Ford Ranger battery box connections:

OUTSIDE BATTERY BOX										INSIDE BATTERY BOX									
IAA C1945	NEW ECU	EVSE type 1/2	CHG, C1993 Tesla	OLD CHG C1991	TIM C4998	TIM C4999	Bat. box C1939	Cable color	Description	NEW BMS box	Simp BMS	SSR PWR to charger	LEM current	Precharge pos.	Pos. contactor	Neg. contactor	Precharge AUX	AUX relay	Charger contactor
								RD	High amp PWR (hot all time)	A1,C1				12V	12V. FBCK IN				12V
								DB	GND	A2,C2							GND	GND	
								TN	Precharge POS cont. (Z/GND)	A3,C10				GND IN					
								DG	POS cont. (Z/GND)	A4,C9					GND IN				
								GY	POS cont. FBCK (Z/12V)	A5					FBCK OUT				
								DB/LG	Precharge AUX relay. (Z/12V)	A6	J4-4 OUT2						12V IN		
42 OUT								3998 (GY/YE)	AUX relay. (Z/12V)	A7,C7								12V IN	
								WH/RD	Precharge CHG cont. (Z/GND)	A8									
								WH	Charge cont. (Z/GND)	A9,D3									GND IN
									NC	A10									
								WH	USB D-	B1									
								LG	USB D+	B2									
								RD	USB Vcc (5V)	B3									
								BK	USB GND	B4									
							64	554 (YE/BK)	High amp PWR (hot all time)	C1,A1,J2									
							36	570 (BK/WH)	Ground	C2,A2									
							18	190 (WH/OG)	Power (hot all time)	C3	J4-8 IN								
							37	570 (BK/WH)	Ground	C4	J4-16 IN								
							25	295 (LB/PK)	Power (hot run and start)	C5	J5-1 IN1								
						35 IN	24	3997 (DG)	EPO to TIM (Z/GND)	C6									
42 OUT							16	3998 (GY)	AUX relay control (Z/12V)	C7,A7									
97 IN (D3)							17	3999 (DB/LG)	IAA enable (Z/12V)	C8	J4-12 OUT1								
					8 OUT		23	3986 (DG)	POS cont. (Z/GND)	C9,A4									
					18 OUT		22	3991 (TN)	Precharge POS cont. (Z/GND)	C10,A3									
		LED's pos	B1 12V IN (1)				38	3826 (WH)	12V PWR CHG	D1	J5-6 IN3	12V OUT							
	Switch S1		A10 IN2 (2)				28	3990 (LB/RD)	Enable EVSE (Z/12V)	D2	J5-2 IN2								
			A6 OUT1 (3)				63	3401 (DB/LG)	Charge cont. (Z/GND)	D3, A9									
			NC (4)				61	3002 (OG/LB)	Spare	D4									
			NC (6)				60	3008 (VT)	Spare	D5									
			NC (8)				49	3992 (BN/YE)	SOC PWM, NC (Spare)	D6	J4-15 OUT8								
			A3 IN1 (7)				56	3009 (OG/RD)	CHG enable (Z/12V)	D7	J4-13 OUT3								
			B5 CP (5)				14	4009 (LB/RD)	Pilot chg. (interrupt OUT)	D8, D9									
		CP					20	3984 (RD)	Pilot inlet (interrupt IN)	D9, D8									
		REED sw.			3 IN		54	3404 (YE)	Charge door sw. (Z/GND)	D10		GND IN							
91 IN							19	3006 (VT/LG)	EPO (to IAA, BCM, PTC)	E1,E4									
							47	974 (OG)	INERTIA sw.	E2,E4									
									NC	E3									
							45	787 (PK/BK)	Power (hot all time)	E4,E1,E2									
28							59	914 (TN/OG)	J1850 bus plus	F1									
27							58	915 (PK/LB)	J1850 bus minus	F2									
	CAN2 LO				15		40	3501 (DB)	DTR TR2 (Mod CAN-bus L)	F3, I3	J5-9								
	CAN2 HI				5		52	3503 (YE)	DTR TR4 (Mod CAN-bus H)	F4, I4	J5-4								
							53	787 (PK/BK)	Power (hot all time)	G1		12V IN							
							25	295 (LB/PK)	Power (hot run and start)	G2									
									NC	G3									
				1 NC			62	3993 (YE/RD)	Charger ready	G4									
				2 NC			55	3800 (LG/BK)	Charger fault input	G5									
				3 NC			50	3985 (PK)	Charger enable	G6									
				4 NC			57	3827 (GY/WH)	Charger charging	G7									
									NC	G8									
									NC	G9									
									NC	G10									
								GY	BMB RX bat. 14?	H1	J1-3								
								LB/YE	BMB TX bat. 1?	H2	J1-4								
								LG	BMB GND	H3	J1-1								
								RD	BMB 5V	H4	J1-2								
								BK (shield)	LEM GND	I1	J4-3 GND		GND						
								RD	LEM 12V	I2,J3			12V						
								BK	LEM CAN-L	I3 ,F3			CAN-L						
								WH	LEM CAN-H	I4,F4			CAN-H						
								VT/WH	NEG cont. Z/GND	J1,A2	J4-7 OUT7					GND IN			
								VT/OG	NEG cont. 12V	J2,C1						12V. FBCK IN			
								VT	NEG cont. FBCK Z/12V	J3,I2						FBCK OUT			
									NC	J4									
	D9 OUT	Green LED	NC (9)					RD/WH	Green status LED (Z/GND)										
Wago 2	D12 OUT							??	Main water pump (Z/GND)										
		PP	B11 PP (10)					LG/BK	Proximity										
			B12 MOD					40 LB/WH (LB)	Power "lighter" (hot all time)										
			B7 GND					BK (YE)	Charger GND "lighter"										
		Red LED						BK	Reed switch GND										