PRODUCT CONNECTBOX

SCOPE

This procedure provides instruction in extracting data log files from the ConnectBox of all Seakeeper models with updated ConnectBox and GCM software released in August 2024.

BACKGROUND

The ConnectBox can record communication data on the Seakeeper CAN for 60 seconds before an alarm and 10 seconds after the alarm is triggered. This function can also be manually initiated through the user interface. These files contain all pertinent data on the Seakeeper CAN and select NMEA2000 data (SoG and battery monitoring data only). A total of 200 logs can be stored in the ConnectBox memory. Once this limit is exceeded, the oldest logs are replaced by new ones.

The data log files can be helpful in troubleshooting. The new functionality allows service personnel to obtain these files from the ConnectBox onto a USB thumb drive. Once loaded onto a portable drive, the files can be shared with the Seakeeper Product Support Team for analysis.

TOOLS REQUIRED

Seakeeper ConnectBox Software Update Kit (P/N: 20479):

- 6-inch OTG (On-The Go) cable (Tripp Lite U052-06N Black Micro USB to OTG Host Adapter Cable 5-Pin Micro USB A/A M/F)
- USB flash drive formatted per this instruction (SanDisk® 16 or 32GB Cruzer[™] Blade USB 2.0 Drive, or similar)
- Torx-8 bit/driver







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PROCEDURE

- 1. **PERFORM** following to verify data log transfer allowed by owner:
 - a. On MFD app or optional Seakeeper display, **NAVIGATE** to Settings page.
 - b. **PERFORM** long press of Settings icon (gears).
 - c. **SELECT** 'Data Logging tab' (Figure 1).

		Data Log	ging	System	GPS
Logger Data Export	De	env			
	Deny				
	Allow				
	No Selection				
When 'Allow' or 'No Selection					
highlighted, transfer is allowed	d				
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Figure 1: Data Logging page showing data log transfer authorized

- d. <u>IF</u> 'Deny' is highlighted, <u>THEN:</u>
 - i. **INFORM** Seakeeper Product Support Team data log file transfer is NOT authorized.
 - ii. **STOP** procedure.
- e. **IF** 'Allow' or 'No Selection' is highlighted and collecting auto-recorded data, **THEN PROCEED** to step 3.
- f. **IF** 'Allow' or 'No Selection' is highlighted and collecting data manually, **THEN:**
 - i. **PERFORM** sea trial to recreate conditions.
 - ii. **PROCEED** to step 2.



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NOTE:

- Without ConnectBox software revision 3.4.4 or after, manual data log initiation is <u>only</u> available with an MFD.
- Once a data log is created manually or by an alarm, the log will remain in permanent
- 2. <u>IF</u> desired to manually create a data log, <u>THEN</u> PERFORM following:
 - a. **NAVIGATE** on MFD or optional Seakeeper display to Service screen override page.
 - b. PRESS square beside 'Request Data Logging.'

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Brake Override:			Brake Override:	0	
Glycol Override:			Glycol Override:	\Box	
Seawater Override:			Seawater Override:	\Box	
Request Data Logging:	D fun	Data Logger ction available	Data Logging in Progress:	Dat manua	ta Logger ally activated
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Figure 2: Sequence for manual data logger activation

- 3. **FORMAT** flash drive on pc:
 - a. **ENSURE** root folder of flash drive is clear of files.
 - b. **OPEN** notepad app on pc.
 - c. SAVE blank Notepad file as 'CANLOG.CP' onto thumb drive (Figure 3).



Figure 3: Flash drive plain text file created saved as file type: All Files



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Step 3 (formatting flash drive) continued

NOTE:

Transfer time for one data log file is 50 seconds.

If no number entered in file, ConnectBox will transfer all data log files and may take over two hours.

- d. **OPEN** plain text file created, CANLOG.CP.
- d. **TYPE** number of data log files desired to be transferred to flash drive (Figure 4).



Figure 4: Open plain text file in PC

- 4. **ENSURE** Seakeeper locked or off.
- 5. **REMOVE** ConnectBox USB port plug with T8 Torx driver (Figure 6).
- 6. **INSERT** flash drive into USB OTG micro-USB to USB adapter cable.



NOTE:

Some OTG connectors have been found to be too bulky to fit.

GCM will set an alarm once data transfer begins.

7. **FULLY INSERT** micro-USB connector of OTG cable into ConnectBox Micro-USB port.

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- 8. **ENSURE** data log file transfer initiated by observing following (Figure 7):
 - Power and network buttons illuminated
 - Seakeeper logo and text not illuminated
- IF ConnectBox does not enter transfer mode, as indicated by LEDs listed above, THEN POWER CYCLE Seakeeper to reset ConnectBox.
- 10. <u>WHEN</u> Seakeeper logo and text illuminated, <u>THEN</u>:
 - a. **REMOVE** OTG cable from ConnectBox USB port.
 - b. **REMOVE** flash drive from OTG adapter cable.
 - c. **REINSTALL** ConnectBox USB port plug.
- 11. **INSERT** flash drive into PC.





Figure 7: ConnectBox indications of transfer



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12. **ENSURE** following (Figure 8 and 9):

If user had selected 'Deny' on Data Logging tab of hidden Settings screen, the drive will contain no '.asc' files and retrieval log will read, "CAN Log Export Denied."

NOTE:

- Original 'CANLOG.CP' file present
- Additional '.asc' files loaded (CAN log files)
- A retrieval log (SDCARD.LOG) created with various statistics

🥪 =	Manage US	B Drive (D:)		D:\SDCARD.LOG - Notepad++ >	×
File Home Share	View Drive Tools			File Edit Search View Encoding Language Settings Tools Macro Run Plugins	
	C > LISB Drive (D)			Window ? + V	X
	C 7 030 Dilve (D.)				<i>"</i>
Microsoft Teams C ^	□ Name	Туре	Size	🔚 CANLOG.CP 🗵 🔚 SDCARD.LOG 🗵	
My_Backups	a CAN03214.ASC	ASCII Logging File	1,057 KB	1 Type of transfer : copy CAN logs 2 Limit number : 5	^
🧢 This PC	🗟 CAN03215.ASC	ASCII Logging File	3,495 KB	3 Time taken : 126202ms 4 Bytes read : 3118072	
3D Objects	CAN03216.ASC	ASCII Logging File	445 KB	5 Bytes written : 8878097	
Desktop	CAN03217.ASC	ASCII Logging File	441 KP	7 Files copied/moved: 5	
Documents		CP Eile	3,234 KB	8 I/O errors : 0	
Downloads	SDCARD.LOG	LOG File	1 KB	10 In : 9 Col : 1 Pos : 219 Windows (CD LE) LITE-9 INS	~
Figure	8: Flash drive r	oot folder		Figure 9: Retrieval log data after	

contents after transfer

13. **TRANSFER** all .ASC and SDCARD.LOG data from flash drive to Seakeeper Product Support Team at support@seakeeper.com or by other means agreed upon beforehand.



igure 9: Retrieval log data after successful transfer