

SERVICE BULLETIN

SB1216

ADDRESSEES : Owners and operators of coaches listed under 'Application'

COACH/BUS MODEL : C2045, T2140, T2145

BULLETIN TYPE : Product Improvement

SECTION/CHAPTER : Section 3 – Drive train

Chapter 2.2 - Control systems

DATE : May 01, 2008

SUBJECT : High idle operation on units with Cummins ISM02

engine and Allison transmission

TERMS & CONDITIONS: No claims will be accepted with reference to this Bulletin.

APPLICATION:

The service information subject of this Bulletin is applicable to following units:

Model VIN				
C2045	45458 → 45461, 45463 → 45500, 46001 → 46024, 46029 → 46038,			
	46043 → 46057, 46068 → 46082, 46086 → 46101			

Model	VIN T2140	VIN T2145
T2100	40148 → 40162	44313 → 44315, 44317 → 44340

DESCRIPTION:

- 1. On the above-mentioned units it is not possible to use the high idle feature with the vehicle in the kneeled position nor with the ADA lift system enabled, as the door brake function does not allow the engine to exceed 600 rpm.
- 2. When the entrance and/or lift doors are open for a prolonged period of time with the engine running at low rpm, the climate control system has insufficient cooling capacity to keep the interior temperature at the preset level.

 As a result the interior temperature rises.
- 3. To attend to this matter, Van Hool have cut into production an engine parameter change, which allows high idle and climate control system performance, while retaining all safety features related to kneeling and ADA lift system operation.
 - The new parameter settings have been implemented as from VIN 46102, 40163, and 44341. For your information, the procedure further in this Bulletin shows how the change is made.
- 4. Owners and operators who wish to benefit from this comfort feature may contact ABC Customer Care for assistance at 877-427-7278.

PARTS:

Retrofit parts (Van Hool)

VH reference	Description	Qty
VH 10896117	Chart, parameter setting, revision E	1
VH 10983342	Chart, parameter setting, revision B	1

- VH 10896117: Install this chart in the engine electronics/main junction box when using Cummins Insite Pro 5.0 software to reprogram.
- VH 10983342: Install this chart in the engine electronics/main junction box when using Cummins Insite Pro 6.4 software to reprogram.
- Parts may be purchased from your nearest ABC Customer Care & Parts Source service center.
- Parts and products disposition: discard according to applicable environmental regulations.

PROCEDURE:

To change the engine parameter settings

1. General:

Job allocation:

Job	Technician's qualifications		
Changing engine parameters	Qualified Cummins service technician		

For more information refer to:

the Maintenance Manual.

the Operating Manual,

the specimen engine parameter setting charts that have been attached to this Bulletin.

2. Special tools, equipment or services:

VH reference	Description
-	Cummins Data link Adapter Kit
-	Computer with Cummins Insite Pro Software Kit version 5.0 installed*
	or, Computer with Cummins Insite Pro Software Kit version 6.4 installed*

^{*} Parameters can be changed with either software

3. Preparations:

- Park the coach on a level surface with the front wheels straight. Apply the parking brake and shut down the engine.
- Switch off all systems and leave the battery master switch on.
- Read the entire procedure before beginning to work.

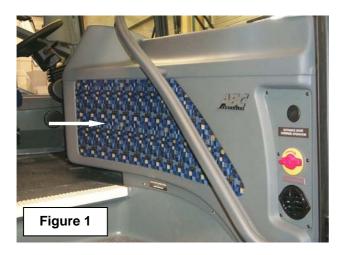
CAUTION: Observe safe shop practices at all times.

Page 2 of 6 SB1216_USA_en_2008-01-28 VANHOOL

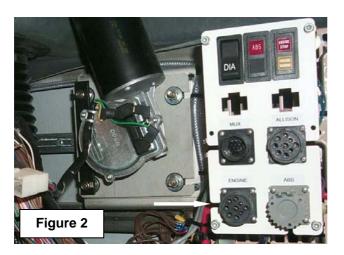
5. To change the engine parameter settings on C2045 coaches:

<u>NOTE</u>: T2100 Series coaches can be converted in a similar manner. Refer to the Maintenance Manual for the location of the engine diagnostic socket.

1) In the stepwell, undo and remove the fasteners securing the trim panel (Figure 1). Remove the panel.



2) Locate the engine diagnostics socket (Figure 2).



3) Hook-up the data link and the computer.

Following the programming instructions, change the engine parameter input selections from:

"Service brake override in PTO - Enable"

to:

"Service brake override in PTO - Disable".

- 4) Disconnect the equipment.
- 5) Reinstall the trim panel. Secure the fasteners hand tight.

VANHOOL SB1216_USA_en_2008-01-28

- 6) In the luggage compartment, undo and remove the fasteners securing the main junction box cover.
 - Attach the appropriate new engine parameter setting chart on the inside of the main cover.
- 7) Reinstall the cover. Secure the fasteners hand tight.

6. To check high idle operation:

- 1) Refer to the Operating Manual.
- 2) Start the engine and kneel the vehicle as described in "To operate the kneeling system".
- 3) Operate the high idle feature as described in "To operate cruise control To change high idle speed".
- 4) If applicable, enable the wheel chair lift system as explained in "To deploy wheelchair lift". Operate the high idle feature as in step 3. Disable the wheel chair lift system.

Procedure complete.

ATTACHMENTS:

Old Cummins ISM02 engine parameter settings VH 10896117, rev. D (Cummins Insite Pro 5.0) Old Cummins ISM02 engine parameter settings VH 10983342, rev. A (Cummins Insite Pro 6.4) New Cummins ISM02 engine parameter settings VH 10896117, rev. E (Cummins Insite Pro 5.0) New Cummins ISM02 engine parameter settings VH 10983342, rev. B (Cummins Insite Pro 6.4)

DISCLAIMER:

The procedures contained herein are not exclusive. Van Hool cannot possibly know, evaluate, or advise the transportation industry of all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved.

Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety or usefulness of any products, will be jeopardized by any procedure selected.

SERVICE INFORMATION:

Service Bulletins are issued to supplement or supersede information in the Van Hool manuals. Note Service Bulletin number, date and subject on the register at the end of the relevant chapter(s). File Service Bulletin separately for future reference.

Page 4 of 6 SB1216_USA_en_2008-01-28 VANHOOL



ENGINE PARAMETER SETTING

VIN:		PROG. DATE :		
		Settings list	DV080405	
Cummins ISM02 450 Hp (Allison)		Ref VH	10 896 117/0	
Accelerator interlock	Enable	Low engine speed breakpoint	2500 rpm	
Accel, Interlock sw. Setup		Maintenance monitor	Disable	
Adaptive cruise	Disable		Disable	
Adjustable high idle governor speed	8.0.	PTQ / remote PTO		
High Idle Governor Speed	2	Max vehicle speed in PTO	. * O mpt	
OEM maximum HIGS	2	Service brake override in PTO	- Enable	
OEM minimum HIGS	2100 1911	PTO / remote PTO	Enable	
Adjustable low idle speed		V Alternate PTO	Enable	
Low Idle speed	600 rpm	Clutch override in PTO	Disable	
Low idle speed adjustment sw.	Disable	Max engine load in PTO	1350 lb-fi	
Battery voltage monitor	Disable	Max PTO speed	1400 rpm	
Centinel of system	Disable	Minimum PTO speed	600 rpm	
Cruise Control	Enable	Nr of remate PTO set speeds	. • 1	
Cruise control auto-resume	Disable	PTO additional switch speed	1000 rpm	
Cruise control lower droop	0 mph	PTO ramp rate	250 rpm/sec	
Cruise control save set speed	Enable	PTO resume switch speed	1200 rpm	
Cruise control upper droop	0 mph		900 rpm	
Max.cruise control speed	71 mph	PTO zero VSS limit	Enable	
Cruise control switch setup	Enable	Remote set speed 1	1400 rpm	
Cruise switch setup	Set/Coast	Accelerator override in PTO	Disable	
Driver reward	Disable	Multiple PTO Trip Information	N/A	
Engine brake control		Remote accelerator	Disable	
Cruise control activation	Enable		Enable	
Engine brake delay time	0,0 sec	Max accelerator vehicle speed	71 mph	
Engine brake min. Veh. Speed	0 mph		71 mpt	
Engine brake type	Engine brake		0 mpt	
Service brake activation	Disable	Road speed gov upper droop	0 mpt	
Start max eng braking in co		Smart road speed governor	Disable	
Start min eng braking in cc		SAE J1939 multiplexing	Disable	
Engine coolant level sensor		Starter lockout	Disable	
Engine protection		Switched max eng. operating speed	Disable	
Eng. protection limited restart		Tire wear adjustment	Disable	
Engine protection shutdown		Transmission setup	41-1-4-0	
EPS manual override	Enable		Not installed	
Fan control	Enable 0V ON		0.74	
Fan control logic			77.50	
Fan control switch	Disable Disable		Automatic Enable	
Fan on with engine braking	Disable Disable	The Print of the P	O m	
Vehicle speed interaction Air conditioner press sw input	Disable		O hr	
	On/Off		80 mpl	
Fan type Gear-down protection	Disable		80 mpl	
Generic tool permissions	Disable	Vehicle electrical system voltage	Enable	
J1939 service reset	Disable		24 vo	
J1939 service reset J1939 stop broadcast allowed		Vehicle Speed Sensor anti-tampering	Z4 V0	
J1939 stop dioadcast allowed	Disable		Disabl	
Governor type	- Medille	Max engine speed w/o VSS	1600 rpr	
	Automotive		- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Governor type	Automotive	Number of transmigear teetin		
Governor type Old: VH 1089611		Number of transm gear teeth D (Cummins Insite Pro		

ENGINE PARAMETER SETTING

	VIN:		PROG. DATE:	
7.200		()) () () () () () () () () (Settings list	DV09010
	Cummins ISM02 450 Hp (Allison)		Ref VH	10 983 342/
1				
	erator Interlock		Maintenance monitor	Disab
	Accel. Interfack sw. Setup		Powertrain protection	Disab
	ve crujse	Disable	P 0 / remote PTO	Enab
	able high idle governor speed		Max vehicle speed in PTO	0 mp
	High Idle Governor Speed		Service brake override in PTO Alternate PTO	Enab Enab
	OEM maximum HIGS OEM minimum HIGS	2100 rpm	Clutch override in PTO	Disab
s et i nett	able low idle speed	2100 (pn)	Max engine load in PTO	1350 lb-
tujusi	Low idle speed	600 rpm	Max PTO speed	1400 rp
-	Low idle speed adjustment sw.	Disable	Minimum PTO speed	500 rp
Satter	y voltage monitor	Disable	Nr of remote PTO set speeds	
	el oil system	Disable	PTO additional switch speed	1000 rp
	Control	Enable	PTO ramp rate	250 rpm/se
	Cruise control auto-resume	Disable	PTO resume switch speed	1200 rp
	Cruise control lower droop	0 mph	PTO set switch speed	900 rp
	Cruise control save set speed	Enable	PTO zero VSS limit	Enab
	Cruise control upper droop	0 mph	Remote set speed 1	1400 rp
	Max.cruise control speed	71 mph	Accelerator override in PTO	Disab
Cruise	control switch setup	Enable	Multiple PTO Trip Information	N/
	Cruise switch setup	Set/Coast	Remote accelerator	Disab
	reward		Road speed governor	Enab
Englne	e brake control	Enable	RSG feature enable	Enab
	Cruise control activation	Enable	Max accelerator vehicle speed	71 mp
	Discrete Eng. Brake Light Output	Disable	Maximum vehicle speed	71 mp
	Engine brake delay time	0,0 sec	Road speed gov lower droop	0 mp
-	Engine brake min. Veh. Speed	0 mph	Road speed gov upper droop	0 mp Disab
	Engine brake type		Smart road speed governor	Disab
	Service brake activation		SAE J1939 multiplexing	Disab
	Start max eng braking in co		Starter lockout Switched max eng. operating speed	Disab
Carin	Start min eng braking in co e coolant level sensor		Tire wear adjustment	Disab
	e protection		Transmission setup	Disab
cingila	Eng. protection limited restart	Enable	Clutch pedal position switch	Not installe
. 1- 4	Engine protection shutdown	Enable	Gear down transmission ratio	0.7
	EPS manual override	Enable	Top gear transmission ratio	0.6
Fan co	A Later and the second	Enable	Transmission type	Automat
	Fan control logic		Trip information	Enab
*-	Fan control switch	Disable	Trip information feature enable	Enab
	Fan on with engine braking	Disable	Engine distance offset	01
	Fan on with remote throttle	Disable	Engine time offset	0 h
	Vehicle speed interaction	Disable	Vehicle overspeed 1	60 mg
	Air conditioner press sw Input	Disable	Vehicle overspeed 2	80 mj
	Fan type	On/Off		Disat
	down protection	Disable		Enak
Gover	nor type	V.	Vehicle electr, system voltage	24 v
	Governor type		Vehicle Speed Sensor anti-tampering	Disat
	Governor type switch	Disable		
-	hutdown	Disable	Max engine speed droop option	NOT added to eng.s
11939	Controls		Max engine speed w/o VSS	1600 rp
	J1939 service reset J1939 stop broadcast allowed	Disable	Number of transm gear teeth	
	1 11 U3G eton broadcast allowed	Disable	Rear axle ratio	4

ENGINE PARAMETER SETTING

VIN:		PROG. DATE :	
		Settings list	JB13030
Cummins ISM02 450 Hp (Allison)		Ref VH	10 896 117 <i>8</i>
- Later Later B	Figure	Tana analysis and based and delicated	0500
Accel. Interlock Sw. Setup	Enable	Low engine speed breakpoint Maintenance monitor	2500 rpr Disabl
daptive cruise		Powertrain protection	Disabi
djustable high idle governor speed	Disable	PTO / remote PTO	Disabi
High Idle Governor Speed	2	Max vehicle speed in PTO	0 mp
OEM maximum HIGS	2	Service brake override in PTO	Disabl
OEM minimum HIGS	2	PTO / remote PTO	Enabl
djustable low idle speed		Alternate PTO	Enabl
Low Idle speed	600 rpm	Clutch override in PTO	Disabl
Low idle speed adjustment sw.	Disable	Max engine load in PTO	1350 lb-
attery voltage monitor	Disable	Max PTO speed	1400 rpr
Centinel oil system	Disable	Minimum PTO speed	600 rpr
Cruise Control	Enable	Nr of remote PTO set speeds	
Cruise control auto-resume	Disable	PTO additional switch speed	1000 rpr
Cruise control lower droop	0 mph	PTO ramp rate	250 rpm/se
Cruise control save set speed	Enable	PTO resume switch speed	1200 rpr
Cruise control upper droop	0 mph	PTO set switch speed	900 rpr
Max cruise control speed	71 mph	PTO zero VSS limit	Enabl
ruise control switch setup	Enable	Remote set speed 1	1400 rpr
Cruise switch setup	Set/Coast	Accelerator override in PTO	Disabl N/
Priver reward Ingine brake control	Disable	Multiple PTO Trip Information	Disabl
Cruise control activation		Remote accelerator Road speed governor	Enabl
Engine brake delay time	0,0 sec	Max accelerator vehicle speed	71 mp
Engine brake min. Veh. Speed	dqm 0	Maximum vehicle speed	71 mp
Engine brake type	Engine brake	Road speed gov lower droop	0 mp
Service brake activation	Disable		0 mp
Start max eng braking in co		Smart road speed governor	Disabl
Start min eng braking in co		SAE J1939 multiplexing	Disabi
Engine coolant level sensor		Starter lockout	Disabl
Ingine protection	Enable	Switched max eng. operating speed	Disabl
Eng. protection limited restart	Enable	Tire wear adjustment	Disabl
Engine protection shutdown	Enable	Transmission setup	
EPS manual override	Enable		Not installe
an control	Enable		0,7
Fan control logic	OV ON	Top gear transmission ratio	0,6
Fan control switch	Disable		Automati
Fan on with engine braking		Trip information	Enabl
Vehicle speed interaction	Disable	Engine distance offset	0 r
Air conditioner press sw input	*Disable		0 h a
Fan type	On/Off		80 mp
Sear-down protection Seneric tool permissions	Disable	Vehicle overspeed 2 Vehicle electrical system voltage	80 mp Enab
J1939 service reset	Disable		24 vo
J1939 stop broadcast allowed		Vehicle Speed Sensor anti-tampering	Disab
J1939 stop proadcast allowed		Vehicle speed sensor anti-tampering	Ulsan
Sovernor type	Disable	Max engine speed w/o VSS	1600 rpi
Governor type	Automotive		1900 (p)

ENGINE PARAMETER SETTING

	VIN:		-	ROG. DATE :	
			Set	tings list	JB13030
	Cummins ISM02 450 Hp (Allison)	5100	Re	VH	10 983 342/
Accele	rator Interlock	Enable	Maintenan	ce monitor	Disab
	Accel, Interlock sw. Setup	Active closed			Disab
	ve cruise	Disable		ote PTO	Enab
	able high idle governor speed			x vehicle speed in PTO	0 mg
	High Idle Governor Speed	- 5		vice brake override in PTO	Disab
	OEM maximum HIGS			ernate PTO	Enab
	OEM minimum HIGS	2100 rpm		tch override in PTO	Disat
djust	able low idle speed		Ma	x engine load in PTO	1350 lb
	Low idle speed	600 rpm	Ма	x PTO speed	1400 rp
	Low kille speed adjustment sw.	Disable	Mir	imum PTO speed	600 rp
Satien	y voltage monitor	Disable	Nr	of remote PTO set speeds	
	el oll system	Disable	PT	O additional switch speed	1000 rps
Cruise	Control	Enable	PT	O ramp rate	250 rpm/se
	Cruise control auto-resume	Disable	PT	O resume switch speed	1200 rp
	Cruise control lower droop	0.mph		O set switch speed	900 rp
	Cruise control save set speed	- Enable	PT	O zero VSS limit	Enab
S.	Cruise control upper droop		. Re	mote set speed 1	1400 rp
/a %a	Max.cruise control speed	. 71 mph	Ac	celerator override in PTO	Disab
Cruise	control switch setup	Enable		ttiple PTO Trip Information	N _i
	Cruise switch setup		Remote ad		Disab
	reward		Road spee		Enab
Engine	brake control	Enable		G feature enable	Enab
	Cruise control activation	Enable		x accelerator Vehicle speed	71 m;
	Discrete Eng. Brake Light Output	Disable		ximum vehicle speed	71 mp
	Engine brake delay time	0,0 sec		ad speed gov lower droop	O mp
	Engine brake min. Veh. Speed	0 mph		ad speed gov upper droop	0 mg
	Engine brake type			d speed governor	Disab
	Service brake activation			9 multiplexing	Disab
	Start max eng braking in co		Starter loc		Disab
	Start min eng braking in co			max eng. operating speed	Disab
	e coolant level sensor		The wear		Disab
Engine	e protection		Transmiss		
	Eng. protection limited restart	Enable		itch pedal position switch	Not installe
	Engine protection shutdown	Enable		ar down transmission ratio	0,7
	EPS manual override	Enable		gear fransmission ratio	0,6
Fan co		Enable		namission type	Automat
27	Fan control logic		Trip inform		Enat
	Fan control switch	Disable		p information feature enable	Enat
	Fan on with engine braking	Disable		gine distance offset	. 0
	Fan on with remote throttle	Disable		gine tima offset	0 h
	Vehicle speed interaction	Disable	15.0	hicle overspeed 1	80 m
	Air conditioner press sw input	Disable		hicle overspeed 2	60 m
	Fan type			celeration management	Disak
	down pretection	Disable		ectrical system voltage	Enak
Gover	nor type			hicle electr. system voltage	24 v
	Governor type	Automotive		peed Sensor anti-tampering	Disal
Lis.	Governor type switch	Disable		eed source	NOT add day
	nutdown	Disable	Me	x engine speed droop option	NOT added to eng.s
11939	Controls	p2 . 4		x engine speed w/o VSS	1600 r
	J1939 service reset	Disable		mber of transm gear teeth	
	J1939 stop broadcast allowed	Disable	: Re	ar axle ratio	