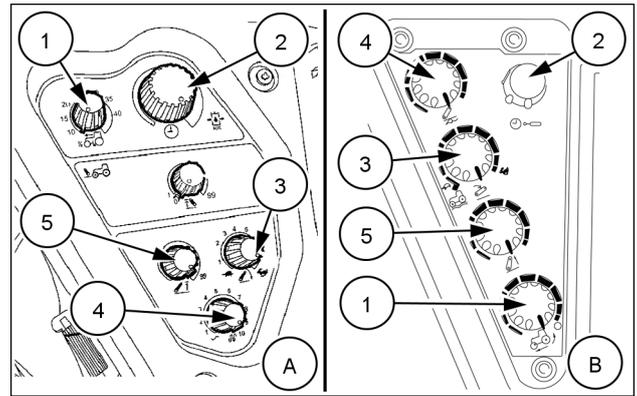
A slip limit 'on' indicator will illuminate when the wheel slip limit control is activated.

Disable and release the hitch

A steady malfunction warning light **(4)** signifies that the hitch has been disabled and the setting of the position control knob **(1)** does not correspond to the position of the lower arms.

The 'hitch disabled' warning will display if:

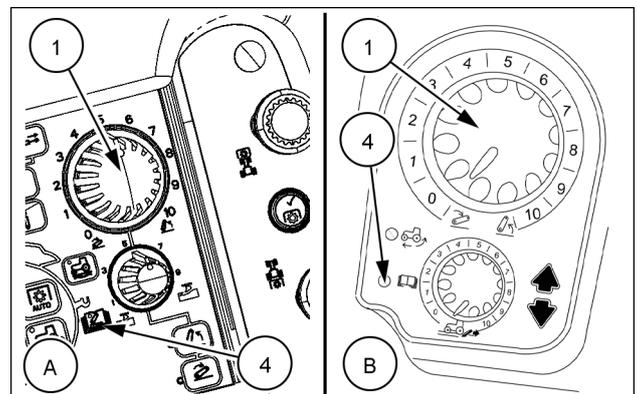
- The Position Control lever has been moved with the engine stopped.
- One of the external hitch controls has been operated to raise or lower the three-point hitch. See 'Malfunction warning light', figure 8 or page **External hitch controls (55.130)**.



MOIL21TR00239AA 7

To: Multicontroller I

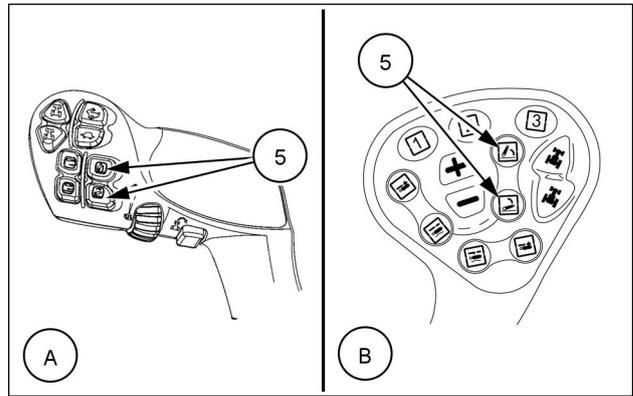
B: Multicontroller II



MOIL21TR00237AA 8

To re-phase the position control with the lower arms, start the engine and rotate the control **(1)**, figure 8 slowly in either direction until the position of the control knob matches the height of the hitch. This will be confirmed by the 'hitch disabled' warning light going out.

Alternatively, use the raise and lower switches **(5)** to raise or lower the hitch until the hitch disabled light goes out. During the re-phase sequence, the lower arms will raise slowly but once the position control knob and hitch are in phase, the lower links will operate normally.



MOIL21TR00229AA 9

To: Multicontroller I

B: Multicontroller II

Working conditions (with monitor)

Tractors with monitors are able to record operational settings made to the EDC system and the three-point hitch. These settings may be stored in the tractor memory and recalled for future use.

NOTE: To exit popup screens without making changes touch X.

NOTE: Changing the descriptions for Implement or Work Condition in any screen will automatically update all Work Condition screens.

Implement setup

☞ Work conditions

☞ Impl

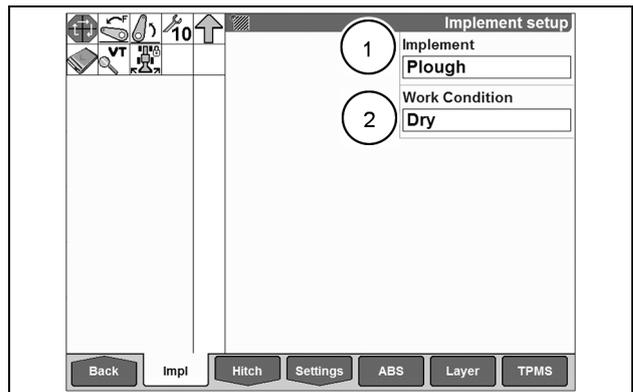
The implement screen allows the operator to select, edit or create implement descriptions and working conditions.

☞ Implement **(1)**

Select an implement from the popup list, modify a current implement description or add a new implement to the list.

☞ Work Condition **(2)**

Select the current work condition from the popup list, modify the current condition or add a new work category to the list.



SVIL15TR02316AA 10

Electronic Draft Control (EDC) operation

⚠ WARNING

Moving parts!

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

Position control

Ensure the hydraulic master switch is in the "ON" position to allow the three-point hitch to function, see page **Hydraulic master switch (35.000)**.

Attach the implement to the three-point.

Turn the draft loading control (2) fully counterclockwise, this is the position control setting.

Start the engine and using the position control knob (1) raise the implement in stages, ensuring that there is at least **100 mm (4 in)** clearance between the implement and any part of the tractor.

Note the figure in the lower display. If the reading is less than '100' it means that the implement is not fully raised.

Adjust the height limit control knob (3) to prevent the hitch being raised further and so avoid the possibility of the implement damaging the tractor when fully raised.

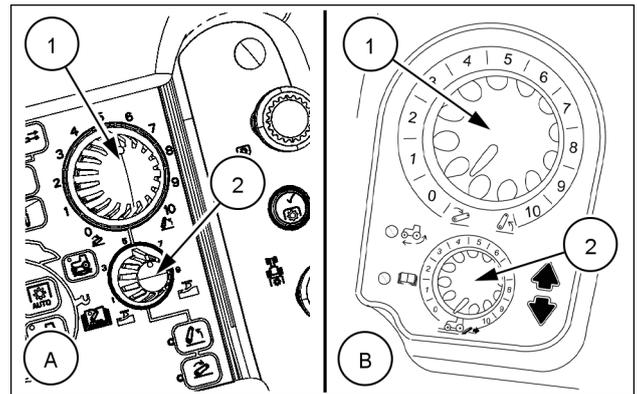
When the fast raise/lower switch or the position control knob is used to raise the implement, it will only raise to the height set by the height limit control, as determined in the previous step.

Position 0 allows the hitch to be raised to only **50%** of its lifting height whereas position 10 allows to be raised to the maximum lifting height can be adjusted across a continuously variable range between 0 and 10..

Adjust the rate of drop, to suit the size and weight of the attached implement, by rotating the drop rate control knob (4). Turn the knob clockwise to speed up the drop rate or counter-clockwise to slow down the drop rate.

NOTICE: When first setting the implement up for work, keep the drop rate control knob in the slow drop position ('tortoise' symbol).

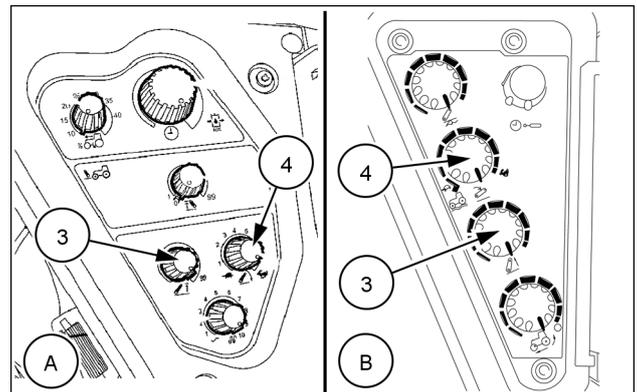
When the raise/lower switch is used to lower the implement, it will lower at a controlled rate as determined in the previous step.



MOIL21TR00237AA 1

To: Multicontroller I

B: Multicontroller II



MOIL21TR00239AA 2

To: Multicontroller I

B: Multicontroller II

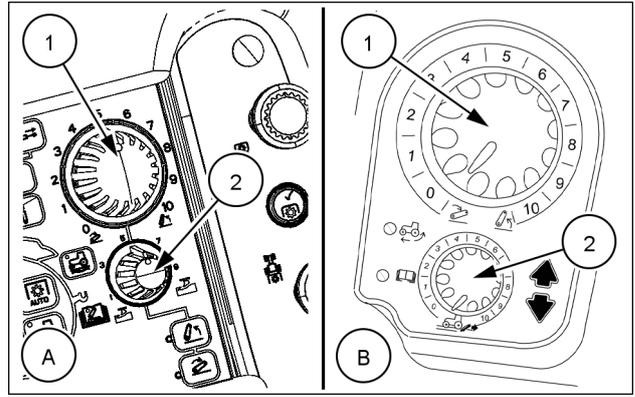
Position control operation

To operate in position control, the draft loading control (2) should, ideally, be rotated fully counterclockwise.

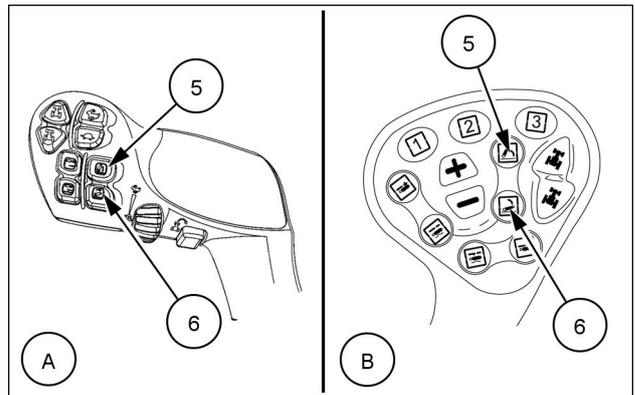
Use the position control knob (1) to raise and lower the three-point hitch. The implement will raise and stop at the height set by the height limit control knob.

NOTE: The rate of lift will be adjusted automatically. If a large movement of the position control knob is made then the lower links will respond by moving rapidly. As the arms approach the position set by the position control knob, implement movement will be slower.

If it is required to raise the implement at the headland, momentarily depress the raise switch (5) to lift the implement to the position set by the height limit control knob. When reentering the work area, momentarily depress the lower switch (6) and the implement will return to the height originally set by the position control knob (1).



MOIL21TR00237AA 3



MOIL21TR00229AA 4

To: Multicontroller I

B: Multicontroller II

Draft Control

To ensure the best performance in the field it will be necessary to adjust the draft control system to suit the implement and ground conditions.

The draft control knob **(2)** determines implement depth based on information from the sensors located on the draft sensing pins. Set the control to the mid-position prior to commencing work.

The position of the draft sensitivity knob **(7)** determines the sensitivity of the system. Set the knob to the mid-position before lowering the implement into work.

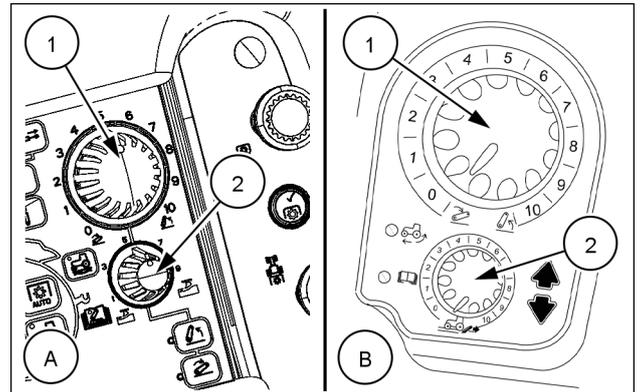
Lower the implement into work by rotating the position control knob **(1)** counterclockwise.

Set the required implement working depth by adjusting the setting on the draft loading control **(2)**. When the required depth has been achieved, rotate the position control counterclockwise until the implement starts to raise then rotate clockwise in small increments to set the maximum depth limit.

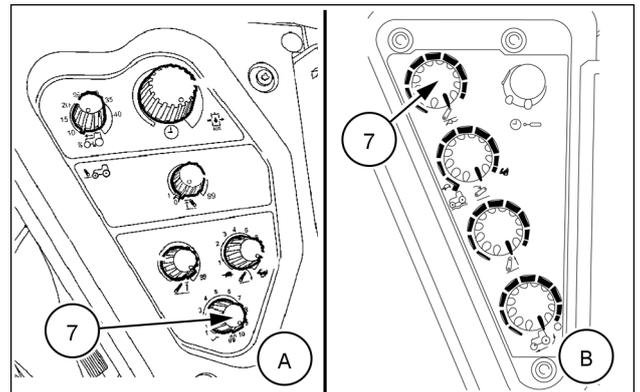
When adjusted correctly, the position control setting will prevent the implement from 'diving' or working too deep if an area of soft or light soil is encountered. Once the draft loading and maximum depth have been set, raise and lower the implement using the fast raise switch on the transmission lever.

Observe the implement as it pulls through the soil and adjust the draft sensitivity knob **(7)** until the tendency to raise or lower, due to variations in soil resistance, is satisfactory. Once set, the tractor's hydraulic system will automatically adjust the depth of the implement to maintain an even pull (draft load) on the tractor.

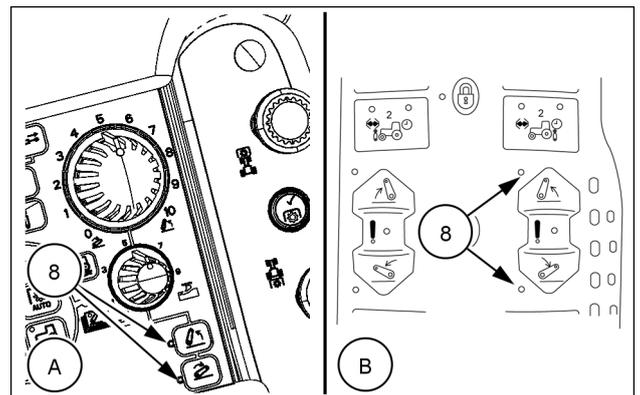
The optimum setting will be achieved by observing the movement indicator lights **(8)** figure 8. The upper light will illuminate every time the system raises the implement as normal draft corrections occur. The lower light will illuminate as the implement lowers.



MOIL21TR00237AA 5



MOIL21TR00239AA 6



MOIL21TR00238AA 7

To: Multicontroller I

B: Multicontroller II

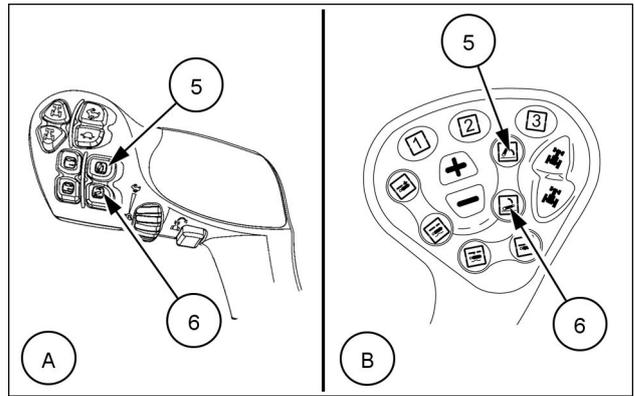
Turn the draft sensitivity knob **(7)** slowly clockwise. The system will respond with smaller, faster movements causing the lights to flicker. At this point, turn the knob slightly counterclockwise until either of the indicator lights flashes once every **2 s** or **3 s** or, as required, to suit the soil conditions.

Once the required working conditions have been established there is no need to move the position control knob again until the work in hand is completed.

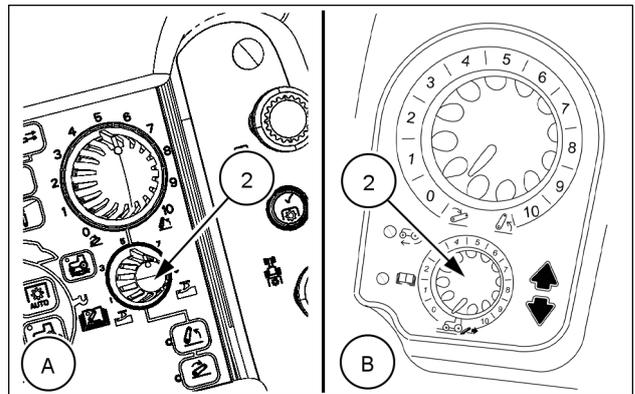
Upon reaching the headland, momentarily depress the fast raise switch **(5)** to quickly lift the implement to the position set by the height limit control knob. When re-entering the work area, momentarily press the lowering switch **(6)**; the implement lowers at the speed set with the lowering speed control knob, stopping once the depth set with the draft control knob **(2)** is reached, figure 9.

During the raise cycle, momentarily depressing the raise/lower switch will pause implement lift.

NOTE: *Depressing the raise switch during the lift cycle will temporarily disable the hitch. Depressing the switch again will re-enable hitch operation but initial movement will be slow.*



MOIL21TR00229AA 8



MOIL21TR00237AA 9

To: Multicontroller I

B: Multicontroller II

Faster penetration of the implement may be required, for example, after turning at a narrow headland. Also, some implements are reluctant to penetrate, particularly if the ground is heavy. Press and hold the lower switch **(6)** and the implement will lower at the rate set by the drop rate control knob, until it contacts the ground.

Continue to depress lower switch and the drop rate and the position control settings will be overridden. The implement will quickly penetrate the ground, rising to the preset working depth when the switch is released.

Slip limit control

The slip limit control **(9)** available only with the optional radar sensor unit, enables the operator to select a wheel slip threshold which, if exceeded, will result in the implement working depth being adjusted to reduce wheel slip.

When slip control is activated, the draft control system will temporarily reduce the working depth of the implement. As rear wheel slip reduces, draft control will lower the implement back to its original working depth.

Care must be taken not to select a wheel slip limit that is either too high or too low. Setting the slip limit to a very low level, unobtainable in wet conditions, may have a detrimental effect on the work rate and depth.

NOTE: The wheel slip function does not work in position control.

The slip limit 'on' indicator **(1)** turns on when the slip control function is activated by pressing the corresponding switch on the control panel (ICP) when a Multicontroller I **(A)** is fitted or on the armrest switch panel when a Multicontroller II **(B)** is fitted. When the slip control is in operation, the warning light **(2)** will also illuminate and the implement will raise to reduce the slip rate.

Where the amount of wheel slip approaches the preset limit, a warning will also appear in the dot matrix display.

To disengage the slip function depress the switch on the arm rest unit.

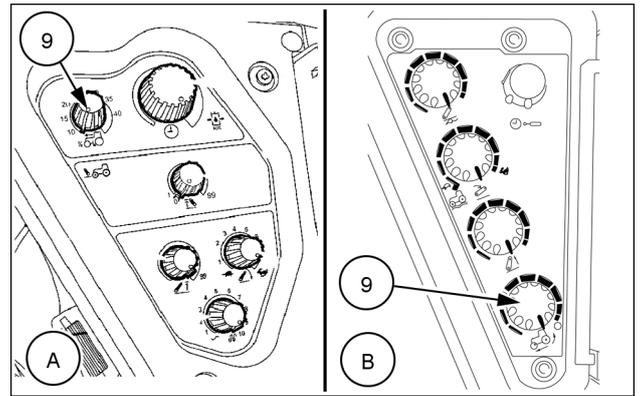
Setting the slip limit (with monitor)

Settings

Implement. Use the pop-up screen to select, change or add a new implement category.

Work condition. Use the pop-up screen to select, change or add a new category of work condition.

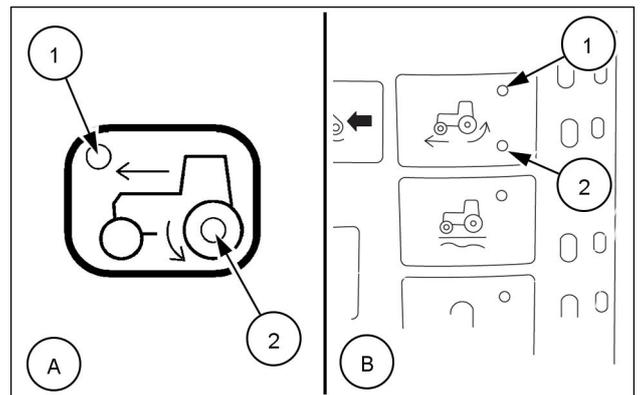
1. Percentage slip figure, this will change as wheel slip increases and decreases.
2. Same as **(1)** above but in bar graph format.
3.  to access the popup for setting wheel slip alarm threshold. Set the figure using symbol ◀ or ▶ then press Enter. The selected figure will appear in the slip alarm box.



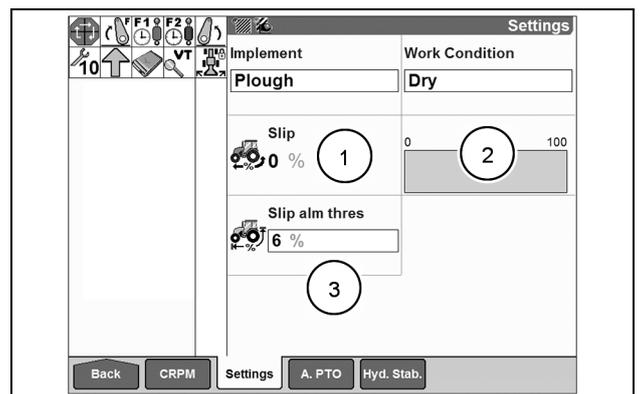
MOIL21TR00239AA 10

To: Multicontroller I

B: Multicontroller II



MOIL21TR00240AA 11

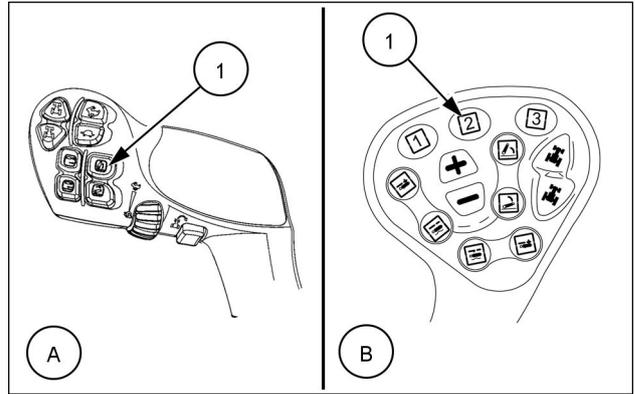


SVIL15TR002390AA 12

Ride control system

When transporting equipment on the three-point hitch, implement bounce can lead to lack of steering control at transport speeds. With ride control selected, when the front wheels hit a bump, causing the front of the tractor to rise, the hydraulic system will immediately react to counter the movement and minimise implement bounce to provide a smoother ride.

Using the fast raise switch **(1)** raise the implement to the height set by the height limit control.



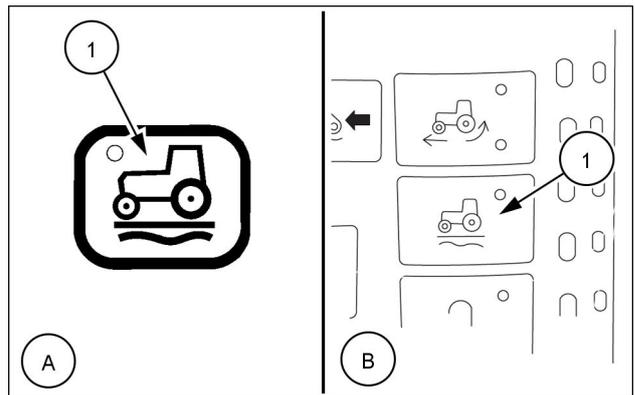
MOIL21TR00229AA 13

To: Multicontroller I

B: Multicontroller II

Press the switch **(1)**, figure 14, on the control panel (ICP) when a Multicontroller I **(A)** is fitted or on the armrest switch panel when a Multicontroller II **(B)** is fitted, to activate the ride control function. A warning light in the switch will illuminate to confirm engagement.

Ride control will only operate at speeds above **8 km/h (5 mph)**. When tractor speed exceeds **8 km/h (5 mph)** the implement will drop by 4 - 5 points (as displayed on the instrument panel) as the hydraulic system makes corrections to counteract implement bounce. When tractor speed falls below **8 km/h (5 mph)** the implement will raise again to the height set by the height limit control and ride control will become inoperative.



MOIL21TR00241AA 14

Hitch operation

⚠ WARNING

Misuse hazard!

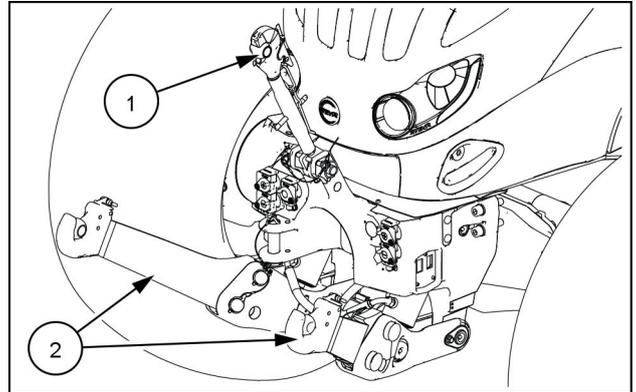
Always use the hydraulic master switch to disable the front hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.

Failure to comply could result in death or serious injury.

W1792A

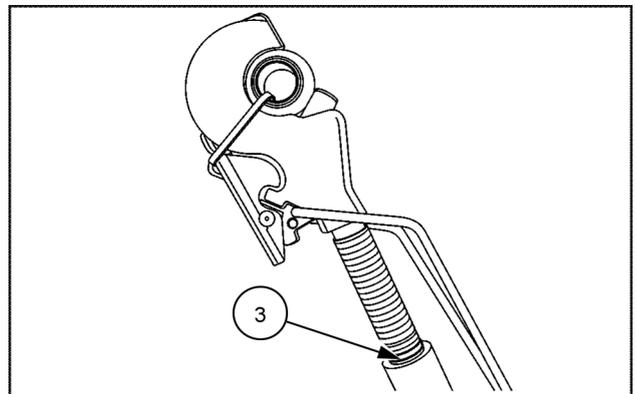
The optional front hitch consists of an adjustable third point (1) and a pair of folding lower arms (2). The top link and the lower links have open claw ends that permit rapid coupling and uncoupling of implements.

The claws are equipped with self locking latches to ensure positive retention of the three-point hitch to the implement.



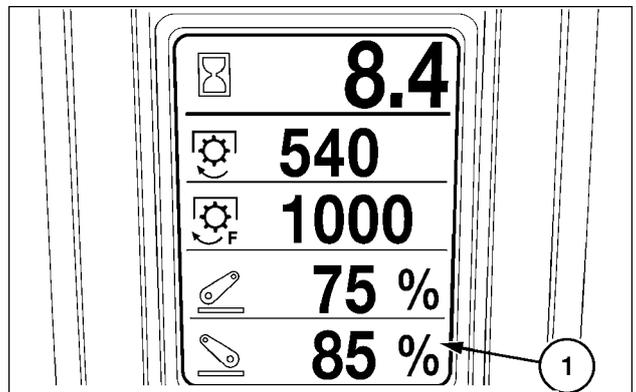
MOIL20TR01715AA 1

NOTICE: Extend the lift rod only until the notch (3) in the thread is visible to avoid damage of the thread.



SVIL14TR00023AC 2

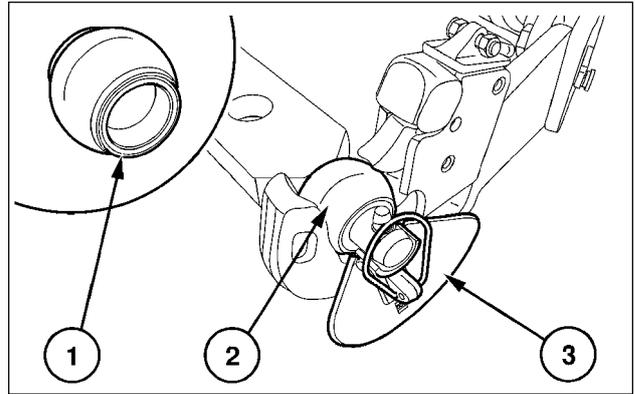
The front hitch can be operated by a rear or mid-mount remote valve (where fitted). The height of the hitch (1), figure 3, can be shown in the central display as a percentage (%) ranging from 0 (fully lowered) to 100 (fully raised).



BRK5803R 3

Three ball-bushings are supplied for installation on the implement, if required. The ball-bushing with projecting lips **(1)** should be installed on the implement upper hitch pin.

The two plain ball-bushings **(2)** with their detachable guides **(3)** should be installed on the implement lower hitch pins.



BRJ5352B 4

Operating the front hitch

The front hitch may be operated by rear remote mechanic control valves, or, if fitted, by mid-mount remote electrohydraulic control valves.

Hitch operation with mechanical rear remote control valves

One of the rear mechanical control valves can be used to operate the front hitch using the control lever (1).

The pre-defined control valve for operating the front hitch is always number 1.

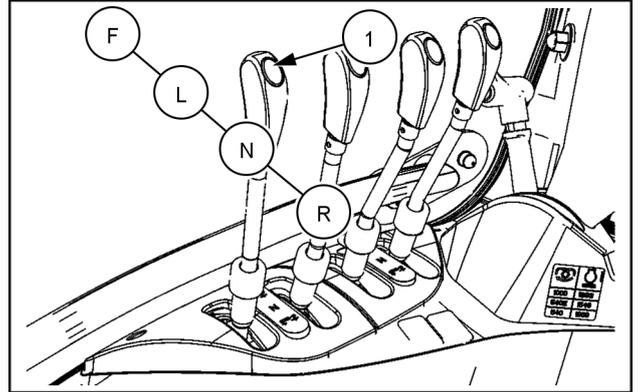
Each remote valve lever has four operating positions:

- **(R)** Raise (or extend)
Pull a lever rearward to extend the cylinder to which it is connected and raise the implement.
- **(N)** Neutral
From position **(R)**, push the lever forward to select neutral and deactivate the connected cylinder.
- **(L)** Lower (or Retract)
Push the lever further forward, past neutral to retract the cylinder and lower the implement.
- **(F)** Flotation
Push the lever fully forward, beyond the **(L)** position, to select the float function. This will permit the cylinder to extend or retract freely, thereby allowing equipment such as scraper blades to 'Float' or follow the ground contour.

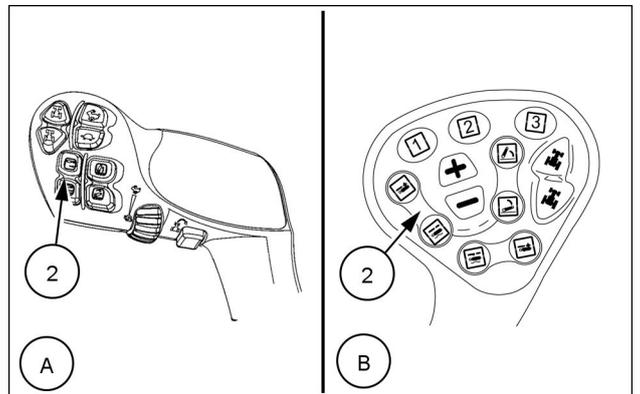
For a detailed description of the operation of rear remote mechanical control valves, refer to **Remote control valves valves (35.204)** in this manual.

Hitch operation with multi-function handle and mid-mount electrohydraulic control valves

Depending on the machine specification, when the machine is configured to support the front hitch, the multi-function handle electrohydraulic (EHR) control valve controls (2) are used to raise/lower the front hitch.



SVIL18TR00246AA 5



MOIL21TR00229AA 6

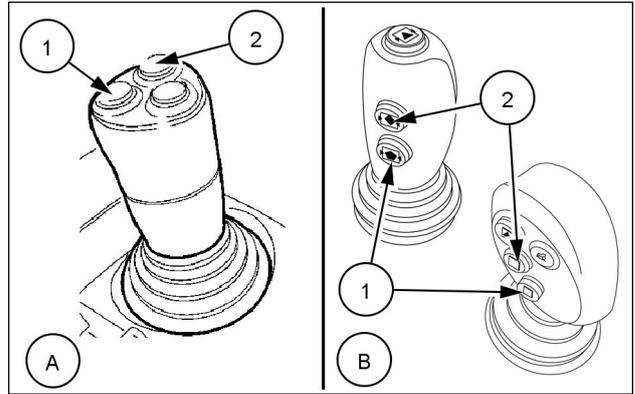
To: Multicontroller I

B: Multicontroller II

Hitch operation with joystick and electrohydraulic mid-mount control valves

The joystick can be used to control the front hitch using the mid-mount remote electrohydraulic control valves. Valve number 1 will be used to operate the hitch.

NOTE: On tractors fitted with electrohydraulic remote control valves, whether fitted in the middle or back, the joystick can be used to control the front hitch only using the mid-mount control valves.



MOIL21TR00242AA 7

- Keep pressing the selector switch (1) on the console to switch control from the mid-mount control valves to the rear control valves, and vice versa. The warning lights on the selector switch (2) and (3) will confirm which valves are activated.
- When a Multicontroller II is fitted, the control valves can also be selected by pressing and holding the corresponding button (4) on the standard joystick (not available on advanced joystick fitted with proportional rocker).

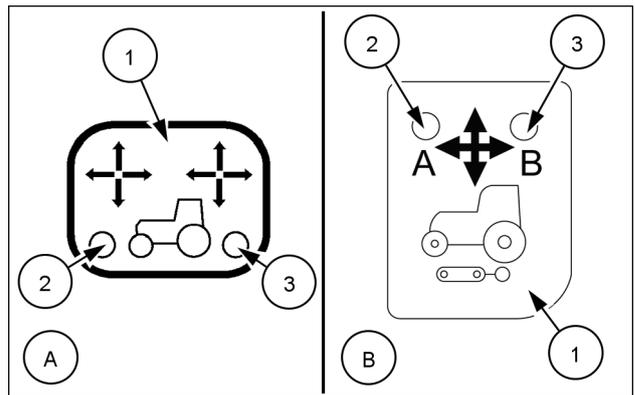
NOTE: If the joystick is configured to operate the front hitch then it is not possible to switch the joystick to operate rear remote valves.

NOTICE: Before switching joystick operation between mid and rear mount control valves or vice versa, ensure all remote control valve levers, the controls on the armrest switch panel and the joystick are in the neutral position.

- The joystick is deactivated when the tractor is shut down. The joystick will be reactivated when the operator is in the seat with the engine running for more than three seconds. When the joystick is deactivated, the warning lights in the front/ rear selector switch will flash.

To: Multicontroller I

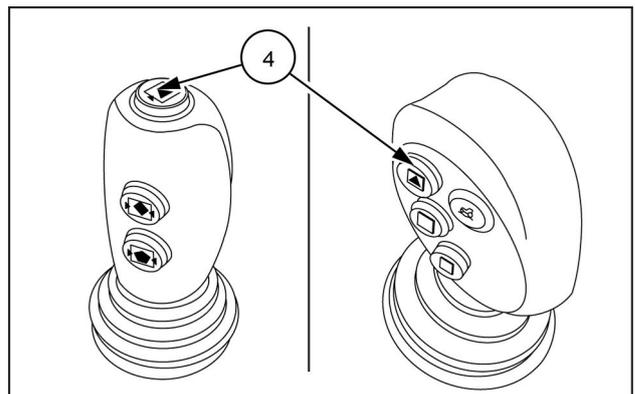
B: Multicontroller II



MOIL21TR00650AA 8

To: Multicontroller I

B: Multicontroller II



MOIL19TR02348AA 9

Control functions using the joystick

- Electrohydraulic mid-mount control valve 1:
Move the joystick forwards or backwards to select raise, neutral, lower and float on the front hitch.
- Electrohydraulic mid-mount control valve 2:
Move the joystick left or right to provide oil flow through the front couplers (where fitted).

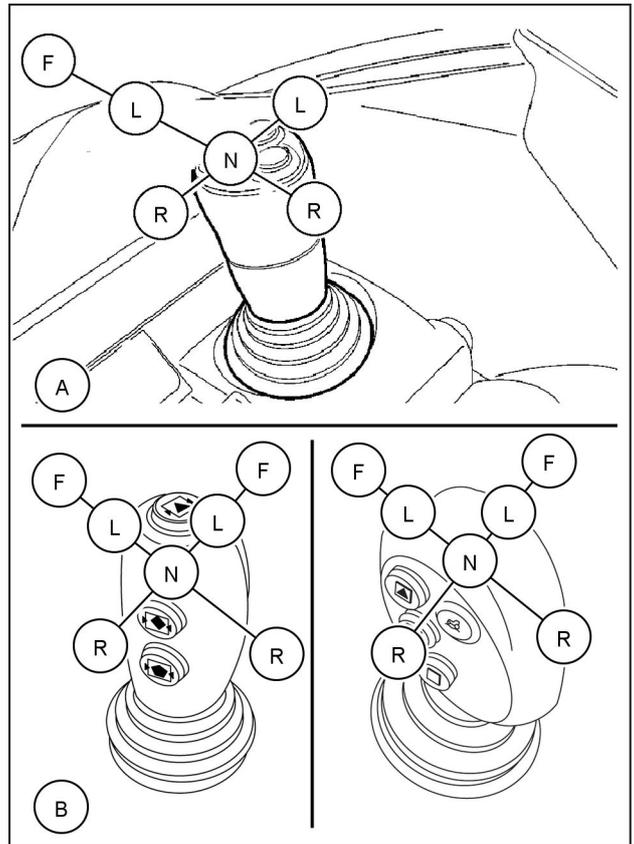
NOTE: The joystick should not be used for hydraulic motor operation.

Available front hitch positions

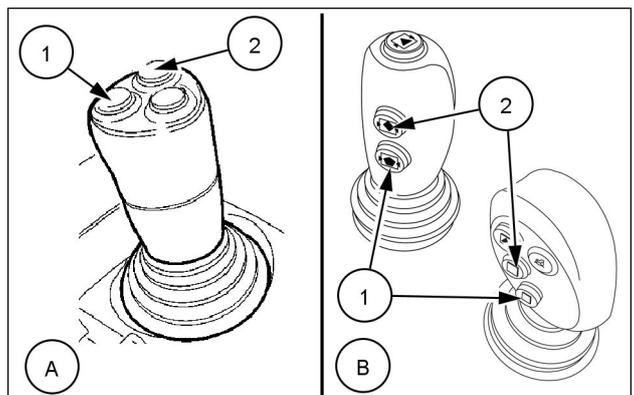
- Move the joystick rearwards (**R**) to raise the implement. When the front hitch reaches the position set by the height limit control the hitch will stop.
- Push the joystick forward to the 'lower' position (**L**) to lower the implement to the ground at a controlled rate of descent.
- Move the lever further forward to select the float (**F**) position. A stop (detent) keeps the joystick in this position. The float function can also be used to let the hitch cylinder extend or retract freely allowing front mounted equipment to follow ground contours.

NOTE: Always use the 'float' position to lower a single-acting cylinder. The lower position is for double acting cylinders only.

NOTE: switches (1) and (2), figure 11, can be used to operate diverter valves fitted on a tool connected to the front hitch, provided they are correctly wired to do so.



MOIL21TR00680BA 10



MOIL21TR00242AA 11

To: Multicontroller I

B: Multicontroller II

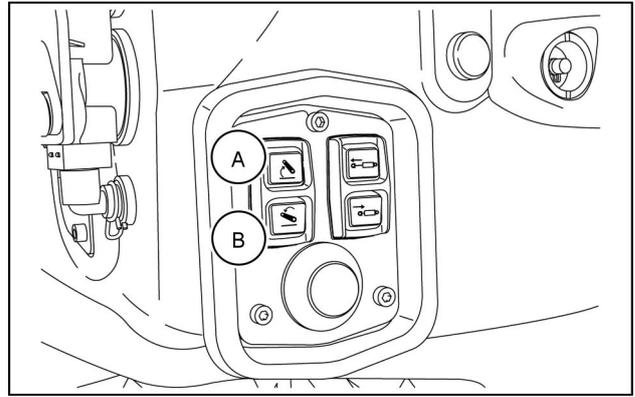
The joystick may also be moved laterally, (**R**) and (**L**) to provide oil flow for equipment connected to the optional front couplers. Only when a Multicontroller II is fitted, the float position (**F**) is also available laterally. A stop (detent) keeps the joystick in this position.

By moving the joystick diagonally two cylinders may be operated simultaneously.

Operating the hitch with the external switch (where fitted)

The optional external switch is connected to the F1 mid-mount control valve.

- **(A)**Lifting function. Press the switch to raise or extend the cylinder connected to the related hitch.
- **(B)**Lowering function. Press the switch to lower or retract the cylinder connected to the related hitch.

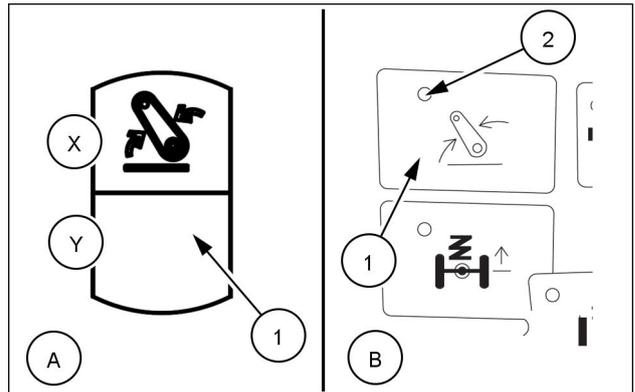


MOIL19TR00340AA 12

Single-acting/double-acting mode selection

The front hitch has two operating modes that can be selected via the dedicated switch **(1)**, figure 13:

Multicontroller I (A)	Multicontroller II (B)
<ul style="list-style-type: none"> - Double-acting (X): pressure is applied to both sides of the cylinders - Single effect (Y): pressure is only applied to the underside of the cylinders. 	<ul style="list-style-type: none"> - Double effect: pressing the switch turns the LED (2) on, the pressure is applied to both sides of the cylinders - Single-acting: pressing the switch again, the LED (2) turns off and the pressure is only applied to the lower side of the cylinders



MOIL21TR00651AA 13

Joystick functionality screen

On tractors fitted with the monitor, the operator can access the joystick screen which provides details on joystick functionality.

Remote valves

Use buttons ▲▼ to scroll through the menu until "Config" (Functionality) is displayed.

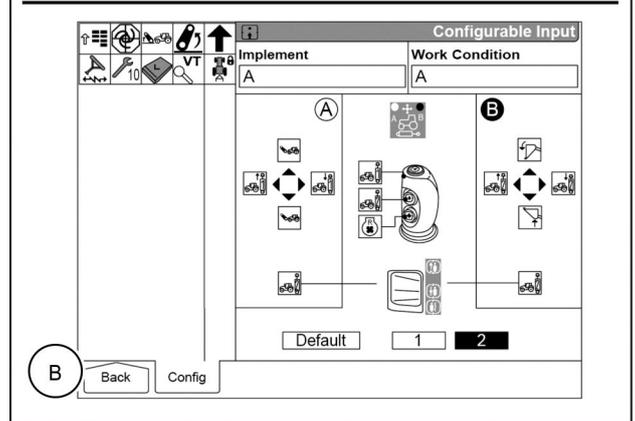
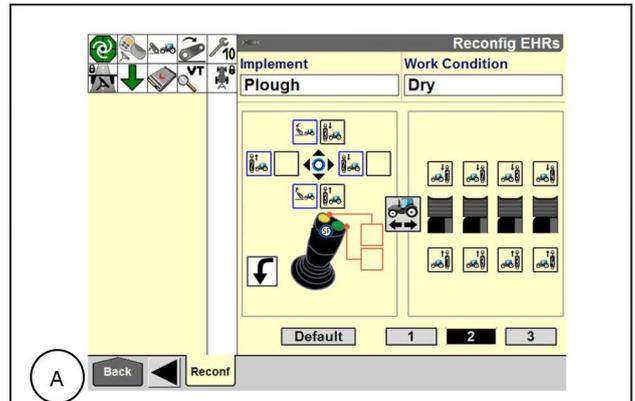
"Config" (Functionality)

The joystick functionality screen identifies the number of control valves controlled by the joystick and the corresponding movement required to operate each control valve. Control valves marked with a blue border can be operated simply by moving the joystick; Control valves with a black border require the switch (1) figure 15 to be pressed before moving the joystick.

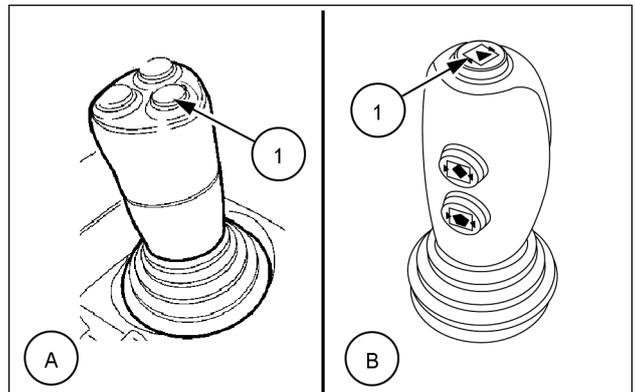
When the switch is depressed a symbol will appear in the screen on the lower right-hand side.

As a valve is operated the white background will change to orange.

If the tractor is fitted with a front hitch the joystick functionality screen also identifies the control valve used to operate the front hitch.



MOIL21TR00681BA 14



MOIL21TR00652AA 15

To: Multicontroller I

B: Multicontroller II

Remote control valves - electrohydraulic

⚠ WARNING

Moving parts!

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

⚠ WARNING

Unexpected movement!

When starting the machine engine, make sure the remote valve levers are in the correct position **BEFORE** you operate the key switch. This prevents an attached implement from moving unintentionally. Failure to comply could result in death or serious injury.

W0433A

⚠ WARNING

Escaping fluid!

Do not connect or disconnect hydraulic quick coupler under pressurized conditions. Make sure all hydraulic pressure is removed from the system before connecting or disconnecting hydraulic quick coupler.

Failure to comply could result in death or serious injury.

W0095B

⚠ WARNING

Pressurized system!

Before disconnecting the couplers, you must:

-lower the connected attachments,

-stop the engine,

-move the control levers forward and backward to discharge pressure from the hydraulic system.

Failure to comply could result in death or serious injury.

W0389A

⚠ WARNING

Pressurized fluid can penetrate the skin and cause severe injuries.

Keep hands and body away from any pressurized leak. **DO NOT** use your hand to check for leaks. Use a piece of cardboard or paper. If fluid penetrates the skin, seek medical attention immediately.

Failure to comply could result in death or serious injury.

W0158A

⚠ WARNING

Uncontrolled equipment movement!

Because the electronic remote control valves have detented lever positions, it is not recommended to use them for front-end loader operations. Consult your authorized dealer.

Failure to comply could result in death or serious injury.

W0428A

NOTE: Two, three or four electro-hydraulic auxiliary control valves using the same oil as the hydraulic lift circuit to which they are connected can be fitted to your tractor for remote control of single-acting and double-acting cylinders.

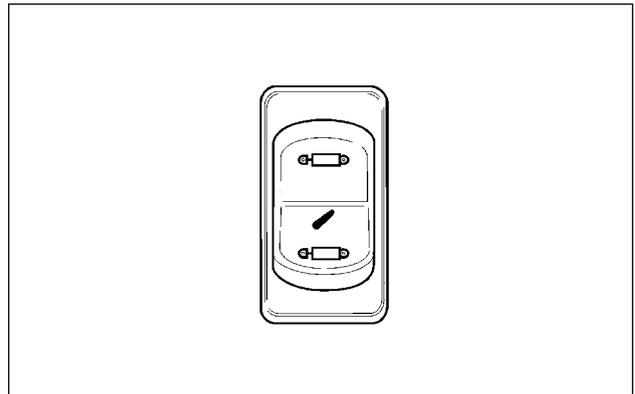
NOTE: See page *Hydraulic oil level when using remote hydraulic equipment (21)* for available oil quantities when powering external hydraulic equipment.

NOTICE: Using the tractor with a low oil level may result in damage to the rear axle and transmission components.

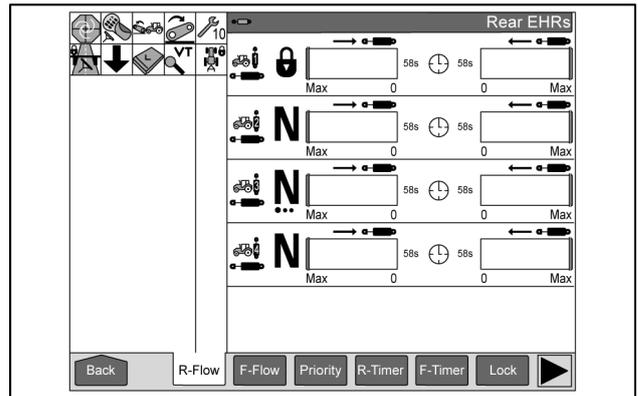
When operating, the (EHR) Electronic Hydraulic Remote control valves perform in a similar manner to mechanical control valves providing Raise, Neutral, Lower and Float functions selected by the operator.

However, where an implement requires repeated hydraulic movements, such as extending and retracting hydraulic cylinders, (EHR) Electronic Hydraulic Remote control valves allow the operator to create an automated programme of these movements.

Each program is supported by visual displays on the (ICU) Integrated Control Unit screen and on the **IntelliView™ IV** (EHR) Electronic Hydraulic Remote display (if fitted).



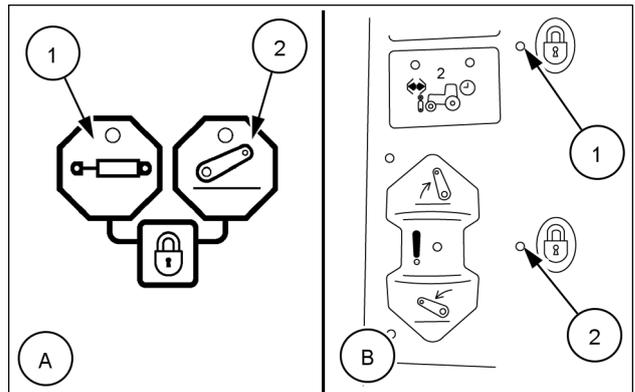
MOIL19TR02358AA 1



MOIL22TR03968AA 2

With the master switch, figure 1, in the mid position (power off), the warning lights will illuminate (see **Integrated control panel (90.151)**):

- to confirm deactivation of the (EHR) Electronic Hydraulic Remote control valves (1)
- to confirm deactivation of the three-point hitch (2).



MOIL21TR00653AA 3

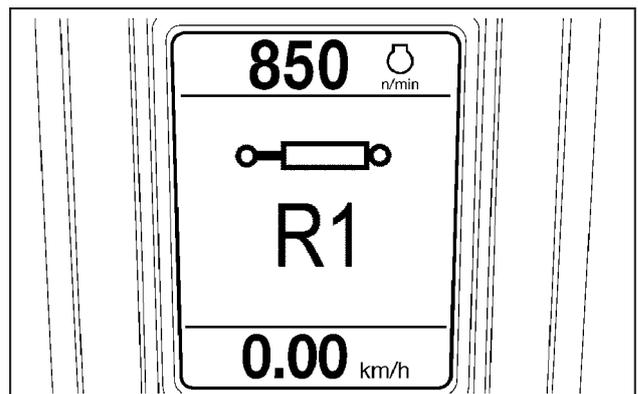
To: Multicontroller I

B: Multicontroller II

When starting the tractor engine, all remote control valve levers, the thumbwheel on the armrest switch panel and the joystick (where fitted) must be placed in the neutral position. Any control not in Neutral will cause the corresponding valve to be disabled.

To reactivate a disabled control valve,

- ensure that the hydraulic system master switch is in the ON position
- manually move the remote valve control lever to the Neutral position.



MOIL22TR03778AA 4

NOTE: Where a valve is not in neutral at start-up, a symbol and the corresponding valve number will appear on the (ICU) Integrated Control Unit display. Where more than one valve is not in Neutral, the display will scroll sequentially through each valve number.

NOTE: At start-up, (EHR) Electronic Hydraulic Remote control valve operation is disabled until the engine speed has been detected to be over **500 RPM** for approximately **3 s**.

Should a remote valve become inoperable or stuck in one position, that valve will become disabled until the fault is rectified or the valve electronically disconnected from the system. Should this occur, consult your authorized STEYR dealer.

Control operation

NOTE: the lever positions may be defined as Raise, Neutral, Lower and Float, or Extend, Neutral, Retract and Float. The functionality however, remains the same.

When a Multicontroller I **(A)** is fitted, the controls are shown by several colour coded identification levers. With the most complete configuration, the levers **(1)**, **(2)**, **(3)**, and **(4)** control the four rear or front (EHR) Electronic Hydraulic Remote control valves (if fitted).

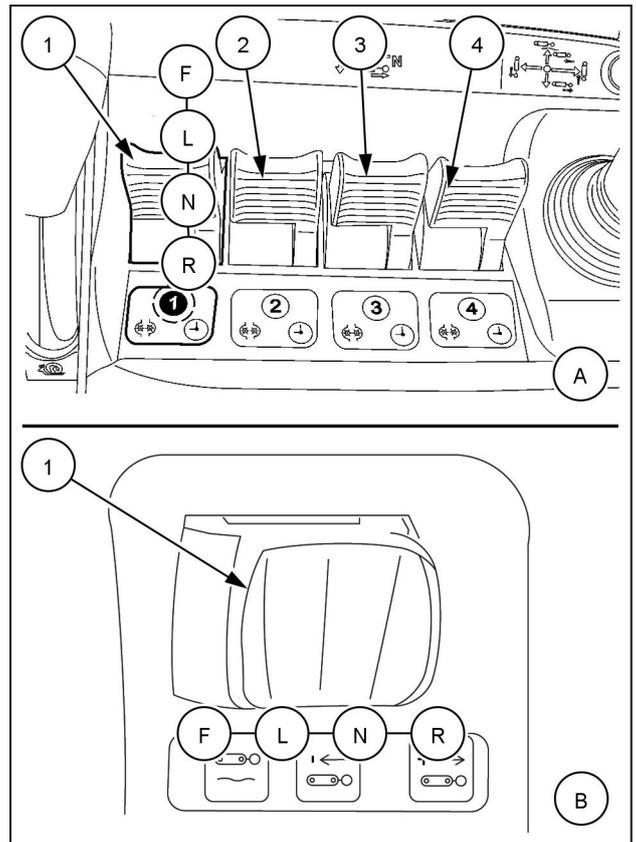
The lever **(1)** has four positions:

- **(R)** lever back, raising implement
- **(N)** neutral position
- **(N)** lever forwards, lowering implement
- **(F)** lever fully forwards, float function

When a Multicontroller II **(B)** is fitted, the control **(1)** is shown by the thumbwheel on the armrest switch panel.

The control **(1)** has four positions:

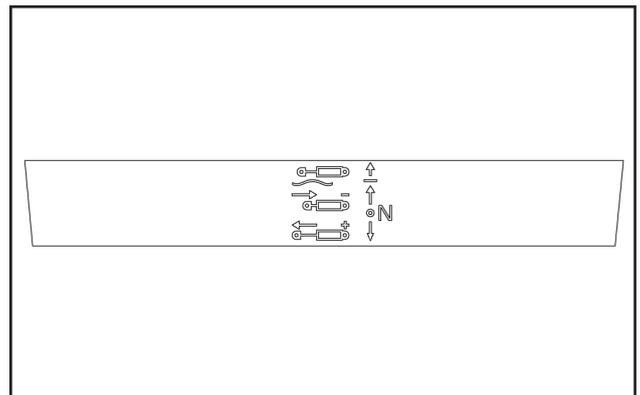
- **(R)** dial to the right, implement lifting
- **(N)** neutral position
- **(L)** dial to the left, implement lowering
- **(F)** dial full to the left, float function



MOIL22TR03306BA 5

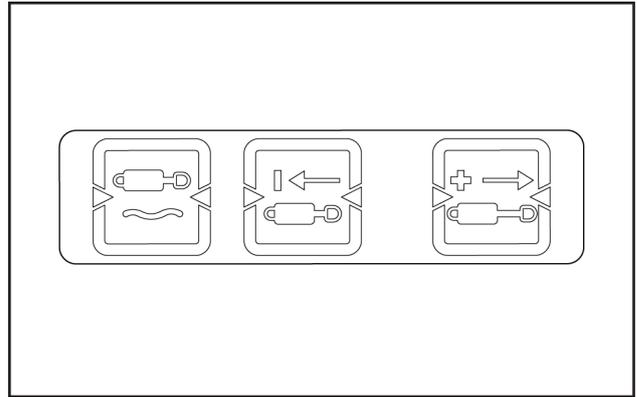
With Multicontroller II **(B)**, the stop position is used in the flotation function: for timed functions of the hydraulic control valves, the control **(1)** must be moved to the implement lift **(R)** or lowered **(L)** position.

When a Multicontroller I is fitted, the label in figure 6 (located near the control lever) shows the operator the operating positions available for each lever.



MOIL22TR03777AA 6

When a Multicontroller II is fitted, the label in figure 7 (located near the control) shows the operating positions available for the same.



MOIL22TR03779AA 7

NOTE: The float position is also used to retract a single-acting cylinder and corresponds to the OFF position of hydraulic motors in operation.

- From the neutral position (**N**) move the control (**1**) to the raise position (**R**).
- From the neutral position, move the control (**1**) towards the lowering position (**L**).
- Move the control (**1**) to the (**F**) position to activate float mode. Float mode will permit a hydraulic cylinder to extend or retract freely, allowing equipment such as scraper blades to "float" or follow the ground contour.

NOTICE: When cylinders are actuated remotely in manual mode, take care not to hold the control (**1**) in the extension or retraction position. When a Multicontroller I is fitted, when the cylinder has reached the end of its stroke the control lever must be returned to the neutral position manually.

Failure to observe this procedure may cause overheating of the hydraulic oil and may lead to failure of hydraulic or drive line components.

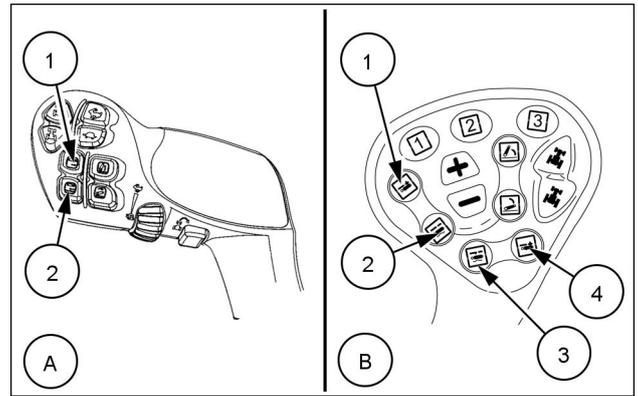
NOTICE: Never use the Neutral position from the extend or retract position to stop a hydraulic motor. Sudden hydraulic lock up of the system may cause extensive damage to the motor. When operating hydraulic motors, ALWAYS use motor mode; see the page **Creating timer programs (35.204)** and the following.

Operation of the multi-function handle

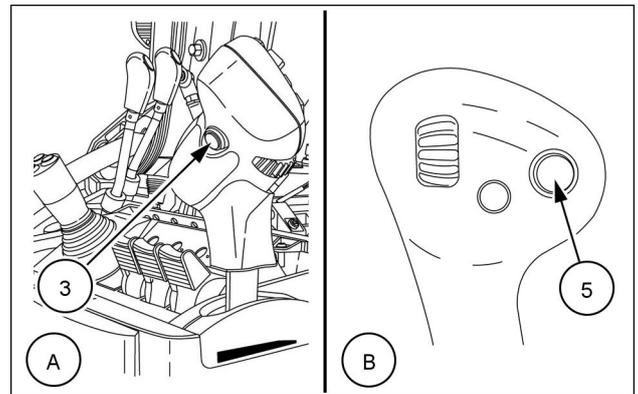
The multi-function handle features four switches used to actuate the remote electrohydraulic control valve.

The switches provide extend, retract and Float functions.

Multicontroller I (A)	Multicontroller II (B)
<ul style="list-style-type: none"> - Press the switch (1) to extend a hydraulic cylinder - Press the switch (2) to retract a cylinder. - To engage the Float facility, depress/hold the function switch (3) on the back of the travel lever then press/release the retract switch. This will put the valve into float. 	<ul style="list-style-type: none"> - Press switches (1) and (4) to extend a hydraulic cylinder - Press switches (2) and (3) to retract a cylinder. - To engage the float function, press and hold the function switch (5) on the back of the multi-function lever then press/release the retract switch. This will put the valve into float.



MOIL21TR00229AA 8



MOIL21TR00232AA 9

To cancel the float function, press the extend or retract switch twice; in this way, the auxiliary hydraulic control valve switches to the neutral position **(N)**.

To reactivate extend or retract mode depress the extend or retract switch twice. On the second press, keep the switch depressed until the Float symbol clears from the display. Release the switch and the valve will now have oil flow.

These switches can also be used to engage timer mode for control valve 1.

To activate timer mode for control valve 1, refer to paragraph 3 in the workshop manual. Depress the extend or retract switch to start and stop the timer.

Electronic joystick operation (where fitted)

The optional electronic joystick (1) can be used to operate either mid-mount or rear-mounted (EHR) Electronic Hydraulic Remote control valves.

If the joystick is used to operate the rear control valves, the operation of the mid-mount control valves is transferred to the (EHR) Electronic Hydraulic Remote control valve levers.

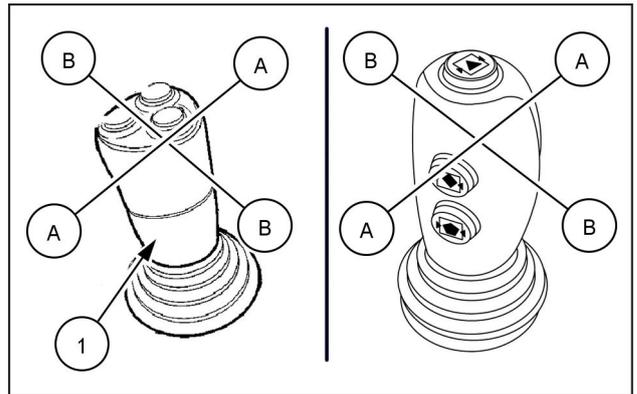
On tractors equipped with mid- and rear-mounted (EHR) Electronic Hydraulic Remote control valves, the switch on the integrated control panel enables joystick control of either mid-mount or rear-mounted valves.

Based on the different configurations, the electronic joystick can have the following pairings, for each joystick:

- (B) vertical axis / (A) horizontal axis
- F mid-mount electrohydraulic control valves / R rear electrohydraulic control valves.

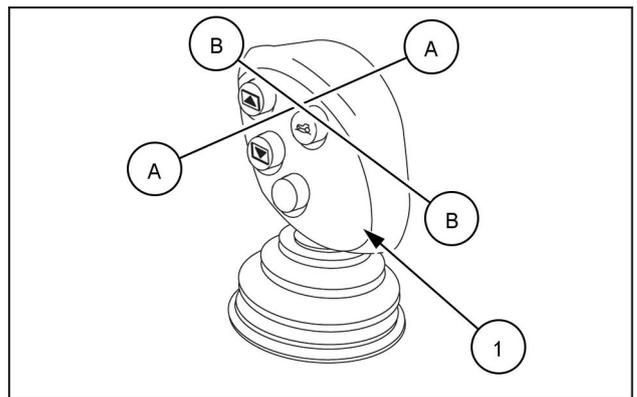
NOTE: The following descriptions of joystick operating procedures refer to tractors not equipped with a factory installed loader kit. For information on loader functions consult the loader Operator's Manual or see page **Joystick operation with a front loader (90.151)**.

Configuration	Hydraulic distributor	
	B	A
Without front loader	F1/R1	F2/R2
With front loader	F1	F2
With front loader and front lift	F2	F3



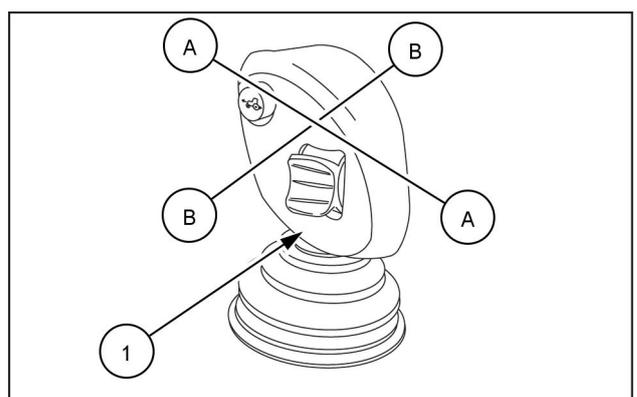
MOIL21TR02790AA 10

Configuration	Hydraulic distributor			
	B	A	B + di-verter CAN	A + di-verter CAN
Without front loader	F1/R1	F2/R2	F3	-
With front loader	F1	F2	-	F3
With front loader and front lift	F2	F3	F1	-



MOIL21TR02565AA 11

Configuration	Hydraulic distributor		
	B	A	thumb-wheel
Without front loader	F1/R1	F2/R2	F3
With front loader	F1	F2	F3
With front loader and front lift	F2	F3	F1



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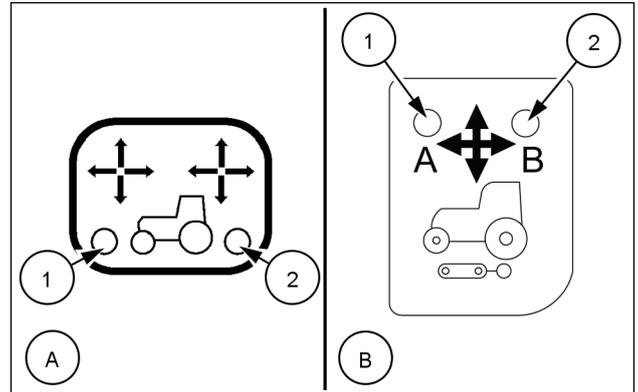
The warning lights **(1)** and **(2)** on the switch on the control panel when a Multicontroller I **(A)** is fitted or those on the armrest switch panel when a Multicontroller II **(B)** figure 13 is fitted, indicate which control valves are controlled by the joystick.

NOTE: Where tractors are fitted with mid-mount (EHR) Electronic Hydraulic Remote valves and mechanical rear remote vales, pressing the switch **(1)** will have no effect and the light **(2)** will remain illuminated.

At key ON, assuming the joystick set to operate the mid mount valves, the indicator light **(1)** will be on.

To switch joystick control from mid-mounted to rear-mounted EHR valves:

- press and hold the switch for **2 s**, until the indicator light **(1)** goes out and the indicator light **(2)** starts flashing
- release the switch and light **(2)** will stop flashing and will remain illuminated. Control is now transferred to the rear mounted valves.

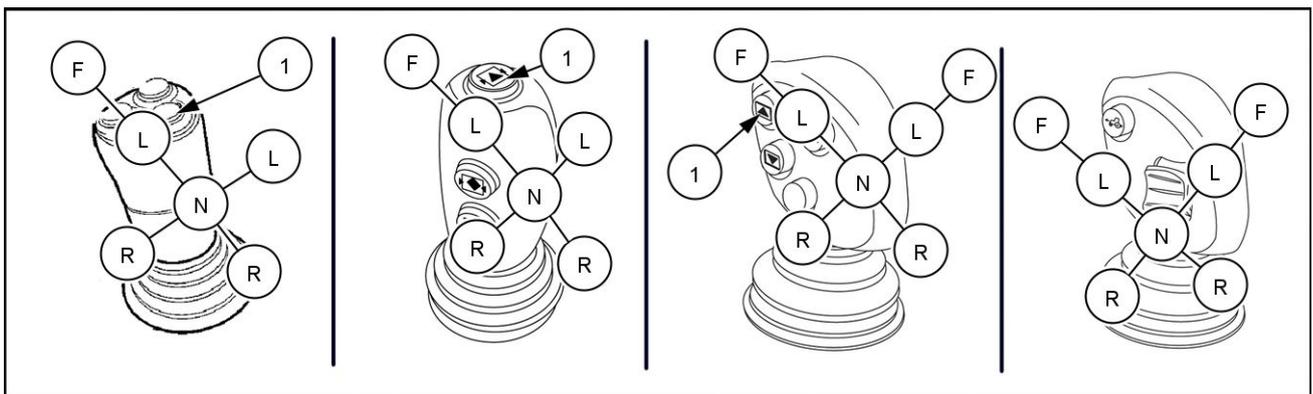


MOIL21TR00650AA 13

Before transferring joystick control between (EHR) Electronic Hydraulic Remote control valves, ensure that all the remote control valves are in neutral. Any valves not in neutral will be disabled and the (EHR) Electronic Hydraulic Remote display will identify the number and "R" (rear) or "FR" (front). If a joystick transfer is attempted and one of the target valves is not in neutral, the indicator light will flash until the disabled (EHR) Electronic Hydraulic Remote control valve has been reactivated.

To reactivate a control valve:

- use the auxiliary (EHR) Electronic Hydraulic Remote control just assigned and move it from the Neutral position to the Raise or Lower position
- move it to the Neutral position.



MOIL21TR02874EA 14

At key OFF, the current joystick setting (control of the mid-mount or rear control valves) will be saved in the memory of the (EHR) Electronic Hydraulic Remote control valves for reactivation at key ON.

If the tractor is not fitted with mid-mount control valves, the switch in figure 13 is used to select the control via the lever/thumbwheel or via the joystick for rear (EHR) Electronic Hydraulic Remote control valves only. If the warning indicators in the switch are off, operation of the control valves is done via the thumbwheel in the armrest switch panel; if the light **(2)** is on, operation is via joystick.

The joystick operates on two axes, forward/backward and right/left:

- moving the joystick forward/backward provides Raise, Neutral, Lower and Float on control valve 1
- moving the joystick sideways gives Raise, Neutral and Lower on control valve 2
- Move the joystick rearwards or leftwards **(R)** to extend a hydraulic cylinder.

- moving the joystick forwards or to the right (**L**) retracts the cylinder. Further forward movement of the joystick will select 'Float' (**F**) which will allow the cylinder to extend or retract freely

Two services can be operated simultaneously by moving the joystick diagonally.

Where additional hydraulic services are required, pressing and pressing and holding the switch (**1**) in figure **14** can activate optional functions.

First auxiliary control valve:

- Move the joystick forwards or backwards to operate Raise, Neutral, Lower and Float.

Second auxiliary control valve:

- Move the joystick left or right to operate raise, neutral, lower and float positions.

NOTE: always use the float position to lower a single-acting cylinder. The lower position is for double acting cylinders only.

NOTE: At key-off, the joystick function is deactivated. To activate the joystick, the operator must be in the seat with the engine running for more than 3 s.

Joystick functionality screen (with monitor)

Remote Valves

Use symbols ▲▼ to scroll through the menu until "Config" is displayed.

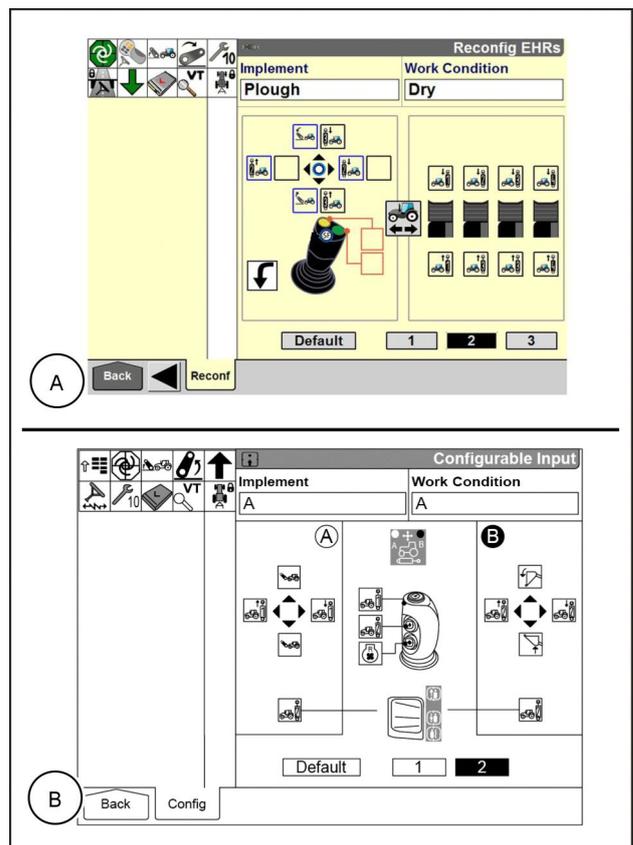
"Config"

The joystick functionality screen identifies the number of control valves controlled by the joystick and the corresponding movement required to operate each control valve.

As a valve is operated the white background will change to orange.

When joystick operation is transferred between rear and mid-mount control valves, control valve identification will change from R1, R2 to F1, F2. This feature is not available with mechanically operated remote valves.

If the tractor is fitted with a front hitch the joystick functionality screen also identifies the control valve used to operate the front hitch.

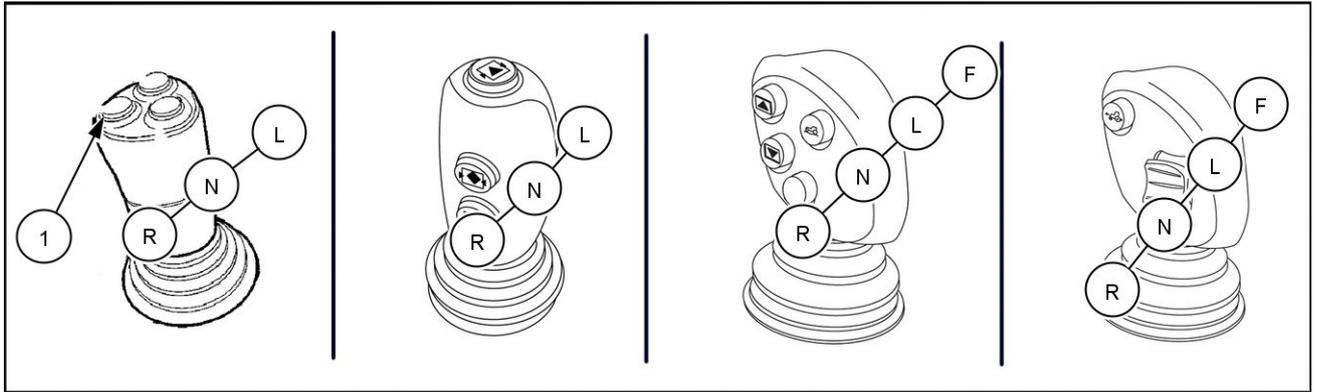


MOIL21TR00681BA 15

To: Multicontroller I

B: Multicontroller II

Joystick Float operation



MOIL21TR02874EA 16

When the hydraulic pressure needs to be drained from the rear control valves, or before disconnecting a flexible pipe from the tractor, the following procedure can be used, with the engine on:

Multicontroller I (A)

- For the control valve controlled on the vertical axis, move the joystick forward to the Float position, then turn the engine off (control valve 1). Switch off the engine.
- For the control valve controlled on the horizontal axis, press the switch (2) in figure 16 and move the joystick forward into the Float position. Switch off the engine.
- To cancel float mode, move the joystick in any direction to the raise or lower position and then back to neutral.

Multicontroller II (B)

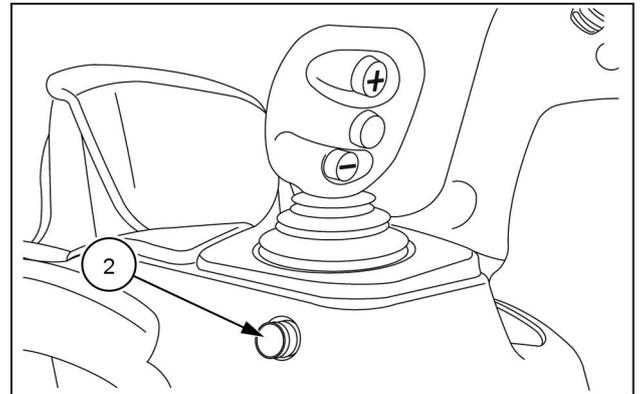
- For the control valve controlled on the vertical axis, move the joystick forward to the float position, then turn the engine off.
- For the control valve controlled on the horizontal axis, move the joystick to the right to the float position. Switch off the engine.
- If the machine is fitted with a front loader, to drain the hydraulic pressure from the rear control valves, the switch (1) in figure 17, next to the joystick, must be pressed and the joystick must be moved to the float position.

⚠ WARNING

Crushing hazard!

Make sure no one will be injured by moving equipment when relieving pressure in the system. Before disconnecting cylinders or equipment, make sure the equipment or implement is supported securely. Failure to comply could result in death or serious injury.

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MOIL19TR02353AA 17

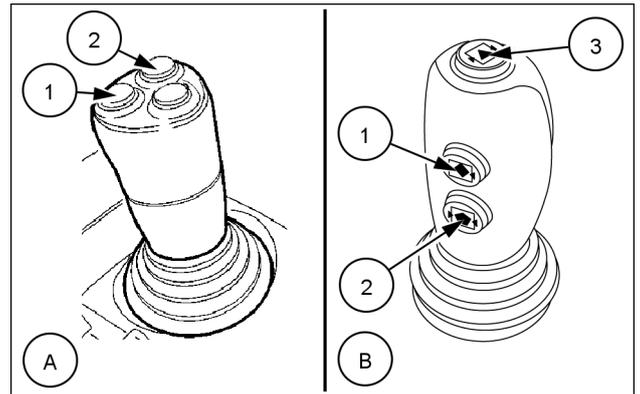
To cancel float mode, move the joystick in any direction to the raise or lower position and then back to neutral.

Where additional hydraulic services are required, the joystick can offer optional functions activated by depressing and holding the switches **(1)** and **(2)** on the joystick.

Switch function

Standard joystick

Switch number	Function
1	Operates remote hydraulic service via relay and additional control valve (A) and (B)
2	Operates remote hydraulic service via relay and second additional control valve (A) and (B)
3.	Rear - front remote control valve switching (B)



MOIL21TR00652AA 2

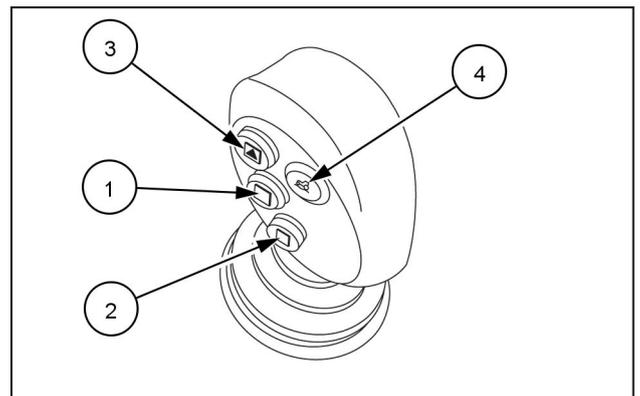
To: Multicontroller I

B: Multicontroller II

Advanced joystick

Switch number	Function
1	* Operates remote hydraulic service via relay and additional valve
2	* Operates remote hydraulic service via relay and second additional valve
3	Rear - front remote control valve switching
4 cylinder	Change direction

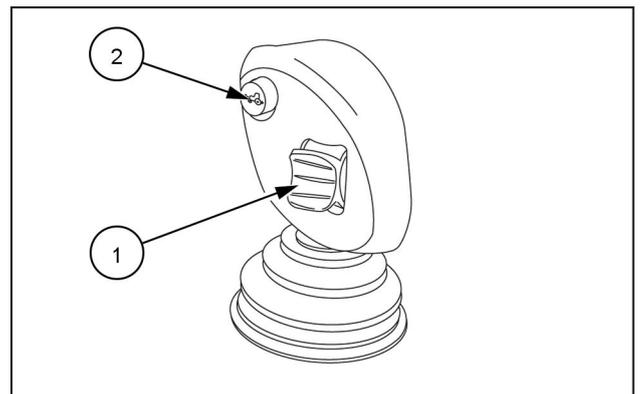
*Applies only to tractors equipped with factory installed loader or diverter valve on implement.



MOIL19TR02366AA 3

Advanced joystick with proportional switch

Switch number	Function
1	Hydraulic control valve control
2	Change direction



MOIL19TR02377AA 4

Joystick for 3 remote valves

Remote valve 1:

Move the joystick forwards to position **(L)** or backwards to position **(R)** to raise and lower the loader boom.

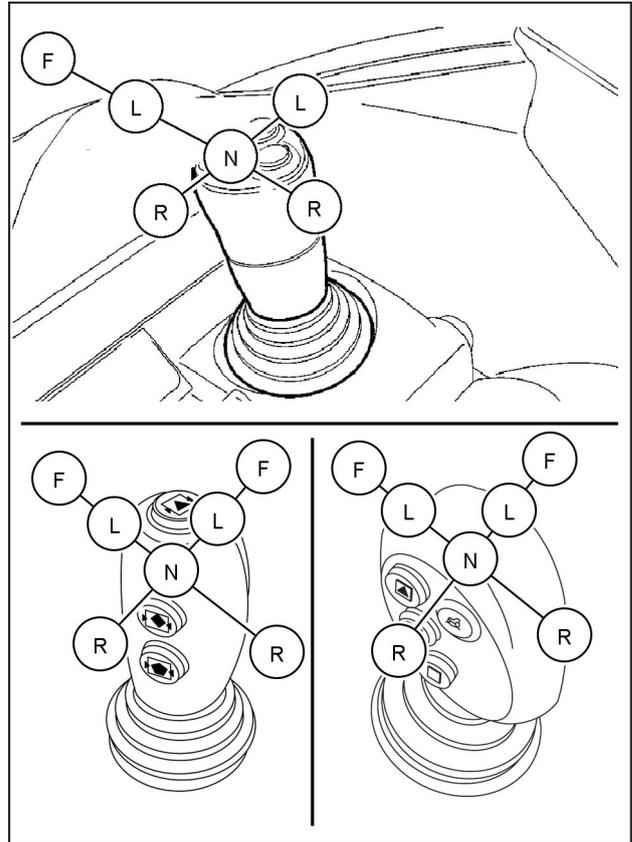
Pushing the joystick forward to the **(L)** position will allow the loader boom to lower to the ground at a controlled rate of descent.

By moving the joystick fully forward into 'Float' **(F)** the loader boom will lower quickly under its own weight. When Float is engaged with the boom in the fully lowered position, the bucket or attachment will follow the ground contours.

Remote Valve 2:

Moving the joystick to the left to position **(R)** operates bucket rollback, moving the joystick to the right to position **(L)** operates bucket unloading.

NOTE: By moving the joystick diagonally, both loader boom and bucket actions can be operated simultaneously.



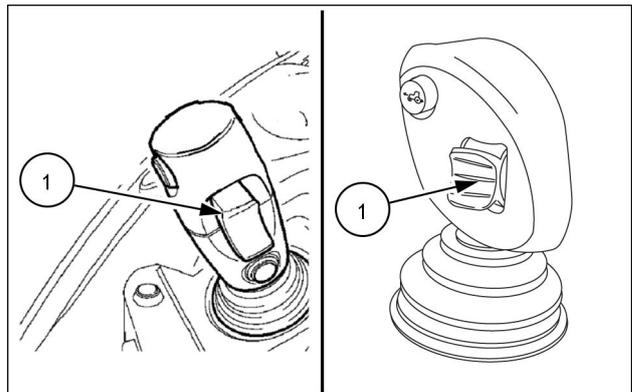
MOIL21TR00680BA 5

Remote valve 3 (where fitted):

Where a third hydraulic service is required to operate an attachment such as a bale fork eject plate or 4 in 1 bucket jaw, the thumbwheel **(1)** is used to control the third valve.

The control for this valve is a progressive, self centring rocker switch. This type of switch allows the operator to control the speed at which a hydraulic cylinder is extended or retracted.

By lightly pressing the switch, minimal oil flow is generated to provide a slow speed, pressing the switch further will increase the flow and therefore the speed.



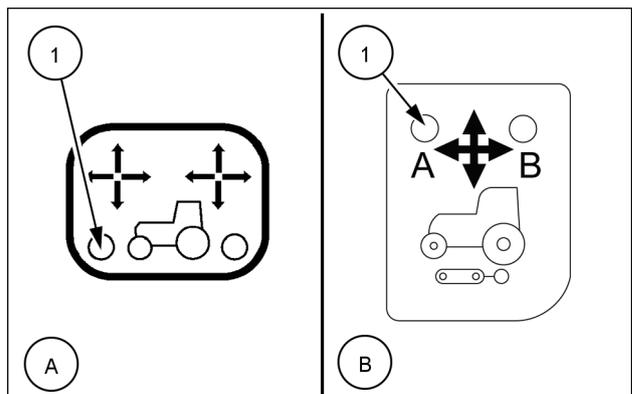
MOIL21TR00656AA 6

Joystick activation and configuration

At key-off, the joystick function is deactivated. To activate the joystick, the operator must be in the seat with the engine running for more than **5 s**.

When the joystick is deactivated, the warning light **(1)** will flash.

NOTE: If the operator leaves the seat with the engine running, joystick operation will be deactivated and the warning light **(1)** will start to flash. When the operator is re-seated, joystick operation will be reactivated after **2 s**. The warning light will stop flashing and will remain illuminated.



MOIL21TR00650AA 7

To: Multicontroller I

B: Multicontroller II

NOTICE: Where a loader has been retrofitted to a tractor having the remote valves configured for front hitch operation or front coupler operation, it is most important the valves are re-configured by your authorized dealer for loader operation.

This will activate the advanced features available when the loader is used in conjunction with the monitor, and will also disable the auto function so joystick operation cannot be included in Easy Tronic programmes.

The re-configuration procedure requires the use of special tools and must be carried out by an authorized dealer.

NOTE: Switching the joystick from mid-mount to rear valve operation will automatically suspend lever operation of the rear remote valves.

NOTICE: Before switching joystick operation between mid-mount and rear control valves or vice versa, ensure both control valve levers and the joystick are in the neutral position.

Joystick functionality screen with standard joystick (where fitted)

To access the joystick screen:

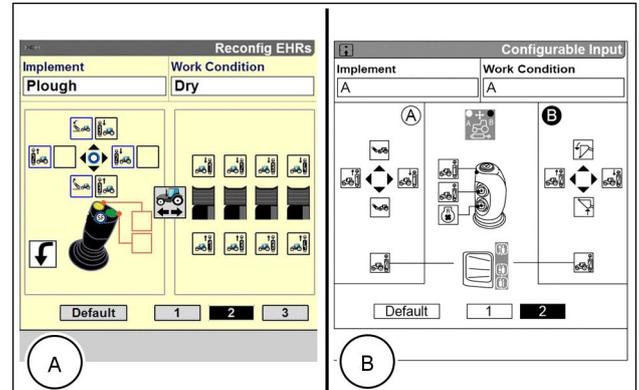
- ☰ Back
- ☰ Remote valves
- ☰ "Configuration"

The monitor shows the settings for the control valves and front hitch on the joystick. The joystick mode can be selected between

- Normal
- Stop

Click on the joystick mode to choose two different option modes:

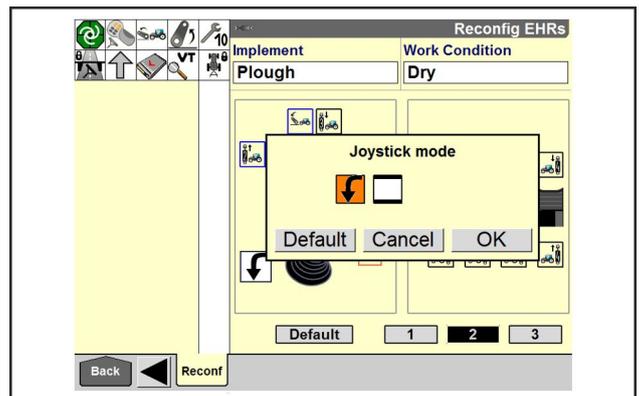
- Normal
- Stop



MOIL21TR00657AA 8

To: Multicontroller I

B: Multicontroller II



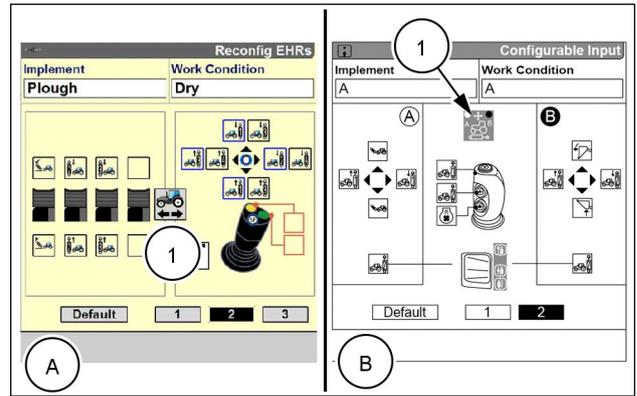
SVIL17TR01302AA 9

Normal mode

The joystick is by default set to normal mode. The operation is as described before.

Joystick selection to front/rear EHRs

Click on the tractor symbol **(1)** to change the joystick selection from the front EHRs to the rear EHRs and vice versa.



MOIL21TR00658AA 10

To: Multicontroller I

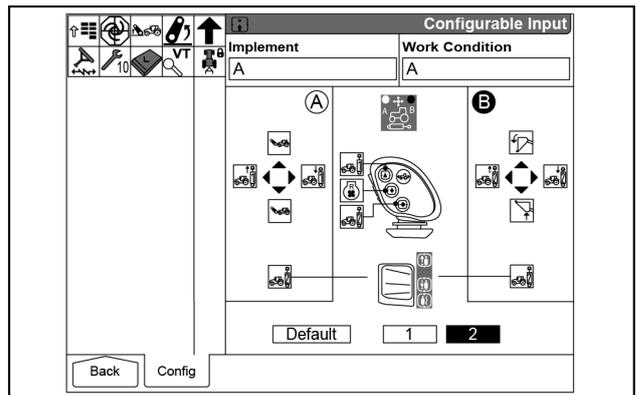
B: Multicontroller II

Joystick functionality screen with advanced joystick (where fitted - Multicontroller II only)

To access the joystick screen:

- Back
- Remote valves
- "Configuration"

The monitor shows the settings for the control valves and front hitch on the joystick.



106922545 11

Mid mount valves

⚠ WARNING

Moving parts!

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

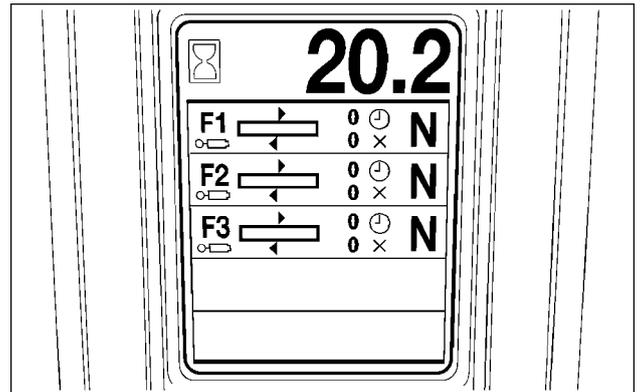
Unexpected machine movement!

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

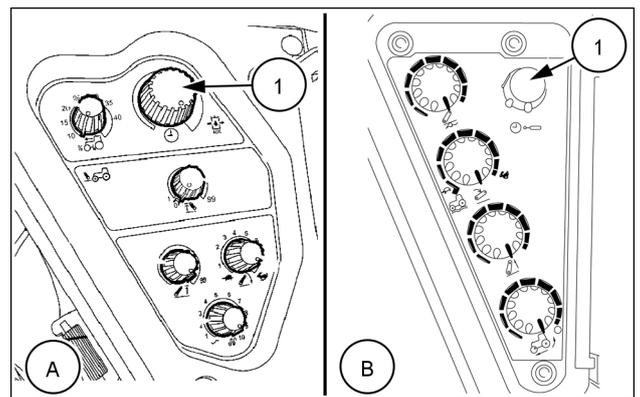
Setting the mid-mount valve oil flow

Depress the EHR setting navigator (1), figure 2, in the armrest and the display will change to show the valve select screen. The numbers will be prefixed with R (rear) or F (front). Rotate the navigator to select the appropriate valve then depress to access the settings screen for that valve.



SS10D212 1

The navigator is used to select and change valve settings within the performance screen.



MOIL21TR00239AA 2

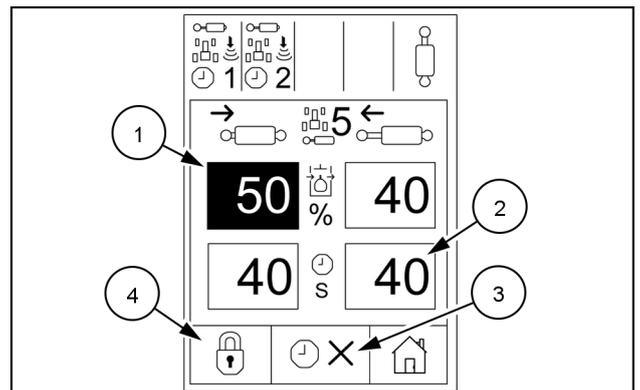
To: Multicontroller I

B: Multicontroller II

EHR Performance Adjustments

1. Oil flow, retraction and extension (percentage).
2. Timer settings, retraction and extension (seconds).
3. Timer on/ off.
4. Valve lock or unlock.

Full details on mid-mount EHR control valve adjustments can be found in this section beginning on page **Hydraulic remote control valves - electrohydraulic (35.204)**.



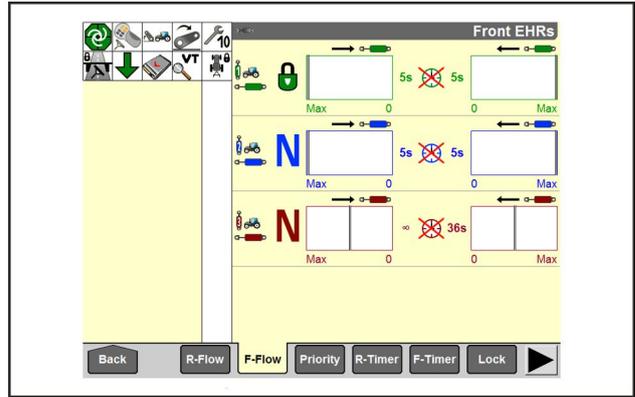
SVIL17TR01186AA 3

Mid-mount EHR adjustments (with monitor)

A number of settings and adjustments can be made to the mid mount EHR valves. This can be done using the navigator or the monitor (where fitted).

Adjustments and settings will include:

1. Oil flow adjustment, retract and extend.
2. Timer period settings, retract and extend.
3. Timer on/off.
4. Valve lock or unlock.
5. EHR valve priority.



SVIL17TR01301AA 4

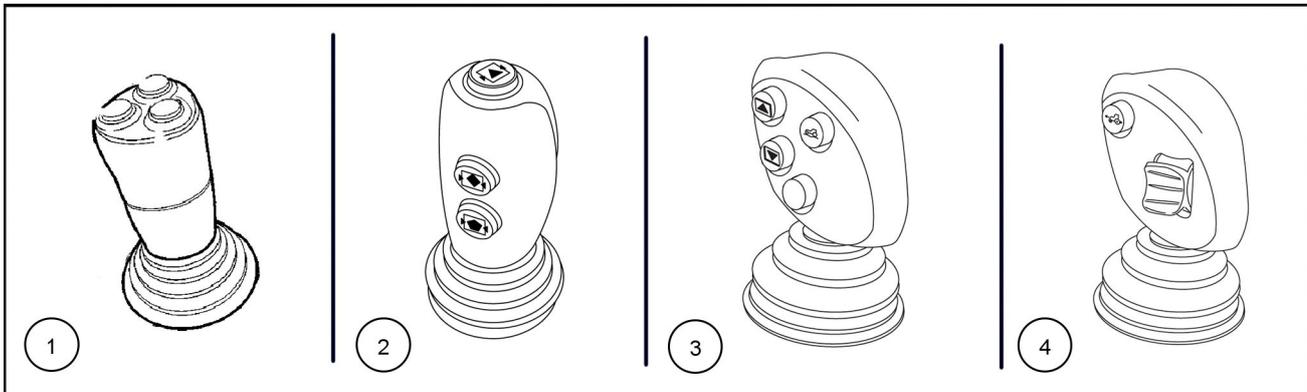
Full details on mid-mount EHR adjustments can be found in this section beginning on page **Hydraulic remote control valves - electrohydraulic (35.204)**.

Electronic joystick operation

Where a mid-mount hitch is supplied as a factory option, the tractor will be fitted with a joystick and electrohydraulic mid-mount control valves.

The joystick can be used to control the mid-mount hitch using the mid-mount remote control valves.

NOTE: On tractors equipped with both mid and rear mount remote electrohydraulic control valves, the electronic joystick can be used to control either valve group.



MOIL21TR02874EA 5

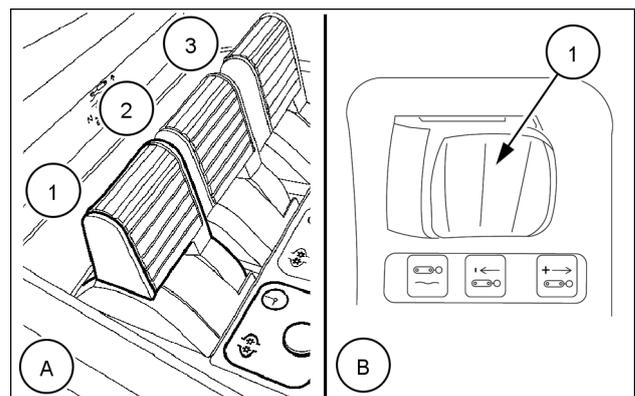
For more information on how to operate the electronic joystick, refer to **Hydraulic remote control valves - electrohydraulic (35.204)**, the "Electronic joystick operation" paragraph (where fitted) in this manual.

Operation with specific control

Mid-mount electrohydraulic control valves can be operated via the control lever (1) when a Multicontroller I (A) is fitted, via the thumbwheel (1) on the armrest switch panel (if fitted) or via the joystick (if fitted) when a Multicontroller II (B) is fitted.

NOTE: On tractors equipped with both mid and rear mount remote electrohydraulic control valves, the thumbwheel on the armrest switch panel can be used to control either valve group.

For more information on operation of the lever/thumbwheel refer to **Hydraulic remote control valves - electrohydraulic (35.204)** in this manual.



MOIL21TR00659AA 6