

LEXION 8800 - 6800 CEBIS and CEMOS Training Guide 2020



CEBIS Guide

Company: CLAAS of America Inc.

Address: 8401 South 132nd Street Omaha, NE 68138

Phone: 402-861-1000

Fax: 402-861-1003

Website: www.claas.com

Images and content are intended to cover ALL features and options available on 2020 LEXION combines. Content may vary on each machine configuration.

LEXION Model: 8800 - 6800 Build Year: 2019 Effective Date: 6/1/2019 Last Revision: 6/8/2020



Contents

Cab Overview	4
CEBIS controls and setup	21
Setting CEBIS for harvest	28
Header and CONVIO CEBIS setup	43
CEMOS	57
CRUISE PILOT setup and controls	60
QUANTIMETER setup	70
CEMOS integrated in CEBIS setup	72
CEMOS in CEBIS MOBILE setup	76
GRAIN QUALITY CAMERA	88



Cab Overview



Ignition and Accessibility

Feature:

- 1. Ignition
- 2. 12 V socket, 2 pin
- 3. 12 V socket, +15 A
- 4. 12 V socket, +30 A
- 5. Diagnosis socket
- 6. USB interface









Cab & Comfort

Lighting

Procedure:

- 1. Rotate master light switch (1) to far right position to turn lights on
- 2. With the master light switch on, the lights can be turned on/off individually by pressing their respective buttons (2)
- 3. Beacon lights (3) can be turned on/off regardless of dial position
- 4. Beacon lights setting can be changed in CEBIS





Green indicates light is on

Multi-function Armrest



- 1. CEBIS TOUCH
- 2. CEBIS control panel
- 3. Arm rest
- 4. Arm rest position control lever
- 5. Throttle switch
- 6. Radio & Bluetooth control panel
- 7. Multifunction Handle
- 8. Reverse Pushbutton
- 9. Forward Pushbutton
- 10. Volume Pushbutton
- 11. + Volume Pushbutton
- 12. Hang up Pushbutton
- 13. Accept Pushbutton

Armrest

- 1. CMOTION ground speed control lever
- 2. CEBIS control panel
- 3. Settings adjustment
- 4. Diesel engine speed switch
- 5. Radio and phone control panel





Button Layout



- 3 position toggle switches
 - Forward: Increase
 - Reverse: Decrease
 - Middle: Neutral, not activated
- Enables quick change of machine settings directly
- Replaces CEBIS rotary dial options



- 1. Reverse front attachment
- 2. Front attachment engagement
- 3. Processor engagement
- 4. Threshing drum speed
- 5. Concave clearance
- 6. Cleaning Fan
- 7. Upper sieve gap
- 8. Lower sieve gap
- 9. Rotor speed
- 10. Rotor cover plates



Feature:

- 1. Lower reel
- 2. Reel forward
- 3. Raise reel
- 4. Reel backwards
- 5. Change HOTKEY function down
- 6. Change HOTKEY function up
- 7. Display HOTKEY function
- 8. AUTO PILOT ON
- 9. Raise front attachment
- 10. CAC height control
- 11. Lower front attachment
- 12. Pre-set height control
- 13. Header stop

C8x CMOTION handle

- Buttons for defined, updated symbols
- New HOTKEY buttons for new CEBIS TOUCH functions





Procedure:

- 1. Move CMOTION handle to neutral
- 2. Throttle to low idle position
- 3. Tap (1) to change gear up
- 4. Tap (2) to change gear down

DO NOT APPLY SERVICE BRAKE





Road Travel Switch

Switching Road Travel switch to Road Travel Procedure:

1. Push the Road Travel switch (1) down



Switching Road Travel switch to Fieldwork

Procedure:

1. Unlock the Road Travel switch (1) and push up on black tab and rock switch forward





Processor Procedure:

- 1. Throttle to Low
- 2. Pull yellow switch back to engage
- 3. Switch will remain back



Feederhouse Procedure:

- 1. Throttle to Low
- 2. Pull yellow switch back to engage
- 3. Switch will return to neutral





Reversing front attachment

Procedure:

1. Hold down the Reverse front attachment button (1) and push the Front attachment button (2) forward





Controls and Hotkey





 Once a function is selected, it is then controlled by the trigger (6) on the CMOTION handle

- 1. CEBIS scroll wheel
- 2. HOTKEY buttons
- 3. Information
- 4. Escape/Back









- 1. Main Menu
- 2. Def Level
- 3. Coolant Temp
- 4. Analog Speedometer
- 5. Engine Speed
- 6. Gear Indicator
- 7. Digital Speedometer
- 8. Fuel Level





- 1. Main Menu
- 2. Header Cutting Height (CAC)
- 3. Surface of the ground
- 4. Header cutting height (ground pressure)
- 5. Pre-set cutting heights above
- 6. User defined display
- 7. User defined display 2
- 8. Machine settings information
- 9. Returns volume
- 10. Returns volume grain
- 11. Rotor loss
- 12. Sieve loss
- 13. Foreign matter
- 14. Broken grain
- 15. Gear and POWERTRAC display
- 16. Crop selection information





Main Menu Layout

- 1. Header: Header type, Automatic functions,
- 2. Drive: Dynamic Power and ground drive information
- **3. Machine:** All internal machine functions and adjustments
- 4. AUTOMATIC: All combine automatic functions
- 5. Crop: Crop data, QUANTIMETER, Grain Moisture, GRAIN QUALITY CAMERA
- 6. Work records: Field work recordings
- 7. Counter: Machine hours and information
- 8. Service: Maintenance recorder, Central lubrication system, Programming operations, Vehicle and engine diagnosis, Alarm lists
- 9. Settings: Basic machine settings
- 10. Information: CEBIS software information





Setting controls

Changing a settings value

Procedure:

- 1. Use CEBIS control dial to scroll triangle around settings circle
- 2. Use touchscreen function to drag triangle around settings circle
- 3. Use touch screen function to touch directly on the settings circle and triangle will move to that position
- 4. Touch +/- to move triangle up and down on the bar
- 5. Dragging the triangle between the +/- buttons up or down
- 6. Touch center of settings circle to key in value directly



CLAAS ||||

Teaching in operations (learning procedures)

- A. Pressing green box with arrow (1) begins teaching in operation
- B. Operator must follow on screen commands
- C. Progress of the teaching in operation can be viewed by the progress bar (2)
- D. Teaching in procedure can be aborted by pressing escape button on the console



A. CEBIS Settings





Step 1a: CEBIS language and measuring units

When to perform: as needed

Navigate to: Settings (1) / Basic settings (2) / Language (3)

- A. Language settings: set your preferred CEBIS display language
- **B. Measuring unit settings:** set your preferred CEBIS display units of measure





Step 2a: CEBIS display settings

When to perform: as needed

Navigate to: Settings (1) / Display settings (2)

- A. Select CEBIS display screen mode: day or night
- B. Adjust CEBIS display screen brightness using brightness adjustment
- C. Turn automatic night mode on or off



Step 3a: Camera Settings

When to perform: as needed

Navigate to: Settings (1) / Camera input 1 (2)

Procedure:

- A. 1. Select what camera display operator would like to appear in the Camera input 1 display window
- B. 2. Select what camera display operator would like to appear in the Camera input 2 display window
- C. Tap camera icon (3) to view camera in full screen

CEBIS CAN ONLY HAVE TWO CAMERA INPUTS



ELAAS |||||

Step 4a: User Defined Display Setting

When to perform: as needed

Navigate to: Settings / User-defined display / 1st line Procedure:

- A. 1. Select 1st line (1)
- B. 2. Select desired display setting from drop down list (2)
- C. 3. Repeat for all other lines
- D. 4. Repeat procedure for User-defined display 2





Step 5a: User Type Setting

When to perform: as needed

Navigate to: Setting (1) / User Type (2) / Select Type (3)

Beginner: Prohibits the operator from making adjustments to the machine

Normal: Allows the operator to make basic machine adjustments

Expert (RECOMMENDED): Allows the operator full access to all machine functions



*CL*AAS

Step 6: CEBIS Hotkey Setup

When to perform: as needed

Navigate to: Settings (1) / Favorite Management (2) / Assignment (3)

- A. Select Position. Pop-up menu will appear
- B. Scroll through menu and select desired Hotkey function using CEBIS touchscreen or CEBIS dial





B. Setting CEBIS for Harvest





Step 1b: Engine speed sensor calibration

When to perform: at the start of harvest

Navigate to: Drive (1) / Diesel engine (2) / Max engine speed (3)

Procedure:

A. With engine running, select max engine speed to start teaching-in operation





Step 2b: Machine speed sensor calibration

When to perform: at the start of harvest or after servicing

Navigate to: Machine (1) / Speeds (2)

Procedure:

- A. Start engine and processor; set throttle to max
- B. Select Start teach-in operation to learn all belts speeds

Perform engine speed calibration (Step 1) first followed by belt speed calibration (Step 2)

	Start teach-in oper	ation		в	٠	Threshing system	to Drive
	Assembly	Required	Actual	Unit	7//4	Separation	A
	Main drive	1830	0	rpm.	·III·	Cleaning	Steering
>	 Threshing cylinder Feeder cylinder 	800 590	0	rpm rpm	_	Straw and chaff	Machine
	Of Cleaning tan	900	0	npm	<i>m</i> w	processing	A
	Feederhouse speed	760	0	rpm	-	Grain delivery	AUTOMAT
	Returns	400	0	rpm		Dedermones	88
	Grain elevator	370	0	rpm.	.đ,	optimization	Crop
	Rotor speed	800	0	npm			
	Straw chopper	3150	0	npm.			Work record



Step 3b: Set sieve type

When to perform: at the start of harvest, after a sieve change or reconnecting a sieve motor

Navigate to: Machine (1) / Cleaning (2) / Sieve type **Procedure:**

- A. Select sieve type for upper and lower sieve
- B. Press Upper sieve end stops to start learning procedure
- C. Repeat for Lower sieve





Step 4b: Set up returns monitor

When to perform: at the start of harvest, when changing crops

Navigate to: Machine (1) / Cleaning (2) / Returns volume limit (B)

- A. Engage processor and throttle to full
- B. Press Returns volume limit button
- C. Use touchscreen +/- or key in desired Returns volume limit
- D. Press the check mark to save your change



Step 5b: Loading crop settings

When to perform: when changing to a new crop type

Navigate to: Crop (1) / Crop data (2) / Select crop data (3)

- 1. Start engine, engage processor and throttle to high
- 2. Select a crop type from the crop menu
- 3. Press ► to start loading crop settings
- Green circles appear once crop has been loaded, If there is an error when loading crop settings, a red circle will appear





Step 7b: Saving crop settings

When to perform: as needed

Navigate to: Crop (1) / Crop data (2)

- A. Start engine and engage processor and feederhouse
- B. Press +folder icon to create new crop settings
- C. Name crop type folder and press check mark to save crop settings





When to perform: as needed

Navigate to: Crop (1) / Crop data (2) / Favorites (3)

Procedure:

- A. Select Favorite 1
- B. Scroll through the list until you find desired crop and select it
- C. Repeat the process for Favorite 2 and Favorite 3

Selecting crop favorites from Harvest Screen:

- A. Press crop icon on top tool bar of Harvest Screen (1)
- B. Select crop favorite from side pop up menu (2)





Step 9b: Learn feederhouse and header travel limits

When to perform: after every header change (except for CONVIO which saves first calibration)

Navigate to: Header (1) / learning processes of header (2) Procedure:

- A. Start engine and engage processor and feederhouse, throttle to full
- B. Press green box with arrow to start learning procedure
- C. Follow the commands given to you on the CEBIS screen
- D. Repeat the process for all necessary header learning procedures


Step 10b: QUANTIMETER calibration

When to perform: beginning of harvest (each crop type) and periodically throughout harvest to confirm accuracy

Navigate to: Crop (1) / QUANTIMETER (2)

Procedure:

Zero calibration:

- 1. Start engine and engage processor, throttle to full
- 2. Calibrate zero yield (zero cal function) by selecting Teaching-in (wait for message to confirm calibration has completed)

Calibrating yield sensor:

- 1. Press test-weighting (3) to turn on calibrating process
- 2. Harvest a load of grain that can be measured (half a grain tank minimum)
- 3. Press test-weighting (3) to turn calibrating process off. Weight of crop size will appear underneath combine icon
- 4. Unload into a cart with scales and enter the actual grain weight in the cart icon (4). Press weight and grain pile icon to type in weight
- 5. Calibration factor will automatically be adjusted and appear in the calibration factor button
- 6. Calibration factor can be saved for each crop under crop type settings
 - Perform before saving custom crop settings (Step 6)





Step 11b: AUTO CROP FLOW

When to perform: as needed

Navigate to: AUTOMATIC (1) / AUTOMATIC (2)

- A. Turn master switch 'ON' (3)
- B. Scroll down to settings (4)
- C. Tap 'Sensitivity of the AUTO CROP FLOW (5) to select sensitivity
 - Low: slower reaction
 - Medium (recommended): moderate reaction
 - High: fast reaction
 - If too sensitive, lower sensitivity



Step 12b: Residue Management

When to perform: as needed

Navigate to: Machine (1) / Straw and chaff processing (2)

- A. Tailboard position (3)
- B. Engage or disengage friction plate (4)
 - Engaged = finer cut
- C. Engage or disengage stationary knives (5)
 - 0 (fully retracted) = large particle size
 - 1 (engaged halfway) = medium particle size
 - 2 (fully engaged) = fine particle size
- D. Straw chopper speed selection (6)
 - High speed: soybeans, small grains and rice
 - Low speed: corn
- E. Teach in distribution system by pressing and following on screen commands
 - Perform at beginning of season





Step 13b: Setting threshing speed range high/low

When to perform: as needed

Navigate to: Machine (1) / Threshing mechanism (2) / Threshing cylinder reduction gearbox (3)

Procedure:

- A. Start engine, do not start processor
- B. Tap Machine button
- C. Tap threshing mechanism button
- D. Tap threshing cylinder reduction gearbox
- E. Set drum speed reduction gearbox to high or low (4)





High speed



Low speed



Step 14b: Setting threshing speed range high/low

When to perform: as needed

Navigate to: Machine (1) / Threshing mechanism (2)

- A. Start engine, do not start processor
- B. Tap Engageable threshing concave bar to engage or disengage
- C. Tap Threshing concave flap to close or open main concave threshing flap



Service page teaching-in (learning) procedures

When to perform: at specified intervals

Navigate to: Service (1) / Programming operations <a> (2)

- A. Select function that you want to calibrate
- B. Press green arrow to start learning procedure
- C. Follow commands on CEBIS screen until procedure is finished
- D. Repeat as necessary



C. Header and CONVIO CEBIS setup



Step 1c: Header type

When to perform: after every header change (except for CONVIO)

Navigate to: Header (1) / Header specification (2)

Procedure:

- A. Tap Header type (A)
- B. Select header type from pop up menu (B)



CLAAS

Step 2c: Setting header working width

When to perform: after every header change (except for CONVIO)

Navigate to: Header (1) / Header specification (2)

- A. Tap working width button (A)
- B. Use +/- buttons to enter header working width (B)
- C. Press check mark (C) to save changes



Step 3c: Turning on automatic header functions

When to perform: as needed

Navigate to: Header (1) / Automatic header functions (2)

- A. Turn on desired automatic reel functions (3):
 - Auto reel speed
 - Auto reel height
 - Auto reel fore/aft
 - Auto reel overload protection
- B. Turn on Lateral leveling with preselected height control (AUTO CONTOUR)
- C. Automatic header pitch ON/OFF
- D. AUTO BELT SPEED ON/OFF (CONVIO draper head)





Step 4c : Adjusting CONVIO AUTO BELT SPEED center offset

When to perform: as needed

Navigate to: Header (1) / Settings on the header (2)

Procedure:

- A. Tap center belt speed icon
- B. Use +/- to change center belt speed offset to ground speed (3)
 - Range: 0.0 0.6
- C. Tap the check mark to save changes (4)

CENTER BELT SPEED RUNS FASTER THAN SIDE BELT SPEED TO ENSURE SMOOTH FEEDING



Step 5c: Adjusting CONVIO AUTO BELT SPEED side belt offset

When to perform: as needed

Navigate to: Header (1) / Settings on the header (2) Procedure:

- A. Tap side belt speed icon
- B. Use +/- to change side belt speed offset
 - Range: -1.2 2.5
- C. Tap the check mark to save changes

SIDE BELT SPEED RUNS SLOWER THAN CENTER BELT SPEED TO ENSURE SMOOTH FEEDING



ELAAS ||||

Step 6c: Adjusting CONVIO cutter bar pressure

When to perform: as needed

Navigate to: Header (1) / Settings on the header (2) Procedure:

- A. Tap pressure setting button
- B. Enter desired CONVIO cutter bar pressure
- C. Tap the check mark to save changes

PSI range is from 653 – 1305

Lower PSI means higher cutter bar ground pressure Higher PSI means lower cutter bar ground pressure



Step 7c: Setting belt slip limits

When to perform: as needed

Navigate to: Header (1) / Header specifications (2) / Draper belt slip limits (3)

- A. Tap side belt slip limit button
- B. Enter desired draper side belt slip limit setting
- C. Tap the check mark to save the changes
- D. Repeat the process for center belt slip limit



Step 8c: Canola cross augers on/off

When to perform: as needed

Navigate to: Header (1) / Header specifications (2) / Cross auger (3)

Procedure:

A. Tap the cross auger button to turn cross augers on/off

TURNING CANOLA CROSS AUGERS ON/OFF WILL ALSO TURN SIDE KNIVES ON/OFF IF EQUIPPED





Step 9c: CONVIO cutter bar operating modes

When to perform: when changing crops or as needed

Navigate to: Header (1) / Header specifications (2) / AUTO CONTOUR operation mode (3)

Select:

- A. Grain rigid cutter bar for standing small grains
- **B.** Flex manual sets cutter bar at its lowest pressure setting
- C. Lodged grain FLEX operator can switch between rigid (standing) and flex (lodged) modes using pre-set cutting heights button on the CMOTION handle
- **D. AUTO FLEX** cutter bar flexes up and down based on AUTO CONTOUR ground pressure





Step 10c: Setting AUTO CONTOUR sensitivity

When to perform: when changing header or as needed

Navigate to: Header (1) / Header specifications (2) / AUTO CONTOUR sensitivity (3)

Procedure:

- A. Tap to change vertical sensitivity
 - Press check mark to save changes
- B. Tap to change lateral tilt sensitivity
 - Press check mark to save changes

HIGHER SENSITIVITY MEANS SYSTEM WILL REACT FASTER TO CHANGING TERRAIN





CEMOS setup and controls guide

CLAAS LEXION combines



CEBIS MOBILE

- CEMOS AUTOMATIC
- CEMOS DIALOG

CEBIS

- CEMOS AUTOMATIC
- CRUISE PILOT
- Combine adjustment

This setup guide is a supplement to the CEBIS guide. For information on how to navigate CEBIS and how to set up other features please refer to the CEBIS and controls guide.

This setup guide is not a substitute for the Operator's Manual. Further information concerning CRUISE PILOT and CEMOS is available in the Combine Operator's Manual and CEBIS MOBILE Operator's Manual.





CRUISE PILOT and CEMOS AUTOMATIC Symbols

Description		Function	
.	CRUISE PILOT	Machine controls speed based on throughput, grain loss, or engine load	
\$ [▲]	AUTO THRESHING	Machine automatically adjusts threshing cylinder speed and concave clearance	
	AUTO SEPARATION	Machine automatically adjusts rotor speed and rotor cover flaps	
₽ P	AUTO CLEANING	Machine automatically adjusts upper and lower sieve opening and fan speed	
-\$	AUTO CHOPPING	Machine automatically adjusts chopping drum speed, stationary knives and friction plate	
, 1	GRAIN QUALITY CAMERA	Camera for viewing non-grain material and cracked grain in the grain tank	
A	4D CLEANING	System using rotor cover flaps to compensate for side slopes	
	AUTO SLOPE	System using 3D sieve functions to compensate for fore and aft slopes	
	AUTO CROP FLOW	Automatic throughput control using cruise pilot sensors for overload protection of the machine	



D. CRUISE PILOT setup





Step 1d: CRUISE PILOT master switch

When to perform: at the start of harvest, ensure "on" is selected to utilize CRUISE PILOT features

Navigate to: CRUISE PILOT (1) / ON - OFF (2) / ON - OFF (3)

- A. Off: disables CRUISE PILOT features
- B. On: enables CRUISE PILOT features

		O ON/OFF 2	DIALOG	
»	3	Settings		
	Setting the strategy		CRUISE PILOT	
	Target values		Help	
			Settings	
	Parameters			
¢	""小院就能是			



Step 2d: Set strategy

When to perform: after master switch is switched on, change if different driving strategy is desired

Navigate to: CRUISE PILOT (1) / Settings (2) / Setting the strategy (3)

Procedure:

Choose one of the following option:

- a. Cruise control: harvests at a constant ground speed
- **b. Constant throughput:** Automatically adjusts ground speed to maintain a constant throughput based on the crop thickness measured in the feederhouse
- c. Maximum throughput with grain loss sensing (recommended): Automatically adjusts ground speed to maintain a constant throughput (bu/hr), while maintaining acceptable grain loss within the limits of the loss monitor



Step 3d: Learning zero throughput

When to perform: after an extended period of inactivity and periodically throughout the day, as conditions change

Navigate to: CRUISE PILOT (1) / Settings (2) / Start teachin operation (3)

- A. Engage processor and feeder house (do not harvest crop at this time)
- B. Full throttle
- C. Start teach-in process to learn zero throughput





Step 4d: Set target speed

When to perform: after selecting cruise control strategy

Navigate to: CRUISE PILOT (1) / Settings (2) / Set target speed (3)

Procedure:

Set desired speed to be maintained when operating in cruise control strategy

- Set ground speed (range: 1.2 9.9 mph)
- Not available if using either throughput strategy





Step 5d: Set target throughput

When to perform: after selecting either constant throughput or maximum throughput with grain loss sensing

Navigate to: CRUISE PILOT (1) / Settings (2) / Target throughput (3)

Procedure:

Set desired throughput level to be maintained when operating in either throughput strategy

Manual setting:

- Adjust target throughput number manually using the HOTKEY or enter the value on the settings dial
- Range: 10 150 (recommended to start at 60-70)

Automatic setting:

- Start harvesting until feederhouse is full (50-100 yards)
- While harvesting, press and hold the A-button on the C-MOTION handle to set new value (hold for three seconds until it beeps)
- To increase or decrease throughput performance, adjust the value until desired throughput is reached
- Not available if using cruise control strategy





Step 6d: Set maximum speed

When to perform: after selecting desired strategy

Navigate to: CRUISE PILOT (1) / Settings (2) / Maximum speed (3)

Procedure:

Set the maximum ground speed limit for use when little to no crop is in the feederhouse (example: headlands and areas of light crop or no crop)

- Range: 1.2 9.9 mph (example: 0.5 1 mph over harvest speed)
- Set for all strategies





Step 7d: Set sensitivity

When to perform: after selecting desired strategy

Navigate to: CRUISE PILOT (1) / Settings (2) / Sensitivity (3)

Procedure:

Change how quickly the machine responds to changing field conditions when operating with CRUISE PILOT

- Very gentle
- Gentle
- Medium (recommended starting setting)
- Aggressive
- Very aggressive

The more aggressive the setting, the faster the response





Step 8d: Unloading mode

When to perform: after selecting desired strategy

Navigate to: CRUISE PILOT (1) / Settings (2) / Unloading mode (3)

- A. Off
 - CRUISE PILOT will remain at constant harvest speed
 - Recommended strategy
- B. Emptying
 - Ground speed is reduced by 15% and remains constant while unloading on-the-go
 - Pressing the A-button again deactivates this mode
 - After unloading is complete, there are two ways to resume selected strategy
 - After the auger is swung in, the selected strategy will resume
 - If the auger remains swung out after unloading is turned off, the selected strategy will resume after 30 seconds
 - For use in very tough-to-thresh conditions





Step 9d: Set maximum engine load

When to perform: after selecting desired strategy

Navigate to: CRUISE PILOT (1) / Settings (2) / Engine load (3)

- A. Choose max engine load that is allowed when CRUISE PILOT is engaged
 - Range: 85% 104%



E. QUANTIMETER setup





Step 1e: QUANTIMETER calibration

When to perform: beginning of harvest (each crop type) and periodically throughout harvest to confirm accuracy

Navigate to: Crop (1) / QUANTIMETER (2)

Procedure:

Zero calibration:

- 1. Start engine and engage processor, throttle to full
- Calibrate zero yield (zero cal function) by selecting Teaching-in (wait for message to confirm calibration has completed)

Calibrating yield sensor:

- 1. Press test-weighting (3) to turn on calibrating process
- 2. Harvest a load of grain that can be measured (half a grain tank minimum)
- 3. Press test-weighting (3) to turn calibrating process off. Weight of crop size will appear underneath combine icon
- 4. Unload into a cart with scales and enter the actual grain weight in the cart icon (4). Press weight and grain pile icon to type in weight
- 5. Calibration factor will automatically be adjusted and appear in the calibration factor button
- 6. Calibration factor can be saved for each crop under crop type settings
 - Perform before saving custom crop settings (Step 6)





F. CEMOS integrated in CEBIS setup





Step 1f: Master switch

When to perform: initial CEMOS AUTOMATIC set up

Navigate to: AUTOMATIC (1) / AUTOMATIC (2)

Procedure:

Press each button to turn on:

- A. AUTO THRESHING automatically adjusts:
 - Concave clearance
 - Threshing cylinder speed
- B. AUTO SEPARATION automatically adjusts:
 - Rotor speed
 - Rotor cover plates
- C. AUTO CLEANING automatically adjusts:
 - Upper sieve position
 - Lower sieve position
 - Fan speed
- D. 4D CLEANING (function of AUTO SEPARATION)
- E. AUTO SLOPE (function of AUTO CLEANING)
- F. AUTO CROP FLOW



Step 2f: AUTO CROP FLOW Sensitivity

When to perform: initial CEMOS AUTOMATIC set up

Navigate to: AUTOMATIC (1) / Settings (2)

- A. Tap 'Sensitivity of the AUTO CROP FLOW'
- B. Select system sensitivity
 - Low: system is slow to react
 - Medium (recommended): system is quicker to react
 - High: system is fast to react



Step 3f: Optimization strategy

When to perform: initial CEMOS AUTOMATIC setup, change if different combine performance is desired

Navigate to:

Gentle threshing		Increase throughput
Improve threshing		Increase throughput
Improve grain cleanliness		Increase throughput
Improve chop quality	★ ■	Reduce fuel consumption
Improve straw quality		Increase throughput


G. CEMOS integrated in CEBIS MOBILE setup





CEBIS MOBILE display

- 1. Main Display Area: Displays machine parameters and settings
- 2. Secondary Display Area: Configurable by the operator; displays machine functions and camera options
- **3. Main Menu:** DIALOG, AUTOMATIC, CRUISE PILOT, Help, Settings
- **4. Status Bar:** Displays which CEMOS AUTO functions are running. Green = active, Gray = inactive

			Contraction of the second s
ot			
9 24 mm 6 600 rpm	0000		CRUISE PILOT
* 1200 rpm		-	0
■ 13 mm ■ 12 mm		2	Holp
4월 0 # 950 rpm			Settings
★ inactive ★ inactive	66	0	= 6 = 6
		4 *	3
	et 24 mm 600 rpm 1200 rpm 1200 rpm 13 mm 12 mm 12 mm 950 rpm ∳ inactive ∳ inactive	e 24 mm e 600 rpm 1200 rpm 13 mm 12 mm 12 mm 12 mm 950 rpm 950 rpm ∳ inactive ★ inactive	24 mm 600 rpm 1200 rpm 13 mm 12 mm 12 mm 950 rpm 950 rpm inactive inactive



CEBIS MOBILE Layout

- 1. Main Menu: Select main menu item to view function menu
- 2. Function Menu: Select function menu item to view function details
- **3. Function Detail:** Displays the functions and settings under the function details
- **4. Overview of Function:** Displays the functions under the selected function menu item



Overview of Working Displays

- 1. Main Display options: Changes the machine view and camera on the main display
- 2. Straw Moisture: Indicates straw moisture
- 3. Header Settings: Tap to see header settings
- 4. Machine monitoring: Optimization suggestions appear here
- 5. Status bar: Shows which automatic options are active
- 6. Reel Position
- 7. Type of Crop Divider
- 8. Reel Speed
- 9. Feederhouse Speed
- 10. Crop Type: Displays the crop type selected in CEBIS





Overview of Working Displays

- 1. Header: Tap header to view CEMOS DIALOG optimization suggestions
- 2. Threshing: Tap threshing mechanism to view CEMOS DIALOG threshing optimization suggestions
- **3. Separation:** Tap rotors to view CEMOS DIALOG separation optimization suggestions
- 4. Residue Management: Top chopper to view CEMOS DIALOG chopping optimization suggestions
- 5. Spreading System: Tap to view straw spreader settings and make optimization adjustments
- 6. Rotor speed and rotor cover plates
- 7. Upper and lower sieve gap
- 8. Fan speed
- 9. Threshing cylinder speed and concave clearance





Overview of Working Displays

- 1. Separation System: Tap to view separation settings and adjustments
- 2. Wind Compensation and adjustments: Tap to view wind compensation
- **3.** Spreader settings and adjustments: Tap to view spreader settings
- 4. Spreader overlap display
- 5. Alignment of spread direction
- 6. Spreading direction
- 7. Spread width
- 8. Chopper speed
- 9. Position of the stationary knives and friction plate





Step 1g: CEMOS settings in CEBIS MOBILE

When to perform: beginning of initial CEMOS AUTOMATIC set up, will retain selection after machine reset

Navigate to: DIALOG (1) / Settings (2)

- A. Demo mode: Should always be off when running CEMOS AUTOMATIC
- **B. Machine monitoring (ON):** Displays system information. Needs to be on for CEMOS AUTOMATIC to function





Step 2g: Harvest conditions

When to perform: after master switch is switched on, change strategy if different driving mode is desired

Navigate to: DIALOG (1) / Condition (2)

- A. Straw condition
 - Dry: straw moisture is dry (least aggressive)
 - Normal: straw moisture is normal
 - Damp: straw moisture is damp (most aggressive)
- B. Crop condition
 - Kinked or broken: crop condition is kinked or broken (most aggressive)
 - Laid: crop condition is laid
 - Standing: crop condition is standing (least aggressive)
 - Weed-infested: crop condition is weed-infested
- C. Grain Condition
 - Dry: grain moisture is dry
 - Normal: grain moisture is normal
 - Damp: grain moisture is wet





Step 3g: Machine equipment

When to perform: after machine reset, ensure machine equipment matches machine configuration

Navigate to: DIALOG (1) / Condition (2)

- A. Disawner plates: Lever open/closes blanking plates under the APS grates
 - Open: lever on right side feederhouse is flipped down
 - Closed: lever on right side feederhouse is flipped up
- B. Crop divider type: end divider on header





Step 4g: Master switch

When to perform: initial CEMOS AUTOMATIC set up

Navigate to: AUTOMATIC (1) / AUTOMATIC (2)

Procedure:

Press each button to turn on:

- A. AUTO THRESHING automatically adjusts:
 - Concave clearance
 - Threshing cylinder speed
- B. AUTO SEPARATION automatically adjusts:
 - Rotor speed
 - Rotor cover plates
- C. AUTO CLEANING automatically adjusts:
 - Upper sieve position
 - Lower sieve position
 - Fan speed
- D. 4D CLEANING (function of AUTO SEPARATION)
- E. AUTO SLOPE (function of AUTO CLEANING)
- F. AUTO CROP FLOW





Step 3g: Optimization strategy

When to perform: initial CEMOS AUTOMATIC setup, change if different combine performance is desired

Navigate to:





Step 6: CEMOS Dialogue

When to perform: as needed

Navigate to: DIALOG (1) / Start optimization (2)

- A. Select one of the improvement or optimization strategy
- B. Choose either to accept solution or move on to other solution



H. Grain Quality Camera integrated in CEBIS MOBILE setup





Step 1h: Turning on GRAIN QUALITY CAMERA

When to perform: at the start of harvest, whenever AUTO THRESHING is in use

Navigate to: AUTOMATIC (1) / Settings (2)

Procedure:

A. Tap GRAIN QUALITY CAMERA on / off button





Step 2h: Adjusting display of the proportion of cracked grain

When to perform: At the start of harvest; when changing crops

- A. Click on GRAIN QUALITY CAMERA window in CEBIS MOBILE secondary display
- B. Wait until an acceptable level of cracked grain (1) is reached in the grain tank (cracked grain appears with a purple outline on GRAIN QUALITY CAMERA)
- C. Adjust sensitivity on dial (3) until display (2) fill amount is between 50% and 60%. Touch dial to change sensitivity. Adjust sensitivity incrementally until the desired level is reached
- D. If a high proportion of cracked grain is visible in the grain tank and the displayed fill amount is low, increase sensitivity until display fill amount is higher.
- E. If a low proportion of cracked grain is visible in the grain tank and the displayed fill amount is high, decrease sensitivity until display fill amount is lower.



Step 3h: Adjusting display of the proportion of non-grain material

When to perform: At the start of harvest; when changing crops

- A. Click on GRAIN QUALITY CAMERA window in CEBIS MOBILE secondary display
- B. Wait until an acceptable level of non-grain material (1) is reached in the grain tank (non grain material appears with a purple outline on GRAIN QUALITY CAMERA)
- C. Adjust sensitivity on dial (3) until display (2) fill amount is between 50% and 60%. Touch dial to change sensitivity. Adjust sensitivity incrementally until the desired level is reached
- D. If a high proportion of non-grain material is visible in the grain tank and the displayed fill amount is low, increase sensitivity until display fill amount is higher.
- E. If a low proportion of non-grain material is visible in the grain tank and the displayed fill amount is high, decrease sensitivity until display fill amount is lower.



