

## STEP-BY-STEP OPERATION DETAILS

### SLOW POSITION (See Drawing 75404 #2 of 3)

+12 V DC power comes in on the green motor lead and is connected to one of the armature brushes. The other armature brush is connected to the red motor lead which goes to terminal 3 of the operating switch. Terminals 2, 3 and 6 are interconnected and terminal 2 is connected to ground. Thus the second armature lead is now grounded and so the armature receives 12 VDC.

The blue motor lead is connected to the green motor lead at the armature brush and carries +12 V to switch terminal 4. Terminals 4 and 5 are connected and so the +12 V goes via the white motor wire to the field coil. The other end of the field coil (brown motor lead) goes to switch terminal 6 which is connected to terminal 2 which is ground. Thus the field coil receives 12 VDC and the motor is rotating CW.

Note that the parking switch finger is in contact with its segment, but this is immaterial as the parking switch contact is bypassed by the connection from switch terminal 2 to 3.

### FAST POSITION (See Drawing 75404 3 of 3)

+12 V DC power comes in on the green motor lead and is connected to one of the armature brushes. The other armature brush is connected to the red motor lead which goes to terminal 3 of the operating switch. Terminals 1, 2 and 3 are interconnected and terminal 2 is connected to ground. Thus the second armature lead is now grounded and so the armature receives 12 VDC.

The blue motor lead is connected to the green motor lead at the armature brush and carries +12 V to switch terminal 4. Terminals 4 and 5 are connected and so the +12 V goes via the white motor wire to the field coil. The other end of the field coil goes via the field resistor to the yellow motor wire and to switch terminal 1 which is connected to terminal 2 which is ground. Thus the field coil receives about 5 VDC and the motor is rotating CW but at a higher speed.

Note that the parking switch finger is in contact with its segment, but this is immaterial as the parking switch contact is bypassed by the connection from switch terminal 2 to 3.

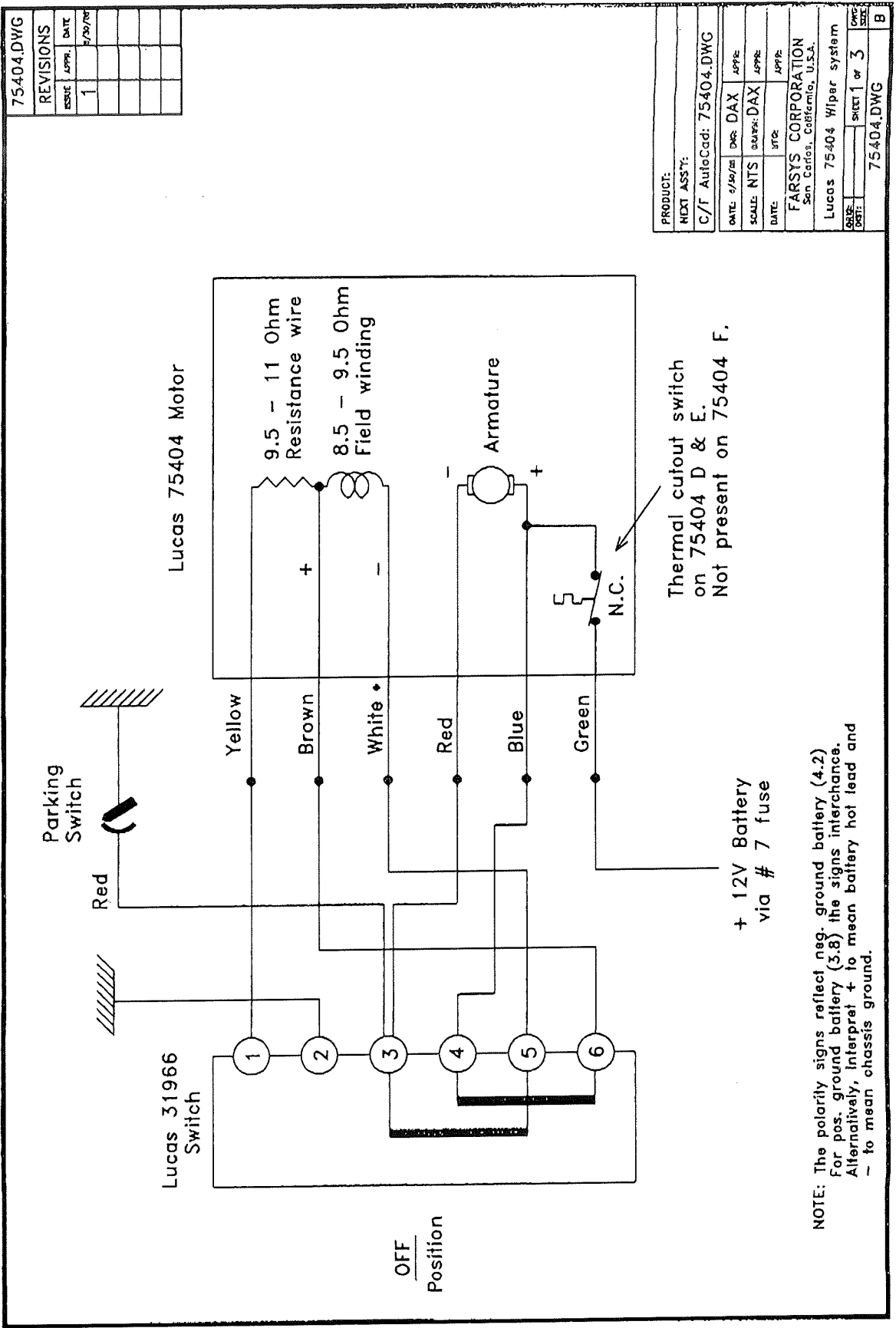
OFF Position (See Drawing 75404 #1 of 3)

+12 V DC power comes in on the green motor lead and is connected to one of the armature brushes. The other armature brush is connected to the red motor lead which goes to terminal 3 of the operating switch. Terminals 3 and 5 are interconnected and terminal 3 is connected via the parking switch to ground. Thus the second armature lead is now grounded and so the armature receives 12 VDC.

The blue motor lead is connected to the green motor lead at the armature brush and carries +12 V to switch terminal 4. Terminals 4 and 6 are connected and so the +12 V goes via the brown motor wire to the field coil. The other end of the field coil (white motor lead) goes to switch terminal 5 which is connected to terminal 3 which is grounded via the parking switch. Thus the field winding receives 12 VDC and the motor is rotating CCW at a slow speed.

Note that the polarity of the field coil is reversed, compared to the SLOW position. Since the armature polarity has stayed the same as before, the motor rotational direction has now reversed.

Note that the motor continues to run until the finger of the parking switch runs past the copper segment and the parking switch opens up. Both armature and field coil no longer have a ground connection and the motor stops at that point.



75404.DWG

REVISE	APPR.	DATE
1		7/20/08

PRODUCT: HDXT ASSTY:  
C/F AutoCad: 75404.DWG

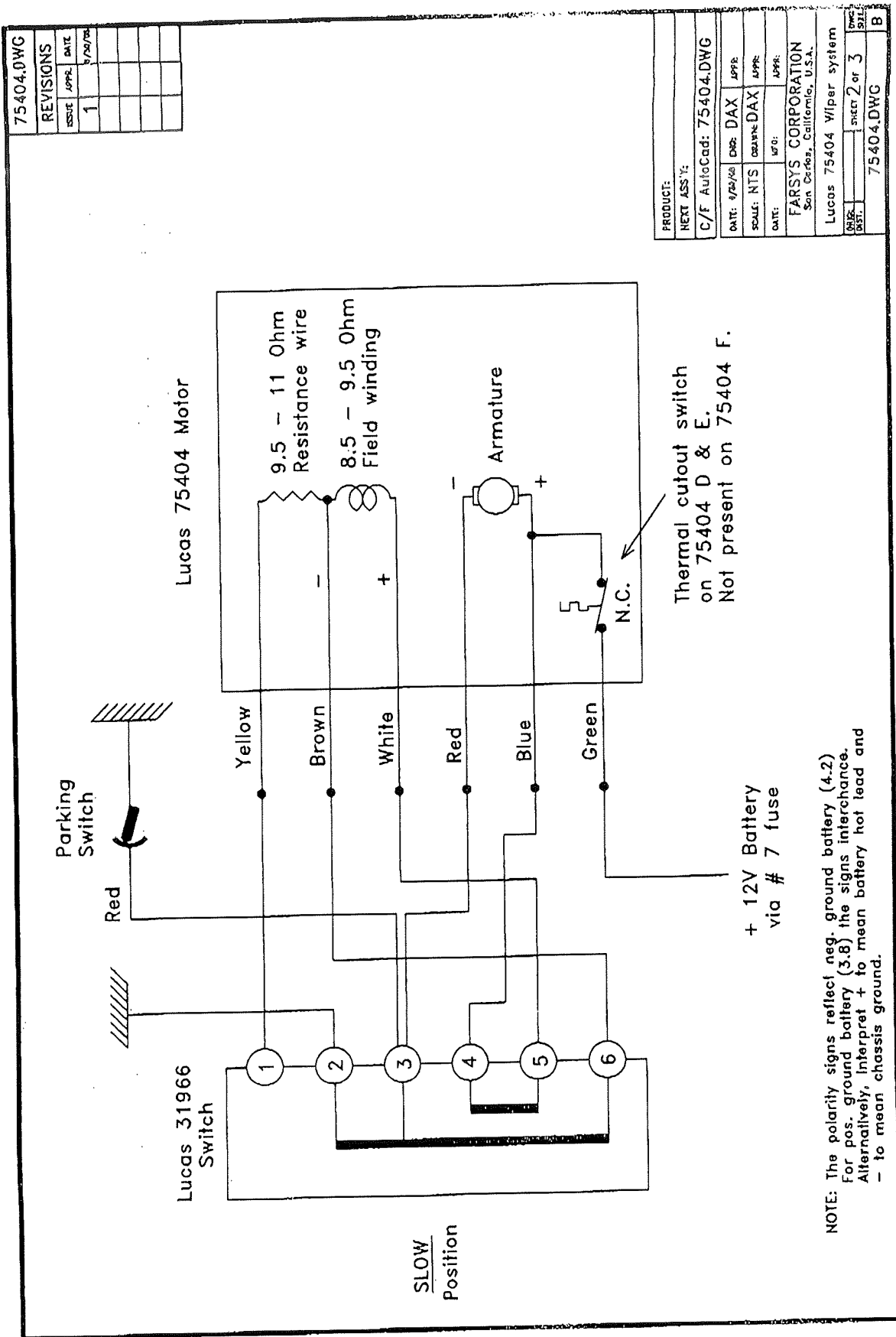
DATE	BY	DWG	APPR.
0/00/00	DAX	DAX	APPR.
SCALE: NTS	DAX	DAX	APPR.
DATE:	APPR.	APPR.	APPR.

FARSYS CORPORATION  
San Carlos, California, U.S.A.

Lucas 75404 Wiper system

DWG. NO.:	75404.DWG
SHEET:	1 of 3
SIZE:	B

NOTE: The polarity signs reflect neg. ground battery (4.2)  
For pos. ground battery (3.8) the signs interchange.  
Alternatively, interpret + to mean battery hot lead and  
- to mean chassis ground.

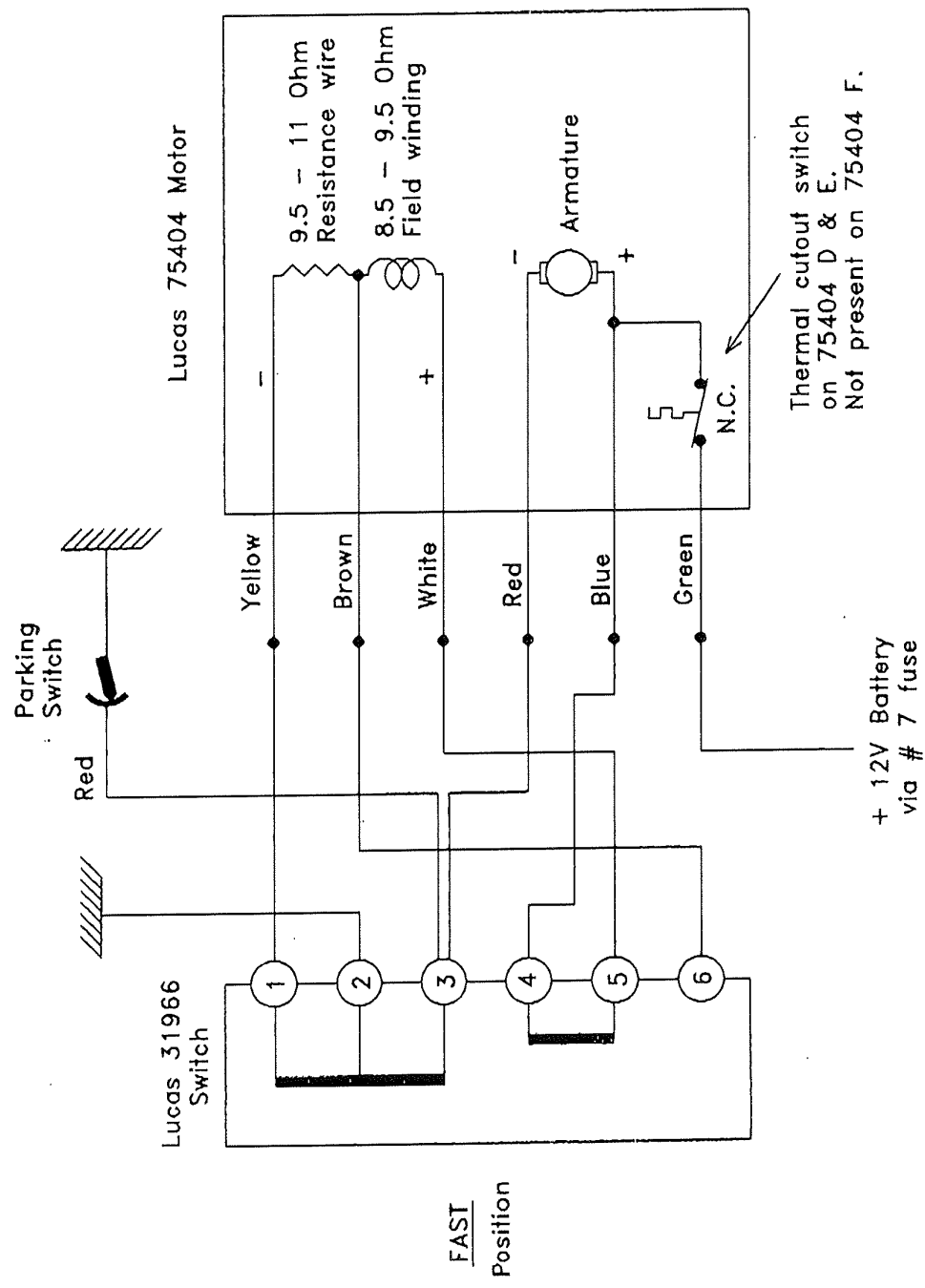


PRODUCT:	
NEXT ASS'Y:	
C/F AutoCad:	75404.DWG
DATE:	4/30/08
SCALE:	NTS
DRAWN:	DAX
CHECKED:	DAX
DATE:	
APP'R:	
FARSYS CORPORATION San Carlos, California, U.S.A.	
Lucas 75404 V/iper system	
DWG. NO.	SHEET 2 of 3
DATE:	75404.DWG
SHEET:	B

NOTE: The polarity signs reflect neg. ground battery (4.2)  
For pos. ground battery (3.8) the signs interchange.  
Alternatively, interpret + to mean battery hot lead and  
- to mean chassis ground.

75404.DWG		
REVISIONS		
ISSUE	APPR.	DATE
1		8/29/86

PRODUCT:	C/F AutoCad: 75404.DWG		
HEAT ASSY:	DATE: 6/26/86	ENG: DAX	APPR:
	SCALE: NTS	DRAWN: DAX	APPR:
	DATE:	NTS:	APPR:
FARSYS CORPORATION San Carlos, California, U.S.A.			
Lucas 75404 Wiper system			
DRAWN:	DATE:	SHEET: 3 of 3	REV: 0
			75404.DWG
			B



NOTE: The polarity signs reflect neg. ground battery (4.2)  
For pos. ground battery (3.8) the signs interchange.  
Alternatively, interpret + to mean battery hot lead and  
- to mean chassis ground.