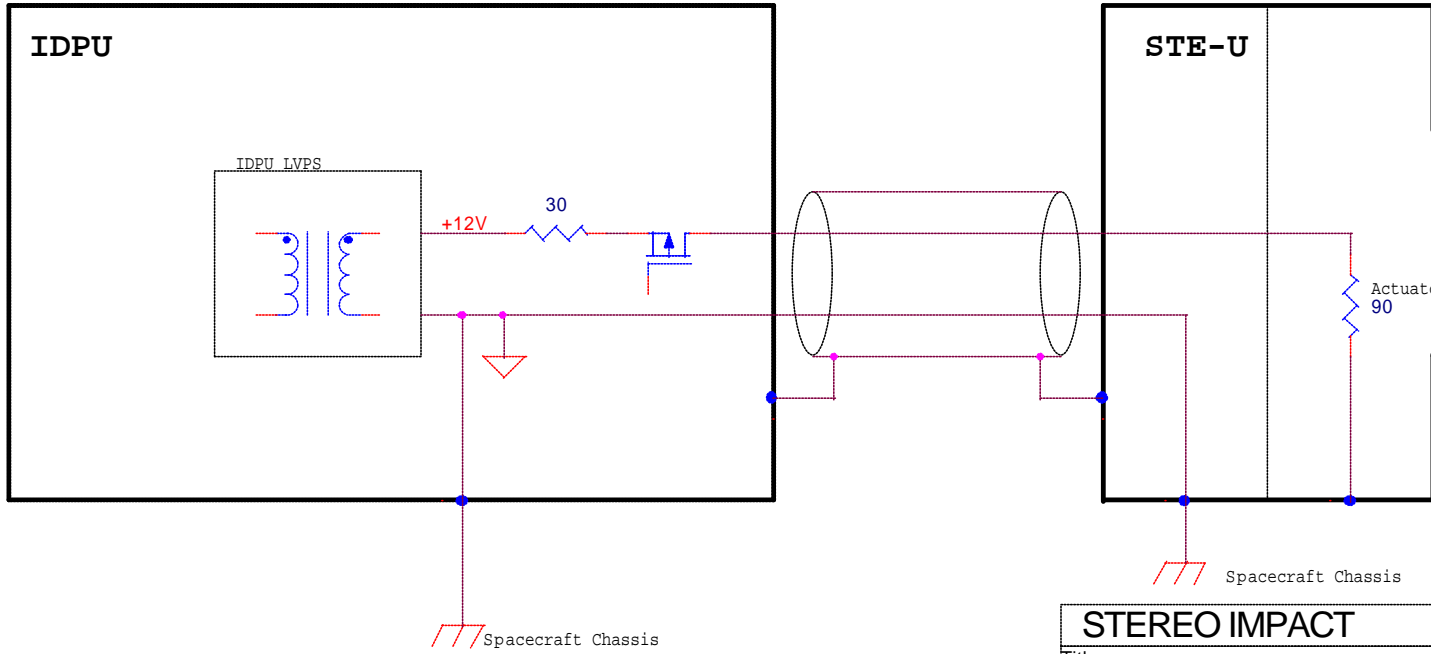
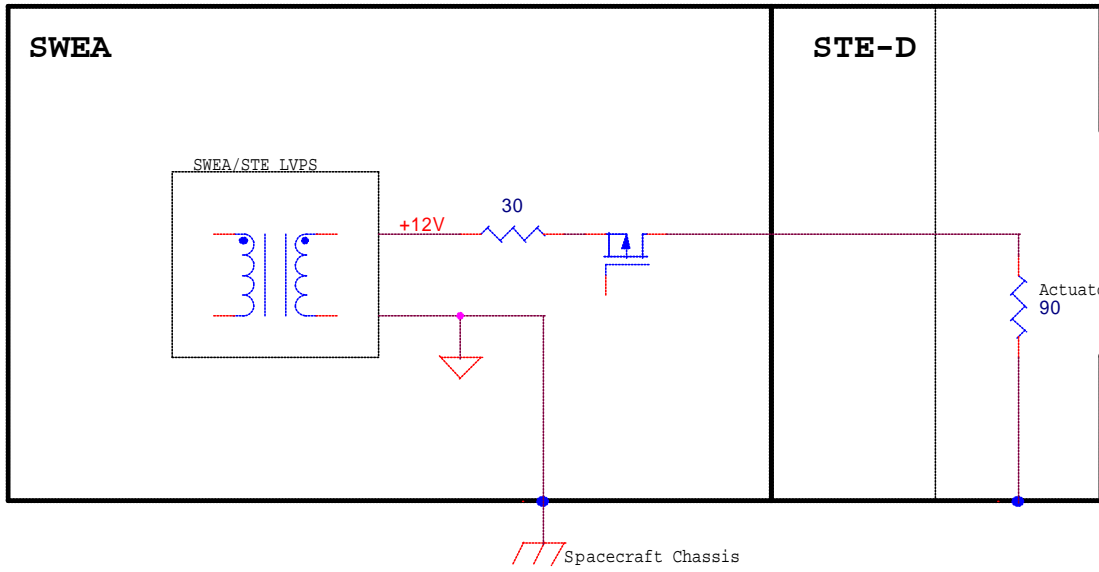


## STEREO CONFIGURATION CHANGE REQUEST

For Office Use Only	TITLE:	CLASS:	NUMBER:	
		I II	DATE:	
CONFIGURED ITEM:		ORIGINATOR:		PRIORITY:
STS Number:	Payload: <b>STEREO</b>	Name:	<b>Dave Curtis</b>	<input checked="" type="checkbox"/> Routine
Component :	Experiment: <b>IMPACT</b>	Organization:	<b>U.C. Berkeley</b>	<input type="checkbox"/> Urgent
Component Part #:	Serial #:	Phone:	<b>510-642-5998</b>	<input type="checkbox"/> Emergency
		Email:	<b>dwc@ssl.berkeley.edu</b>	
TYPE OF REQUEST:		RESPONSIBLE ORGANIZATION/INDIVIDUAL:		IMPACTS: (If yes attach additional pages)
<input type="checkbox"/>	Configuration			COST: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/>	Deviation #			SCHEDULE: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/>	Waiver #			
<input type="checkbox"/>	Other:			
REASONS FOR CHANGE:			RETEST REQUIRED:	
<input checked="" type="checkbox"/>	Improvement	<input type="checkbox"/> Test/Payload Failure	<input type="checkbox"/> New Document:	<input type="checkbox"/> No
<input type="checkbox"/>	Reliability	<input type="checkbox"/> Specification Requirements	<input type="checkbox"/> Other:	<input type="checkbox"/> Yes
PROPOSED CHANGE (Attach additional pages as required):				
<p>The STE door actuators are not shielded, violating project EMC requirements as called out in 7381-9030-, section 3.1.1. Also the STE-U door return current returns to the IDPU possibly via the spacecraft chassis, violating project EMC requirements as called out in 7381-9030-, section 3.1.2. See attached schematic.</p>				
RATIONALE (Attach additional pages as required):				
<p>The STE door actuators are exposed to space and cannot be easily shielded. To avoid exposing spacecraft power return, these actuators shall be run off secondary power and returned to chassis ground (which is connected to power converter secondary ground). When the actuator is off, it will be at chassis ground with no currents flowing, meeting the EMC requirements. However, when actuated it will expose about 9 Volts and, in the case of STE-U, inject about 100mA into the spacecraft chassis, for about 1 second while the door opens or closes. The door is used to avoid contamination by thrusters or exposure of the detectors to sunlight. The door will be closed for thruster firings, when the instrument is powered off, or when the spacecraft indicates loss of fine sun pointing. These events are infrequent and deterministic, so any noise generated in the MAG or SWAVES instruments should be limited in time, while the amplitude is sufficiently small that other spacecraft systems will not be affected.</p>				
DOCUMENTS/DRAWINGS AFFECTED (Document No./Title/Section) :				
AFFECTED (Check all that apply):				
FLIGHT SYSTEMS:		GROUND SYSTEMS:		
<input type="checkbox"/>	Avionics	<input type="checkbox"/>	Electrical and Cables	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Experiment	<input type="checkbox"/>	Software/Firmware	<input type="checkbox"/>
<input type="checkbox"/>	Structures and Mechanical	<input type="checkbox"/>	Other:	<input type="checkbox"/> Other:
REQUIRED APPROVAL DATE: _____				
REQUIRED JUSTIFICATION:				

## STEREO CONFIGURATION CHANGE REQUEST

For Office Use Only	TITLE:		CLASS:		NUMBER:
				I	
				II	DATE:
CONTRACT/AGREEMENT NUMBER EFFECTIVITY:					
STEREO NAS5-97271		✓	IMPACT S-13635Y	PLASTIC NAS5-00132	SECCHI S-13631Y
DOCUMENTS/DRAWINGS TO BE REVISED:					
Document/Drawing Number:		Document/Drawing Title:		Section(s) No.	EO No.:
PROCESSING APPROVAL:					
CCB					
Out of Board					
Emergency		Systems Engineer			Date
CCB APPROVAL:					
CCB ACTION DATE:		CCB ACTION ITEMS/CONDITIONS:			
Approved					
Denied					
Withdrawn					
Hold					
CLOSEOUT COMMENTS:				DATE OF CLOSEOUT:	
				CMO	



<b>STEREO IMPACT</b>		
Title		
STE Door Actuators		
Size	Document Number	Rev
A	<Doc>	A
Date:	Monday, April 29, 2002	Sheet 1 of 1