

# Cockpit Checklist System

CMS400 Digital Voice Checklist Management

Cockpit

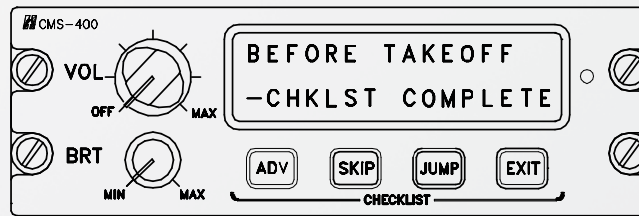


*Improve safety and convenience by automatically managing and presenting your checklist.*

Industry studies show that checklist misuse is a contributing factor in many accidents. The problem is that other cockpit duties compete with the checklist for the pilot's attention. This makes it difficult to concentrate on reading and performing checklists, which can lead to omitted items and poor crosschecking. Heads Up Technologies' CMS400 improves checklist performance by using a computer to manage the checklist and read your items aloud just as another crew member would. The result is reduced cockpit workload and improved situational awareness. For a better way to handle checklists, check with Heads Up.

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## Message Capacity

Number of Languages	1
Number of Line Items	500

## Physical

Sample Rate	10 kHz
Sample Size	8 bit
Audio Outputs	8 $\Omega$ (Speakers) 500 $\Omega$ (100mV)

## Electrical

Microprocessor Based	8 bit/10 mHz
Memory Type	EPROM
Voltage (nominal)	28 VDC
Current (nominal)	0.5 Amp
Panel Backlighting	5 or 28 Volts AC/DC

## Physical

Height	1.88" (4.76 cm)
Width	5.75" (14.6 cm)
Depth	7.83" (19.89 cm)
Total Weight	1.9 lbs (709.16 g)
Mounting	Standard DZUS
Bezel Color	Grey or Black
Display Type	LED
Display Size	(2) Lines (16) characters per line

## Environmental

Storage Temperature-67F to +176F (-55C to +80C)	10 kHz
Operating Temperature-4F to +158F (-20C to +70C)	8 bit

## Testing / Certification

	14 CFR PART 21
Hardware - Environmental	RTCA DO-160D
Software	RTCA DO-178A

Specifications subject to change without notice.

## Manage your checklist with a computer.

During busy takeoffs and landings, pilots can get distracted by ATC or other events and checklist diligence can suffer. But with a computer, this important task becomes easier and automated. The CMS400 uses sophisticated micro-processors and a digitized human voice to read your customized checklist to you. Each item is spoken clearly and quickly in a challenge-and-response format.

- ADV** Enter first category and proceed through the entire checklist. Press and hold to repeat an item. A remotely mounted "ADV" button is recommended.
- SKIP** Move an item for later consideration or move past checklist categories.
- JUMP** Move instantly to predetermined checklist categories.
- EXIT** Reset a checklist category and start again.

## You're in total command.

The CMS400 speaks only when you want it to speak. Press the remotely located "advance" button when you're ready, and the computer reads another item. It is that simple. One button can take you through the entire checklist from start to finish.

## Checklist changes are a snap.

Checklist changes are easy with the DSC20 data cartridge. Just mail, FAX or email your changes to us, and we will send you a new cartridge.

## Innovation Obsessed. Solution Driven.

Heads Up was formed for one purpose: To elevate the aviation experience for pilot and passenger by providing the most innovative cockpit, cabin and aviation electrical solutions in the industry. For information on this or any of our other products, or to discuss how Heads Up can help make your vision a reality, contact us today at [info@heads-up.com](mailto:info@heads-up.com) or call 1.800.367.4770.



HEADS UP TECHNOLOGIES

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