



Thank you for your inquiry and per your request, below you will find our quote and information describing Auto Technology's Cyclic Corrosion Test Chamber-the CCT-NC.

The CCT-NC Chamber has a modular design to offer you the widest variety of configurations to handle every major corrosion specification currently in the marketplace including:

- Nissan CCTI, II, and IV
- Ford CETP L467
- GMW14872
- Honda CCTA
- Toyota SH 1555G Method C
- SAE J2334
- ASTM B117
- ASTM D1735
- ASTM G85 Annex's 1-5
- ASTM B368

***No other commercially available chamber can match the performance or has a more extensive list of options than the Auto Technology Chamber. We are the undisputed leader in salt Corrosion testing!***

In the quote below we offer packages to perform specific specifications. If you need to perform more than one specification please feel free to discuss this with us and we can tailor fit the right chamber to your needs.

We look forward to the opportunity of exceeding your expectations!

Regards,

Caleb Smith  
Auto Technology Company

## Auto Technology CCT-NC-PC Cyclic Corrosion Cabinet Quotation Computer Controlled

### 1 Chamber Size

- Consider- how big are your parts?
- How many do you have to test at a time?
- How much room do you have?
- Consider in your calculation, duration time of tests (some are 150 days+!)
- [Also consider what you need to install the unit at your facility.](#)
- [All chambers list below come with advance controls and data recording see more info](#)

Part #	Description
700020-PC	<b>NC-PC-20 Auto Technology CCT Cyclic Corrosion</b> 20 ft <sup>3</sup> /566 liters Interior Testing Dimension 1270 mm L (50")x737 mm W (29")x 635 mm H (25")
700030-PC	<b>NC-PC-30 Auto Technology CCT Cyclic Corrosion</b> 30 ft <sup>3</sup> /849 liters Interior Testing Dimension 1905 mm L (75")x 737 mm W (29")x 635 mm H (25")
700040-PC	<b>NC-PC-40 Auto Technology CCT Cyclic Corrosion</b> 40 ft <sup>3</sup> /1132 liters Interior Testing Dimension 1905 mm L (75")x 914 mm W (36")x 635 mm H (25")
700090-PC	<b>NC-PC-90 Auto Technology CCT Cyclic Corrosion</b> 90 ft <sup>3</sup> /2548 liters Interior Testing Dimension 1900 mm L (76") x1143MMW (45") x1155mm H (45.5")
700011-PC	<b>NC-PC-110 Auto Technology CCT Cyclic Corrosion</b> 110 ft <sup>3</sup> /3115 liters Interior Testing Dimension 2267 mm L (89")x1860 mm W (73")x 762 mm H (30")
PC-Controls	<a href="#">Advanced PC Controller including data logging, pre programmed tests and upgrade capabilities.</a>



## 2 Standard Cyclic Testing Standard Packages

- ATC CCT chambers can be configured to run almost any current corrosion test
  - Our customers normally call about a specific test they are need.
  - Many of these single tests configurations can do many other standards with no or slight modification.
- If you need to conduct multiple tests please call so we can review your needs.

Part Number Description



### **GMW14872/GM9540P**

*(In 2007 GM9540P was replaced by GMW14872)*

- Solution application (spray)
- Ambient - Dry at room temperature
- Ramp to 100% Humidity
- 100% Humidity (steam, or fogging)
- Ramp to Dry
- Dry cycle

- 705025 GMW 14872 Adder including:
- [701100 Air Actuated Cover Lifters Option](#)
  - [700500 Solution Spray Option - Deluxe](#)



### **GMW3172 Section 9.4.8**

- 70C High heat
  - Solution application spray continuous
  - Ambient - Dry at room temperature
- Please be aware T(room) is called out in the spec for solution temp*

- 700596 GMW 3172 Adder including:
- [701100 Air Actuated Cover Lifters Option](#)
  - [700500 Solution Spray Option - Deluxe](#)
  - 700596 Recirculating Spray system.



### **SAE J2334 with Deluxe Spray**

- 705000 J2334 adder spray version including:
- [700140 Controlled Humidity](#)
  - [700500 Deluxe Spray Option](#)
  - [700150 Wet Bottom Relative Humidity](#)

### **SAE J2334 with Immersion Option**

- 705010 J2334 adder immersion version including controlled RH, wet bottom high RH and immersion (for NC-20,30 & 40)
- [700140 Controlled Humidity](#)
  - [700150 Wet Bottom Relative Humidity](#)
  - [700600 Immersion Option](#)

### ***Recommended option for the above tests***

- 701101 [Air Actuated Cover Lifters - to provide TRUE lab ambient conditions](#)

## 2 Advance Cyclic Testing Standard Packages

- The tests below require the use of Mechanical Cooling in order to maintain tolerances and conditions called out in the tests.
- We use a water cooled system that requires chilled process water from your facility.
- These units also have a larger footprint.



### Honda CCT-A

- Controlled RH cycle
- Salt Spray (salt fog)
- Dry cycle
- Controlled RH cycle
- Dry cycle
- Low Temperature cycle

701260 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH –](#)  
**Site survey required contact us for more information.**

**Recommended option for the above tests**

701101 [Air Actuated Cover Lifters - to provide TRUE lab ambient conditions](#)



### Toyota CCT TSH 1555G Method C

- Salt Spray Cycle (Salt Fog)
- Forced drying (Dry Cycle)
- Wetting - (Controlled RH cycle)
- Forced drying (Dry Cycle)
- Natural Drying (Ambient Cycle)

701255 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – Models NC 20,30,40](#)  
**Site survey required contact us for more information.**

701260 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – Models NC 90, 110](#)  
**Site survey required contact us for more information.**

**Recommended option for the above tests**

701101 [Air Actuated Cover Lifters - to provide TRUE lab ambient conditions](#)

## 2 Advance Cyclic Testing Standard Packages

- The tests below require the use of Mechanical Cooling in order to maintain tolerance and conditions called out in the tests.
- We use a water cooled system that requires chilled process water from your facility.
- These units also have a larger footprint.



### Ford CETP 00.00-L-467

- Solution application - swaying spray - middle of 6 hr. wet phase
- Controlled RH cycle Transition to controlled RH cycle Controlled RH cycle - exposure at controlled RH for 15.5 hrs. Controlled RH cycle - exposure at controlled RH for weekend/**Ford CETP 00.00-L-467**
- Solution application - swaying spray - end of 6 hr. wet phase
- Dry cycle with exhaust fan on to start dry out step - Transition to elevated temperature

700520-V [Volvo/Ford sway style Solution Spray System \(System specially designed to use actuator and bar per spec](#)

701265 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH](#) - MINI **Site survey required contact us for more information For NC 20, 30 and 40. Call for NC 90 and 110..**

**Recommended option for the above tests**

701101 [Air Actuated Cover Lifters - to provide TRUE lab ambient conditions](#)



### Nissan CCT 1

- Salt Spray (salt fog)
- Dry cycle
- Controlled RH cycle
- Transition times of less than 30 minutes

701255 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – Models NC 20,30,40](#)

**Site survey required contact us for more information.**

701260 [Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – Models NC 90, 110](#)

**Site survey required contact us for more information.**

**Recommended option for the above tests**

701101 [Air Actuated Cover Lifters - to provide TRUE lab ambient conditions](#)

### 3 Custom Temperature Options

*-20 C to 90 C the widest selection in the Industry!*

Part Number	Description	CCT-NC
701255	<a href="#">Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – NC 20, 30 and 40</a>	
701260	<a href="#">Mechanical cooling system down to -20C adder package with Dehumidify for controlled RH – NC 90 and 110</a>	
701270	<a href="#">High Temperature Package for up to 90 Degree C during Dry Cycle NC 20-40</a>	

### 4 Internal Racking

*Coupons racks, Cross members and Shelving*

Part Number	Description	CCT-NC
700400,05 or 08	<a href="#">Fiberglass Support Angles</a> (28", 35", 42 long) (set of 8)	
700410,15 or 17	<a href="#">Slotted Support Bars</a> (28", 35, 42" long) (holds 16-20-26 panels) (sold as each)	
700420,25 or 27	<a href="#">Fiberglass Support Rods</a> (29.75", 36.5", 43.5" long) (set of 8)	
C100324	<a href="#">23" X 8-1/2" Slotted Support Rack</a> (holds 40 3x6" panels)	
700430,32 or 33	<a href="#">Heavy Duty Support Shelves for CCT-NC at Mid level</a> (sold as each) (2 required for NC20, 3 for NC-30, 40 or 90) Call on NC 110	

### 5 Optional Equipment for the CCT

Part Number	Description	CCT-NC
700142	<a href="#">Controlled Humidity option for - PC Based Controls</a>	
700500	<a href="#">Solution Spray Option - Deluxe multiple nozzles with independent shut-offs</a>	
701101	<a href="#">Air Actuated Cover Lifters - to provide TRUE lab ambient conditions</a>	
700150	<a href="#">Wet Bottom Relative Humidity Option for PC based controlled CCT-NC</a>	
701200	<a href="#">SO2 Adder Package</a>	
700900	<a href="#">External Condensate Collection Package for NC 20,30,40</a>	
700940	<a href="#">External Condensate Collection Package for NC 110</a>	
701000	<a href="#">Power Vent Installation Kit</a>	
711XXX	480 Volt 3 Phase Wiring Package	
700820	<a href="#">Mixing Tank Convenience option 705500,700800,700810</a>	
	705500	
	700800	
	700810	
701500	<a href="#">Start-Up Kit for CCT-NC</a>	
C92000	Preventative Maintenance Kit	
701700	<a href="#">60 Gallon Mixing Tank with Pump on Stand</a> (extra to match existing chamber)	
701900	<a href="#">Certificate of Calibration</a> (Traceable to N.I.S.T.)	
703100	Install kit for CCT	
701800	<a href="#">Training Class on Cyclic Chamber Operation at Auto Technology's facility</a>	

## **Ordering Information**

- 1. Prices quoted are valid for 30 days.**
- 2. Please specify voltage and phase when ordering**
- 3. Terms 50% Down Payment 50% Net 30 days (pending credit approval).  
These units are all designed to fit our customer's specific needs.**
- 4. Shipping F.O.B. Strongsville, OH**

### ***What is needed for Chamber Installation***

- Qualified electrician for electrical connection
  - Plumber for drain, air and water connections
  - HVAC installer (or other qualified personnel ) for chamber vent connection
  - Level floor
  - Access to the outside via a roof vent or side wall vent
  - Floor drain
  - Pressurized 450 – 690 kPa (60-100 psi) ASTM D1193 reagent grade type IV water. Best chamber performance is obtained at the higher pressure ratings.
  - Clean dry compressed air regulated to to 655 – 698 kPa (95-100 psi).
  - Customer specified electric power from a lockable disconnect with appropriate amount of electric cord and conduit for the chamber location
  - 1.9 cm (¾") plastic (PVC) plumbing fittings and ball valve for chamber drain to connect the chamber to the floor drain
  - 10.2 cm (4") outside diameter (O.D.) CPVC schedule 40 "T", CPVC 10.2 cm (4") to 1.9 cm (¾") reducer
  - 10.2 cm (4") O.D.(CPVC) plumbing fittings for the chamber vent
  - 5.08 cm (2") O.D.(CPVC) plumbing fittings for the chamber vent
  - 9.525 mm (3/8") O.D. poly tubing from the compressed air line source to the chamber compressed air installation fitting
  - 9.525 mm (3/8") O.D. poly tubing from the pressurized DI line to the chamber inlet
- Mechanical Cooling requires
- Refrigeration Water

Improper installation will affect the operation of the instrument and compromise test integrity. We strongly discourage installation in a warehouse, boiler room, garage, factory floor, paint room, powder mixing room, where outside doors are frequently opened, where dust is frequently airborne, or where humidity, air pressure or temperature vary widely.

## Chamber Capabilities / Requirements

<b>1 Chamber Size</b>					
Model No:	CCT-NC-20	CCT-NC-30	CCT-NC-40	CCT-NC-90	CCT-NC-110
<b>Internal Capacity</b>	565 ltr. 20 cu.ft.	850 ltr. 30 cu.ft.	1130 ltr. 40 cu.ft.	2548 ltr. 90 cu.ft.	3115 ltr. 110 cu.ft.
<b>Test Space</b>	.94 square meter	1.40 square meter	1.74 square meter	2.21 square meter	4.18 square meter
<b>Testing Plane</b>	10.1 square feet	15.1 square feet	18.7 square feet	23.7 square feet	45 square feet
<b>Internal Dimension</b> L x W x H	1270 mm L (50") 737 mm W (29") 635 mm H (25")	1905 mm L (75") 737 mm W (29") 635 mm H (25")	1905 mm L (75") 914 mm W (36") 635 mm H (25")	1930 mm L (76") 1143 mm W (45") 1155 mm H (45.5")	2267 mm L (89.25") 1860 mm W (73.25") 762 mm H (30")
<b>Total Chamber Volume</b>	982.5 ltr. 34.7 cu.ft.	1,472.5 ltr. 52.0 cu.ft.	1,925.5 ltr. 68.1 cu.ft.	3,822 ltr. 135 cu.ft.	4,870.5 ltr. 172 cu.ft.
<b>Floor Space Required</b>	2590 mm L (102") 2057 mm W (81")	3226 mm L (127") 2057 mm W (81")	3226 mm L (127") 2286 mm W (90")	3353 mm L (132") 2540 mm W (100")	3658 mm L (144") 3912 mm W (154")
<b>External Dimensions</b> Left to Right	2413 mm (95")	3048 mm (120")	3048 mm (120")	3353 mm (132")	3480 mm (137")
Front to Back with cover on and closed	914 mm (36")	914 mm (36")	1092 mm (43")	1676 mm (66")	2286 mm (90")
Tall - Floor to top of cover (closed)	1448 mm (57")	1448 mm (57")	1448 mm (57")	2235 mm (88")	1829 mm (72")

***The inside dimensions, capacities, and space given here are "available testing space." They do not include space below the false floor where the heaters are located or within the cover.***

**Temperature Ranges:** Ambient to 71 °C (160 °F)

**Humidity:**

95-100% During High Humidity from Ambient to 50 °C (122 °F)  
< 30% during Dry off cycles

(Controllable Humidity available as an option upon request from 30-95% +/- 5%) as limited by a 22°C dew point and lab conditions. **NOT ALL TEMPERATURE AND HUMIDITY COMBINATIONS ARE ATTAINABLE!** (Check with factory for details)

## Chamber Capabilities / Requirements

### **Solution Consumption during fogging tests only:**

CCT-NC-20 approx. 10 gallons per day for D.I. water and salt Solution if a fog only cycle is running and no cycling takes place.

CCT-NC-30, 40 & 90 approx. 15 gallons per day for D.I. water and salt solution if a fog only cycle is running and no cycling takes place.

**NOTE:** D.I. water consumption increases with cyclic testing when cycling from fogging to non-fogging tests.

**Air Consumption:** approximately 3.5 CFM, must be a constant 95 psi (6.55 Bar) supply of clean dry air or the machine will not run.

**D.I. Requirement:** ASTM D1193 Type 4 water ONLY, must be a constant - 60 – 100 psi (4.5 – 6.9 Bar) supply of clean water or the machine will not run.

### **Sample Capacity:**

	CCT-NC-20	CCT-NC-30	CCT-NC-40	CCT-NC-90
4" x 12" panels	160	240	360	390
3" x 6" panels	190	280	380	416

**Venting:** 4.5" Diameter (114mm)

**Drain:** Main drain is ¾" (19 mm) pipe drain that must be free flowing and open at all times. There are multiple drain lines depending on options.

### Voltage & Phase:

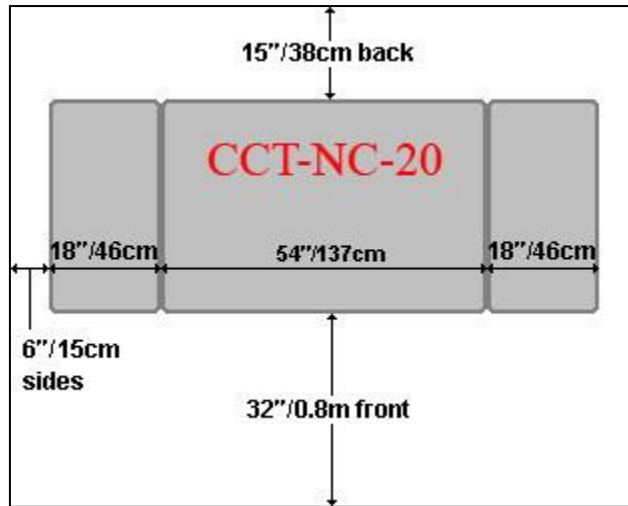
Model #	208/1/60	208/3/60	240/1/60	240/3/60	460/3/60
CCT-NC20	35 amps	30 amps	30 amps	26 amps	16 amps
NC-20 with Immersion	N/A	68 amps	N/A	61 amps	31 amps
CCT-NC30	44 amps	40 amps	38 amps	34 amps	20 amps
NC-30 with Immersion	N/A	77 amps	N/A	69 amps	36 amps
CCT-NC40	44 amps	40 amps	38 amps	34 amps	20 amps
NC-40 with Immersion	N/A	77 amps	N/A	69 amps	36 amps
CCT-NC90	53 amps	53 amps	47 amps	47 amps	25 amps
NC-90 with Immersion	N/A	165 amps	N/A	155 amps	75 amps

These amperage ratings are the actual amperage draw for the cabinet. 480 volt 3 phase available as an option at additional cost.

### Floor Space, CCT-NC, continued

CCT-NC-20  
view from above

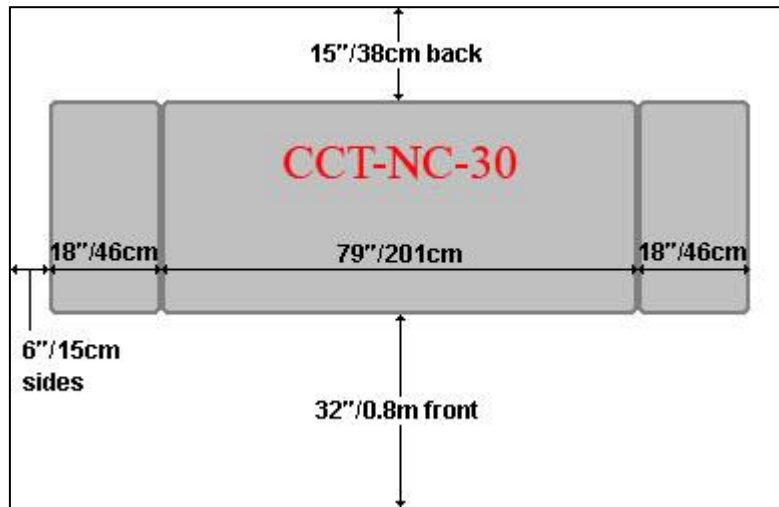
Width:  
82 inches / 2.08 meters



Length: 102 inches / 2.6 meters

CCT-NC-30

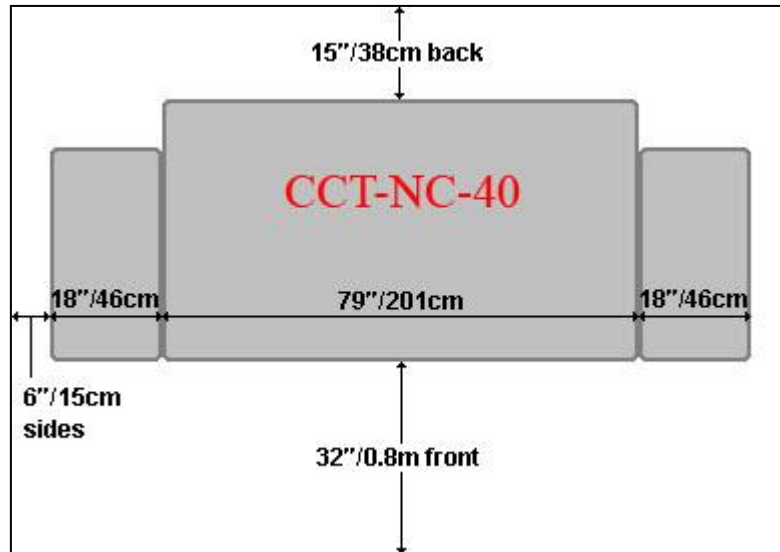
Width:  
82 inches / 2.08 meters



Length: 127 inches / 3.23  
meters

**CCT-NC-40**

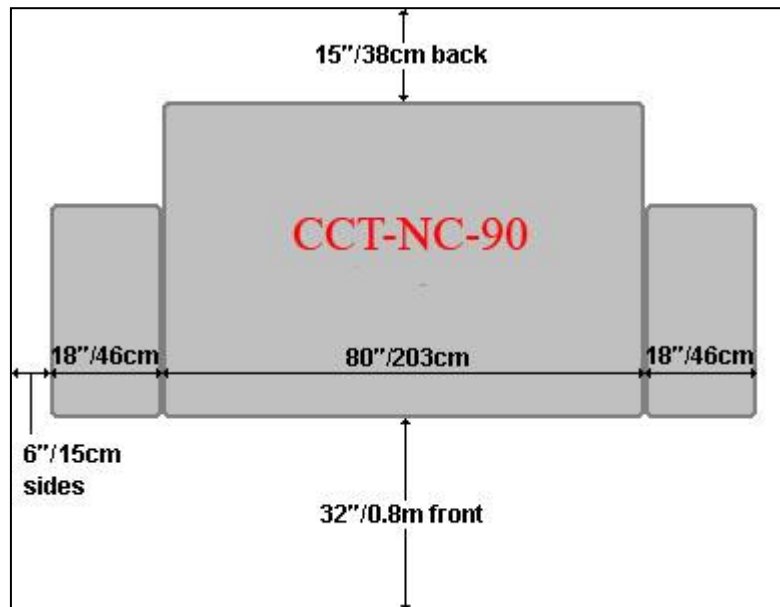
Width:  
90 inches / 2.29 meters



Length: 127 inches / 3.23  
meters

**CCT-NC-90**  
*view from above*

Width:  
99 inches / 2.51 meters

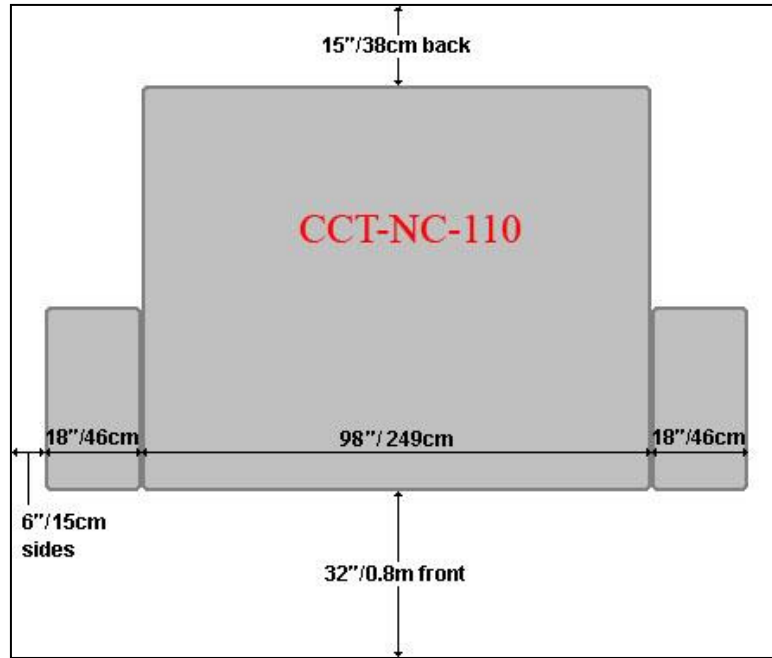


Length: 128 inches / 3.25  
meters

**CCT-NC-110**

Width:  
125 inches / 3.18 meters

Length: 146 inches / 3.71  
meters



**The Auto Technology Company CCT series of chambers can provide the user a wide range of controlled cycles to meet the greatest variety of Industry standard specifications in the world.**

**Auto Technology is a pioneering leader in the corrosion test industry and is considered the standard in every major Automotive testing facility in North America. This includes General Motors, Ford, Daimler Chrysler, Toyota, Honda, Hyundai among others.**

## **Cycling Capabilities Description**

**Salt Fog Cycle:** During the Salt Fog Cycle, salt solution is atomized into a fine mist. This is the same setup that normally would be used when running the ASTM B117 specification. Hot, humid air is created by bubbling compressed air (usually at 15 psi) through a tube (bubble tower, or humidifying tower) that is about 3/4 full of hot (usually 48°C / 118° F) deionized water.

The salt solution can be replaced with other solutions to create a corrosive fog with differing properties.

**Humidity Cycle Fogging:** During the Humidity Cycle, the chamber will operate much like the Salt Fog Cycle with the difference of D.I. water being feed to the atomizer nozzle rather than Salt solution by the automated solenoid. This will create a 100% relative humidity condition.

**Dry Cycle:** During the Dry Cycle, hot air is forced into the chamber via a blower motor. The blower motor blows air over an energized heater. The chamber temperature is set by the user, and controlled by the PLC. This dry cycle creates a low humidity state (<30% RH) in the exposure zone of the chamber.

**Dwell Cycle:** During the Dwell Cycle, no action is taken by any of the chamber components.

**Controlled Humidity Cycle Option:** During the controlled humidity cycle, a solid state humidity sensor reads the current humidity condition and compares that to the humidity set point in the controller. The mechanism used to control the humidity involves moving chamber air via a blower motor and pass it over a heater coil into the bottom of the chamber with an atomizer nozzle fogging into this air stream. As humidity is needed, the controller pulses the atomizer nozzle on and off while re-circulating the airflow. **NOT ALL TEMPERATURE AND HUMIDITY COMBINATIONS ARE ATTAINABLE!** (Check with factory for details) ***This cycle can be enhanced with the Mechanical Cooling Option controlling RH over a wide range of temperatures.***

**Wet Bottom Relative Humidity Option:** Different specifications require differing forms of humidity generation. Careful attention should be paid to the type of humidity that a specific test is calls out for. This option provides a "wet bottom" humidity. The chamber automatically covers the chamber heaters with D.I. water, and then energizes the heaters. Humidity is developed by this heating process. No fogging occurs during this condition, and that is the main differentiation between this condition and the High Humidity Fogging condition. Common tests for this type of humidity generation are ASTM D2247 and SAE J2334.

**Mechanical Cooling Option:** Provides precision control of a wide range of Temperature and Humidity profiles that are needed for many of the newest Advance Cyclic Specifications like Ford, Volvo, Toyota, and Honda.

**Solution Spray Cycle Option:** During the solution spray cycle, solution is taken from the 60 gallon holding tank via a solution pump. This solution is driven into a spray bar header inside the exposure zone, and onto the parts by spray nozzles.

**Immersion Cycle Option:** During the immersion cycle, a series of motorized valves, float switches and a pump move solution from a heated holding tank into the exposure zone via the chamber drain. Once this cycle is over, this process reverses, and moves the solution out of the exposure zone and back into the holding tank.

**Recirculating Spray Option:** Provides solution per GMW3172 to be reused, cooled and reintroduced into the chamber.

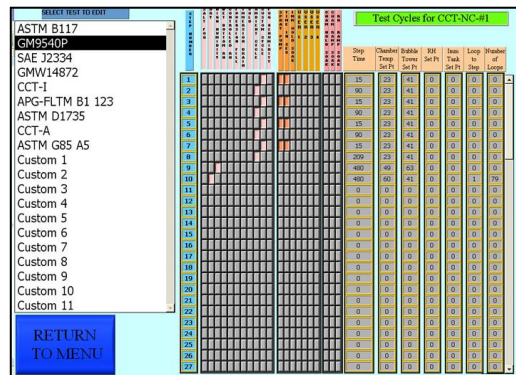
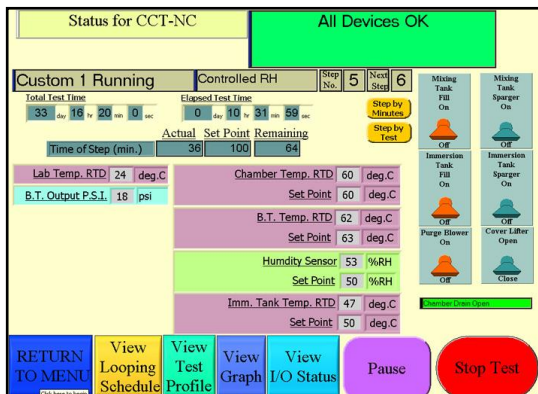
## PC Controls Option

### Computer Support Information

Auto Technology Company's computer controlled software is designed to work with the computers supplied with NC units from the factory. Due to the variations in controls and systems set ups, Auto Technology Company cannot support customer supplied PCs.

Based on filed experience the Laptops supplied have a life expectancy of 3-7 years.

## PC CONTROLLER



### Computer Controls

The controller for all CCT-NC Series Chambers is fully programmable, utilizing an easy-to-use microprocessor-based programmable controller. The Computer Controls Package utilizes a Microsoft based computer to control the chamber. This computer is connected to an I/O (input/output) module to actuate the chamber components.

Auto Technology's custom designed GUI is the easiest to use in the industry. It offers high security to allow multiple operators access to specific screens to operate, monitor and control aspects of the chamber. This GUI is designed to decrease training time and eliminate user error. Standard industry test specifications are pre-programmed, so the user can begin testing immediately after installation and setup procedures are followed. Standard tests can be modified and custom tests and procedures across multiple parameters can easily be programmed into the controller, providing flexibility, meeting multiple needs, and placing real control into the hands of the user.

### Data Logging

Auto Technology's computer design includes a comprehensive data logging feature that provides the user the ability to monitor all aspects of testing. The position or status of every control function of the cabinet such as cycle time, cycle status, temperature, input status, output status etc., is output to a file for ultimate control, analysis, diagnostics and, most importantly, test documentation. Test reports can be programmed to be almost automatic, in graph and other formats, providing accuracy and documentation that make traditional chart recorders look primitive in comparison. Spreadsheet downloads and graphing provide capabilities that go far beyond the performance of a test, enabling testing and management personnel to integrate information, feedback, and performance into decision-making processes.

## 2 Testing Standard Packages

*The following packages are designed to perform popular standards and include the options needed in a single easy to use part number.*

### GMW14872/GM9540P

#### 705025 GMW 14872/GM9540P Adder

Including: solution spray deluxe and air actuated cover lifters

This includes the following part numbers:

- 701101 Air Actuated Cover Lifters Option
- 700500 Solution Spray Option - Deluxe

### SAE J2334 with Spray

#### 705000 - J2334 adder spray version

Including controlled RH, wet bottom high RH and deluxe spraying system

This includes the following part numbers:

- 700140 Controlled Humidity
- 700500 Deluxe Spray Option
- 700150 Wet Bottom Relative Humidity

### SAE J2334 with Immersion

#### 705010 - J2334 adder immersion version

Including controlled RH, wet bottom high RH and immersion (for NC-20,30 & 40)

This includes the following part numbers:

- 700140 Controlled Humidity
- 700150 Wet Bottom Relative Humidity
- 700600 Immersion Option

#### 705015 - J2334 adder immersion version

Including controlled RH, wet bottom high RH and immersion (for the NC-90 and 110)

This includes the following part numbers:

- 700140 Controlled Humidity
- 700150 Wet Bottom Relative Humidity
- 700600 Immersion Option

### Honda and Toyota

#### 701260-Mechanical Cooling mini option

Adder package -20 C with controlled RH over a wide range of temperatures *Site survey required contact us for more information.*

### Volvo 1072.149/Ford CETP

#### 701260-Mechanical Cooling mini option

Adder package -20 C with controlled RH over a wide range of temperatures *Site survey required contact us for more information*

#### 700520-V Volvo Sway Arm Assembly

This option is specifically designed to meet the new Volvo VCS 1027.149/Ford CETP spray test. With the exact specified model of arm and actuator.

### 3 **Custom Temperature Options** (High heat and cooling for specific tests.)

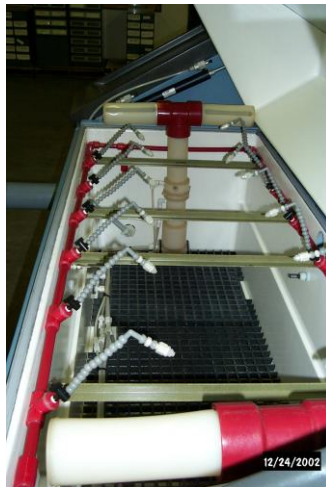
**701260-Mechanical cooling system**

Adder package -20 C with controlled RH over a wide range of temperatures **Site survey required contact us for more information.**



**701270-High Temperature Package**

For up to 90 Degree C during Dry Cycle includes Hi Temp components and insulation.



## 4 Internal Racking

### 700400-Fiberglass Support Angles Option (700405, 700408):

Fiberglass support angle. For suspending samples or support larger samples. These support angles are the proper length to span the distance at the middle of the chamber exposure zone.

To Fit:	Part #	Size:
CCT-NC-20,30	700400	28" Long
CCT-NC-40	700405	35" Long
CCT-NC-90	700408	42" Long



### 700410-Slotted Support Bars

The purpose of these bars is to hold 3" x 6" or 4" x 12" test panels. These bars are fabricated of 3" wide x 1-1/2" thick polypropylene. Slots are standard .070 saw cuts on a 15-degree angle from vertical on 1-1/2" centers. These support bars are the proper lengths to span the distance at the middle of the chamber exposure zone.

To Fit:	Part #	Size:	Recommended Quantity Per Cabinet
CCT-NC-20	700410	28" Long, holds 16 panels	10
CCT-NC-30	700410	28" Long, holds 16 panels	15
CCT-NC-40	700415	37" Long, holds 20 panels	15
CCT-NC-90	700417	42" Long, holds 26 panels	16



## 4 Internal Racking

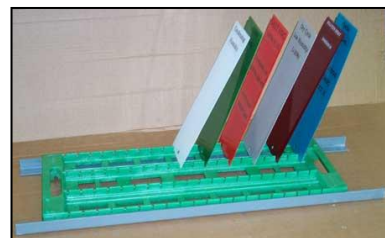
### **700420-Fiberglass Support Rods (700425, 700427):**

Fiberglass supports Rods are used for suspending samples or support larger samples. These support Rods are the proper length to span the distance at the TOP of the chamber exposure zone.

To Fit:	Part #	Size:
CCT-NC-20,30	700420	29.75" Long
CCT-NC-40	700425	36.5" Long
CCT-NC-90	700427	43.5" Long

### **C100324-Slotted Support Rack**

For holding test panels. Fiberglass rack 8-1/2" wide, 23" long. Holds 2 rows of panels with 20 slots in each row with slots on 1" centers. Slots are on a 15-degree angle from vertical. This rack will hold a total of 40 panels. These should be used in conjunction with the above listed fiberglass support angles.

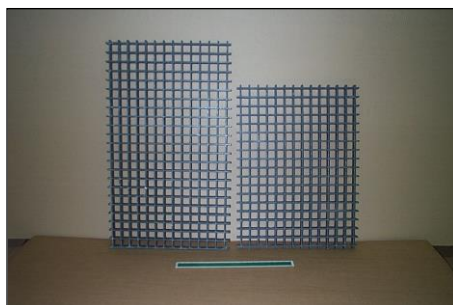


### **700430 - Heavy Duty Sample Support Shelves (700432, 700434):**

This heavy-duty sample support system is manufactured of durable, corrosion-resistant, fiberglass composite. The purpose of these support shelves is to provide the customer with a way to set samples into the chamber as they would on a shop bench or storage shelf. Each support "plate" can support 165 pounds (75 kilo) of weight. Each CCT machine can accommodate 2 or 3 of these plates depending on the size of the machine. These "shelves" are sized to fit the chamber at the mid-level.

Mid – Level support shelf

To Fit:	Part #	Recommended Qty. per chamber	Size: (approx.)
CCT-NC-20	700430	2	28" L x 21" W
CCT-NC-30	700430	3	28" L x 21" W
CCT-NC-40	700432	3	36" L x 21" W
CCT-NC-90	700433	3	42" L x 21" W



## 5 Individual Optional Equipment for the CCT

### 701100-Air Actuated Cover Lifters Option

With this option, the CCT-NC chamber will be equipped to create a “TRUE” lab ambient condition. True ambient, by the fact that the cover opens automatically and exposes the test specimens to actual laboratory conditions. Once time has elapsed, the cover automatically closes, and the test profile continues. In addition, the operator can open and close the cover at any desired time by use of the manual section of the operator interface.

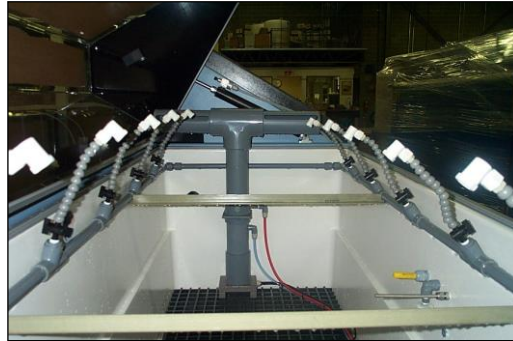


### 700140-Controlled Humidity Option (for PC controls ONLY):

The purpose of this option is to provide Controlled humidity and expand the testing capabilities for the CCT-NC. This option is often used when tests such as the SAE J2334 require a controlled RH condition in the test profile. With this option the chamber can control percent RH from 30 - 95% (+/- 5%) as limited by a 22°C dew point and current laboratory conditions. Additionally, the equipment is equipped with a Solid State Humidity Sensor to report back to the controller the exposure zones' current humidity percentage. **NOT ALL TEMPERATURE AND HUMIDITY COMBINATIONS ARE ATTAINABLE!** (Check with factory for details)



## 700500-Solution Spray Option - Deluxe



This option provides the CCT-NC with the capability of producing a spray onto the samples from a series of spray nozzles. A solution pump connected to the 60-gallon reservoir moves solution to a spray header inside the exposure zone of the chamber and delivers solution to the spray nozzles. The spray header is located at the top perimeter of the exposure zone and includes 8 to 12 nozzles depending on the size of the chamber. Each nozzle can be independently directed to a location requiring a spray. In addition, each nozzle has a shut off valve giving the user the ability to turn off nozzles not required for that spray application due to changing chamber loading. This shut off feature will extend the life of the solution in the 60-gallon reservoir allowing an increased number or time of spray applications between tank fills.

This option is necessary when a solution spray is required rather than a solution fog or atomization.

## 705010-Solution Immersion Option



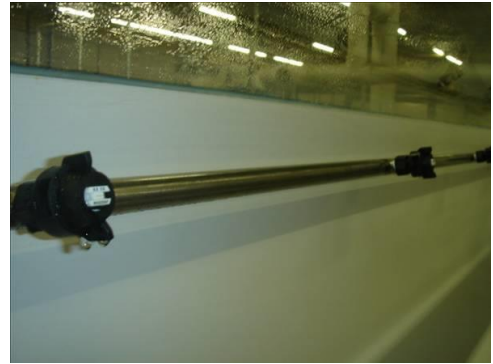
Includes:

- Immersion Reservoir on separate frame with casters to match the style and color of the CCT cabinet or a round polypropylene reservoir on stand.
- Reinforced cabinet walls to hold the weight of immersion solution
- Cover for the Immersion Reservoir
- Mixing System for the immersion solution
- Heating System for the immersion solution
- Pumps to move the solution between CCT cabinet and the Immersion Reservoir
- Motorized valve to direct the flow of the solution
- Electrical switches to monitor solution levels and locations

## **5 Individual Optional Equipment for the CCT**

### **700520-V Ford/Volvo Sway Arm Assembly**

This option is specifically designed to meet the new Volvo VCS 1027.149/Ford CETP spray test. With the exact specified model of arm and actuator. *This option also requires Mechanical Cooling 701260.*



### **720075 – Wet Bottom Drain Assembly**

The purpose of the Wet Bottom Drain Assembly is to allow the bottom of the cabinet to fill with de-ionized water to a level just above the rod heater. This water is heated, creating a moist, even heat throughout the exposure zone, which helps maintain uniform condensation to allow accurate collection rates. Further, it allows the water to drain prior to dry cycles.



## 5 Individual Optional Equipment for the CCT

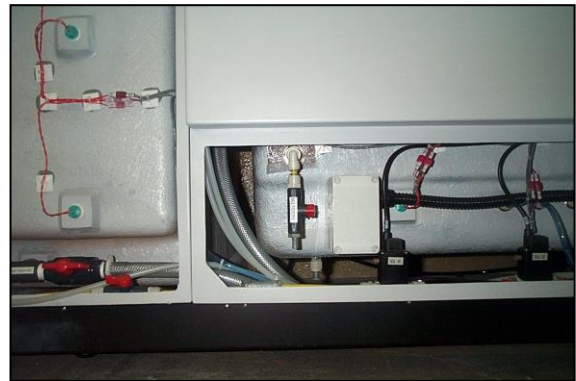
**701200-SO2 Adder Package Option** This option automatically solenoid ON allowing compressed air to activate the SO2 valve. SO2 then travels through the valve, up and through the flow meter (user settable) and into the chamber via the ported dispersion tower cone.

This option is required to meet certain standards such as ASTM G85 Annex 4.



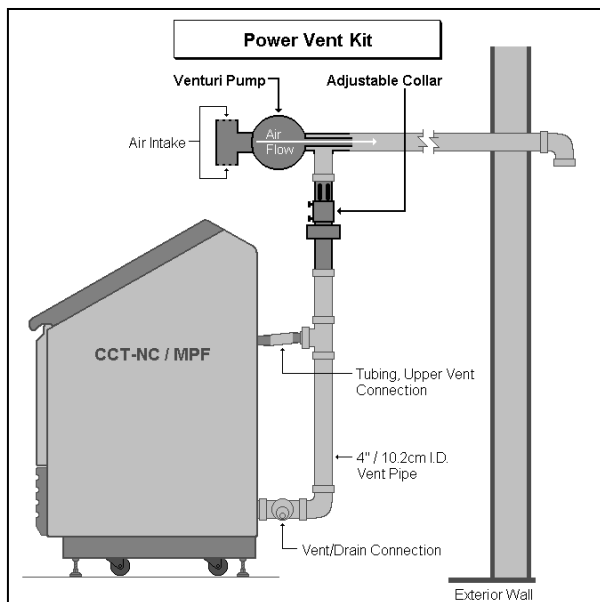
### **700900 External Condensate Collection Package:**

This option provides the user of the CCT-NC with a way to check condensate collected during salt fog and humidity cycles without opening the chamber cover and interrupting the test in progress. This system includes a funnel holding bracket for each funnel with tubing running to the outside front of the chamber. These lines are located in the front of the chamber just behind the front access panels. The lines terminate with ball valves, and empty into collection devices placed behind the front access panel.



## **701000 Power Vent Installation Kit Option :**

In some laboratories where the length of vent stack from the CCT-NC is more than 10' or where there is back-pressure into the laboratory it may be necessary to use a power vent kit. This kit includes a venturi style air pump in the provided PVC piping driven by a 100-CFM fan. With the help of the venturi, the fan draws fog from the exposure zone and sends it up and out of the customer installed vent piping. **NOTE: This system is not always effective in laboratories that have changing pressures in the location of the CCT-NC or where vent runs are of long lengths over 15'. Auto Technology suggested that the user employ the services of a professional if these conditions are not resolved with the power vent installation kit.**



## **711XXX 480 volt 3 phase wiring package :**

Save time, money and floor space! The standard CCT-NC chamber is wired for 208-240 volt 1 or 3 phase wiring package at no additional cost. If the location chosen for installation of the CCT-NC requires 480 volt 3 phase wiring, this optional package will provide for that electrical requirement. Included in this package is a 480 volt to 240 volt internal step down transformer and all necessary wiring changes to accept this 480 volt 3 phase configuration. Some systems such as the chamber heaters will operate at 480 volts, some systems such as the control circuits will not. With the installation of this option, the customer can simply bring the three legs and the ground from the 480-volt system to the terminal strip on the CCT-NC electrical panel to complete the electrical installation of this machine.

**NOTE:** The 480 volt 3 phase wiring package (711XXX) cannot be used in conjunction with the CE Label (700320) option but **CAN** be coupled with the other wiring codes.

## 5 Individual Optional Equipment for the CCT

### **701300 Deluxe Datalogging Option :** This *system is ONLY available with the PC Controls*

The purpose of this option is to significantly increase the data collection abilities of the chamber. With this option, the following is installed and activated:

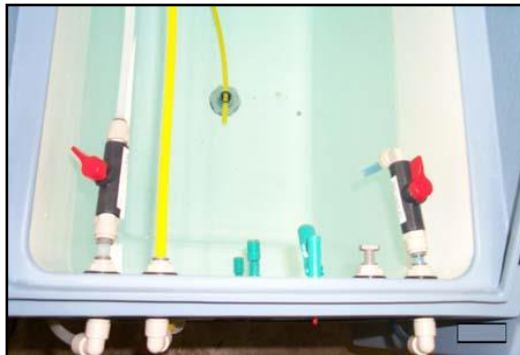
- Bubble tower inlet air pressure transducer (4 – 20 mA signal)
- Bubble tower air flow meter (4 – 20 ma signal)
- Activation of the display and data logging for the above listed 4 – 20 mA signals
- Installation of RTD I/O, and activation of the display and data logging for 4 RTD temperature input signals (RTDs not included)

These features aid in the troubleshooting abilities of the equipment, as well as providing a means to collect more in-depth flow, pressure and temperature data during cyclic testing.

### **700820 Mixing Tank Convenience option includes the following three items:**

Automated solution tank fill (700550): *This system is ONLY available with the PC Controls*

The purpose of this option is to provide automated unattended filling of the 60-gallon solution tank with DI water. With this option, the user can simply actuate a tank fill button on the PC controls and walk away. A DI water solenoid will open, and start filling the 60-gallon solution tank. A float switch located at the top of the tank will sense when the tank is full and turn off the water solenoid leaving the reservoir full of water. The DI water solenoid will not reopen until the user physically actuates the tank fill button on the PC again.



### **700800 Mixing Tank Option :**

This option provides an automated agitation system in the 60-gallon solution tank. This agitation system is operated by the chamber controller in a manual mode once initiated by the user. This agitation will dissolve the salt in the water to make a saline solution. After the built-in timer has elapsed in time, this agitation system will turn off until it is initiated again by the user.

### **700810 Mixing Tank volume marker and overflow protection tube:**

Two features are included with this one option. Located in the chamber's 60-gallon solution tank this tube is plumbed by the customer to an open drain. This will prevent the solution tank from overflowing with DI water while being filled. If an overflow condition begins to develop, the DI water flows down the tube and to the drain. Additionally, this overflow tube has indicator markings to indicate the solution level in the 60-gallon tank in both liters and gallons.



**701500 Start-Up Kit :**

Consists of one 50-pound bag of salt, two (4) funnels and graduates, one (1) specific gravity hydrometer and one (1) salimeter hydrometer. Meets ASTM B117.



**60 Gallon Mixing Tank on Stand (701700):**

This is an extra tank that matches the one already provided with the chamber. This option is useful when the customer desires longer unattended testing between solutions fills or would like to mix and adjust a batch of solution prior to transferring it into the chamber's main 60-gallon solution tank. This system includes an air agitation system and a manually operated (air driven) solution transfer pump. In addition, fittings are included to allow the user to operate this tank in series with the original tank for the longer unattended testing. This tank is mounted on a stand with caster and leveling bolts.





**701900 Certificate of Calibration (traceable to N.I.S.T.) :**

Each CCT-NC chamber is fully tested at the factory. Calibration of the temperature sensing devices, pressure-sensing devices, humidity sensing devices and the controller are all checked and adjusted by Auto Technology if needed. This option provides the actual Certificate of Calibration paperwork traceable to a N.I.S.T. standard created by Auto Technology for a particular machine. This option must be ordered with the original equipment purchase to receive the price quoted. If it is purchased at a later date, the purchase cost will increase and a quote will need to be prepared based on the timing of the purchase and location of the equipment.

**701800 Training Class on Cyclic Chamber Operations at Auto Technology facility :**

This is a hands on class designed to teach the participants how to install, operate and maintain the CCT-NC. If participants are interested, minor annual maintenance procedures can be performed on the machine for practice and training. Almost the entire class is conducted on the shop floor with a fully function chamber. This class is conducted at the Auto Technology facility in Strongsville, Ohio. Classes are scheduled on a mutually beneficial date for both Auto Technology and customer personnel. Up to eight participants from a single company are permitted to attend for one flat fee.



**AUTO TECHNOLOGY COMPANY.**  
**TERMS AND CONDITIONS OF SALE**

**PLEASE NOTE:** Placing an order with Auto Technology Company. ("Seller") constitutes an acknowledgement that you ("Buyer") have read and agree to the following Terms and Conditions of Sale:

1. **Scope:** The terms and conditions of sale contained herein ("Terms") shall apply to all quotations and offers made by Seller and all purchase orders accepted by Seller. These Terms apply to all sales made by Seller except to the extent that these Terms conflict with a separate written sales agreement entered into between Seller and Buyer that makes specific reference to each provision of these Terms that is being superseded by such sales agreement and such sales agreement is signed by a duly authorized officer of Seller (a "Sales Agreement"). A Buyer's purchase order is not a Sales Agreement. These Terms apply in lieu of any course of dealing between Seller and Buyer or usage of trade in the industry. These Terms may in some instances conflict with some of the terms and conditions affixed to the purchase order or other procurement document issued from Buyer. In such case, these Terms shall govern, and acceptance of Buyer's order is conditioned upon Buyer's acceptance of these Terms, irrespective of whether Buyer accepts these Terms by written acknowledgement, by implication, or acceptance and payment of products ordered. Seller's failure to object to provisions contained in any communication from Buyer shall not be deemed to be a waiver of these Terms in any respect; and any such provisions are hereby objected to. Buyer will be deemed to have assented to these Terms if any part of the products and/or services are shipped or provided, or an invoice is presented in connection with the said products and/or services.

2. **Price, Taxes and Quotations:** Any order that can be canceled and rescheduled pursuant to paragraph 6(a) of these Terms is subject to a potential price change immediately. All prices are exclusive of any present or future sales, revenue or excise tax, value added tax, turnover tax, import duty (including brokerage fees) or other tax applicable to the manufacture or sale of any product. Such taxes, when applicable, shall be paid by Buyer unless Buyer provides a proper tax exemption certificate. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall indemnify and hold Seller harmless from and against any such tax, together with any interest or penalties thereon, which may be assessed if the items or the transaction are held to be taxable. Unless otherwise agreed in a Sales Agreement, prices quoted by the Seller are those current at the date of quotation and shall be subject to variation by the Seller. Any quote by the Seller to the Buyer is good for only thirty days from issuance. Notwithstanding the foregoing, the Seller may modify the quote prior to the expiration of such thirty-day period to reflect material changes in the Seller's raw materials costs. All accepted orders are subject to price increases due to increased labor, material, and vendor costs of the Seller if the Buyer shall delay the commencement of construction of the products or delivery of the products for more than 90 days.

3. **Delivery:** Unless otherwise set forth in a Sales Agreement, delivery of the products shall be fob Seller's plant. Any delivery dates shown are approximate only, and Seller shall have no liability for any delays in delivery. Seller may deliver products in one or more consignments and invoice each consignment separately. Seller reserves the right to ship product in advance of the agreed shipping date. In the event that Seller shall have given Buyer notice that product is ready to ship and in the further event that Buyer shall delay shipment, Seller shall have the right to charge storage fees at the going rate for cold storage in Seller's industry. Unless otherwise provided in a Sales Agreement, delivery time is not of the essence.

4. Payment: Unless otherwise specified in a Sales Agreement, payment terms shall be as set forth in Seller's quote; provided, however, that notwithstanding the Seller's quote, Seller will have the right to invoice upon giving notice to Buyer that the product is ready to ship. Buyer agrees to pay interest on any unpaid balance at a rate of five percentage points above the annual Federal Funds rate as specified in the Wall Street Journal on the day the balance becomes due. Unless otherwise set forth in a Sales Agreement all payments are to be made in United States dollars. For contracts outside the United States, Seller may require payment to be secured by an irrevocable letter of credit or a bank guarantee acceptable to Seller. Where payment is made by letter of credit, all costs of collection shall be for Buyer's account. In the event that Seller is required to bring legal action to collect delinquent accounts, Buyer agrees to pay the Seller's attorney fees and costs of such action. No assignment or delegation of the Buyer's indebtedness to the Seller shall be binding on the Seller and the Buyer shall be and remain primarily and unconditionally liable to the Seller for such indebtedness until it is paid in full.

5. Non-conforming Delivery and Risk of Loss: Buyer shall notify Seller in writing of any visible defects, quantity shortages or incorrect product shipments within seven (7) days of receipt of the shipment. Failure to notify Seller of such matters in such manner and within such period shall be deemed an unqualified waiver of any right to return products on the foregoing bases, subject to Buyer's rights under paragraph 7 of these Terms. Seller shall retain a security interest in the products until Buyer's final payment to Seller for the products. Risk of loss and title shall pass to Buyer as soon as the products have been placed with a carrier or other transport agent.

6. Order Cancellation:

(a) Buyer's Cancellation: In view of the nature of Seller's products and Seller's production schedules, Buyer's orders may not be canceled once Seller has commenced fulfillment of Buyer's order ("Commencement"). Buyer may cancel any order for convenience prior to Commencement, subject to an order cancellation fee in an amount equal to twenty-five percent (25%) of the contract price for the canceled product.

(b) (c) Seller's Cancellation: Seller shall have the right to cancel any unfilled order without notice to Buyer in the event that Buyer becomes insolvent, adjudicated bankrupt, petitions for or consents to any relief under any bankruptcy reorganization statute, or becomes unable to meet Buyer's financial obligations in the normal course of business. Any order that can be canceled by Buyer pursuant to paragraph 6(a) of these Terms may be canceled by Seller if notice is given to Buyer prior to Commencement.

7. Warranty:

(a) For Third Party Products: The Seller makes no warranty whatsoever with respect to products sold hereunder that were manufactured by any third party and re-sold by Seller, either separately or as incorporated into any product sold by Seller. In each such instance, Buyer's sole and exclusive warranty, if any, is that provided by the manufacturer of the products.

(b) For the Seller's Products: Except as specified below, Seller warrants that the products sold hereunder and which were manufactured by Seller shall be free from defects in material and workmanship and shall conform to Seller's published specifications or other specifications accepted in a writing signed by a duly authorized officer of Seller for a period of one (1) year from the date of shipment of new products, and thirty (30) days from the date of shipment for used products. The foregoing warranty does not apply to any products that have been subject to misuse, neglect, accident or modification, or which have been altered such that they are not capable of being tested under normal test conditions. Seller shall make the final determination as to whether its products are defective. Seller's sole obligation for products failing to comply with the foregoing warranty shall be, at Seller's option, to either ship conforming parts to Buyer for installation by Buyer or for Seller's personnel to come to Buyer's facility to effect any repair or replace any non-conforming parts where, within fourteen (14) days prior to the expiration of the warranty period (a) Seller has received written notice of any nonconformity, and (b) Seller has determined that the product is nonconforming and that such nonconformity is not the result of improper installation, repair or other misuse. THIS WARRANTY AND THE STATED REMEDIES ARE EXCLUSIVE AND MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, COURSE OF DEALING, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE; ALL OF WHICH ARE HEREBY DISCLAIMED. SELLER DOES NOT ASSUME OR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR SELLER ANY OTHER LIABILITY IN CONNECTION WITH SELLER'S PRODUCTS. Buyer will pass the foregoing warranty to any third-party purchaser of Seller's products.

(c) For Buyer's Designs: NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED, WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.

(d) Limited Liability: IN NO EVENT SHALL SELLER BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE OR ANY OTHER LOSS, DAMAGE, COST OF REPAIR OR RE-WORK, OR ANY INCIDENTAL, PUNITIVE, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY. If Seller has any liability for breach of contract, breach of any implied condition, warranty or representation, Seller's aggregate liability to the Buyer shall be limited in respect of any occurrence or series of occurrences to the contractual value of the products or services that are the subject of the contract.

(e) Recommendations: Buyer acknowledges that Seller does not make and specifically negates, renounces and disclaims any representation, warranty and/or guaranty of any kind or character, express or implied, with respect to (a) products sold, their use, design, application or operation, (b) the maintenance or other expenses to be incurred in connection with the products, (c) the engineering, design, fabrication work or any other work or service (whether gratuitous or for payment) supplied by Seller and/or its agents, suppliers and employees, or (d) the accuracy or reliability of any information, designs or documents furnished to Buyer. Seller neither assumes nor authorizes any person to assume for it any other obligation in connection with the sale of its products and/or rendering of its services. Any recommendation made by Seller concerning the use, design, application or operation of the products shall not be construed as representations or warranties, express or implied. Seller's failure to make recommendations or give advice to Buyer shall not impose any liability upon Seller.

(f) Matters Voiding Warranty. Any warranty of Seller shall be null and void upon, and Buyer shall hold Seller harmless from any and all claims, demands, causes of action, liabilities, losses, and expenses arising out of, the occurrence of any of the following: (1) Buyer fails to use the products as instructed or for their intended use; (2) Buyer modifies the products in any respect; (4) Buyer repairs or attempts to repair the products using non-factory supplied parts in any repair; or (5) Buyer improperly repairs the products regardless of the source of the parts used.

8. Special Tooling: A tooling charge may be imposed for any special tooling including, without limitation, dies, fixtures, molds and patterns acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer with respect to such special tooling. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer with respect to such apparatus. Unless otherwise set forth in a Sales Agreement, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in Seller's sole discretion at any time.

9. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer, or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

10. Indemnity for Infringement of Intellectual Property Rights:

(a) By Seller: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this paragraph. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Except as set forth below, Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller in writing within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having the sole control over the defense of any allegations or actions including all negotiations for settlement or compromises. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, or replace or modify said item so as to make it non-infringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for, or obligation to indemnify Buyer for, claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this paragraph shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

(b) By Buyer: If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, then Buyer shall defend and indemnify Seller against all costs, expenses or judgments resulting from any claim that such item infringes any Intellectual Property Rights of any third party.

11. Confidential Information: Except as required by law, neither Seller nor Buyer shall use (except for purposes connected with the performance of its obligations hereunder), divulge or communicate to any third party any information of the other that it reasonably knows to be confidential.



12. Force Majeure: Seller does not assume the risk of, and shall not be liable for delay or failure to perform any of Seller's obligations by reason of, circumstances beyond Seller's reasonable control (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

13. Assignment and Subcontracting: Seller shall be entitled at all times to assign its rights under the contract (in whole or in part) or to subcontract any part of the work or services to be provided under the contract as Seller shall deem necessary or desirable.

14. Notices: Any notice hereunder shall be deemed to have been given if sent by prepaid first class mail to the party concerned at its last known address. Notice to Seller shall be to Seller's corporate offices located at 837 East 79th Street, Cleveland, OH 44103.

15. Waiver: Failure by Seller to exercise or enforce its rights hereunder shall not be deemed to be a waiver of any such right or operate so as to bar the exercise or enforcement thereof at any time or times thereafter, or constitute a waiver of any such right in the future.

16. Set-off: Buyer shall not be entitled to set-off any amount due Buyer against any amount due Seller in connection with this transaction.

17. Governing Law: This Agreement shall be governed in all respects by the laws of the State of Ohio.

18. Jurisdiction and Venue: Any civil action arising out of this agreement, or the sale of the items sold hereunder or the services rendered pursuant hereto, shall be instituted in the courts of competent jurisdiction sitting in Cuyahoga County, Ohio, which shall be the exclusive venue; and Seller and Buyer specifically submit themselves to the jurisdiction of such courts and expressly waive any defense of lack of jurisdiction or improper venue with respect to any action instituted in such courts.

19. Limitation of Actions: No action arising out of this agreement, or the sale of the items sold hereunder or the services rendered pursuant hereto, may be brought against Seller more than thirteen months after the earlier of the invoice date or the date the cause of action accrues.

20. Entire Agreement: These Terms, together with any amendment or modification set forth in a Sales Agreement, shall constitute the entire agreement and understanding of Seller and Buyer concerning the items sold and the services provided, and there are no oral or other representations or agreements which pertain thereto.

**PROCEDURE FOR RETURNING GOODS:**

The following procedure shall apply when it is necessary to return a product for repair, refurbishing, or restocking:

- 1) Contact the Sales Coordinator or other authorized equipment personnel for approval.
- 2) After receiving approval, forward the returned goods with a packing slip to  
Auto Technology U.S.A., 20026 Progress Drive, Strongsville, Ohio 44136  
(440) 572-7800 or 1-800-443-8336

All returns must be approved and are subject to inspection by Auto Technology prior to their acceptance. Auto Technology will not be responsible for any damages incurred as a result of the return of such goods. Returns are to be made strictly on a pre-paid basis, unless otherwise authorized