

# **SkillsUSA**

## **2010 Contest Projects**

### **Telecommunications Cabling**

Click the “Print this Section” button above to automatically print the specifications for this contest. Make sure your printer is turned on before pressing the button.

# Score Sheet

## 2010 Cable Termination: Twenty-five Pair on 110 Block

Contestant Number \_\_\_\_\_

Judges Signature \_\_\_\_\_

**Directions:**

1. You will have a total of 30 minutes to complete the Cable Termination exercise.
2. Determine the amount of cable remaining in the cable box. **Number of meters of cable = \_\_\_\_\_**
3. Terminate a 25 pair cable on Row two (2) of the 110 block labeled 102. (Route the 25 pair cable from the top down and dress cable in from the right side.)
4. Run a Cat 6, 4 pair cable from Row two (2) beginning with Pair 5 on the 110 block labeled 101 to the wall outlet.
5. Use a C4 clip on 110 block 101 and a C5 clip on 110 block 102 to cross connect pair 1 of the 4 pair cable to pair 10 of the 25 pair cable.

Step	Possible Points	Description	Judges Comments	Score	Test Pass/Fail
1	10	Determining remaining cable in box			
2	20	Proper color code of twenty-five pair			
3	20	Proper termination of 110 block			
4	10	Dress cable			
5	10	Proper cross-connect routing			
6	10	Proper installation of C5 & C4 clips			
7	10	Proper amount of slack at work area			
8	10	Clean up			
	100		Point Subtotal		
			Multiplier x 2		
			Point Total		

Professionalism: Okay \_\_\_\_\_

Deduction \_\_\_\_\_ (Up to 5 points)

Safety: Okay \_\_\_\_\_

Deduction \_\_\_\_\_ (Up to 5 points)

## Score Sheet

### 2010 Cable Installing

Contestant Number \_\_\_\_\_

Judges Signature \_\_\_\_\_

Directions:

1. You will have a total of 45 minutes to complete the Cable Installing exercise.
2. Secure the area.
3. Install two (2) Cat 6 cables from the work area to the equipment rack patch panel.
4. Terminate to T568B on positions 1 & 2 of patch panel 1.
5. Label per TIA-EIA 606 Labeling Standards identifying cable #1 and #2.

Step	Possible Points	Description	Criteria	Judges Comments	Score	Test Pass/Fail
1	5	Secure the work area.	5 pts or zero pts			
2	10	Setup pull boxes & label cables and boxes.	No label - 5			
3	10	Pull cables and dress across ladder rack.	2 pts for pulling cable. Bend radius 2 pts Pulling tension 2 pts Technique 2 pts Secure cables 2 pts			
4	10	Fish conduit & install pull string.	10 pts or zero pts			
5	15	Pull cables through conduit with pull string.	5 pts for string 10 pts for cables			
6	10	Terminate cables per T568-B standard at the patch panel and wall jack.	10 pts			
7	10	Install faceplate. (If this is not done the cable will not be tested resulting in the loss of all points in Step 10.)	Labels 2 pts each (2) Face plate 2 pts (1) Jack 2 pts each (2)			
8	5	Dress & secure cables.	Judges discretion			
9	10	Clean up work area.	Judges discretion			
10	15	Judge tests cable. Test Result:	Judges discretion			
	100			Point Subtotal		
				Multiplier x 2		
				Total Points		

#### Step 10 Test Results Ranking

- 1st 15 points
- 2nd 14 points
- 3rd 13 points
- 4th 12 points
- 5th 11 points
- 6th 10 points
- 7th 10 points
- 8th 10 points
- 9th 10 points
- 10th 10 points

Test Result: \_\_\_\_\_

Place: \_\_\_\_\_

Points Awarded \_\_\_\_\_

Professionalism: Okay \_\_\_\_\_

Deduction \_\_\_\_\_ (Up to 5 points)

Safety: Okay \_\_\_\_\_

Deduction \_\_\_\_\_ (Up to 5 points)

## Score Sheet

### 2010 Cable Construction

Contestant Number \_\_\_\_\_

Judges Signature \_\_\_\_\_

**Directions:**

1. You will have 30 minutes to construct 3 cables.
2. Make a patch cable (**T568B**), a crossover cable, and a coax cable.
3. Each completed cable should be at least 3.5 feet long.
4. Label each cable with your contestant number and type cable.  
     Patch – S      Crossover – X      Coax - C
5. When finished present your cables to the judge for testing.

<b>Patch Cable</b>	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 Total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed T568B	15				

<b>Crossover Cable</b>	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed	15				

<b>Terminate Coax with F Connectors</b>		End 1	End 2	Subtotal	
Cable is properly labeled	3 total				
Insulation crimped	2 each end				
Conductor proper length	2 each end				
Outer shield trimmed properly	2 each end				Cable Total
Test cable (VOM)	15				

<b>Penalties</b>	Number of additional plugs used	Points
Deduct 10 points for each additional plug.		
Deduct 10 points for contestant not wearing eye protection.		
	<b>Total Deduction</b>	

Gross Cable Points (90 points max) \_\_\_\_\_

Subtract Penalty Points \_\_\_\_\_

Add 10 bonus points if all three cables work. \_\_\_\_\_

**Net Cable Construction Points** \_\_\_\_\_

Professionalism:    Okay \_\_\_\_\_  
 Safety:              Okay \_\_\_\_\_

Deduction \_\_\_\_\_ (Up to 5 points)  
 Deduction \_\_\_\_\_ (Up to 5 points)

# Score Sheet

## 2010 Cable Troubleshooting

Contestant Number \_\_\_\_\_

Judges Signature \_\_\_\_\_

Directions:

1. You will have 30 minutes to complete cable troubleshooting.
2. Read the question and inspect the item at each station.
3. Put the answer to each station question on the answer sheet.
4. If an explanation is required, write it on the answer sheet.
5. If the station says Test the cable, mark pass or fail in the Test Pass/Fail column provided.

Station	Answer	Explanation	Judges Comments	Score	Test Pass/Fail
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
			Point Subtotal		
			Multiplier x 2		
			Total Score		

Professionalism: Okay \_\_\_\_\_ Deduction \_\_\_\_\_ (Up to 5 points)  
 Safety: Okay \_\_\_\_\_ Deduction \_\_\_\_\_ (Up to 5 points)

# Score Sheet

**2010 Technical Support**  
**Contestant Number** \_\_\_\_\_

**Judges Signature** \_\_\_\_\_

**Directions:**

In the Technical Support part of the contest, you will be judged on speaking skills, using a test headset, and solving a customer problem while experiencing simulated stress and distractions.

**Scenario:**

You've just moved to testing a fiber link that has been reported inoperative. The customer didn't give you much information just the room and ports that are having a problem. The CAD/CAE worker at the station is complaining they can't retrieve files from the network.

You are working with your coworker Jake who is in the telecommunications closest providing support on the remote end. When you pick up the headset to begin working with Jake you will be operating a half-duplex communications tool **and need to ask Jake if he is there.**

Time Limit: 10 Minutes

Step	Possible Points	Description	Judges Comments	Score
		Initial Contact		
1		Greeting		
2		Listening		
3	10	Problem Assessment		
4	10	Solution Approach		
5		Peer to Peer Communication		
	25		Subtotal	
		Customer Interaction		
6		Distraction Self Management		
7		Diagnostic Questions		
8		Abuse Self Management		
9		Isolating Problem		
10		Offering Solutions		
11		Integrity		
12		Knowledgeable		
13		Leadership		
14	5	Escalates		
15	10	Solves		
	50		Subtotal	
		Speaking Skills		
16		Volume		
17		Speed		
18		Tonal Quality		
19		Style		
20		Temper		
	25		Subtotal	
			Total	

Professionalism: Okay \_\_\_\_\_ Deduction \_\_\_\_\_ (Up to 5 points)

Safety: Okay \_\_\_\_\_ Deduction \_\_\_\_\_ (Up to 5 points)

# Score Sheet

## 2010 Telecommunications Cabling – Professionalism

Contestant Number \_\_\_\_\_

Judges Signature \_\_\_\_\_

Item Evaluated	Possible Points	Score
Orientation (Attendance & Promptness)	5	
Competition Day Promptness	5	
Safety	5	
Attitude	5	
Tools and Equipment	30	
<b>Total Score</b>	<b>50</b>	