# CHAPTER 3

# INDICATING / RECORDING SYSTEMS



# CHAPTER 31 INDICATING / RECORDING SYSTEMS

	CH-SC-SU	Schem	Page	Shee	t Date		CH-SC-SU	Schem	Page	Sheet	Date
31-	-EFFECTIVE						31-32-15 (	cont.)	4		
			1 thru 2		Jun 21/2016					2	Apr 17/2014
31-	-CONTENTS	3								3	Apr 17/2014
R			1		Jun 21/2016					4	Apr 17/2014
R			2		Jun 21/2016				5	1	Jan 12/2015
R			3		Jun 21/2016					2	Jan 12/2015
R			4		Jun 21/2016					3	Jan 12/2015
R			5		Jun 21/2016					4	Jan 12/2015
R			6		Jun 21/2016				6	1	Mar 14/2016
31-	-ALPHABET	TCAL IND	DEX						•	2	Mar 14/2016
			1		Nov 18/2013					3	Mar 14/2016
			2		Nov 18/2013					4	Mar 14/2016
	31-22-11					R			7	1	Jun 21/2016
			1		Aug 15/2013	R			,	2	Jun 21/2016
R			2		Jun 21/2016	R				3	Jun 21/2016
	31-31-11		_			R				4	Jun 21/2016
R			1		Jun 21/2016	111	31-33-01			4	Juli 21/2010
1	31-31-13		•		0411 Z 17 Z 0 1 0		31-33-01		4		Aug 15/2012
	01 01 10		1	1	Aug 15/2013				1		Aug 15/2013 Mar 14/2016
				2	Aug 15/2013				2		
R			2	1	Jun 21/2016	R	04.05.04		3		Jun 21/2016
R			2	2	Jun 21/2016		31-35-01				A 47/0044
l n	31-31-14			2	Juli 21/2010				1		Apr 17/2014
R	31-31-14		1	4	Jun 21/2016	R			2		Jun 21/2016
R			ı	1 2	Jun 21/2016 Jun 21/2016		31-35-02				
R									1		Aug 15/2013
I۳	01 01 15			3	Jun 21/2016	R			2		Jun 21/2016
	31-31-15		_	_	A 45/0040		31-35-03				
			1	1	Aug 15/2013	R			1		Jun 21/2016
				2	Aug 15/2013		31-35-04				
				3	Aug 15/2013				1		Nov 18/2013
l_			_	4	Aug 15/2013				2		May 15/2015
R			2	1	Jun 21/2016				3		Oct 14/2015
R				2	Jun 21/2016	R			4		Jun 21/2016
R				3	Jun 21/2016		31-35-05				
R				4	Jun 21/2016	R			1		Jun 21/2016
	31-31-16						31-35-07				
			1		Aug 18/2014	R			1	1	Jun 21/2016
R			2		Jun 21/2016	R				2	Jun 21/2016
	31-31-17								2	1	Aug 18/2014
			1		Aug 18/2014					2	Aug 18/2014
R			2		Jun 21/2016		31-35-08				•
1	31-32-15					R			1		Jun 21/2016
1			1	1	Aug 15/2013				2		Aug 18/2014
				2	Aug 15/2013		31-35-09				<b>5</b>
1				3	Aug 15/2013	1			1		Nov 18/2013
1			2	1	Nov 18/2013	R			2		Jun 21/2016
1				2	Aug 15/2013	1			3		Mar 14/2016
1				3	Aug 15/2013	1	31-51-11		•		
1			3	1	Nov 18/2013	R	3. 31 11		1		Jun 21/2016
1				2	Nov 18/2013	1''			2		Mar 14/2016
1				3	Nov 18/2013	1	31-52-11		_		WIGH 17/2010
			4	1	Apr 17/2014	R	31-32-11		1	1	Jun 21/2016
			•	•		П			1	ı	Juli 2 1/2010

A = Added, R = Revised, D = Deleted, O = Overflow



# CHAPTER 31 INDICATING / RECORDING SYSTEMS

Sample		CH-SC-SU Schem	Page	Sheet	Date		CH-SC-SU	Schem	Page	Sheet	Date
Sample		31-52-11 (cont.)	1				31-62-15 (	cont.)	1		
R	R			2 J	un 21/2016					4	Nov 18/2013
Sample		31-52-21							2	1	Apr 17/2014
R 31-52-31	R		1	J	un 21/2016					2	Apr 17/2014
Same		31-52-25								3	Apr 17/2014
R	R		1	J	un 21/2016					4	Apr 17/2014
Since   Sinc		31-52-31							3		
R	R		1	J	un 21/2016						
R		31-52-32									
R 31-52-41	R		1	J	un 21/2016						
R   31-52-45   R   1   Jun 21/2016   R   31-62-21   R   3   Jun 21/2016   R   31-62-21   R   31-52-51   R   31-52-51   R   31-52-51   R   31-52-52   R   31-52-52   R   31-52-55   R   31-52-55   R   31-52-55   R   31-52-55   R   31-52-56   R   31-52-57   R   31-52-71   R   31-52-71   R   31-52-75   31-	l_	31-52-35							4		
R 1 Jun 21/2016 R 31-62-21 R 1 Jun 21/2016 R 31-62-21 R 1 Jun 21/2016 R 31-62-22 R 1 Jun 21/2016 R 2 Jun 21/2016 R 2 Jun 21/2016 R 31-62-22 R 1 Jun 21/2016 R 2 Jun 21/2016 R 31-62-23 R 31-62-55 R 31-62-56 R 31-62-24 R 1 Jun 21/2016 R 2 Jun 21/2016 R 3 J	R		1	J	un 21/2016						
Since   Sinc	1_	31-52-41									
R	IR		1	J	un 21/2016	R	0.4.00.04			4	Jun 21/2016
Since   Sinc		31-52-45			04/0040		31-62-21				. 04/0040
R 1 Jun 21/2016 R 2 Jun 21/201	IK	04 50 54	1	J	un 21/2016				1		
Since   Sinc		31-52-51			04/0040	IR	04 00 00			2	Jun 21/2016
R 1 Jun 21/2016 R 1 Jun 21/2016 R 1 Jun 21/2016 R 1 Jun 21/2016 R 2 Nov 18/2013 R 2 Jun 21/2016 R 2 Jun 21/2016 R 2 Nov 18/2013 R 2 Jun 21/2016 R 2 Jun 21/2016 R 2 Nov 18/2013 R 2 Jun 21/2016 R 2 Jun 21/2016 R 2 Nov 18/2013 R 2 Jun 21/2016 R 2 Jun 21/201	IK	04 50 50	1	J	un 21/2016		31-62-22				. 04/0040
31-52-55     31-62-23     31-62-24     31-52-56     31-52-56     31-52-56     31-52-56     31-52-56     31-52-61     31-52-61     31-52-61     31-52-65     31-52-65     31-52-65     31-52-65     31-52-65     31-52-71     31-52-71     31-52-71     31-52-71     31-52-75     2 Nov 18/2013     31-52-75     2 Nov 18/2013     31-52-75     2 Nov 18/2013     31-53-11     31-53-11     31-53-11     31-62-15     31-62-12     31-62-12     31-62-12     31-62-13     31-62-14     31-62-15     31-62-42     31-62-41     31-62-41     31-62-15     31-62-42     31-62-41     31-62-42     3		31-52-52			04/0040				1		
R 1 Jun 21/2016 R 1 Jun 21/2016 R 1 Jun 21/2016 R 2 Jun 21/201	IK	04 50 55	1	J	un 21/2016	IR	04 00 00			2	Jun 21/2016
Since   Sinc		31-52-55			04/0040		31-62-23				. 04/0040
R 1 Jun 21/2016 R 1 Jun 21/2016 R R 2 Jun 21/2016 R 1 Jun 21/2016 31-62-25 R 1 Jun 21/2016 31-62-25 R 1 Jun 21/2016 31-62-25 R 1 Jun 21/2016 2 Nov 18/2013 R 1 Jun 21/2016 2 Nov 18/2013 R 2 Jun 21/2016 3 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 2 Jun 21/2016 3 Nov 18/2013 R 2 Jun 21/2016 3 Nov 18/2013 R 31-62-11 4 4 Nov 18/2013 R 1 Jun 21/2016 2 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 2 Jun 21/2016 3 Nov 18/2013 R 2 Jun 21/2016 3 Nov 18/2013 R 31-62-11 R 2 Jun 21/2016 R 2 Nov 18/2013 R 31-62-12 R 2 Jun 21/2016 R 3 Jun 21/2016 R 2 Jun 21/2016 R 31-62-13 R 1 Jun 21/2016 R 3 Jun 21/2016 R 2 Jun 21/2016 R 3 Jun 21/2016 R 2 Jun 21/2016 R 3 Jun 21/2016 R 31-62-14 R 3 Jun 21/2016 R 31-62-15 R 1 Jun 21/2016	IK	04 50 50	1	J	un 21/2016	IR	04 00 04		I		Jun 21/2016
Since   Sinc		31-52-56	_		04/0040		31-62-24		_		L 04/0040
R 1 Jun 21/2016 31-62-25  R 1 Jun 21/2016 2 Nov 18/2013  31-52-71 3 Nov 18/2013  R 1 Jun 21/2016 2 Nov 18/2013  R 1 Jun 21/2016 2 Nov 18/2013  R 2 Jun 21/2016 2 1 Nov 18/2013  R 2 Jun 21/2016 2 1 Nov 18/2013  R 1 Jun 21/2016 3 Nov 18/2013  R 1 Jun 21/2016 3 Nov 18/2013  R 1 Jun 21/2016 3 Nov 18/2013  R 1 1 Jun 21/2016 4 Nov 18/2013  R 1 1 Jun 21/2016 3 Nov 18/2013  R 1 1 Jun 21/2016 4 Nov 18/2013  R 1 1 Jun 21/2016 7 Nov 18/2013  R 2 Jun 21/2016 8 Nov 18/2013  R 2 Jun 21/2016 8 Nov 18/2013  R 2 Jun 21/2016 R S Jun 21/2016  R 31-62-13 R Jun 21/2016  R 31-62-14 R Jun 21/2016  R 31-62-15 R Jun 21/2016	IK	01 50 01	1	J	un 21/2016				I		
31-52-65		31-52-61	4	1.	01/0010	l K	01 00 05			2	Jun 21/2016
R 1 Jun 21/2016 2 Nov 18/2013 R 1 Jun 21/2016 2 1 Nov 18/2013 R 2 Jun 21/2016 2 1 Nov 18/2013 R 2 Jun 21/2016 2 1 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 1 Jun 21/2016 3 Nov 18/2013 R 1 1 Jun 21/2016 3 Nov 18/2013 R 2 Jun 21/2016 3 Apr 17/2014 R 2 Jun 21/2016 4 Apr 17/2014 R 1 1 Jun 21/2016 4 Apr 17/2014 R 1 1 Jun 21/2016 2 Mar 14/2016 R 2 Jun 21/2016 R 5 Jun 21/2016 R 31-62-12 R 1 Jun 21/2016 R 5 Jun 21/2016 R 2 Jun 21/2016 R 5 Jun 21/2016 R 31-62-13 R 2 Jun 21/2016 R 31-62-14 R 3 Jun 21/2016 R 31-62-15 R 1 Jun 21/2016 R 31-62-42	K	01 50 65	ı	J	un 21/2016		31-62-25		4	4	Nov. 10/0010
31-52-71 R	L	31-32-03	4	1.	01/0016				ı		
R 1 Jun 21/2016	l L	21 52 71	1	J	un 21/2016						
R 2 Jun 21/2016 2 1 Nov 18/2013  R 1 Jun 21/2016 3 Nov 18/2013  R 1 Jun 21/2016 3 Nov 18/2013  R 1 1 Jun 21/2016 3 1 Apr 17/2014  R 2 Jun 21/2016 2 Apr 17/2014  R 31-62-11 4 Apr 17/2014  R 1 1 Jun 21/2016 4 Apr 17/2014  R 2 Jun 21/2016 2 Mar 14/2016  R 2 Jun 21/2016 3 Mar 14/2016  R 2 Jun 21/2016 R 3 Mar 14/2016  R 1 1 Jun 21/2016 R 5 1 Jun 21/2016  R 1 1 Jun 21/2016 R 5 1 Jun 21/2016  R 1 Jun 21/2016 R 5 1 Jun 21/2016  R 2 Jun 21/2016 R 31-62-13  R 1 Jun 21/2016 R 31-62-14  R 1 1 Jun 21/2016 R 31-62-41  R 31-62-15 R 1 Jun 21/2016  R 1 1 Jun 21/2016 R 31-62-41  R 31-62-15	L	31-32-71	4	1.	un 01/0016						
31-52-75 R 1 Jun 21/2016 31-53-11 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 31-62-11 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 31-62-12 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 2 Jun 21/2016 R 31-62-12 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 31-62-13 R 1 1 Jun 21/2016 R 31-62-14 R 1 1 Jun 21/2016 R 31-62-15 R 1 1 Jun 21/2016 R 31-62-14 R 1 1 Jun 21/2016 R 31-62-15 R 1 1 Jun 21/2016 R 31-62-15 R 1 1 Jun 21/2016 R 31-62-10 R 3									2		
R 1 Jun 21/2016 3 Nov 18/2013 4 Nov 18/2013 R 1 1 Jun 21/2016 3 1 Apr 17/2014 2 Jun 21/2016 2 Apr 17/2014 3 Jun 21/2016 3 Apr 17/2014 3 Apr 17/2014 4 Apr 17/2014 4 Apr 17/2014 R 1 1 Jun 21/2016 2 Jun 21/2016 2 Mar 14/2016 R 2 Jun 21/2016 R 31-62-14 R 2 Jun 21/2016 R 31-62-41 R 2 Jun 21/2016 R 1 Jun 21/2016 R 2 Jun 21	l n	31_52_75	2	J	uii 21/2010				2		
31-53-11	L	31-32-73	1	I.	un 21/2016						
R 1 1 Jun 21/2016	11	31_53_11	'	J	uii 21/2010						
R 2 Jun 21/2016 2 Apr 17/2014 3 Jun 21/2016 3 Apr 17/2014 4 Apr 17/2014 4 Apr 17/2014 4 Apr 17/2014 R 1 1 Jun 21/2016 2 Jun 21/2016 2 Mar 14/2016 R 2 Jun 21/2016 R 2 Jun 21/2	l <sub>R</sub>	31-33-11	1	1 .1	un 21/2016				3		
R 3 Jun 21/2016 3 Apr 17/2014 R 1 1 Jun 21/2016 4 1 Mar 14/2016 R 2 Jun 21/2016 2 Mar 14/2016 R 1 1 Jun 21/2016 3 Mar 14/2016 R 2 Jun 21/2016 R 5 1 Jun 21/2016 R 31-62-13 R 2 Jun 21/2016 R 1 Jun 21/2016 R 2 Jun 21/2016 R 1 Jun 21/2016 R 31-62-14 R 1 Jun 21/2016 R 31-62-41 R 2 Jun 21/2016 R 1 Jun 21/2016 R 31-62-15 31-62-42			•						O		
31-62-11  R											
R 1 1 Jun 21/2016	Ι΄,	31-62-11		5 0							
R 2 Jun 21/2016 2 Mar 14/2016 R 1 1 Jun 21/2016 R 5 1 Jun 21/2016 R 2 Jun 21/2016 R 5 1 Jun 21/2016 R 31-62-13 R 2 Jun 21/2016 R 2 Jun 21/2016 R 31-62-14 R 4 Jun 21/2016 R 1 1 Jun 21/2016 R 4 Jun 21/2016 R 2 Jun 21/2016 R 7 1 Jun 21/2016 R 31-62-41 R 2 Jun 21/2016 R 1 Jun 21/2016	R	- · <b>v=</b> · ·	1	1 J	un 21/2016				4		
3 Mar 14/2016 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 5 1 Jun 21/2016 R 2 Jun 21/2016 R 2 Jun 21/2016 R 31-62-13 R 1 Jun 21/2016 R 31-62-14 R 2 Jun 21/2016 R 31-62-41 R 2 Jun 21/2016 R 31-62-42			•						-		
R 1 1 Jun 21/2016 R 5 1 Jun 21/2016 R 7 2 Jun 21/2016 R 7 2 Jun 21/2016 R 7 2 Jun 21/2016 R 7 31-62-13 R 1 Jun 21/2016 R 7 3 Jun 21/2016 R 7 31-62-14 R 7 2 Jun 21/2016 R 7 1	1	31-62-12			·· · · ·						
R 2 Jun 21/2016 R 2 Jun 21/2016 R 2 Jun 21/2016 R 2 Jun 21/2016 R 31-62-13 R 1 Jun 21/2016 R 31-62-14 R 2 Jun 21/2016 R 31-62-41 R 2 Jun 21/2016 R 1 Jun 21/2016	R		1	1 J	un 21/2016						
31-62-13       R       2       Jun 21/2016         R       1       Jun 21/2016       R       3       Jun 21/2016         R       1       Jun 21/2016       R       4       Jun 21/2016         R       1       Jun 21/2016       31-62-41       R       1       Jun 21/2016         R       31-62-15       31-62-42       31-62-42       31-62-42			•			R			5		
R 1 Jun 21/2016 R 3 Jun 21/2016 R 4 Jun 21/2016 R 31-62-14 R 2 Jun 21/2016 R 1 31-62-42		31-62-13			- · <del>-</del>				-		
31-62-14 R 1 1 Jun 21/2016 R 2 Jun 21/2016 R 31-62-15 R 4 Jun 21/2016 R 31-62-41 R 1 Jun 21/2016 R 31-62-42	R		1	J	un 21/2016						
R 1 1 Jun 21/2016 31-62-41 R 2 Jun 21/2016 R 1 Jun 21/2016 31-62-42		31-62-14								4	
R 2 Jun 21/2016 R 1 Jun 21/2016 31-62-42	R		1	1 J	un 21/2016		31-62-41				
31-62-15 31-62-42						R			1		Jun 21/2016
	1	31-62-15					31-62-42				
			1		ug 15/2013	R			1		Jun 21/2016
2 Apr 17/2014											
3 Aug 15/2013											

A = Added, R = Revised, D = Deleted, O = Overflow



# CHAPTER 31 INDICATING / RECORDING SYSTEMS

	Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
	CLOCK						
	ELECTRONIC CLOCK	31-22-11		1		Aug 15/2013	YT101-YT103
I				2		Jun 21/2016	YT104-YT133
	FLIGHT DATA RECORDER SY	STEM					
	DIGITAL FLIGHT DATA RECORDER SYSTEM - INTERFACE	31-31-11		1		Jun 21/2016	ALL
	DIGITAL FLIGHT DATA RECORDER SYSTEM - DIGITAL INTERFACE	31-31-13		1	1	Aug 15/2013	YT101-YT103
					2	Aug 15/2013	YT101-YT103
I				2	1	Jun 21/2016	YT104-YT133
I					2	Jun 21/2016	YT104-YT133
I	DIGITAL FLIGHT DATA RECORDER SYSTEM - ANALOG INTERFACE	31-31-14		1	1	Jun 21/2016	ALL
I					2	Jun 21/2016	ALL
I					3	Jun 21/2016	ALL
	DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE	31-31-15		1	1	Aug 15/2013	YT101-YT103
					2	Aug 15/2013	YT101-YT103
					3	Aug 15/2013	YT101-YT103
					4	Aug 15/2013	YT101-YT103
I				2	1	Jun 21/2016	YT104-YT133
I					2	Jun 21/2016	YT104-YT133
I					3	Jun 21/2016	YT104-YT133
I					4	Jun 21/2016	YT104-YT133
	DIGITAL FLIGHT DATA RECORDER SYSTEM AIRPLANE CODING	31-31-16		1		Aug 18/2014	YT101-YT105
I				2		Jun 21/2016	YT106-YT133
	DIGITAL FLIGHT DATA RECORDER SYSTEM MANDATORY OPTIONS	31-31-17		1		Aug 18/2014	YT101-YT105
I				2		Jun 21/2016	YT106-YT133
	DATA LOADING AND RECORD	DING SYSTEI	<u>M</u>				
	DATA LOADER INTERFACE	31-32-15		1	1	Aug 15/2013	YT101

**31-CONTENTS** 



Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
DATA LOADER INTERFACE (cont.)	31-32-15			2	Aug 15/2013	YT101
				3	Aug 15/2013	YT101
			2	1	Nov 18/2013	YT102-YT103
				2	Aug 15/2013	YT102-YT103
				3	Aug 15/2013	YT102-YT103
			3	1	Nov 18/2013	YT104
				2	Nov 18/2013	YT104
				3	Nov 18/2013	YT104
			4	1	Apr 17/2014	YT105
				2	Apr 17/2014	YT105
				3	Apr 17/2014	YT105
				4	Apr 17/2014	YT105
			5	1	Jan 12/2015	YT106-YT110
				2	Jan 12/2015	YT106-YT110
				3	Jan 12/2015	YT106-YT110
				4	Jan 12/2015	YT106-YT110
			6	1	Mar 14/2016	YT111-YT120
				2	Mar 14/2016	YT111-YT120
				3	Mar 14/2016	YT111-YT120
				4	Mar 14/2016	YT111-YT120
			7	1	Jun 21/2016	YT126-YT133
				2	Jun 21/2016	YT126-YT133
				3	Jun 21/2016	YT126-YT133
				4	Jun 21/2016	YT126-YT133
FLIGHT COMPARTMENT PRIN	NTING					
PRINTER INTERFACE	31-33-01		1		Aug 15/2013	YT101-YT103
			2		Mar 14/2016	YT104-YT120
			3		Jun 21/2016	YT126-YT133
AIRCRAFT INTEGRATED DAT	A SYSTEM					
DIGITAL FLIGHT DATA RECORDER SYSTEM - DATA LOADER INTERFACE	31-35-01		1		Apr 17/2014	YT101-YT104
			2		Jun 21/2016	YT105-YT133



# CHAPTER 31 INDICATING / RECORDING SYSTEMS

Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE	31-35-02		1		Aug 15/2013	YT101-YT103
			2		Jun 21/2016	YT104-YT133
DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE 3	31-35-03		1		Jun 21/2016	ALL
DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE	31-35-04		1		Nov 18/2013	YT101-YT103
			2		May 15/2015	YT104-YT112 YT126-YT131
			3		Oct 14/2015	YT113-YT115
			4		Jun 21/2016	YT116-YT120 YT132-YT133
ACMS PARAMETERS - ANALOG INTERFACE	31-35-05		1		Jun 21/2016	ALL
ACMS DIGITAL INTERFACE GROUP 2	31-35-07		1	1	Jun 21/2016	YT104 YT106-YT133
				2	Jun 21/2016	YT104 YT106-YT133
			2	1	Aug 18/2014	YT105
				2	Aug 18/2014	YT105
ACMS DISCRETE INTERFACE GROUP 2	31-35-08		1		Jun 21/2016	YT104 YT106-YT133
			2		Aug 18/2014	YT105
ACMS NFS INTERFACE	31-35-09		1		Nov 18/2013	YT104
			2		Jun 21/2016	YT105 YT126-YT133
			3		Mar 14/2016	YT106-YT120
AURAL WARNING SYSTEM						
AURAL WARNING SYSTEM	31-51-11		1		Jun 21/2016	YT101-YT105 YT126-YT133
MASTER CAUTION			2		Mar 14/2016	YT106-YT120
MASTER CAUTION SYSTEM- POWER & CONTROL	31-52-11		1	1	Jun 21/2016	ALL
				2	Jun 21/2016	ALL
MASTER CAUTION SYSTEM - HYDRAULIC CONTROL	31-52-21		1		Jun 21/2016	ALL

**31-CONTENTS** 



Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
MASTER CAUTION SYSTEM - FLIGHT CONTROLS	31-52-25		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, GENERATOR	31-52-31		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, POWER BUS	31-52-32		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - APU CONTROL	31-52-35		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - FUEL CONTROL	31-52-41		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - OVERHEAT DETECTION	31-52-45		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, PACK & TEMP	31-52-51		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, BLEED AIR	31-52-52		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, PITOT HEAT	31-52-55		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, WINDOW/COWL HEAT	31-52-56		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - ENGINE CONTROL	31-52-61		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - DOOR WARNING	31-52-65		1		Jun 21/2016	ALL
MASTER CAUTION SYSTEM - IRS CONTROL	31-52-71		1		Jun 21/2016	YT101-YT119 YT126-YT129
			2		Jun 21/2016	YT120 YT130-YT133
MASTER CAUTION SYSTEM - OVERHEAD CONTROL	31-52-75		1		Jun 21/2016	ALL
AURAL WARNING - TAKEOFF	WARNING					
AURAL WARNING - TAKEOFF WARNING	31-53-11		1	1	Jun 21/2016	ALL
				2	Jun 21/2016	ALL
				3	Jun 21/2016	ALL
	MASTER CAUTION SYSTEM - FLIGHT CONTROLS  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM - APU CONTROL  MASTER CAUTION SYSTEM - OVERHEAT DETECTION  MASTER CAUTION SYSTEM - OVERHEAT DETECTION  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, BLEED AIR  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, PITOT HEAT  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM - ENGINE CONTROL  MASTER CAUTION SYSTEM - DOOR WARNING  MASTER CAUTION SYSTEM - DOOR WARNING  MASTER CAUTION SYSTEM - DOOR WARNING  MASTER CAUTION SYSTEM - OVERHEAD CONTROL  MASTER CAUTION SYSTEM - OVERHEAD CONTROL  AURAL WARNING - TAKEOFF  AURAL WARNING -	MASTER CAUTION SYSTEM - FLIGHT CONTROLS  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM - APU CONTROL  MASTER CAUTION SYSTEM - APU CONTROL  MASTER CAUTION SYSTEM - OVERHEAT DETECTION  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, BLEED AIR  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, PITOT HEAT  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM - ENGINE CONTROL  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL  MASTER CAUTION SYSTEM - TEMP  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL  MASTER CAUTION SYSTEM - OVERHEAD - DOOR WARNING  MASTER CAUTION SYSTEM - TOOL  MASTER CAUTION SYSTEM - OVERHEAD CONTROL  MASTER CAUTION SYSTEM - OVERHEAD - OVERHEAD - OVERHEAD - OVERHEAD - OVERHEAD - OVERHEAD - OV	MASTER CAUTION SYSTEM - FLIGHT CONTROLS  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM - APU CONTROL  MASTER CAUTION SYSTEM - APU CONTROL  MASTER CAUTION SYSTEM - FUEL CONTROL  MASTER CAUTION SYSTEM - OVERHEAT DETECTION  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, BLEED AIR  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM - ENGINE CONTROL  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL  MASTER CAUTION SYSTEM - ANTI-ICE CONTROL  MASTER CAUTION SYSTEM - TECHNOL  MASTER CAUTION SYSTEM - ENGINE CONTROL  MASTER CAUTION SYSTEM - ISSUED  MASTER CAUTION SYS	MASTER CAUTION SYSTEM 31-52-25 1 - FLIGHT CONTROLS  MASTER CAUTION SYSTEM 31-52-31 1 - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM 31-52-32 1 - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM 31-52-35 1 - APU CONTROL  MASTER CAUTION SYSTEM 31-52-41 1 - FUEL CONTROL  MASTER CAUTION SYSTEM 31-52-45 1 - OVERHEAT DETECTION  MASTER CAUTION SYSTEM 31-52-51 1 - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM 31-52-52 1 - AIR CONDITIONG CONTROL, BLEED AIR  MASTER CAUTION SYSTEM 31-52-55 1 - ANTI-ICE CONTROL, PITOT HEAT  MASTER CAUTION SYSTEM 31-52-56 1 - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM 31-52-61 1 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-65 1 - DOOR WARNING  MASTER CAUTION SYSTEM 31-52-65 1 - INSCONTROL  MASTER CAUTION SYSTEM 31-52-71 1 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 - OVERHEAD CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 - OVERHEAD CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 - OVERHEAD CONTROL  AURAL WARNING - TAKEOFF WARNING  AURAL WARNING - 31-53-11 1	MASTER CAUTION SYSTEM 31-52-25 1 - FLIGHT CONTROLS  MASTER CAUTION SYSTEM 31-52-31 1 - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM 31-52-32 1 - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM 31-52-35 1 - APU CONTROL  MASTER CAUTION SYSTEM 31-52-41 1 - FUEL CONTROL  MASTER CAUTION SYSTEM 31-52-45 1 - OVERHEAT DETECTION  MASTER CAUTION SYSTEM 31-52-51 1 - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM 31-52-52 1 - AIR CONDITIONG CONTROL, PITOT  HEAT  MASTER CAUTION SYSTEM 31-52-55 1 - ANTI-ICE CONTROL, PITOT  HEAT  MASTER CAUTION SYSTEM 31-52-56 1 - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM 31-52-61 1 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-65 1 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-65 1 - THE CONTROL  MASTER CAUTION SYSTEM 31-52-71 1 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-71 1 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-71 1 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 - OVERHEAD CONTROL  AURAL WARNING - TAKEOFF WARNING  AURAL WARNING - TAKEOFF WARNING	MASTER CAUTION SYSTEM 31-52-25 1 Jun 21/2016 - FLIGHT CONTROLS  MASTER CAUTION SYSTEM 31-52-31 1 Jun 21/2016 - ELECTRICAL CONTROL, GENERATOR  MASTER CAUTION SYSTEM 31-52-32 1 Jun 21/2016 - ELECTRICAL CONTROL, POWER BUS  MASTER CAUTION SYSTEM 31-52-35 1 Jun 21/2016 - APU CONTROL  MASTER CAUTION SYSTEM 31-52-41 1 Jun 21/2016 - FUEL CONTROL  MASTER CAUTION SYSTEM 31-52-45 1 Jun 21/2016 - FUEL CONTROL  MASTER CAUTION SYSTEM 31-52-55 1 Jun 21/2016 - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM 31-52-52 1 Jun 21/2016 - AIR CONDITIONG CONTROL, PACK & TEMP  MASTER CAUTION SYSTEM 31-52-55 1 Jun 21/2016 - AIR CONDITIONS CONTROL, BLEED AIR  MASTER CAUTION SYSTEM 31-52-55 1 Jun 21/2016 - ANTI-ICE CONTROL, PITOT HEAT  MASTER CAUTION SYSTEM 31-52-56 1 Jun 21/2016 - ANTI-ICE CONTROL, WINDOW/COWL HEAT  MASTER CAUTION SYSTEM 31-52-61 1 Jun 21/2016 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-65 1 Jun 21/2016 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-65 1 Jun 21/2016 - ENGINE CONTROL  MASTER CAUTION SYSTEM 31-52-71 1 Jun 21/2016 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 Jun 21/2016 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 Jun 21/2016 - IRS CONTROL  MASTER CAUTION SYSTEM 31-52-75 1 Jun 21/2016 - IRS CONTROL  AURAL WARNING - TAKEOFF WARNING  AURAL WARNING - TAKEOFF WARNING  AURAL WARNING - JUN 21/2016



	Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
	COMMON DISPLAY SYSTEM						
ı	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING CAPTAINS	31-62-11		1	1	Jun 21/2016	ALL
I					2	Jun 21/2016	ALL
I	CDS - VIDEO COAX SPLITTERS 1 AND 3 DU STATUS	31-62-12		1	1	Jun 21/2016	ALL
I					2	Jun 21/2016	ALL
I	CDS - CONTROL PANEL INTERFACES - CAPTAINS	31-62-13		1		Jun 21/2016	ALL
I	CDS - DEU 1 ENGINE HYDRAULIC, APU AND FUEL INTERFACES	31-62-14		1	1	Jun 21/2016	ALL
I					2	Jun 21/2016	ALL
	CDS - DEU 1 AVIONICS INTERFACES	31-62-15		1	1	Aug 15/2013	YT101-YT103
					2	Apr 17/2014	YT101-YT103
					3	Aug 15/2013	YT101-YT103
					4	Nov 18/2013	YT101-YT103
				2	1	Apr 17/2014	YT104-YT105
					2	Apr 17/2014	YT104-YT105
					3	Apr 17/2014	YT104-YT105
					4	Apr 17/2014	YT104-YT105
				3	1	Mar 14/2016	YT106-YT120
					2	Mar 14/2016	YT106-YT120
					3	Mar 14/2016	YT106-YT120
				4	4		YT106-YT120
1				4	1	Jun 21/2016	YT126-YT133
1					2 3	Jun 21/2016	YT126-YT133
1					3	Jun 21/2016 Jun 21/2016	YT126-YT133 YT126-YT133
•	CDS - POWER	31-62-21		1	4 1	Jun 21/2016 Jun 21/2016	ALL
•	DISTRIBUTION AND INSTRUMENT LIGHTING FIRST OFFICER	31-02-21		ı	ı	Juli 2 1/20 16	ALL
I					2	Jun 21/2016	ALL



Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
CDS - VIDEO COAX SPLITTERS 2 AND 4 DU STATUS	31-62-22		1	1	Jun 21/2016	ALL
				2	Jun 21/2016	ALL
CDS - CONTROL PANEL INTERFACES - F/O	31-62-23		1		Jun 21/2016	ALL
CDS - DEU 2 ENGINE HYDRAULIC, APU AND FUEL INTERFACES	31-62-24		1	1	Jun 21/2016	ALL
				2	Jun 21/2016	ALL
CDS - DEU 2 AVIONICS INTERFACES	31-62-25		1	1	Nov 18/2013	YT101-YT102
				2	Nov 18/2013	YT101-YT102
				3	Nov 18/2013	YT101-YT102
				4	Nov 18/2013	YT101-YT102
			2	1	Nov 18/2013	YT103
				2	Nov 18/2013	YT103
				3	Nov 18/2013	YT103
				4	Nov 18/2013	YT103
			3	1	Apr 17/2014	YT104-YT105
				2	Apr 17/2014	YT104-YT105
				3	Apr 17/2014	YT104-YT105
				4	Apr 17/2014	YT104-YT105
			4	1	Mar 14/2016	YT106-YT120
				2	Mar 14/2016	YT106-YT120
				3	Mar 14/2016	YT106-YT120
				4	Mar 14/2016	YT106-YT120
			5	1	Jun 21/2016	YT126-YT133
				2	Jun 21/2016	YT126-YT133
				3	Jun 21/2016	YT126-YT133
				4	Jun 21/2016	YT126-YT133
CDS - DEU SELECT AND PROGRAM PINS	31-62-41		1		Jun 21/2016	ALL
	31-62-42				Jun 21/2016	ALL



# CHAPTER 31 INDICATING / RECORDING SYSTEMS

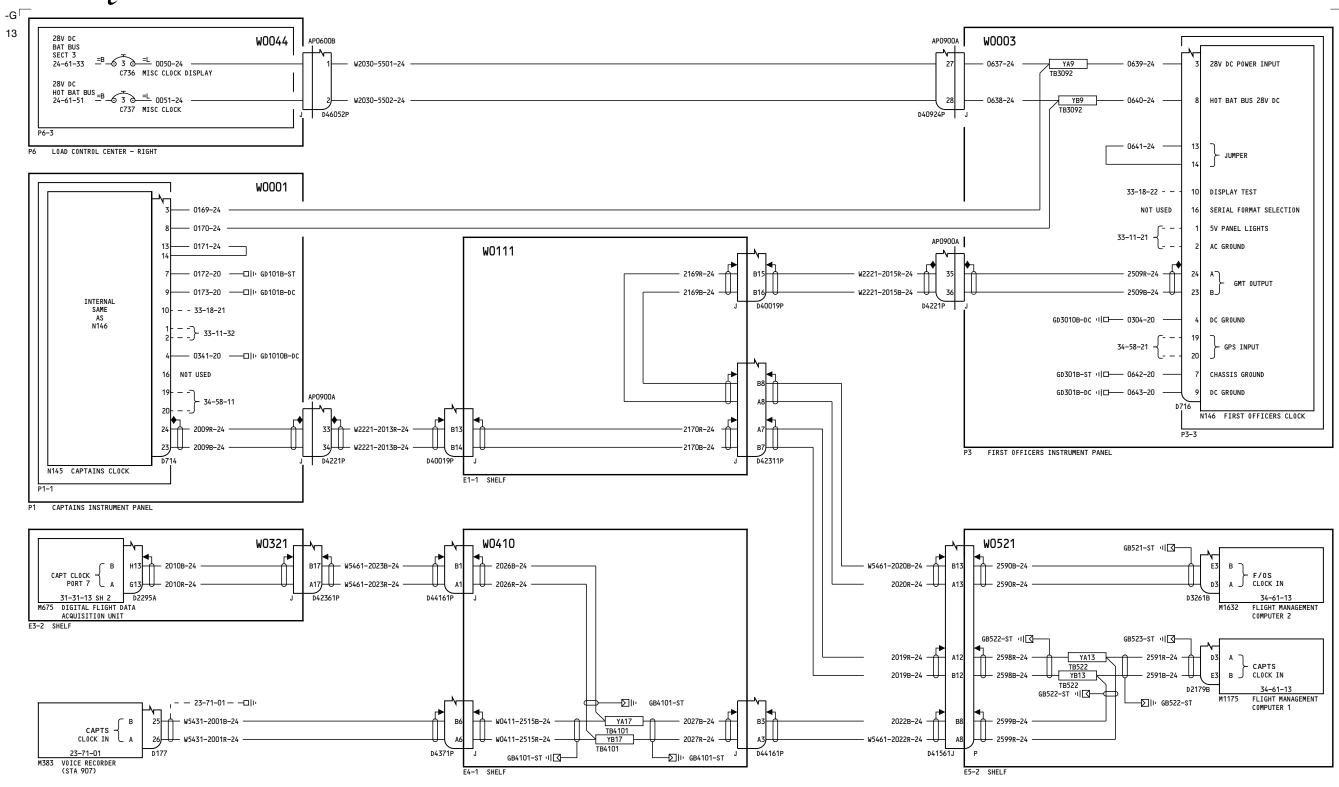
CH-SC-SU	Title
31-35-07	ACMS DIGITAL INTERFACE GROUP 2
31-35-08	ACMS DISCRETE INTERFACE GROUP 2
31-35-09	ACMS NFS INTERFACE
31-35-05	ACMS PARAMETERS - ANALOG INTERFACE
31-53-11	AURAL WARNING - TAKEOFF WARNING
31-51-11	AURAL WARNING SYSTEM
31-62-13	CDS - CONTROL PANEL INTERFACES - CAPTAINS
31-62-23	CDS - CONTROL PANEL INTERFACES - F/O
31-62-15	CDS - DEU 1 AVIONICS INTERFACES
31-62-14	CDS - DEU 1 ENGINE HYDRAULIC, APU AND FUEL INTERFACES
31-62-25	CDS - DEU 2 AVIONICS INTERFACES
31-62-24	CDS - DEU 2 ENGINE HYDRAULIC, APU AND FUEL INTERFACES
31-62-41	CDS - DEU SELECT AND PROGRAM PINS
31-62-11	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING CAPTAINS
31-62-21	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING FIRST OFFICER
31-62-12	CDS - VIDEO COAX SPLITTERS 1 AND 3 DU STATUS
31-62-22	CDS - VIDEO COAX SPLITTERS 2 AND 4 DU STATUS
31-62-42	CDS - VIDEO MONITORING
31-32-15	DATA LOADER INTERFACE
31-35-02	DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE
31-35-04	DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE
31-35-03	DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE 3
31-31-14	DIGITAL FLIGHT DATA RECORDER SYSTEM - ANALOG INTERFACE
31-35-01	DIGITAL FLIGHT DATA RECORDER SYSTEM - DATA LOADER INTERFACE
31-31-13	DIGITAL FLIGHT DATA RECORDER SYSTEM - DIGITAL INTERFACE
31-31-11	DIGITAL FLIGHT DATA RECORDER SYSTEM - INTERFACE
31-31-16	DIGITAL FLIGHT DATA RECORDER SYSTEM AIRPLANE CODING
31-31-15	DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE

#### **31-ALPHABETICAL INDEX**

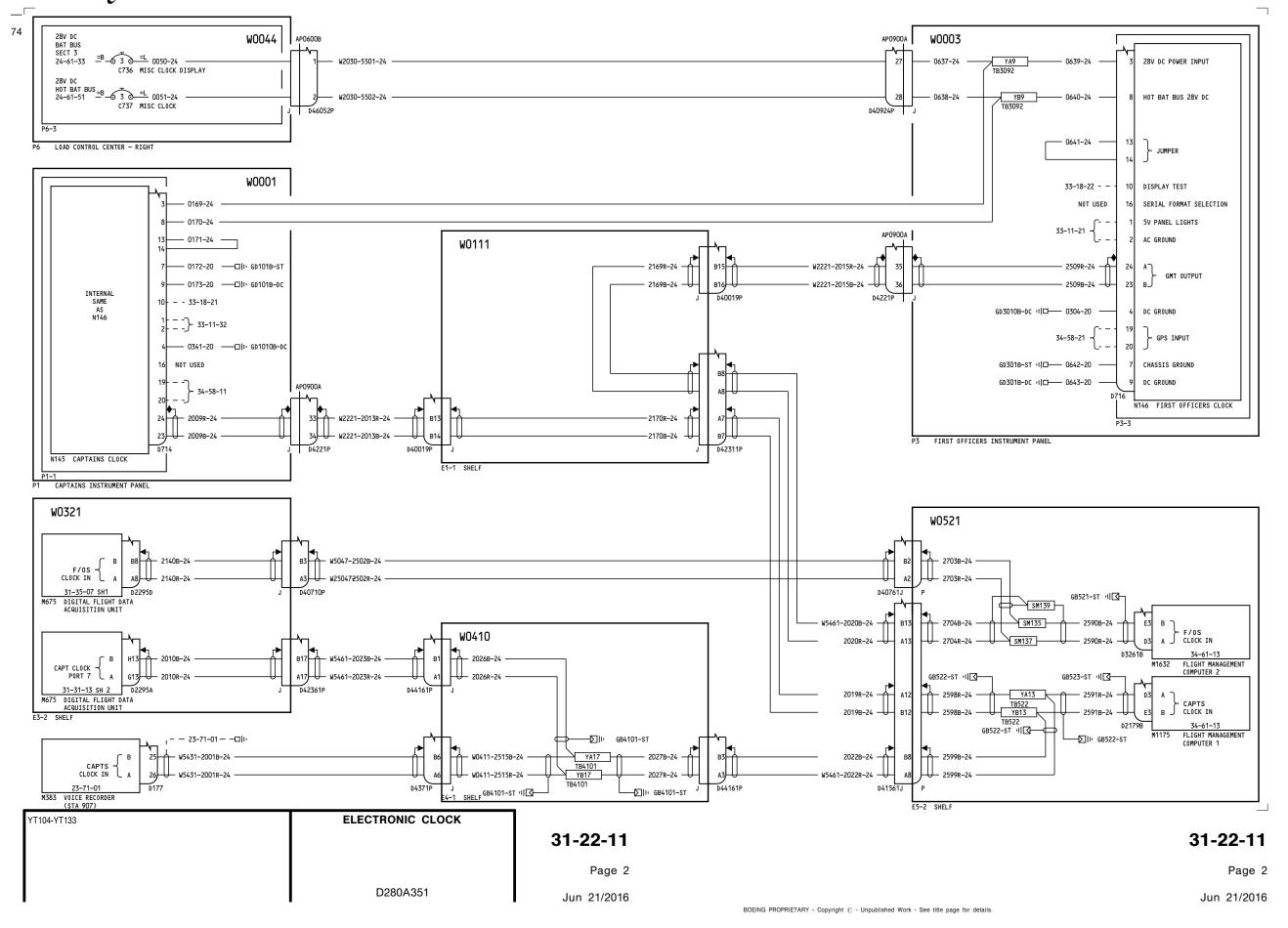


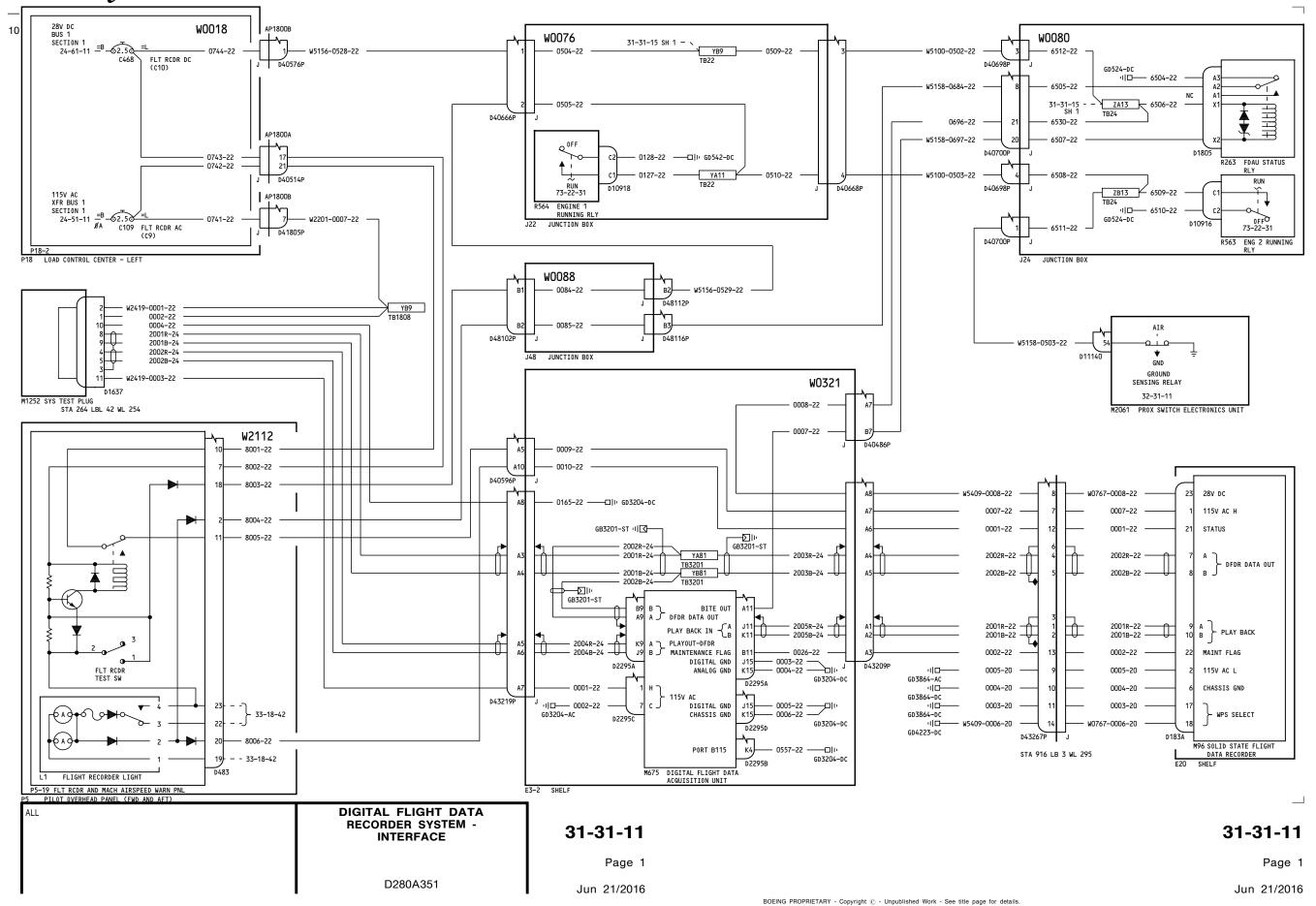
CH-SC-SU	Title
31-31-17	DIGITAL FLIGHT DATA RECORDER SYSTEM MANDATORY OPTIONS
31-22-11	ELECTRONIC CLOCK
31-52-52	MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, BLEED AIR
31-52-51	MASTER CAUTION SYSTEM - AIR CONDITIONG CONTROL, PACK & TEMP
31-52-55	MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, PITOT HEAT
31-52-56	MASTER CAUTION SYSTEM - ANTI-ICE CONTROL, WINDOW/COWL HEAT
31-52-35	MASTER CAUTION SYSTEM - APU CONTROL
31-52-65	MASTER CAUTION SYSTEM - DOOR WARNING
31-52-31	MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, GENERATOR
31-52-32	MASTER CAUTION SYSTEM - ELECTRICAL CONTROL, POWER BUS
31-52-61	MASTER CAUTION SYSTEM - ENGINE CONTROL
31-52-25	MASTER CAUTION SYSTEM - FLIGHT CONTROLS
31-52-41	MASTER CAUTION SYSTEM - FUEL CONTROL
31-52-21	MASTER CAUTION SYSTEM - HYDRAULIC CONTROL
31-52-71	MASTER CAUTION SYSTEM - IRS CONTROL
31-52-75	MASTER CAUTION SYSTEM - OVERHEAD CONTROL
31-52-45	MASTER CAUTION SYSTEM - OVERHEAT DETECTION
31-52-11	MASTER CAUTION SYSTEM- POWER & CONTROL
31-33-01	PRINTER INTERFACE

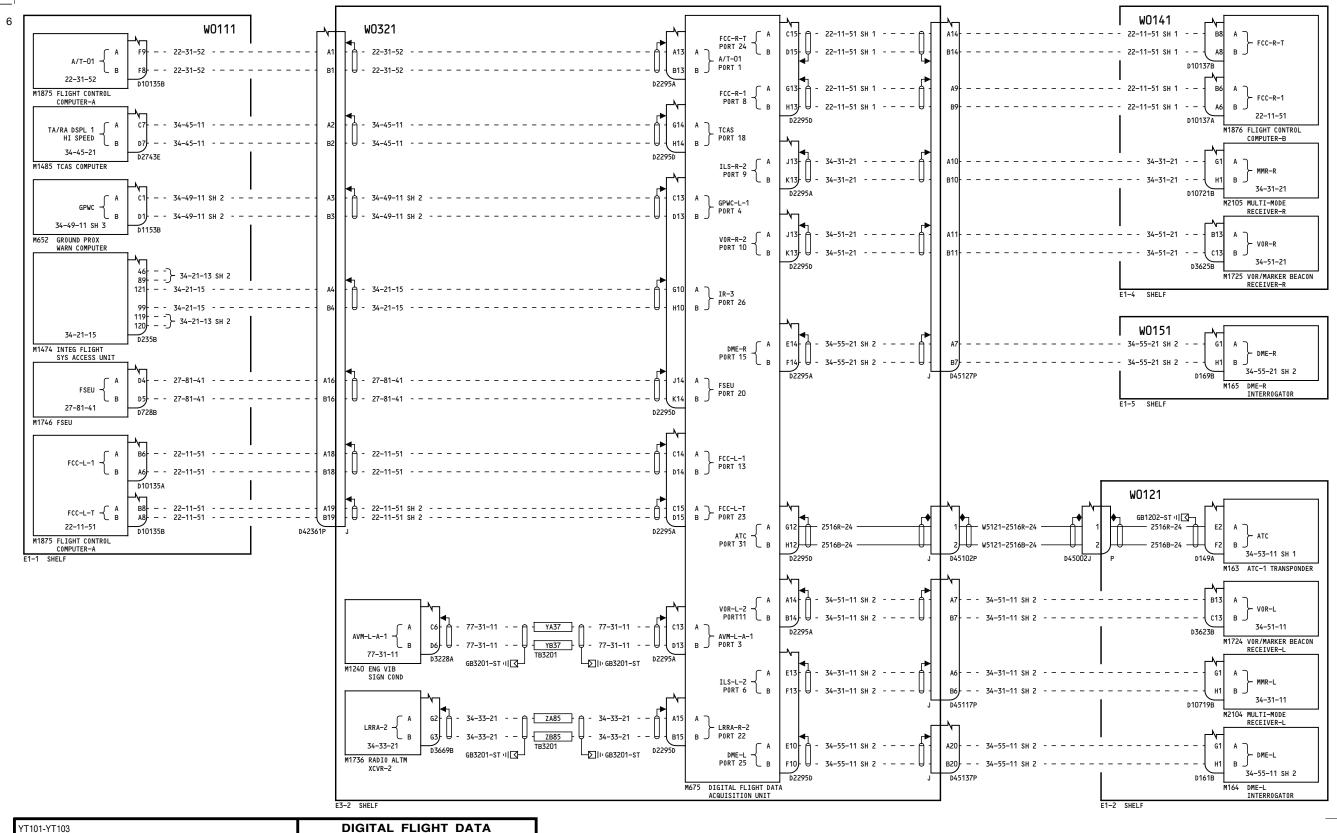












PT101-YT103

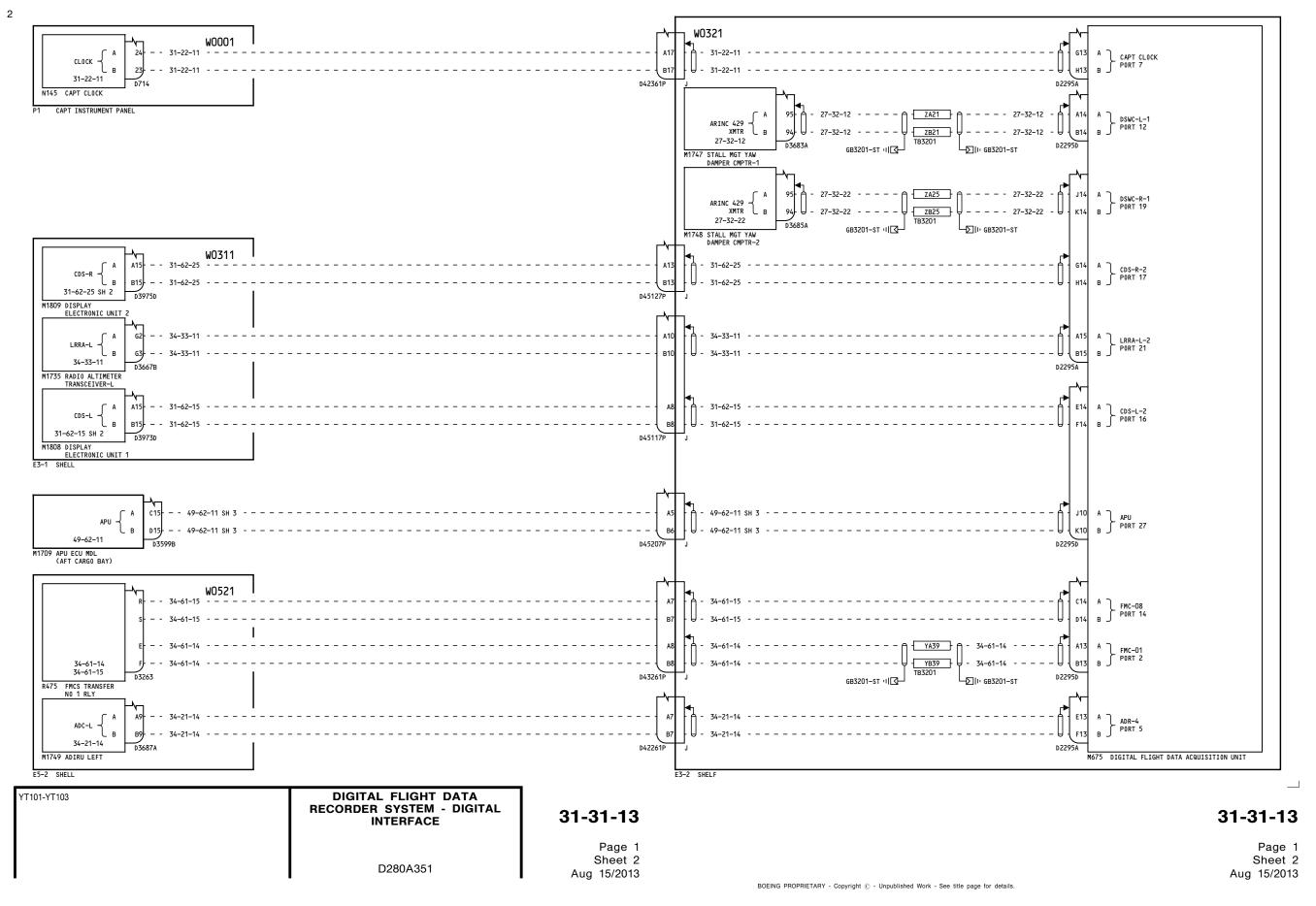
DIGITAL FLIGHT DATA RECORDER SYSTEM - DIGITAL INTERFACE

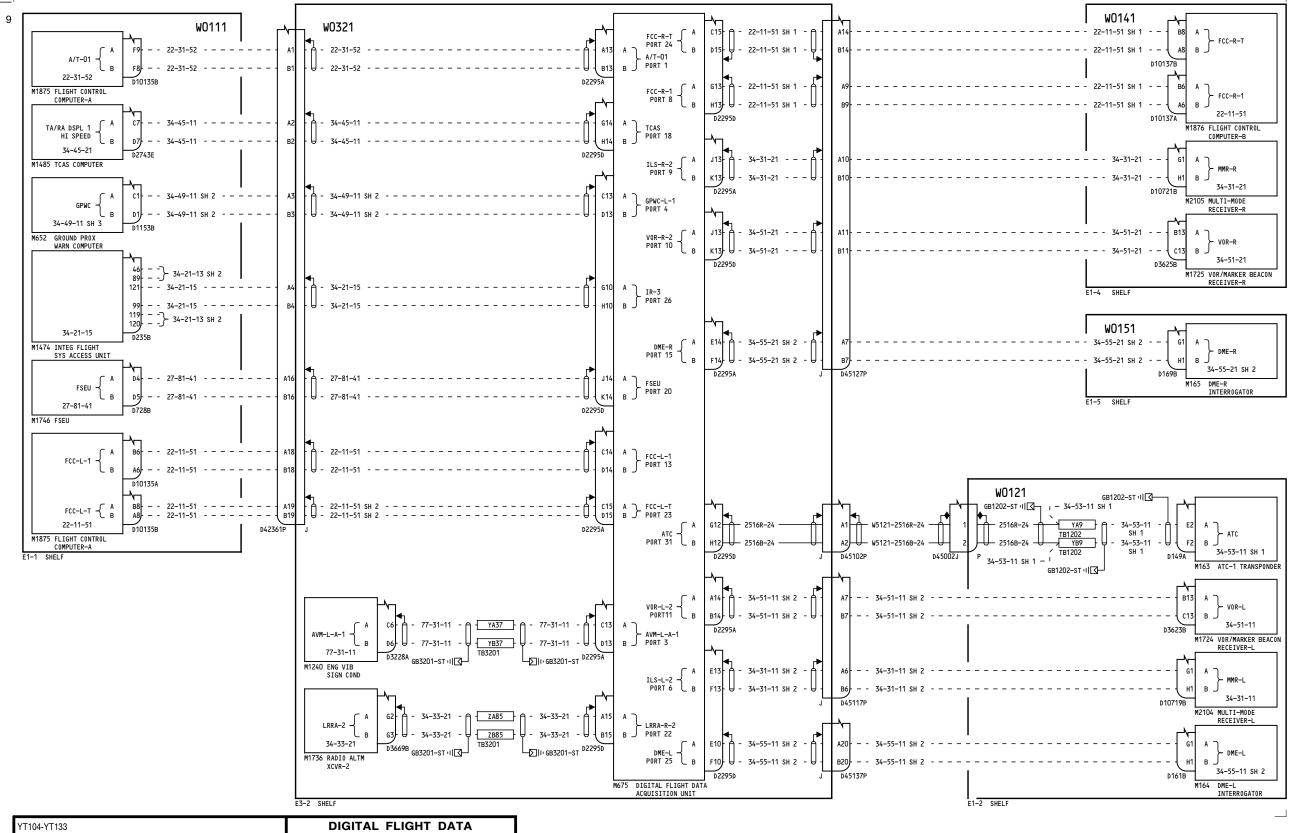
D280A351

31-31-13

Page 1 Sheet 1 Aug 15/2013 31-31-13

Page 1 Sheet 1 Aug 15/2013 -F





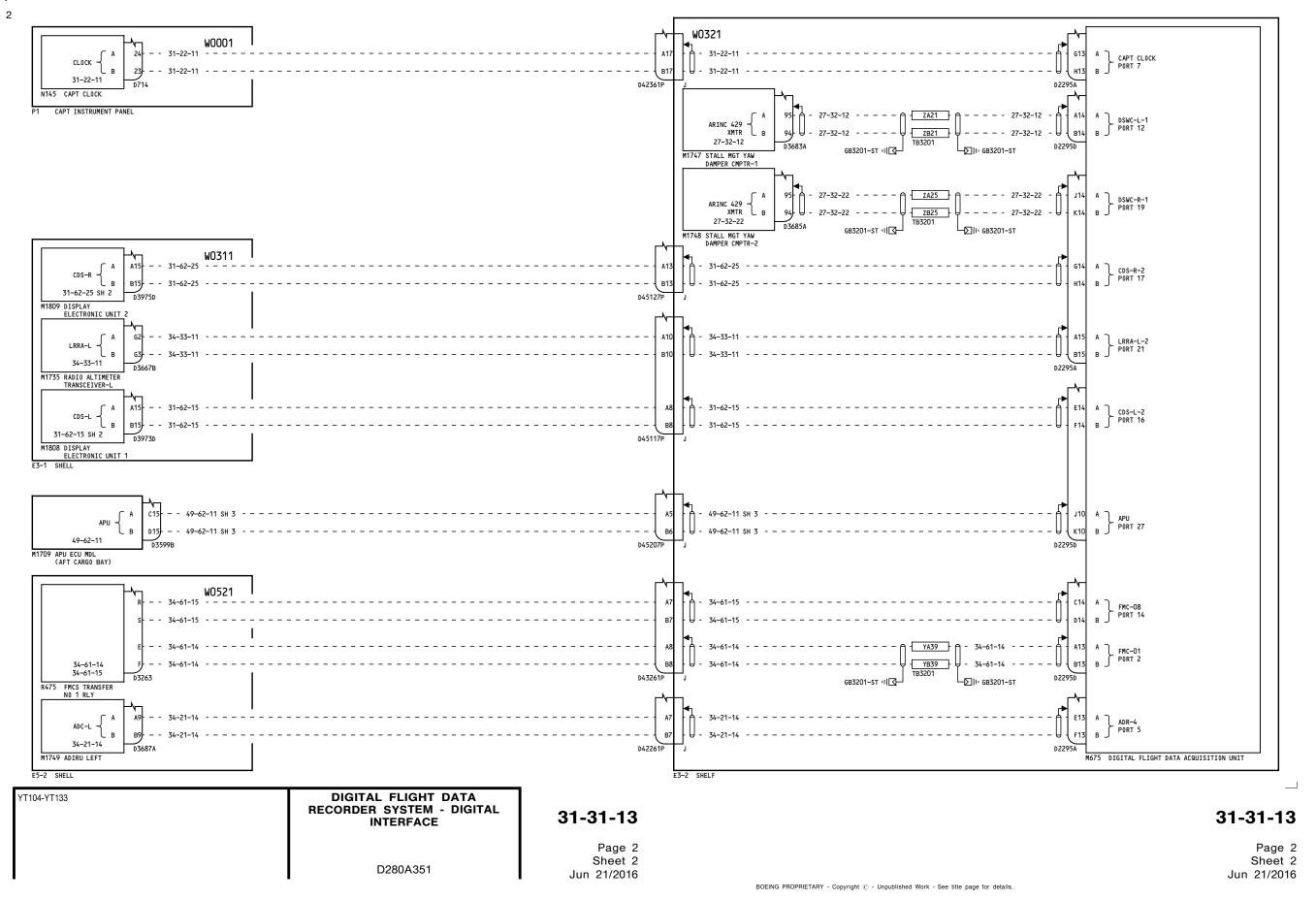
DIGITAL FLIGHT DATA
RECORDER SYSTEM - DIGITAL
INTERFACE

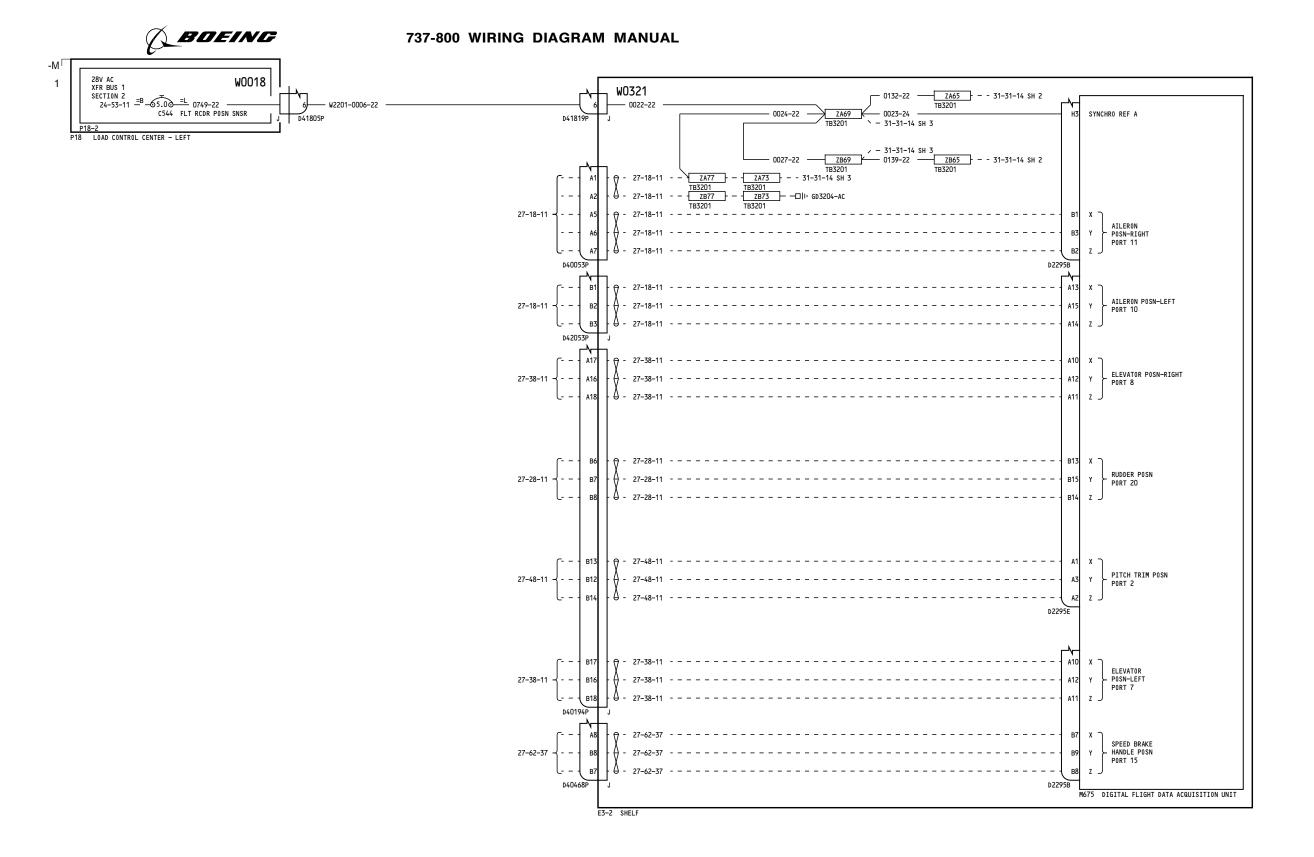
D280A351

31-31-13

Page 2 Sheet 1 Jun 21/2016 31-31-13

Page 2 Sheet 1 Jun 21/2016 -F<sup>┌─</sup>





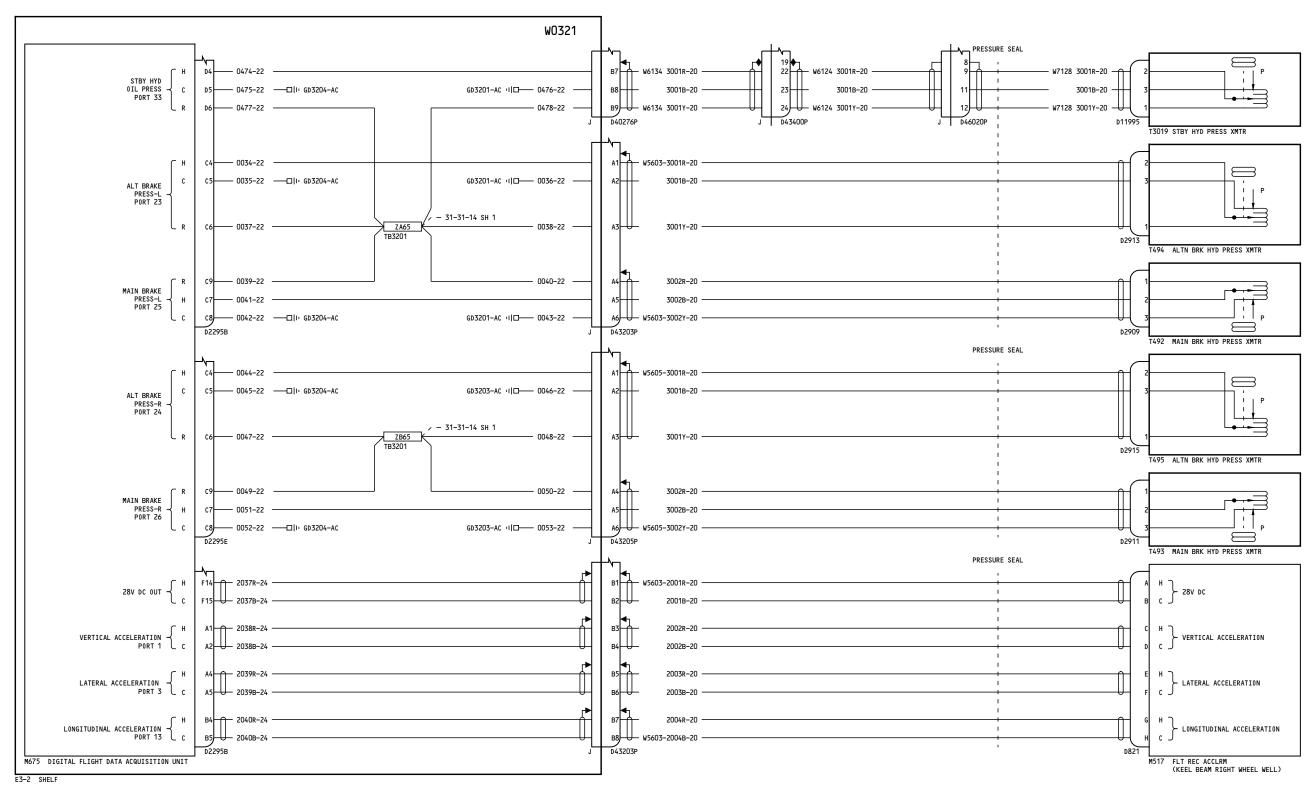
DIGITAL FLIGHT DATA
RECORDER SYSTEM - ANALOG
INTERFACE

D280A351

31-31-14

Page 1 Sheet 1 Jun 21/2016 31-31-14

Page 1 Sheet 1 Jun 21/2016 a



DIGITAL FLIGHT DATA
RECORDER SYSTEM - ANALOG
INTERFACE

D280A351

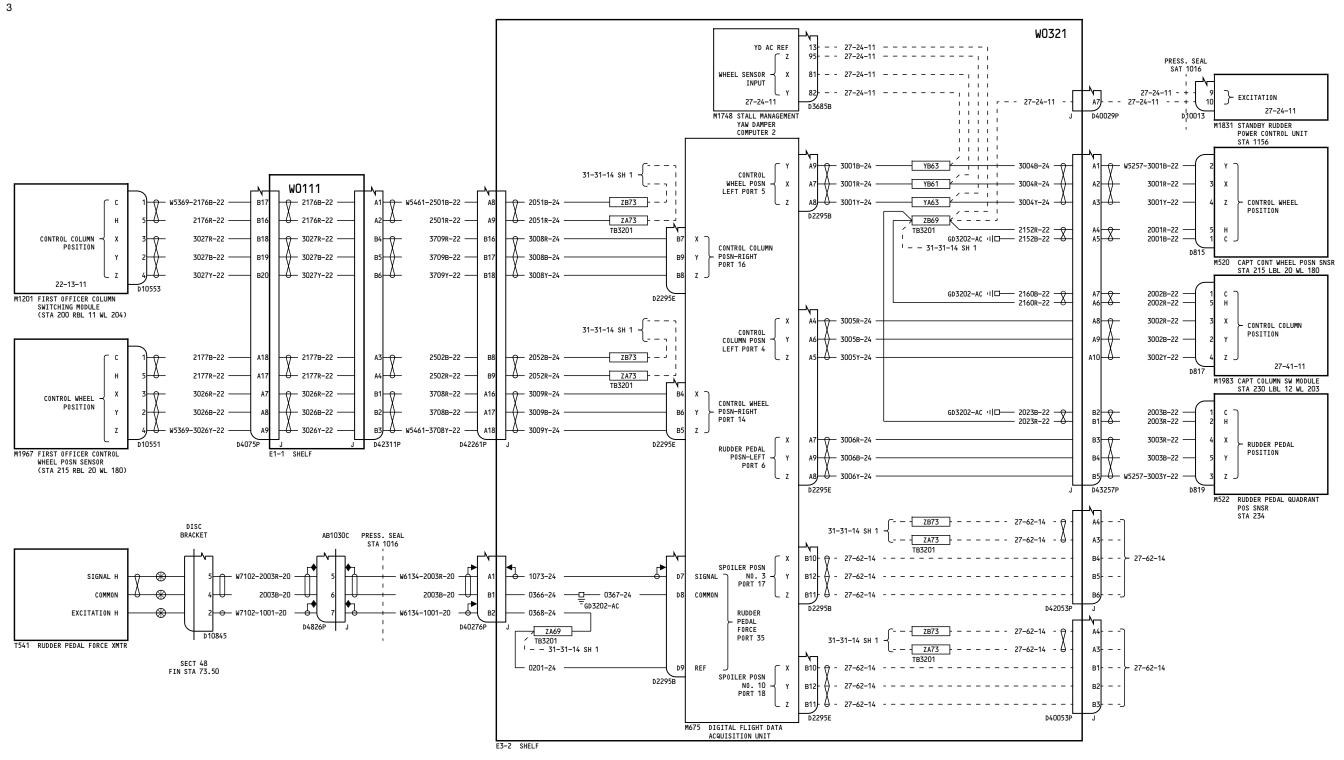
31-31-14

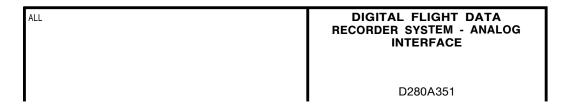
Page 1 Sheet 2 Jun 21/2016 31-31-14

Page 1 Sheet 2 Jun 21/2016



-E



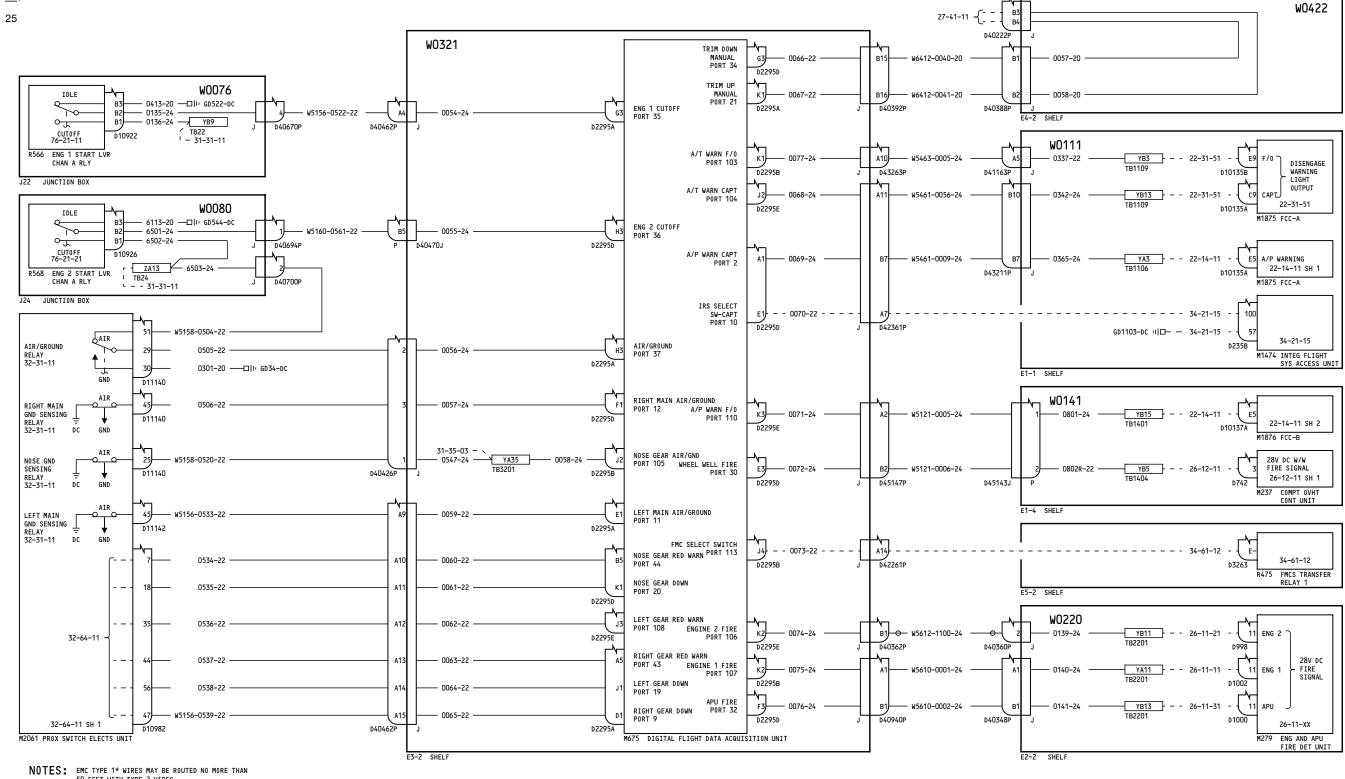


31-31-14

Page 1 Sheet 3 Jun 21/2016 31-31-14

Page 1 Sheet 3 Jun 21/2016



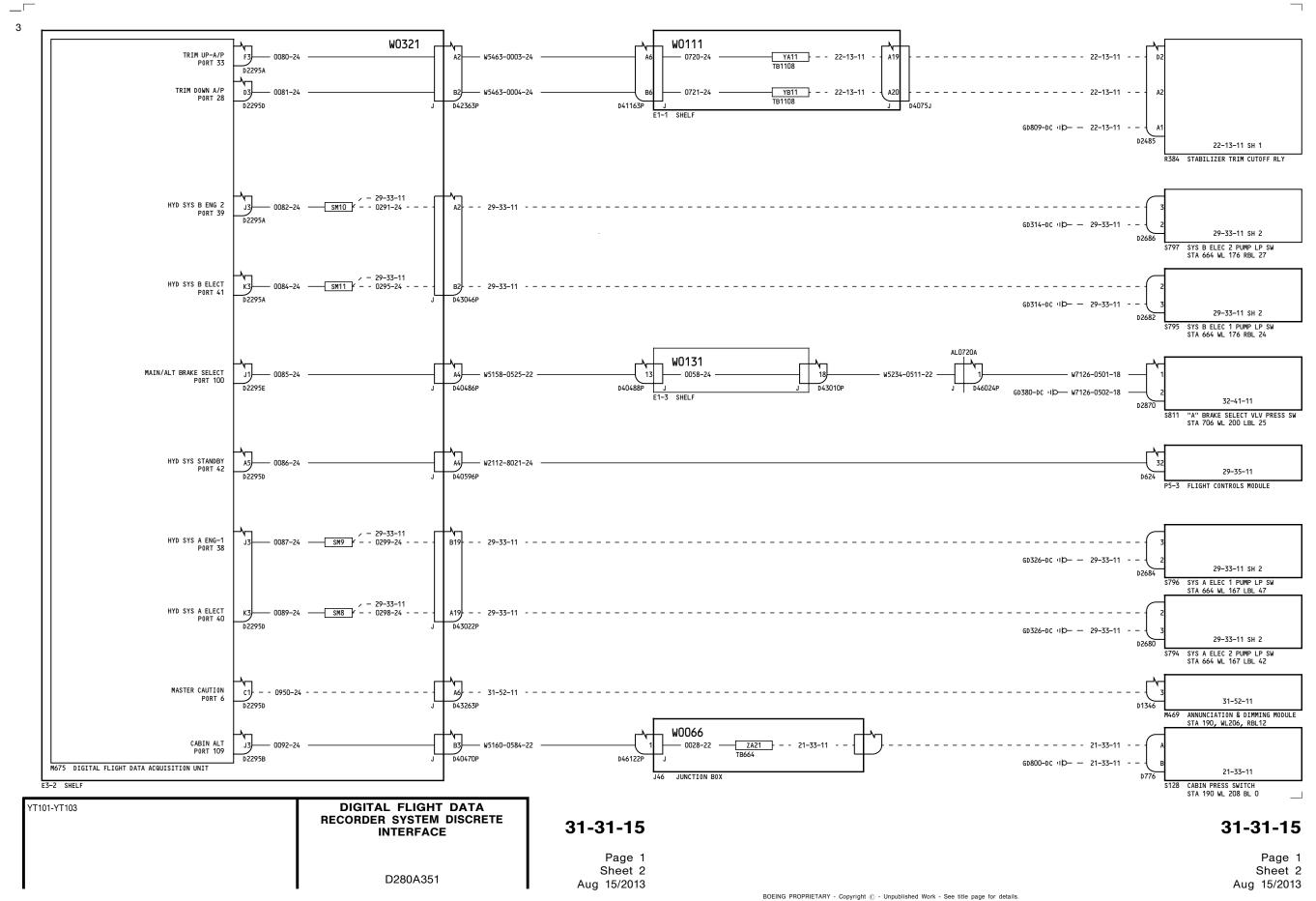


**DIGITAL FLIGHT DATA** YT101-YT103 RECORDER SYSTEM DISCRETE **INTERFACE** D280A351

31-31-15

Page 1 Sheet 1 Aug 15/2013 31-31-15

Page 1 Sheet 1 Aug 15/2013



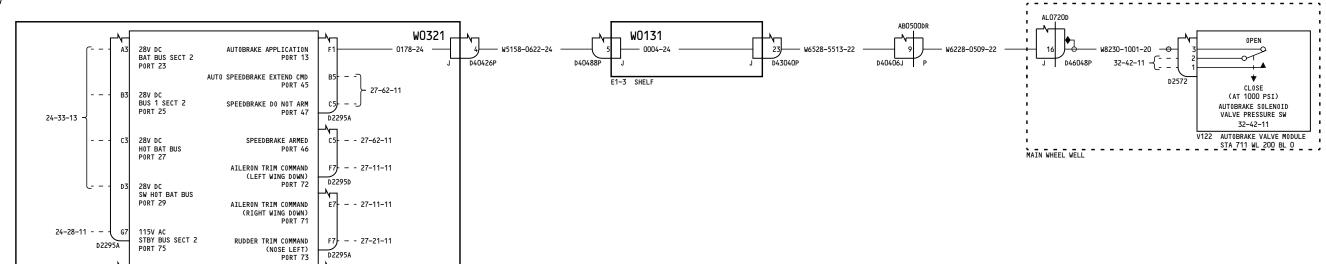
STBY BUS SECT 2 PORT 22

28V DC BUS 2 SECT 2 PORT 24

115V AC XFR BUS 2 SECT 2 PORT 76

M675 DIGITAL FLIGHT DATA ACQUISITION UNIT

\_



E3-2 SHELF

24-33-13

24-28-11 -

D2295D

YT101-YT103

DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE

D280A351

D2295A G7- - - 27-21-11

D2295D

D2295A

- - 27-62-21

- - 26-16-21

H7) - - 26-16-22

RUDDER TRIM COMMAND

GROUND SPOILER AND SPEEDBRAKE SELECTION PORT 14

SMOKE FORWARD CARGO

SMOKE AFT CARGO PORT 77

(NOSE RIGHT) PORT 74

P0RT 78

31-31-15

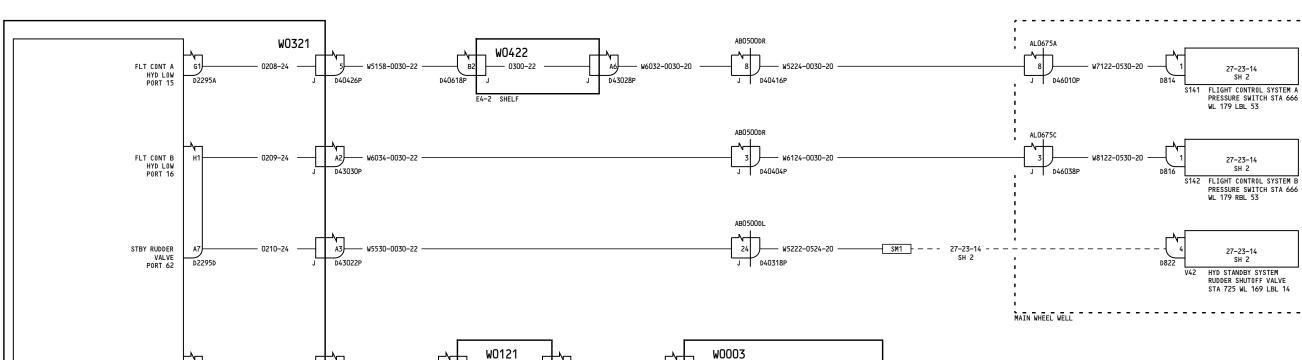
Page 1 Sheet 3 Aug 15/2013 31-31-15

Page 1 Sheet 3 Aug 15/2013 GEAR LEVER DOWN PORT B112

GEAR LEVER UP PORT B111

M675 DIGITAL FLIGHT DATA ACQUISITION UNIT

D2295B



- W5160-0141-24 -

- W5160-0142-24 -

52 D41217J \_\_\_\_\_ZA1\_\_\_- - -

32-64-11

- 0037-24 -

CENTER INSTRUMENT PANEL

E3-2 SHELF

NOTES: \* EMC TYPE 1\* WIRES MAY BE ROUTED NO MORE THAN 80 FEET WITH TYPE 2 WIRES.

YT101-YT103	DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE	
	D280A351	

0558-24

W5121-0038-24

W5121-0039-24

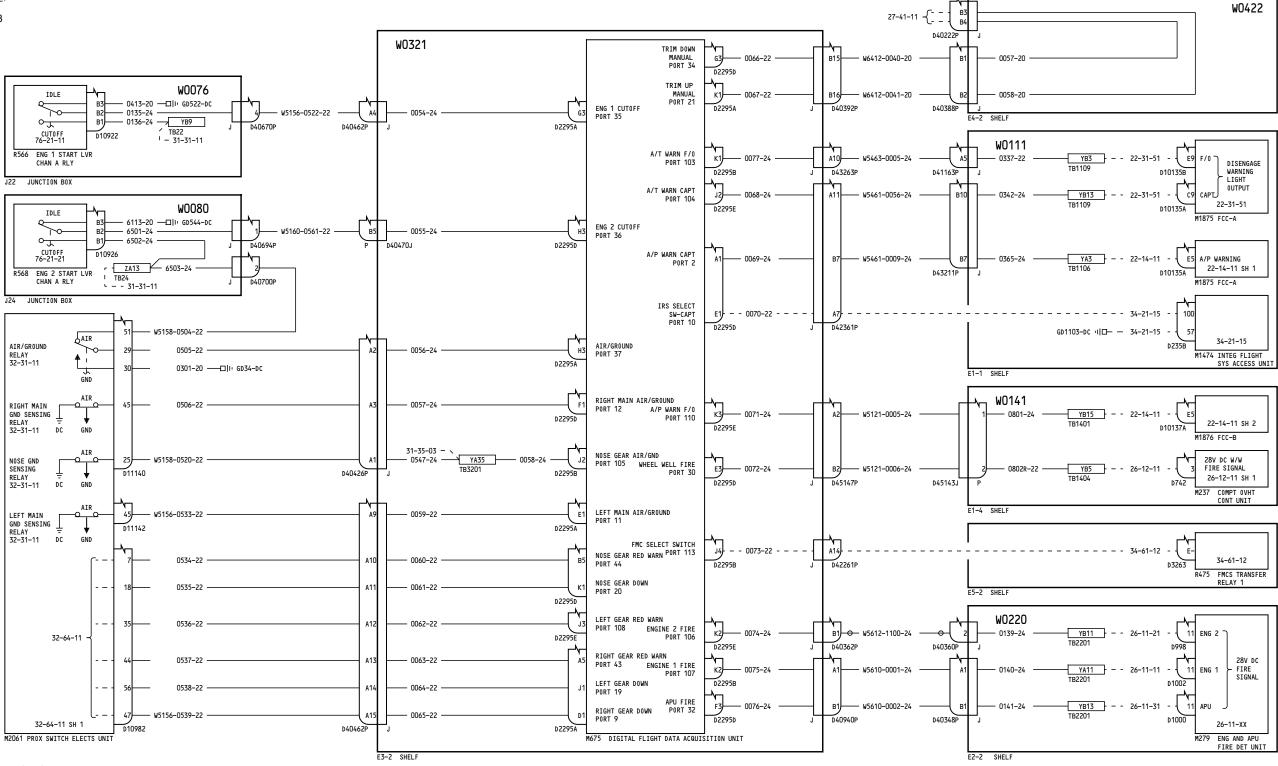
D45002J

D45102P

31-31-15

Page 1 Sheet 4 Aug 15/2013 31-31-15

Page 1 Sheet 4 Aug 15/2013



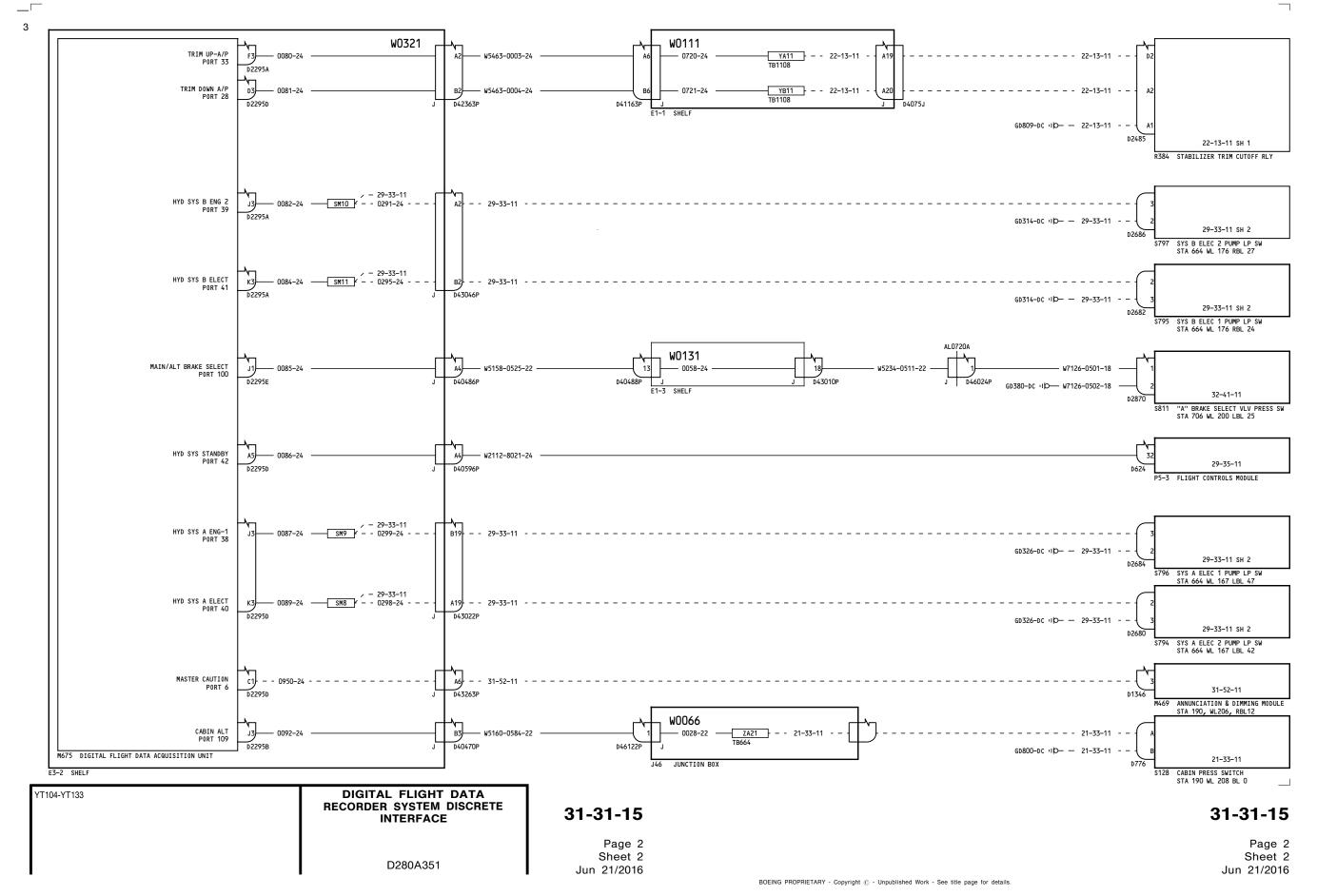
NOTES: EMC TYPE 1\* WIRES MAY BE ROUTED NO MORE THAN 50 FEET WITH TYPE 2 WIRES.

YT104-YT133 **DIGITAL FLIGHT DATA** RECORDER SYSTEM DISCRETE **INTERFACE** D280A351

31-31-15

Page 2 Sheet 1 Jun 21/2016 31-31-15

Page 2 Sheet 1 Jun 21/2016



W0131

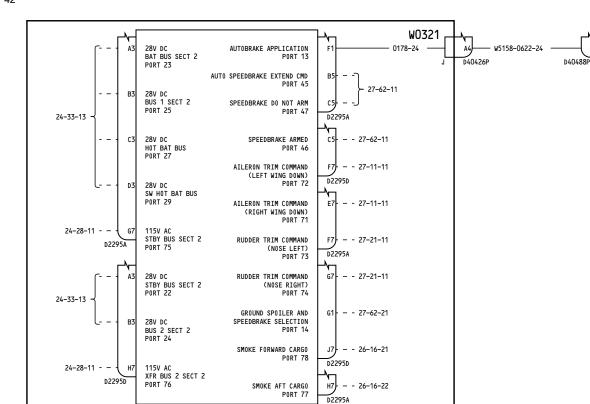
E1-3 SHELF

- 0004-24

— w6528-5513-22 —

D40406J P

42



M675 DIGITAL FLIGHT DATA ACQUISITION UNIT

E3-2 SHELF

PT104-YT133

DIGITAL FLIGHT DATA
RECORDER SYSTEM DISCRETE
INTERFACE

D280A351

31-31-15

Page 2 Sheet 3 Jun 21/2016 31-31-15

Page 2 Sheet 3 Jun 21/2016

AL0720D

J D46048P

MAIN WHEEL WELL

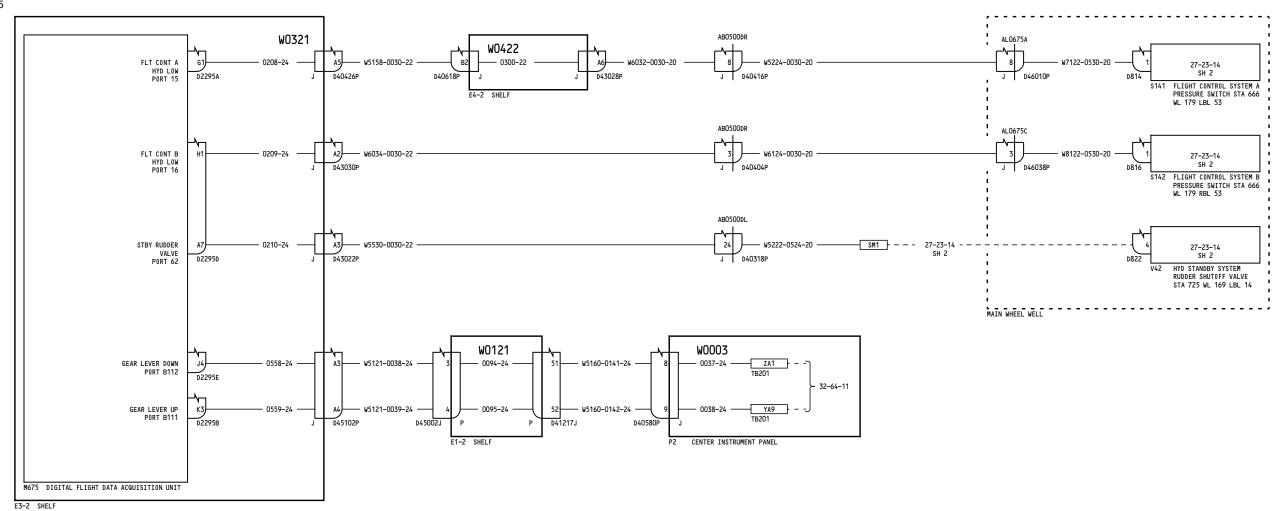
32-42-11 -{-

CLOSE (AT 1000 PSI)

AUTOBRAKE SOLENOID VALVE PRESSURE SW

32-42-11 V122 AUTOBRAKE VALVE MODULE

STA 711 WL 200 BL 0



NOTES: \* EMC TYPE 1\* WIRES MAY BE ROUTED NO MORE THAN 80 FEET WITH TYPE 2 WIRES.

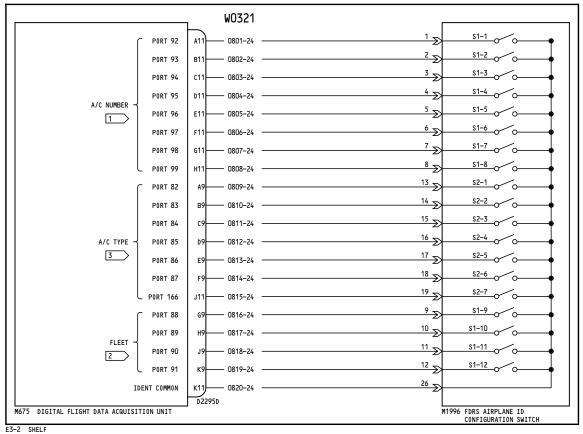
YT104-YT133	DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE	31-31-15
	D280A351	Page 2 Sheet 4 Jun 21/2016

31-31-15

Page 2 Sheet 4 Jun 21/2016



-B<sup>┌─</sup> 338 W0321



A/C		A	/C NU	MBER	1	$\supset$			F	LEET	2	$\supset$		Α/	C TYP	PE [	3	84 83 86 0 0 0 0 0 0 0 0 0	
EFF	99	98	97	96	95	94	93	92	91	90	89	88	166	87	86	85	84	82	
YT101	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1
YT102	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1
YT103	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	1
YT104	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1
YT105	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	1
	<u> </u>						_		_			-	$\vdash$				_		
									26.00										
										LECTE									

NOTES:

1 AIRCRAFT NUMBER

2 FLEET IDENTIFICATION

3 AIRCRAFT TYPE

DIGITAL FLIGHT DATA YT101-YT105 RECORDER SYSTEM AIRPLANE CODING D280A351

31-31-16

Page 1

Aug 18/2014

31-31-16

Page 1

Aug 18/2014

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.



361

#### 737-800 WIRING DIAGRAM MANUAL

W0321 <u>\$1-1</u> 0 0 - 0801-24 PORT 92 S1-2 O O-PORT 93 - 0802-24 S1-3 O O-PORT 94 -- 0803-24 A/C NUMBER S1-5 O-1 <u>\$1-6</u> 0 0-PORT 97 - 0806-24 S1-7 O O PORT 98 - 0807-24 S1-8 O O PORT 99 - 0808-24 PORT 82 \$2-2 \$2-3 PORT 84 \$2-4 A/C TYPE PORT 85 - 0812-24 \$2-5 PORT 86 — 0813-24 — \$2-6 O PORT 87 PORT 88 <u>\$1-10</u> 0 0-PORT 89 FLEET <u>\$1-11</u> 0 0 PORT 90 - 0818-24 \$1-12 P0RT 91 - 0819-24 M675 DIGITAL FLIGHT DATA ACQUISITION UNIT M1996 FDRS AIRPLANE ID CONFIGURATION SWITCH

A/C	A/C NUMBER 1									
EFF	99	98	97	96	95	94	93	92		
YT101	0	0	0	0	0	0	0	1		
YT102	0	0	0	0	0	0	1	0		
YT103	0	0	0	0	0	0	1	1		
YT104	0	0	0	0	0	1	0	0		
YT105	0	0	0	0	0	1	0	1		
YT106	0	0	0	0	0	1	1	0		
YT107	0	0	0	0	0	1	1	1		
YT108	0	0	0	0	1	0	0	0		
YT109	0	0	0	0	1	0	0	1		
YT110	0	0	0	0	1	0	1	0		
YT111	0	0	0	0	1	0	1	1		
YT112	0	0	0	0	1	1	0	0		
YT113	0	0	0	0	1	1	0	1		
YT114	0	0	0	0	1	1	1	0		
YT115	0	0	0	0	1	1	1	1		
YT116	0	0	0	1	0	0	0	0		
YT117	0	0	0	1	0	0	0	1		
YT118	0	0	0	1	0	0	1	0		
YT119	0	0	0	1	0	0	1	1		
YT120	0	0	0	1	0	1	0	0		
YT121	0	0	0	1	0	1	0	1		
YT122	0	0	0	1	0	1	1	0		
YT123	0	0	0	1	0	1	1	1		
YT124	0	0	0	1	1	0	0	0		
YT125	0	0	0	1	1	0	0	0		
YT126	0	0	0	1	1	0	1			
YT127	0	0	0	1	1	0	1 n	1		
YT128	0	0	0	1	1	1	0	1		
YT129 YT130	0	0	0	1	1	1	1	0		
YT131	0	0	0	1	1	1	1	1		
YT132	0	0	1	0	0	0	0	0		
YT133	0	0	1	0	0	0	0	1		
YT134	0	0	1	0	0	0	1	0		
YT135	0	0	1	0	0	0	1	1		
	Ť	Ť	<u> </u>	Ť	Ť		<u> </u>	<u> </u>		
YT141	0	0	1	0	1	0	0	1		
YT142	0	0	1	0	1	0	1	0		
YT143	0	0	1	0	1	0	1	1		
YT144	0	0	1	0	1	1	0	0		
YT145	0	0	1	0	1	1	0	1		
YT146	0	0	1	0	1	1	1	0		
YT147	0	0	1	0	1	1	1	1		
YT148	0	0	1	1	0	0	0	0		
YT149	0	0	1	1	0	0	0	1		
YT150	0	0	1	1	0	0	1	0		
YT150 0 0 1 1 1 0 0 1 0 1 0 1 0 1 0 1 1 0 1 0 1 1 0 1 1 1 0 1 0 1										

					-	$\overline{}$		
A/C EFF	99	98	/C NUI	MBER 96	95	_> 94	93	92
YT151	0	0	1	1	0	0	1	1
YT152	0	0	1	1	0	1	0	0
YT153	0	0	1	1	0	1	0	1
YT154	0	0	1	1	0	1	1	0
YT155	0	0	1	1	0	1	1	1
YT156	0	0	1	1	1	0	0	0
YT157	0	0	1	1	1	0	0	1
YT158	0	0	1	1	1	0	1	0
YT159	0	0	1	1	1	0	1	1
YT160	0	0	1	1	1	1	0	0
YT161	0	0	1	1	1	1	0	1
YT162	0	0	1	1	1	1	1	0
YT163	0	0	1	1	1	1	1	1
YT164	0	1	0	0	0	0	0	0
YT165	0	1	0	0	0	0	0	1
YT166	0	1	0	0	0	0	1	0
YT167	0	1	0	0	0	0	1	1
YT168	0	1	0	0	0	1	0	0
YT169	0	1	0	0	0	1	0	1
YT170	0	1	0	0	0	1	1	0
			96 SE					_
	0 -	- M19	96 SE	LECTE	D TO	"0FF'		

A/C EFF	F	LEET	2	$\supset$
EFF	91	90	89	88
YT106-YT135 YT141-YT170	0	0	0	1
1 - M1996 0 - M1996				

A/C EFF	A/C TYPE 3									
EFF	166	87	86	85	84	83	82			
YT106-YT135 YT141-YT170		0	0	0	0	0	1			
1 - M1996 SELECTED TO "ON"										

NOTES:

E3-2 SHELF

1 AIRCRAFT NUMBER

2 FLEET IDENTIFICATION

3 AIRCRAFT TYPE

PT106-YT133

DIGITAL FLIGHT DATA
RECORDER SYSTEM AIRPLANE
CODING

D280A351

31-31-16

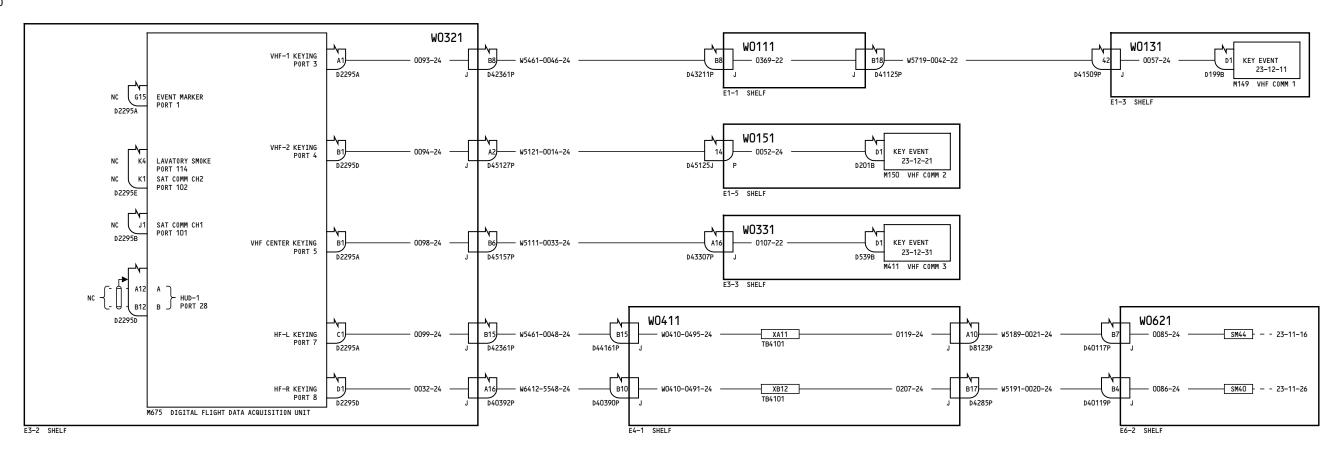
Page 2
Jun 21/2016

31-31-16

Page 2
Jun 21/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.

190



PT101-YT105

DIGITAL FLIGHT DATA RECORDER SYSTEM MANDATORY OPTIONS

D280A351

31-31-17

Page 1

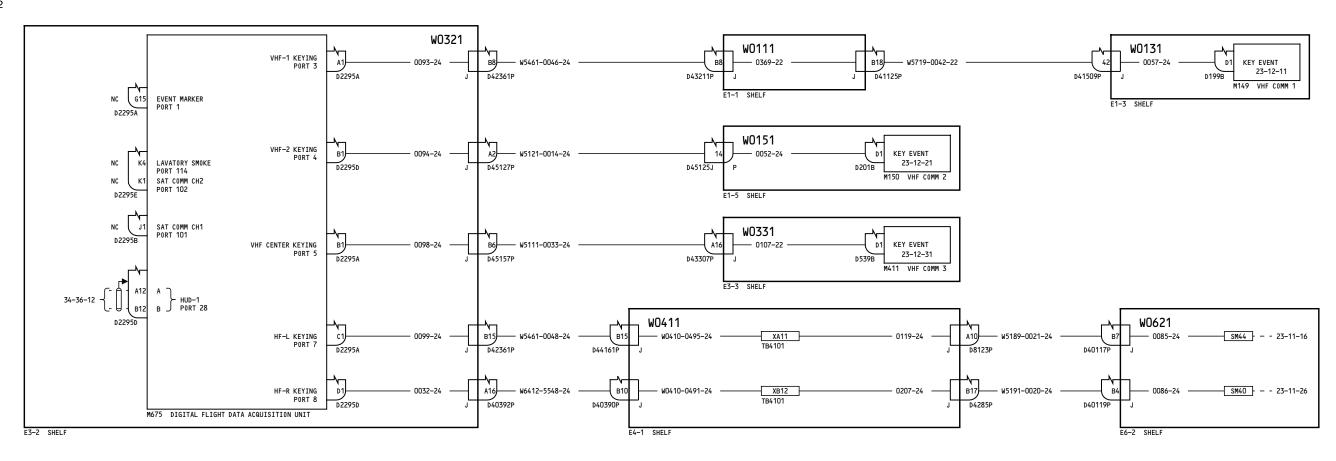
Aug 18/2014

31-31-17

Page 1

Aug 18/2014

152



PT106-YT133

DIGITAL FLIGHT DATA RECORDER SYSTEM MANDATORY OPTIONS

D280A351

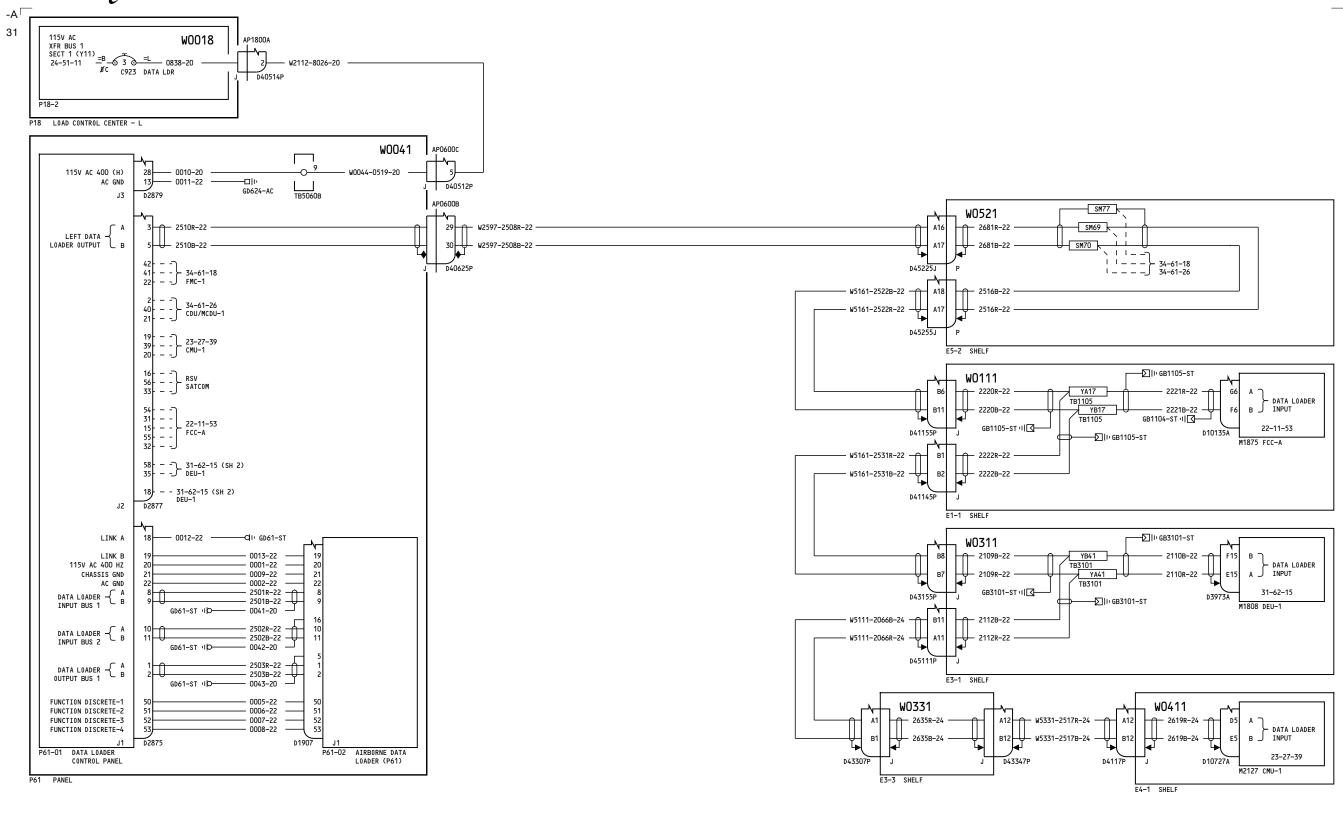
31-31-17

Page 2
Jun 21/2016

31-31-17

Page 2
Jun 21/2016

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.



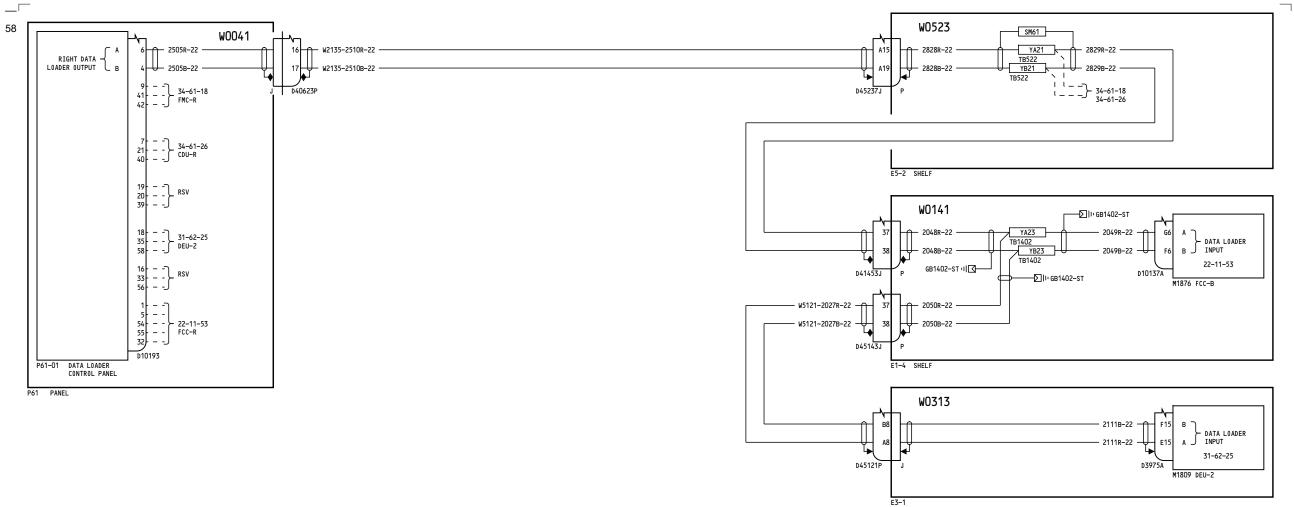
D280A351

31-32-15

Page 1 Sheet 1 Aug 15/2013 31-32-15

Page 1 Sheet 1 Aug 15/2013





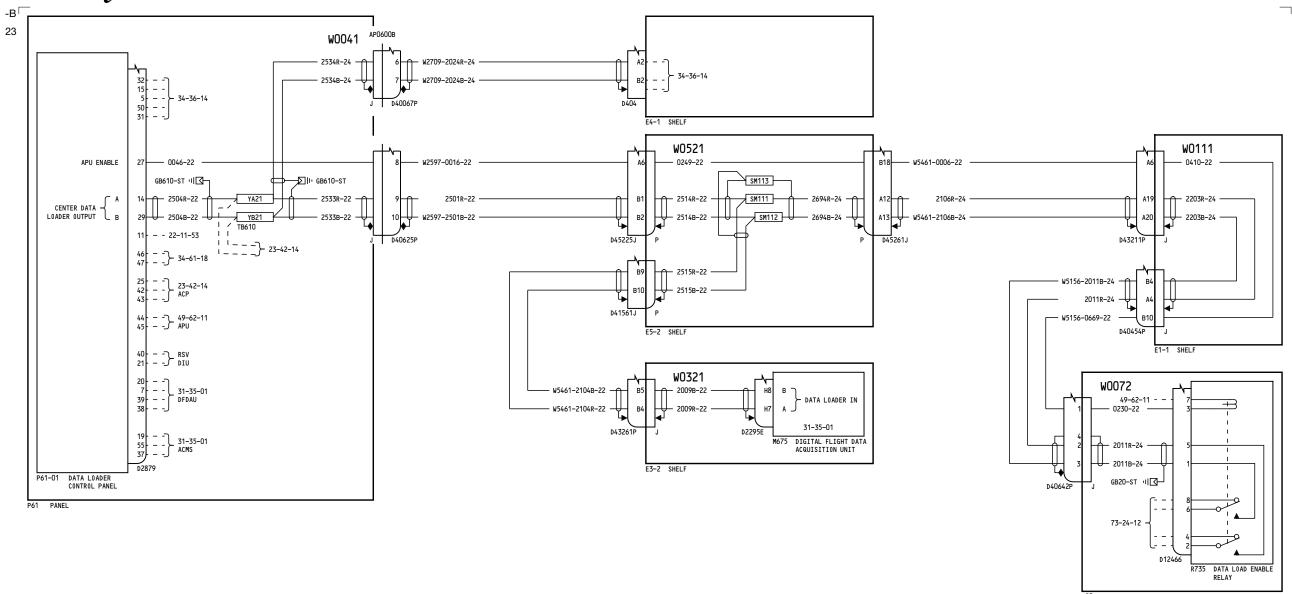
D280A351

31-32-15

Page 1 Sheet 2 Aug 15/2013 31-32-15

Page 1 Sheet 2 Aug 15/2013



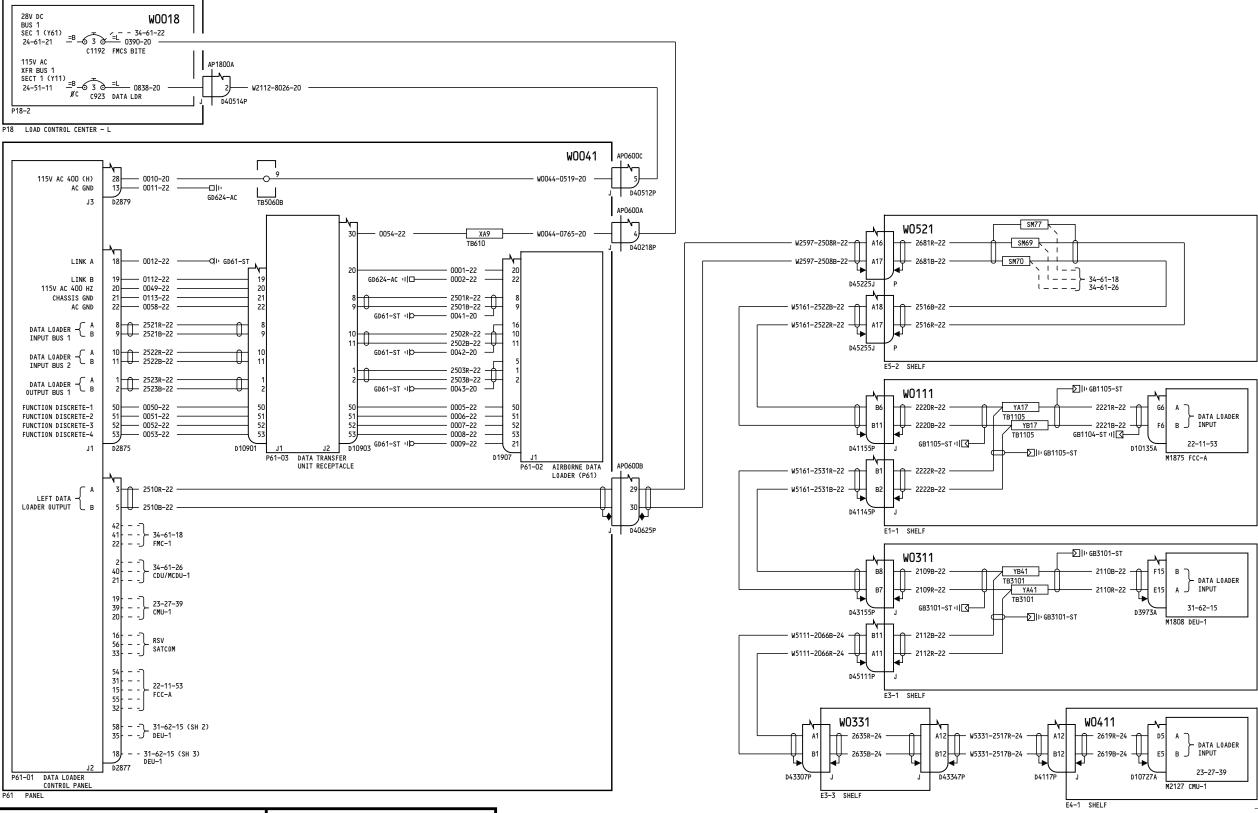


D280A351

31-32-15

Page 1 Sheet 3 Aug 15/2013 31-32-15

Page 1 Sheet 3 Aug 15/2013 -A<sup>[</sup>



YT102-YT103

DATA LOADER INTERFACE

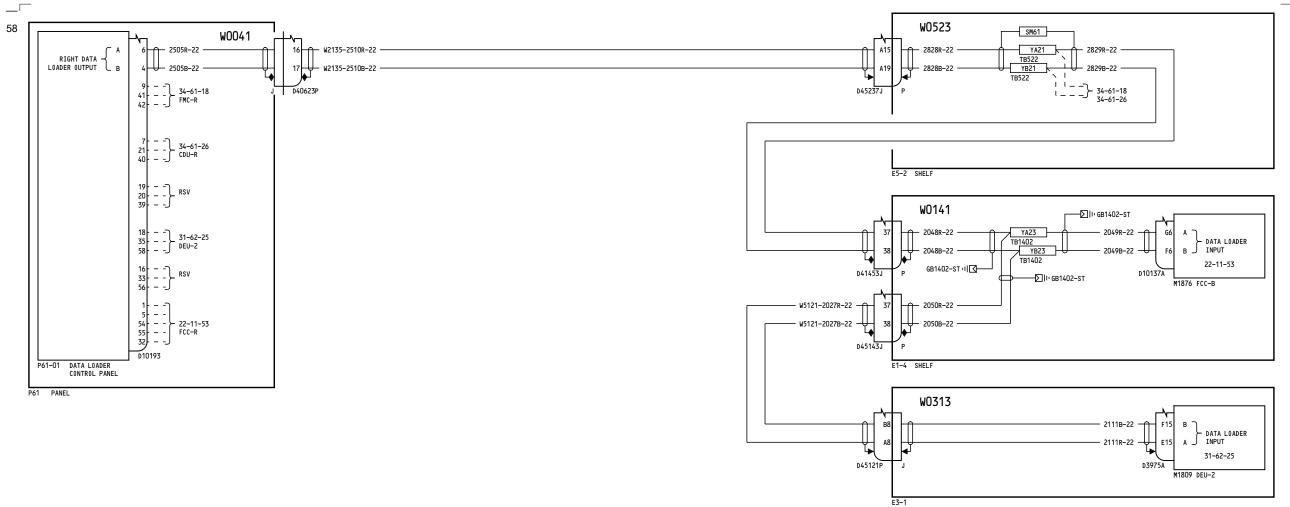
D280A351

31-32-15

Page 2 Sheet 1 Nov 18/2013 31-32-15

Page 2 Sheet 1 Nov 18/2013





PT102-YT103

DATA LOADER INTERFACE

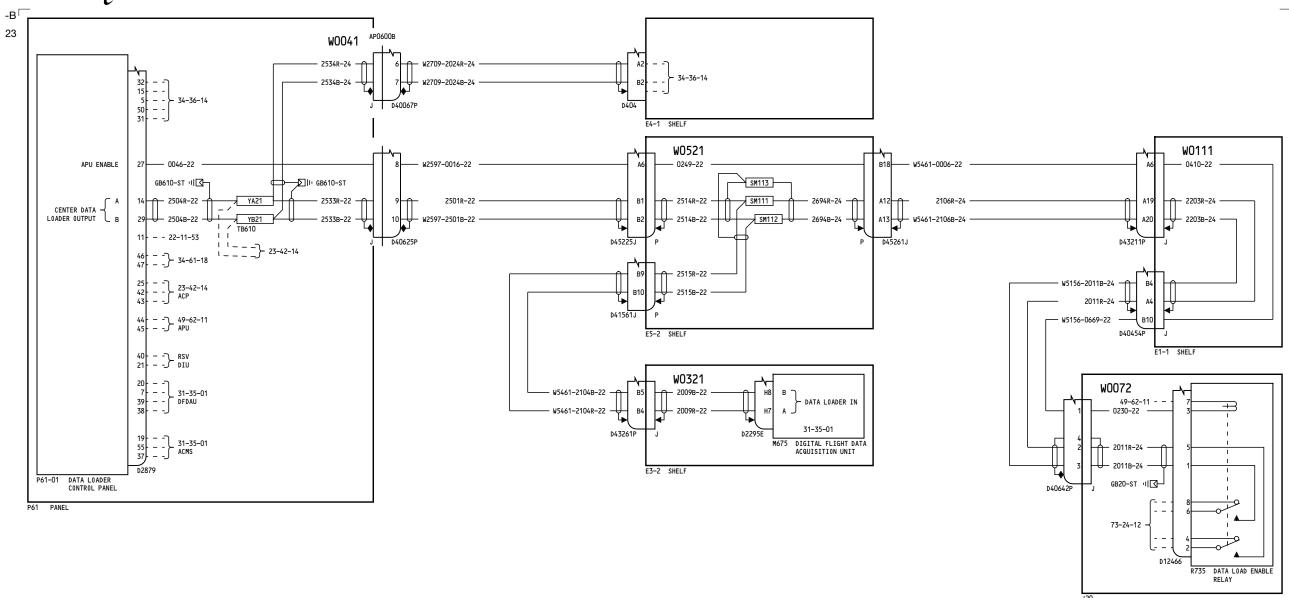
D280A351

31-32-15

Page 2 Sheet 2 Aug 15/2013 31-32-15

Page 2 Sheet 2 Aug 15/2013





YT102-YT103

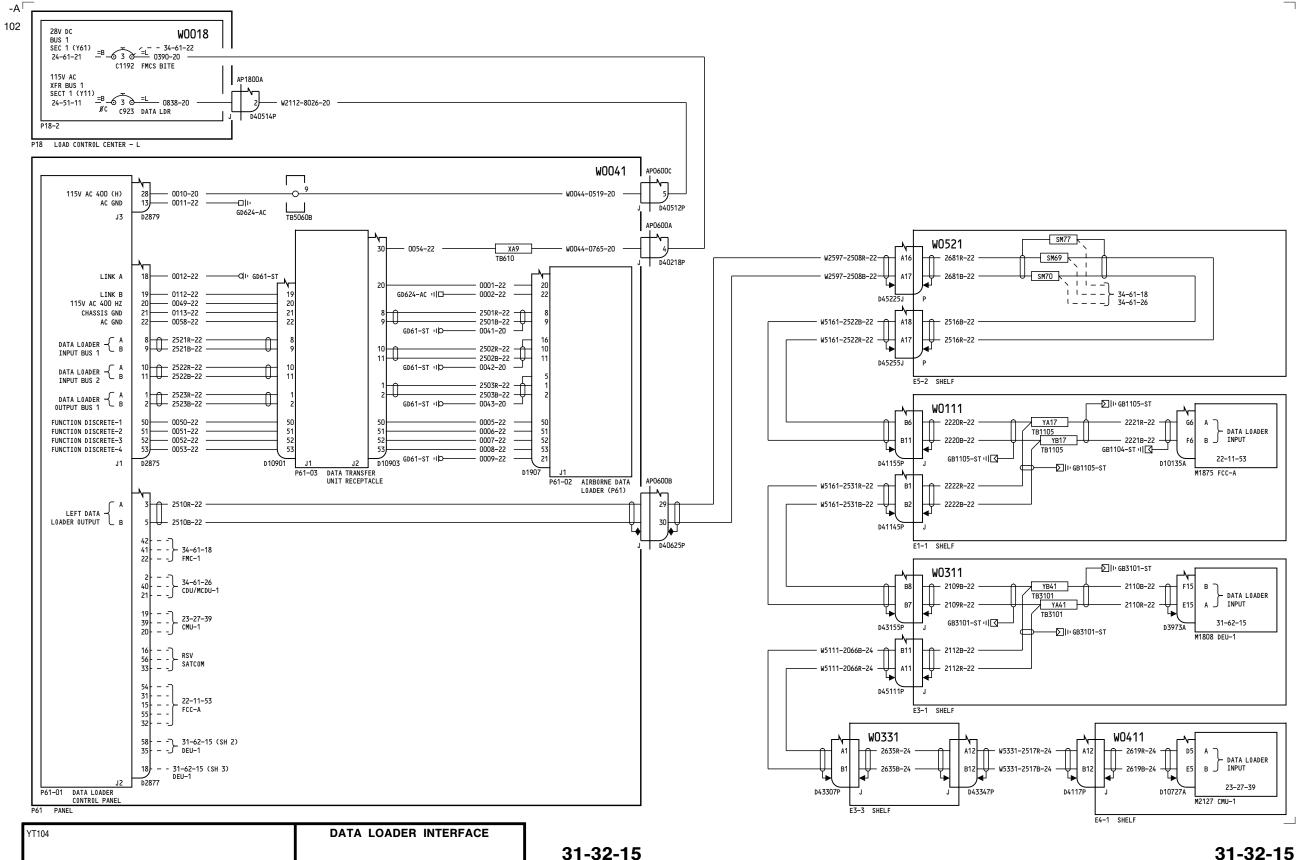
DATA LOADER INTERFACE

D280A351

31-32-15

Page 2 Sheet 3 Aug 15/2013 31-32-15

Page 2 Sheet 3 Aug 15/2013



Page 3

Sheet 1

Nov 18/2013

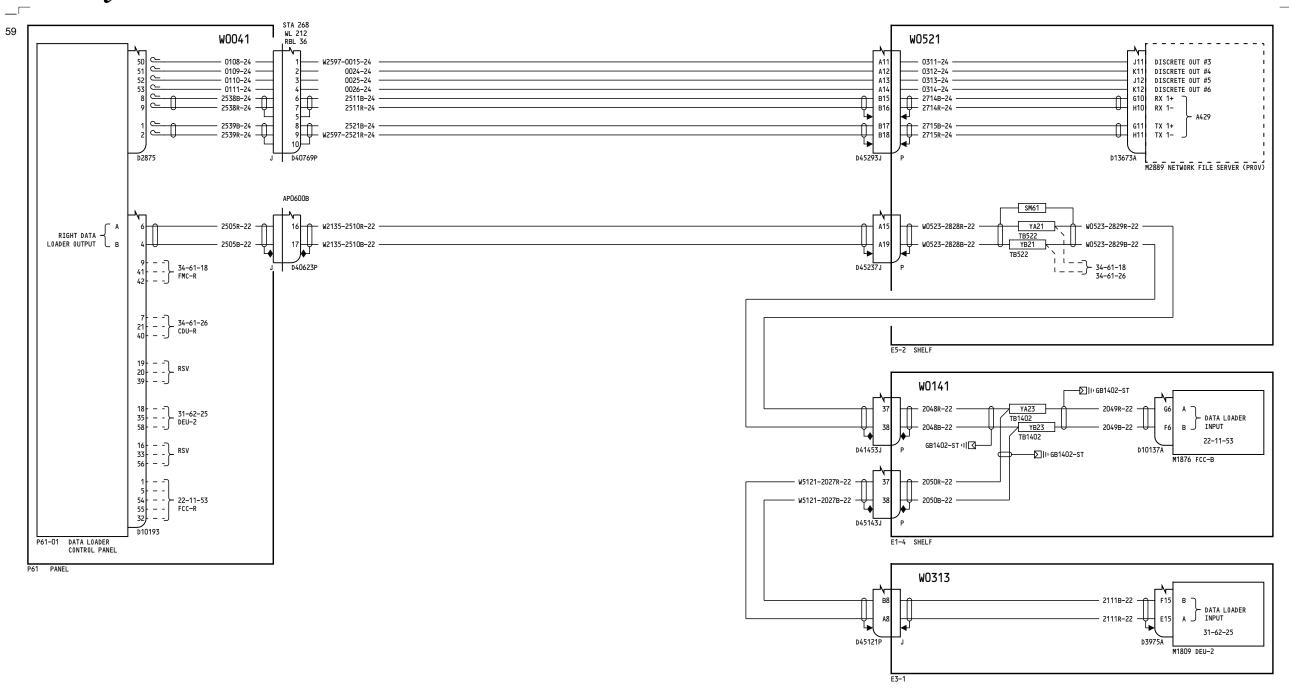
D280A351

31-32-15

Page 3 Sheet 1 Nov 18/2013

# BOEING

#### 737-800 WIRING DIAGRAM MANUAL



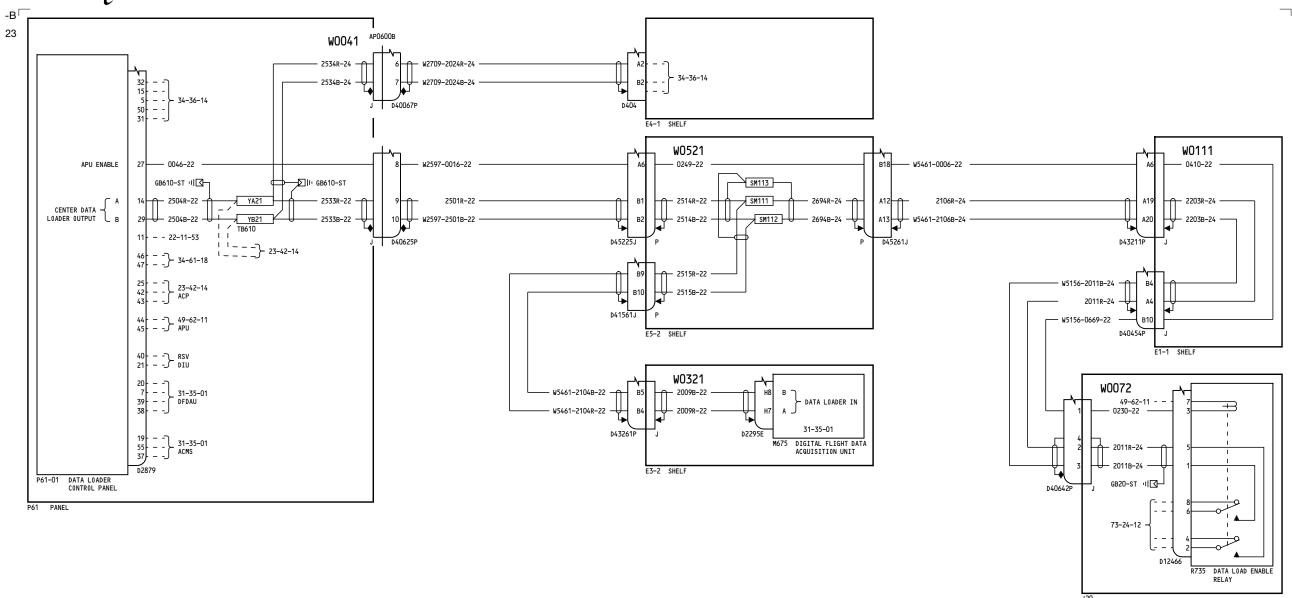
YT104	DATA LOADER INTERFACE
	D280A351

31-32-15

Page 3 Sheet 2 Nov 18/2013 31-32-15

Page 3 Sheet 2 Nov 18/2013





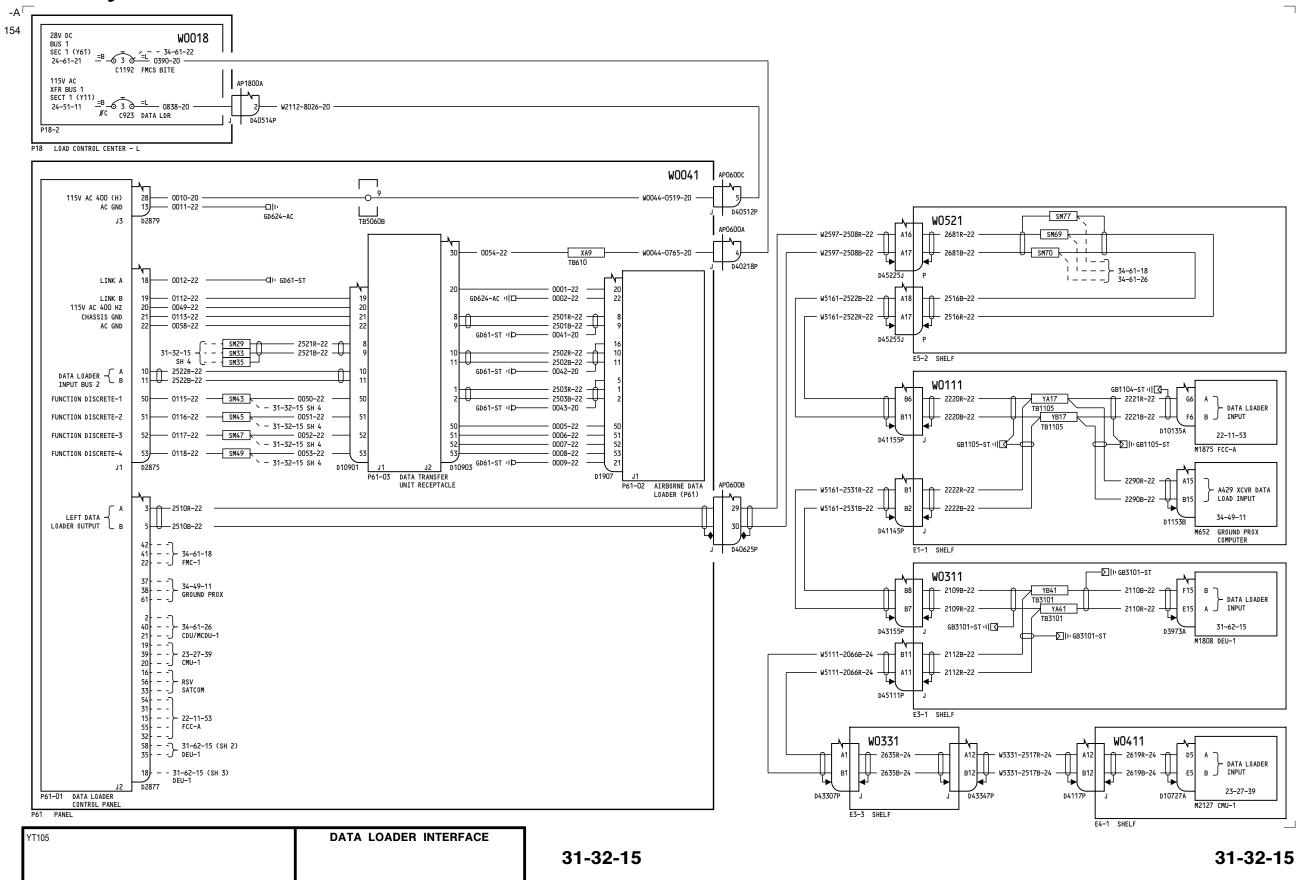
DATA LOADER INTERFACE

D280A351

31-32-15

Page 3 Sheet 3 Nov 18/2013 31-32-15

Page 3 Sheet 3 Nov 18/2013



Page 4 Sheet 1

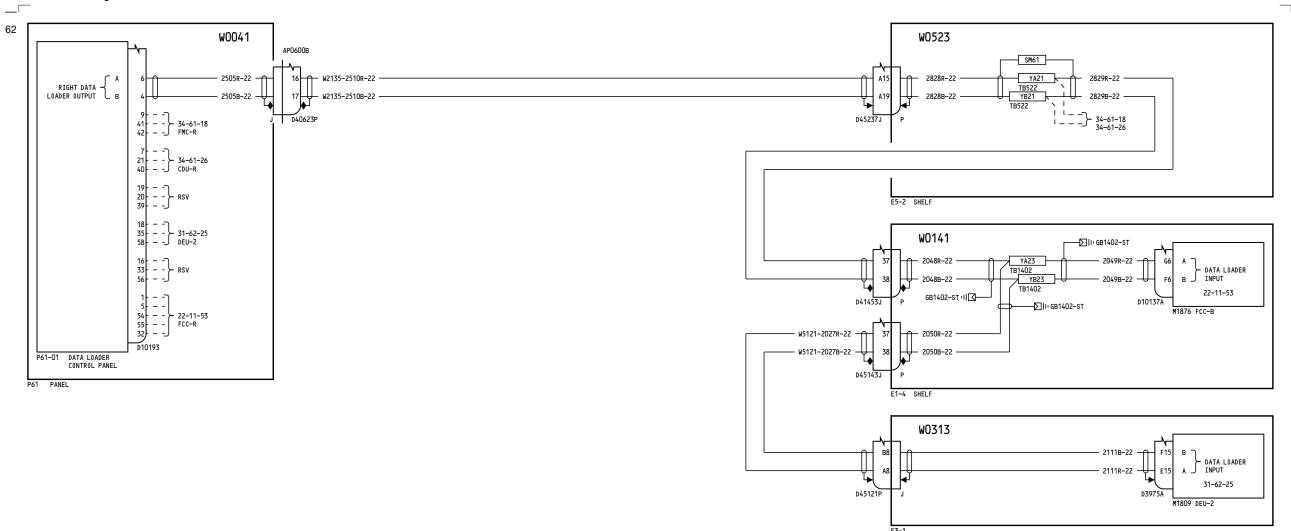
Apr 17/2014

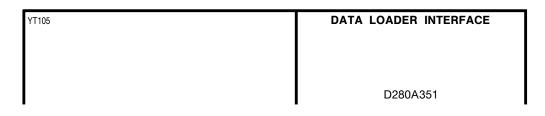
D280A351

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

Page 4 Sheet 1 Apr 17/2014





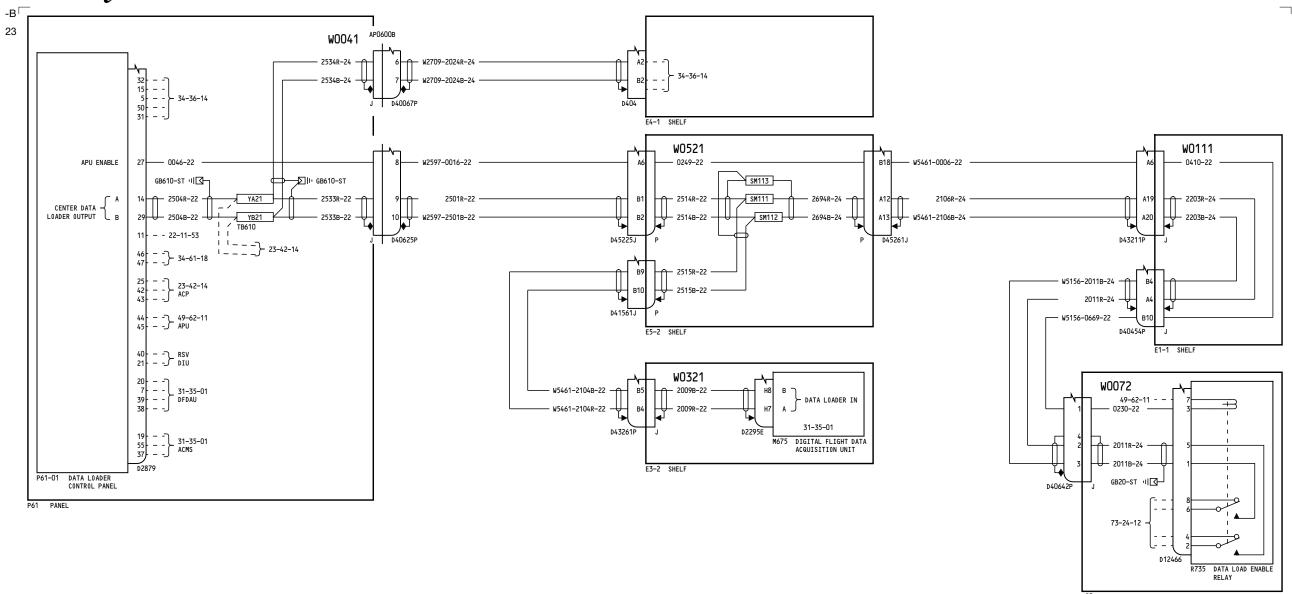


31-32-15

Page 4 Sheet 2 Apr 17/2014 31-32-15

Page 4 Sheet 2 Apr 17/2014





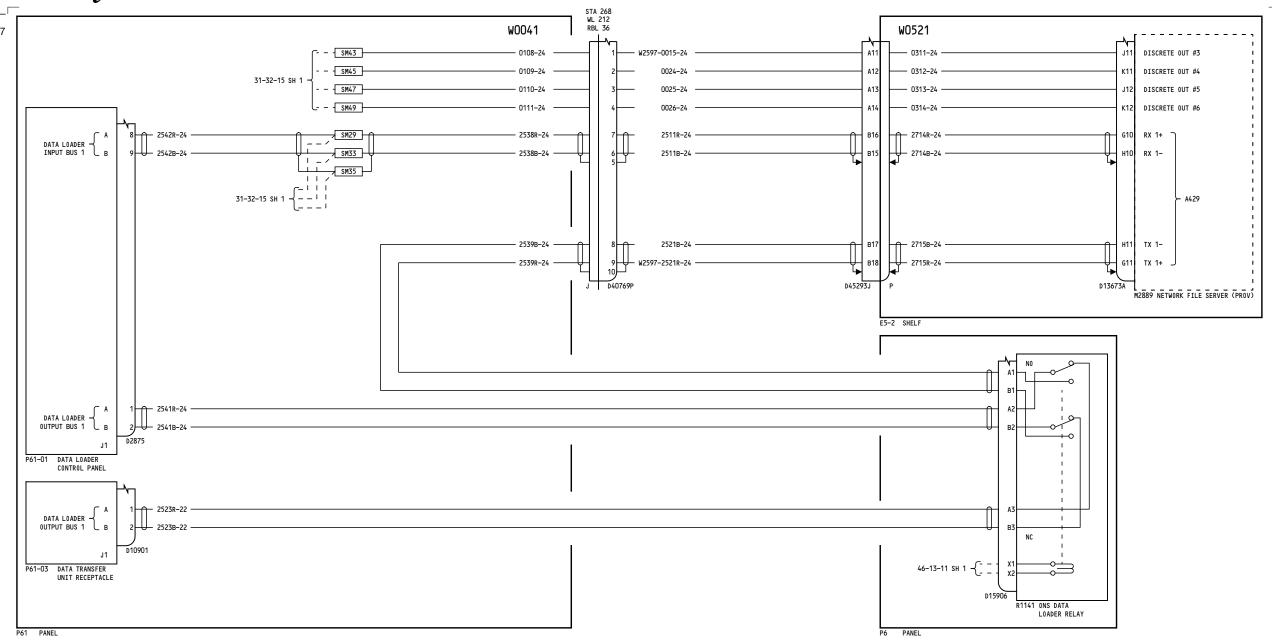
D280A351

31-32-15

Page 4 Sheet 3 Apr 17/2014 31-32-15

Page 4 Sheet 3 Apr 17/2014





YT105	DATA LOADER INTERFACE
	D280A351

31-32-15

Page 4 Sheet 4 Apr 17/2014 31-32-15

Page 4 Sheet 4 Apr 17/2014

P61 PANEL DATA LOADER INTERFACE YT106-YT110 D280A351

18- - - 31-62-15 (SH 3) DEU-1

P61-01 DATA LOADER CONTROL PANEL

-A 154

31-32-15

Page 5 Sheet 1 Jan 12/2015 31-32-15

- DATA LOADER

23-27-39

M2127 CMU-1

W0411

E4-1 SHELF

—— 2619R-24

Page 5 Sheet 1 Jan 12/2015

w0331

E3-3 SHELF

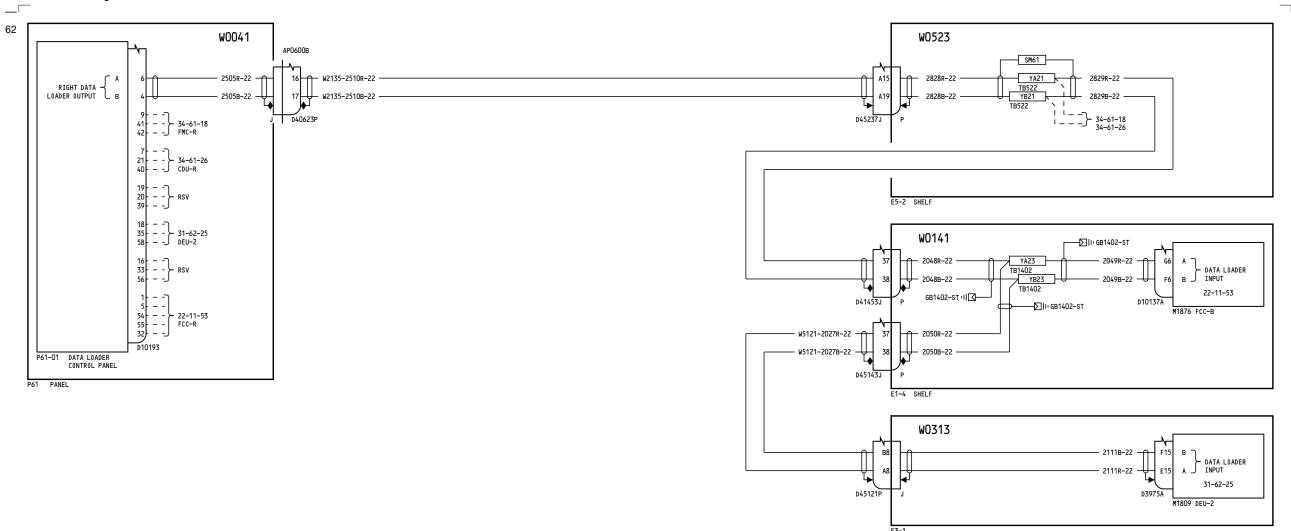
D43307

E3-1 SHELF

W5331-2517R-24

D43347P





YT106-YT110

DATA LOADER INTERFACE

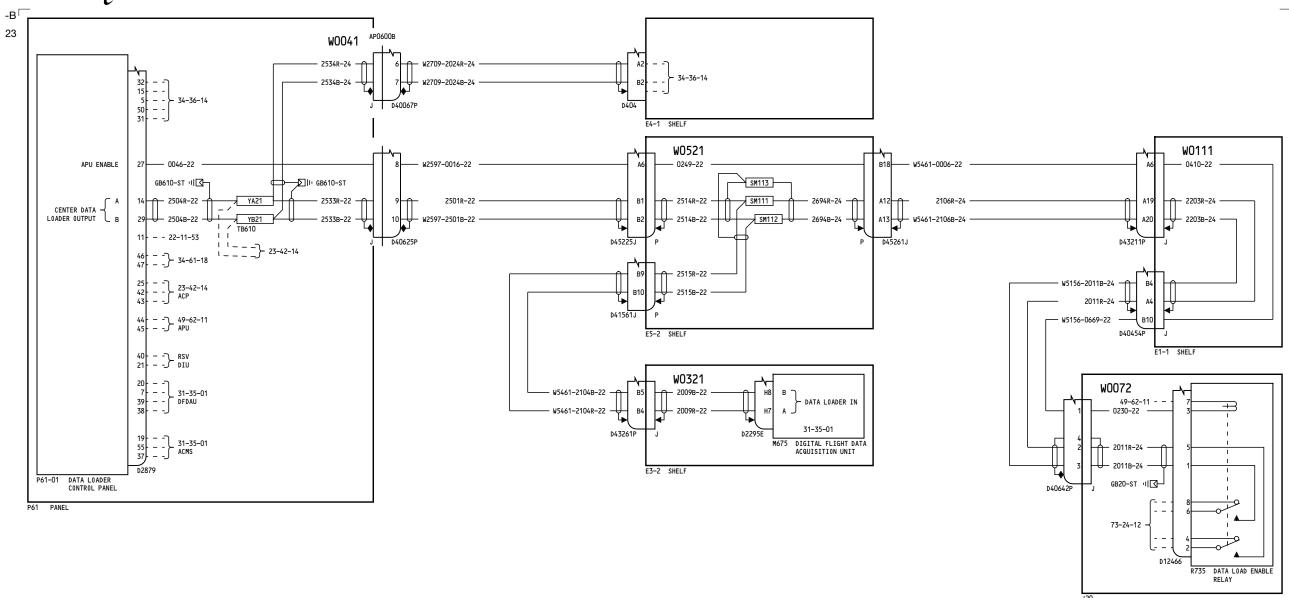
D280A351

31-32-15

Page 5 Sheet 2 Jan 12/2015 31-32-15

Page 5 Sheet 2 Jan 12/2015





YT106-YT110

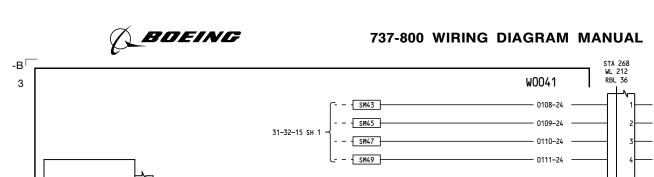
DATA LOADER INTERFACE

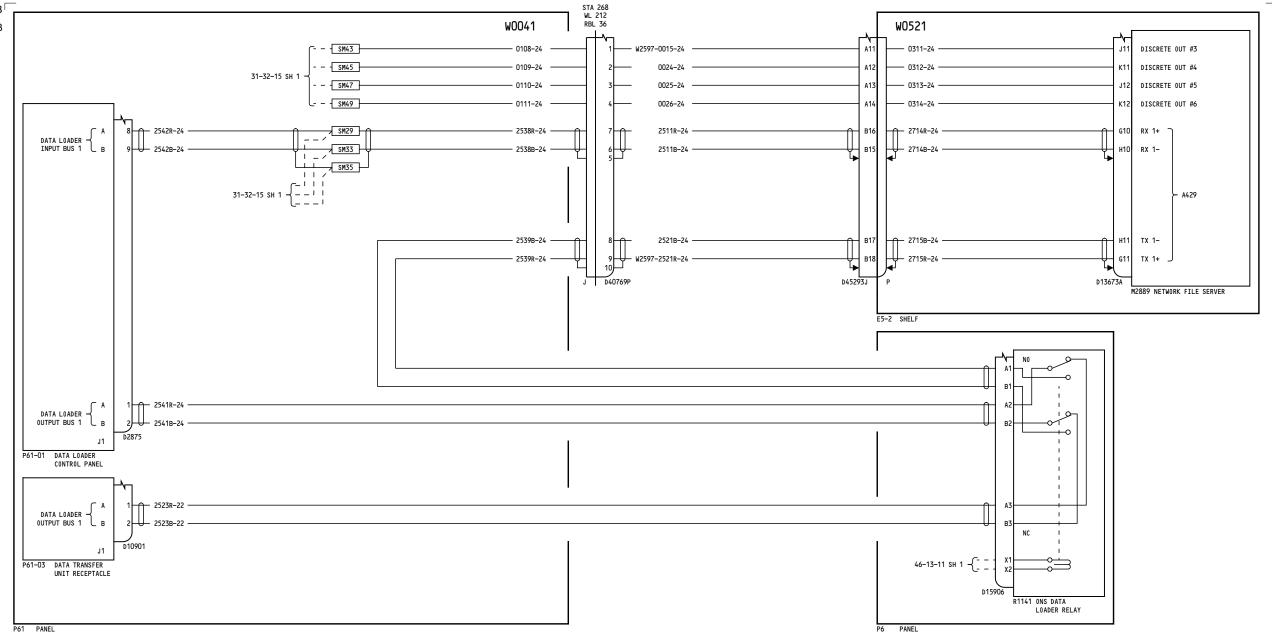
D280A351

31-32-15

Page 5 Sheet 3 Jan 12/2015 31-32-15

Page 5 Sheet 3 Jan 12/2015





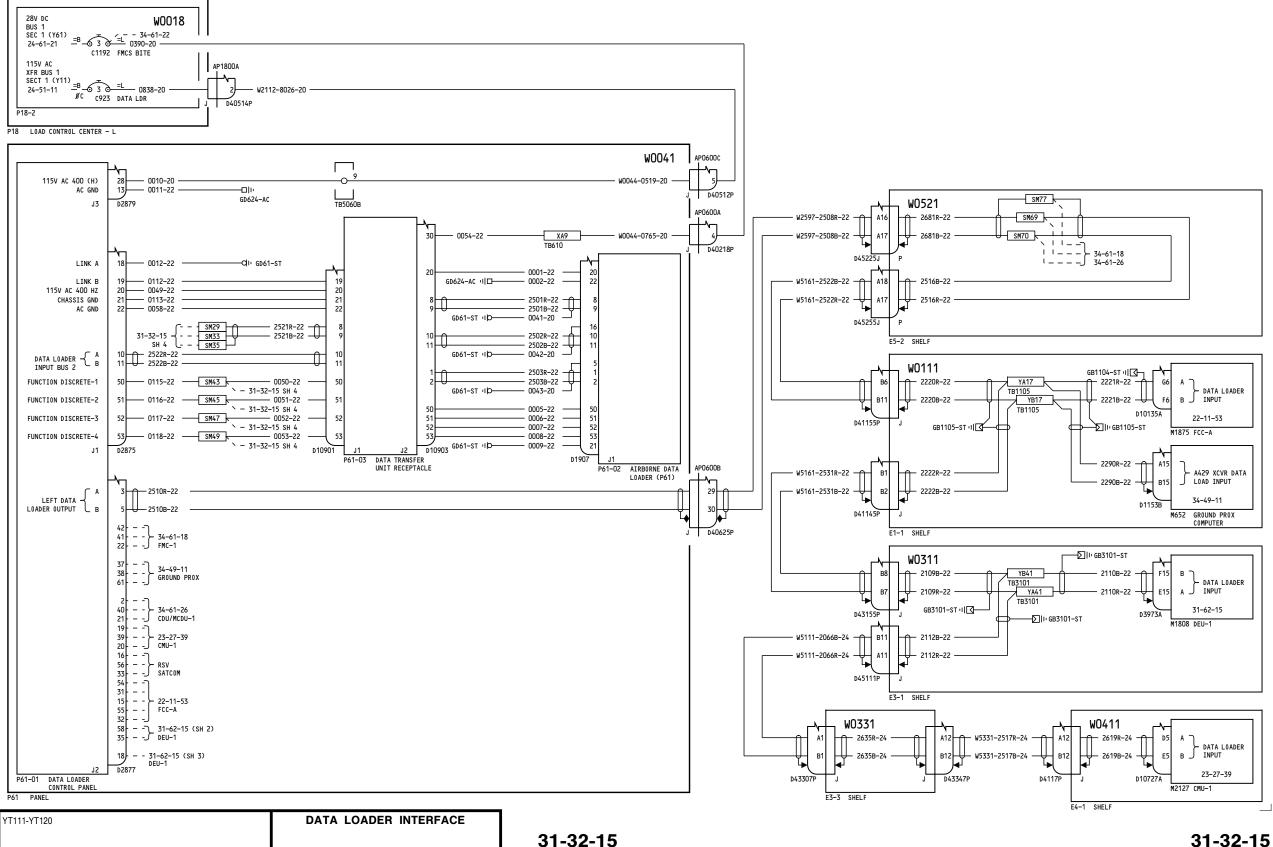
DATA LOADER INTERFACE YT106-YT110 D280A351

31-32-15

Page 5 Sheet 4 Jan 12/2015 31-32-15

Page 5 Sheet 4 Jan 12/2015

-A 154



Page 6 Sheet 1

Mar 14/2016

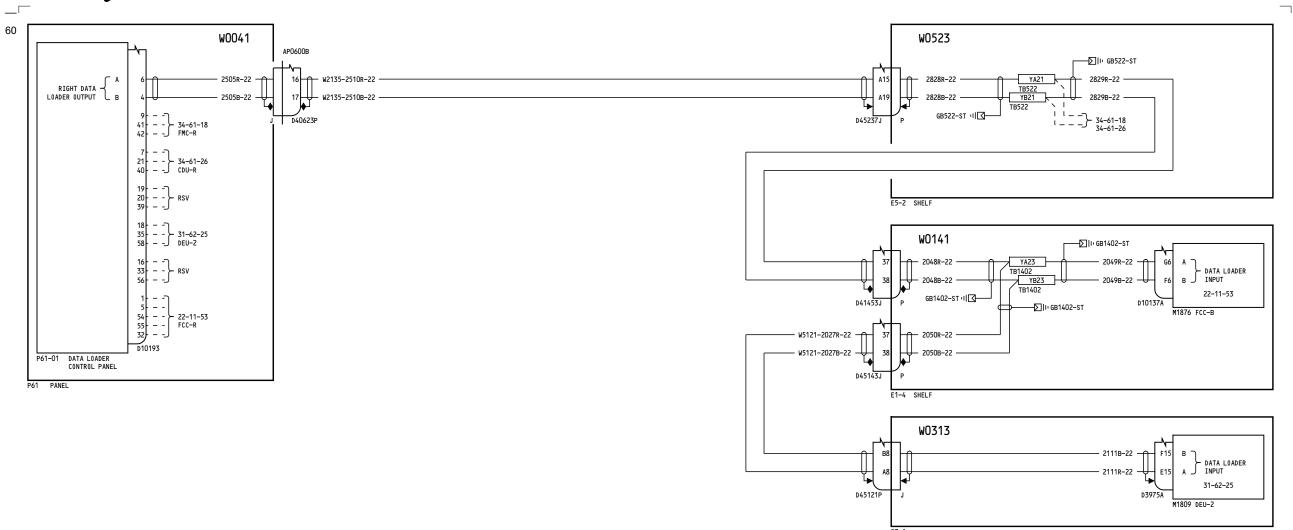
D280A351

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

Page 6 Sheet 1 Mar 14/2016

# BOEING

# 737-800 WIRING DIAGRAM MANUAL



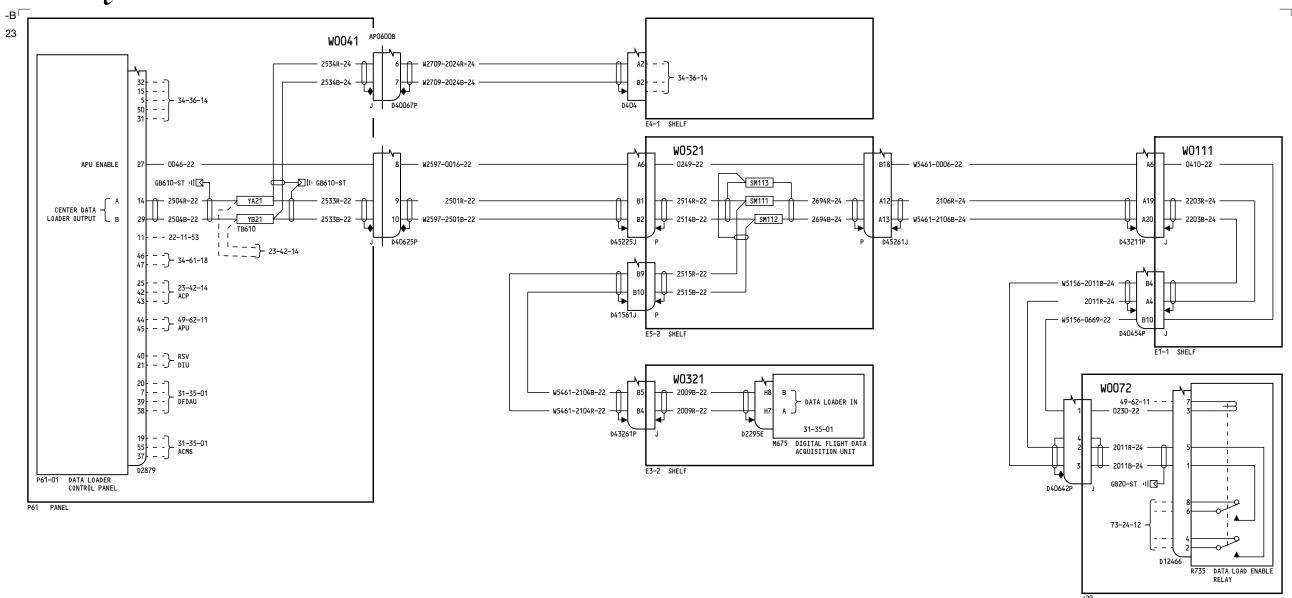
YT111-YT120	DATA LOADER INTERFACE
	D280A351

31-32-15

Page 6 Sheet 2 Mar 14/2016 31-32-15

Page 6 Sheet 2 Mar 14/2016



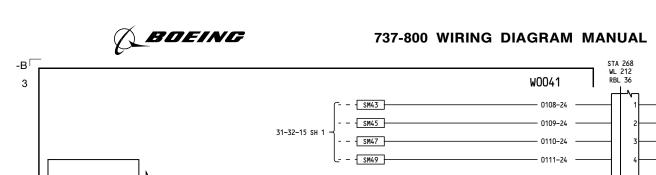


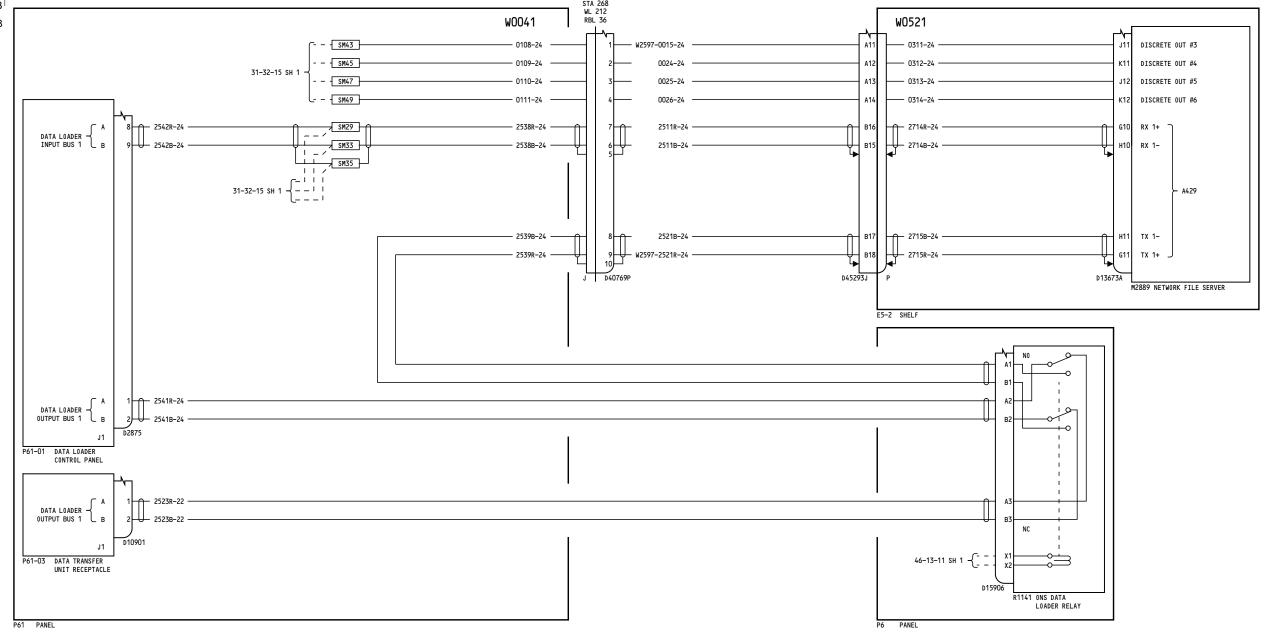
D280A351

31-32-15

Page 6 Sheet 3 Mar 14/2016 31-32-15

Page 6 Sheet 3 Mar 14/2016





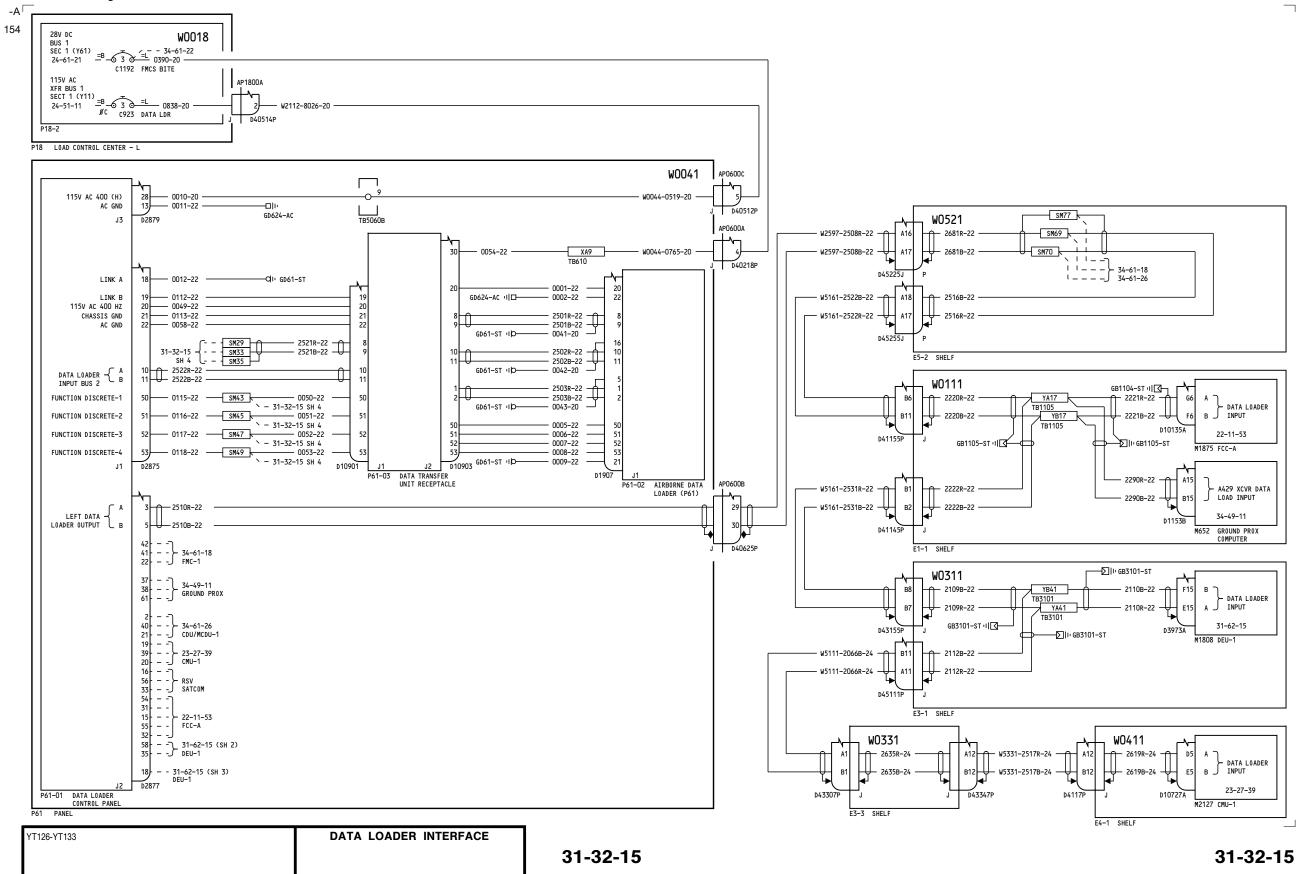
YT111-YT120 DATA LOADER INTERFACE D280A351

31-32-15

Page 6 Sheet 4 Mar 14/2016

31-32-15

Page 6 Sheet 4 Mar 14/2016



Page 7 Sheet 1

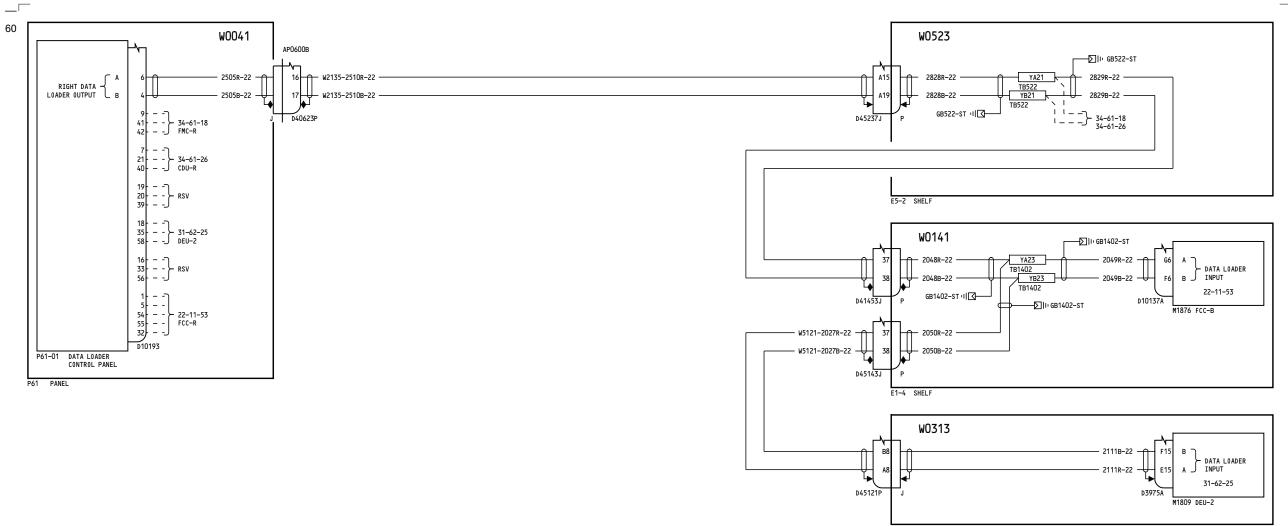
Jun 21/2016

D280A351

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

Page 7 Sheet 1 Jun 21/2016





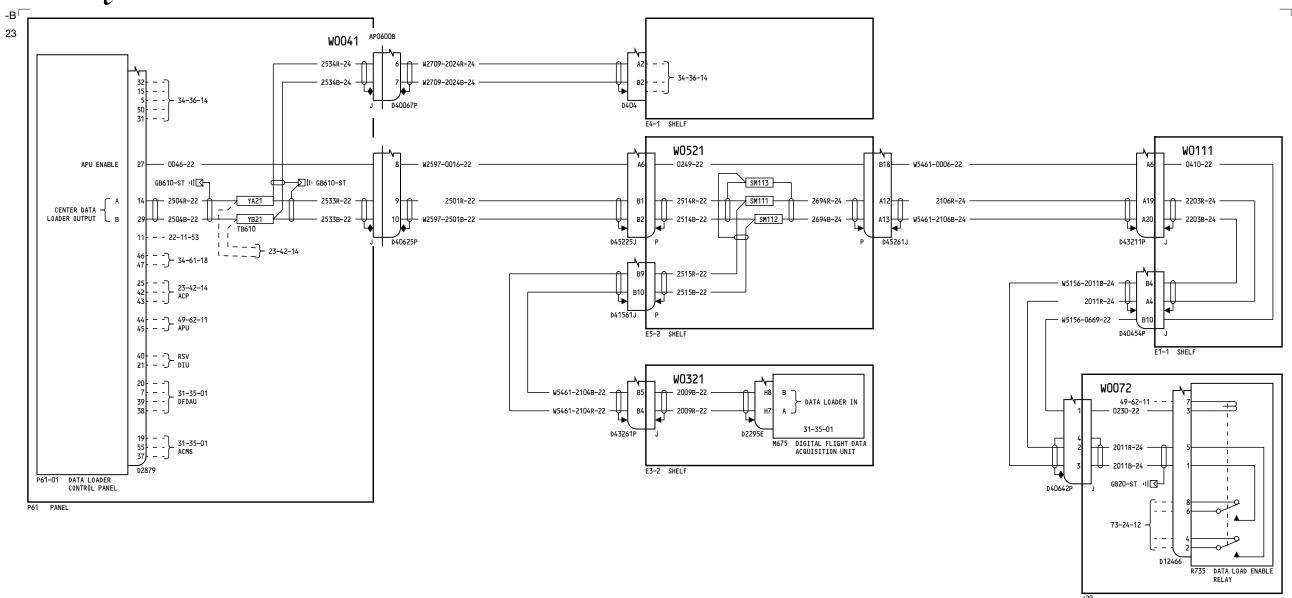
YT126-YT133	DATA LOADER INTERFACE
	D280A351

31-32-15

Page 7 Sheet 2 Jun 21/2016 31-32-15

Page 7 Sheet 2 Jun 21/2016





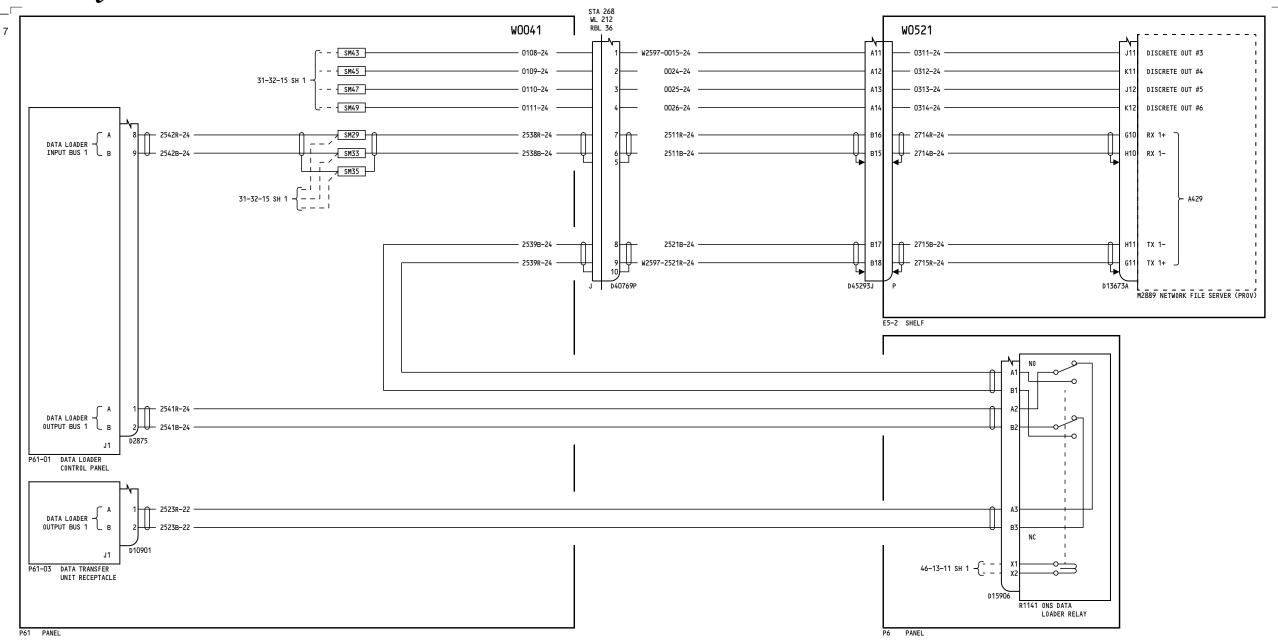
D280A351

31-32-15

Page 7 Sheet 3 Jun 21/2016 31-32-15

Page 7 Sheet 3 Jun 21/2016



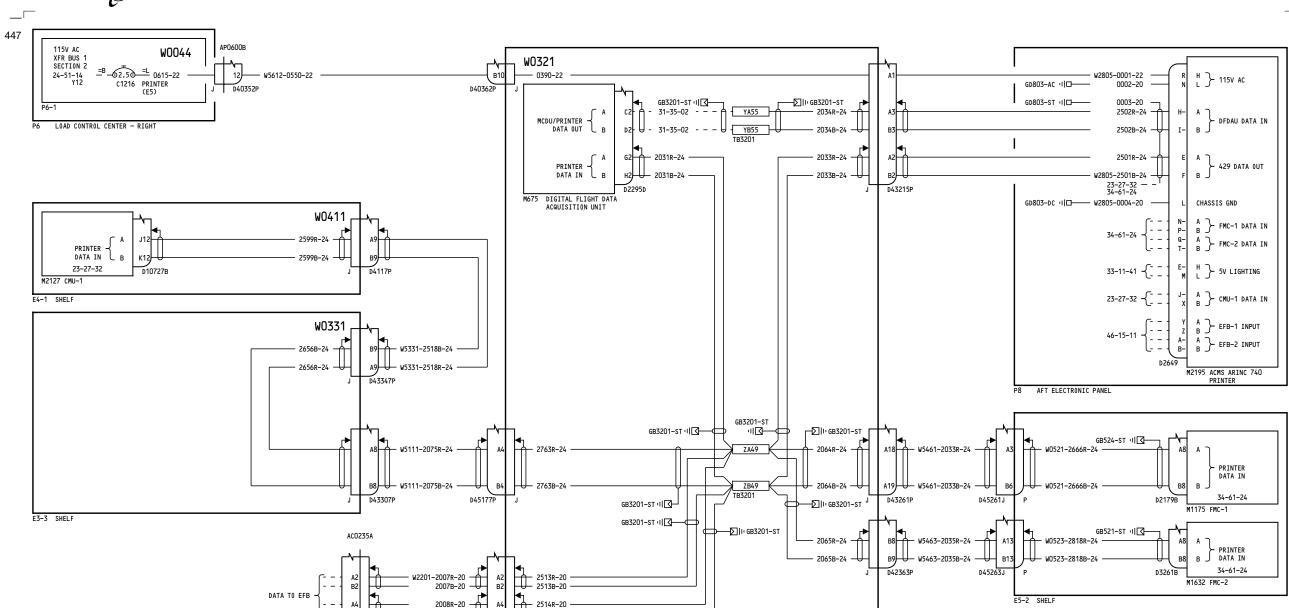


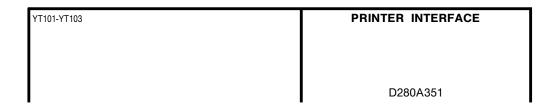
YT126-YT133	DATA LOADER INTERFACE
	D280A351

31-32-15

Page 7 Sheet 4 Jun 21/2016 31-32-15

Page 7 Sheet 4 Jun 21/2016





D31016P

31-33-01

D43241P

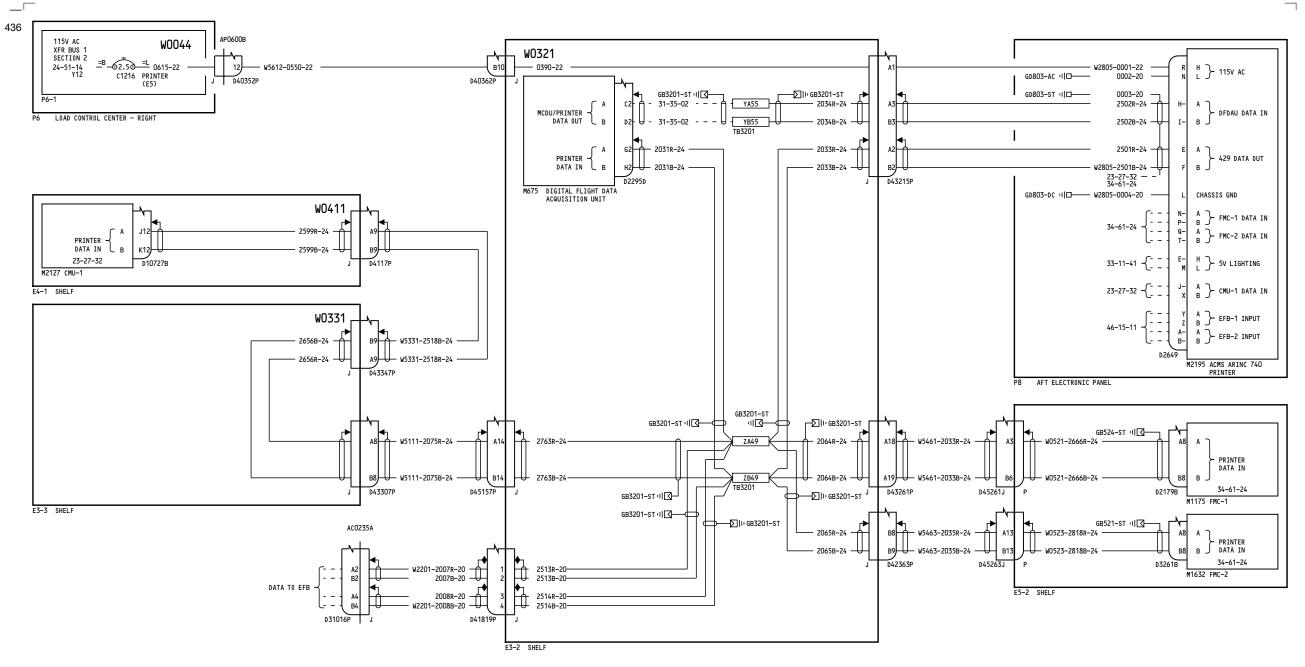
E3-2 SHELF

Page 1 Aug 15/2013 31-33-01

Page 1
Aug 15/2013

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.





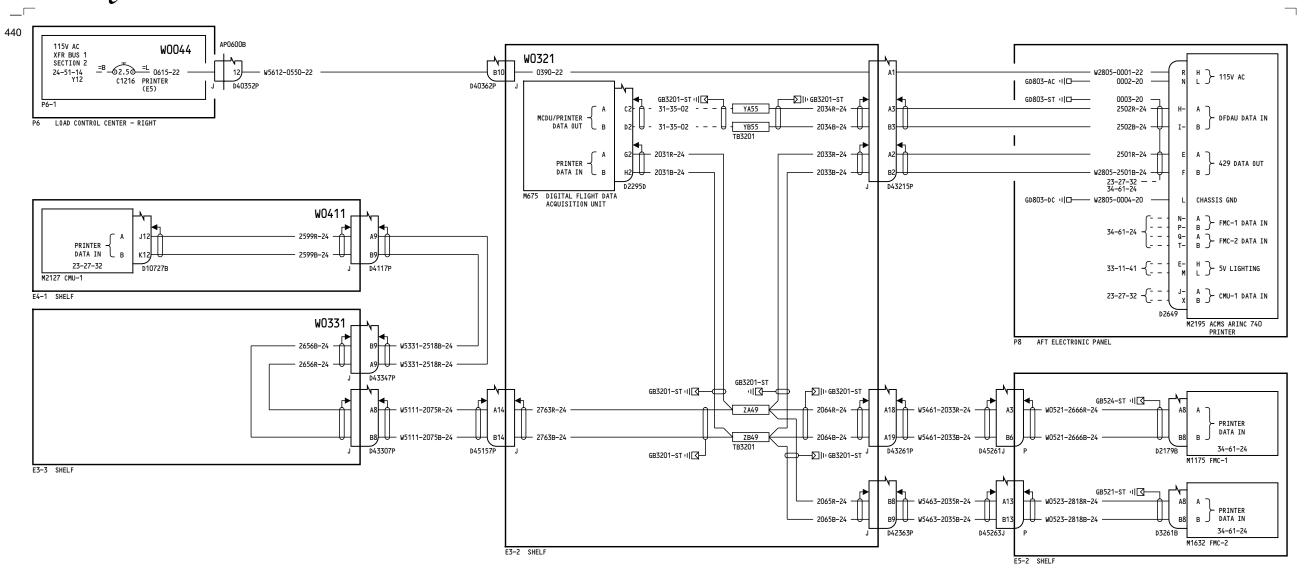
YT104-YT120	PRINTER INTERFACE
	D280A351

31-33-01

Page 2 Mar 14/2016 31-33-01

Page 2

Mar 14/2016



PRINTER INTERFACE

D280A351

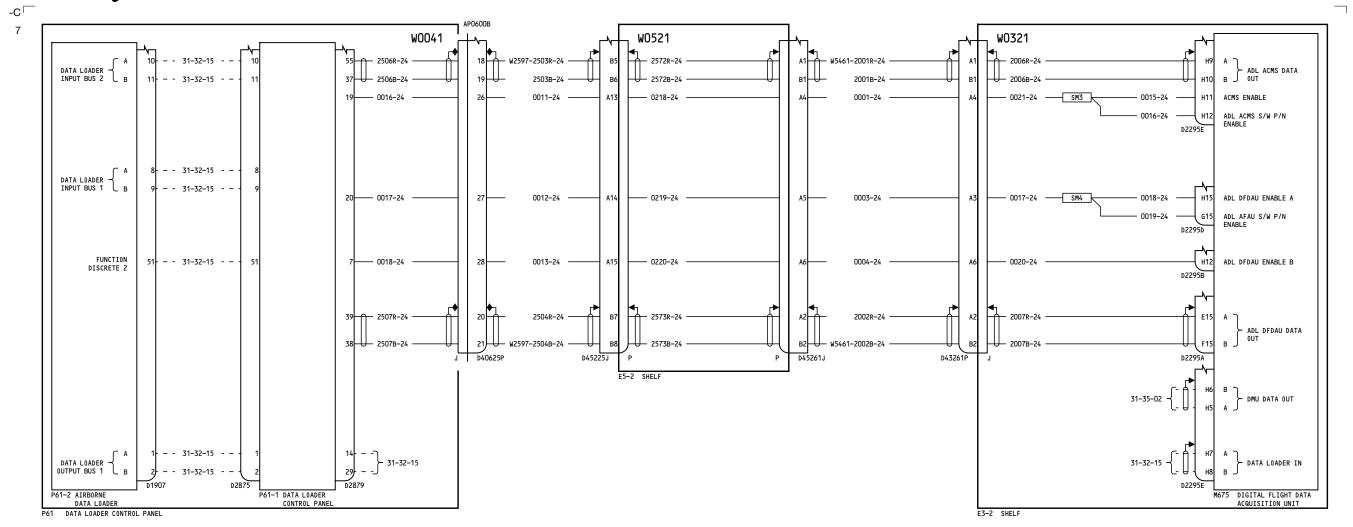
31-33-01

Page 3
Jun 21/2016

31-33-01

Jun 21/2016

Page 3



DIGITAL FLIGHT DATA
RECORDER SYSTEM - DATA
LOADER INTERFACE

D280A351

31-35-01

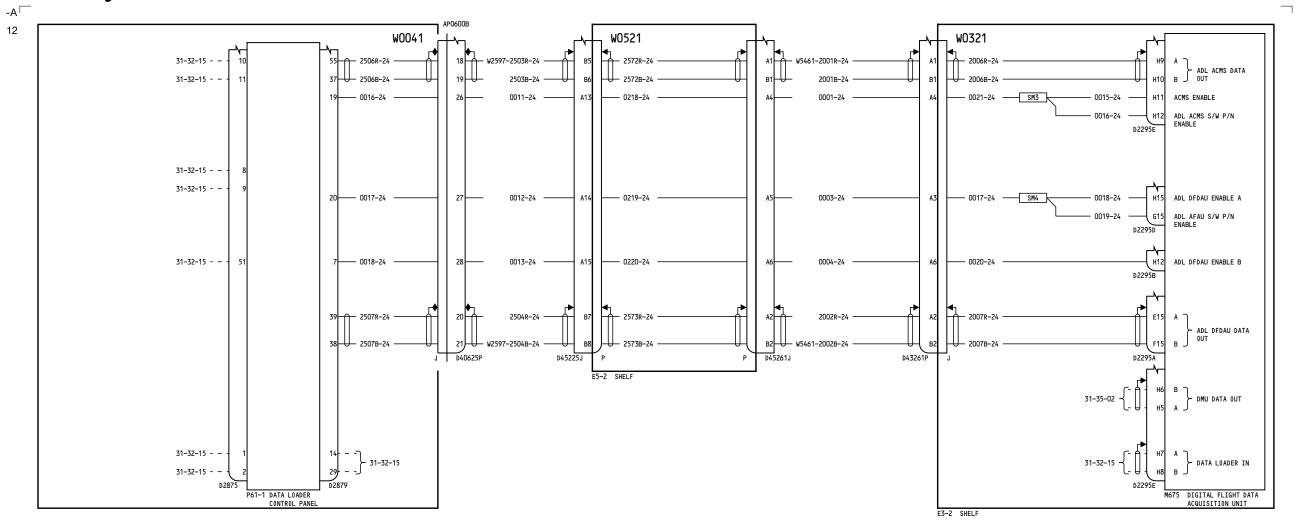
Page 1
Apr 17/2014

31-35-01

Page 1

Apr 17/2014





YT105-YT133

DIGITAL FLIGHT DATA
RECORDER SYSTEM - DATA
LOADER INTERFACE

D280A351

31-35-01

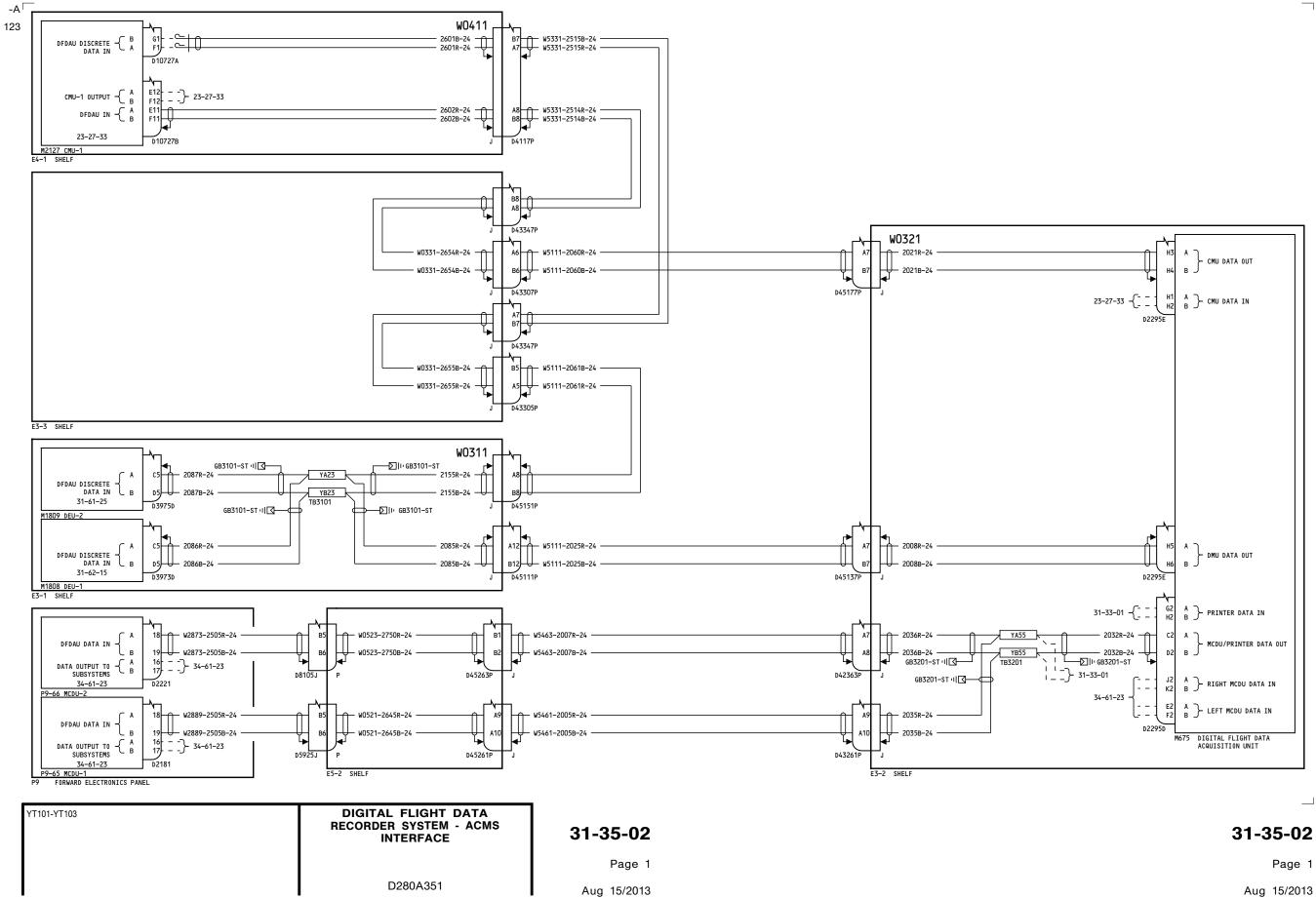
Page 2
Jun 21/2016

31-35-01

Jun 21/2016

Page 2

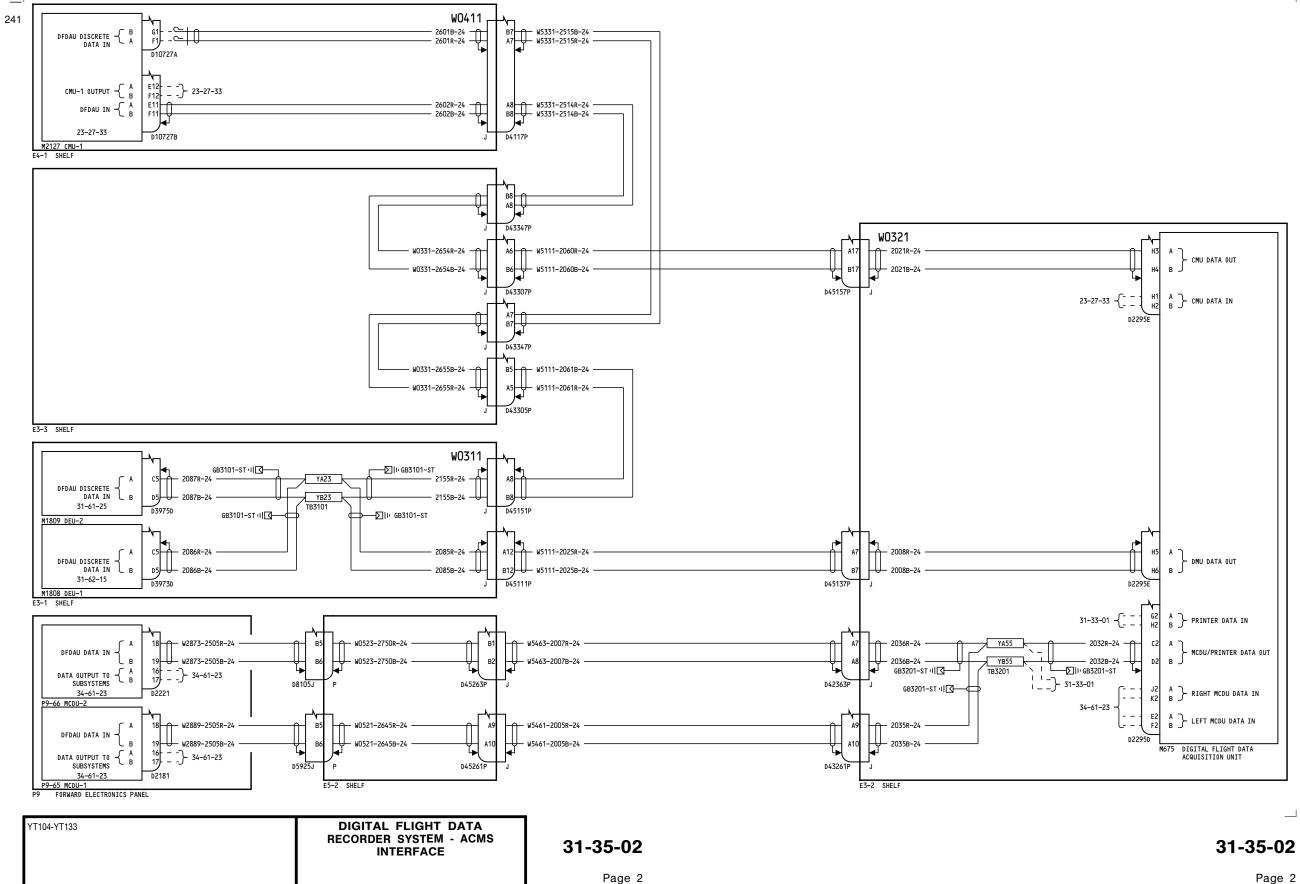
BOEING PROPRIETARY - Copyright ① - Unpublished Work - See title page for details.



BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

Aug 15/2013

D280A351



Jun 21/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.

Jun 21/2016

BOEING

-B┌ 71

W0331 W0321 GD3304-AC -||□---- 0339-20 **—** — w5612-0555-22 0195-22 - W5461-0066-22 0340-22 J D40352P D40362P D2643C 2035R-24 DAR DATA STATUS IN - DAR DATA STATUS OUT 2035B-24 2036R-24 DAR CONTROL 2036B-24 2037R-24 DAR FRAME SYNC ≺ 2037B-24 — U 2038R-24 QAR DATA OUT ≺ 2038B-24 GD3303-DC 11 0341-22 — CHASSIS GND 0342-24 — DAR TAPE LOW 0069-24 TAPE LOW 0345-22 GD3303-DC 11□ SIGNAL GND 2053R-24 DAR RUN CONTROL -2053B-24 D2295A M675 DFDAU GD3303−DC +1|□ - 0548-22 ---D10 RF IL 1 SELECT W0076 - 0408-20 ∑|I+ GD532-DC 0088-24 H6 RF IL 1 - W5156 0010-22-0549-24 — 73-22-31 D12538 D40670P D40462P R737 ENG1 RUNNING RLY 2 31-31-15 SH1 - - YA35 TB3201 RF IL 3 0087-24 0548-24 0547-24 0347-24 — X8 DATA RATE COMMON 0800w 0346-24 — DEFAULT BLOCK D3 - - NC D2 - 5617-20 - □ | II GD524-DC -w6510 0012-22 -----SP779 W5461-0089-24 73-22-31 D40696P D43217P D43049P R738 ENG2 RUNNING RLY 2 M916 QUICK ACCESS RECORDER E3-3 ELECTRONIC SHELF J24 JUNCTION BOX E3-2 ELECTRONIC SHELF

ALL	DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE 3
	D280A351

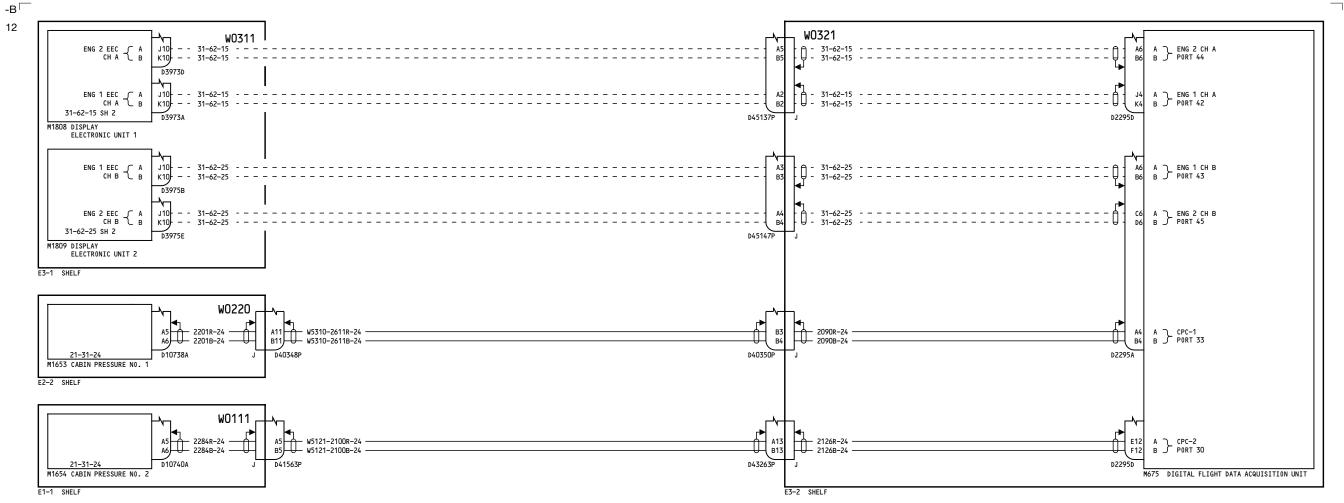
31-35-03

Page 1 Jun 21/2016 31-35-03

Jun 21/2016

Page 1





DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE

D280A351

31-35-04

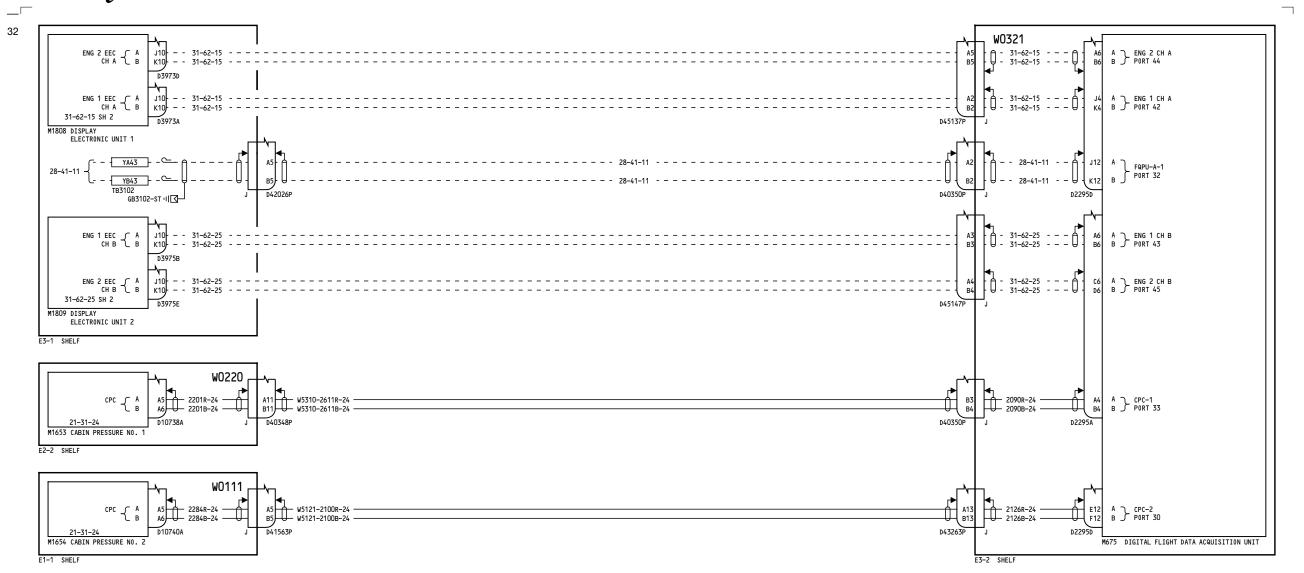
Page 1

Nov 18/2013

31-35-04

Page 1

Nov 18/2013



PT104-YT112, YT126-YT131

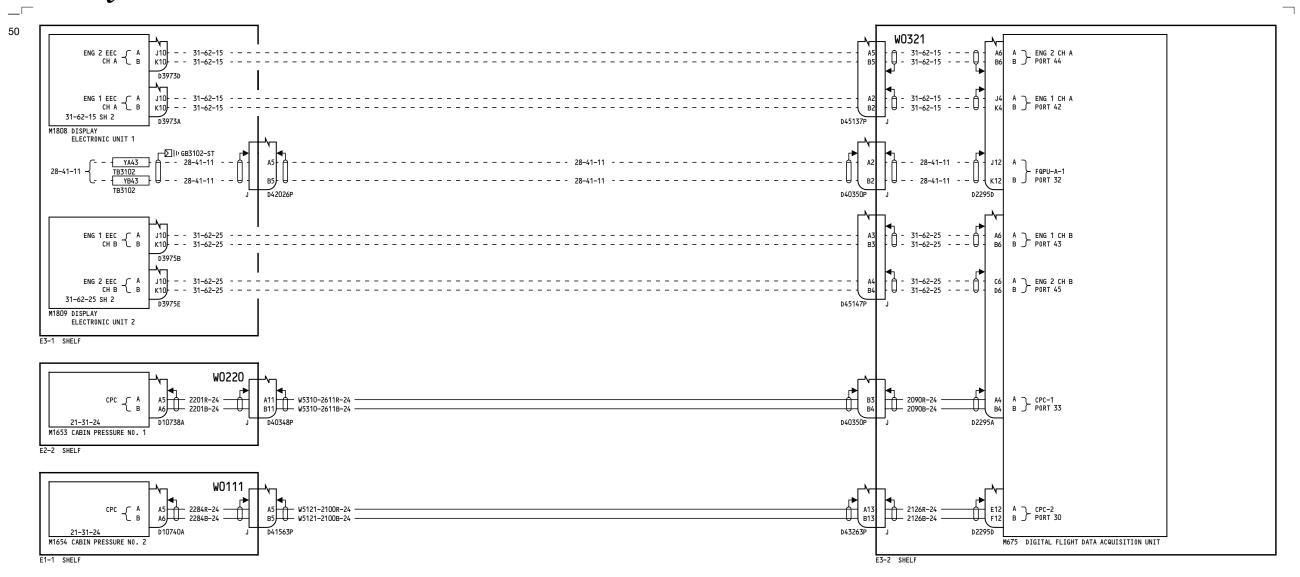
DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE

D280A351

31-35-04

Page 2 May 15/2015 31-35-04

Page 2
May 15/2015



DIGITAL FLIGHT DATA
RECORDER SYSTEM - ACMS
INTERFACE

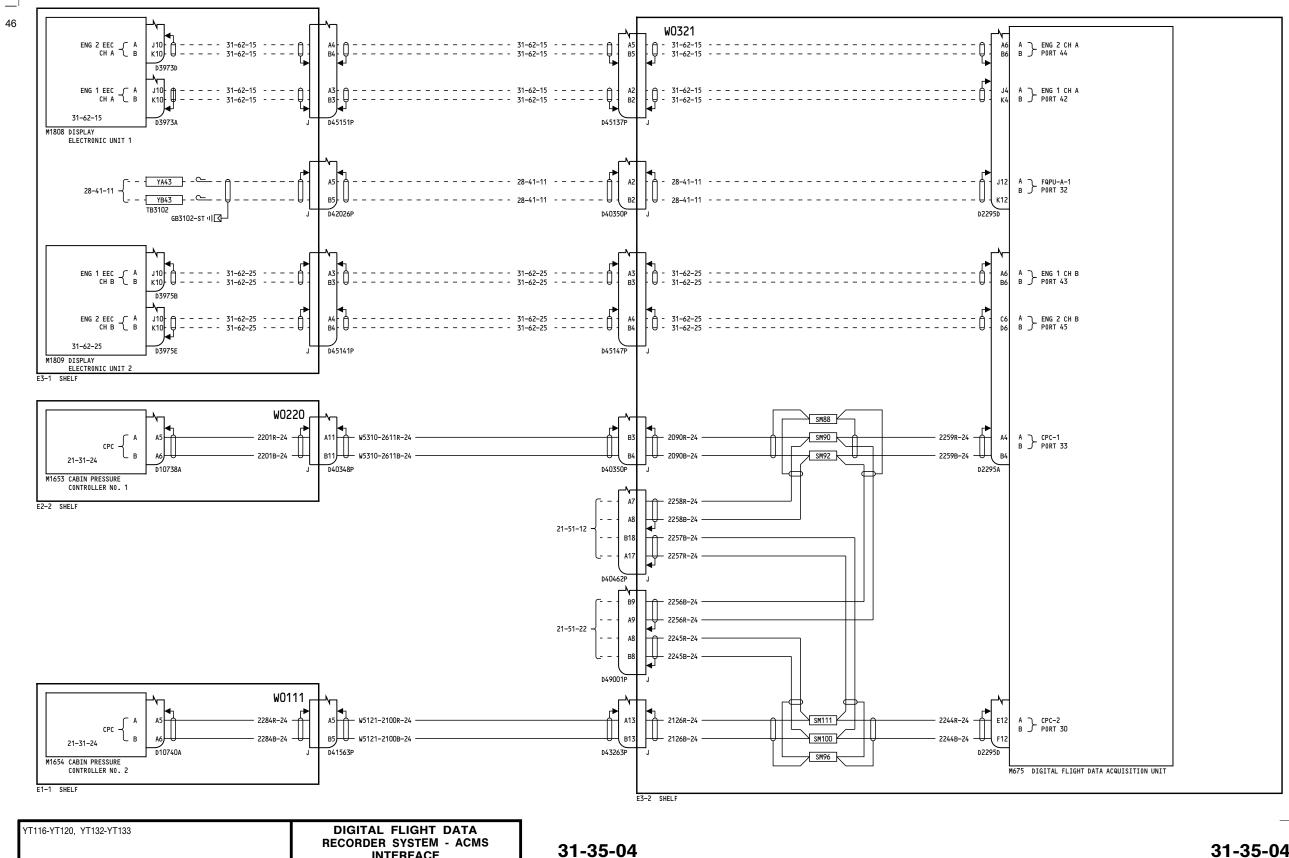
D280A351

31-35-04

Page 3
Oct 14/2015

31-35-04

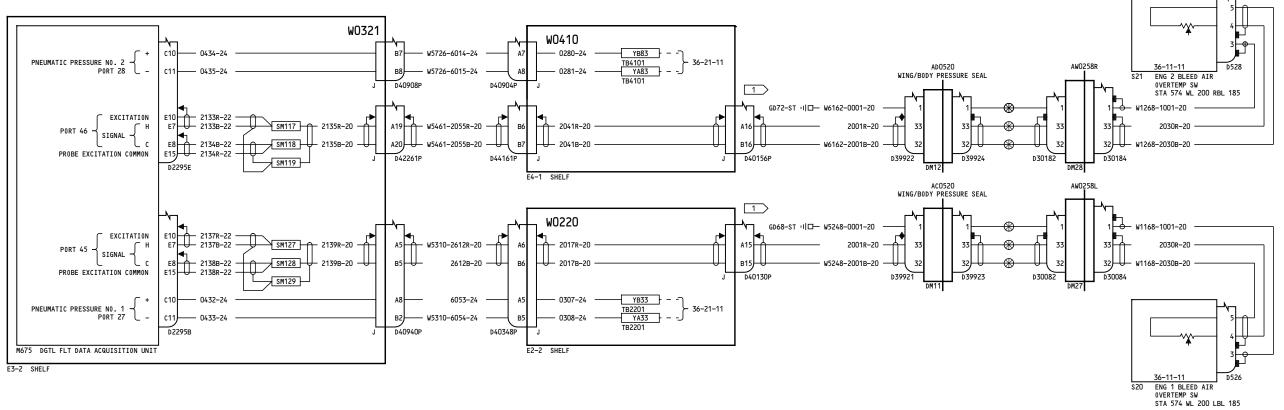
Page 3
Oct 14/2015





-B<sup>┌</sup>

10



# NOTES:

1 MAXIMUM LENGTH OF GROUND WIRE SHALL NOT EXCEED 18 INCHES

ALL	ACMS PARAMETERS - ANALOG INTERFACE	
	D280A351	

31-35-05

Page 1 Jun 21/2016 31-35-05

Page 1 Jun 21/2016

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

-A —

YT104, YT106-YT133

ACMS DIGITAL INTERFACE
GROUP 2

D280A351

E3-2 SHELF

31-35-07

Page 1 Sheet 1 Jun 21/2016 31-35-07

Page 1 Sheet 1 Jun 21/2016

YT104, YT106-YT133

ACMS DIGITAL INTERFACE GROUP 2

D280A351

31-35-07

Page 1 Sheet 2 Jun 21/2016 31-35-07

Page 1 Sheet 2 Jun 21/2016 -A —

ACMS DIGITAL INTERFACE GROUP 2

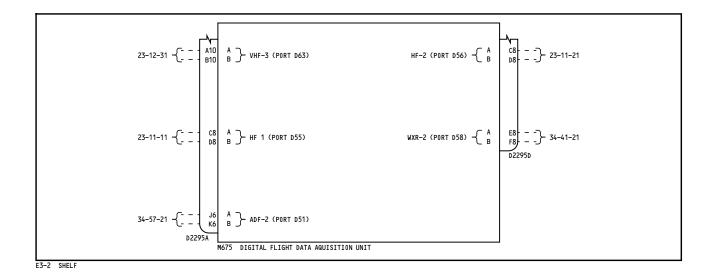
D280A351

E3-2 SHELF

31-35-07

Page 2 Sheet 1 Aug 18/2014 31-35-07

Page 2 Sheet 1 Aug 18/2014



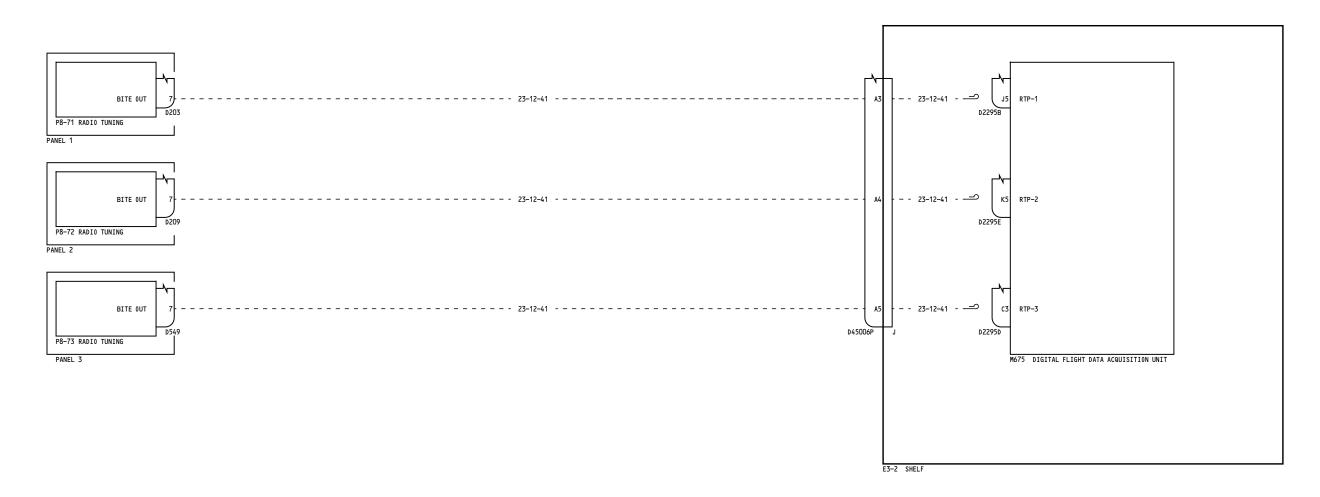
ACMS DIGITAL INTERFACE GROUP 2

D280A351

**31-35-07**Page 2
Sheet 2
Aug 18/2014

31-35-07

Page 2 Sheet 2 Aug 18/2014 -A -



ACMS DISCRETE INTERFACE GROUP 2

31-35-08

Page 1

D280A351

D280A351

ACMS DISCRETE INTERFACE GROUP 2

31-35-08

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

-A —



ACMS DISCRETE INTERFACE GROUP 2

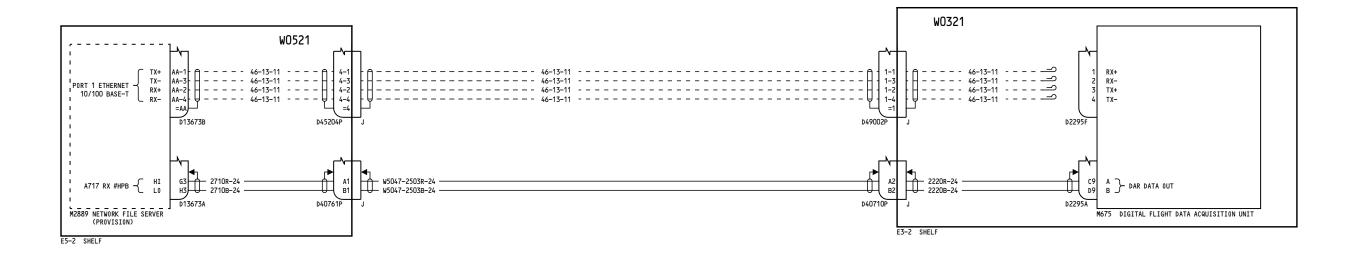
D280A351

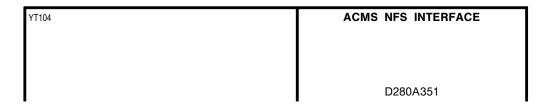
31-35-08

Page 2 Aug 18/2014 31-35-08

Aug 18/2014

Page 2





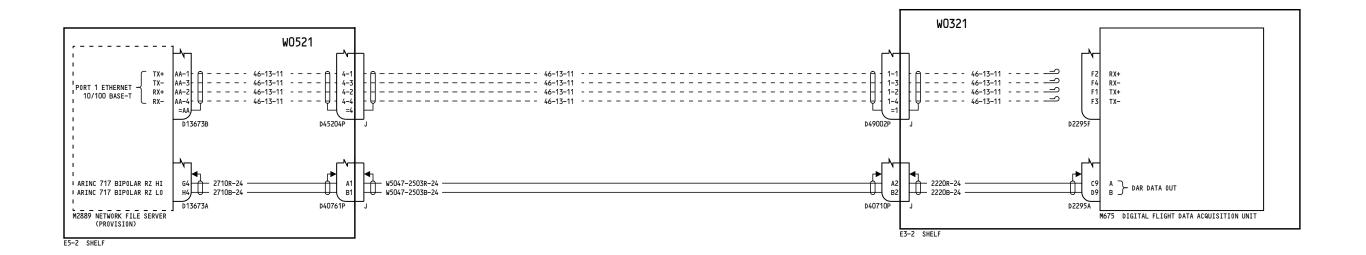
31-35-09

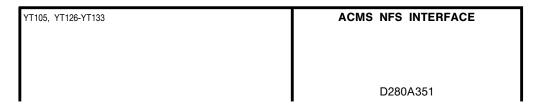
Page 1 Nov 18/2013 31-35-09

Page 1 Nov 18/2013

3

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.



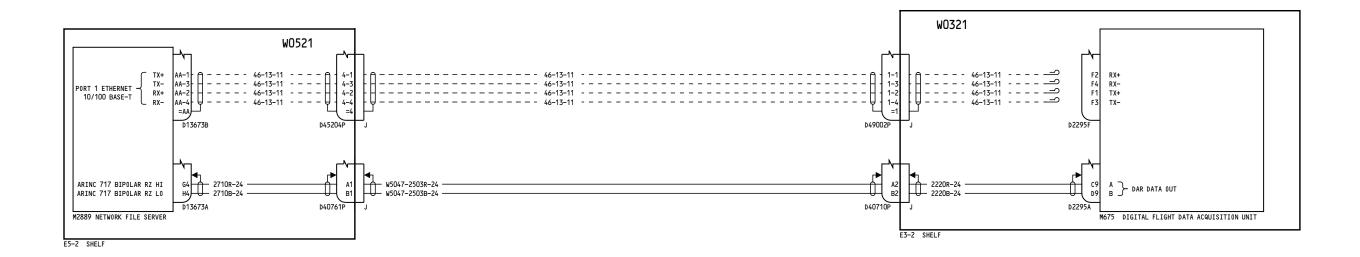


31-35-09

Page 2
Jun 21/2016

31-35-09

Page 2 Jun 21/2016 -A



YT106-YT120

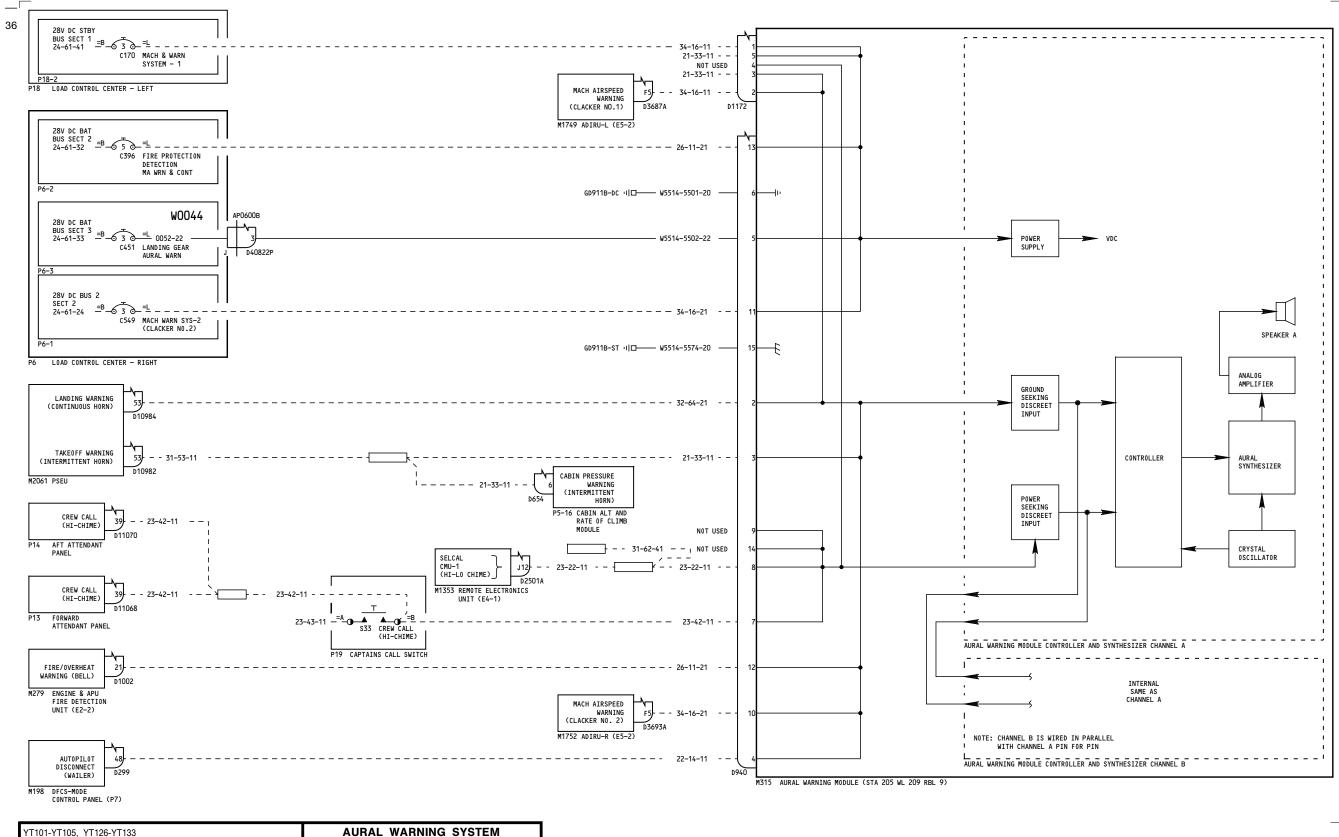
ACMS NFS INTERFACE

D280A351

31-35-09

Page 3 Mar 14/2016 31-35-09

Page 3 Mar 14/2016



YT101-YT105, YT126-YT133

AURAL WARNING SYSTEM

D280A351

31-51-11

Page 1

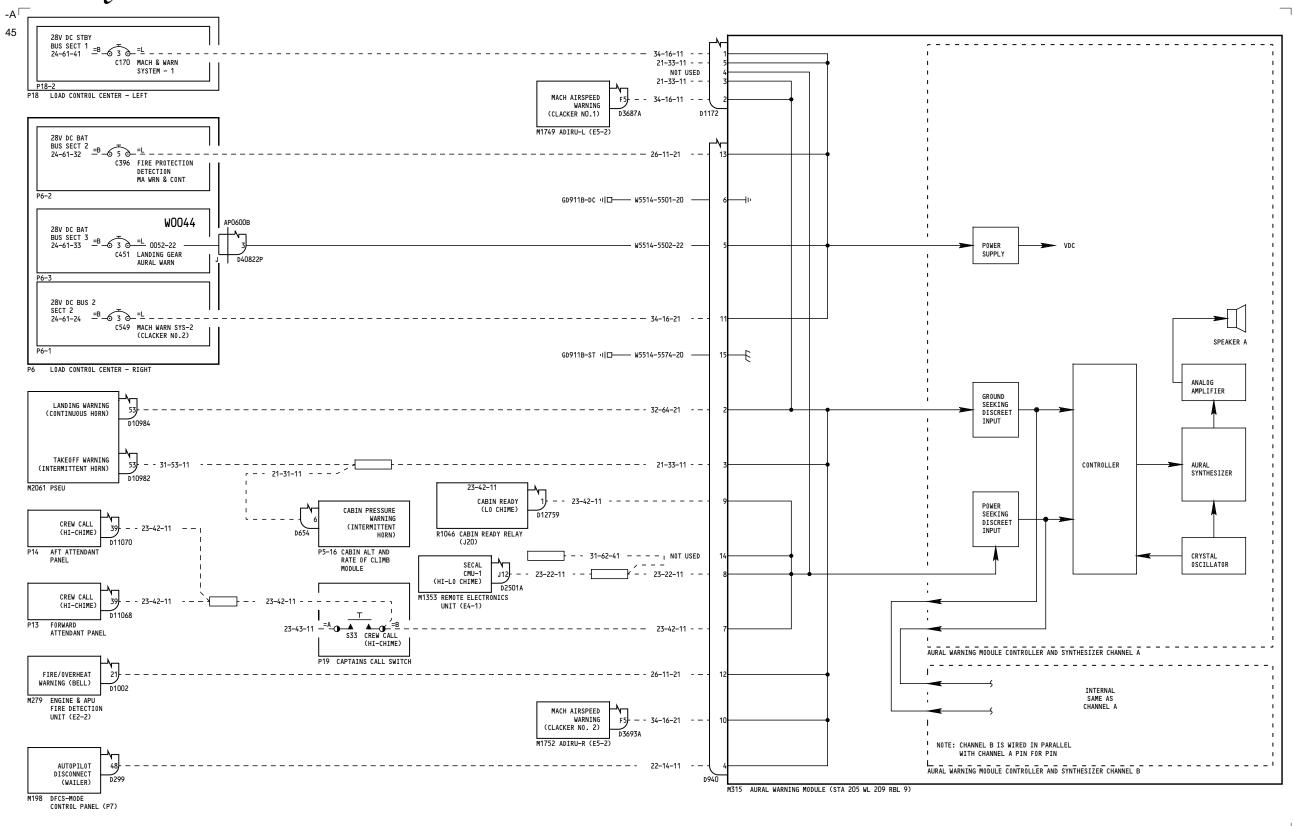
Jun 21/2016

31-51-11

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.



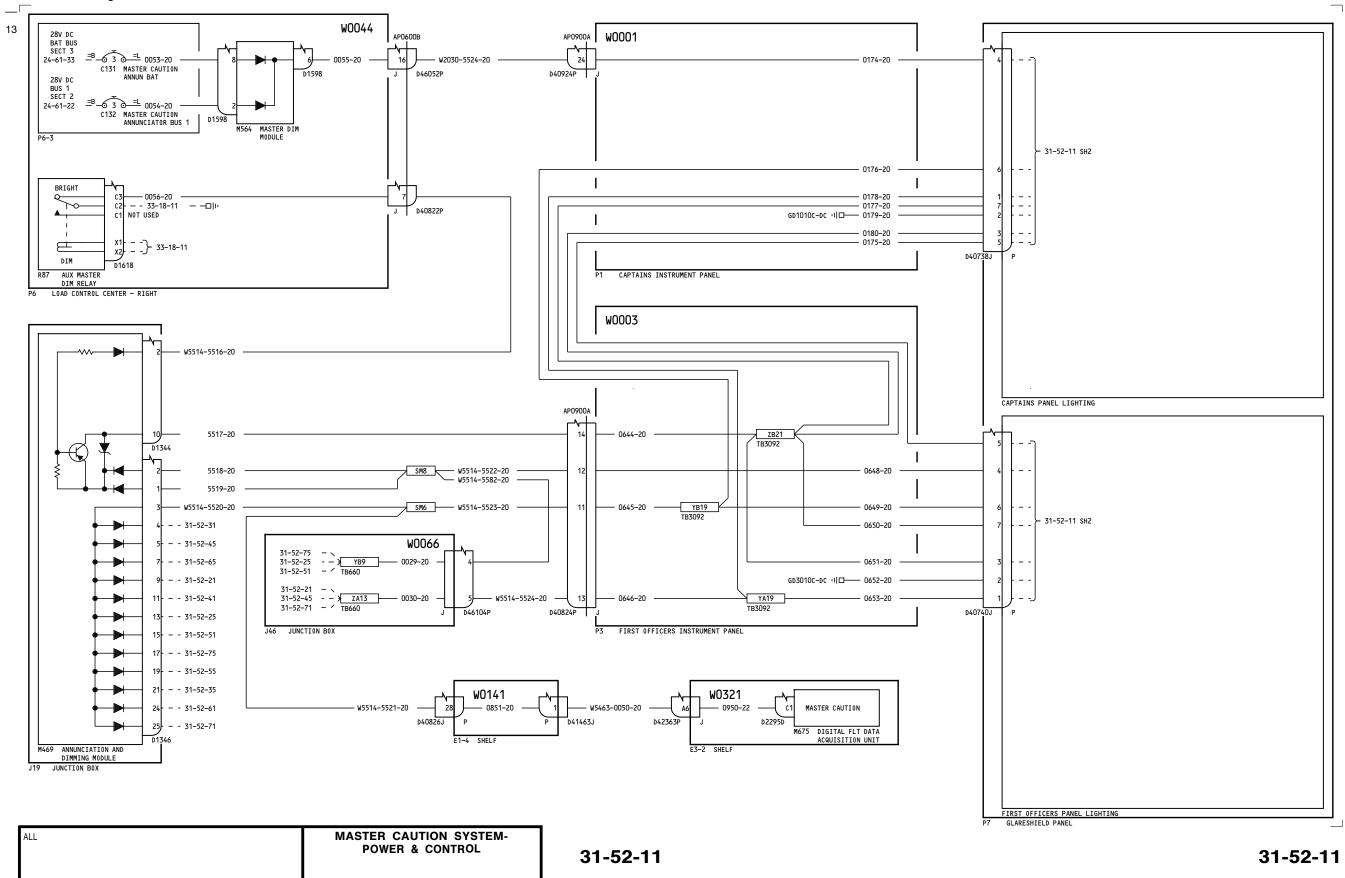
Page 2

**AURAL WARNING SYSTEM** YT106-YT120 31-51-11 D280A351 Mar 14/2016

31-51-11

Page 2 Mar 14/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.

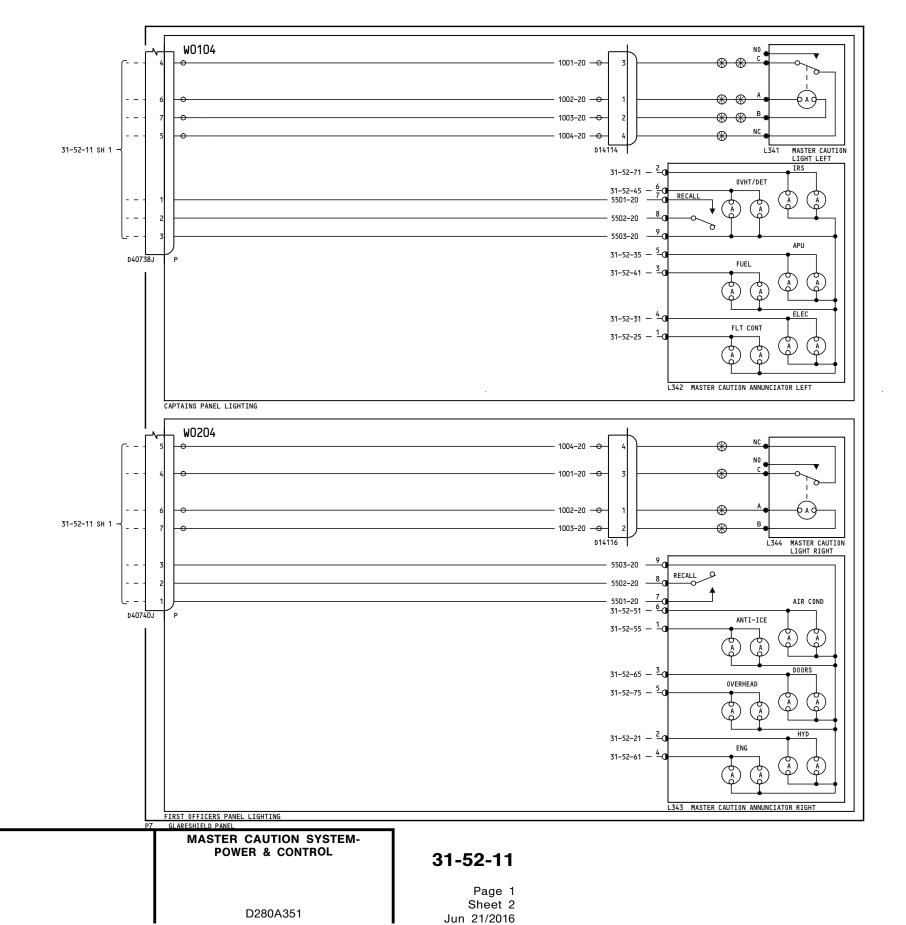


D280A351

Page 1 Sheet 1 Jun 21/2016

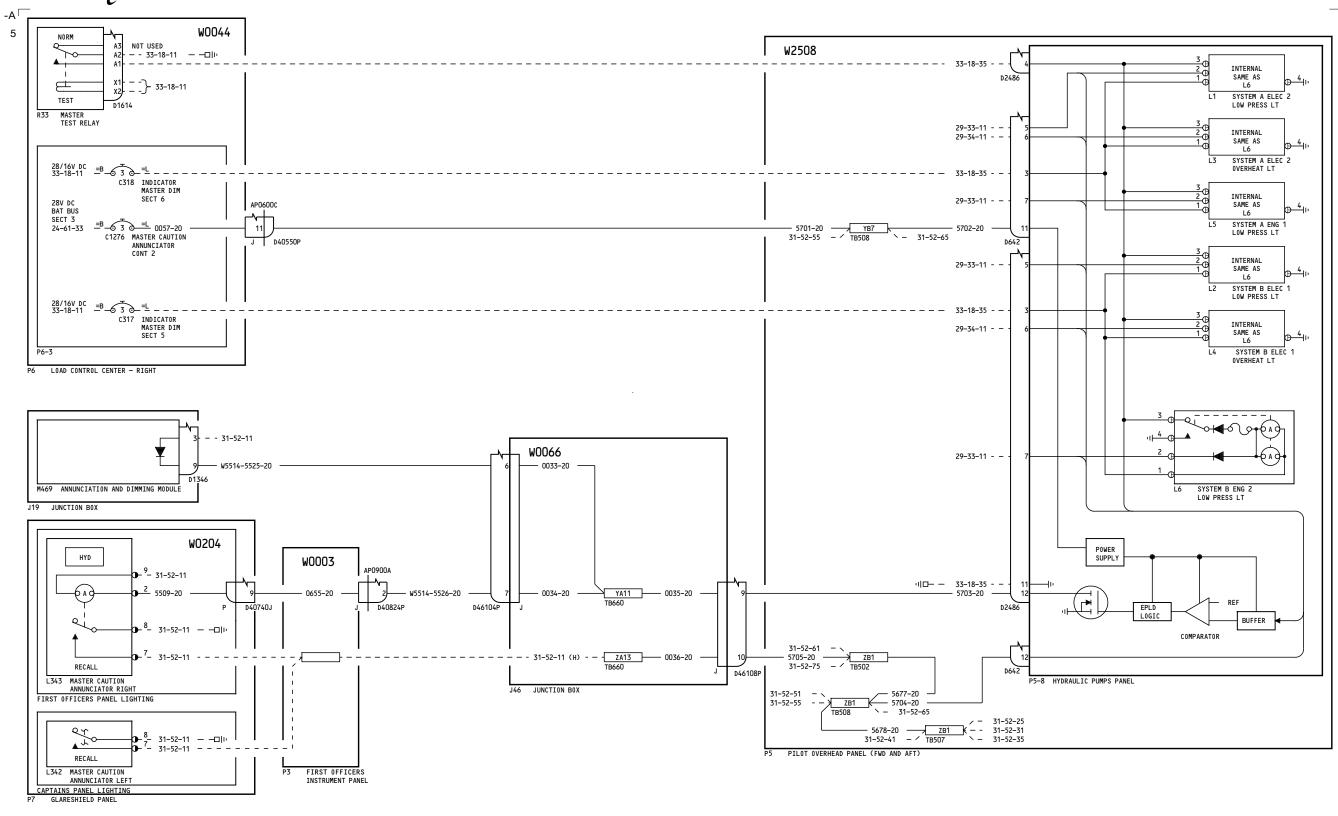
Page 1 Sheet 1 Jun 21/2016





31-52-11

Page 1 Sheet 2 Jun 21/2016



MASTER CAUTION SYSTEM HYDRAULIC CONTROL

D280A351

31-52-21

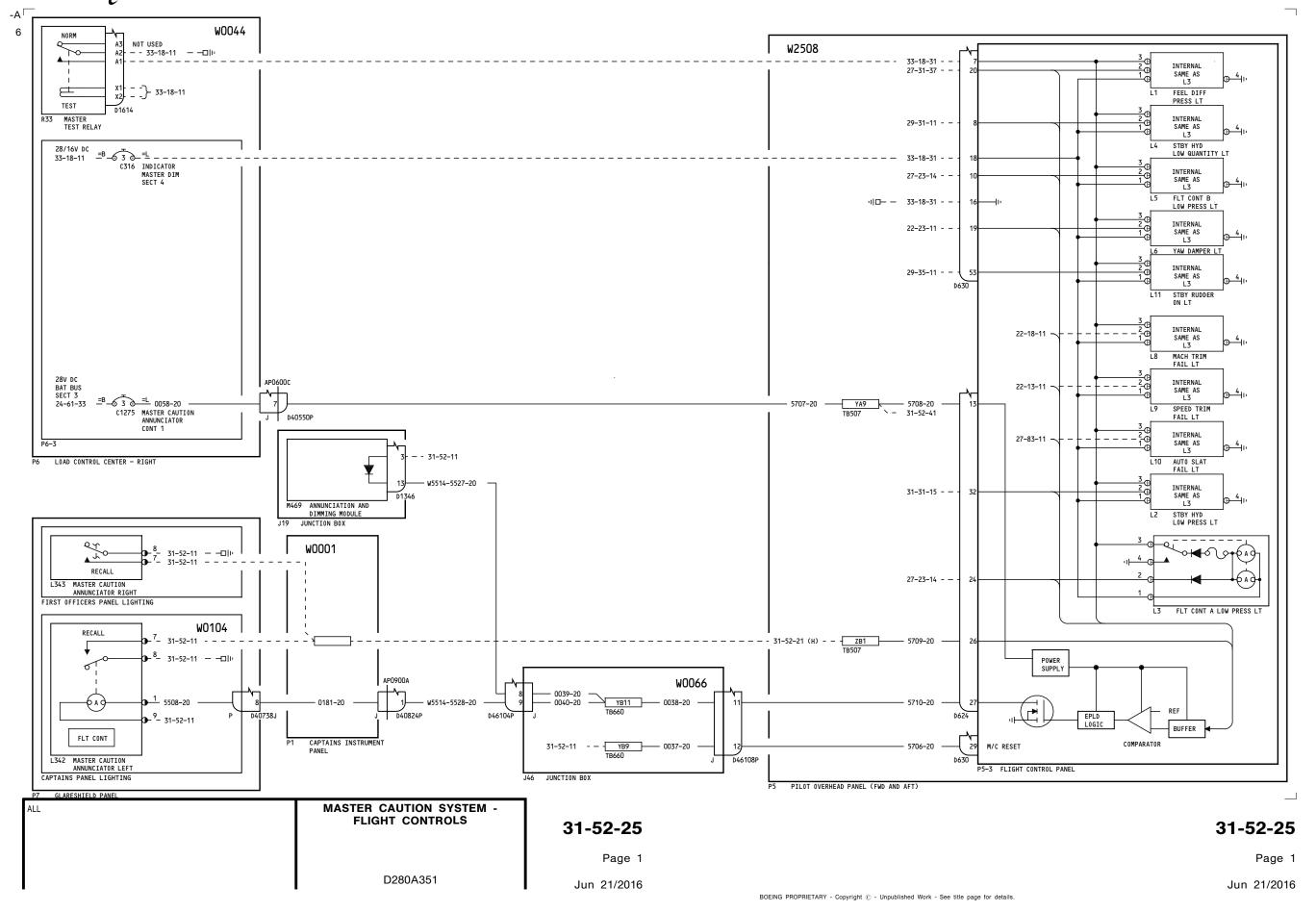
Page 1
Jun 21/2016

31-52-21

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.



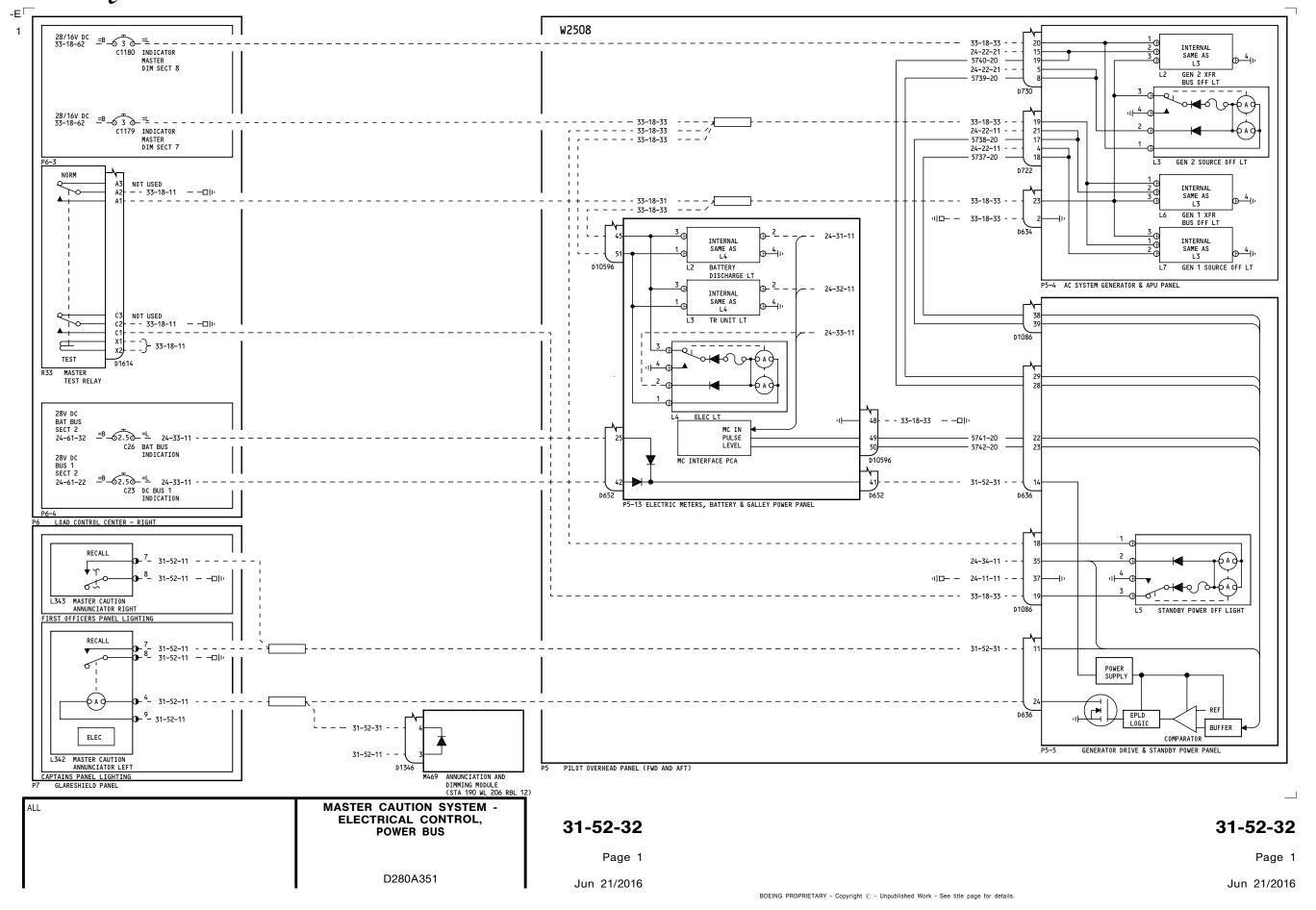


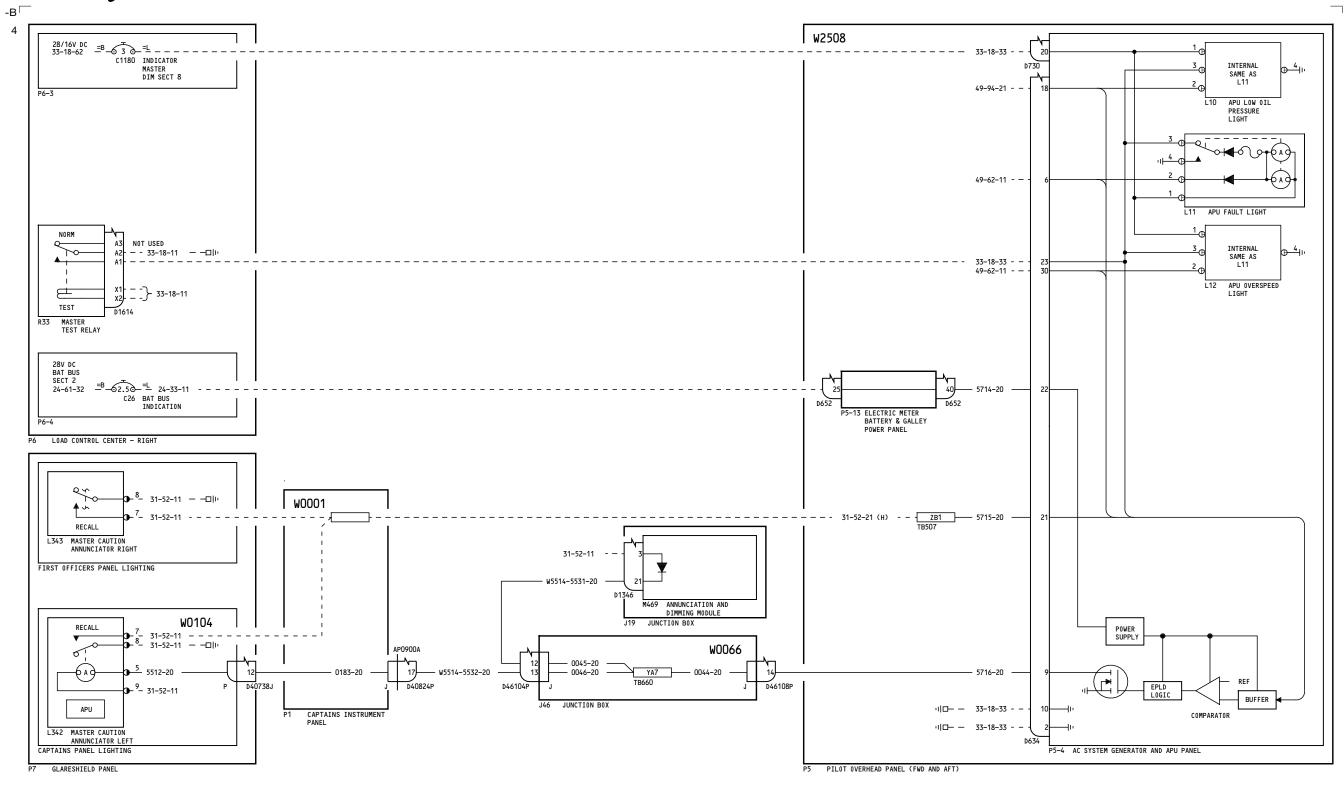
-B┌

P7 GLARESHIELD PANEL

W2508 28/16V DC =B - 3 0-=L - - -**—** 33–18–33 C1179 INDICATOR MASTER DIM SECT 7 INTERNAL 24-11-11 - -D1086 GEN 1 DRIVE LT 24-11-21 28/16V DC 33-18-62 =B 3 3 = =L - - -C1180 INDICATOR MASTER DIM SECT 8 D636 GEN 2 DRIVE LT P6-3 NOT USED -- 33-18-11 -- --□|||-33-18-33 - -33-18-11 TEST R33 MASTER TEST RELAY 28V DC BUS 1 SECT 2 24-61-22 - 24-33-11 -C23 DC BUS 1 INDICATION 28V DC BAT BUS SECT 2 ---- 24**-**33**-**11 C26 BAT BUS INDICATION D652 P5-13 ELECTRIC METER BATTERY & GALLEY POWER PANEL 31-52-11 LOAD CONTROL CENTER - RIGHT W5514-5529-20 M469 ANNUNCIATION AND DIMMING MODULE 8\_ 31-52-11 — —□|i W0001 7\_ 31-52-11 ZB1 5712-20 TB507 — 31-52-21 (н) - -RECALL L343 MASTER CAUTION
ANNUNCIATOR RIGHT
FIRST OFFICERS PANEL LIGHTING POWER Supply W0104 RECALL **0**- <sup>7</sup>- 31-52-11 - - - - - **0**- <sup>8</sup>- 31-52-11 - - -□||<sub>□</sub> W0066 0041-20 - W5514-5530-20 - 0042-20 D40824P D46108P D636 **3**- <sup>9</sup>- 31-52-11 J46 JUNCTION BOX ELEC CAPTAINS INSTRUMENT COMPARATOR L342 MASTER CAUTION P5-5 GENERATOR DRIVE & STANDBY POWER PANEL ANNUNCIATOR LEFT P5 PILOT OVERHEAD PANEL (FWD AND AFT) CAPTAINS PANEL LIGHTING

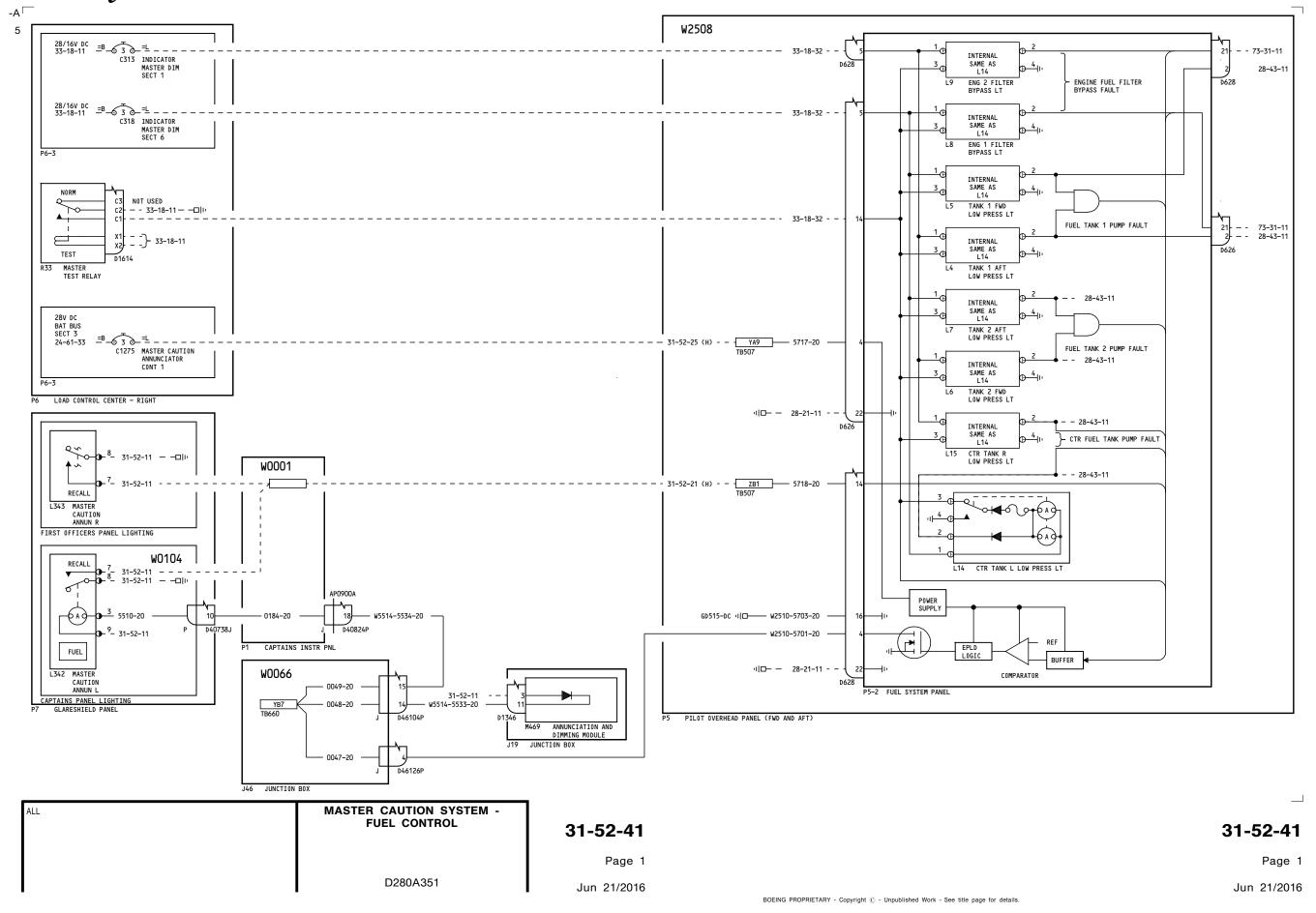








BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.



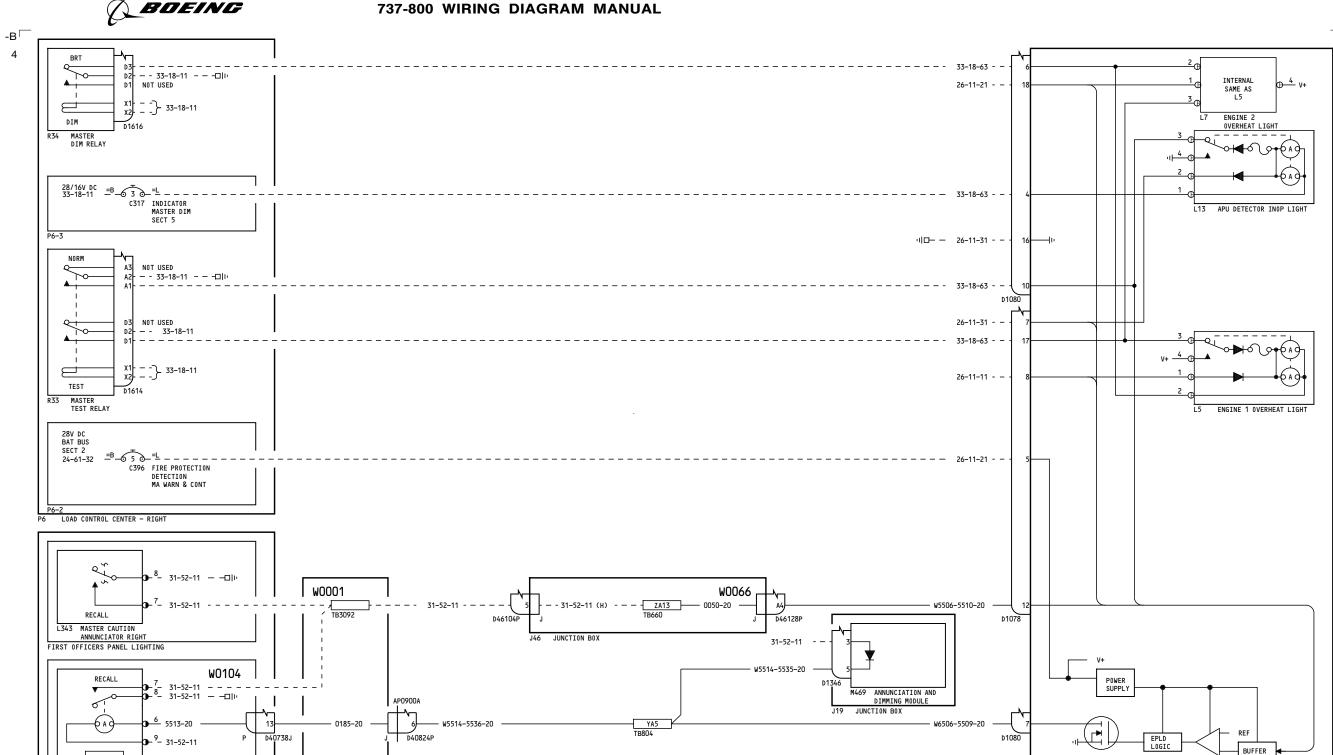


CAPTAINS INSTRUMENT PANEL

OVHT/DET

L342 MASTER CAUTION ANNUNCIATOR LEFT

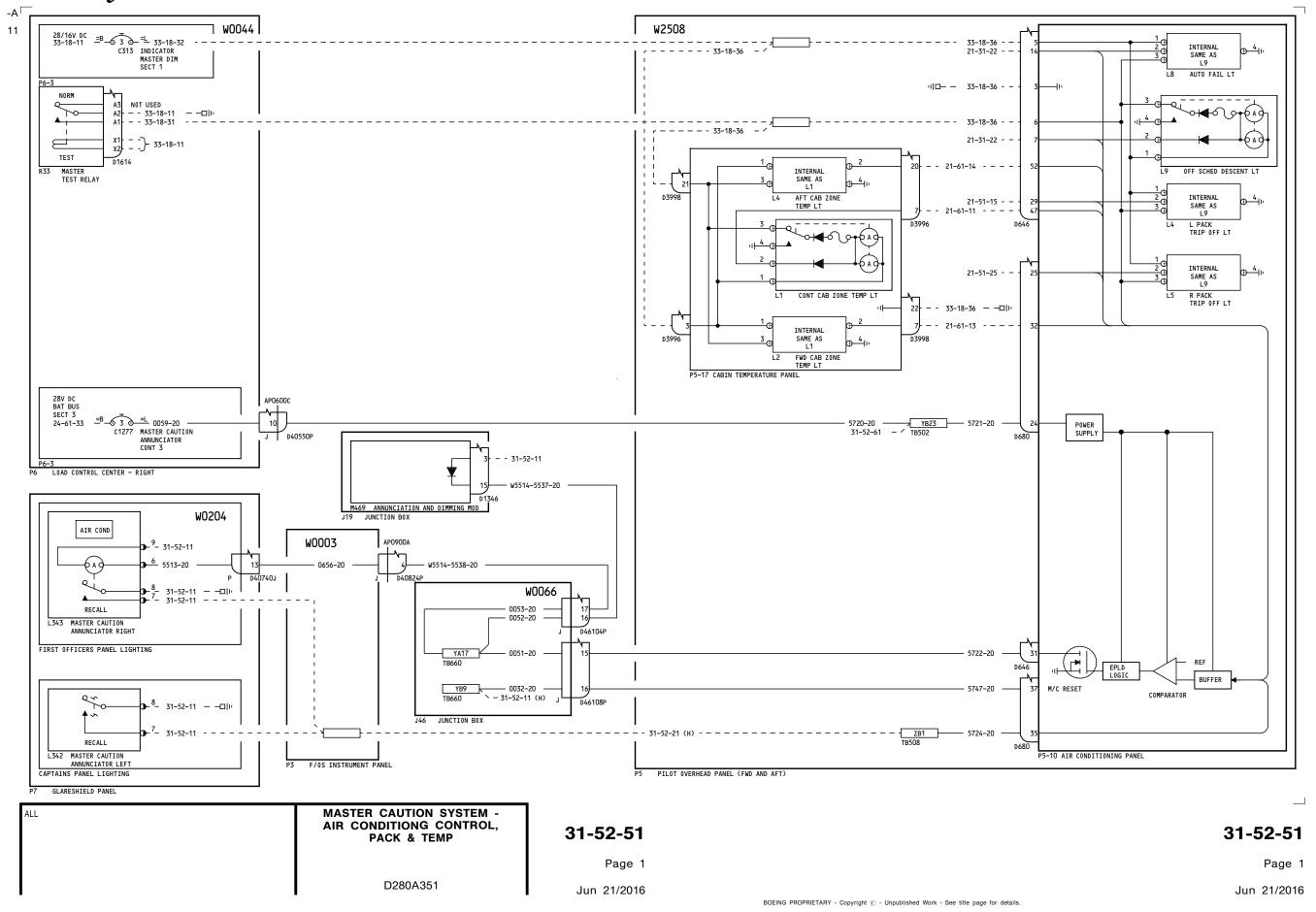
CAPTAINS PANEL LIGHTING P7 GLARESHIELD PANEL

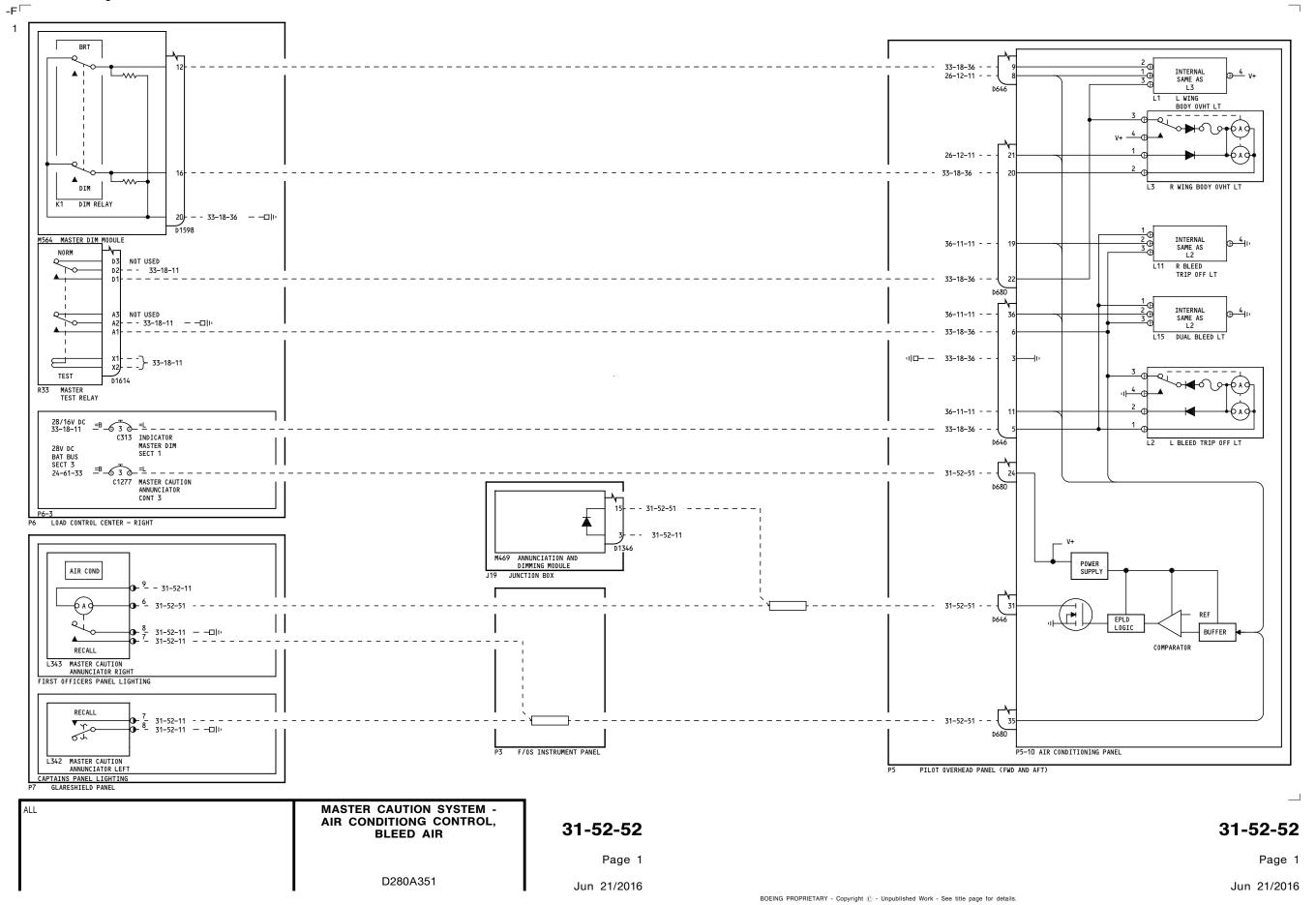


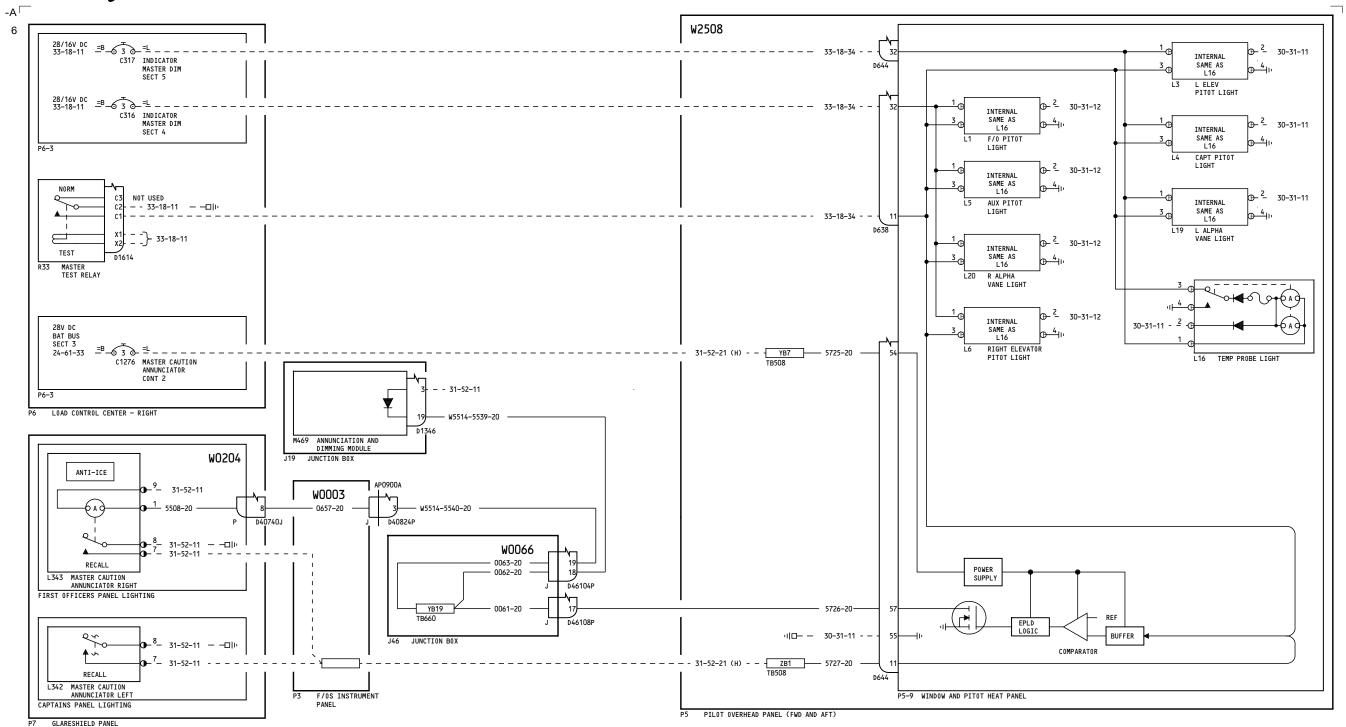
**MASTER CAUTION SYSTEM -OVERHEAT DETECTION** 31-52-45 31-52-45 Page 1 Page 1 D280A351 Jun 21/2016 Jun 21/2016 BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

COMPARATOR

P8-1 ENGINES & APU FIRE CONTROL PANEL

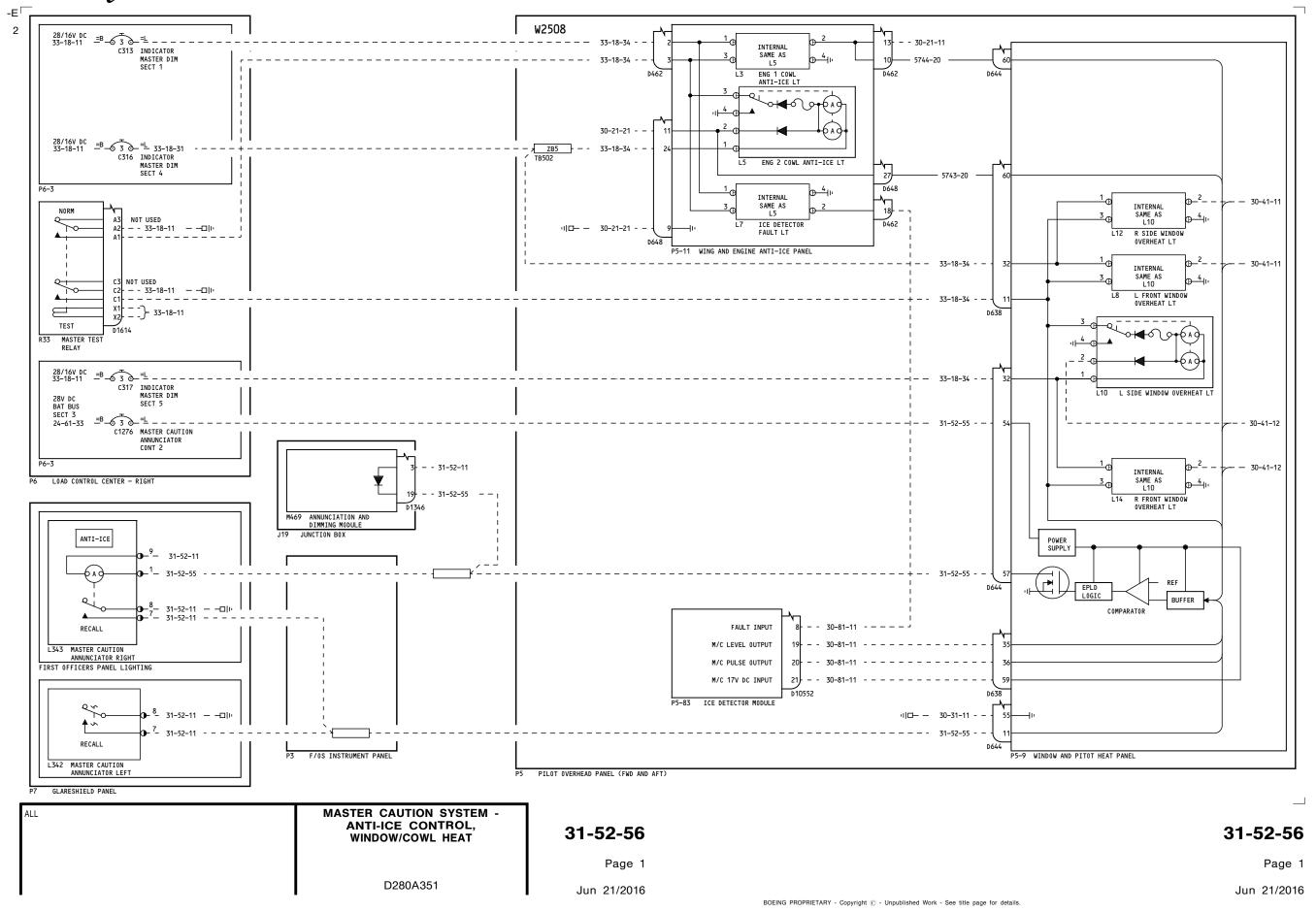


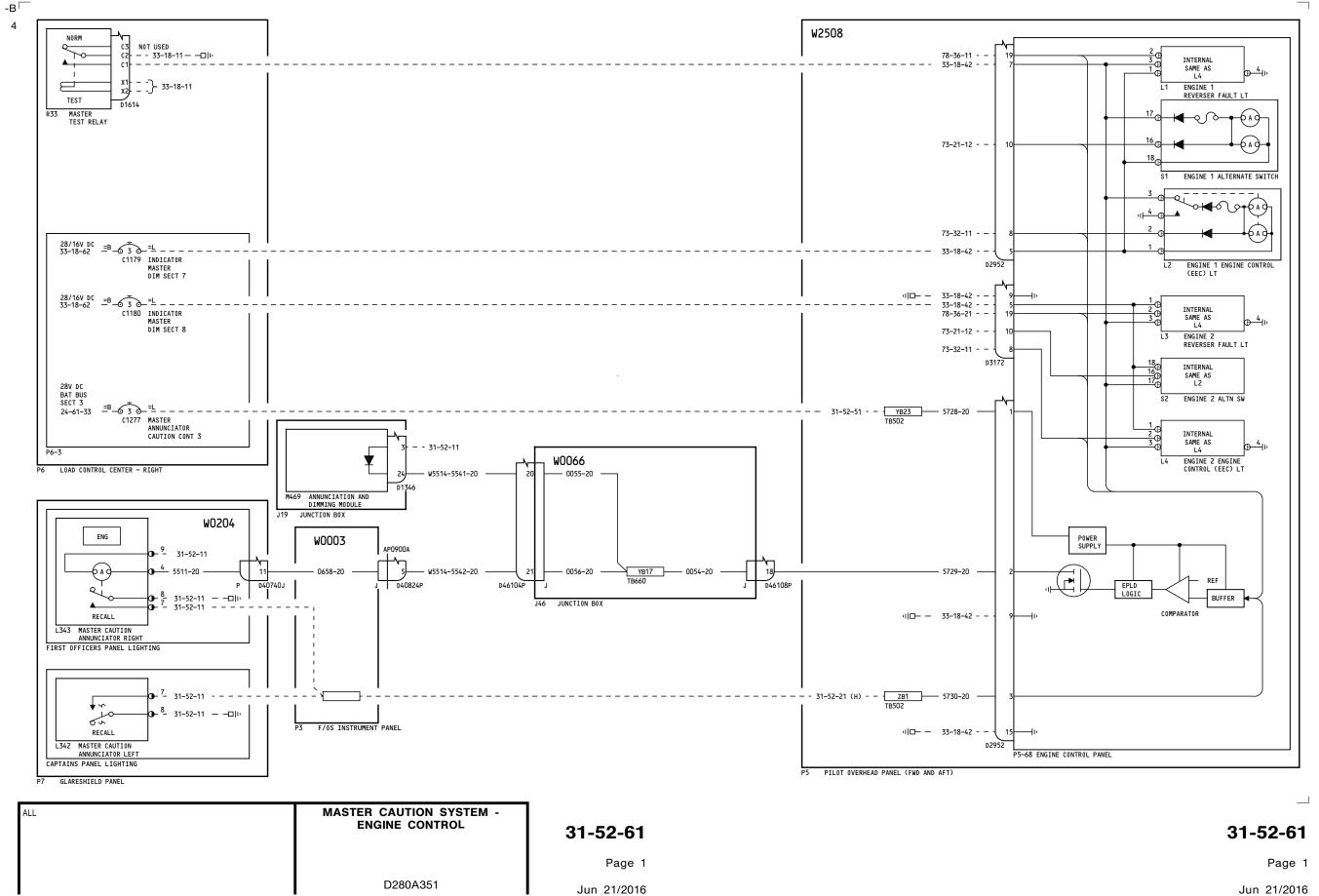




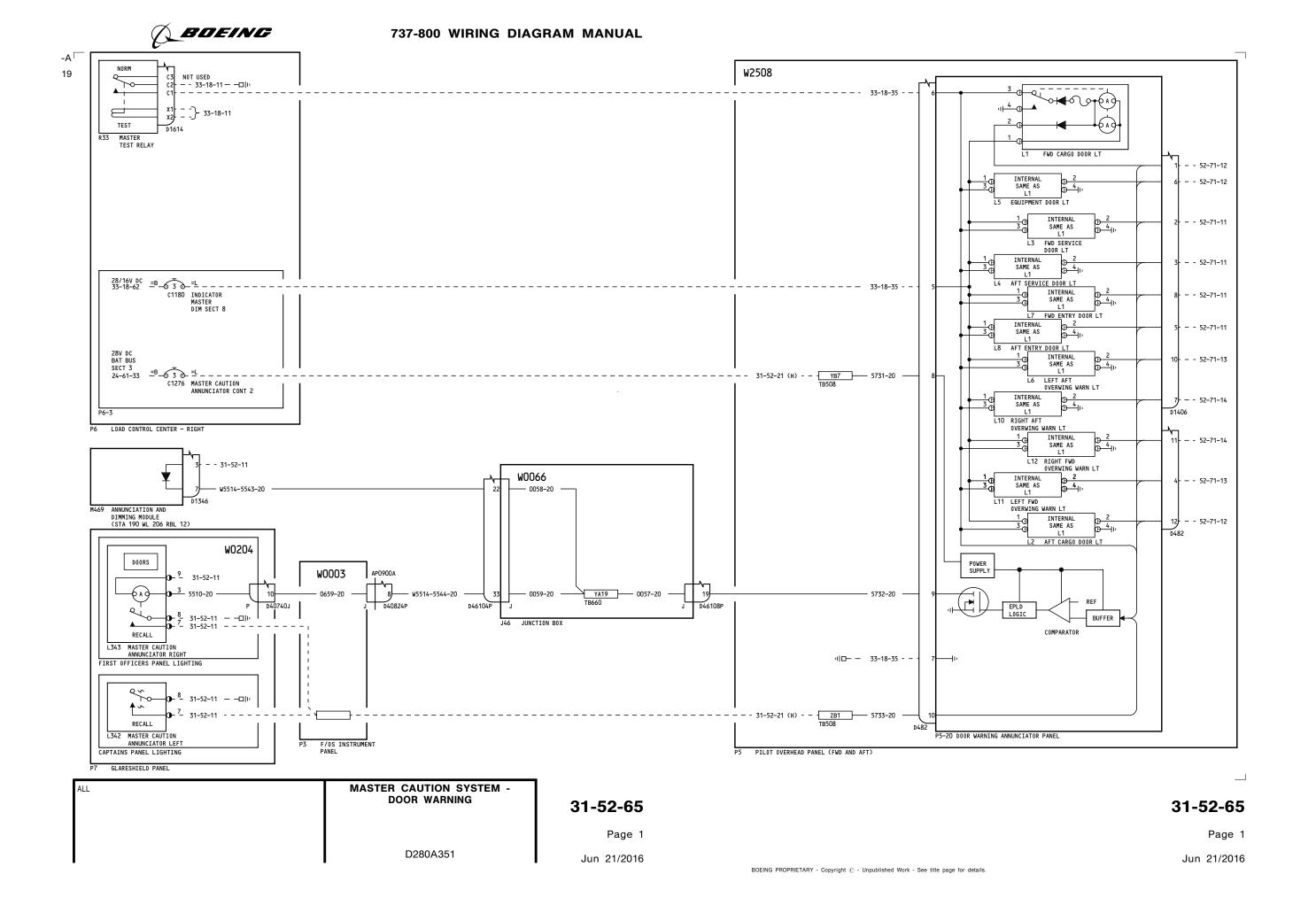


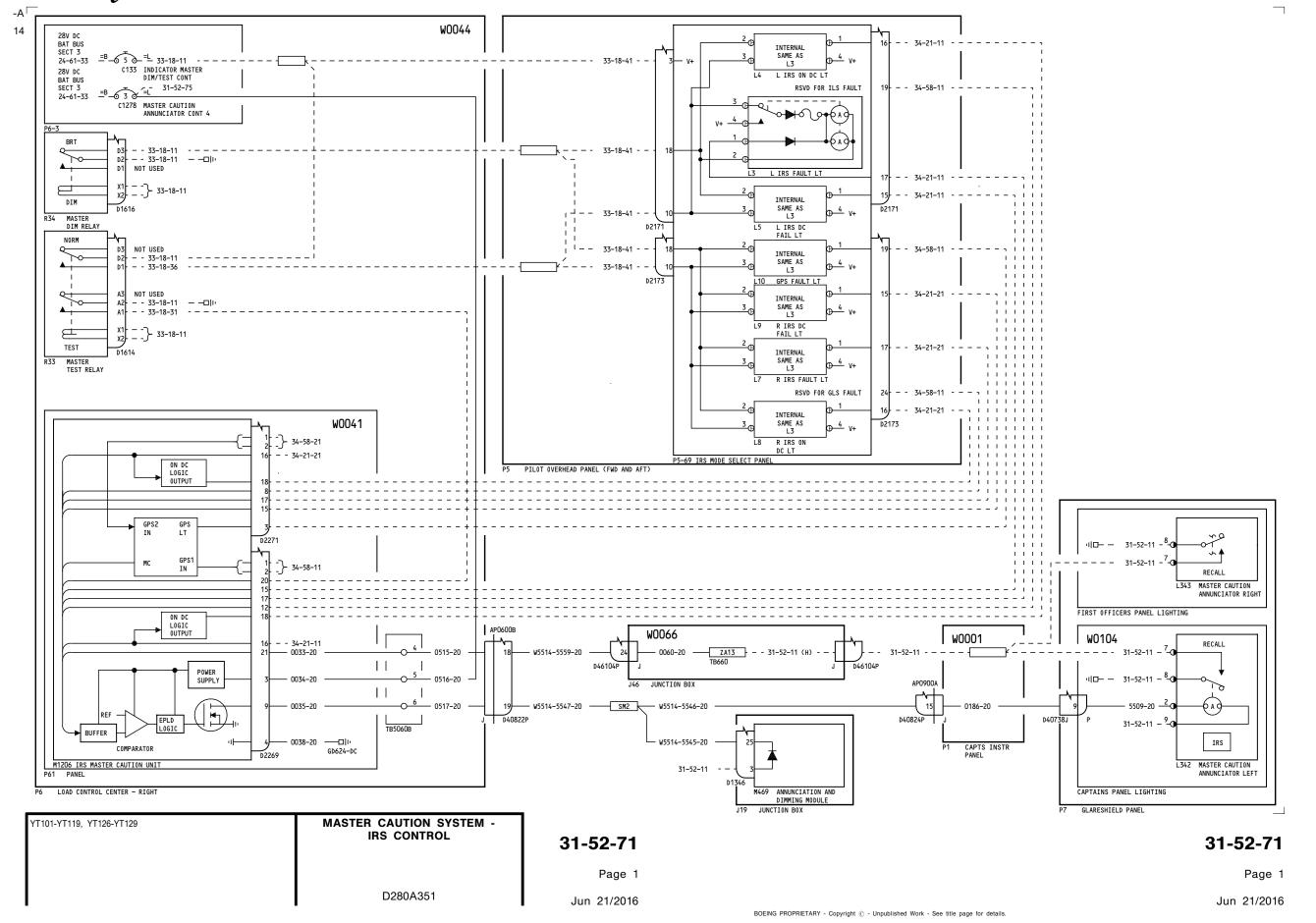
BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

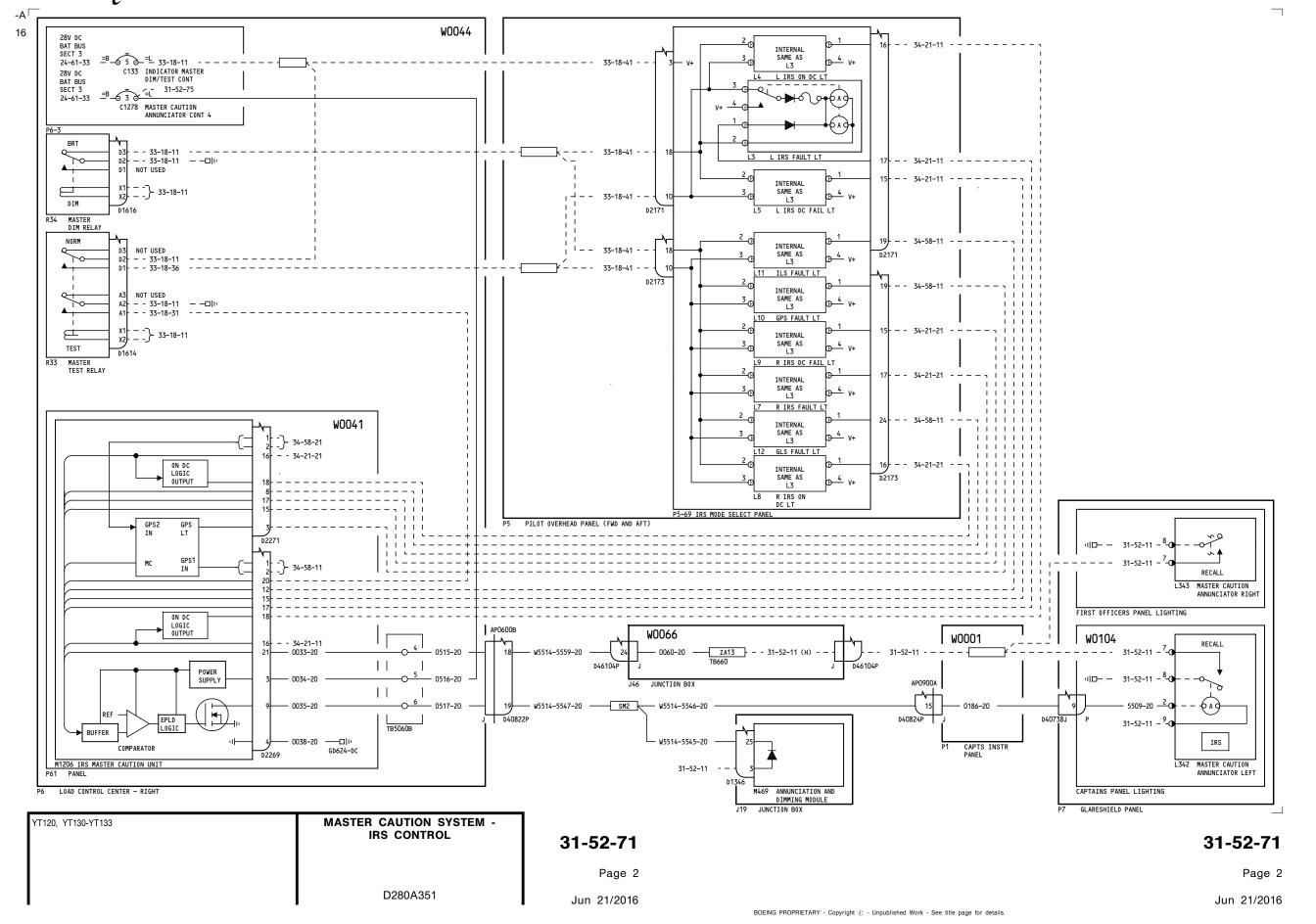


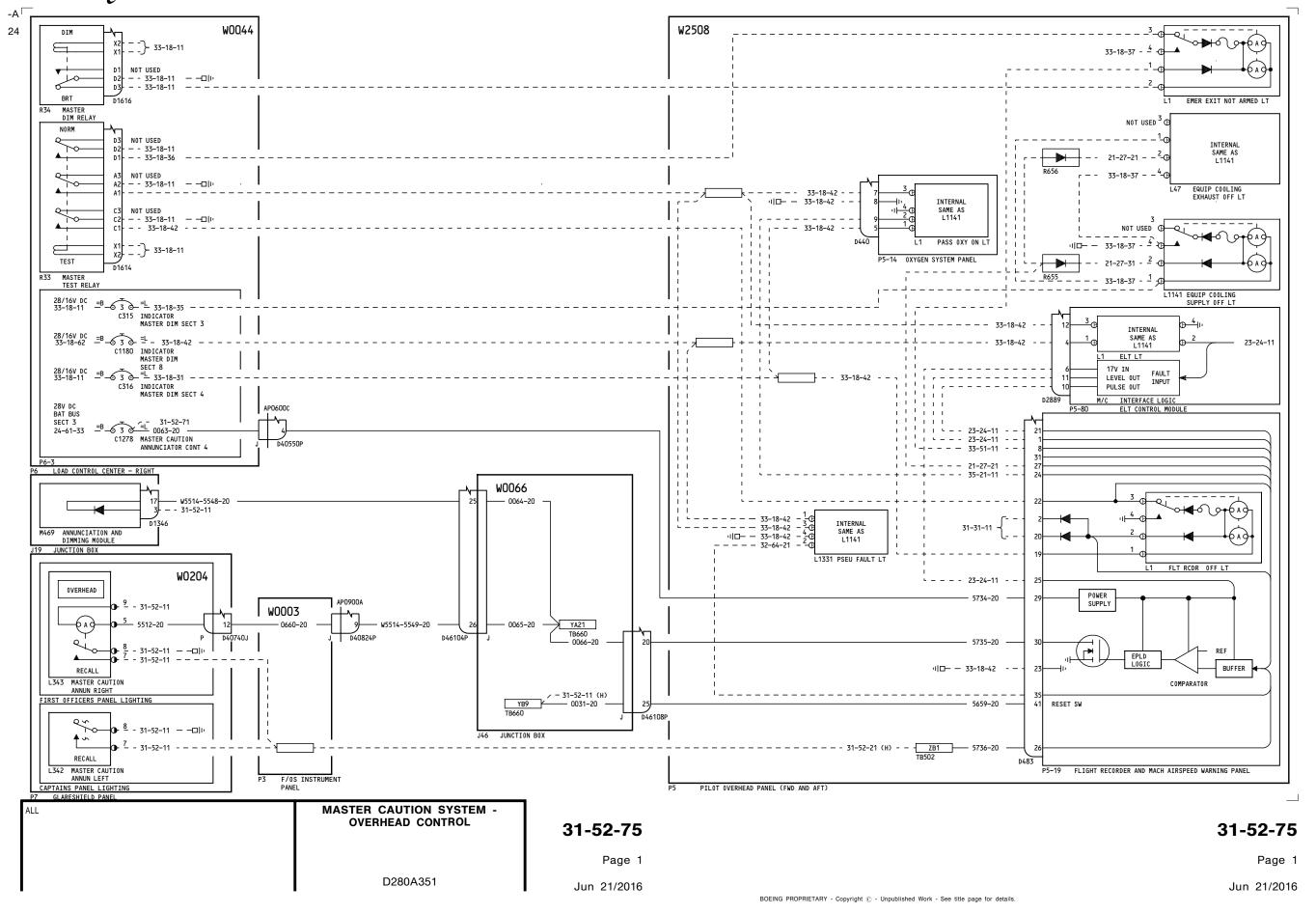


BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

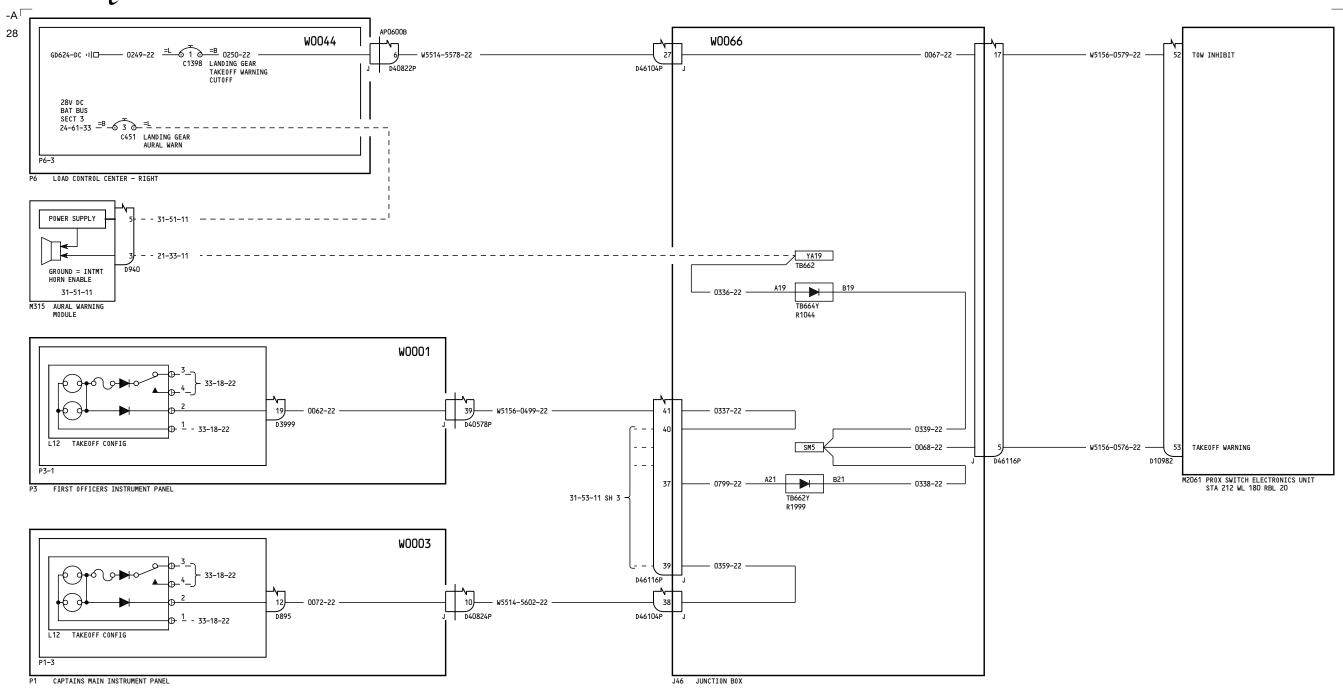












AURAL WARNING TAKEOFF WARNING

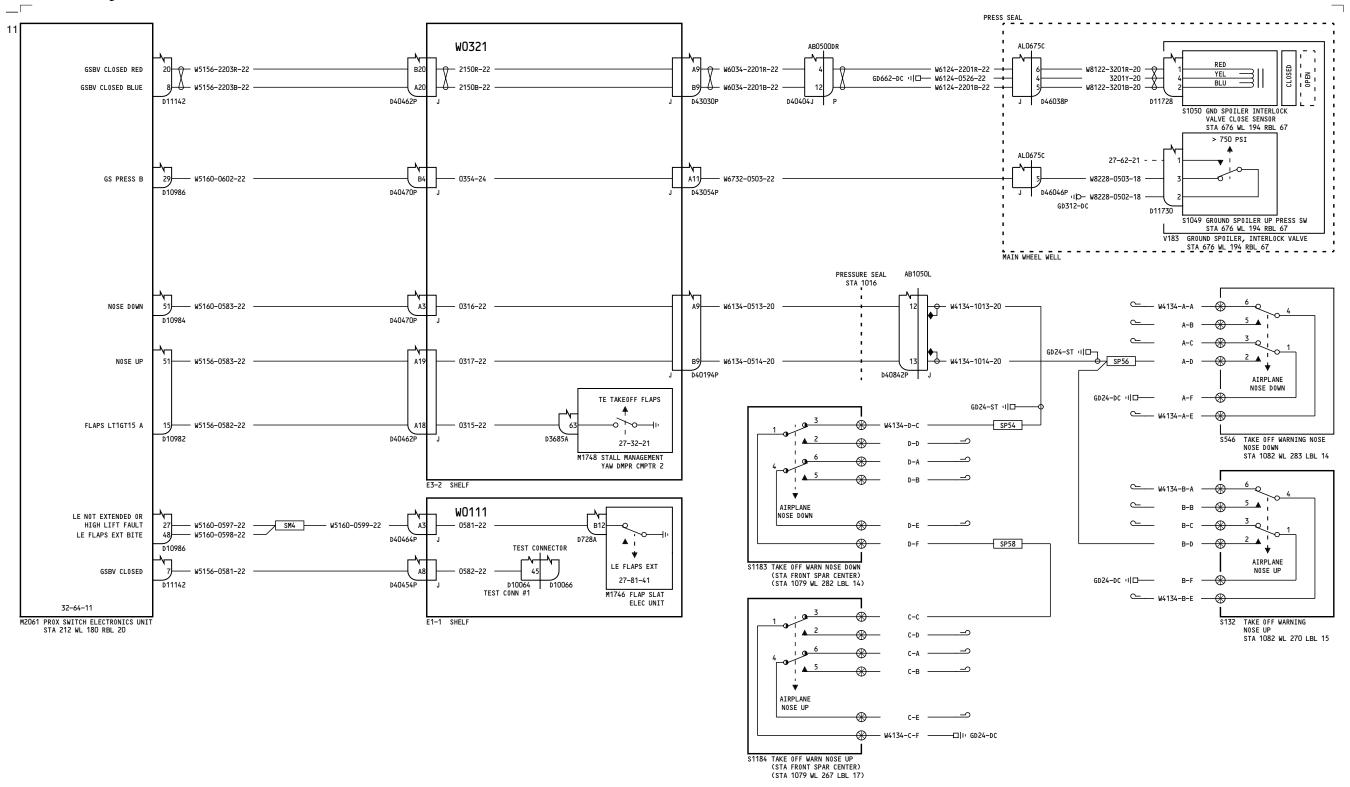
D280A351

31-53-11

Page 1 Sheet 1 Jun 21/2016 31-53-11

Page 1 Sheet 1 Jun 21/2016



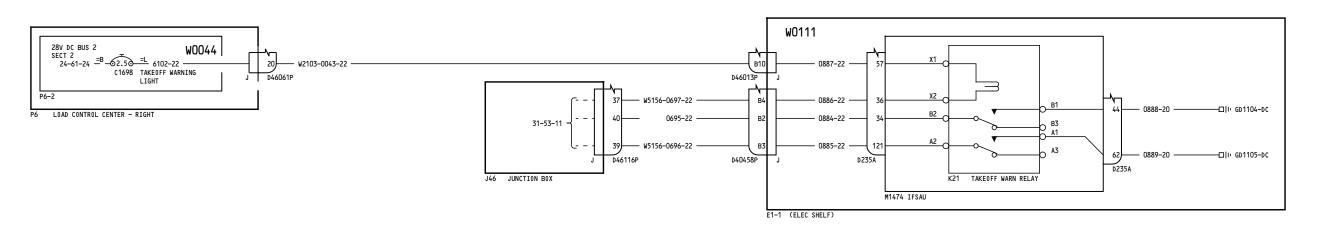


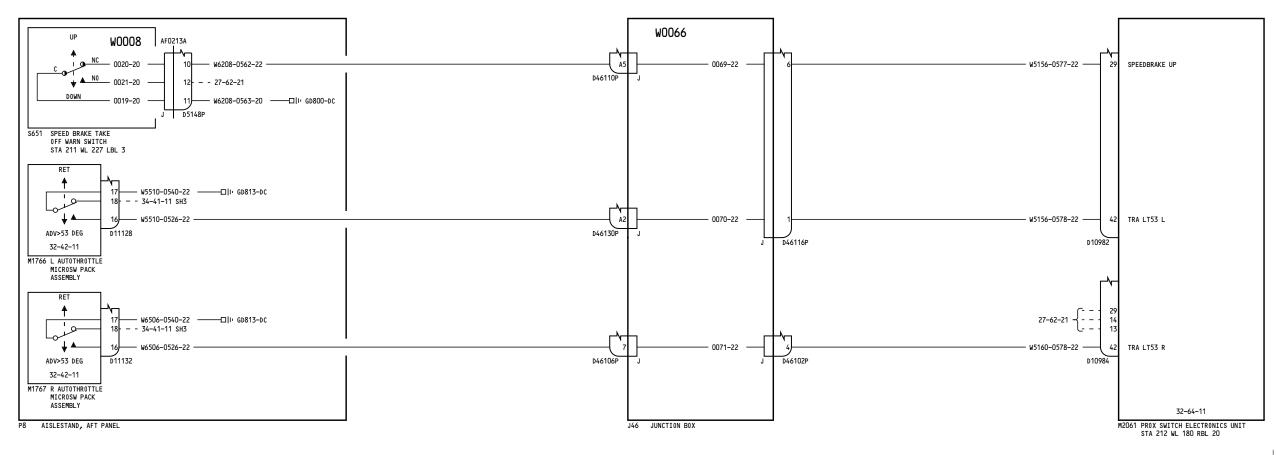
ALL	AURAL WARNING - TAKEOFF WARNING
	D280A351

31-53-11

Page 1 Sheet 2 Jun 21/2016 31-53-11

Page 1 Sheet 2 Jun 21/2016 -A — 45





ALL
AURAL WARNING TAKEOFF WARNING

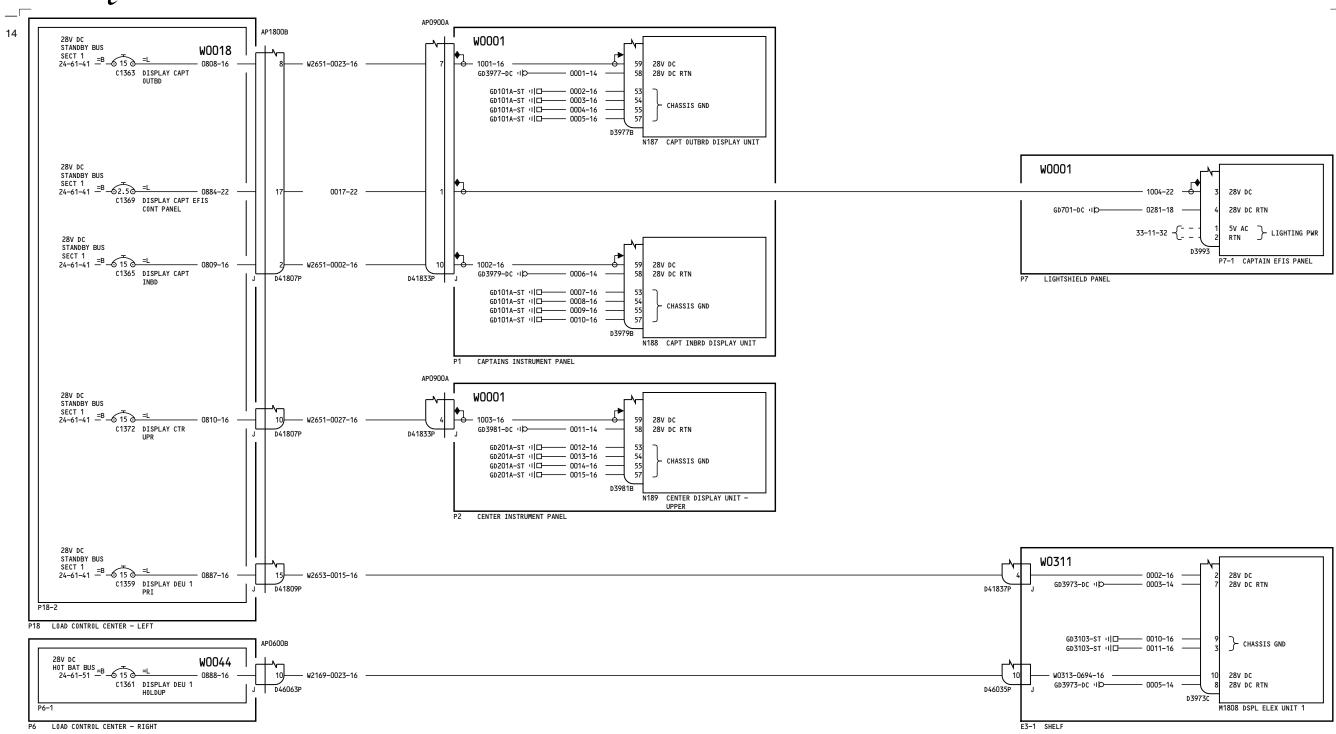
D280A351

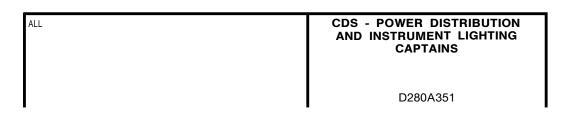
31-53-11

Page 1 Sheet 3 Jun 21/2016 31-53-11

Page 1 Sheet 3 Jun 21/2016





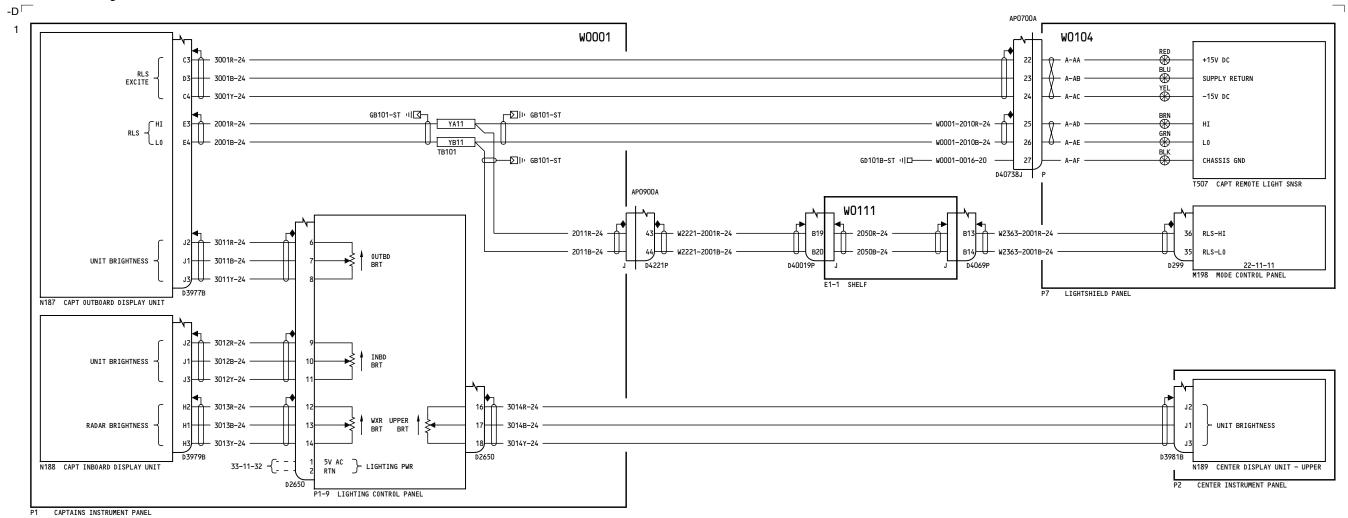


31-62-11

Page 1 Sheet 1 Jun 21/2016 31-62-11

Page 1 Sheet 1 Jun 21/2016





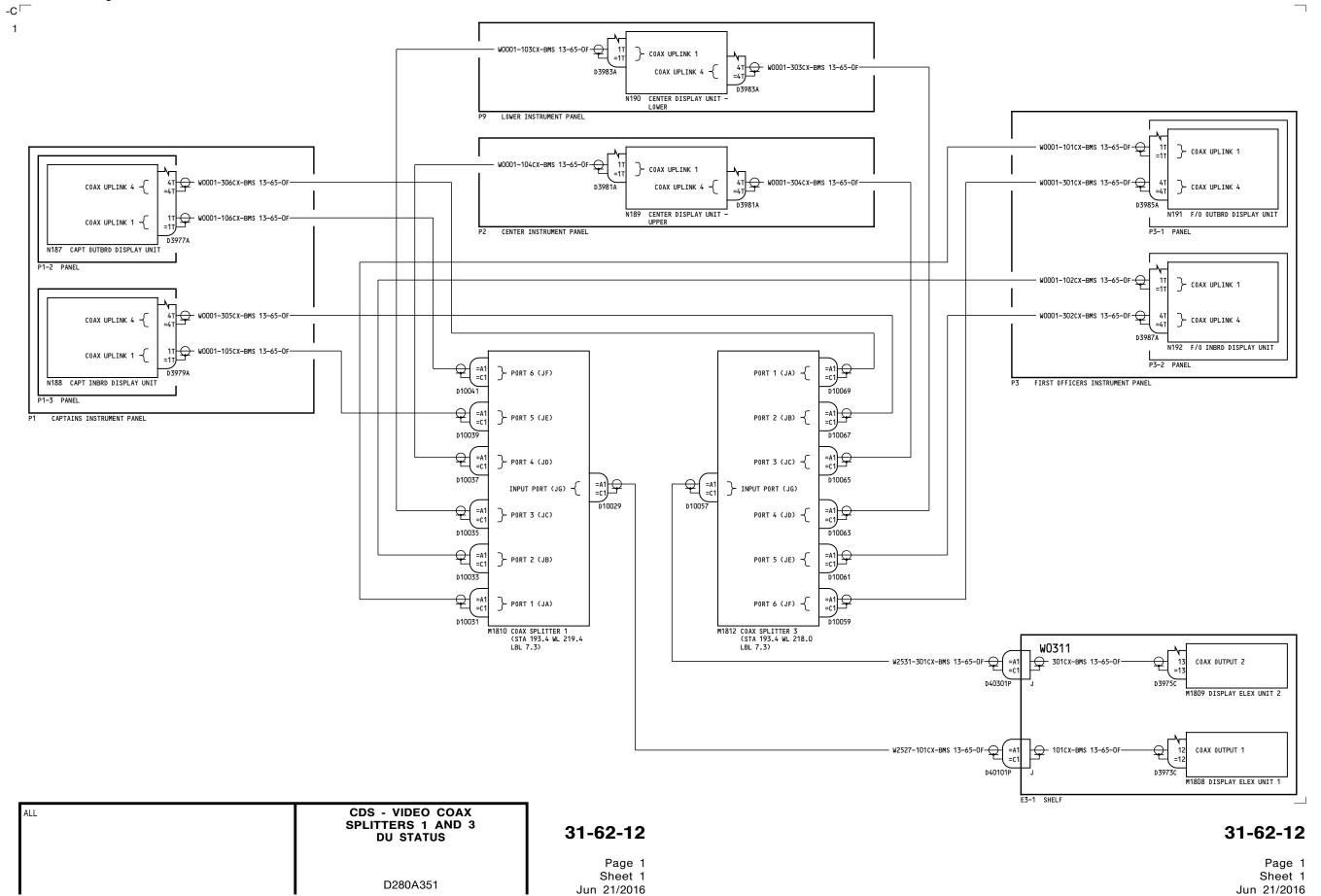
CDS - POWER DISTRIBUTION
AND INSTRUMENT LIGHTING
CAPTAINS

D280A351

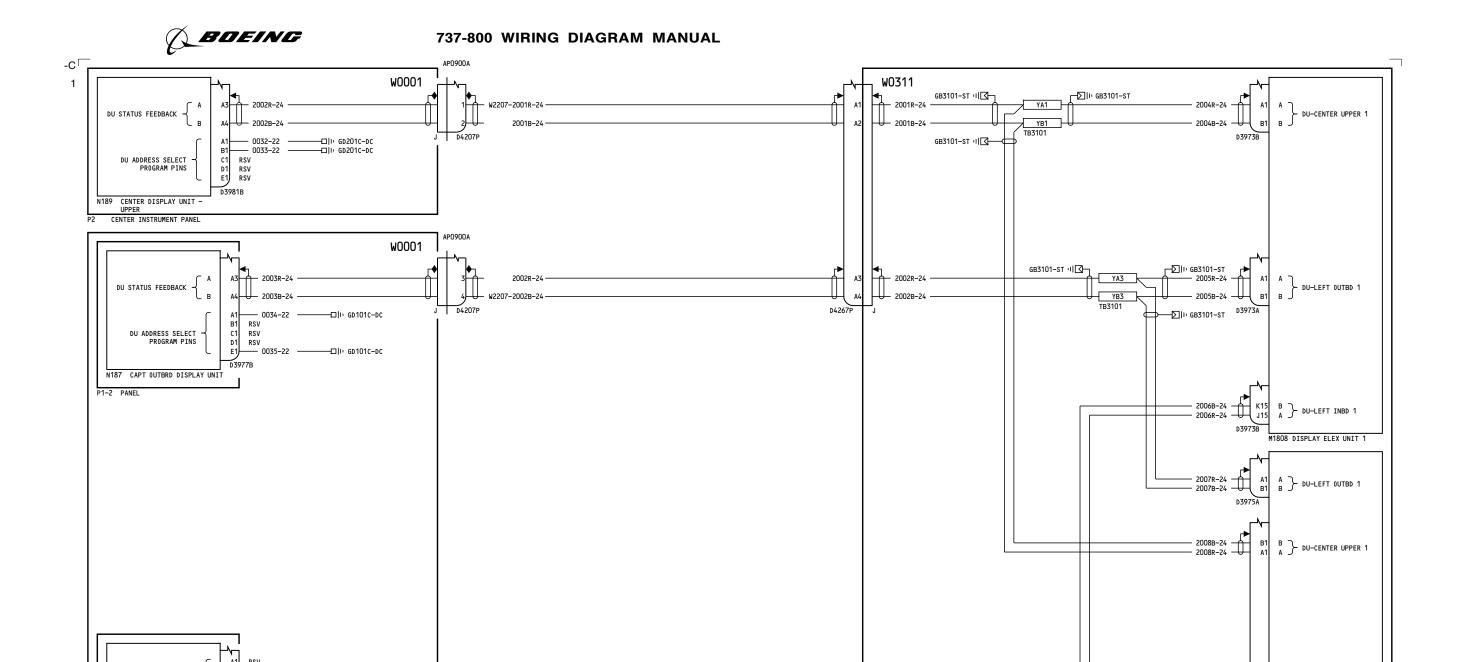
31-62-11

Page 1 Sheet 2 Jun 21/2016 31-62-11

Page 1 Sheet 2 Jun 21/2016



BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.



CDS - VIDEO COAX
SPLITTERS 1 AND 3
DU STATUS

D280A351

—□|I+ GD101D-DC

-□|ı GD101D-DC

AP0900A

J D4221P

- 0036-22

- 0037-22

RSV

DU ADDRESS SELECT PROGRAM PINS

N188 CAPT INBRD DISPLAY UNIT

CAPTAINS INSTRUMENT PANEL

DU STATUS FEEDBACK

31-62-12

D45113P

W0111

E1-1 SHELF

D40019P

Page 1 Sheet 2 Jun 21/2016 31-62-12

DU-LEFT INBD 1

M1809 DISPLAY ELEX UNIT 2

Page 1 Sheet 2 Jun 21/2016

E3-1 SHELF

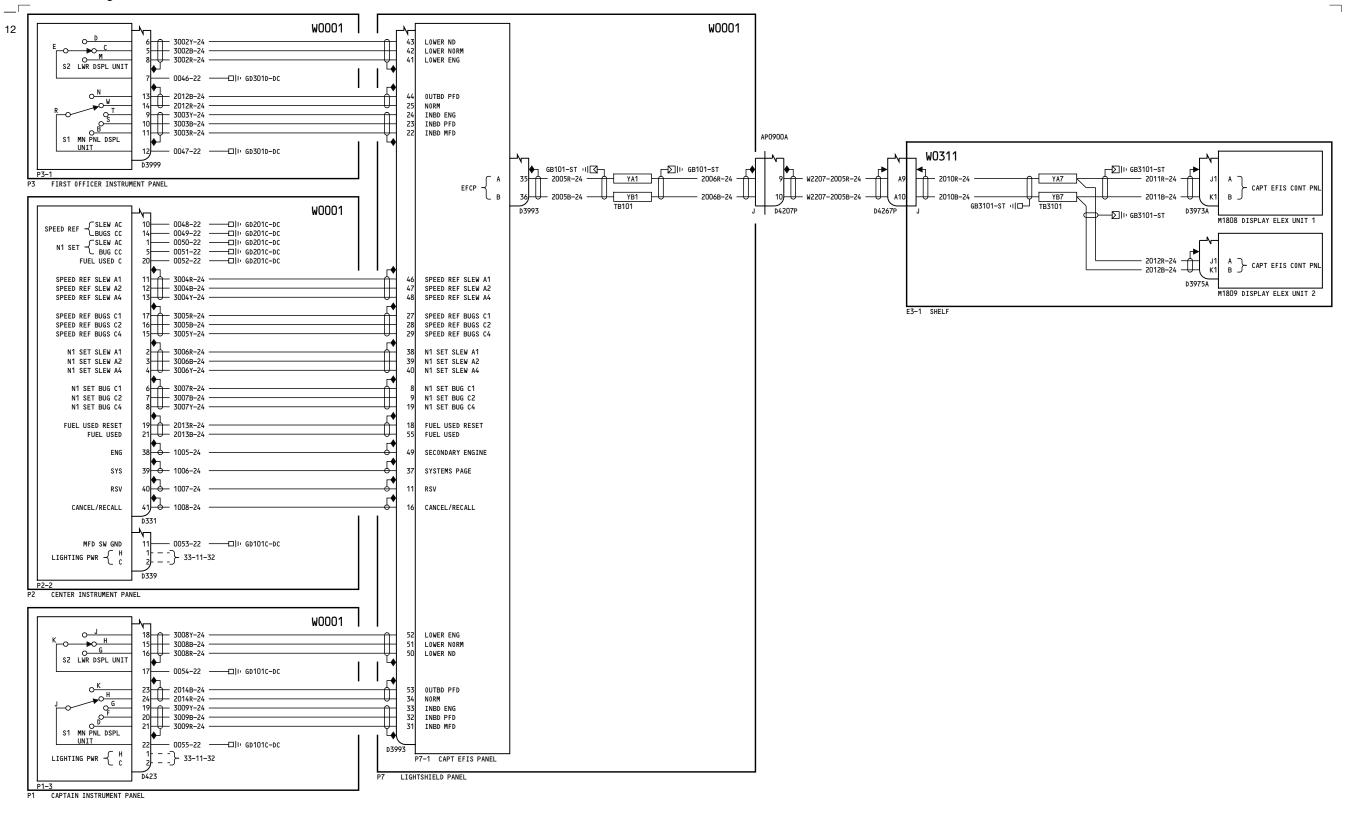
GB3101−ST +IIဩ−

GB3101-ST +||**□** 

L GB3101-ST

TB3101





**CDS - CONTROL PANEL INTERFACES - CAPTAINS** D280A351

31-62-13

Page 1 Jun 21/2016 31-62-13

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

-D □

73-24-11 -{-EEC ENG 2 CH A \_ \_}- 73-24-21 - EEC ENG 1 CH A DC REF 4 MONITOR HI DC REF 4 MONITOR LO
SYST B HYDRAULIC OIL QTY 
HOQ HI
HOQ LO DC REF 3 MONITOR LO 29-31-11 HOQ HI HOQ LO SYST A HYDRAULIC OIL QTY 74-31-11 IGN SW-LEFT IGNITOR \_ \_}- 77-12-11 N1 SPEED ENG 2 -29-32-11 -{ -DC RETURN AIR/GND LOGIC SYSTEM 2 (AIR) - - 73-23-11 N1 SPEED ENG 1 77-12-11 -{-ENG 2 0IL QTY - (+8V DC) REF 79-31-11 DC REF 2 LO 49-62-11 -{\_ F12 - - 73-22-31 SIMULATION - ENG 2 RUNNING 73-23-11 - -AIR/GND LOGIC SYSTEM 1 (AIR) (+8V DC) REF - ENG 1 0IL QTY DC REF 1 L0 79-31-11 -{-ENGINE 1 START LEVER INPUT 2 - - 76-21**-**11 73-22-31 - -SIMULATION - ENG 1 RUNNING FUEL QTY RIGHT TANK  $-\left\{ \begin{array}{c} (+) \\ (-) \end{array} \right.$ 76-21-21 - -ENGINE 2 START LEVER INPUT 2 D3973D 73-24-12 -{- -(+) } FUEL QTY LEFT TANK 28-41-11 -{- -D3973A WING ANTI-ICE 73-21-31 LEFT PACK FLOW CONT AND SHUT-OFF VALVE RIGHT PACK FLOW CONT AND SHUT-OFF VALVE ENG 1 BLEED AIR SWITCH ISOLATION VALVE - BLEED AIR 73-21-31 ENG 2 BLEED AIR SWITCH 73-24-21 73-24-11 -{ EEC ENG 1 CH B EEC ENG 2 CH B DC REF 1 MONITOR HI DC REF 2 MONITOR HI DC REF 1 MONITOR LO DC REF 2 MONITOR LO 79-31-11 79-31-11 EOQ HI } ENG 1 OIL QTY ENG 2 OIL QTY  $\left\{ egin{array}{l} E0Q & HI \\ E0Q & L0 \\ \end{array} 
ight.$ IGN SW-RIGHT IGNITOR - - 74-31-11 } N2 SPEED ENG 1 77-12-21 -{-N2 SPEED ENG 2 -77-12-21 73-23-11 -{-AIR/GND LOGIC SYSTEM 1 (GND) ENG 2 COWL ANTI-ICE FUEL FILTER BYPASS ENG 1 73-31-11 - -AIR/GND LOGIC SYSTEM 2 (GND) FUEL FILTER BYPASS ENG 2 - - 73-31-11 34-61-14 -{ -ENG 2 RUNNING 30-31-12 ENG 2 START SW-FLT \_ \_}- 74-31-11 ENG 2 START SW-GND/CONT ENG 1 START SW-FLT 74-31-11 -{-EEC ENG 2 ALTN POWER CONTROL - - 73-22-11 73-22-11 EEC ENG 1 ALTN POWER CONTROL SYST B HYDRAULIC OIL QTY - DC REF \_ \_}- 29-31-11 DC REF - SYST A HYDRAULIC OIL QTY 29-31-11 -{- -DC REF 4 LO DC REF 3 LO ENG 2 CONT LIGHT - - 73-32-11 ENG 1 CONTROL LIGHT 73-32-11 30-31-12 76-21-11 ENG 1 RUNNING
ENGINE 1 START LEVER INPUT 1 ENGINE 2 START LEVER INPUT 1 - - 76-21-21 STARTER CUTOUT ENG 2 \_ \_}\_ 80-11-11 STARTER CUTOUT ENG 1 ENGINE 1 START VALVE ENGINE 2 START VALVE BITE POWER UP - - 49-62-11 (+) } FUEL QTY CENTER TANK 28-41-11 -{- \_ ENG 2 ALTN MODE 73-21-12 D3973E 73-21-12 - -ENG 1 ALTN MODE D3973B M1808 DISPLAY ELECTRONIC UNIT 1 E3-1 SHELF

CDS - DEU 1 ENGINE
HYDRAULIC, APU AND FUEL
INTERFACES

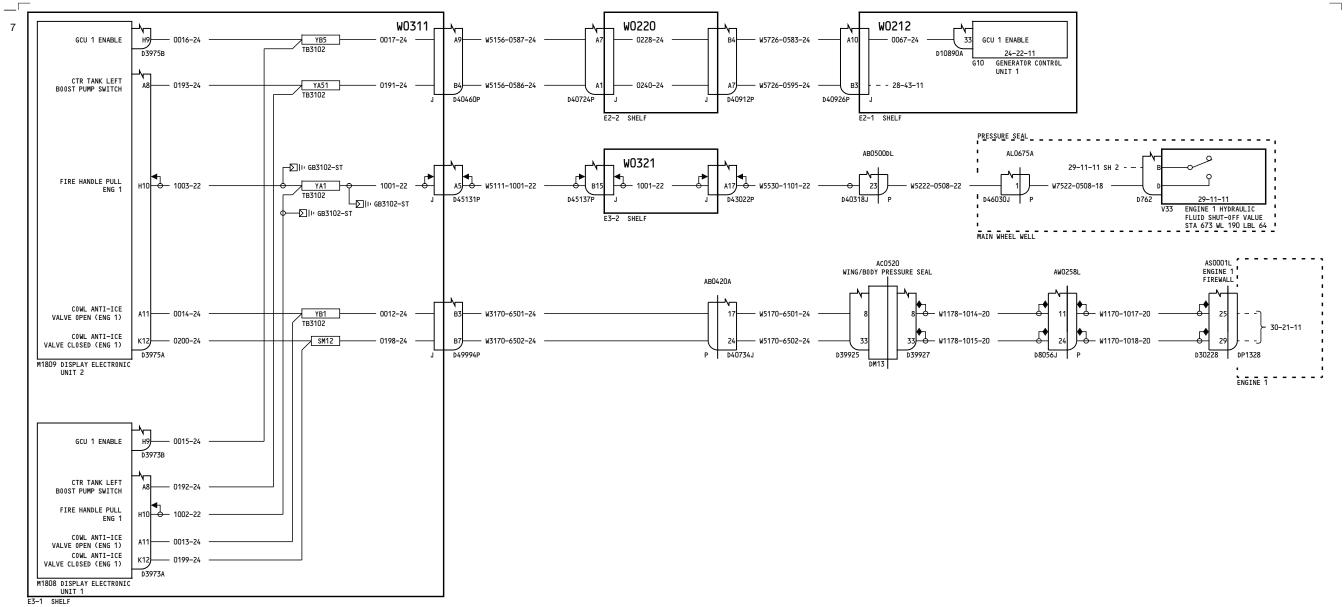
D280A351

31-62-14

Page 1 Sheet 1 Jun 21/2016 31-62-14

Page 1 Sheet 1 Jun 21/2016





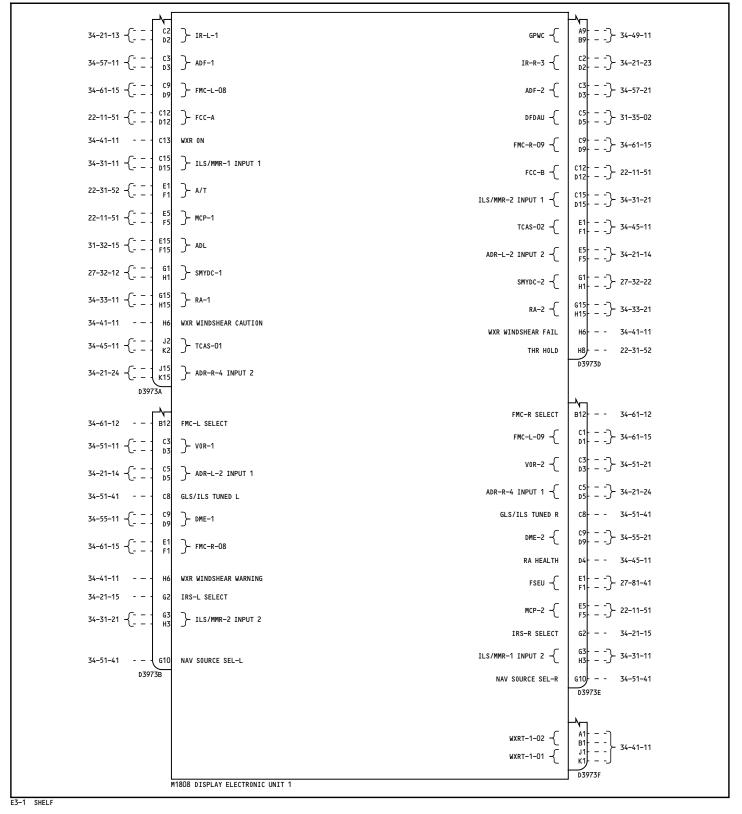
CDS - DEU 1 ENGINE
HYDRAULIC, APU AND FUEL
INTERFACES

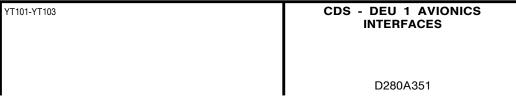
D280A351

31-62-14

Page 1 Sheet 2 Jun 21/2016 31-62-14

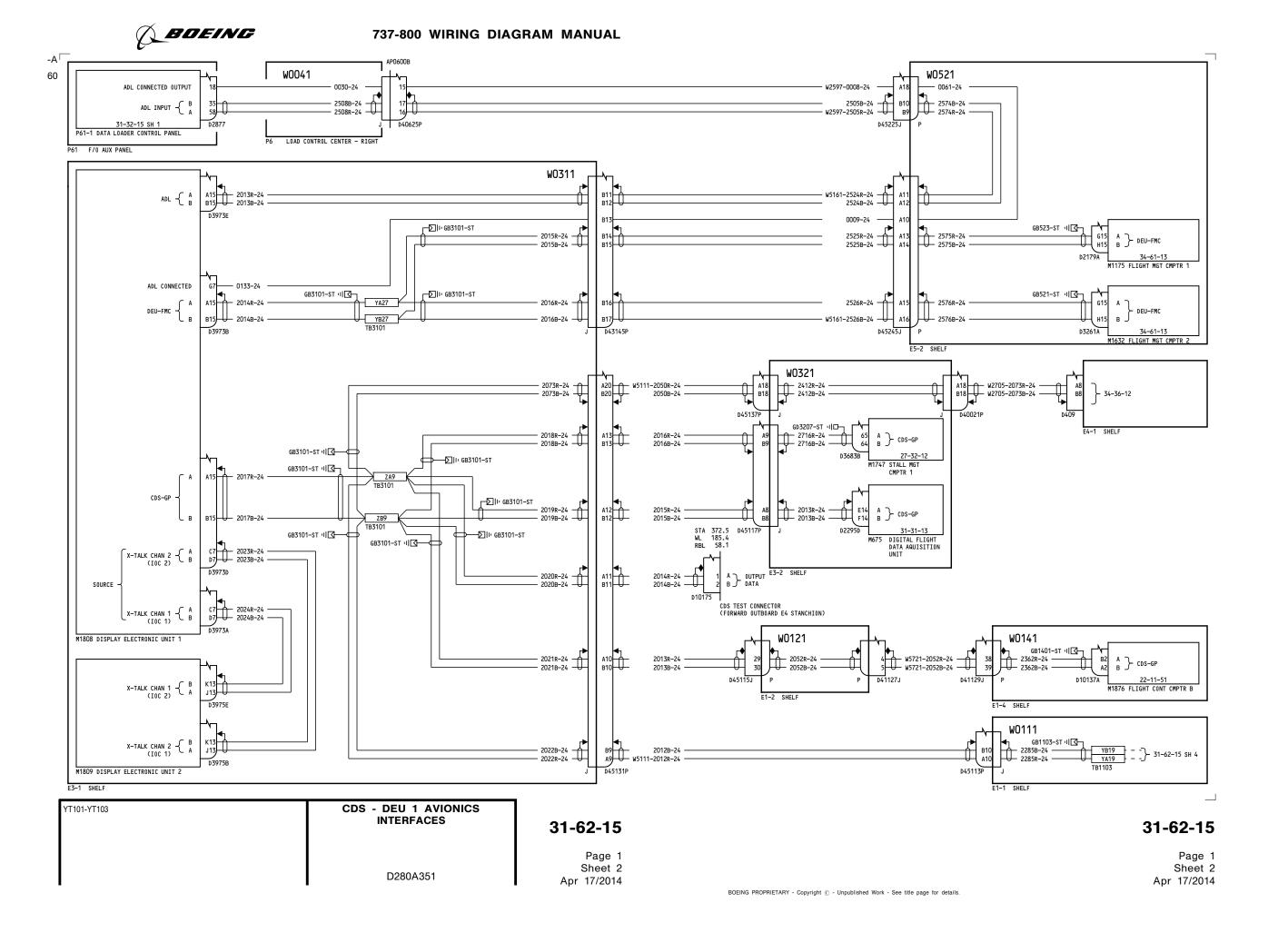
Page 1 Sheet 2 Jun 21/2016

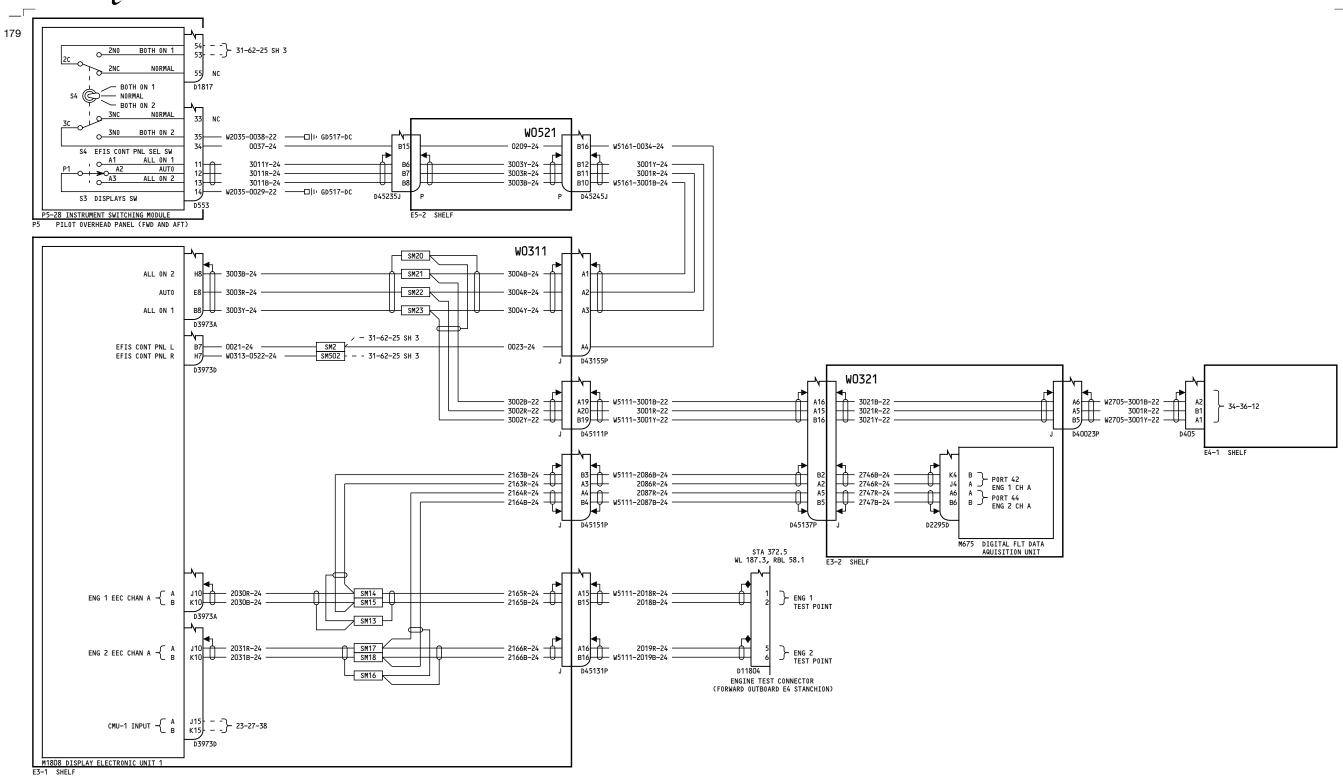


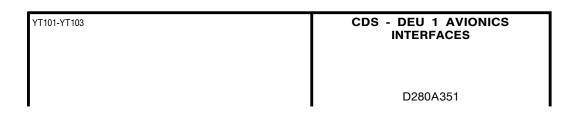


Page 1 Sheet 1 Aug 15/2013 31-62-15

Page 1 Sheet 1 Aug 15/2013



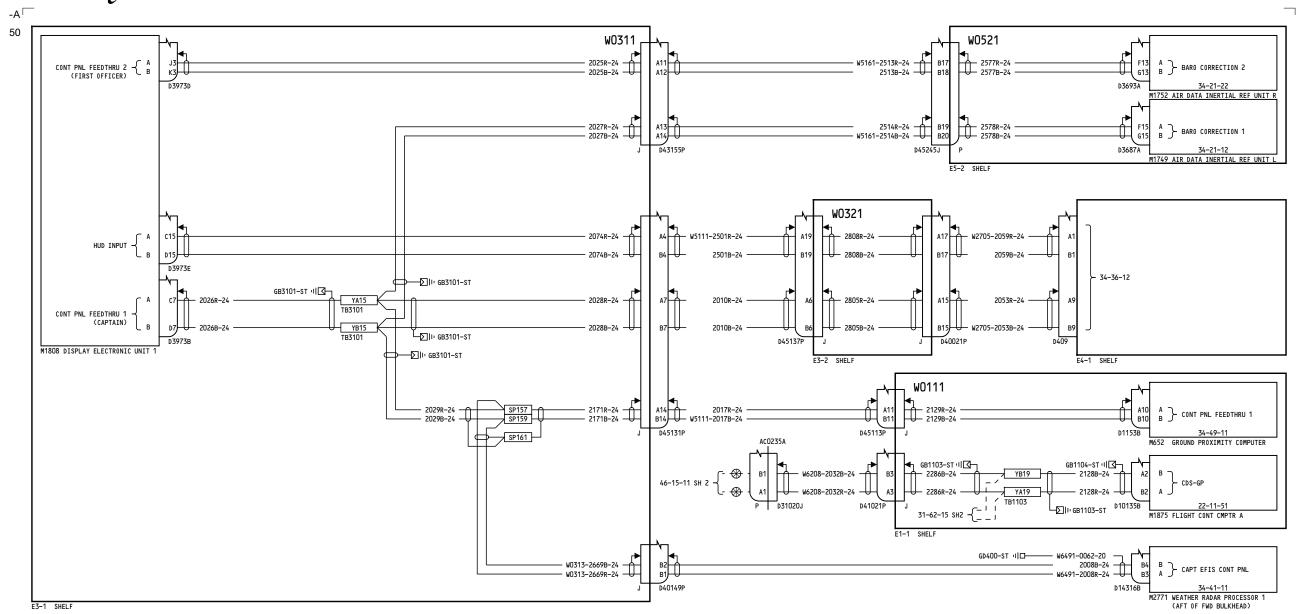




31-62-15

Page 1 Sheet 3 Aug 15/2013 31-62-15

Page 1 Sheet 3 Aug 15/2013



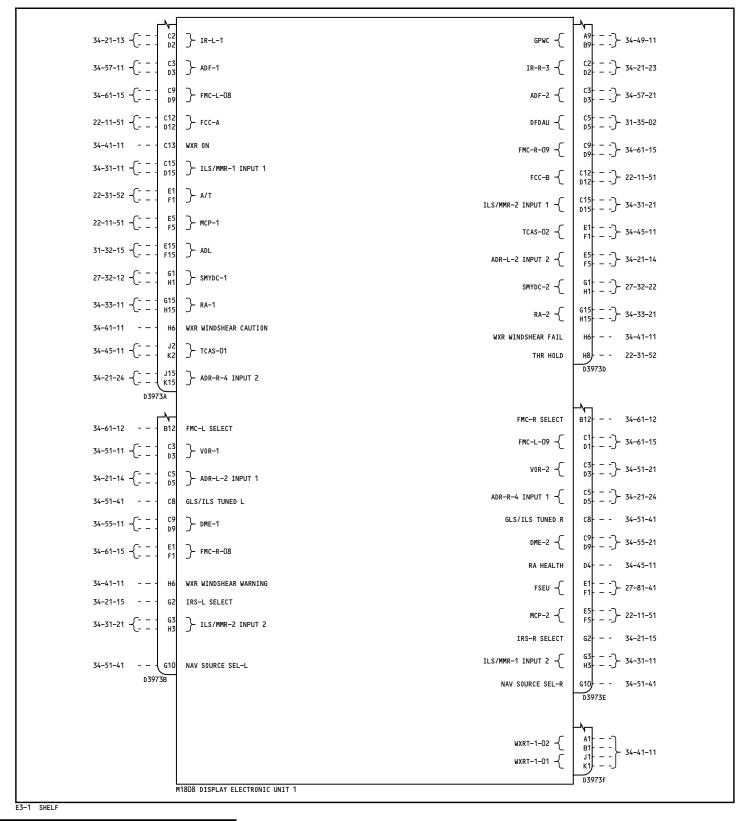
CDS - DEU 1 AVIONICS INTERFACES

D280A351

31-62-15

Page 1 Sheet 4 Nov 18/2013 31-62-15

Page 1 Sheet 4 Nov 18/2013 25

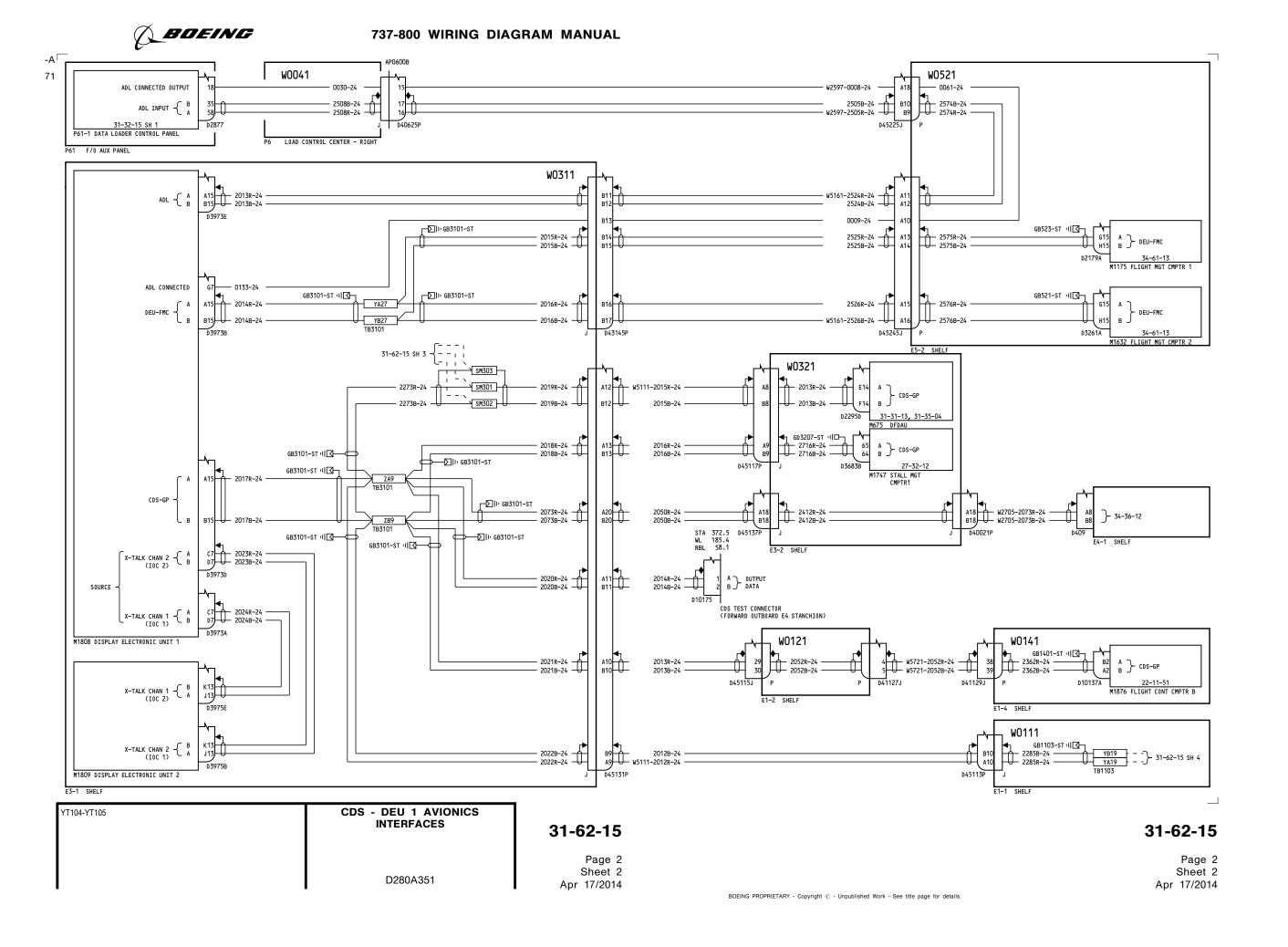


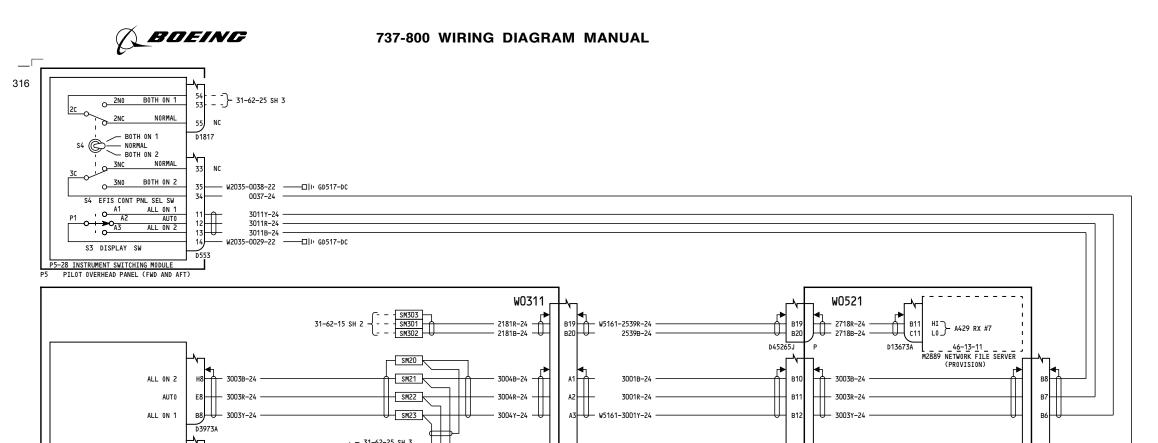


31-62-15

Page 2 Sheet 1 Apr 17/2014 31-62-15

Page 2 Sheet 1 Apr 17/2014





- 31-62-25 SH 3 W5161-0034-24 EFIS CONT PNL L 0021-24 0023-24 SM502 - - 31-62-25 SH 3 EFIS CONT PNL R — W0313-0522-24 — D43155P D45245J D45235J D3973D E5-2 SHELF W0321 3021B-22 3021R-22 3021Y-22 A6 W2705-3001B-22 3001R-22 B5 W2705-3001Y-22 3002B-22 3002R-22 3002Y-22 ₩5111-3001B-22 3001B-22 D40023P 2746B-24 2746R-24 2747R-24 2747B-24 2163B-24 2163R-24 B3 W5111-2086B-24 A3 2086R-24 B PORT 42 ENG 1 CH A 2086R-24 - 2164R-24 - 2164B-24 A PORT 44 B PORT 2 CH A 2087R-24 W5111-2087B-24 D45151P STA 372.5 WL 187.3, RBL 58.1 D45137P 31-31-13, 31-35-04 M675 DIGITAL FLT DATA AQUISITION UNIT SM14 SM15 W5111-2018R-24 -· 2165R-24 · 2165B-24 J10 2030R-24 K10 2030B-24 ENG 1 TEST POINT ENG 1 EEC CHAN A  $\left\{ egin{array}{c} A \\ B \end{array} \right.$ D3973A ENG 2 EEC CHAN A  $\left\{\begin{array}{c} A \\ B \end{array}\right\}$ 2166R-24 2166B-24 J10 2031R-24 K10 2031B-24 SM17 A16 2019R-24 B16 W5111-2019B-24 } ENG 2
TEST POINT SM18 D45131P SM16 ENGINE TEST CONNECTOR (FORWARD OUTBOARD E4 STANCHION) CMU-1 INPUT  $-\left\{\begin{array}{c}A\\B\end{array}\right.$ 23-27-38 M1808 DISPLAY ELECTRONIC UNIT 1

YT104-YT105

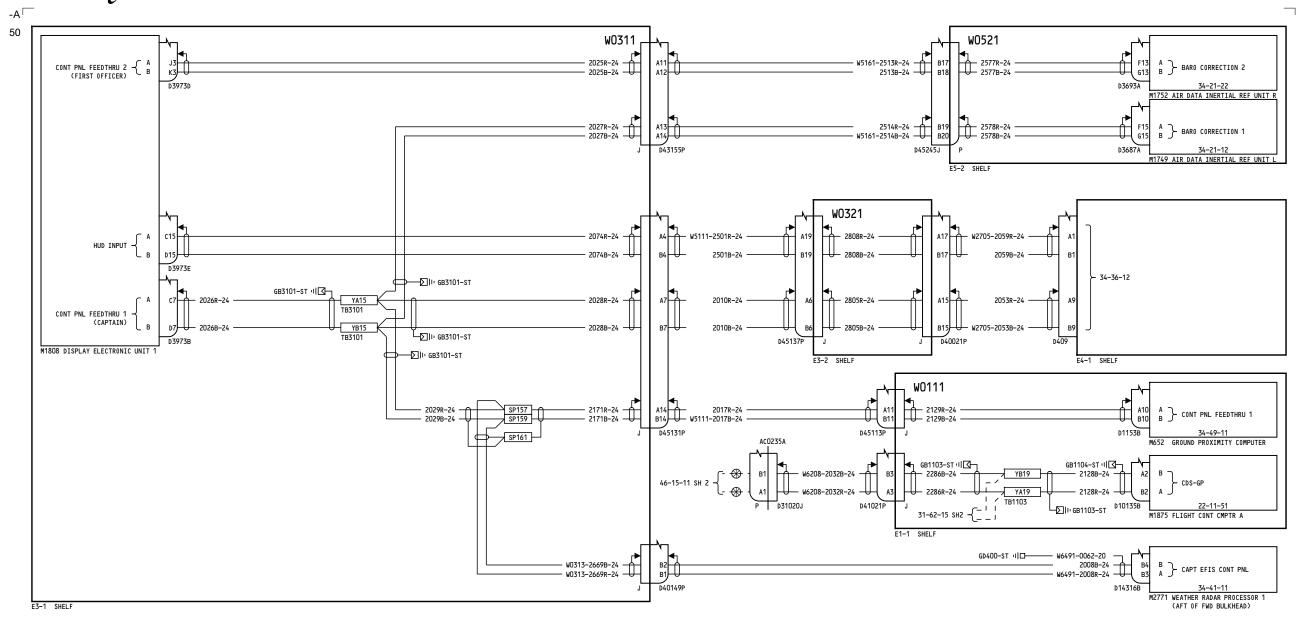
CDS - DEU 1 AVIONICS INTERFACES

D280A351

31-62-15

Page 2 Sheet 3 Apr 17/2014 31-62-15

Page 2 Sheet 3 Apr 17/2014



YT104-YT105

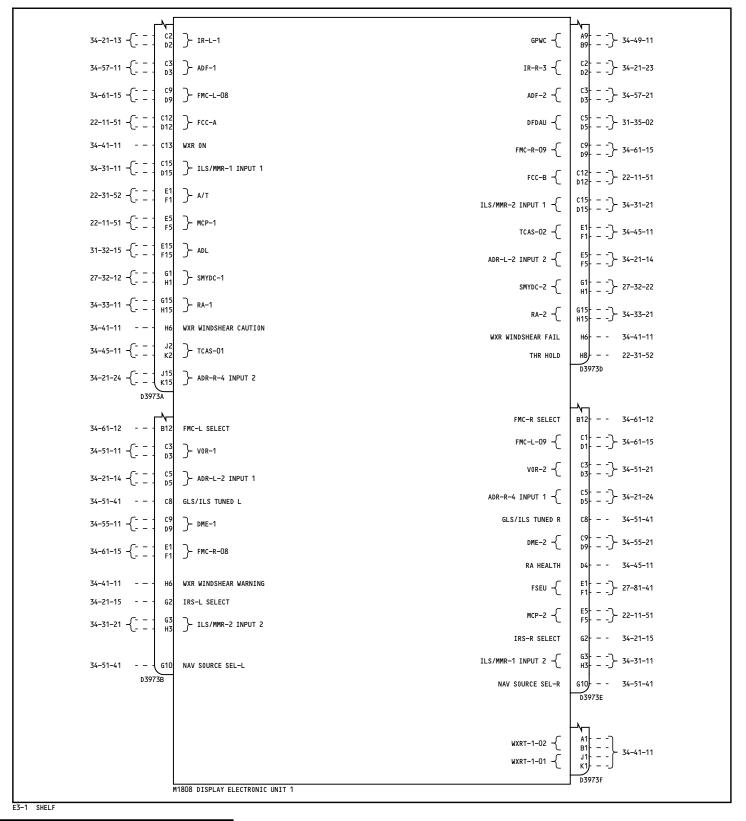
CDS - DEU 1 AVIONICS INTERFACES

D280A351

31-62-15

Page 2 Sheet 4 Apr 17/2014 31-62-15

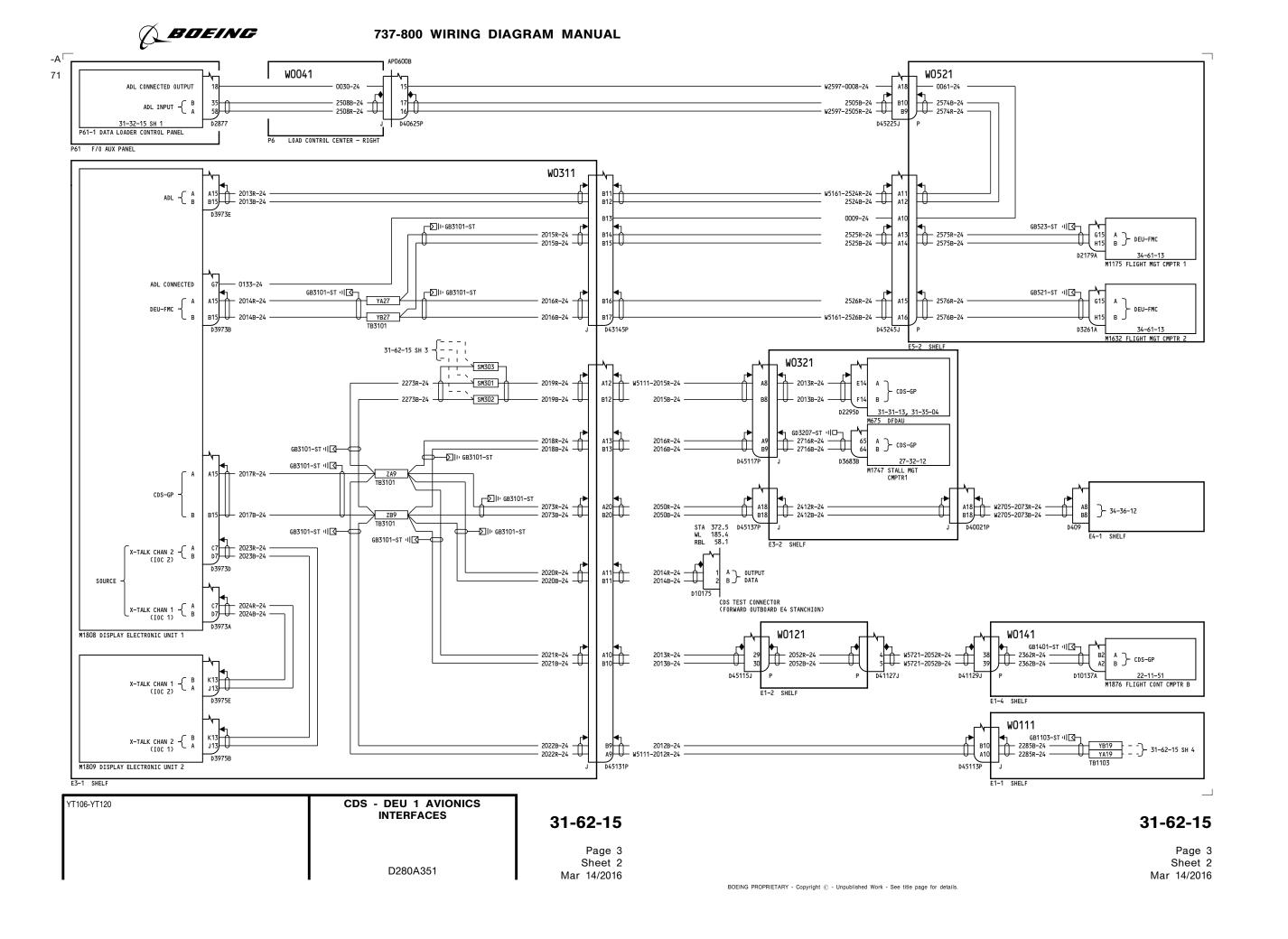
Page 2 Sheet 4 Apr 17/2014

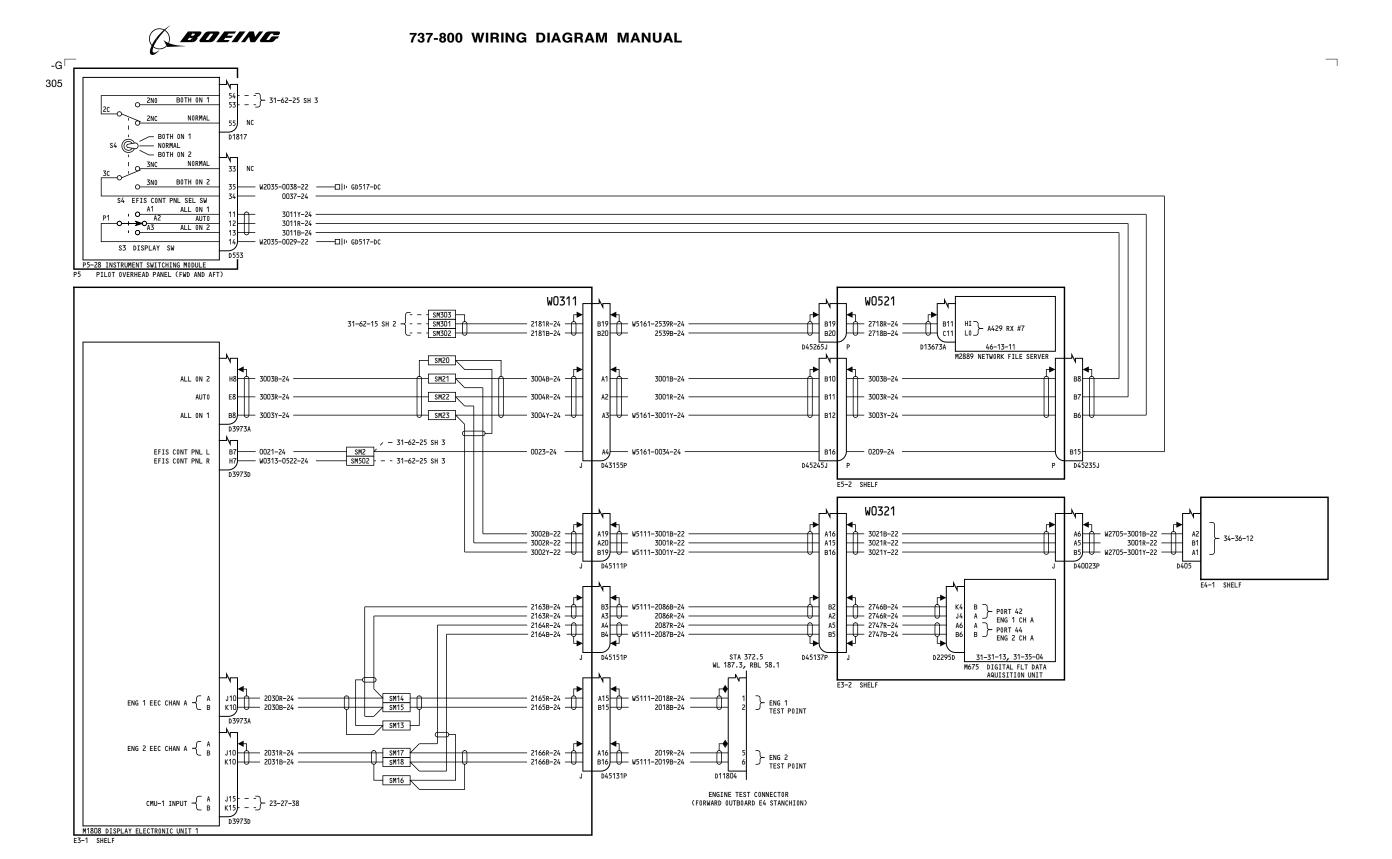




Page 3 Sheet 1 Mar 14/2016 31-62-15

Page 3 Sheet 1 Mar 14/2016





YT106-YT120

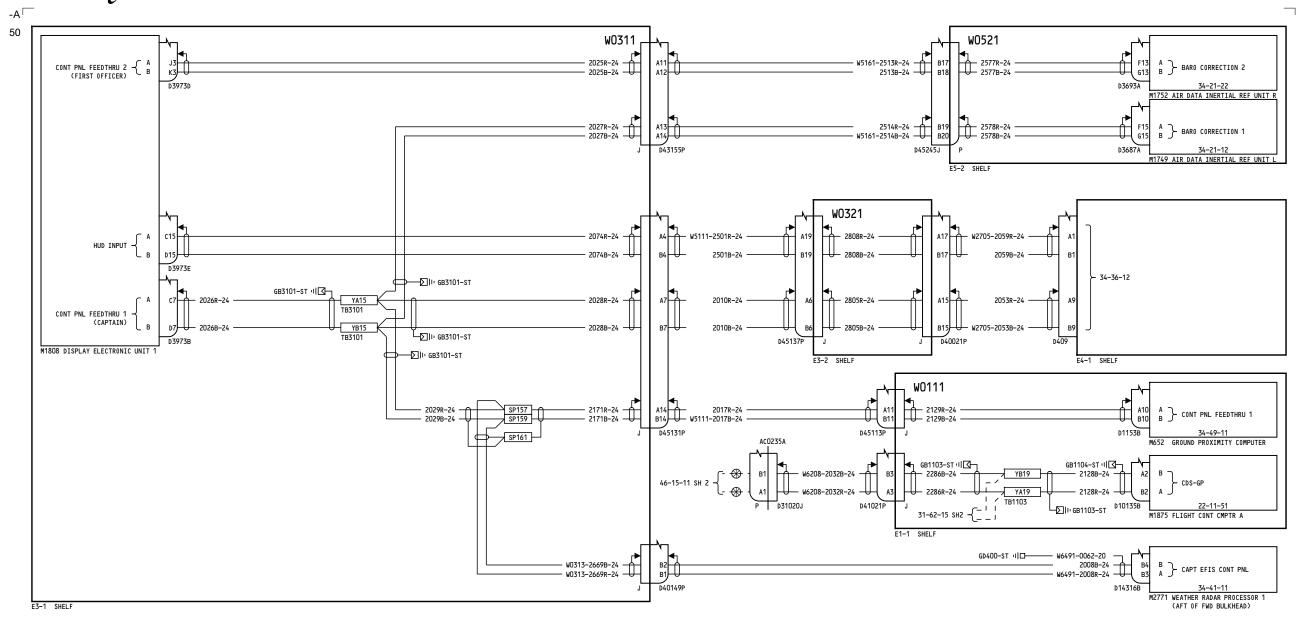
CDS - DEU 1 AVIONICS INTERFACES

D280A351

31-62-15

Page 3 Sheet 3 Mar 14/2016 31-62-15

Page 3 Sheet 3 Mar 14/2016



YT106-YT120

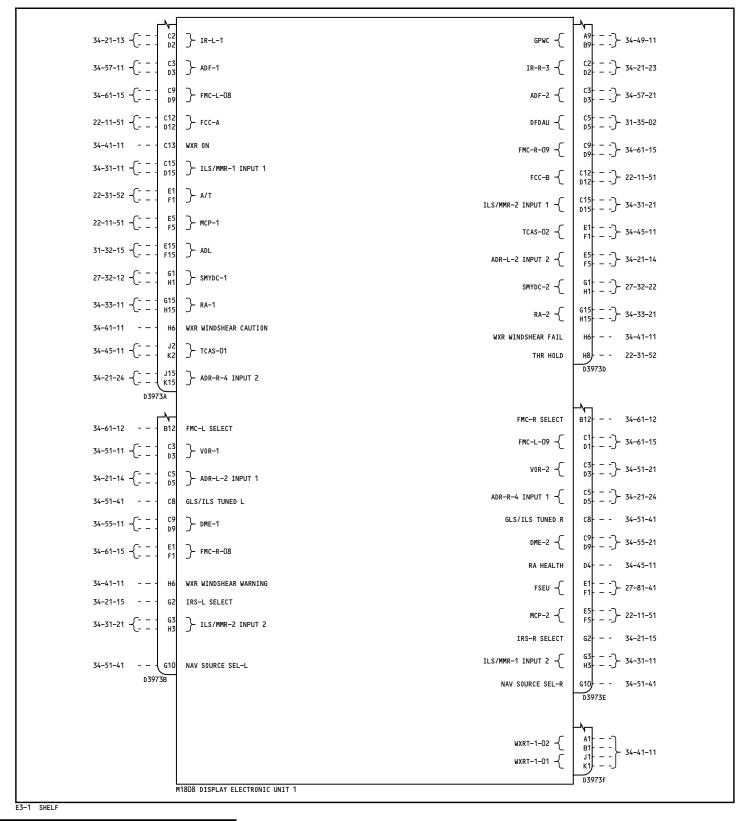
CDS - DEU 1 AVIONICS INTERFACES

D280A351

31-62-15

Page 3 Sheet 4 Mar 14/2016 31-62-15

Page 3 Sheet 4 Mar 14/2016 25

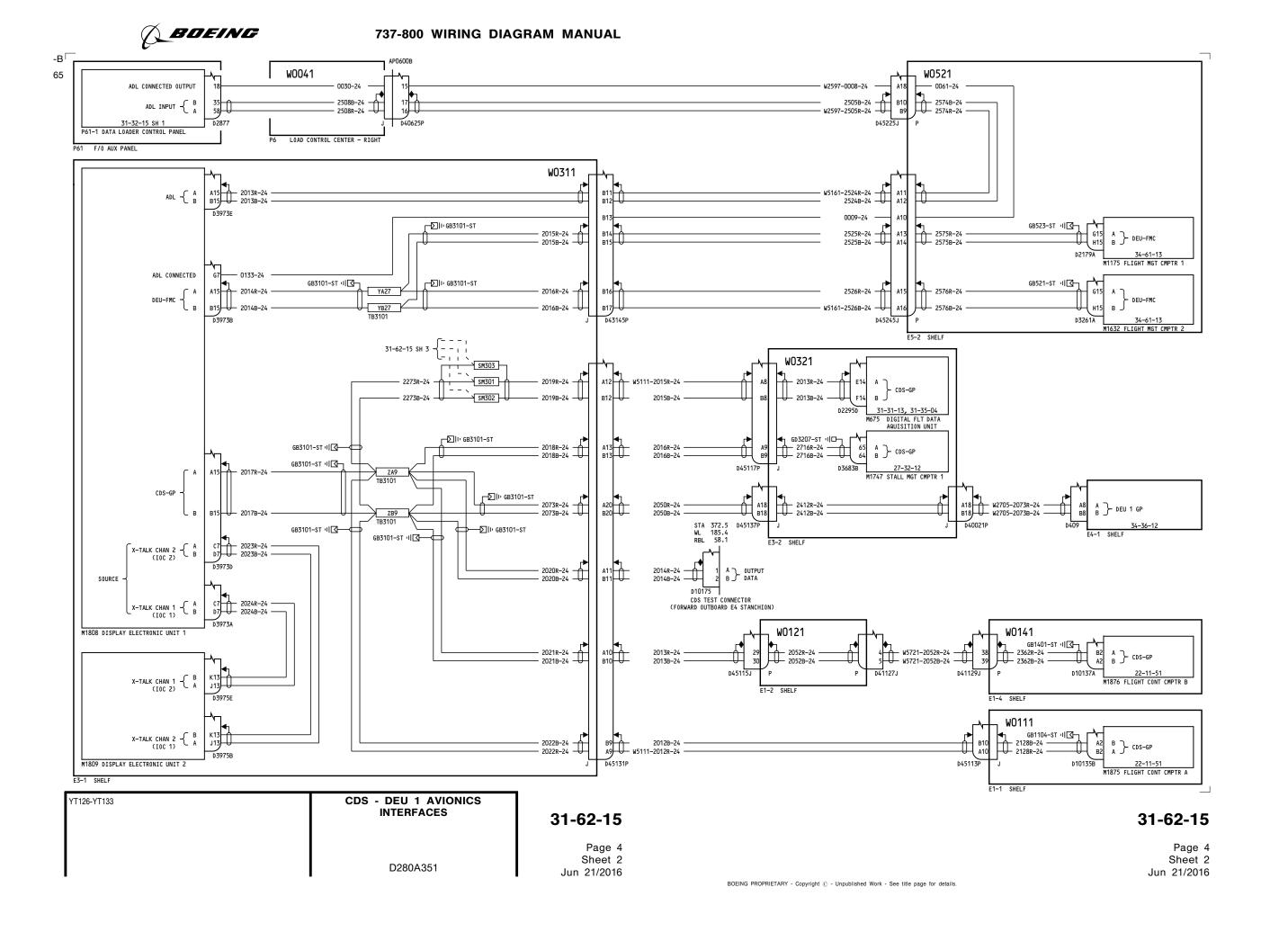


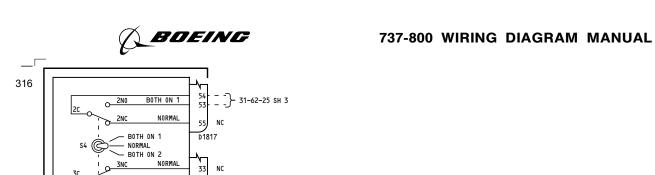


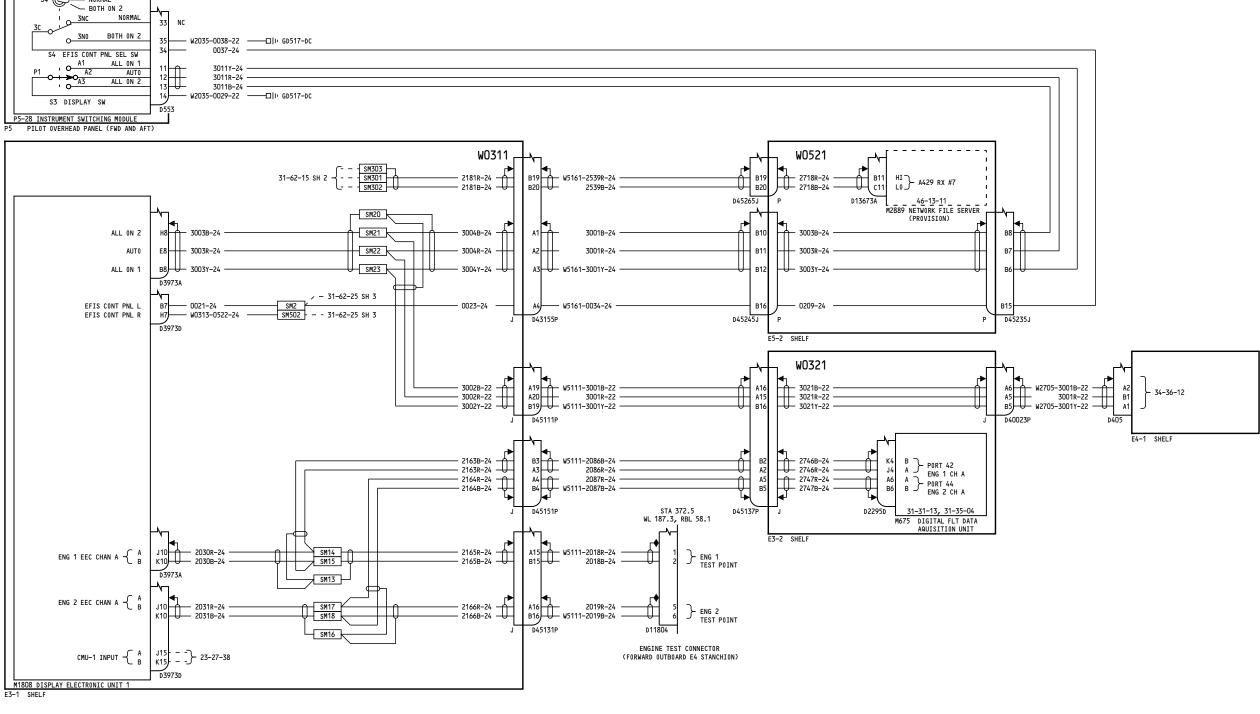
31-62-15

Page 4 Sheet 1 Jun 21/2016 31-62-15

Page 4 Sheet 1 Jun 21/2016







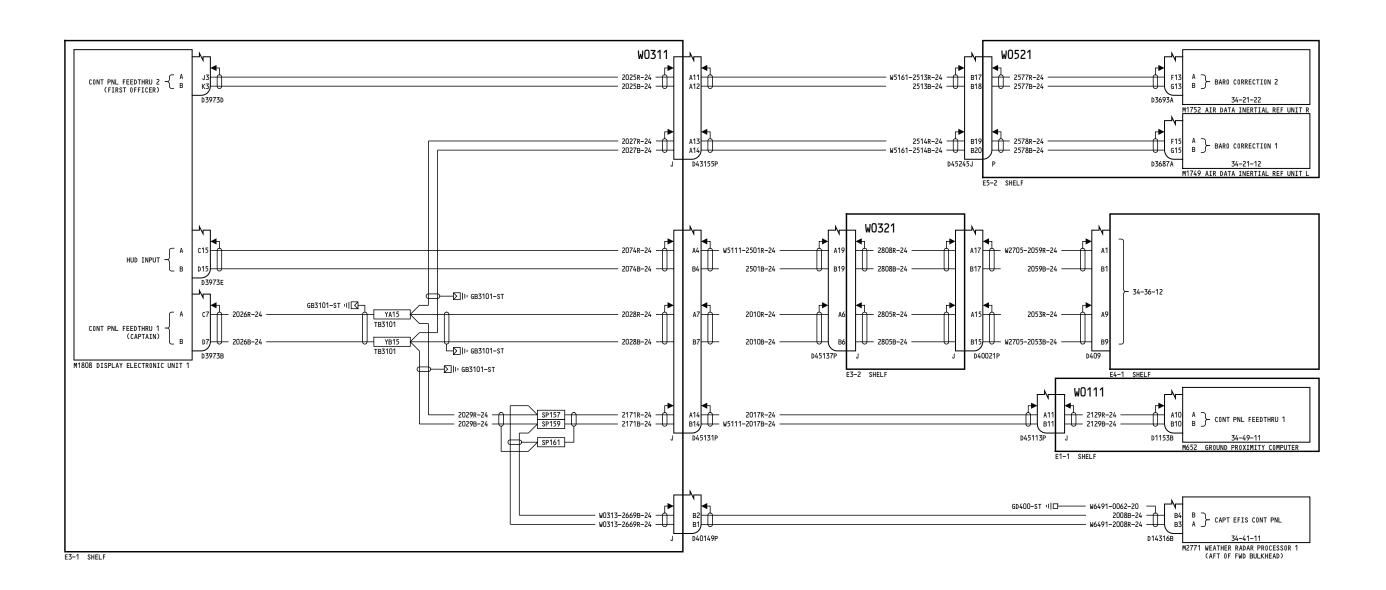
CDS - DEU 1 AVIONICS INTERFACES

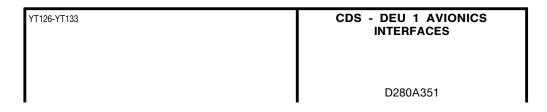
D280A351

31-62-15

Page 4 Sheet 3 Jun 21/2016 31-62-15

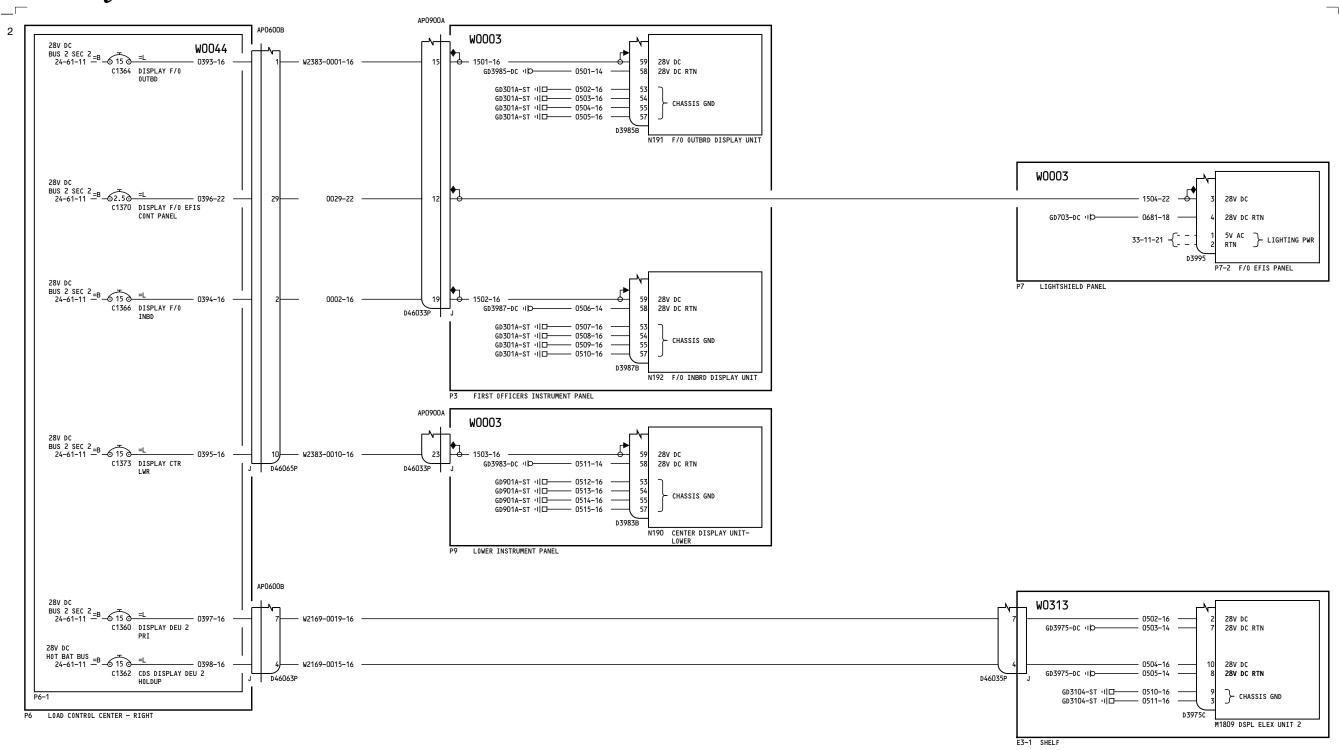
Page 4 Sheet 3 Jun 21/2016

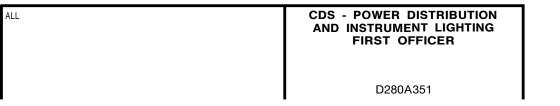




Page 4 Sheet 4 Jun 21/2016 31-62-15

Page 4 Sheet 4 Jun 21/2016

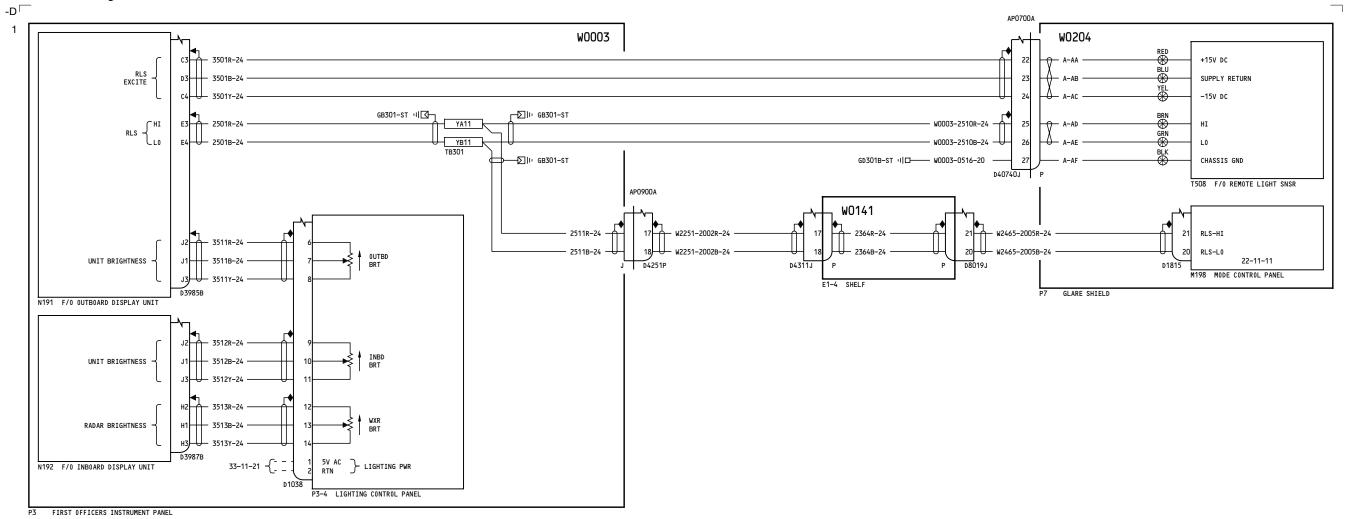


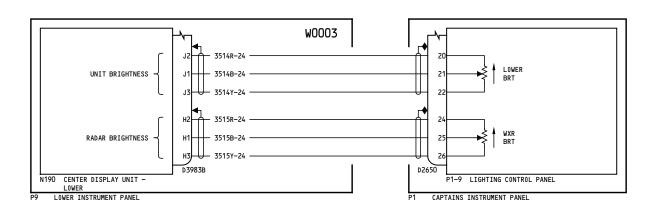


31-62-21

Page 1 Sheet 1 Jun 21/2016 31-62-21

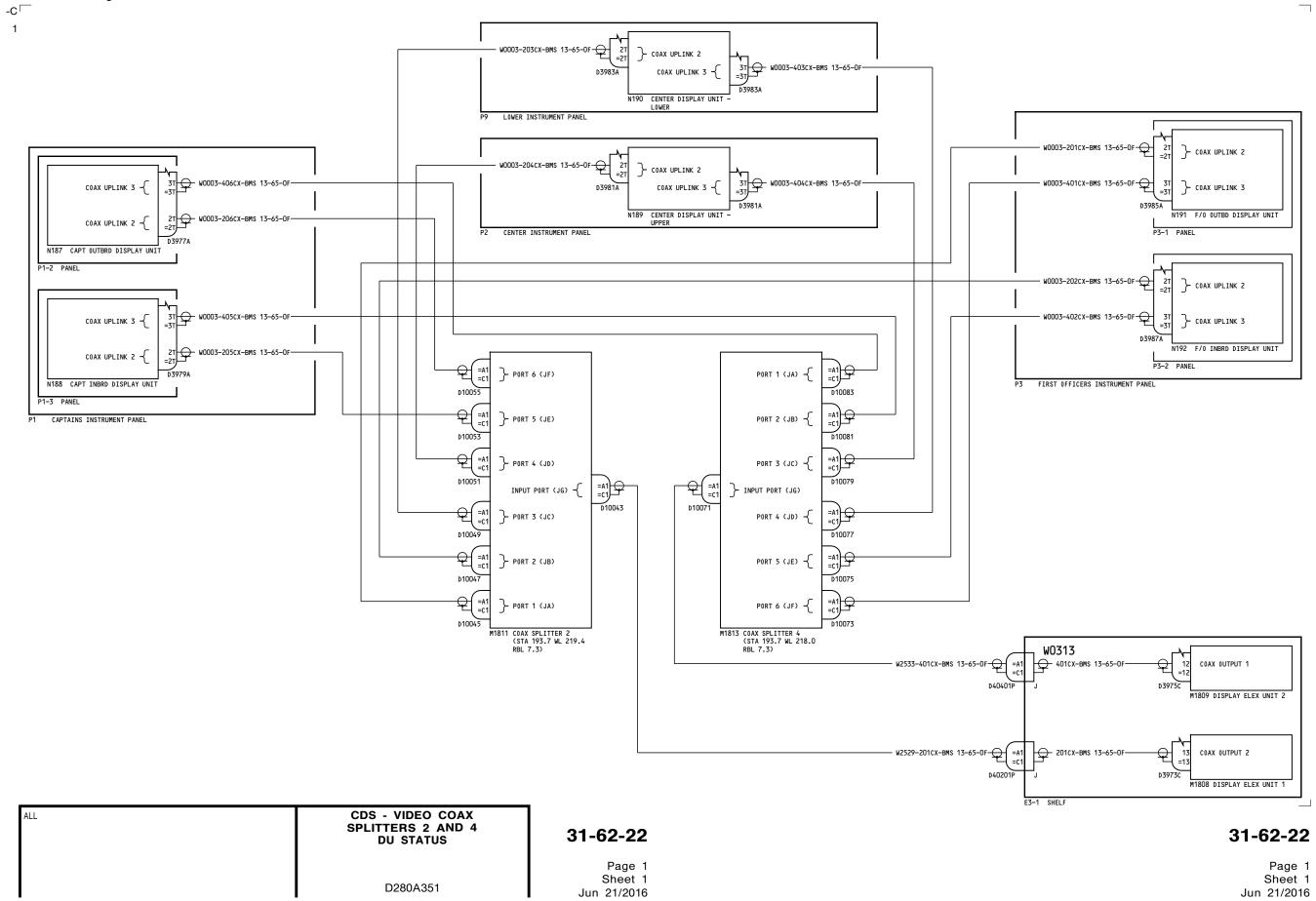
Page 1 Sheet 1 Jun 21/2016





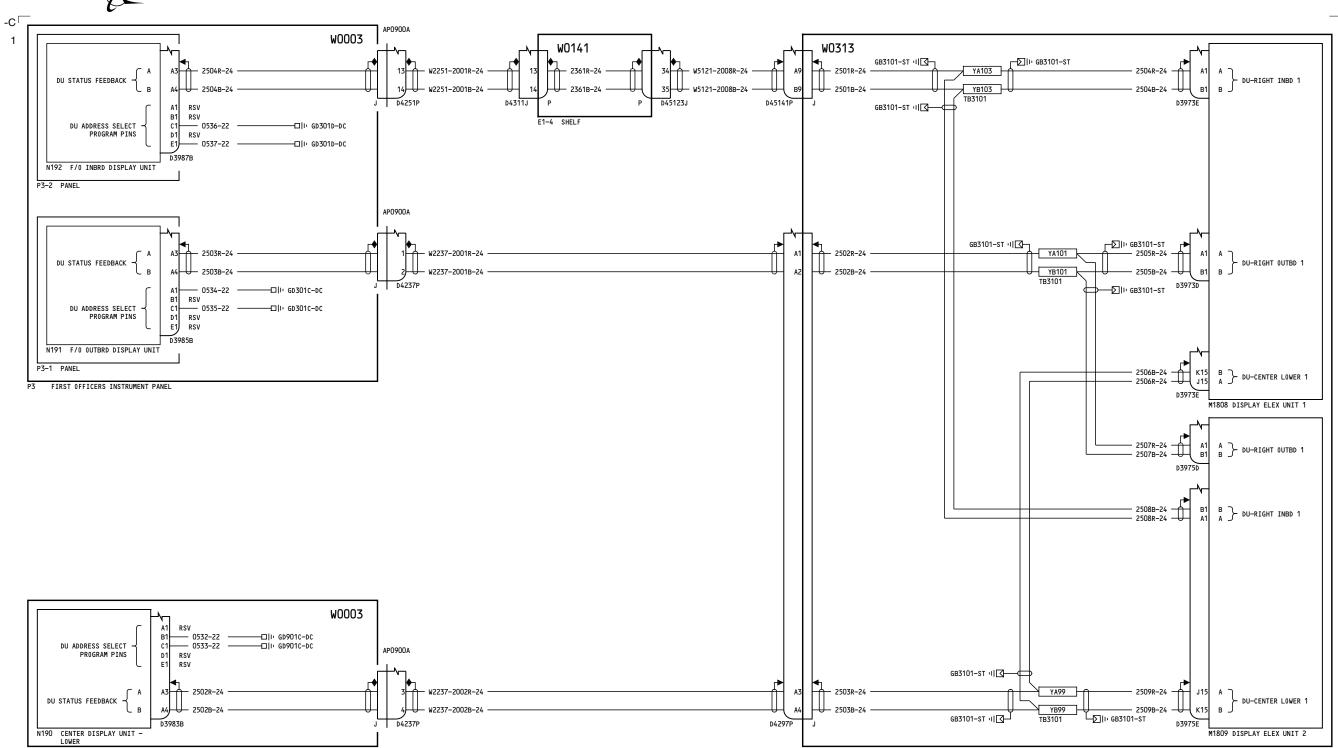
ALL	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING FIRST OFFICER	31-62-21
	D280A351	Page 1 Sheet 2 Jun 21/2016

Page 1 Sheet 2 Jun 21/2016



BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.





CDS - VIDEO COAX
SPLITTERS 2 AND 4
DU STATUS

D280A351

LOWER INSTRUMENT PANEL

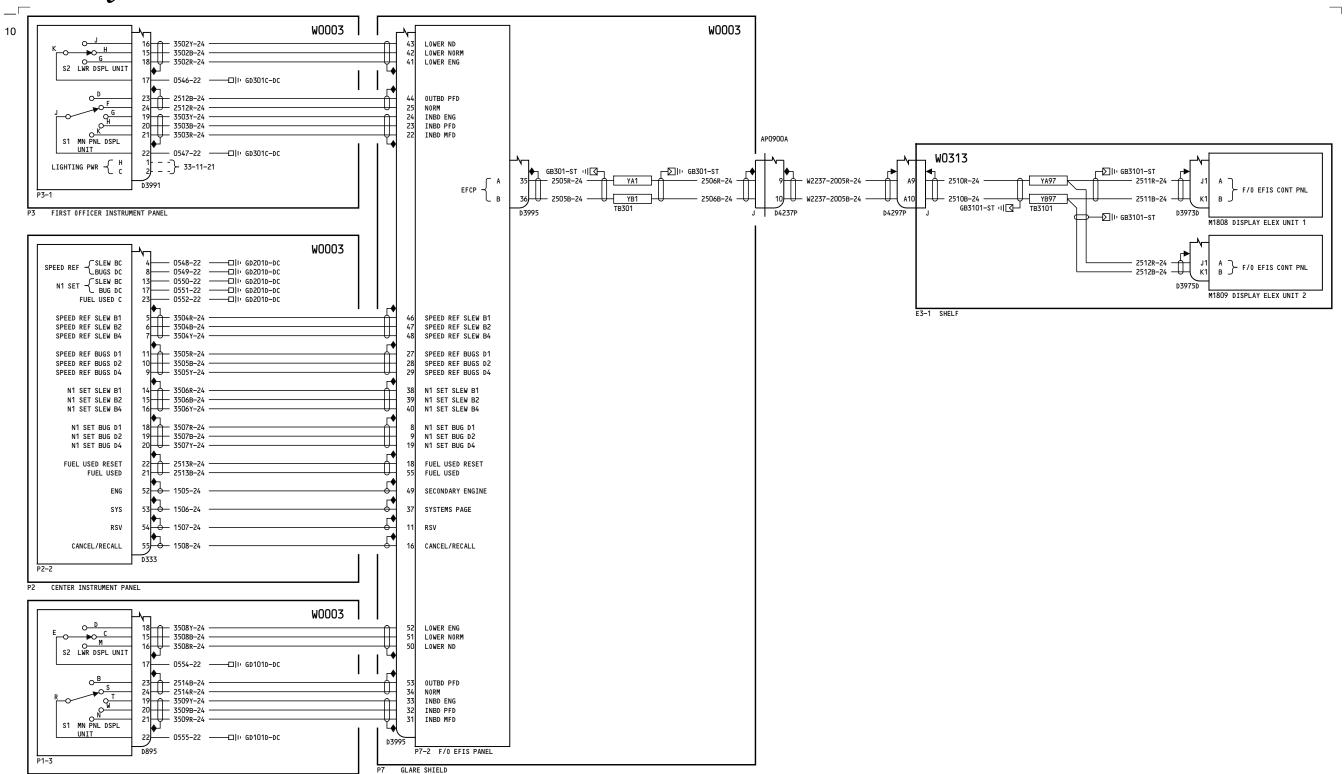
31-62-22

Page 1 Sheet 2 Jun 21/2016 31-62-22

Page 1 Sheet 2 Jun 21/2016

E3-1 SHELF





CDS - CONTROL PANEL INTERFACES - F/O

D280A351

CAPTAINS INSTRUMENT PANEL

31-62-23

Page 1
Jun 21/2016

31-62-23

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright  $\odot$  - Unpublished Work - See title page for details.

-D ☐

EEC ENG 2 CH A \_ \_}- 73-24-21 73-24-11 -{ -- EEC ENG 1 CH A DC REF 4 MONITOR HI DC REF 4 MONITOR LO
SYST B HYDRAULIC OIL QTY 
HOQ HI
HOQ LO DC REF 3 MONITOR LO 29-31-11 HOQ HI }- SYST A HYDRAULIC OIL QTY 74-31-11 IGN SW-LEFT IGNITOR \_ \_}- 77-12-11 N1 SPEED ENG 2 -29-32-11 -{ -DC RETURN AIR/GND LOGIC SYSTEM 2 (AIR) - - 73-23-11 N1 SPEED ENG 1 77-12-11 -{-ENG 2 0IL QTY - (+8V DC) REF \_ \_}\_ 79-31-11 DC REF 2 L0 49-62-11 -{\_ F12- - 73-22-31 SIMULATION - ENG 2 RUNNING 73-23-11 - -AIR/GND LOGIC SYSTEM 1 (AIR) (+8V DC) REF - ENG 1 0IL QTY DC REF 1 L0 79-31-11 -{-ENGINE 1 START LEVER INPUT 2 - - 76-21-11 73-22-31 - -SIMULATION - ENG 1 RUNNING FUEL QTY RIGHT TANK  $\left\{ \begin{array}{c} (+) \\ (-) \end{array} \right.$ 76-21-21 - -ENGINE 2 START LEVER INPUT 2 D3975D 73-24-12 -{- -(+) }- FUEL QTY LEFT TANK 28-41-11 -{- -D3975A WING ANTI-ICE LEFT PACK FLOW CONT AND SHUT-OFF VALVE 73-21-31 RIGHT PACK FLOW CONT AND SHUT-OFF VALVE ENG 1 BLEED AIR SWITCH ISOLATION VALVE - BLEED AIR 73-21-31 ENG 2 BLEED AIR SWITCH 73-24-21 73-24-11 -{ EEC ENG 1 CH B EEC ENG 2 CH B DC REF 1 MONITOR HI DC REF 2 MONITOR HI DC REF 1 MONITOR LO DC REF 2 MONITOR LO 79-31-11 79-31-11 EOQ HI FOR 1 OIL QTY ENG 2 OIL QTY  $\left\{ egin{array}{l} E0Q & HI \\ E0Q & L0 \\ \end{array} 
ight.$ IGN SW-RIGHT IGNITOR - - 74-31-11 N2 SPEED ENG 1 77-12-21 -{-N2 SPEED ENG 2 -77-12-21 73-23-11 -{-AIR/GND LOGIC SYSTEM 1 (GND) ENG 2 COWL ANTI-ICE FUEL FILTER BYPASS ENG 1 73-31-11 - -AIR/GND LOGIC SYSTEM 2 (GND) FUEL FILTER BYPASS ENG 2 - - 73-31-11 34-61-14 -{ -ENG 2 RUNNING 30-31-12 ENG 2 START SW-FLT \_ \_}- 74-31-11 ENG 2 START SW-GND/CONT ENG 1 START SW-FLT 74-31-11 -{-ENG 1 START SW-GND/CONT EEC ENG 2 ALTN POWER CONTROL - - 73-22-11 EEC ENG 1 ALTN POWER CONTROL 73-22-11 SYST B HYDRAULIC OIL QTY - DC REF \_ \_}- 29-31-11 DC REF - SYST A HYDRAULIC OIL QTY DC REF 4 LO 29-31-11 -{- -DC REF 3 LO ENG 2 CONT LIGHT - - 73-32-11 73-32-11 ENG 1 CONTROL LIGHT ENGINE 2 START LEVER INPUT 1 - - 76-21-21 ENGINE 1 START LEVER INPUT 1 76-21-11 30-31-12 STARTER CUTOUT ENG 2 ENG 1 RUNNING \_ \_}\_ 80-11-11 STARTER CUTOUT ENG 1 ENGINE 1 START VALVE 80-11-11 -{- -ENGINE 2 START VALVE BITE POWER UP - - 49-62-11 (+) } FUEL QTY CENTER TANK 28-41-11 -{- \_ ENG 2 ALTN MODE 73-21-12 D3975E 73-21-12 - -ENG 1 ALTN MODE M1809 DISPLAY ELECTRONIC UNIT 2 E3-1 SHELF

CDS - DEU 2 ENGINE
HYDRAULIC, APU AND FUEL
INTERFACES

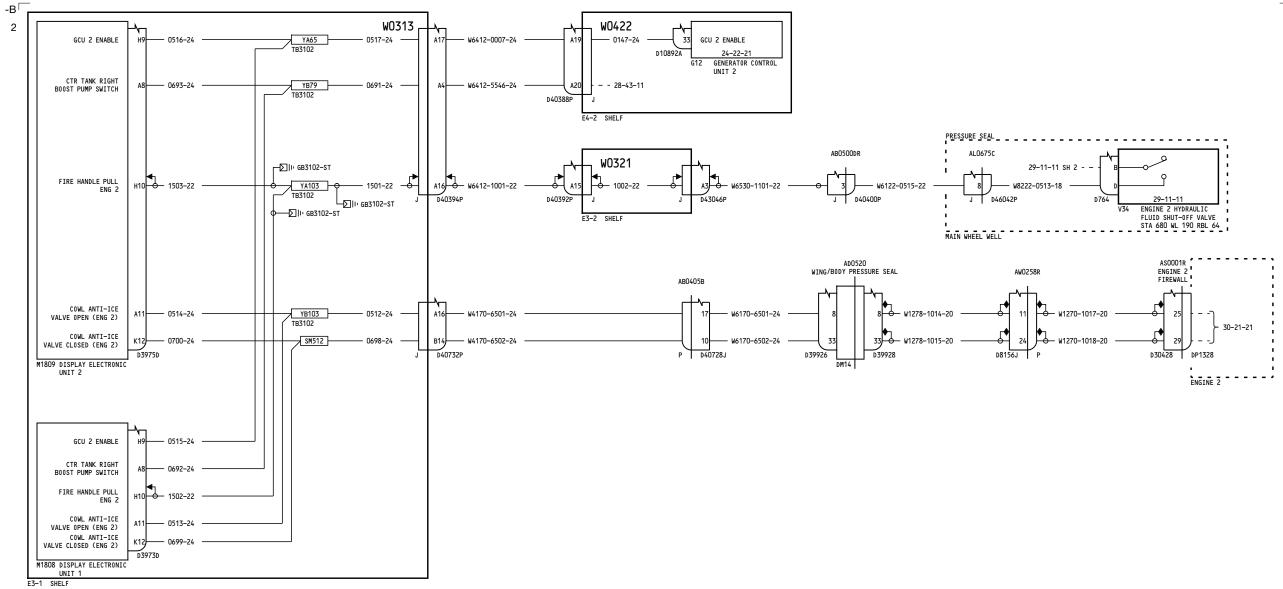
D280A351

31-62-24

Page 1 Sheet 1 Jun 21/2016 31-62-24

Page 1 Sheet 1 Jun 21/2016



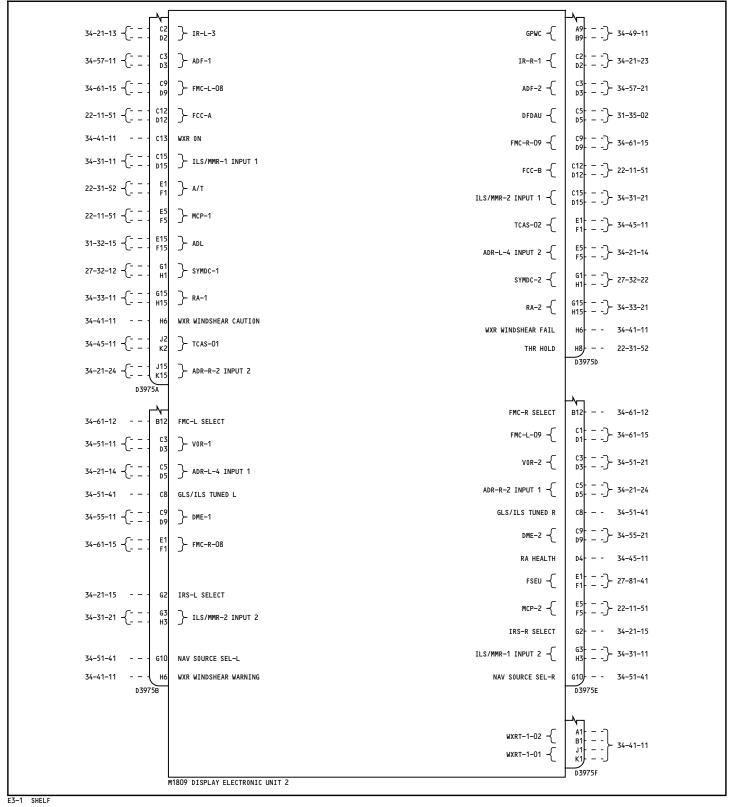


ALL	CDS - DEU 2 ENGINE HYDRAULIC, APU AND FUEL INTERFACES
	D280A351

31-62-24

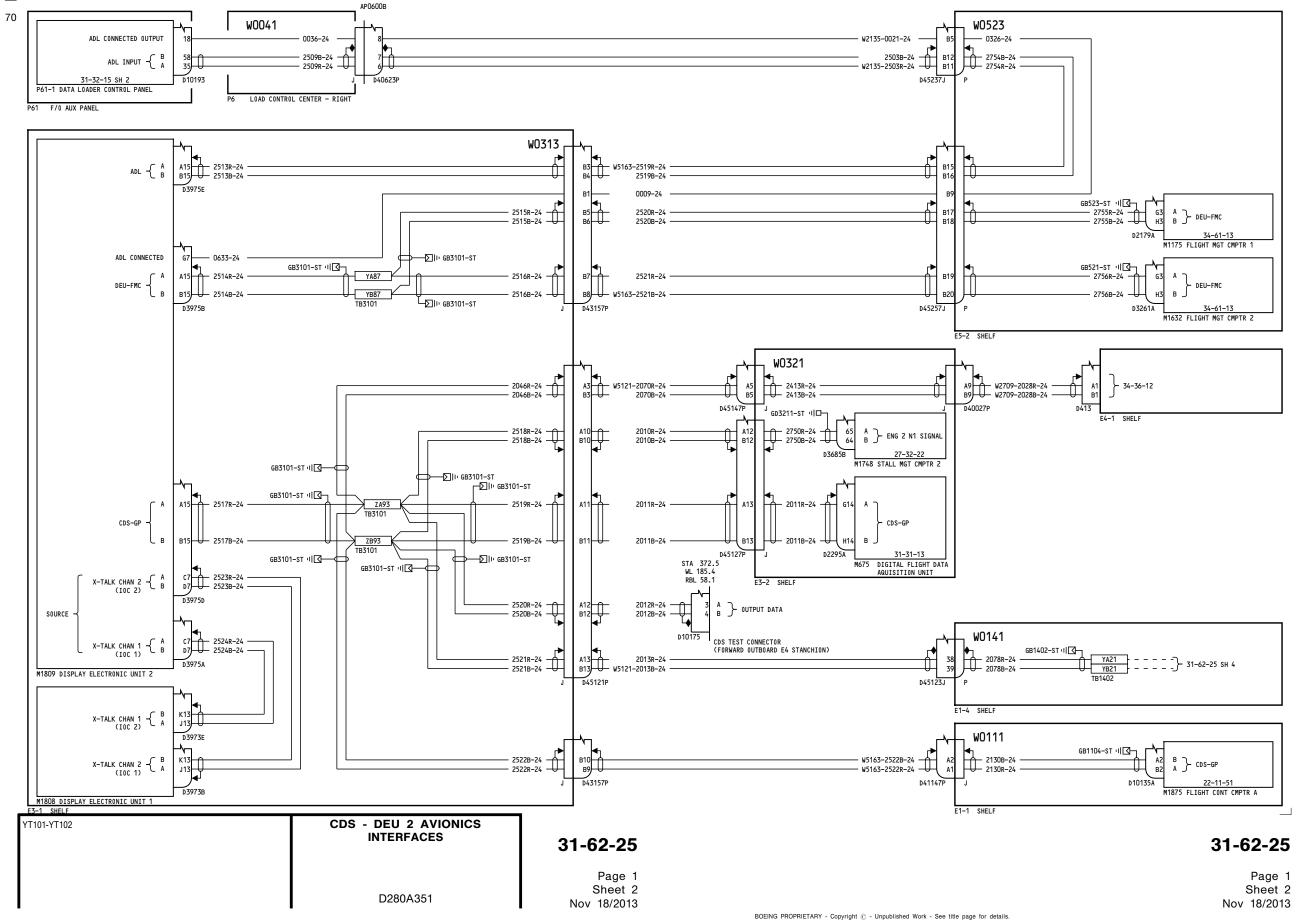
Page 1 Sheet 2 Jun 21/2016 31-62-24

Page 1 Sheet 2 Jun 21/2016

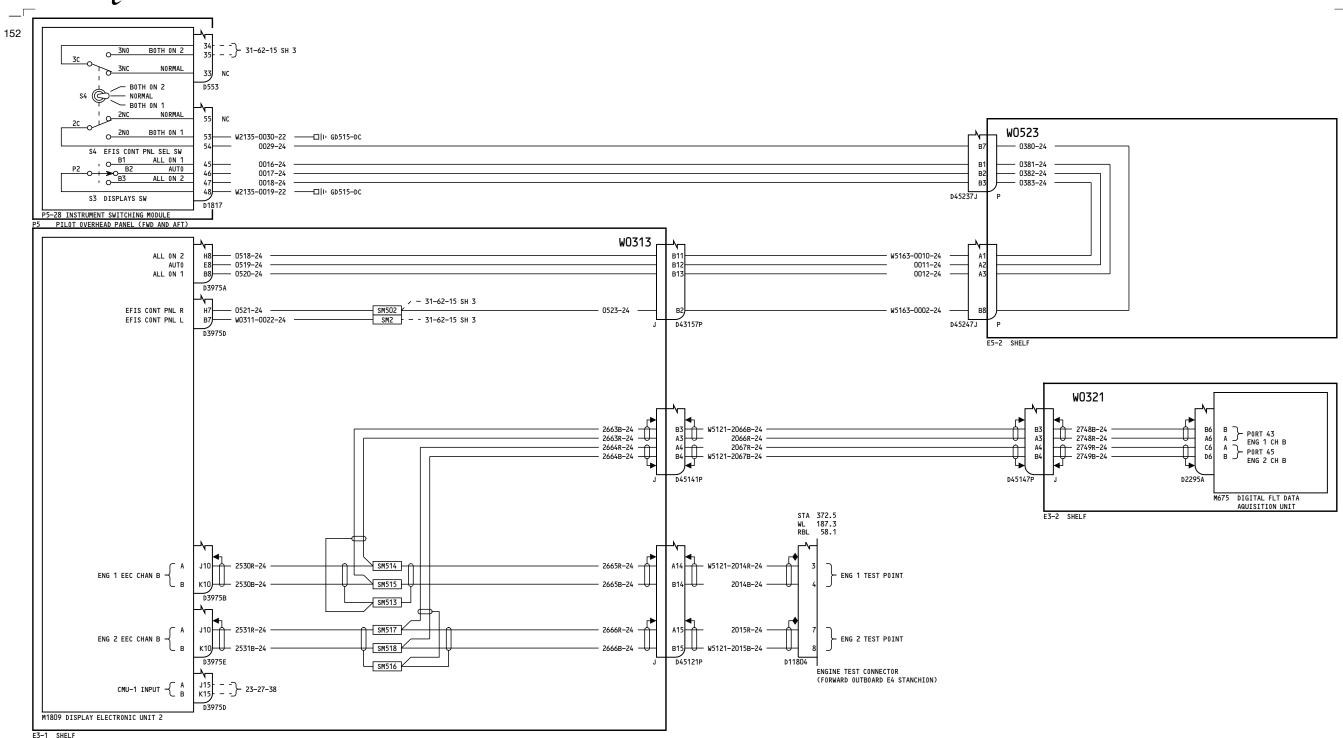




Page 1 Sheet 1 Nov 18/2013







CDS - DEU 2 AVIONICS INTERFACES

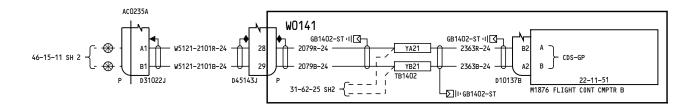
D280A351

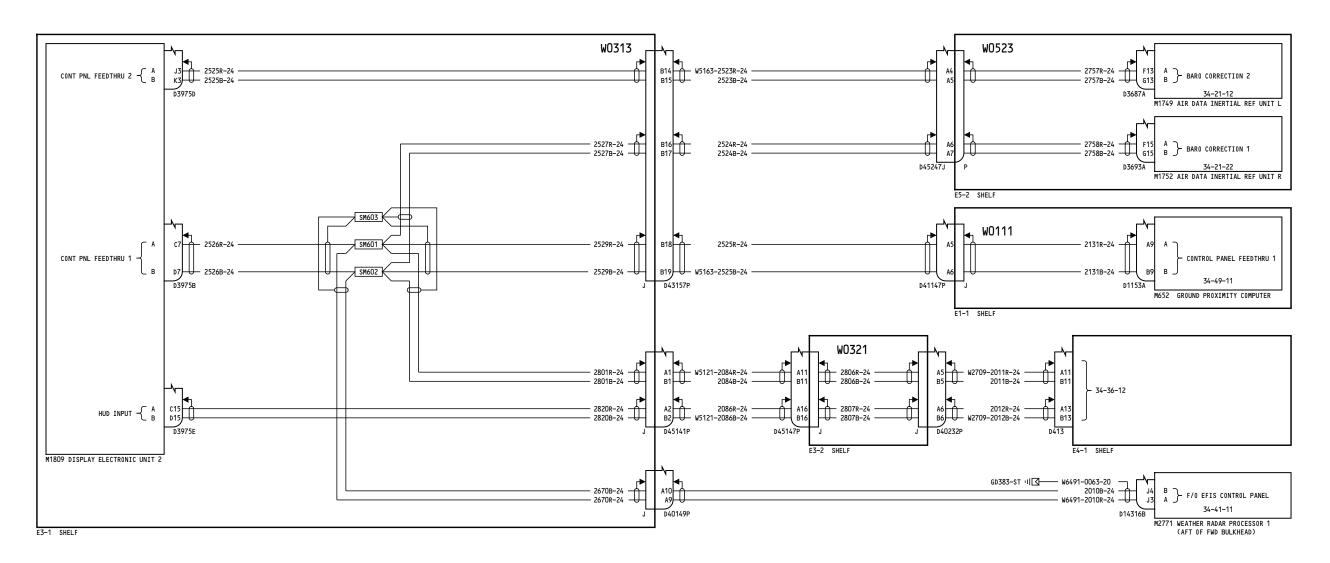
31-62-25

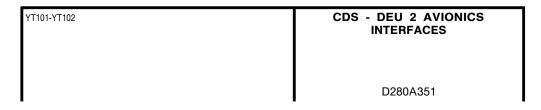
Page 1 Sheet 3 Nov 18/2013 31-62-25

Page 1 Sheet 3 Nov 18/2013



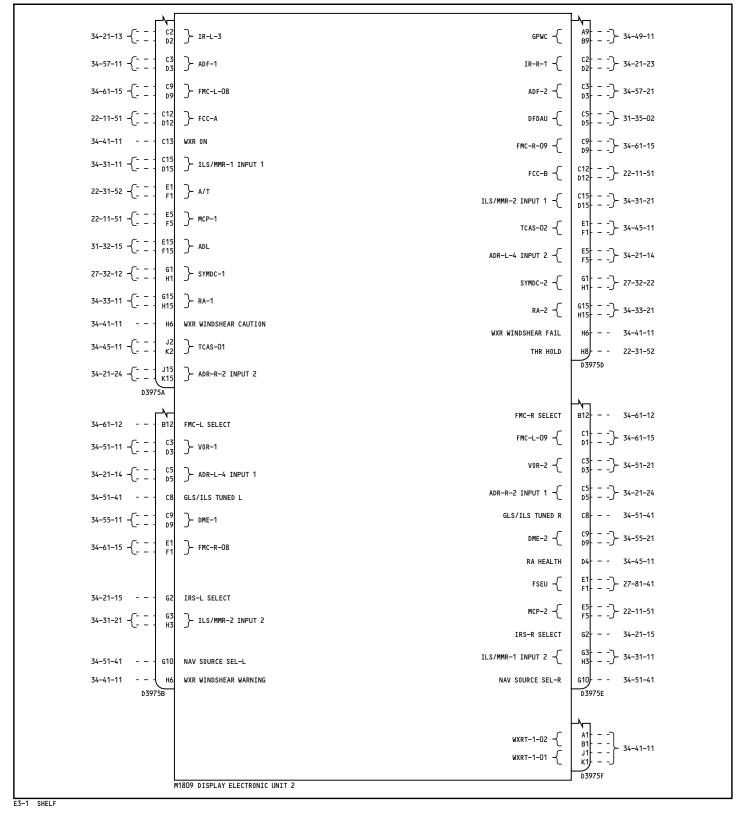


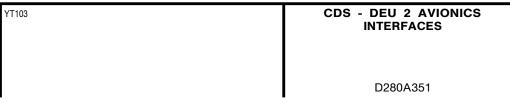




Page 1 Sheet 4 Nov 18/2013 31-62-25

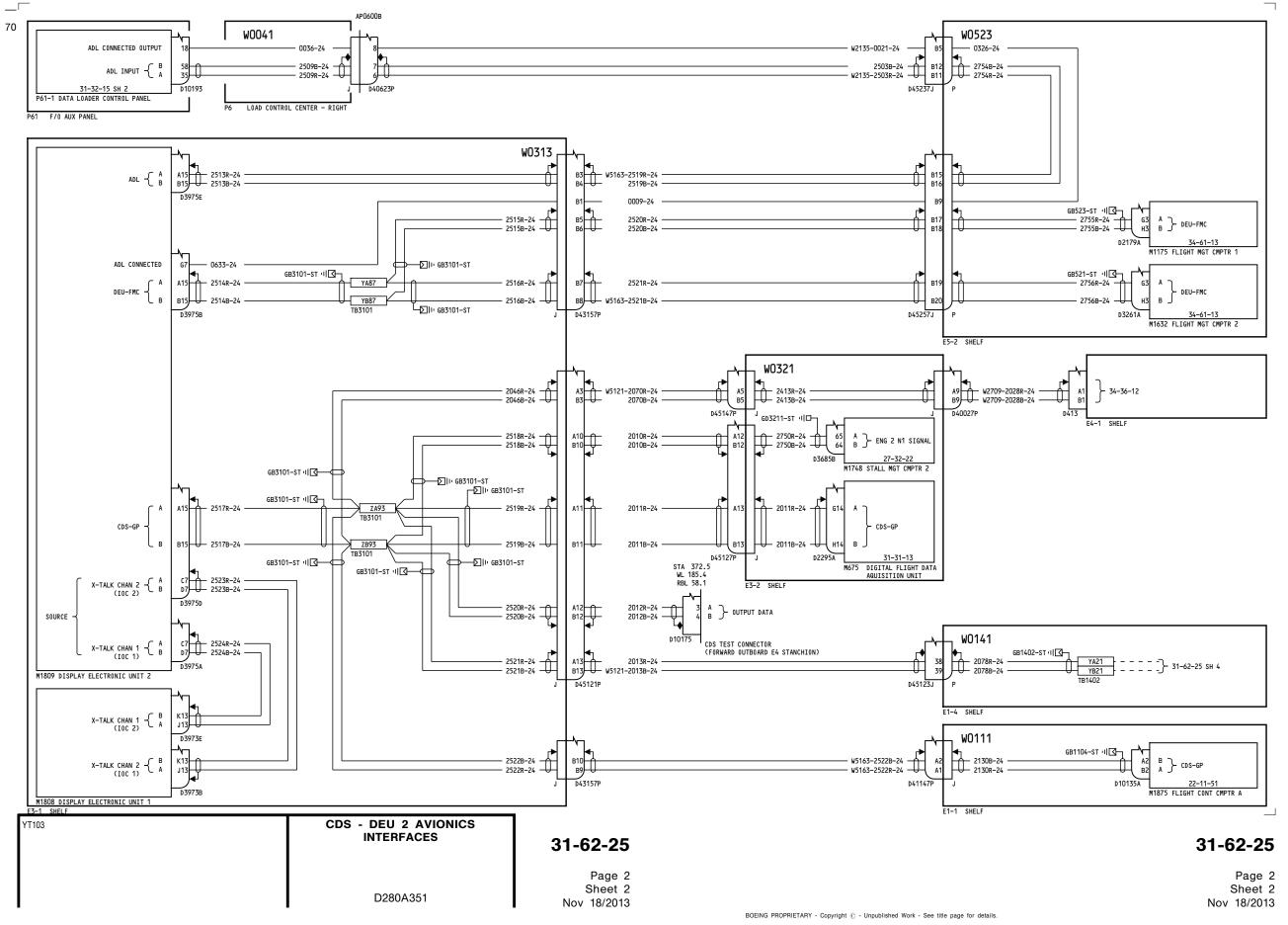
Page 1 Sheet 4 Nov 18/2013



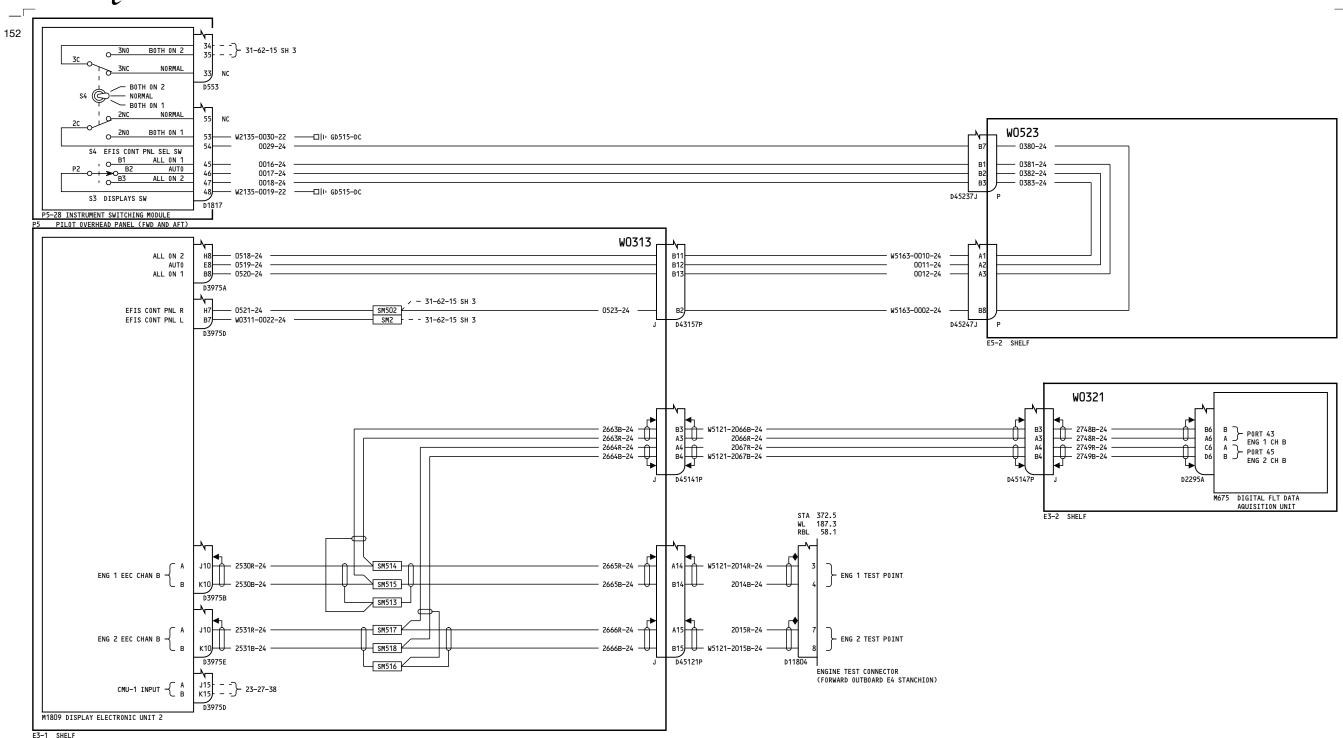


Page 2 Sheet 1 Nov 18/2013 31-62-25

Page 2 Sheet 1 Nov 18/2013







CDS - DEU 2 AVIONICS INTERFACES

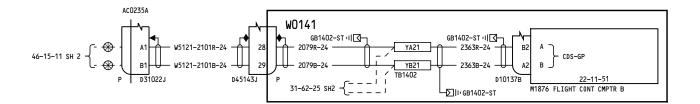
D280A351

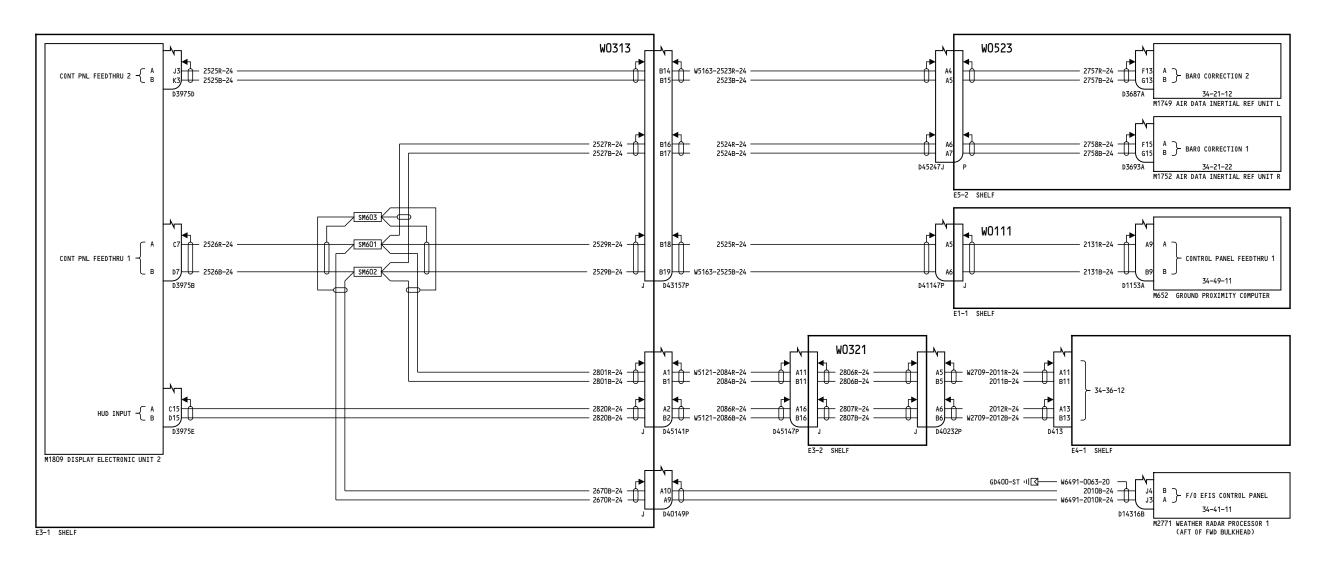
31-62-25

Page 2 Sheet 3 Nov 18/2013 31-62-25

Page 2 Sheet 3 Nov 18/2013



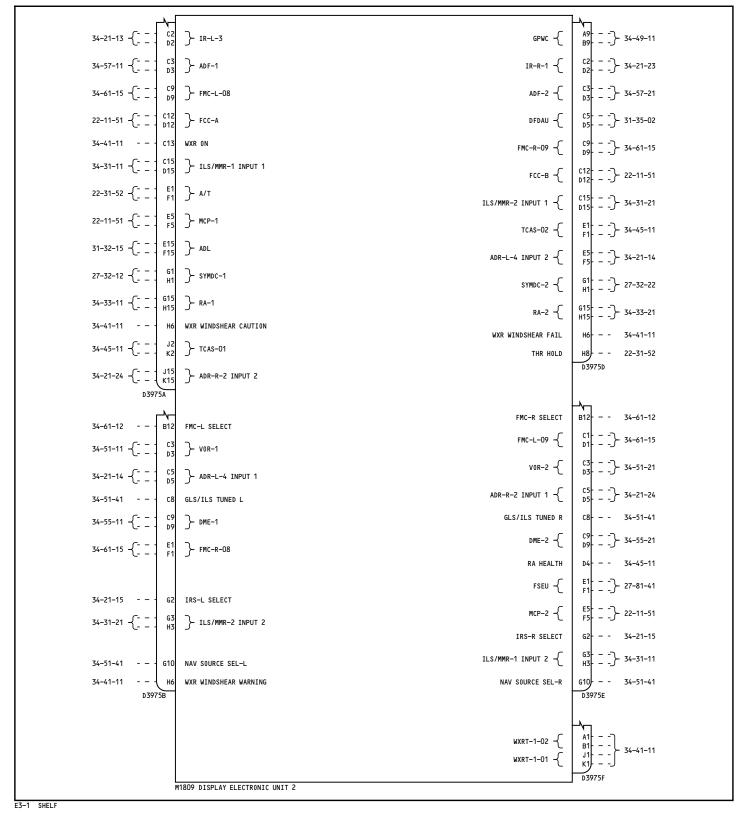






Page 2 Sheet 4 Nov 18/2013 31-62-25

Page 2 Sheet 4 Nov 18/2013 26



CDS - DEU 2 AVIONICS YT104-YT105 **INTERFACES** D280A351

31-62-25

Page 3 Sheet 1 Apr 17/2014 31-62-25

Page 3 Sheet 1 Apr 17/2014

M1808 DISPLAY ELECTRONIC UNIT 1
E3-1 SHELF

YT104-YT105

CDS - DEU 2 AVIONICS INTERFACES

D280A351

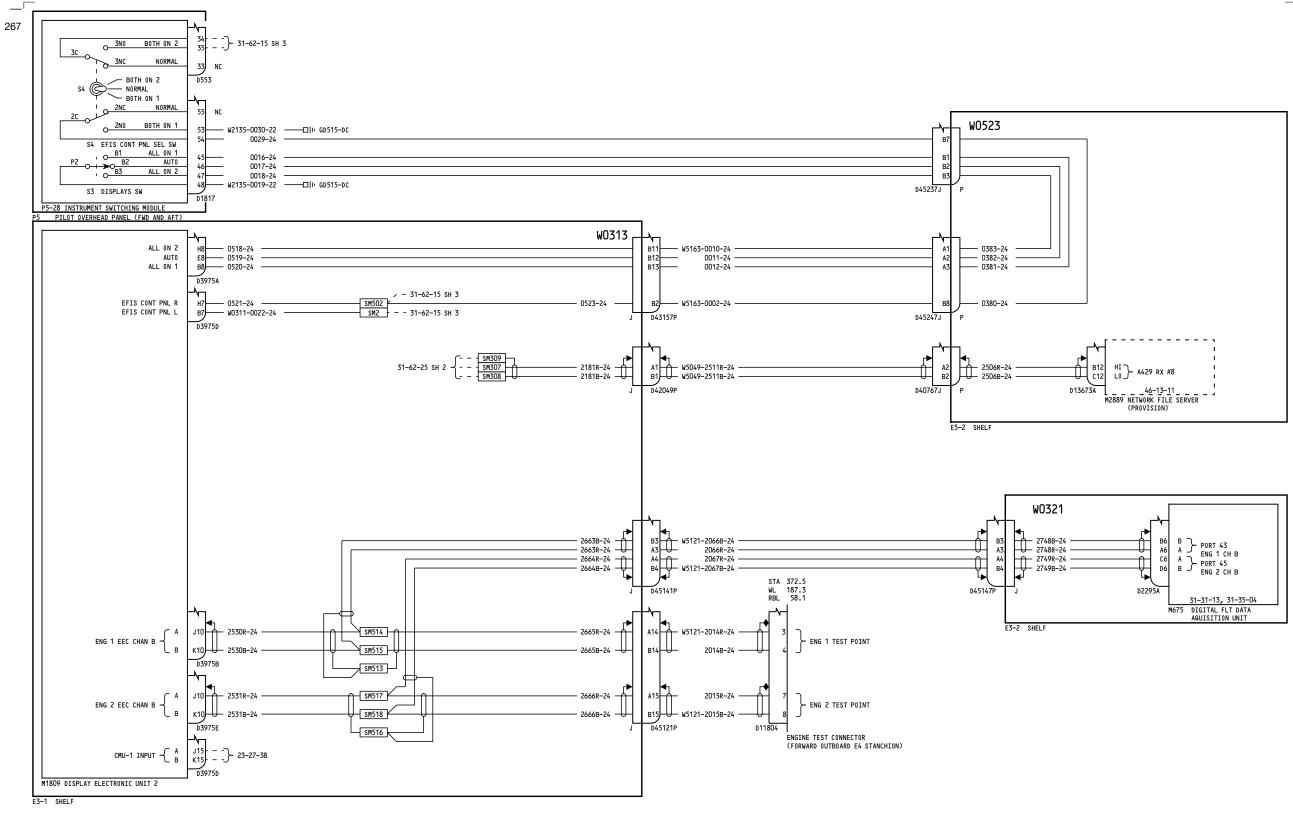
31-62-25

Page 3 Sheet 2 Apr 17/2014 31-62-25

M1875 FLIGHT CONT CMPTR A

Page 3 Sheet 2 Apr 17/2014

E1-1 SHELF



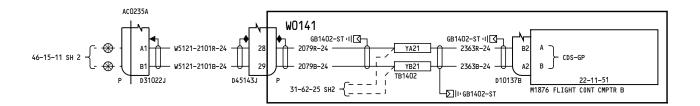
CDS - DEU 2 AVIONICS INTERFACES

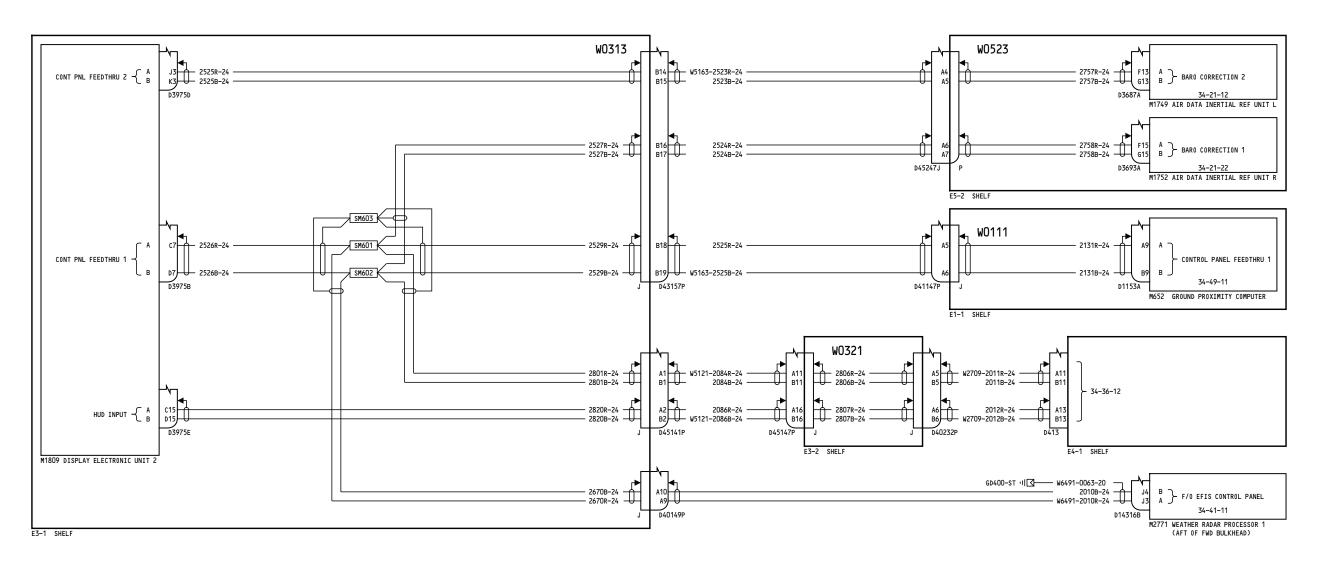
D280A351

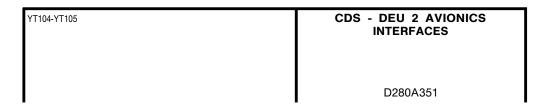
31-62-25

Page 3 Sheet 3 Apr 17/2014 31-62-25

Page 3 Sheet 3 Apr 17/2014

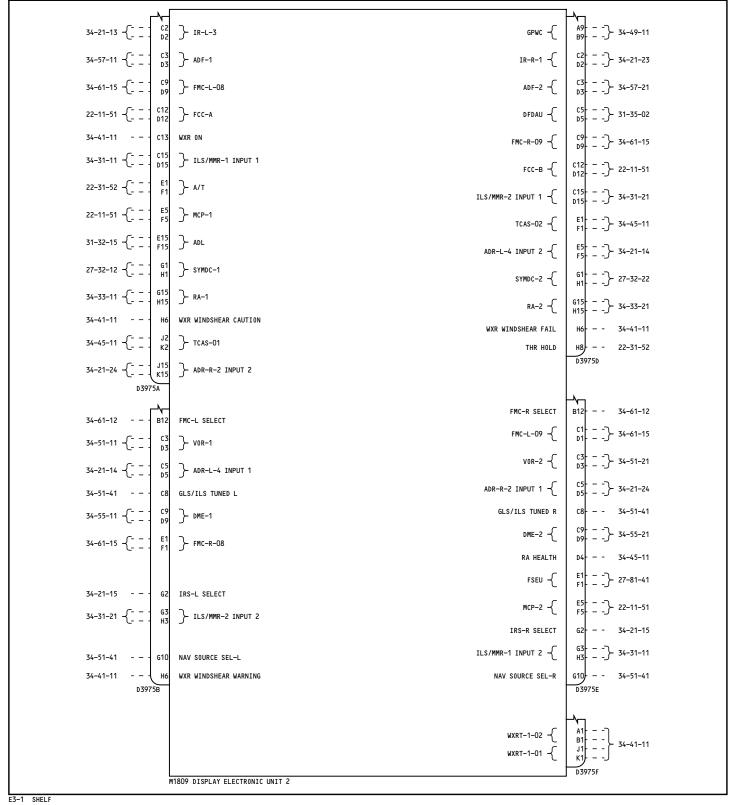






Page 3 Sheet 4 Apr 17/2014 31-62-25

Page 3 Sheet 4 Apr 17/2014





Page 4 Sheet 1 Mar 14/2016

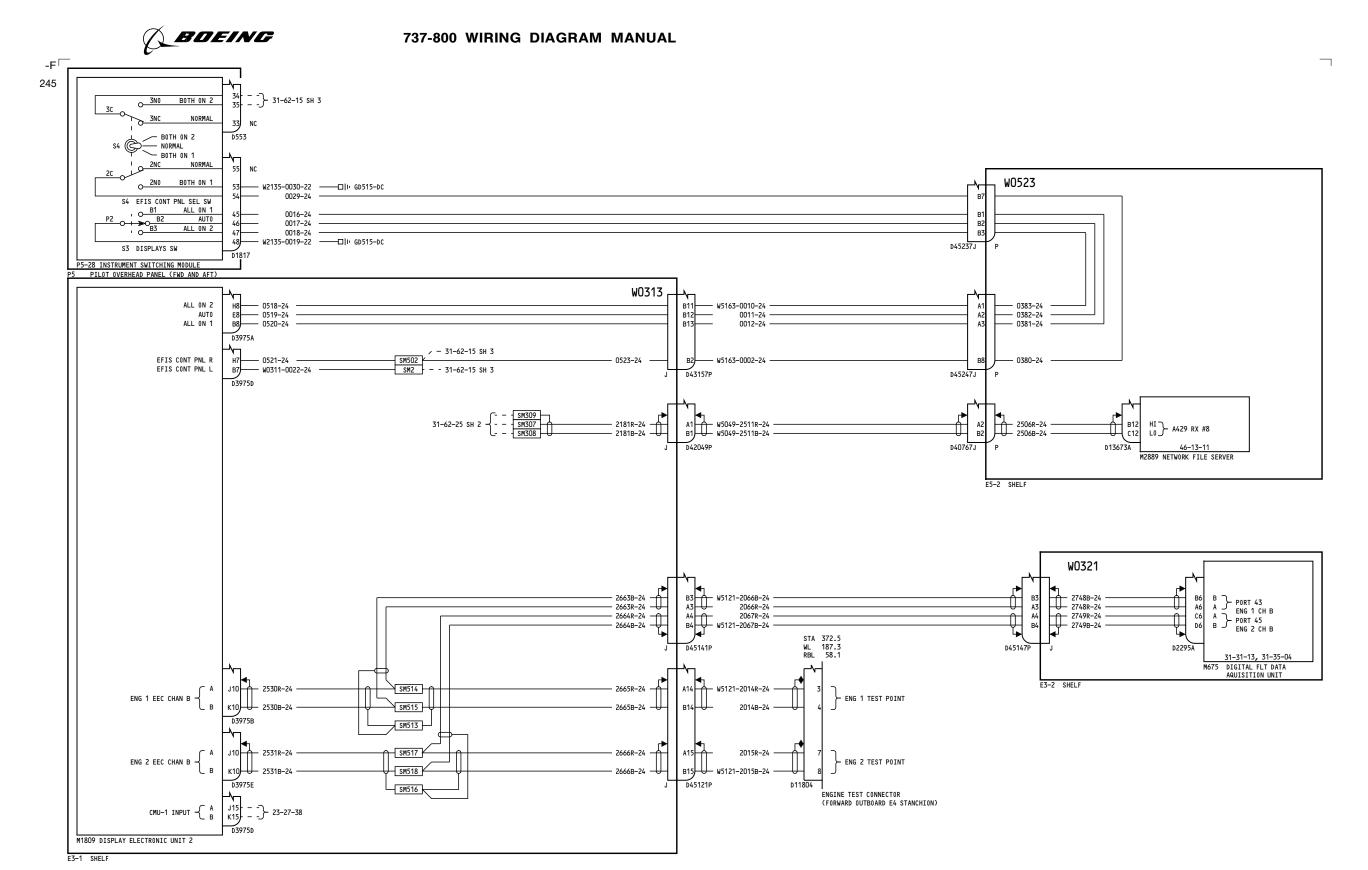
M1808 DISPLAY ELECTRONIC UNIT 1 E1-1 SHELF YT106-YT120 CDS - DEU 2 AVIONICS **INTERFACES** 31-62-25 Page 4 Sheet 2 D280A351 Mar 14/2016 BOEING PROPRIETARY - Copyright © - Unpublished Work - See title page for details.

31-62-25

Page 4

Sheet 2

Mar 14/2016



YT106-YT120

CDS - DEU 2 AVIONICS INTERFACES

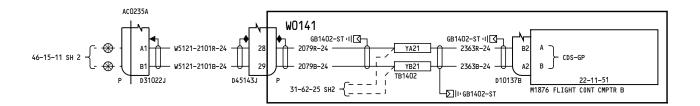
D280A351

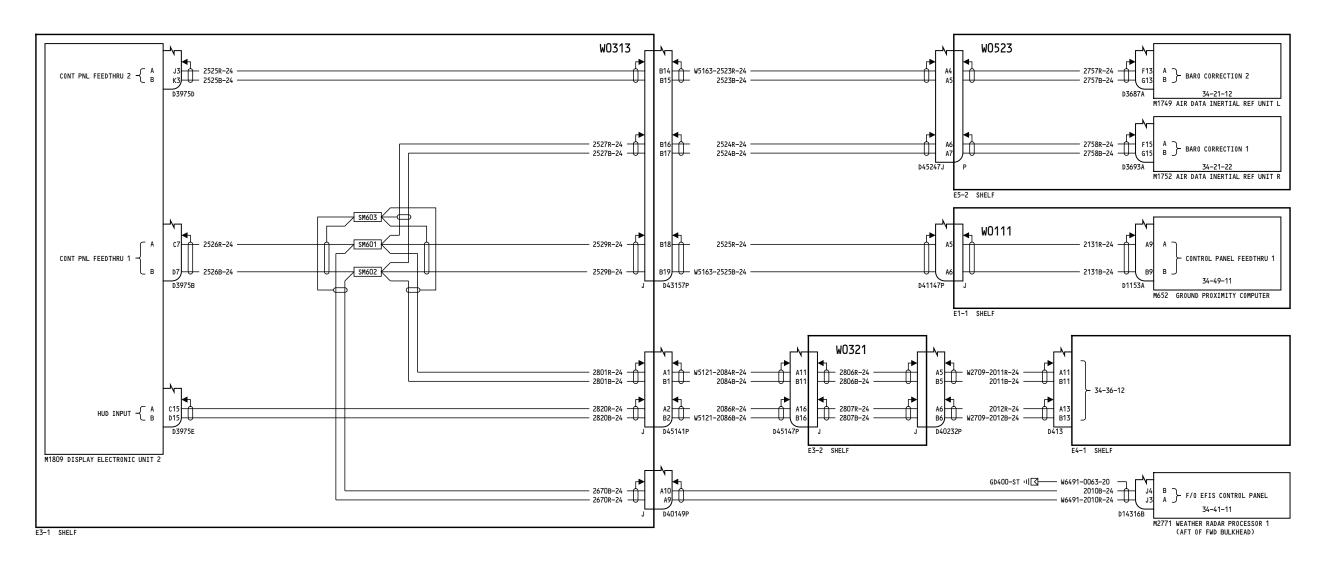
31-62-25

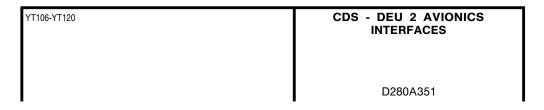
Page 4 Sheet 3 Mar 14/2016 31-62-25

Page 4 Sheet 3 Mar 14/2016



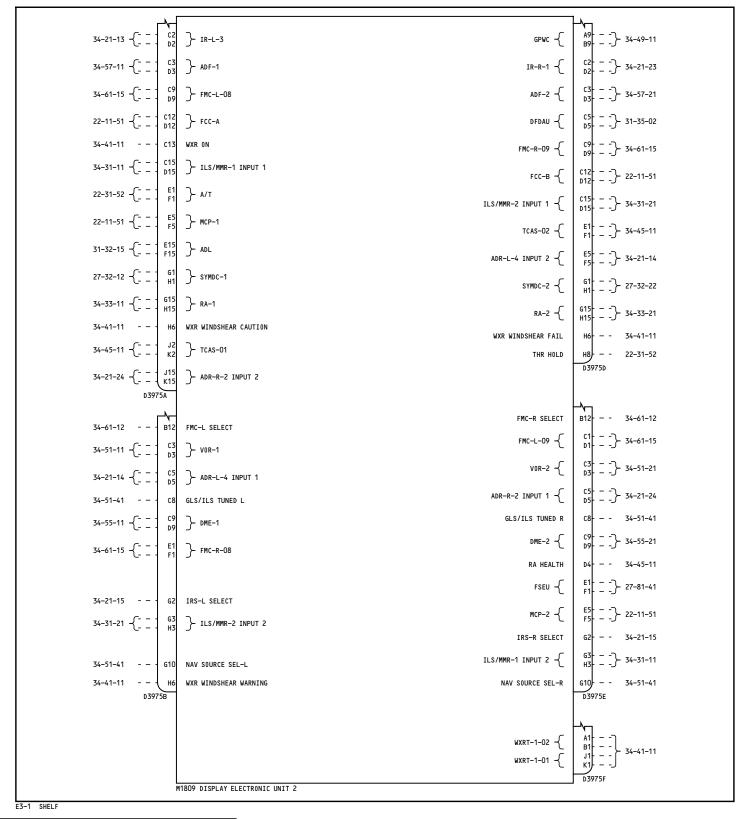






Page 4 Sheet 4 Mar 14/2016 31-62-25

Page 4 Sheet 4 Mar 14/2016 26

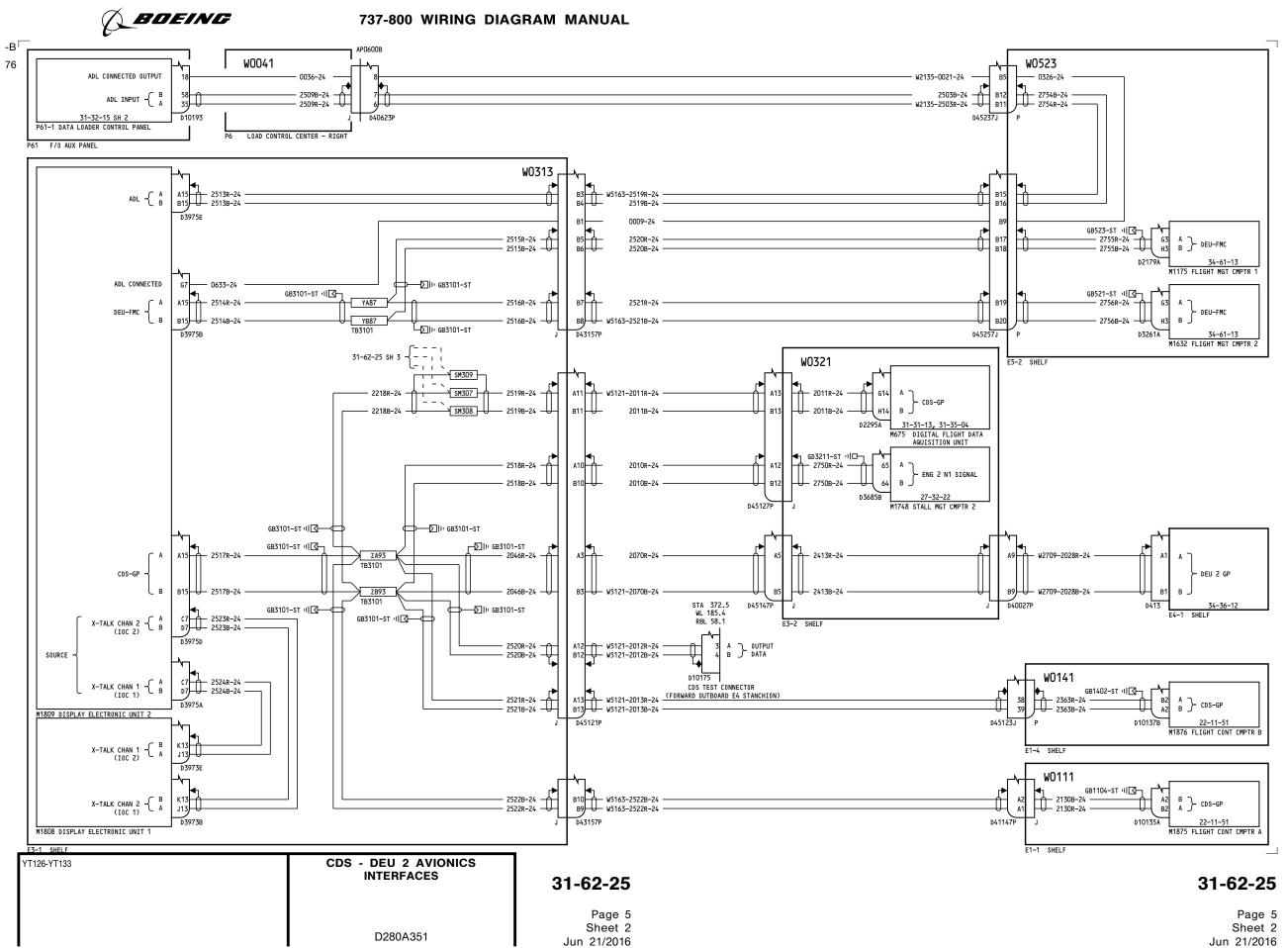


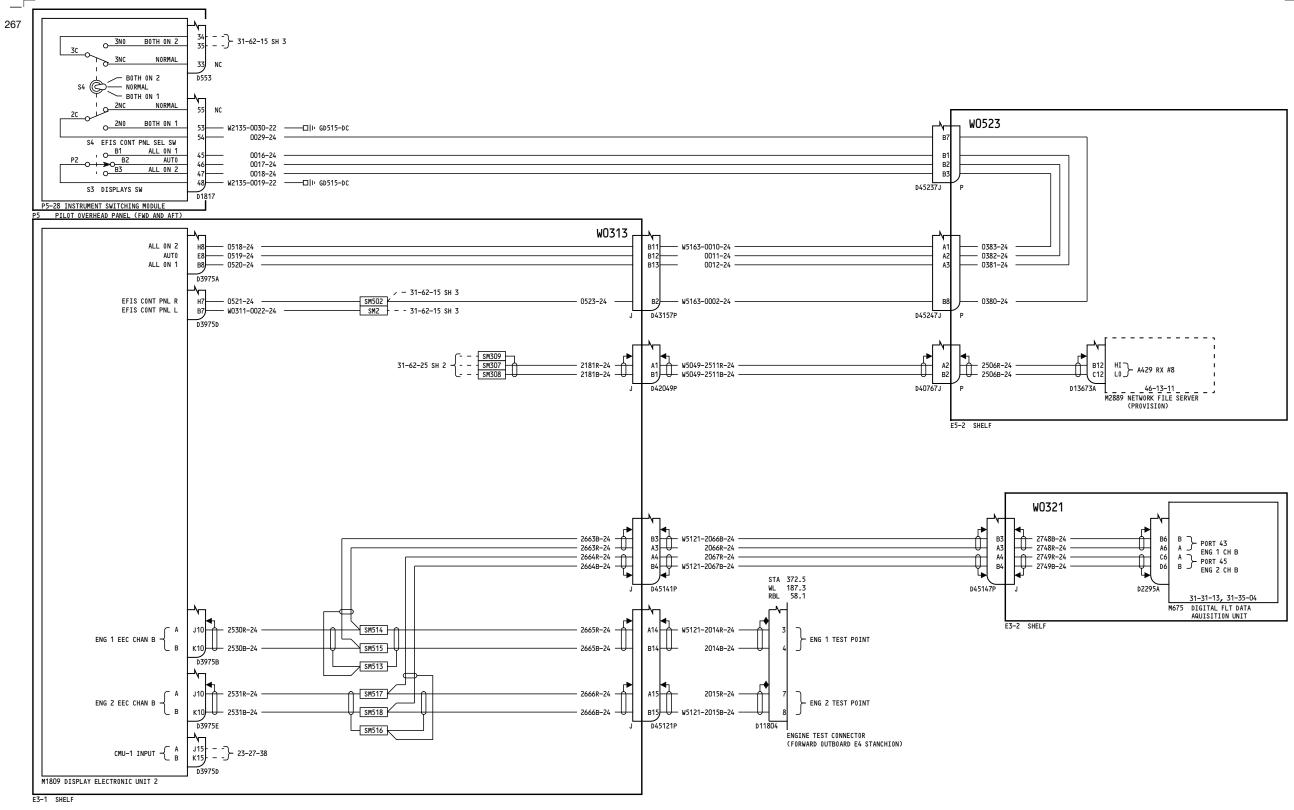


31-62-25

Page 5 Sheet 1 Jun 21/2016 31-62-25

Page 5 Sheet 1 Jun 21/2016





CDS - DEU 2 AVIONICS INTERFACES

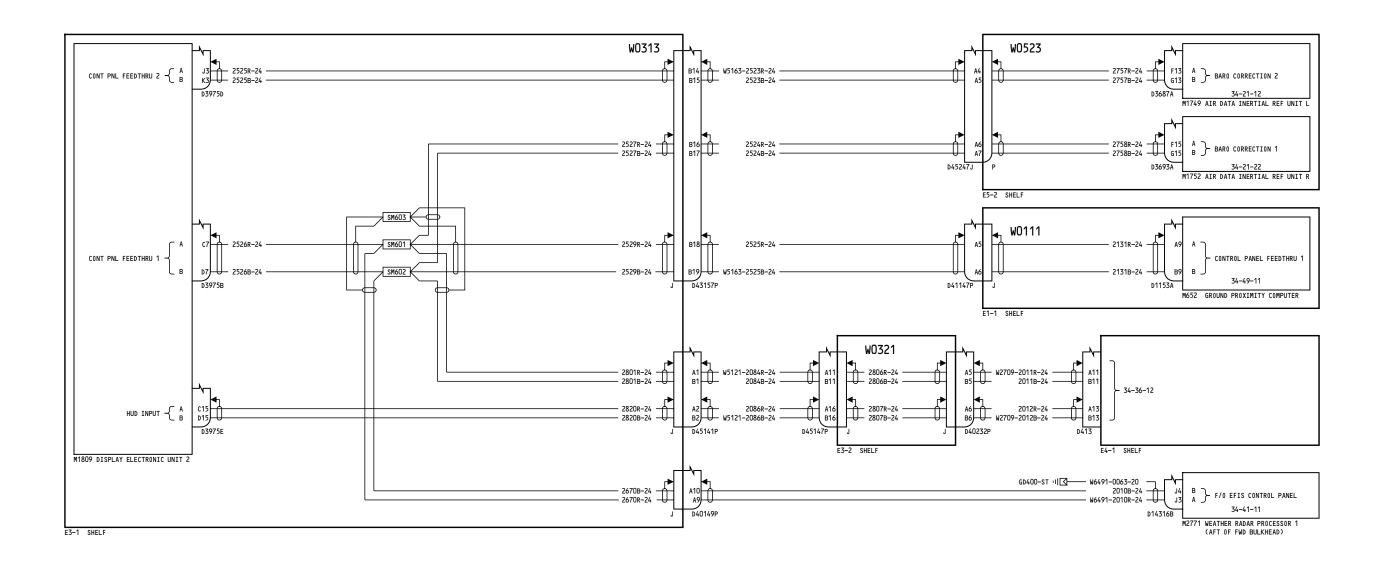
D280A351

31-62-25

Page 5 Sheet 3 Jun 21/2016 31-62-25

Page 5 Sheet 3 Jun 21/2016





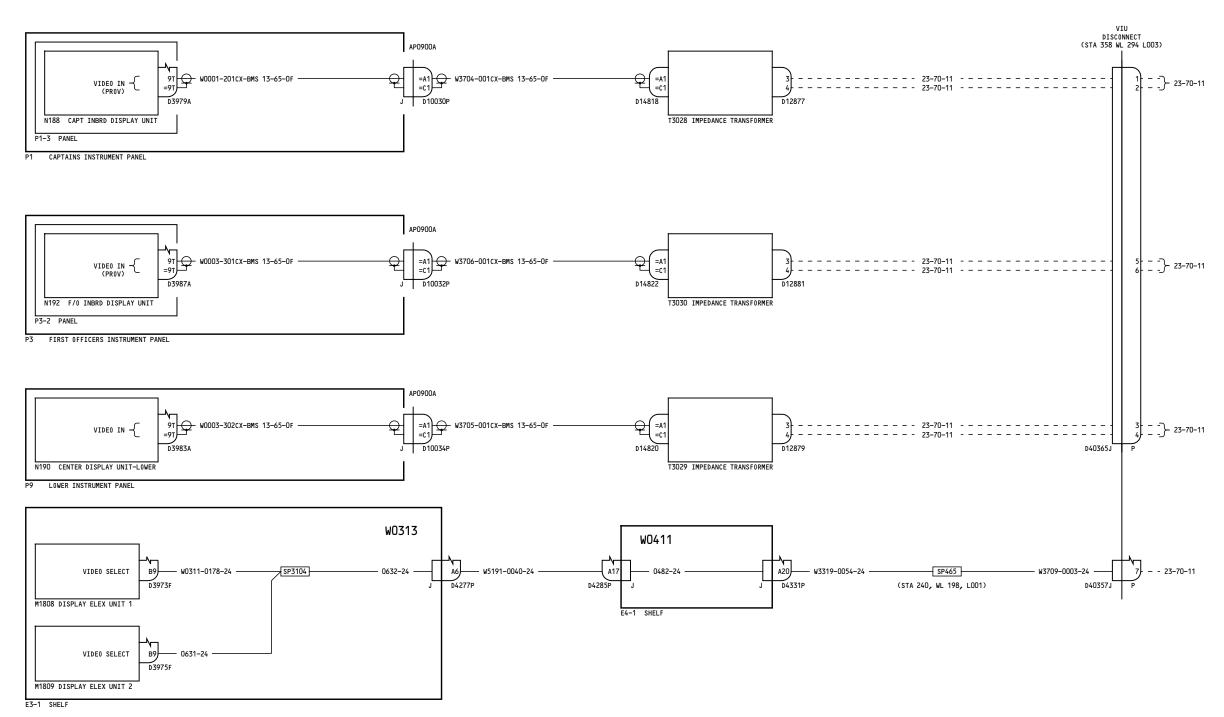


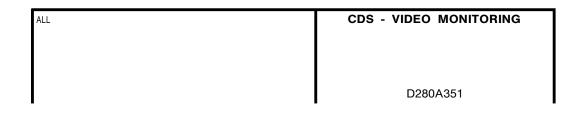
Page 5 Sheet 4 Jun 21/2016 31-62-25

Page 5 Sheet 4 Jun 21/2016 -A w0311-0220-24 HI-LO CHIME w0313-0570-24 HI-LO CHIME BRAKE OVER TEMP BRAKE OVER TEMP RSV -RSV BRAKE TEMP INPUT 1 (L - OUTBD) BRAKE TEMP REF BRAKE TEMP INPUT 1 (L - OUTBD) BRAKE TEMP REF GPSSU-L FAIL (PROV) GPSSU-L FAIL (PROV) D3973 D3975A DATA LINK STATUS DATA LINK STATUS DEU INSTL POSN BIT 1
DEU INSTL POSN BIT 2
LEFT DEU INSTL POSN BIT 1
DEU INSTL POSN BIT 2
RIGHT GD3103-DC +||□-------- w0311-0171-22 -GD3104-DC 11 W0313-0672-22 BRAKE TEMP REF BRAKE TEMP REF D3973E D3975B BRAKE TEMP TEST BRAKE TEMP TEST 737 757 767 747 737 757 767 747 GD3104-DC 11 W0313-0526-22 RSV RSV RSV BRAKE TEMP INPUT 3 (R - INBD) BRAKE TEMP INPUT 3 (R - INBD) BRAKE TEMP REF BRAKE TEMP REF GPSSU-R FAIL (PROV) GPSSU-R FAIL (PROV) D39730 D3975D MASTER DIM AND TEST MASTER DIM AND TEST DEU INSTL POSN BIT 3 - LEFT DEU INSTL POSN BIT 3 - RIGHT GD3103-DC 11 W0311-0025-22 -GD3104-DC 11 ₩0313-0525-22 RSV -{ BRAKE TEMP REF BRAKE TEMP REF D3973E D3975E M1808 DISPLAY ELECTRONIC UNIT 1 M1809 DISPLAY ELECTRONIC UNIT 2 ---- W0311-0221-24 ---TB3101Y R932 W0141 W5121-0029-24 -D45123J TB3101Y D45121P R933 E1-4 SHELF E3-1 SHELF CDS - DEU SELECT AND **PROGRAM PINS** 31-62-41 31-62-41 Page 1 Page 1 D280A351 Jun 21/2016 Jun 21/2016

BOEING PROPRIETARY - Copyright  $\mathop{\odot}$  - Unpublished Work - See title page for details.

-A -





31-62-42

Page 1
Jun 21/2016

31-62-42

Page 1

Jun 21/2016

BOEING PROPRIETARY - Copyright  $\mathop{\circlearrowright}$  - Unpublished Work - See title page for details.

\_