Title: Line Supervision Test
Objective: Verify system is installed using acceptable standards and practices, communicates properly, and provides proper protection of assets and meets or exceeds the contract performance specification. Also verifies the ability of a system to recover after a communications failure.
Applicability: Sensors, Transmission lines, Panels (FDBs and ACUs), Workstations, Servers, IDS, ACS.
Notes: 1. Procedures are designed assuming a system consisting of an Access Control Unit (ACU) (for example a door controller) with associated devices that is connected to a workstation. 2. The field technician may need keys to access components in locked rooms for these tests. 3. A detailed link testing list is essential to ensuring 100% system testing. 4. The purpose of alarm annunciation is to provide a correct and useful location of the alarm. 5. Real-time voice communications between the workstation operator and the field technician is required. 6. Verify that alarms annunciate quickly and meet appropriate standards.

Steps	Actions	Expected Results
1.0	**Communications Failure and Access Control Unit (ACU) Test**	
1.1	Disconnect the network communication line at the ACU.	Network communication failure alarm received at the workstation.
1.2	Repeat access, access denied, egress, and alarm (door held or door forced) tests.	Tests results are consistent with the results from the respective tests, but alarms are not received at the workstation.
1.3	Reconnect the communications line.	Workstation receives all system transaction logs and alarms from tests performed while communications were disconnected. Workstation shows communications have been restored.
1.4	Clear the alarms at the workstation.	The active alarm queue is empty.
2.0	**ACU to Credential Verification Device Failure Test**	
2.1	Disconnect the communication line from the ACU to the credential verification device.	Line supervision alarm received at the workstation.
2.2	Repeat Valid Credential test.	Device is unresponsive, door lock does not release.
2.3	Reconnect the communication line from the ACU to the credential verification device.	Line supervision alarm is still active.
2.4	Clear the alarms at the workstation.	The active alarm queue is empty.
2.5	Repeat Valid Credential test.	Transaction logged at the workstation. Door lock releases.
3.0	**Open Circuit Test (conduct this test for each**	

Steps	Actions	Expected Results
	device)	
3.1	Disconnect the device signal lead from the ACU.	Line supervision alarm received at the workstation.
3.2	Reconnect the device signal lead from the ACU.	The alarm is still active.
3.3	Clear the alarms at the workstation.	The active alarm queue is empty.
4.0	**Short Circuit Test (conduct this test for each device)**	
4.1	Place a jumper wire across the terminal blocks for the input and short the device's input wires together.	Line supervision alarm received at the workstation.
4.2	Remove the jumper wire.	The alarm is still active.
4.3	Clear the alarms at the workstation.	The active alarm queue is empty.