

# Wiring Diagrams

---

## Design of Wiring System

### Determine and Define of Wires

Circuit Numbers and Wire Identification will be done according the World-wide Engineering Drafting Standard WH-110-01. The circuit number is related to the electrical function and the component. The function portion of the circuit number is defined by the conditions under which a circuit has a particular voltage. The function number is based on the circuit's function, not on its source or destination.

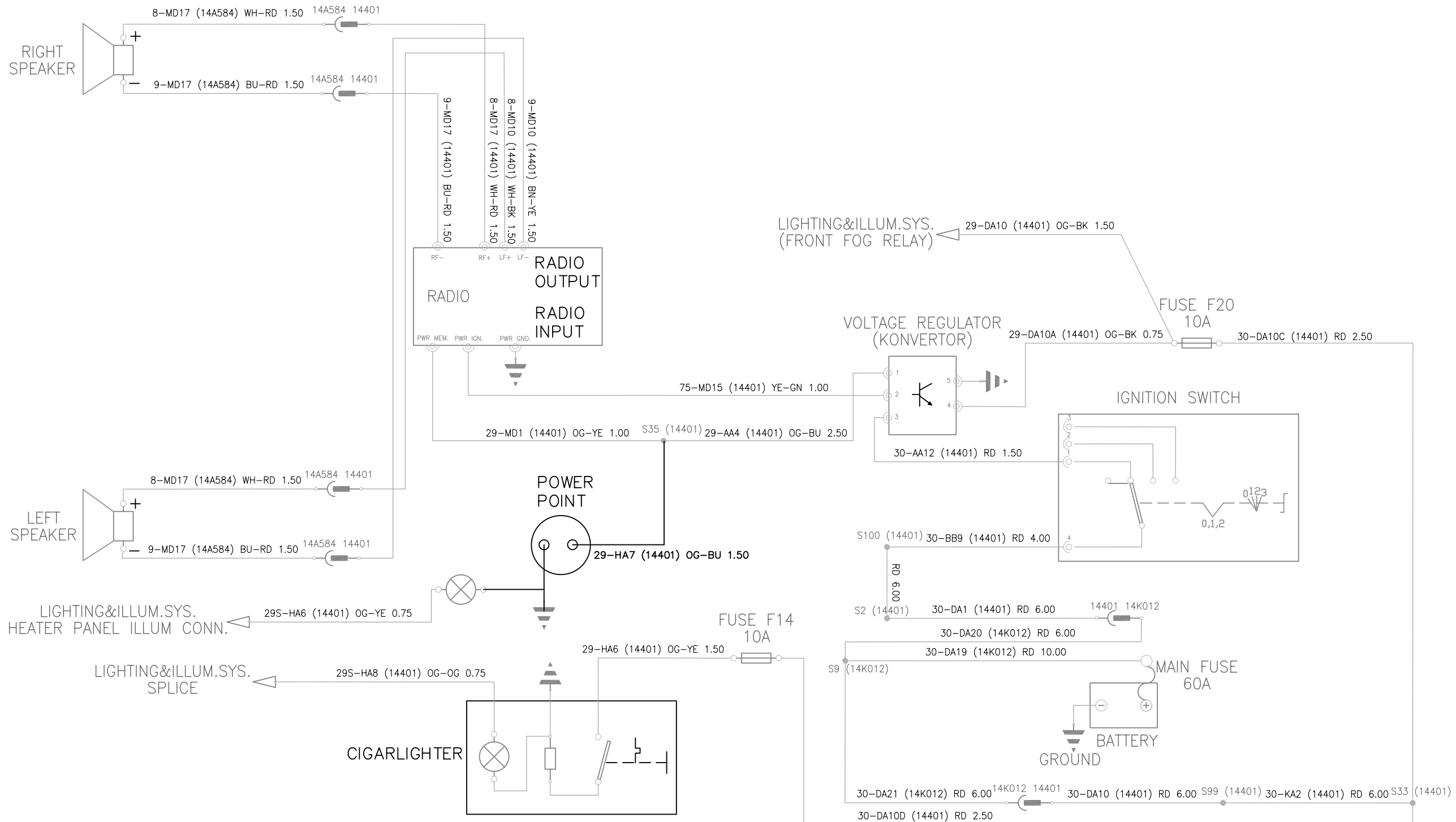
Wire identification is essentially done by a basic colour which is assigned to the function of a wire.

### Function Table:

<u>No</u>	<u>Basic Colour</u>	<u>Description</u>
4	GY (grey)	Data Bus (+), SCP +
5	BU (blue)	Data Bus (-), SCP -
7	YE (yellow)	Constant DC Voltage
8	WH (white)	Signal
9	BN (brown)	Signal Return
14	VT (violet)	Battery Voltage, Overload Protected Hot only in Start & Run
15	GN (green)	Battery Voltage, not Overload Protected Hot only in Start & Run
29	OG (orange)	Battery Voltage, Overload Protected Hot at all times
30	RD (red)	Battery Voltage, not Overload Protected Hot at all times
31	BK (black)	Ground
32	WH (white)	Switched battery voltage for: Close, Unlock, Forward, Leftward
33	YE (yellow)	Switched battery voltage for: Close, Lock, Reverse, Rightward
49	BU (blue)	Pulsed Power, Overload Protected
50	GY (grey)	Battery Voltage, not Overload Protected Hot only in Start
59	GY (grey)	AC power (Alternator output)
63	WH (white)	Variable DC, Overload Protected
64	BU (blue)	Variable DC, not Overload Protected
74	BU (blue)	Battery Voltage, Overload Protected Hot only in Run & Accessory

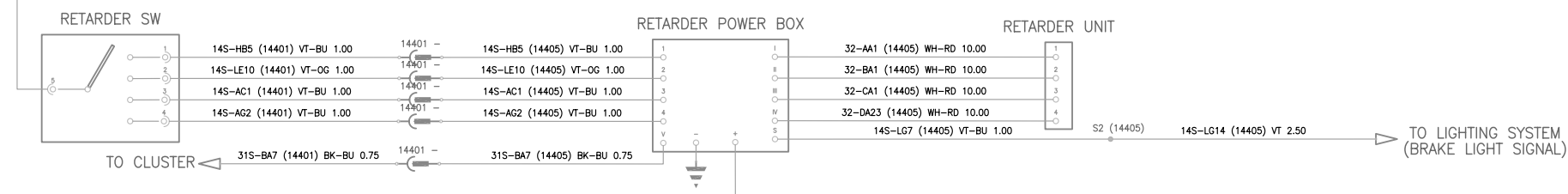
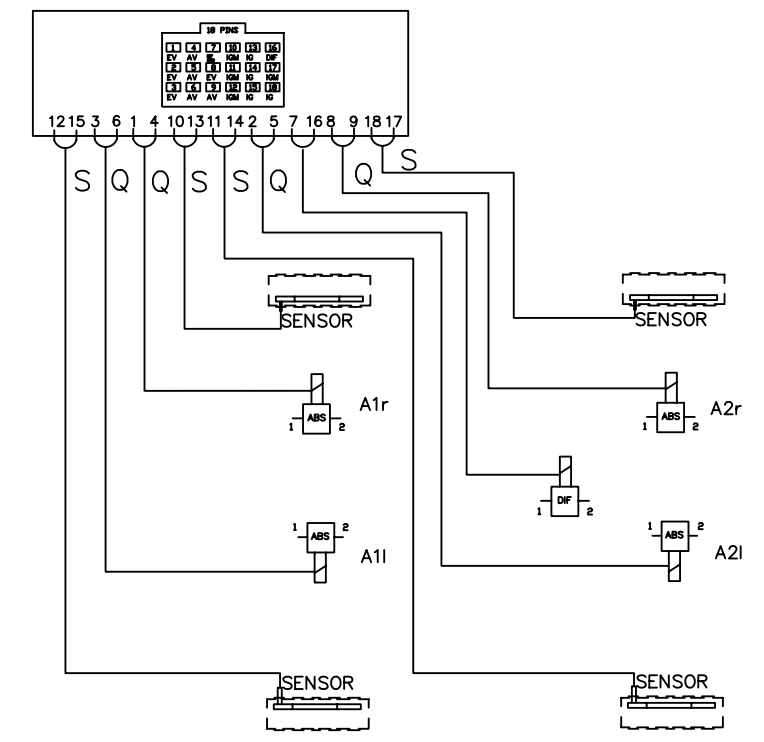
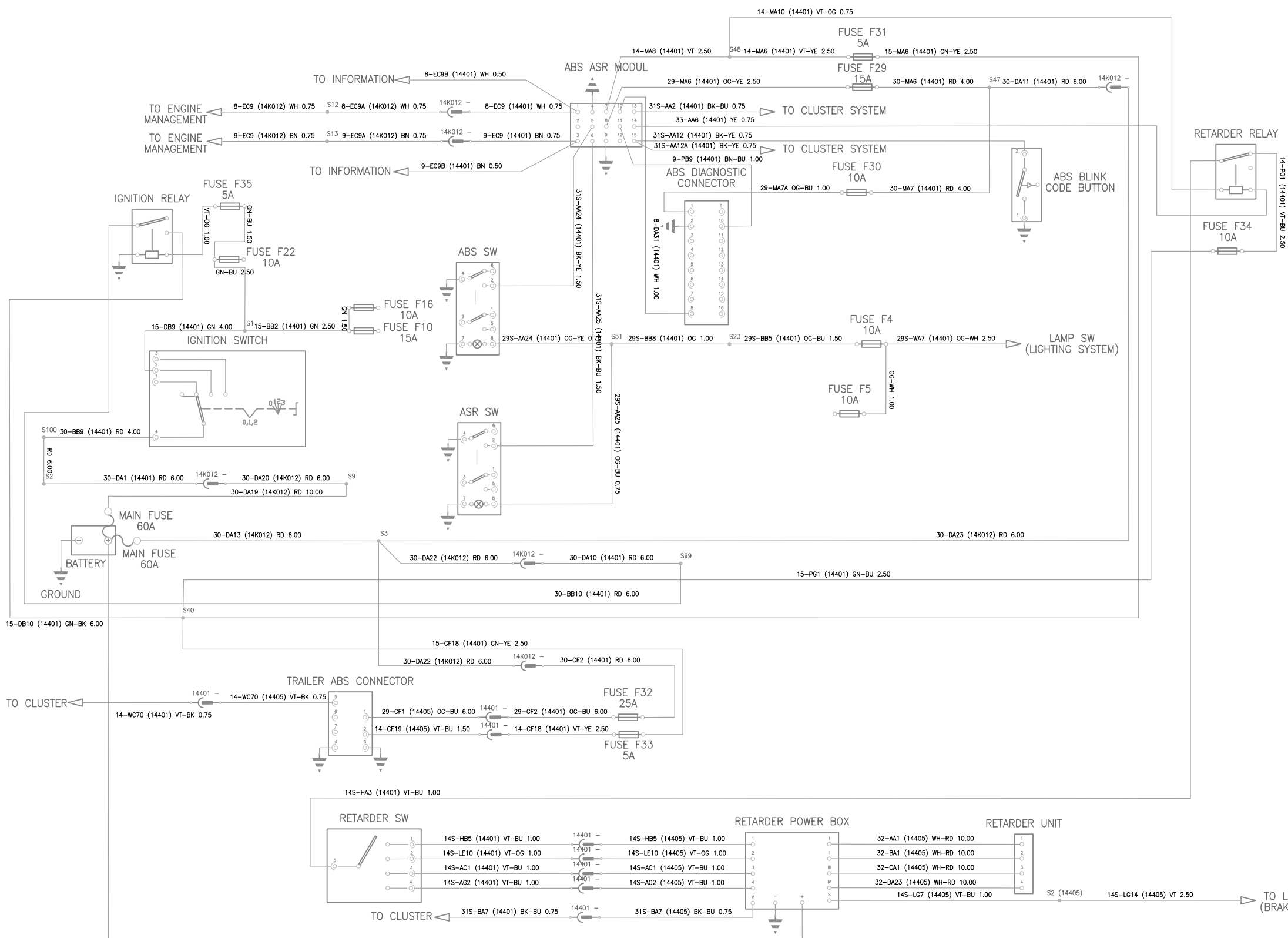
75	YE (yellow)	Battery Voltage, not Overload Protected Hot only in Run & Accessory
89	OG (orange)	Battery Voltage, Overload Protected Hot at all times, Clean Feed
90	RD (red)	Battery Voltage, not Overload Protected Hot at all times, Clean Feed
91	BK (black)	Ground, Clean Feed
94	VT (violet)	Battery Voltage, Overload Protected Hot only in Start & Run Clean Feed
95	GN (green)	Battery Voltage, not Overload Protected Hot only in Start & Run Clean Feed

LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



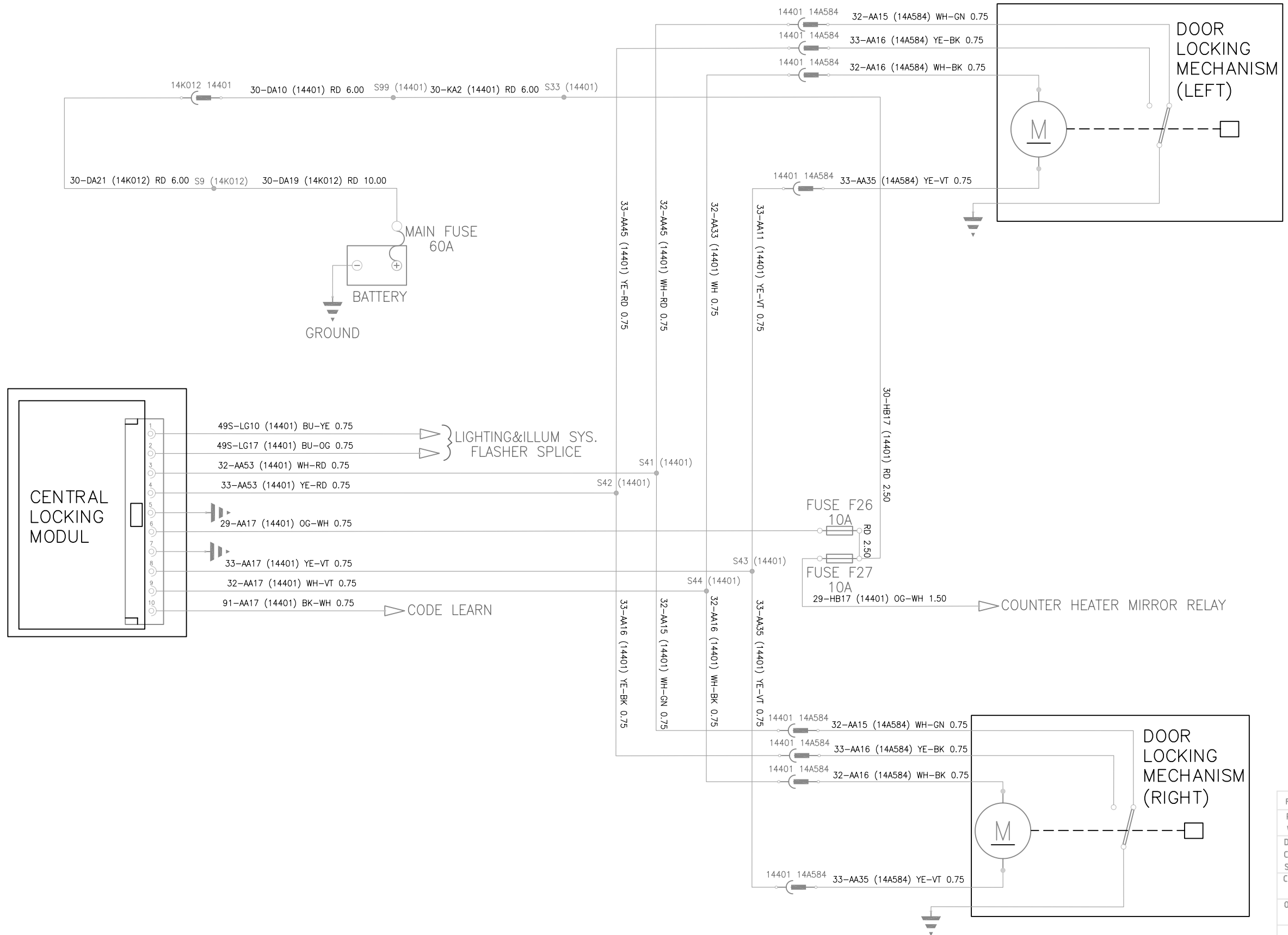
REFERENCE		H476 9L CARGO TRUCK	
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION <u>FCDS</u> VERSION			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE	SHT OF 15
CHECKED NKELES	SAFETY	AUDIO_CIGARLIGHTER& POWER_POINT_SYSTEM	RH/LH SHOWN
SCALE	DATE 070118	DIVISION PLANT	GOLCUK GSDB
FORD MOTOR COMPANY			

LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



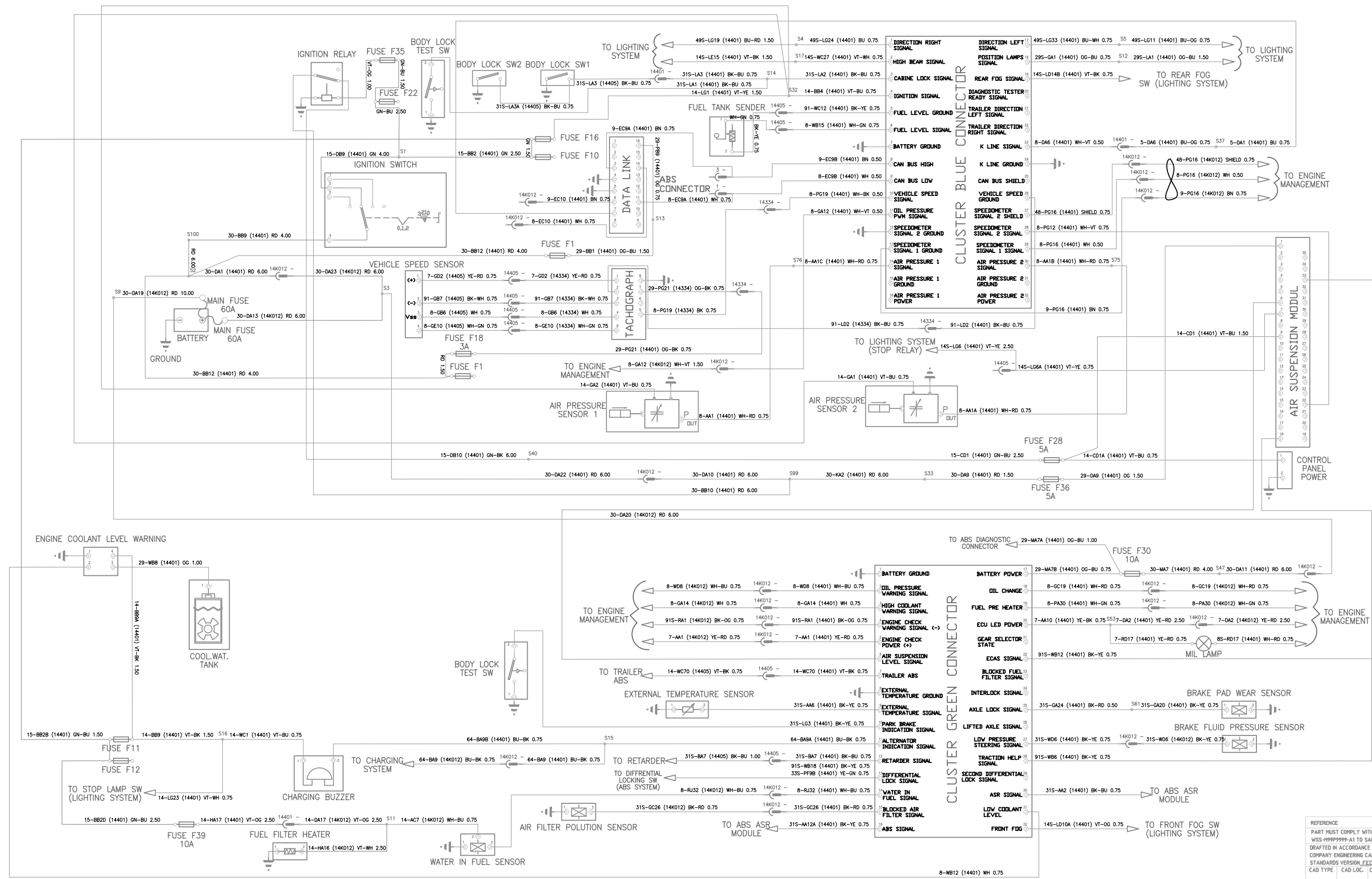
REFERENCE	H476 9L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION_FECDS_VERSION			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL	TITLE	SHT OF 7
CHECKED NKELES	SAFETY	BRAKE SYSTEM	RH/LH SHOWN
SCALE	DATE	DIVISION	
	061108	PLANT	GOLCUK
			GSDB
FORD MOTOR COMPANY			

LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



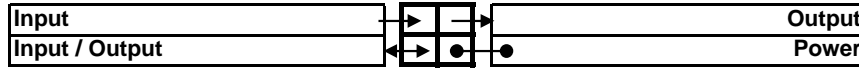
REFERENCE	H476 9L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION <u>FCDS</u> VERSION	3RD ANGLE PROJ		DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE	SHT OF 10
CHECKED NKELES	SAFETY	CENTRAL_LOCKING SYSTEM	RH/LH SHOWN
SCALE	DATE 070117	DIVISION PLANT	GOLCUK GSDB
FORD MOTOR COMPANY			

LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



REFERENCE			
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-W999999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION FECCDS_VERSION			
CAD TYPE	CAD LOC	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN	DETAIL	TITLE	SHEET OF 3
CHECKED	SAFETY	CLUSTER & INFORMATION SYSTEM	R/L/H SHOWN
SCALE	DATE	DIVISION	PLANT
	061102	GDLCLK	GSSB
 <b>FORD MOTOR COMPANY</b>			

## IC CONNECTORS



Left side

CON1

966658-1 green female

CON1

1 17

Wire current

Wire Current

		<b>Battery Ground</b>					<b>Battery Power</b>		<b>715 mA at 28,8V</b>
125mA		*Oil Pressure Warning signal	▶	◀	▶	◀	*Oil Change Warning Signal		125 mA
125mA		*High Coolant Warning signal	▶	◀	▶	◀	*Fuel Pre heater Signal		125 mA
125mA		*Engine Check Warning Signal(-)	▶	◀	▶	◀	ECU Led power		500 mA
125mA		Engine Check Power(+)	▶	◀	▶	◀	Gear Selector State		2 mA max
2 mA max		Air suspension level signal	▶	◀	▶	◀	ECAS Signal		2 mA max
2 mA max		Trailer ABS	▶	◀	▶	◀	Blocked fuel filter Signal		2 mA max
2 mA		External temperature Ground	●	●	▶	◀	interlock Signal		2 mA max
2 mA		External temperature Signal	▶	◀	▶	◀	Pad wear Signal		2 mA max
2 mA max		Park brake Indication Signal	▶	◀	▶	◀	lifted axleSignal		2 mA max
2 mA max		Alternator indication Signal	▶	◀	▶	◀	Low pressure steering signal		2 mA max
2 mA max		Retarder signal	▶	◀	▶	◀	Traction help Signal		2 mA max
2 mA max		Differential lock Signal	▶	◀	▶	◀	Second Differential lock Signal		2 mA max
2 mA max		Water in fuel Signal	▶	◀	▶	◀	ASR Signal		2 mA max
2 mA max		Blocked Air Filter Signal	▶	◀	▶	◀	Low coolant level		2 mA max
2 mA max		ABS signal	▶	◀	▶	◀	Front fog		2 mA max

16 32

Right Side

CON2

966658-2 blue female

CON2

1 17

		<b>Truck direction right signal</b>					<b>Truck direction left signal</b>		<b>2 mA max</b>
2 mA max		High Beam Signal	▶	◀	▶	◀	Position lamps signal		2 mA max
2 mA max		Cabine Lock Signal	▶	◀	▶	◀	Rear fog Signal		2 mA max
2 mA max		Ignition Signal	▶	◀	▶	◀	Diagnostic tester ready signal		2 mA max
16 mA		Fuel level Ground	●	●	▶	◀	Trailer direction left signal		2 mA max
16 mA		Fuel Level Signal	▶	◀	▶	◀	Trailer direction right signal		2 mA max
		Battery Ground	●	●	▶	◀	K line Signal		See Kline Spec
See CAN Spec		CAN bus High	◀	▶	●	●	K line Ground		See Kline Spec
See CAN Spec		CAN bus Low	◀	▶	●	●	CAN bus shield		0 mA
1 mA max		Vehicle speed Signal	▶	◀	▶	◀	Vehicle speed Ground		
2 mA max		Oil Pressure PWM signal	▶	◀	▶	◀	speedometer Signal 2 shield		0 mA
		speedometer Signal 2 Ground	●	●	▶	◀	speedometer Signal 2 signal		28 mA max
		speedometer Signal 1 Ground	●	●	▶	◀	speedometer Signal 1 signal		28 mA max
4 mA max		Air Pressure 1 Signal	▶	◀	▶	◀	Air Pressure 2 Signal		4 mA max
4 mA max		Air Pressure 1 Ground	●	●	●	●	Air Pressure 2 Ground		4 mA max
4 mA max		Air Pressure 1 Power	●	●	●	●	Air Pressure 2 Power		4 mA max

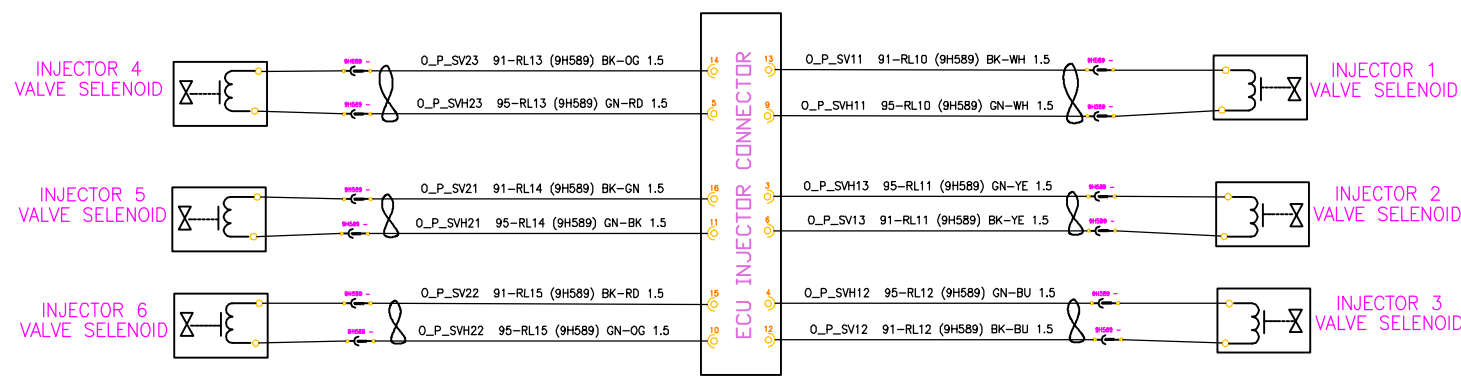
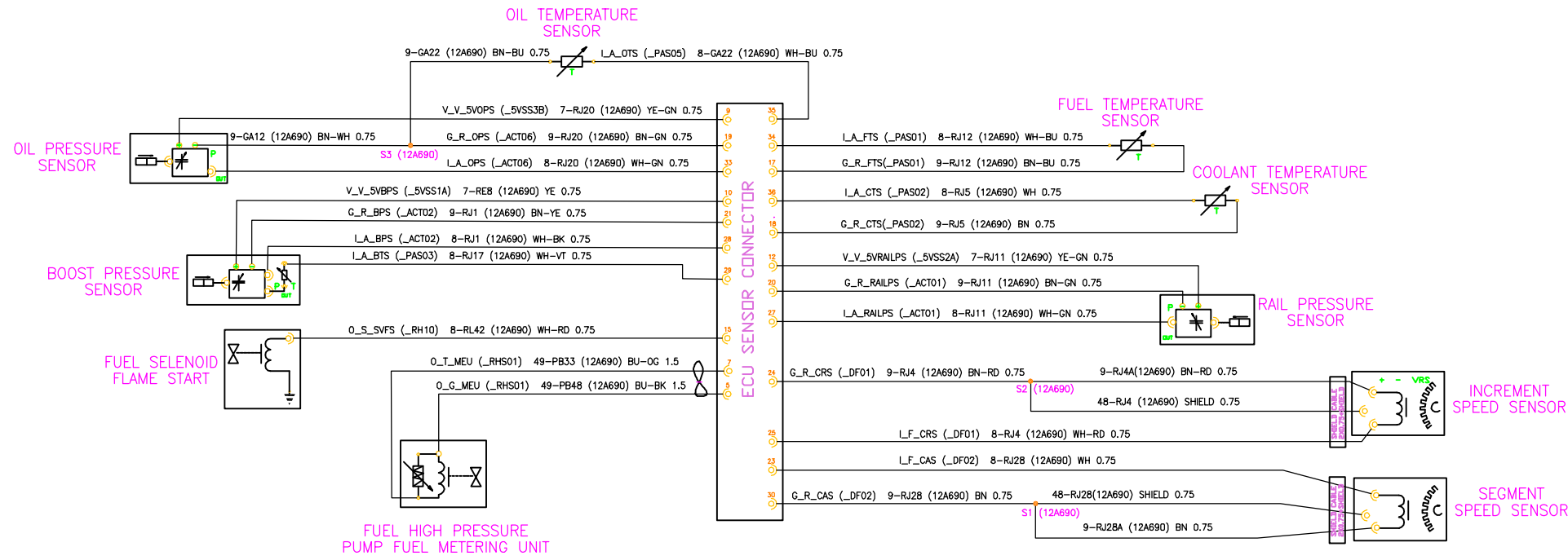
16 32






ENGINE MANAGEMENT (2/2)  
(ECU SENSORS AND INJECTOR CONNECTIONS)

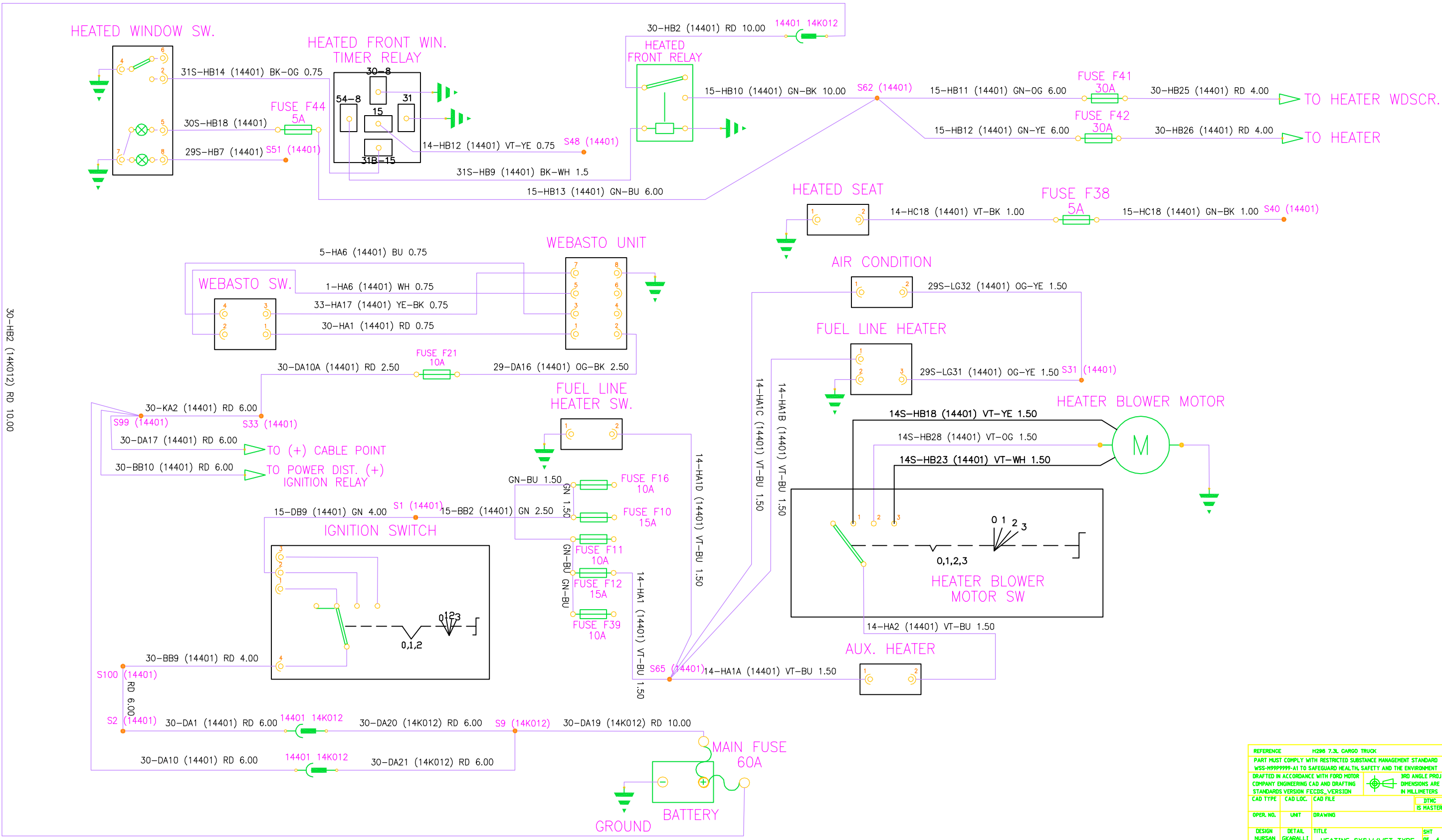
LTRS	REVISIONS		
ORIGINATOR	CHECKER	ENGR APP	MATL APP
GKARALLI	MARIOZ	DHICKEY	



REFERENCE		H298 7.3L CARGO TRUCK	
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION FECD5_VERSION			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL GKARALLI	TITLE ENGINE_MANAGEMENT(2/2)	SHT SHT OF 6
CHECKED MARIOZ	SAFETY	SYSTEMS	
SCALE	DATE 080215	DIVISION PLANT INONU	GSDB
 FORD MOTOR COMPANY			

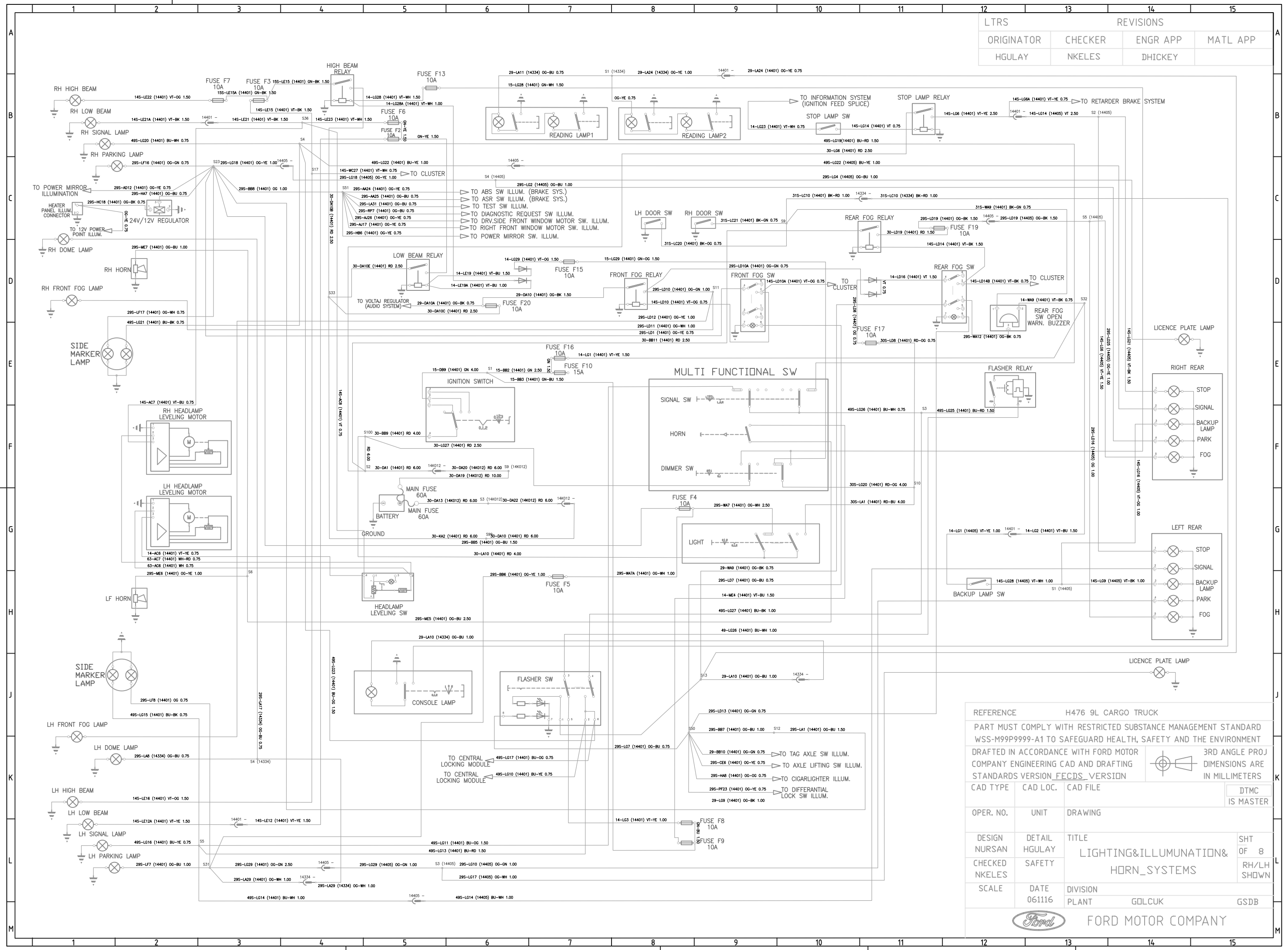


LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
GKARALLI	MARIDZ	DHICKEY	



REFERENCE	H296 7.3L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M999999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION F0003, VERSION		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE	CAD LOC	CAD FILE	DTWG IS MASTER
OPER. NO.	UNT	DRAWING	
DESIGN	DETAIL	TITLE	SHT OF 4
CHECKED	SAFETY	AUX_HEATER&HEATED_SCREEN	RH/LH SHOWN
SCALE	DATE	DIVISION	GSDB
	PLANT	INONU	
 <b>FORD MOTOR COMPANY</b>			

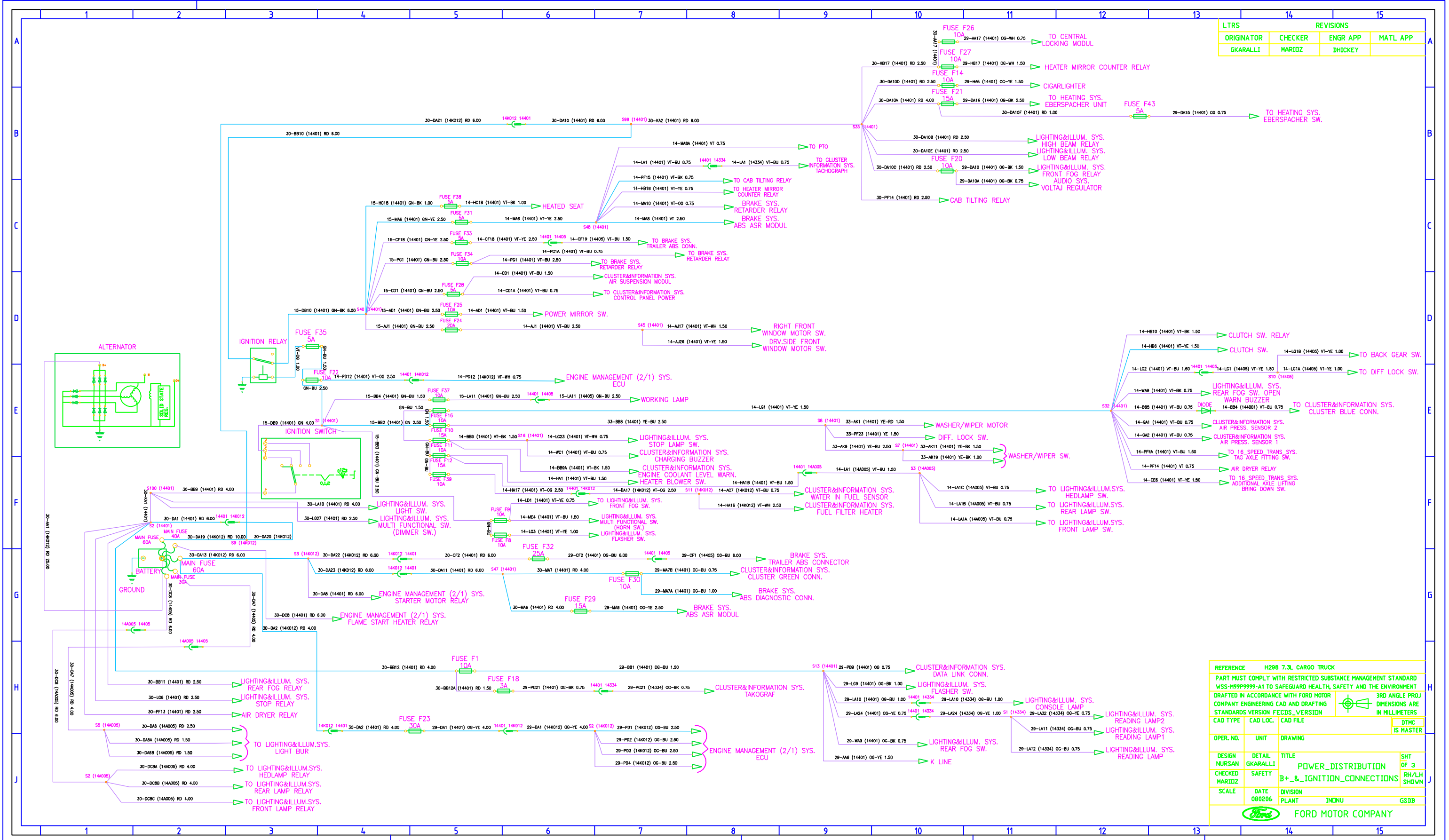
LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



REFERENCE H476 9L CARGO TRUCK  
 PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT  
 DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION FECD5\_VERSION  
 3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS

CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE LIGHTING&ILLUMINATION& HORN_SYSTEMS	SHT OF 8
CHECKED NKELES	SAFETY		RH/LH SHOWN
SCALE	DATE 061116	DIVISION PLANT GOLCUK	GSDB

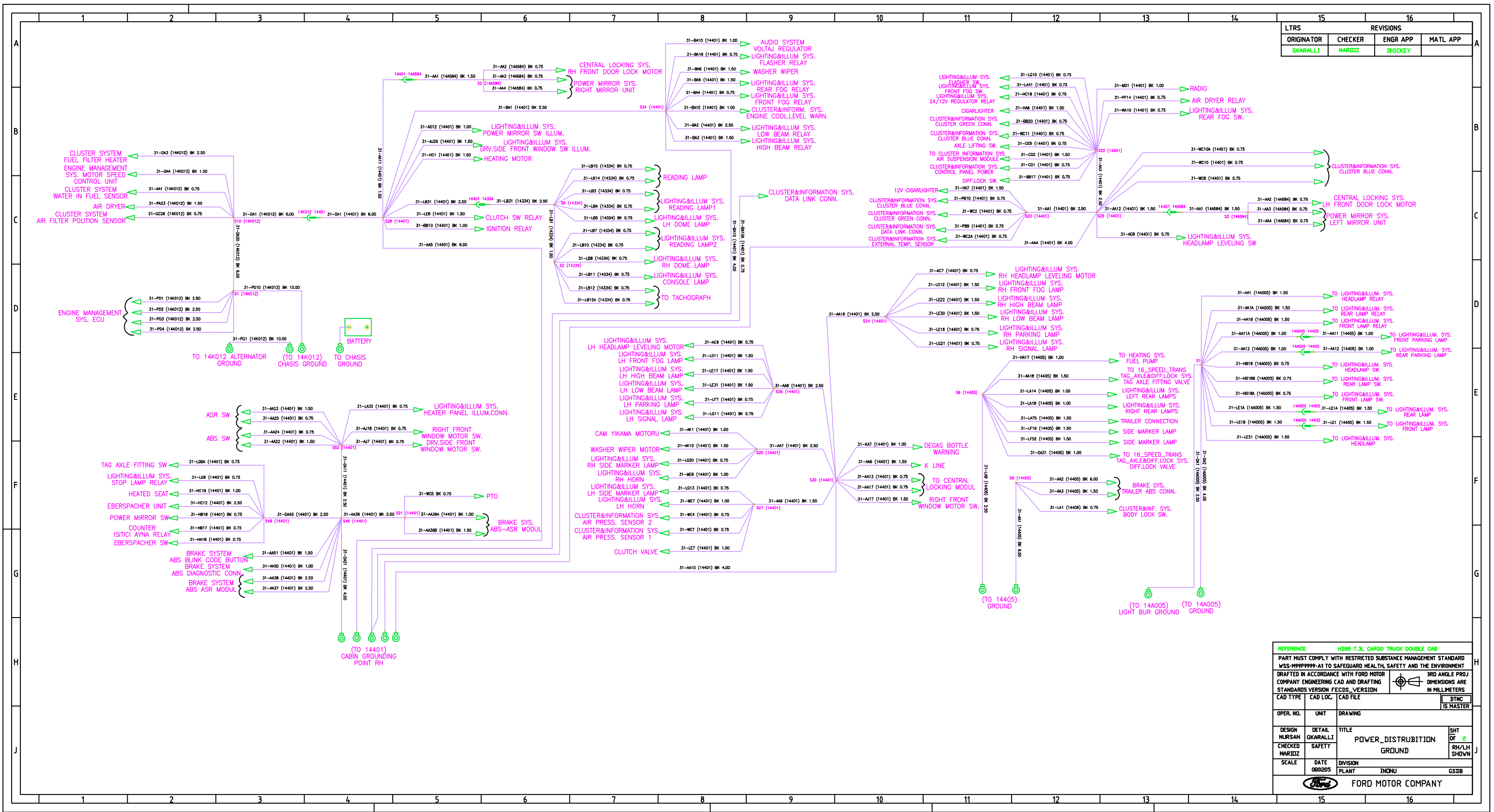




LTRS		REVISIONS		
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
GKARALLI	MARIDZ	DHICKEY		

REFERENCE	H298 7.3L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT.			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION FECD3_VERSION			
CAD TYPE	CAD LOC.	CAD FILE	BTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN	DETAIL	TITLE	SHT OF 3
CHECKED	SAFETY	B+ & _IGNITION_CONNECTIONS	RH/LH SHOWN
SCALE	DATE	DIVISION	PLANT
	080206	INDNU	GSDB
 <b>FORD MOTOR COMPANY</b>			

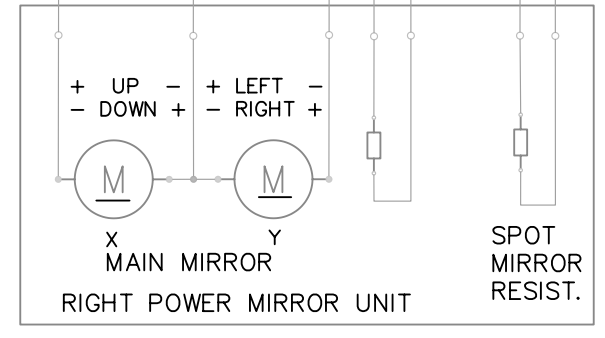
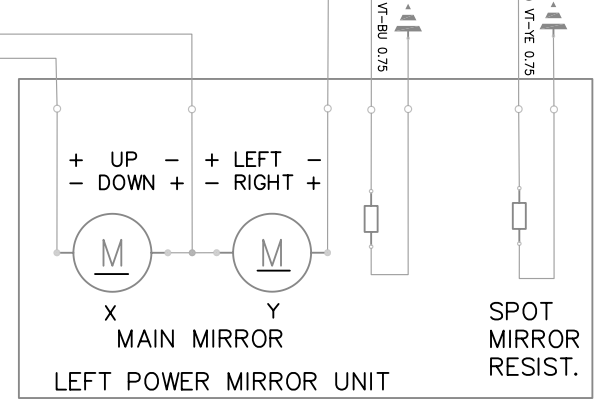
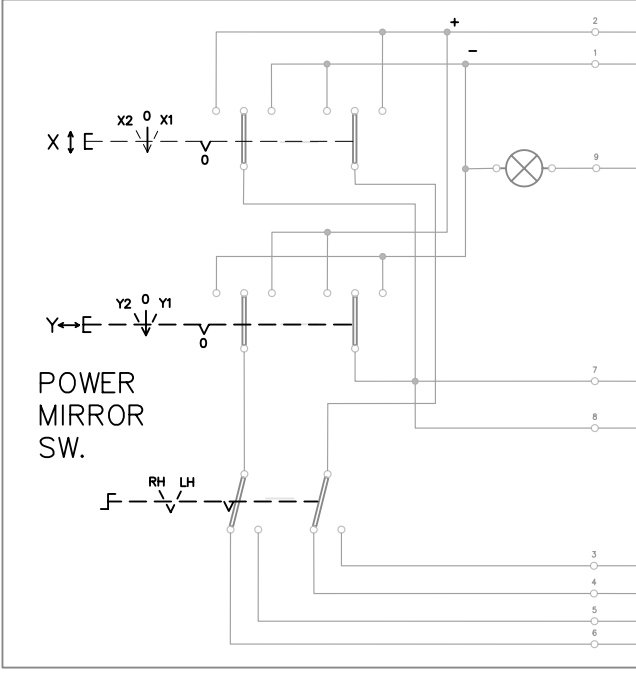
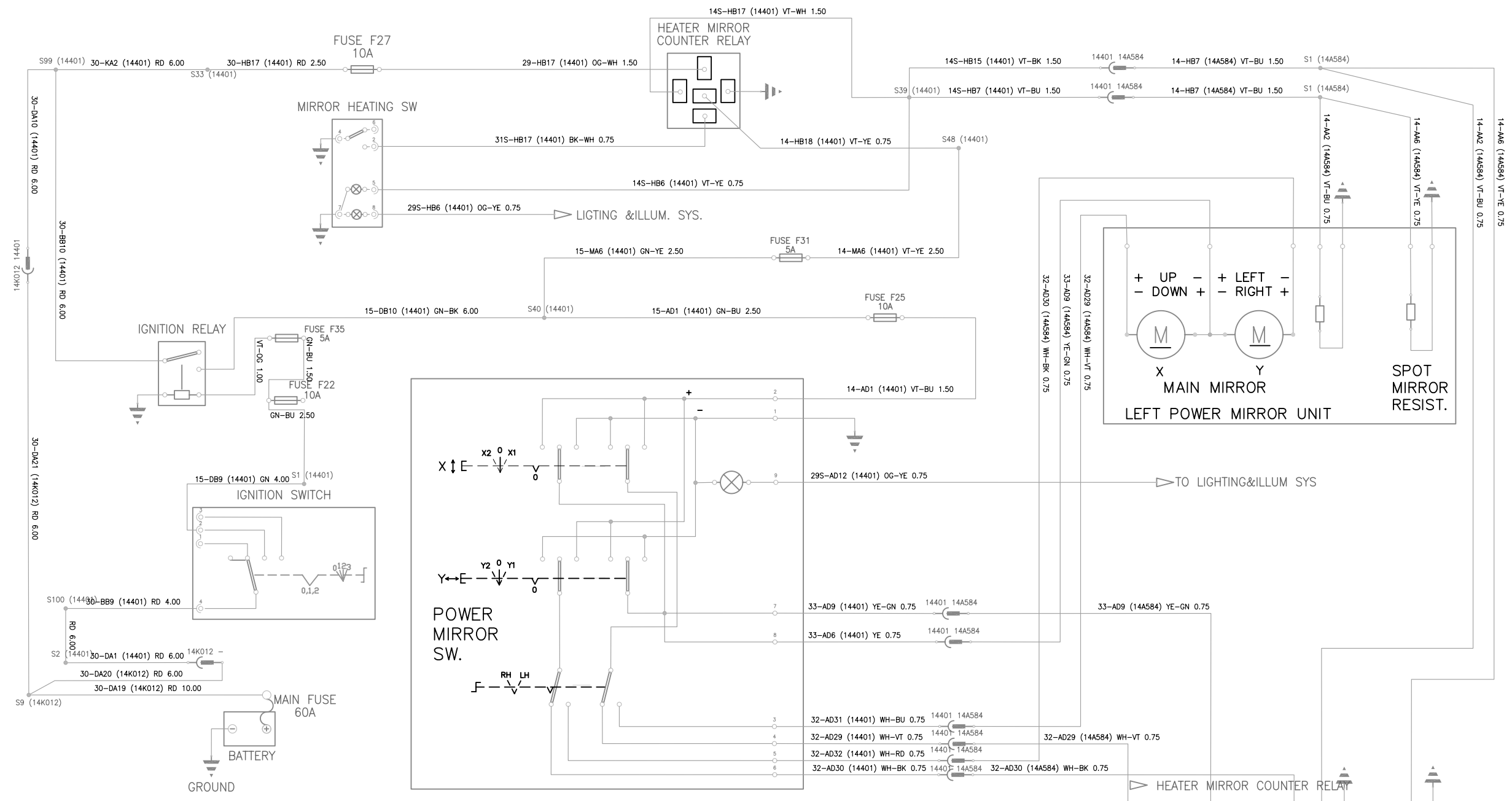




LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
GKARALLI	MARIJZ	DHICKEY	

REFERENCE H298 7.3L CARGO TRUCK DOUBLE CAB			
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION FECS3_VERSIDN			
CAD TYPE	CAD LOC.	CAD FILE	3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
OPER. NO.	UNIT	DRAWING	BTWC IS MASTER
DESIGN NURSAN	DETAIL GKARALLI	TITLE POWER_DISTRUBTION	SHT OF 2
CHECKED MARIJZ	SAFETY	GROUND	RH/LH SHOWN
SCALE	DATE 080205	DIVISION INONU	GSD8
FORD MOTOR COMPANY			

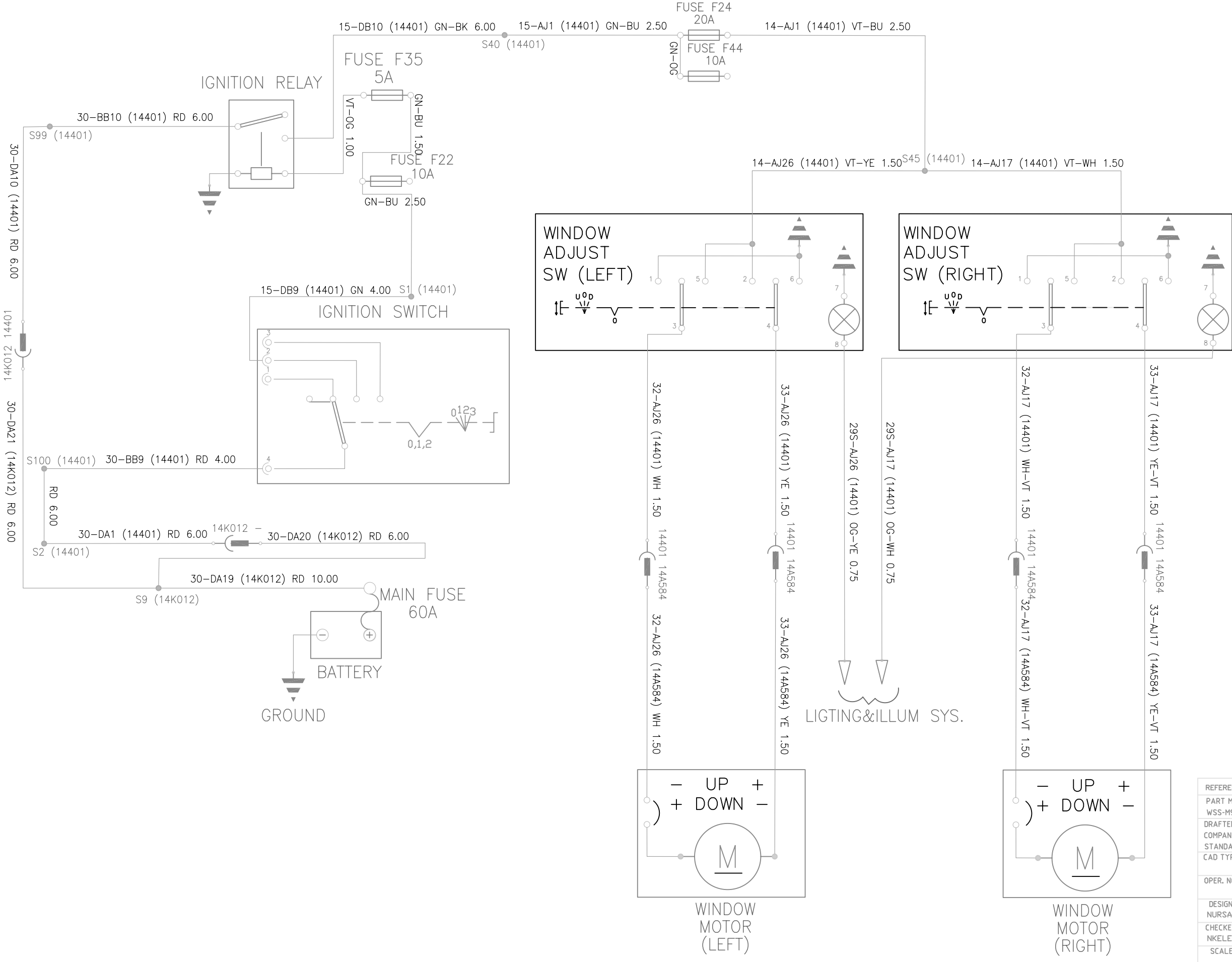
LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



REFERENCE		H476 9L CARGO TRUCK	
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION_FECDS_VERSION			
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE	SHT OF 13
CHECKED NKELES	SAFETY	POWER_MIRROR SYSTEM	RH/LH SHOWN
SCALE	DATE 070117	DIVISION PLANT	GOLCUK GSDB
FORD MOTOR COMPANY			

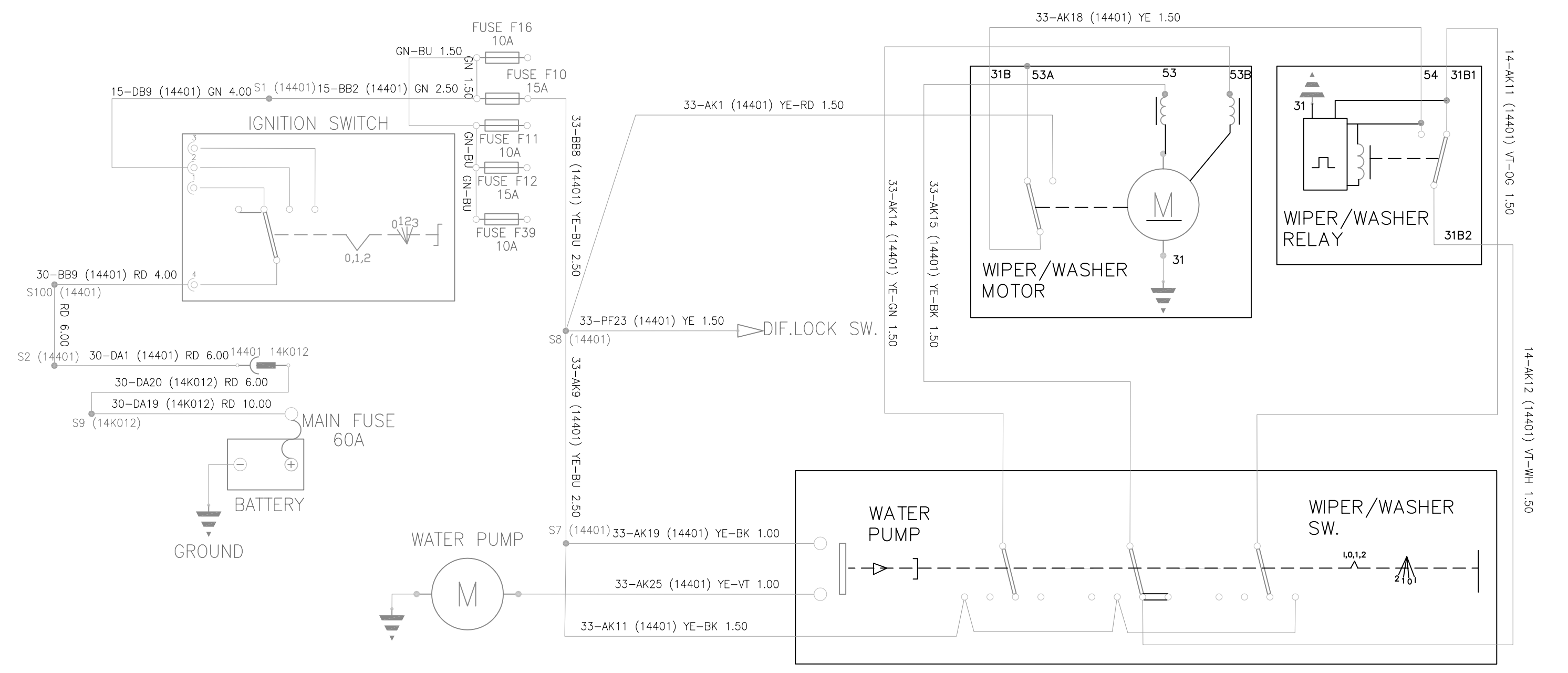


LTRS		REVISIONS	
ORIGINATOR	CHECKER	ENGR APP	MATL APP
HGULAY	NKELES	DHICKEY	



REFERENCE	H476 9L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION <u>FECDS</u> VERSION			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE	SHT OF 11
CHECKED NKELES	SAFETY	POWER_WINDOWS SYSTEM	RH/LH SHOWN
SCALE	DATE 070117	DIVISION PLANT	GSDB
FORD MOTOR COMPANY			

LTRS		REVISIONS		
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
HGULAY	NKELES	DHICKEY		



REFERENCE	H476 9L CARGO TRUCK		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION <u>FECD5</u> VERSION			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS
CAD TYPE	CAD LOC.	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING	
DESIGN NURSAN	DETAIL HGULAY	TITLE WIPER_WASHER SYSTEM	SHT OF 14
CHECKED NKELES	SAFETY		RH/LH SHOWN
SCALE	DATE 070117	DIVISION PLANT GOLCUK	GSDB
FORD MOTOR COMPANY			

