TO CONSOLE & OPERATOR PANEL — C3-24PIN SOCKET KEYED A

- C3-P24 — SNSR 5VDC TO OPER PANEL & DISPLAY (YEL) TERM-4
- C3-P23 — MAX SPEED CONTROL (WHT-YEL) C31-P25
- C3-P22 — CRUISE DN (WHT-BLK-GRN) TO C11-P11
- C3-P21 — CRUISE SET/DECEL (WHT-BLK-BLU) TO C31-P15
- C3-P20 — CRUISE RESUME/INC (WHT-BLK-RED) TO C31-P10
- C3-P19 — PARKING BRAKE SIGNAL (WHT-BRN) (C31-P12)
- C3-P18 — WAIT TO START (WHT-BLK-PUR) TO C11-P1
- C3-P17 — LOW LOCK (BRN-YEL) FROM DISPLAY (C31-P6)
- C3-P16 — HORN (WHT-RED) (C7-P21)
- C3-P15 — FUEL PUMP POWER (PUR) FROM IGN. SW. (FUEL SHUT DOWN RELAY)
- C3-P14 — WARNING LIGHT BUZZ (RED-BLK) TO DISPLAY (C31-P38)
- C3-P13 — STALL PDT (RED-GRN) FROM OPER PANEL (C31-P23)
- C3-P12 — FNR START LOCKOUT (GRN) FROM OPER PANEL RELAY
- C3-P11 — BEACON (RED-BLU) FROM DISPLAY (C7-P16)
- C3-P10 — T. CASE SW LOW (RED-YEL) FROM DISPLAY (C31-P17)
- C3-P9 — T. CASE SW HIGH (RED-BRN) FROM DISPLAY (C31-P18)
- C3-P8 — CAN (-) (BLU/WHT) (TERM7)
- C3-P7 — CAN (+) (BLU/RED) (TERM6)
- C3-P6 — START SOL. (YEL-RED) FROM DISPLAY TO (FNR RELAY)
- C3-P5 — 12VDC IGN ACC (RED-WHT-BLK) TO RELAY (TERM 41)
- C3-P4 — 12VDC IGN ACC (RED-WHT) TO OPERATOR PANEL (TERM 3)
- C3-P3 — 12VDC 16GA. (RED) 10AMP FUSE TO DISPLAY (TERM30)
- C3-P2 — GROUND 16GA. (BLK) TO OPERATOR PANEL (TERM-2)
- C3-P1 — GROUND 16GA. (BLK) TO DISPLAY (TERM-2)

TURN-SIG-HAZ LIGHTER TO JCT C4 — C4-8PIN SOCKET

- C4-P8 — HEAD LIGHTS (PUR) (TERM-53)
- C4-P7 — WORKING LIGHTS (BRN) (TERM-51)
- C4-P6 — BRAKE SW (GRY-BLK) (TERM-12)
- C4-P5 — LIGHTER (16 GA RED) (FUSE BLOCK 70)
- C4-P4 — TURN SIG (BLK) RH TURN REAR (C9-P4)
- C4-P3 — TURN SIG (GRY) LH TURN REAR (C9-P3)
- C4-P2 — TURN SIG (RED) RH TURN FRT (C9-P2)
- C4-P1 — TURN SIG (GRN) LH TURN FRT (C9-P1)

TO SLAVE BOX C14 — C5

- C5-P3 — CAN (-) (BLU/WHT) (TERM7)
- C5-P2 — CAN (+) (BLU/RED) (TERM6)
- C5-P1 — 12VDC IGN ACC 18GA. (RED-WHT) TERM 3

EDC&HITCH VLVS — C6-8PIN SOCKET

- C6-P8 — NC
- C6-P7 — NC
- C6-P6 — NC
- C6-P5 — NC
- C6-P4 — EDC REV GROUND (BLK) (TERM-2)
- C6-P3 — EDC REV (RED-WHT) (C31-P42)
- C6-P2 — EDC FWD GROUND (BLK) (TERM-2)
- C6-P1 — EDC FWD (RED-GRN) (C31-P41)

MACHINE INPUTS-OUTPUTS — C7-24PIN SOCKET KEYED B

- C7-P24 — T. CASE LOW. SW GROUND (BLU) TERM-5
- C7-P23 — T. CASE LOW. SW 5VDC (YEL) TERM-4
- C7-P22 — REAR WORK LIGHT (BRN) TERM-11
- C7-P21 — HORN (WHT-RED) (C3-P16)
- C7-P20 — AIR PRESS SENSOR (BRN-YEL) (C31-P31)
- C7-P19 — BRAKE SWITCH (WHT-GRN-DRG) (TERM 12)
- C7-P18 — 12VDC BRK SV (RED-WHT) TERM-3
- C7-P17 — T. CASE LOW. SW (WHT-BLK-PUR) (C31-P14)
- C7-P16 — BEACON (RED-BLU) (C3-P11)
- C7-P15 — GROUND RADAR GND (BLK) TERM-2
- C7-P14 — SPEED SNSR (RADAR) (WHT-DRG) (C31-P27)
- C7-P13 — 12VDC ACC (RED-WHT) TERM-3 (12VDC FOR RADER USED FOR AIR DRYER)
- C7-P12 — GROUND SPD SNSR GND (BLK) TERM-2
- C7-P11 — SPEED SNSR (PPU) (WHT-GRN-RED) (C31-P26)
- C7-P10 — 5VDC SPD SNSR PWR (YEL) (TERM 4)
- C7-P9 — VEHICLE DIRECTION (WHT-GRN-BLU) (C31-P13)
- C7-P8 — AIR DRYER GROUND (BLK) (TERM 2)
- C7-P7 — FUEL SENDING UNIT (BRN-WHT) (TERM 62)
- C7-P6 — NC
- C7-P5 — NC
- C7-P4 — ENG RPM ALT TACH TERM (GRN-WHT) (C31-P28) Hz 250-700
- C7-P3 — T. CASE HIGH SW GROUND (BLU) TERM-5
- C7-P2 — T. CASE HIGH SW (WHT-GRN-YEL) (C31-P11)
- C7-P1 — T. CASE HIGH SW 5VDC (YEL) TERM-4

OPTION (NORMALY NOT USED)

TO T-CASE AIR SHIFT VALVES — C8-8PIN SOCKET

- C8-P8 — SHIFT SOL 1 (BLK) (TERM2)
- C8-P7 — SHIFT SOL 2 (BLK) (TERM2)
- C8-P6 — SHIFT SOL 3 (BLK) (TERM2)
- C8-P5 — SHIFT SOL 4 (BLK) (TERM2)
- C8-P4 — SHIFT SOL 4 (WHT-RED-DRG) (C31-P36)
- C8-P3 — SHIFT SOL 3 (WHT-RED-GRN) (C31-P35)
- C8-P2 — SHIFT SOL 2 (WHT-RED-BRN) (C31-P34)
- C8-P1 — SHIFT SOL 1 (WHT-RED-BLU) (C31-P33)

TO BIRD BOX MACHINE LIGHTS — C9-8PIN SOCKET

- C9-P8 — HEAD LIGHTS OUT (PUR) (TERM-54)
- C9-P7 — WORKING LIGHTS OUT BRN (TERM-11)
- C9-P6 — BACK-UP ALARM (WHT-RED-YEL) (C31-P37)
- C9-P5 — STOP LIGHTS (RED) (TERM12) GO THROUGH TURN SIGNAL
- C9-P4 — TURN SIG (BLK) RH TURN REAR (C4-P4)
- C9-P3 — TURN SIG (GRY) LH TURN REAR (C4-P3)
- C9-P2 — TURN SIG (RED) RH TURN FRT (C4-P2)
- C9-P1 — TURN SIG (GRN) LH TURN FRT (C4-P1)

C10-8PIN SOCKET

- C8-P8 — NC
- C8-P7 — NC
- C8-P6 — NC
- C8-P5 — NC
- C8-P4 — HYD TEMP SENSOR GROUND (BLK) (TERM 2)
- C8-P3 — HYD TEMP SENSOR (GRN-RED) (TERM 63)
- C8-P2 — GROUND FAN MTR (BLK) TERM-2
- C8-P1 — FAN MTR CTRL VLV (YEL-BLK) (C31-P44)

NODE3
JUNCTION BOX
MC50-020

PLUS-1 50PIN (C31)

PIN KEY NC-31
1-GRND (BLK) (GRND LUG)
2-RED-WHT (12V+ TERM 3)
3-BLU-RED (CAN+ TERM 6)
4-BLU-WHT (CAN- TERM 7)
5-N/C
6-BRN-YEL (C3-P17)
7-N/C
8-YEL (SNSR 5V+ TERM 4
9-BLU (SNSR GRND TERM 5)
10-WHT-BLK-RED (C3-P20)
11-WHT-GRN-YEL (C7-P2)
12-WHT-BRN (C3-P19)
13-WHT-GRN-BLU (C7-P9)
14-WHT-BLK-PUR (C7-P17)
15-WHT-BLK-BLU (C3-P21)
16-N/C
17-RED-YEL (C3-P10)
18-RED-BRN (C3-P9)
19-GRY-BLK (TERM 12)
20-BLU-YEL (TERM 8)
21-BLU-BLK (TERM 9)
22-N/C
23-RED-BRN (C3-P13)
24-RED-ORG (TERM 10)
25-WHT-YEL (C3-P23)

PIN KEY NC-31
26-WHT-GRN-RED (C7-P11)
27-WHT-ORG (C7-P14)
28-GRN-WHT (C7-P4)
29-N/C
30-N/C
31-BRN-YEL (C7-P20)
32-BRN-WHT (TERM 65)
33-WHT-RED-BLU (C8-P1)
34-WHT-RED-BRN (C8-P2)
35-WHT-RED-GRN (C8-P3)
36-WHT-RED-ORG (C8-P4)
37-WHT-RED-YEL (C9-P6)
38-RED-BLK (C3-P14)
39-WHT-GRN-DRG (C11-P12)
40-BRN-BLU (TERM 61)
41-RED-GRN (C6-P1)
42-RED-WHT (C6-P3)
43-WHT-BLK-BLU (C11-P9)
44-YEL-BLK (C10-P1)
45-WHT-RED-YEL (FUEL PMP RELAY POST 85)
46-WHT-RED-BLK (C11-P10)
47-RED-WHT (12V+ TERM 3)
48-RED/WHT (12V+ TERM 3)
49-RED-WHT 12V+ TERM 3)
50-RED-WHT 12V+ TERM 3)

207180 DECAL

12VDC (RED) 8AWG BINDING POST #20

51 LIGHT SW FROM (BRN) C4-P7
50 — 85 — 87a — 87 — 30 — 86 — 52 WORKING LIGHTS OUT (BRN) TERM-11
TERM2

53 LIGHT SW FROM (PUR) C4-P8
50 — 85 — 87a — 87 — 30 — 86 — 54 HEAD LIGHTS OUT (PUR) C9-P8
15 AMP ON FUSE BLOCK
TERM2

SNSR INPUT TO PLUS1 (BRN-WHT) (C31-P32)
65 — 85 — 87a — 87 — 30 — 86 — 62 FUEL SENDING UNIT (BRN-WHT) (C7-P7)
61 FUEL/HYD TEMP SELECT (BRN-BLU) C31-P40
63 HYD TEMP SNSR (GRN-RED) (C10-P3)
TERM2

41 12VDC ACC (RED-WHT-BLK) (C3-P5)
40 — 85 — 87a — 87 — 30 — 86 — 42 12VDC ACC POWER (RED-WHT) (TERM-3)
15 AMP ON FUSE BLOCK
TERM2

FNR START LOCKOUT (GRN) (TO FNR SW OPERATOR PANEL) (C3-P12)
C3-P6 (YEL-RED) START FROM IGN SW
85 — 87a — 87 — 30 — 86
FNR NEUTRAL START RELAY
START SDL (YEL) C11-P2

FUEL SHUT DOWN (WHT-RED-YEL) (C31-P45)
85 — 87a — 87 — 30 — 86
FUEL PUMP (PUR) C11-P3

12VDC ING. (PUR) C3-P15

FOR CHIPPER S/N 1B9BC16278A173001
RIVERSIDE
C31-P16 TO 12VDC FOR SPEED PPU ON T-CASE

12VDC ACC (RED-WHT) C31-P2
12VDC ACC (RED-WHT) C31-P47
12VDC ACC (RED-WHT) C31-P48
12VDC ACC (RED-WHT) C31-P49
12VDC ACC (RED-WHT) C31-P50

GROUND (BLK) C31-P1

16 GA. BLK (C3-P2)
16 GA. BLK (C3-P1)
14 GA. BLK (TERM 2)
6 GA. BLK TO FRONT SLAVE BOX
6 GA. BLK FROM BATT
21 GROUND STUD WELDED TO PLATE

16 GA. RED (TERM 20 TO FUSE BLOCK)
16 GA. RED (TERM 20 TO FUSE BLOCK)
16 GA. RED (TERM 20 TO FUSE BLOCK)
16 GA. RED (TERM 1)
6 GA. RED TO FRONT SLAVE BOX
6 GA. RED FROM 105AMP BREAKER
20 BINDING POST 12VDC+

LIGHT IS SPLICED INTO THE CLUTCH/BRAKE WIRE TO ABSORB THE LEFT OVER VOLTAGE

ENG. DROOP
OFF = 2300RPM
ON =2500RPM
CRUISE LIGHT

(CB OPTION)
12 V ACC (TERM3)
10AMP FUSE
CB PLUG
CB FOOT SWITCH

CUMMINS ENGINE HARNESS
CONNECTOR AT BACK OF ENG.
CUMMINS ENGINE ECM

19	ENG. DROOP 2300/2500RPM	28	019 ENG. DROOP 2300/2500RPM — (???-???) DROOP SW.
7	CLUTCH/BRAKE SWITCH	9	007 CLUTCH/BRAKE SWITCH — (WHT-GRN-ORG) C11-P12
6	CRUISE DN/OFF	6	006 CRUISE DN/OFF — (WHT-BLK-GRN) C11-P11
24	CRUISE RESUME/INC	7	024 CRUISE RESUME/INC — (WHT-BLK-RED) C11-P10
25	CRUISE SET/DEC	8	025 CRUISE SET/DEC — (WHT-BLK-BLU) C11-P9
10	J1587 (+)	27	010
20	J1587 (-)	26	020
50	WAIT TO START	22	050 WAIT TO START (WHT-BLK-PUR) C11-P1
44	DIAG/WIF	23	044
43	STOP	12	043
34	PANEL GROUND	11	034
23	THROTTLE RETURN	15	023
9	THROTTLE SIGNAL	5	009
22	THROTTLE SUPPLY	16	022
40	GROUND HEATER — 040		
42	GROUND HEATER RETURN — 042		
46	J1939 (+)	2	J1939 (+) — YEL
47	J1939 (-)	3	J1939 (-) — GRN
37	J1939 SHEILD	4	J1939 SHEILD
39	KEYSWITCH	1	KEYSWITCH (PUR) C11-P3

BATTERY POWER 1/2" RING TERMINAL — 30A — 10A — 12VDC POWER
BATTERY GROUND 1/2" RING TERMINAL — GROUND
START 18GA. (YEL)

C11-12PIN

CLUTCH/BRAKE (WHT-GRN-DRG) C31-P39	C11-P12 CLUTCH/BRAKE SW (BLK WIRE-007)
CRUISE DN/OFF (WHT-BLK-GRN) C3-P22	C11-P11 CRUISE DN/OFF (BLK WIRE-006)
CRUISE RES/INC (WHT-BLK-RED) C31-P46	C11-P10 CRUISE RES/INC (BLK WIRE-024)
CRUISE SET/DEC (WHT-BLK-BLU) C31-P43	C11-P9 CRUISE SET/DEC (BLK WIRE-025)
(EPA) ENG. DROOP 2300/2500RPM MAX (BLK-WHT)	C11-P8 ENG. DROOP 2300/2500RPM MAX (BLK WIRE-019)
N/C	C11-P7 N/C
N/C	C11-P6 N/C
GROUND TERM-2	C11-P5 GROUND (BLK WIRE-GND)
N/C	C11-P4 N/C
TO FUEL PUMP RELAY 87a	C11-P3 KEY SWITCH (PUR-WIRE)
TO FNR RELAY 87a	C11-P2 START (YEL-WIRE)
WAIT TO START (WHT-BLK-PUR) C3-P18	C11-P1 WAIT TO START (BLK WIRE-050)

J1939 (+) (BLU-YEL) TERM-8
J1939 (-) (BLU-BLK) TERM-9

GRID HEATER RELAYS
040
042

CUMMINS DIAG CONN HD10-9-1939PE
F — 044
G — 043
B — 034
A — 023
C — 009
D — 022
E — 020

DIAGNOSTIC PORTS MOUNTED IN DOOR

NOTE:
THIS NEEDS TO BE IN PARALLEL WITH THE CAN WIRES AT THE TERMINAL STRIP

CAN (+) (TERM-6) — A
CAN (-) (TERM-7) — B
(N/C) — C
CAN DIAGNOSTIC PORT

FOOT SNSR (RED-ORG) (TERM-10)
HARNESS #204243
FEMALE WEATHER-PACK
SENSOR COMES WITH HARNESS
FOOT PEDAL SENSOR
MALE WEATHER-PACK

WHT-A	3PIN	A — BLK	
BLK-B	3PIN	B — WHT	
RED-C	3PIN	C — RED	
		WHT-A	3PIN
		BLK-B	3PIN
		RED-C	3PIN
		A — WHT	3PIN
		B — BLK	3PIN
		C — RED	3PIN

DT06-35-E008

REVISION NOTES:
6-17-09 MISC. DESCRIPTION CHANGES RTC
1/27/10 ADDED HYD FAN CONTROL.
4/7/10 CHG BRK WIRE SO IT's GRY-BLK END TO END
5/3/10 Fixed foot pedal jumper cable.
1/18/11 Added 6-port fuse block & wiring
6-1-11 ADDED 15 AMP FUSE & WIRE TO C4 PLUG FOR LIGHTER

QTY	NEXT ASS'Y	MADE BY BEARCAT
?---	---?????????	APPROVED
		MATERIAL
		SEE PRINTED B.O.M.
	FINAL ASS'Y	
?---	---?????????	
		FINISH

3650 SABIN BROWN RD.
WICKENBURG, AZ 85390
(928)684-7851
BEARCAT MFG.

TITLE
SCHE ELC PLUS1 JUNCT BOX TANDEM 08-CHIP

PART NO. 202600

STANDARD TOLERANCE	.X ±.03	.XX ±.015	.XXX ±.005	.XXXX ±.0005	ANG. ±1.0°	X/X ± 1/32

AUTHOR FHK | DATE 1-18-2011
SCALE NONE | SHEET OF