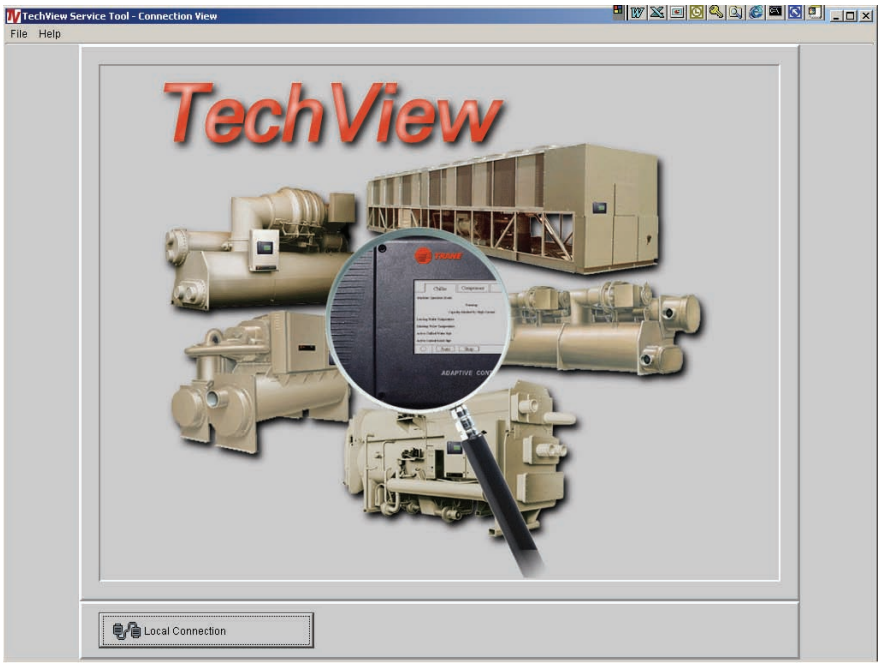
TRANE®

Programming Guide

CTV CH530 TechView

Service Tool Startup Configuration and Setpoints



November 2008

CTV-SVP01C-EN

Warnings and Cautions

Warnings, Cautions and Notices. Note that warnings, cautions and notices appear at appropriate intervals throughout this manual. Warnings are provide to alert installing contractors to potential hazards that could result in personal injury or death. Cautions are designed to alert personnel to hazardous situations that could result in personal injury, while notices indicate a situation that may result in equipment or property-damage-only accidents.

Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

ATTENTION: Warnings, Cautions and Notices appear at appropriate sections throughout this literature. Read these carefully.

⚠ **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE: Indicates a situation that may result in equipment or property-damage only accidents.

Important Environmental Concerns!

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

Responsible Refrigerant Practices!

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified. The Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING
Refrigerant warning information!

Include the low or medium/high pressure warning as required for the equipment. If the refrigerant is medium pressure, add the hazard of explosion warning

Contents

General Information

The purpose of this information is to answer questions an experienced CTV Service Technician may have regarding CH530 configuration and setpoint selections accessible via TECHVIEW SERVICE TOOL.

Introduction

Startup

This document is designed to support TechView Startup configuration and setpoint setting selections. Settings are factory set from the end of line (EOL) tester. For units without unit mounted starter and units with the outdoor temperature sensor some field startup settings will have to be made. In all cases we recommend that these configuration questions and unit setpoints be checked/ verified and documented prior to startup.

This document provides information in the order to be used:

- Configuration View first –to define unit type and variables.
- Setpoints View to set all setpoints for the application and job site conditions
- Manual override view to provide access to manual overrides. (Oil Pump, Starter Dry run, IGV)
- Then Status view for reference.

Reference materials

- Use the Chiller Installation manuals to assure proper installation.
- Use the Chiller Operation maintenance manual for reference, and use the forms in the rear of the manual to assure readiness for startup, and the startup log sheet. Have the appropriate log sheets. Check LBU Tech Service Site for latest Startup Log sheet.
- Use the AFD Operation Maintenance manual to reference as appropriate, and use the included AFD startup check sheet and Log.
- TechView online help at LBU Tech Services at TRANENET.com

TechView

- Laptop PC meeting minimum requirements as defined at Trane.Com.
- Have your PC programmed from www.trane.com with the most current with TechView (CTV) prior to going to the job. [We recommend you download from the Service or Sales office for fastest downloads rates.]
- TechView is designed to provide the same look and feel across product lines (CTV and RTAC).
- Many Views such as Connection View and Diagnostics view will look the same, and others such as Unit View are very similar.

Equipment

- Cable to connect DV to PC. The Radio Shack part number for a proper cable is 26-117B. RS-232 male DB9 to female DB9 pin to pin serial cable. Cable must not be a “null-modem” cable.
- South pole screwdriver (TOL01343).

Powering up the controls for checkout

⚠WARNING
Hazardous Voltage!

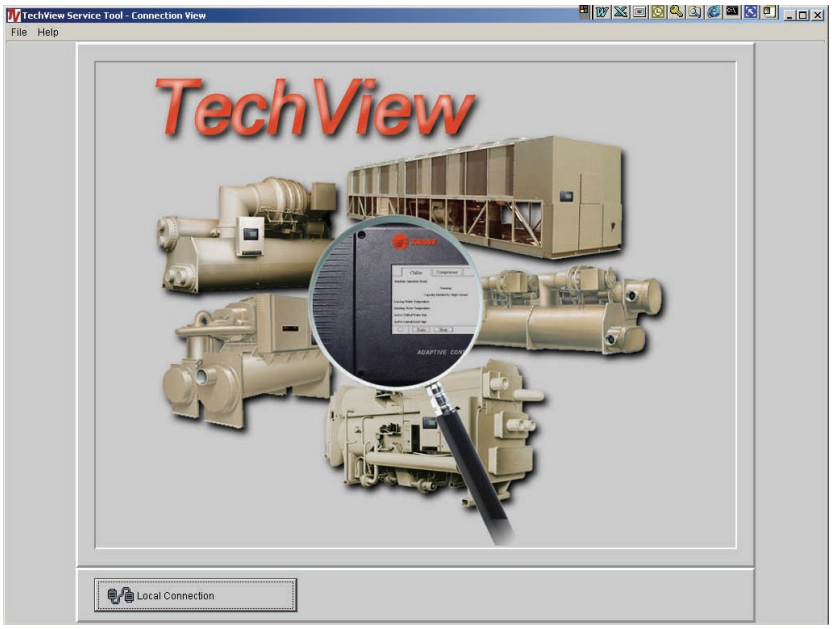
Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/ tagout procedures to ensure the power can not be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.

- **Non-AFD starters:** With Main STARTER POWER OFF, Remove Control power transformer ground from 120 load X2 terminal. (Aux power “Ground fault” may occur if neutral and ground remain connected) Remove the 2F2 40 amp control power fuse. In the UCP connect aux power to 1X1-5(L1) to 1X1-17(L2), and Ground. Turn 120vac supply ON and DV should boot up to MAIN Screen within less than a minute**.** (Duplex Chillers require both panels to be powered up same way.)
- **AFD starter:** Pull the AFDD Water pump branch fuse. The AFD bus requires power for the controls to interface during binding, therefore with the starter door closed proceed to power up the starter line voltage. If the starter Communications LLID requires binding, after confirming starter powers up OK proceed to power down and reapply power with the starter door open to access the AFD LLID for binding.

POWER UP the controls and have the oil heater online for 24 hours prior to startup, or until oil is up to temperature.

Note: *If line voltage is not present you will not be able to check, or bind, AFD starter LLID and features. This is because the drive requires power to its circuitry to operate and communicate to the drive side of the AFD LIDD.*

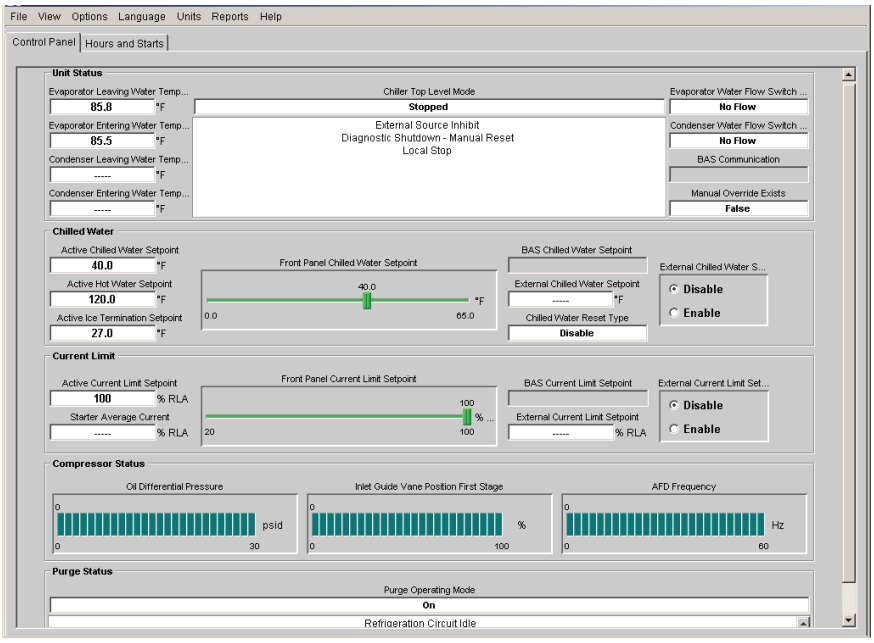
Figure 1.



Upon successful Local Connection Tech View will display UNIT VIEW for the appropriate product type. CVHE,F,G Unit View is shown below.

1 1) Unit View is designed to maintain a common “look and feel” for the use of Tech View across product lines.

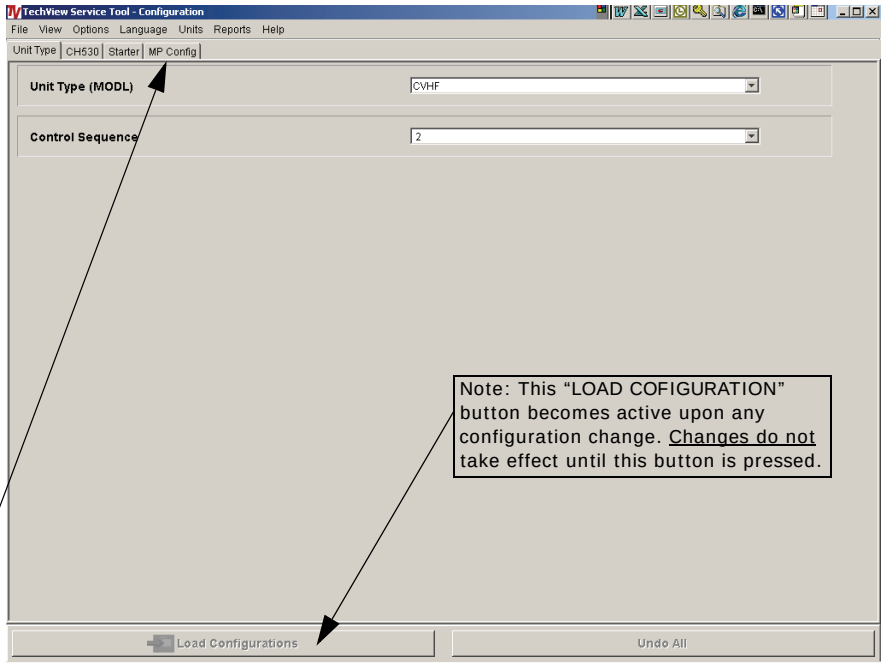
Figure 2. Unit View (CTV: CVHE-F-G)



Configuration View: Machine Configuration, CH530, Starter Configuration

- Use the “View” pull down menu to select “Configuration View” as shown below.
- Select the “Unit Type” tab, which appears on a separate tab. After a unit type is selected the rest of the questions will adjust based on that selection.
- **IF ANY CHANGES ARE MADE THE LOAD CONFIGURATION BUTTON BECOMES PRESENT. CHANGES WILL NOT TAKE EFFECT UNLESS THIS BUTTON IS PRESSED AFTER ALL ENTRIES ARE CHANGED TO YOUR SATISFACTION**
- Document all items on the startup test log form 1-23.45, or equivalent.

Figure 3.



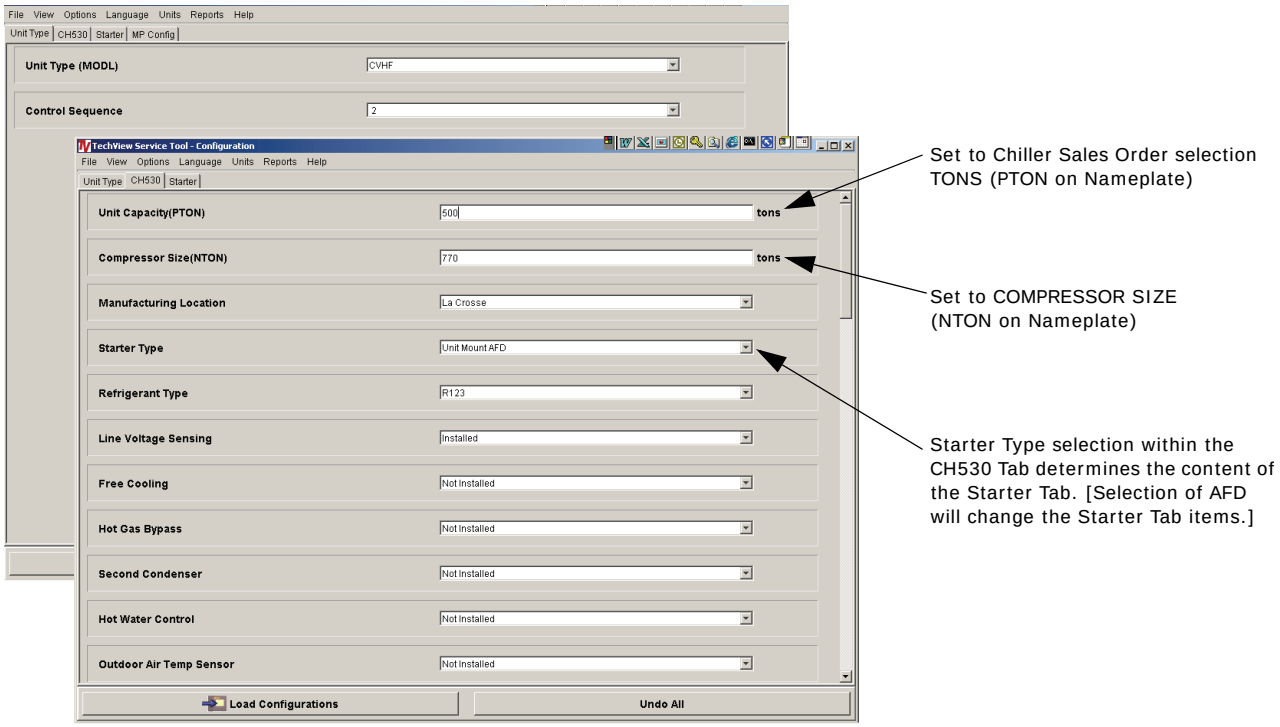
Note: *MP Config tab is only shown with Level 4 Tech View installed. MP Config displays the information that is actually written to the Main Processor. DO NOT CHANGE ANY SETTINGS VIA THIS TAB.*

Machine Configuration - The following section defines main processor settings to be verified at machine startup however were configured by the end of line tester [EOL] Factory Tester for sales order specific machine configuration based on MDP FCAT (VCAT) and FCODs. Note: Configuration selections alter the list of setpoint menu items in SETPOINT VIEW.

Notes:

- Column 1 (left) identifies the TechView menu Item.
- Column 2 provides the TechView selection choices and identifies the "Default" value.
- Column 3 instructs the user how to determine the correct TechView selection. (See Column 4 for help information)
  - If the item is *(type)* then use the value as found on the unit control panels printed nameplate, whereas if the table provides a defined number or value then simply enter that number as provided (i.e. Refrigerant type REFG R123, always select R123 for LaCrosse Shipped CVHE,F,G)
- Column 4 provides help information about the menu selection item, and instructs what modules are required when the item is "installed".
- Column 5 identifies other sources of related information such as the operation maintenance or installation manuals, service bulletins or Trane Product Support OnLine cases found at *www.comfortsite.com*.

Figure 4. Configuration View: CH530 TAB Configuration Items: Check the Selections.



Configuration View: UNIT TYPE -Select the Unit Type tab and check model selection.

1	2	3	4	
TV Configuration menu Item	**Default and other selections**	**Chiller Nameplate Data**	**Help Information**	**Additional information, Reference or Case Number**
1. Unit Type	**CVHE (default)** CVHG, CVHF	MODL (type)	Select Unit Type from Model Number.	Important for correct IGV schedule and determines if 2 or 3 stage for drive machines.
2. Control Sequence	**CTV default**; with MP 4.0 is 1 with MP 5.0 is 2 CTVD: default with MP 1.0 is 1	TVSQ (_)	TechView Sequence which determines what LLIDs are required in the device lists based on the unit configuration. For Example: CVHE-F-G with • 1A5 Dual Binary LLID = TVSQ 1 • 1A5 Quad LLID = TVSQ 2. All CDHF-G are TVSQ 1 (quad relay)	Case 2249
Configuration View: CH530 - Select unit devices, options etc.				
1. Unit Capacity	0 – 3000 tons, [**500 default]**	See selection for performance Tons; PTON (value)	Programs the Chiller software to the chiller **Sales Order** Performance tons.	
2. Nominal Tons (Compressor Size)	0-3000	NTON	Selects the proper Compressor Map for Compressor Control signal algorithm. Set to the **NTON of the compressor**.	New with MP CTV 6.0/ CTVD 2.0
3. Manufacturing Location	**LaCrosse,** Taicang			
4. Starter Type	**USTR [default]**, RSTR, CSTR, UXL, RXL, CXL, PIR,CPIR, RATR,CATR,USID, FSID, WSID, CSOL, UAFD	SRTY (value)	Programs the Chiller software to the correct starter type. Select Unit Starter Type: USTR (Unit mount Wye-Delta), RSTR (Remote mount Wye-Delta), CSTR (Customer supplied Wye-Delta), UXL (Unit mount Across Line), RXL (Remote mount Across Line), CXL (Customer supplied Across Line), RPIR (Remote mount Primary Reactor), CPIR (Customer supplied Primary Reactor), RATR (Remote mount Auto Transformer), CATR (Customer supplied Auto Transformer), USID (Unit mount non-comm Solid State), FSID (Floor mount noncomm Solid State), WSID (Wall mount non-comm Solid State), CSOL (Customer supplied non-comm Solid State), UAFD (Unit mount AFD)	
5. Refrigerant Type	**123 [default]**	REFG 123	Selects the chiller refrigerant Type.	Case 4867
6. Line Voltage Sensing	**YES [default],** NO	Not shown on Nameplate	Select Yes for Line voltage sensing option being Installed. This must be installed on all units. “INSTALLED” requires potential transformers 2T17, 2T18, and 2T19. Required for momentary power loss (MPL)	
7. Free Cooling	YES [Installed], **NO [Not Installed, default]**	FRCL YES	Installs Free cooling option into the software. Nameplate will indicate FRCL YES when installed on unit. Select installed if unit has Free Cooling Valves 4M12 and 4M13 and binary input 1A20 and output 1A11 module are present.	

8. Hot Gas Bypass	**WO (With Out) [Not Installed default]** WITH [Installed]	HGBP WITH	Installs the HGBP function into the Chiller controls. Nameplate will indicate HGBP WITH when installed on unit. Select WITH if unit has HGBP Valve 4M5, and output module 1A12, and HGBP valve closed input module 1A4, and 4R16 Compressor Discharge refrigerant temperature sensor present.	
9. Second Condenser	**NO [Not Installed default]** YES [Installed]	ACOS YES	Installs the second condenser temperature sensors. Nameplate will indicate ACOS YES when installed on unit. Selecting Installed requires second condenser and entering 4R14 and leaving water temperature 4R15 sensors.	
10. Hot Water Control	**NIST [Not Installed default]** INST [Installed]	Not shown on nameplate	Select INSTALLED to enable hot water control within the software. Enables Hot Water Algorithms and menu features. 1A18 External Hot Water control module required.	See operation manual.
11. Outdoor Air Temp Sensor	**NIST [Not Installed default** INST [Installed]	CWR YES	Installs Outdoor air temp sensor. Nameplate will indicate CWR YES when installed. Local outdoor air temperature sensor 4R13 required when INSTALLED is selected. Used for chilled water reset outdoor type reset.	See electrical installation manual
12. External Chilled Water Setpoint [ECWS]	**NIST [Not Installed default]** INST [4-20mA], INSA [2-10VDC],	GBAS YES	Installs ECWS feature. Nameplate will indicate GBAS YES when factory installed on unit. Analog input Module 1A16 required for this input. Setpoint input is J2-5 (+) to J2-6 (Ground). Part of the GBAS factory package	
13. ECWS Minimum Temperature	**[34F default]** 0 – 49 F	GBAS YES	Minimum setting for the ECWS analog signal (item 12). • 2 vdc or 4mA will equal to this minimum setpoint value.	
14. ECWS Maximum Temperature	[**65 deg F default]** 50 – 65,	GBAS YES	Maximum setting for the ECWS analog signal (item 12). • 10 vdc or 20mA will equate to this maximum setpoint value.	
15. External Current Limit Setpoint	**NIST (Not Installed default)** INST (4-20mA), INSA (2-10VDC),	GBAS YES	Installs the ECLS 1A16 feature. Nameplate will indicate GBAS YES when factory installed on unit. Analog input Module 1A16 required for this input. Setpoint input is J2-2 (+) to J2-3 (Ground). Part of the GBAS factory package	
16. ECLS Minimum % RLA	**[40 default]** 20 – 69	GBAS YES	Minimum setting for the ECLS analog signal (item 15). • 2 vdc or 4mA will equal to this minimum setpoint value.	
17. ECLS Maximum % RLA	**[100 default]** 70 – 100	GBAS YES	Maximum setting for the ECLS analog signal (item 15). • 10 vdc or 20mA will equate to this maximum setpoint value.	
18. Ice Building	**NIST [Not Installed default]** INST [Installed with hardware (external input module)], INSA [Installed without hardware]	ICEB INST or ICEB INSA	Nameplate will indicate ICEB INST or INSA when factory installed on unit. Only select INST (install) if freeze protection evaporator fluid (glycol) is installed in chiller. INSA for front panel control. INST for external binary input control modules. Ice building selection will be NOT INSTALLED AS Shipped. Service must enable at startup. 1A5 Ice Build status relay output, and 1A19 external Ice Building Command input modules are required when selected “With Hardware”.	See pg 20 of O/M CVHESVU01C-EN ------ Special settings for Ext. Capacity ice machines See Case 3325

19. EHWS Minimum Temperature	**80 deg F default** 80 – 100	EXOP YES	Used with External Hot Water Setpoint (see item 10). • Nameplate will indicate EXOP YES when factory installed on unit. EHWS Minimum setting for the analog signal. • 2 vdc or 4mA will equal to this minimum setpoint value. Default is 80F.	
20. EHWS Maximum Temperature	**140 deg F default** 101 – 140	EXOP YES	Used with External Hot Water Setpoint (see item 10). • Nameplate will indicate EXOP YES when factory installed on unit. EHWS Maximum setting for the analog signal. • 10 vdc or 20mA will equate to this maximum setpoint value. Default is 140.	
21. Refrigerant Monitor Type	**NIST (Not Installed default)** INST (4-20 mA, 0-100 PPM), INSA (4-20 mA, 0-1000 PPM), INSB (2-10V, 0-100 PPM), INSC (2-10VDC, 0-1000 PPM),	EXOP YES	Installs the Refrigerant monitor input feature, defines the input type, and range. Nameplate will indicate EXOP YES when factory installed on unit. Module 1A17 required for this option. Install with appropriate range and signal type if external refrigerant monitor is panel wired to module 1A17 J2-5 to J2- 6.	Contact Aftermarket regarding refrigerant monitor questions
22. Condenser Pressure Sensor	**NIST (Not Installed default** INST (Installed)	EPRO YES	Installs the Condenser pressure Transducer 4R22. Nameplate will indicate EPRO YES when factory installed on unit. (Std with AFD units)	
23. Evap. Diff. Water Press Sensing	**NIST (Not Installed default)** INST (Installed),	WPSR WFC	Installs Evaporator Water differential pressure sensing feature which: 1)Displays GPM/Ton., 2) Provides control input to the CHILLER WATER control Algorithm Flow Compensation feature when enabled (Feature settings Item 132). Nameplate will indicate WPSR WFC when factory installed on unit. Select INST when 4B1 Evaporator 4-20 mA pressure sensing transducer and 1A21 analog input module are installed.	
24. Cond. Diff. Water Pressure Sensing	**NIST (Not Installed default**) INST (Installed)	WPSR WFC	Installs Condenser differential pressure sensing feature. Nameplate will indicate WPSR WFC when factory installed on unit. Select INST when 4B2 Condenser 4-20 mA pressure sensing transducer and 1A21 analog input module are installed. (Not used in Hot water control Algorithm)	
25. Enhanced Oil Temperature Protection	**INST (Installed default)** NIST (not installed)	Not shown on Nameplate	Selects the Enhanced oil protection feature. Select INST, as this is normal mode for units with refrigerant pump. Enables restart inhibit until oil temperature reaches the higher of 100 F (fixed) or the saturated evaporator temperature (F) plus 30F. When installed the Oil temp control is 143F. If not installed then the restart inhibit temp is default to 95F and adjustable from CH530 settings view.	
26. Chiller On Oil Temperature Protection	Installed, **Not installed**		Allows oil temperature control when the oil pump is running. Installed adds “Oil Temp Setpoint- Compressor Running” Default is 100F, Range is 100to 140F +/- 2.5 F.	
27. Discharge Temperature Sensor	**NIST (Not Installed default**) INST (Installed),	EPRO YES or HGBP WITH	Installs the Compressor discharge temperature sensor 4R16. Nameplate will indication of EPRO YES, or, HGBP WITH when factory installed on unit. Selection of Install requires Compressor discharge temperature sensor 4R16. See also Condenser Limit Setpoint (page 18) default 93% of the High Pressure cutout configuration setting (15 psig default)	

28. Bearing Temperature Sensors	**NIST (Not Installed default)** INST (Installed),	EPRO YES	Installs the 4R1 Inboard (sleeve) and 4R2 Outboard (thrust) Bearing temperature sensors. Nameplate will indicate EPRO YES when factory installed on unit. Selection of Install requires 4R1 and 4R2 bearing temperature sensors.
29. High Pressure Cutout	**[15 psig default]** -5 to 500	CDTY STD, CDTY ASME	Sets the HPC setting. Nameplate will indicate CDTY STD for 15 setting or CDTY ASME for 25 setting. See also condenser limit setpoint.
30. Impeller Diameter	**[275 default]** 220 – 330	CPIM (value) On Duplex use CPD1 (value) And CPD2 (value)	Sets the compressor impeller diameter. This is utilized in control algorithms. Nameplate will indicate CPIM (Value). See UCP nameplate value. [CPD1 is impeller circuit 1 an d CPD2 is impeller circuit 2]
31. IGV Actuators	**SNGL (Single default)** DUAL DUAL2 DUAL3	IGVA SNGL, IGVA DUAL • 1470 & 1720 = DUAL • 1070 & 1300 = DUAL2 •1100 = DUAL3 • Everything else = SNGL	Installs the second actuator. See nameplate NTON (value). Select Single for units nominal tons of less than 1470 (with one vane actuator). Select Dual for Nominal tons 1470 or larger (with two vane actuators).
32. Non-Latching, and Latching Alarm, Limit Warning and Compressor Running Relays	**NIST (Not Installed default)** INST (Installed)	OPST YES	Nameplate will indicate OPST YES when factory installed on unit. Installed requires Module 1A8 OPST Quad relay output module. This is for simplex, see items _____for duplex programmable relays)
33. Max Capacity, Head Relief Request, Purge Alarm, And Purge Running Relay	**NIST (Not Installed default)** INST (Installed)	OPST YES	Nameplate will indicate OPST YES when factory installed on unit. Installed requires Module 1A9 OPST Quad relay output module. This is for simplex, see items _____for duplex programmable relays)
34. (COMM 4) Tracer Interface (TRMM TRM4)	**NIST (Not Installed default)** INST (Installed),	TRMM TRM4	Installs the Comm4 module 1A14 for Tracer Summit. Nameplate will indicate TRMM TRM4 when factory installed on unit. Tracer Summit module 1A14 required.
35. Tracer LCI-C (TRMM TRM5)	**NIST (Not Installed default)** LCI-C(Comm5) Profile Only, or LCI-C(Comm5) Extension)	TRMM TRM5	Comm board with TRMM TRM5 Tracer LCI-C LonTalk; available on CTV MP 5.0
36. BAS Interface (CTV MP 6.0, CTV D MP2.0)	**Not Installed**, Comm 4, LCI-C (Comm5) Profile only, LCI-C (Comm5) extension		Extended LCI-C implemented with MP 6.0 CTV and MP2.0 CTVD
37. ICS Address Comm 4	[65 default] 32-100	Not shown on UCP nameplate	Sets Tracer Summit address for 1A14 Comm module. Select in accordance with Site Tracer defined address.Default is 65
38. Purge Control	**INST (Installed default)** NIST (Not Installed)	Not shown on UCP nameplate	Installs the EarthWise Purge into the control system. All Factory shipped CVHE, F, G units have a factory-INSTALLED purge. Select Installed in all applications
39. Compressor Power Source	**NO (Not Installed default)** YES (Engine/ Generator)	GENR YES	Selects special control Algorithms when power source is generator to be interfaced to the control system. If Yes then 2A7 Pilot relay for Start/stop, and 2A8 up to speed/ frequency and Starter Drive Fault, and 2A9 Speed signal output modules are required. Select Not installed for Utility source power and for std on site backup generators

40. Rfgt Press and Compr %RLA Output	**NIST (Not Installed default)** INST (Installed)	CDRP YES or GBAS YES	Installs the External Output [VDC only] modules 1A15 for A) refrigerant pressure output, and B) % compressor RLA signal. Nameplate will indicate CDRP YES or GBAS YES when factory installed on unit. Requires 1A15 Dual analog output module if installed. 1A15 J2- 1 to J2-3 (Grd) for percent RLA output. 1A15 J2-4 to J2-5 (Grd) for Refrigerant pressure output.	See Operation Maintenance Manual
41. Rfgt Pressure Analog Output Option Type	**HPC (Absolute Cond Press as %HPC default)** DELP (Delta P)	Not shown on UCP nameplate	Defines output of External output module 1A15 above item 39), selection determines whether the Refrigerant output corresponds to the Condenser (HPC) pressure, or the delta (DELP) pressure between the condenser and evaporator. Requires module 1A15.	See Operation Maintenance Manual
42. Min Delta Rfgt Press Output Calibration	**0 psid default** 0–30 setting range	Not shown on UCP nameplate	Further defines refrigerant differential pressure (item 40) vdc output signal of External output module 1A15 when DELTA PRESSURE output type is selected. • This setting is the minimum setting value for the delta analog signal. • 2 vdc will equate to this minimum value.Default is 0 psid (0 psid is typical setting)	Reference CTVPRB006-EN Page 10 fig 11 Operation maintenance manual CVHE-SVU01E-EN page 56/57
43. Max Delta Rfgt Press Output Calibration (CDRP)	**30 psid default** 0–30 setting range	Not shown on UCP nameplate	Further defines refrigerant differential pressure (item 40) vdc output of External output module 1A15 when DELTA PRESSURE output type is selected. • This setting is the maximum setting for the delta analog signal. • 10 vdc will equate to this maximum value. Default is 30 Psid (6 psid is typical setting)	Reference CTVPRB006-EN Page 10 fig 11 Operation maintenance manual CVHE-SVU01E-EN page 56/57
44. Max Capacity Relay Filter Time	**10 Minutes default** 1–60 setting range	OPST YES	Defines time to energize or de-energize Maximum capacity relay once in or out of the condition. Nameplate will indicate OPST YES when factory installed on unit. Time to be in mode or time to be out of the mode before relay activates, or deactivates.	
45. Head Relief Request Filter Time	**10 Minutes default MP 5.0** and earlier **1 Minute default MP 6.0** 1–60 setting range	OPST YES	Defines time to energize or de-energize Head Relief request relay once in or out of the condition. Nameplate will indicate OPST YES when factory installed on unit. Time to be in mode or time to be out of the mode before relay activates, or deactivates.	Change default with Sw MP CTV 6.0 Case 4836
46. Base Loading	**NIST (Not Installed default)** INST (Installed)	BSLD NIST	Installs the Base Loading feature into the chiller control system. Installed creates Base load menu items on DynaView, and requires the external control modules 1A18 and 1A17 for external base load control.	Pg 18 of O/M CVHESVU01C-EN

Starter Configuration (Non-AFD) -Select the starter configuration variables

TV Configuration menu Item	Default and other selections	Chiller Nameplate Data	Help Information	Additional information, Reference or Case Number
1. Stop Delay Time (Contactor interrupt failure)	1-30 setting range [3 seconds default]	SDTM 3	Sets the time period for the main processor to look for current after the stop command is executed. Interpreted as a stuck contactor if current exists after this time period. 3 seconds is the default.	
2. Unit Line Voltage	180-13,800 setting range [460 Volts default]	VOLT (value)	Use UCP Nameplate Volts	
3. Voltage Transformer Ratio (Potential Transformer Ratio)	0-700 setting range [20 default]	VTRA (value) Duplex: VTR1 (value) VTR2 (value)	Use UCP Nameplate Value For Starter by Others determine Overall Potential Transformer Ratio. [Need to know primary PT ratio in the starter by others]: ie if 600 volt to 30 volt transformer is used for 480, then 600/30 = 20	See Case 2563 for additional information
4. Rated Load Amps (RLA)	0-2500 setting range [500 Amps default]	PMRA (value)	Use design selection amps which may be less than the nameplate value. **NOTE:** USE ONLY WHOLE NUMBERS (no decimals)	
5. CT Meter Scale **TechView CTV Information Configuration** Trane CT's have a number on them which reflects the ext number of the part number: x1358 0269. Use this table to determine Trane Current Transformer rating (one pass) by extension. (secondary resistance shown for reference) Ext 01 = 100 Amps (23.5 ohms) Ext 02 = 150 (35) Ext 03 = 200 (46) Ext 04 = 275 (65) Ext 05 = 400 (68) Ext 06 = 500 (89) Ext 07 = 700 (128 ohms) Ext 08 = 1000 (235) Ext 09 = 50 (11.5) Ext 10 = 75 (17) Ext 11 =1400 (280) Ext 12 =1800 (340) With multiple passes: Ext 10 with two passes = 37.5 (set to 38) Ext 09 with three passes = 16.6 (set to 17) Ext 09 with four passes = 12.5 (set to 13)	0-2000 setting range [0 Amps default]	CTMS (value) Duplex: CTM1 (value) CTM2 (value)	Use UCP Nameplate Current Transformer Meter Scale for all but customer supplied starters. CTMS is determined as follows: **SINGLE CT with one pass:** The CTMS when one CT with one pass (primary turn) is utilized will be equal to the "CT rated AMPS" value. **SINGLE CT with multiple passes**: When 2,3,4 passes are used then the "CT rated AMPS" value is divided by the number of passes to create the CTMS value. **DUAL CT:** Dual CT's are not a TV menu choice. If dual CT's are used they must be considered with the above math. When dual* CT's are present the CTMS value must be calculated considering the additional CT. In this case the ("CT rated AMPS / passes) is multiplied by 0.72(or divide by 139) which is then correctly adjusted for the second CT **NOTE:** USE ONLY WHOLE NUMBERS (no decimals) *2nd Ct is TRR00975 (x1358-0266-01)	See CASE 2558 for additional CTMS information
NOTE: CH530 uses the RLA and CTMS to setup the current overload (See PSOL case #1564) These two items are all that are required. (There is no overload setting 1 and 2 as in UCP2)				
6. Current Unbalance Trip Point	**30% default** 15-100 setting range	CITP 30	Set to 30. Allows individual phase current operation up to 30% unbalance from the Average 3 phase RLA.	See also Case 2589
7. Current Unbalance Grace Period	**90 Sec default** 10-255 setting range		Time in seconds of unbalance allowed before trip occurs while in above unbalance condition	
8. Maximum Acceleration	**6 Sec default,** 6-64 setting range [Across the line= 6 sec Pri Reactor / Auto Trans =11 sec Trane Solid state = 15 sec Customer supplied solid state =20 second Wye delta= 27 sec AFD =30 sec]	MACT (value)	Sets time in second in which current must drop below 85% of RLA. Setting dependent on starter type. See Nameplate MACT value.	Noted on Reference CVHESVN03B-EN pg 19

9. Acceleration Time Out Action	**SHDN [Shutdown default]** TRAN (Transition)		Sets resulting action to occur upon exceeding maximum acceleration timer. Unit will shutdown upon exceeding maximum acceleration time	
10. Overload Type	**LINR [Linear default]** EXPO (Exponential)		Selects the overload algorithm type. Select Linear for all Centrifugal compressor applications	
11. Phase Reversal Protection Enable	**ENBL [Enable default]** DSBL (Disable)		Enables Phase reversal protection. Always select enable.	
12. Contactor Integrity Test	ENBL (Enable) **DSBL [Disable default]**		Enables Contactor integrity test. Disable unless requested to have contactor tested prior to each start.	
13. Phase Reversal Grace Period	20-1000 **[700 Milliseconds default]**	PRGT 700	Sets Time period until trip on Phase reversal. Set to 700 milliseconds. With Phase reversal disabled ime is 2.64 seconds	
14. Surge Protection Enabled	**ENBL [Enable default]** DSBL (Disable)	SRPR ENBL	Enables Surge Detection.	
15. Momentary Power Loss Protection Enable	**ENBL [Enable default]** DSBL (Disable)	MPLP ENBL	Enables Momentary Power Loss (MPL). Potential transformers are required for MPL. For help with troubleshooting MPL at startup see PSO case.	See Case 1580
16. Restart Inhibit Stop to Start Time	**30 Sec default** 0-255 setting range	RISS 30	Starter module configured minimum time between stop to start. Time delay to allow motor to demagnetize. (Note: This is not the "Restart inhibit Timer" which is a CH530Setpoint View item setpoint and has a 20 minute default setpoint)	
17. Surge Sensitivity	**20% default** 0-100 setting range	SGSY 20	Sets surge sensitivity. Example if surge sensitivity is set to 20%: The surge event has to be a single (or multiple) phase amps rise or drop greater than "20%" of the Average RLA.	
18. Power Loss Reset Time	**15 Sec default** 0-255 setting range	PLRT 15	Time delay (in seconds) upon power restoration to clear diagnostic.	
19. RTD Type	**75 Ohm @ 75°F** 100 Ohm @ 0°C		Std Motor Winding temp sensors are 75 ohm. Second set is an option and if present are typically the 100 ohm.	

AFD STARTERS: AFD Configuration variables

NOTE: THESE ARE ON DOCUMENTED THE AFD STARTUP LOG SHEET Starter Configurations. (Selections based on sales order variables.)

TV Item Description	Range	Chiller Nameplate	Help Information	Additional information, Reference or Case Number
1. Surge Detection	**ENBL [Enable default]** DSBL	SRPR ENBL	Enables Surge DIAGNOSTIC upon 7 minutes of surge detection. Drive senses for repetitive surge events. Rapid increase of average current of more than the surge sensitivity (% of RLA setting) within approx. 1 second. With this feature enabled a surge diagnostic will be generated after 7 minutes of this condition.	
2. Surge Sensitivity	**15% default with MP 5.0** and earlier. **20% default on MP 6.0** and later 0-100 setting range	SGSY 15 or 20	Example if surge sensitivity is set to 20%: The surge event has to be a single (or multiple) phase amps rise or drop greater than "20%" of the Average RLA. When this is sensed, the displayed mode on the DynaView will show surge for a minimum of one minute.	Case 2541
3. Power Loss Reset Time(With Recomm release Rev1.007.027 also provides AFD Minimum Stop to Start timer)	**60 Sec default** 0-255 setting range	PLRT 60	Time Drive waits upon power restoration to clear power loss diagnostic. Recomm release (1.007.027) Time required for the drive to remain off. Time between stop and next allowed start.	

4. Unit Line Voltage	**460 Vac default** (180 to 480 Vac)	VOLT (value)	Set to Nameplate Volts
5. Motor NP FLA (TVA)	**0 Amps default** (0 to 1200 Amps)	TVA (value)	Set to maximum amps of CTV MOTOR.
6. Motor NP RLA	**1 Amps default** (0 to 1200 Amps)	NMRA (value)	Set to Design RLA at selection.
7. Motor NP Power	**0 kW default** (0 to 1000 kW)	CPKW (value)	Use Nameplate CPKW (Value) of MOTOR
8. Motor NP Hertz	**60 Hz default** (5 to 250 Hz)	HRTZ (value)	Use Nameplate Hertz Value
9. Motor NP RPM (TRPM)	**3600 RPM default** (60 to 24000 RPM)	TRPM (value)	Use nameplate RPM
10. Stator Resistance	**0 MicroOhms default** (0 to 10,000,000 MicroOhms)	SRES (value)	Use nameplate SRES value
11. Flux Current Ref.	**0 Amps default** (0 to 1200 Amps)	FAMP (value)	Use nameplate FAMP value
12. Acceleration Time	**30 Sec default** (1 to 99 Sec)	MACT (value)	Set to 30 for AFD. Sets the rate of acceleration for all speed increases
13. Deceleration Time	**30 Sec default** (1 to 99 Sec)	DCCT 30	Set to 30 for AFD. Sets the rate of deceleration for all speed decreases
14. Current Limit	**1 Amps default** must set per sales order. (1 to 3200 Amps)	Calculate; STCL NMRA multiplied by 1.12.	Defines the current limit value. Current Limit (STCL) is: Design selection amps multiplied by 1.12. (112% of RLA)
15. Current Limit Gain	**10 default** (0 to 5000 setting range)	CRLG 10	Sets the responsiveness of the current limit.
16. Power Loss Mode	**decel default** COST (coast)	PWLM DECL	Selects the action of the Drive upon a power loss
17. Power Loss Time	**0 Sec default** (0 to 25 Sec)	PWLT 0	Time the drive will remain in power loss mode before a fault is issued. If POWER LOSS is encountered raises this setting to 5 seconds.
18. Flying Start Enable	**DSBL (Disable default)** ENBL (Enable)	FLST DSBL	Enables / Disables the function which reconnects to a spinning motor at actual motor RPM when a start command is issued. Default is Disabled
19. Flying Start Gain	**2000 default** (20 to 32767 setting range)	FLSG 2000	Sets the response of the flying start function. Default is 2000
20. Use Trane Defaults	**YES default** No	UTRD YES	Select YES. Sets all other ADF settings to Trane Defined Defaults. Only select “NO” here when directed to use the Rockwell OIM to set specific defaults differently.
21. RTD Type	**75 Ohm @ 75°F** 100 Ohm @ 0°C		Std Motor Winding temp sensors are 75 ohm. Second set is an option and if present are typically the 100 ohm.

- REMINDER: IF ANY CHANGES ARE MADE THE LOAD CONFIGURATION BUTTON BECOMES PRESENT. CHANGES WILL NOT TAKE EFFECT UNLESS THIS BUTTON IS PRESSED AFTER ALL ENTRIES ARE CHANGED TO YOUR SATIFACTION
- Document settings on log sheet for future reference.

Reports pull down menu item: Nameplate Tab

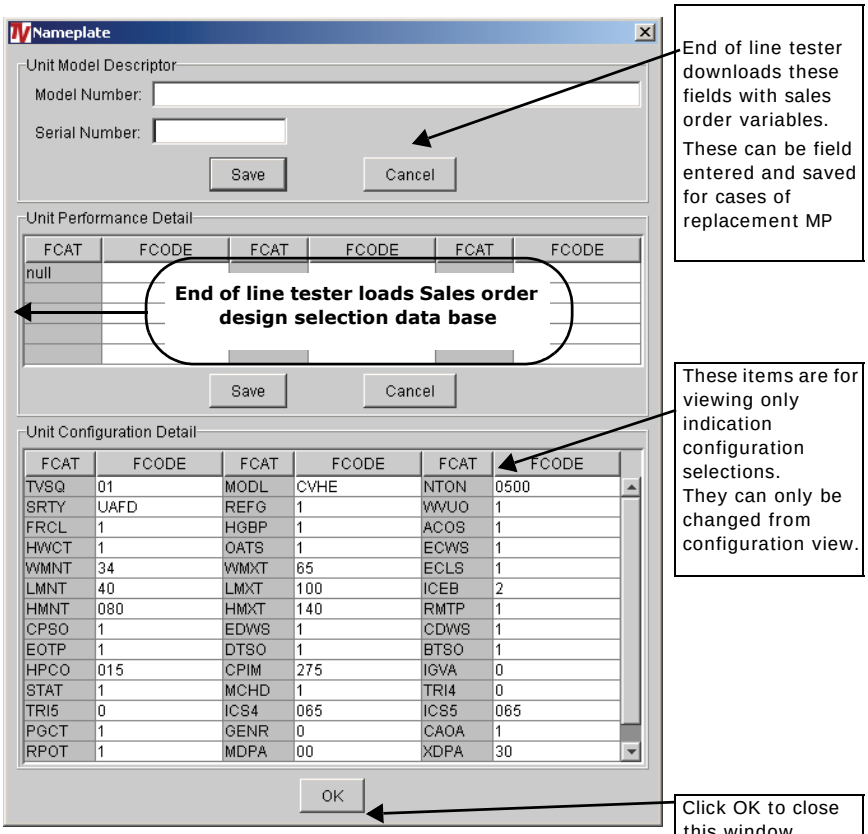
(TechView Menu Bar item)

The Model Descriptor and Performance section are Factory set for per sales order. Please note they can be altered for field replacement needs.

The Unit Configuration Detail reflects the results of the configuration selections

PTIE	DESIGN	Evap entering water temperature
PTOE	"	Evap Leaving Water Temperature
PGME	"	Evap Gallons Per Minute
PPDE	"	Evap Pressure Drop
ERST	"	Evaporation Refrigerant saturation Temperature
PTIC	"	Cond Entering Water temperature
PTOC	"	Cond Leaving Water temperature
PGMC	"	Cond Gallons Per Minute
PPDC	"	Cond Pressure Drop
CRST	"	Condenser refrigerant saturation temperature

Hint: Simultaneously pressing the "At + PRINT SCREEN" keys on your laptop will "copy" the view to the clipboard and allow you to "PASTE" the view into a word doc for future reference. Note that if the "Unit Config. Details "contents are larger than the view the scroll bar appears and a second "copy" maybe required to capture the last line item.



End of line tester downloads these fields with sales order variables.

These can be field entered and saved for cases of replacement MP

These items are for viewing only indication configuration selections. They can only be changed from configuration view.

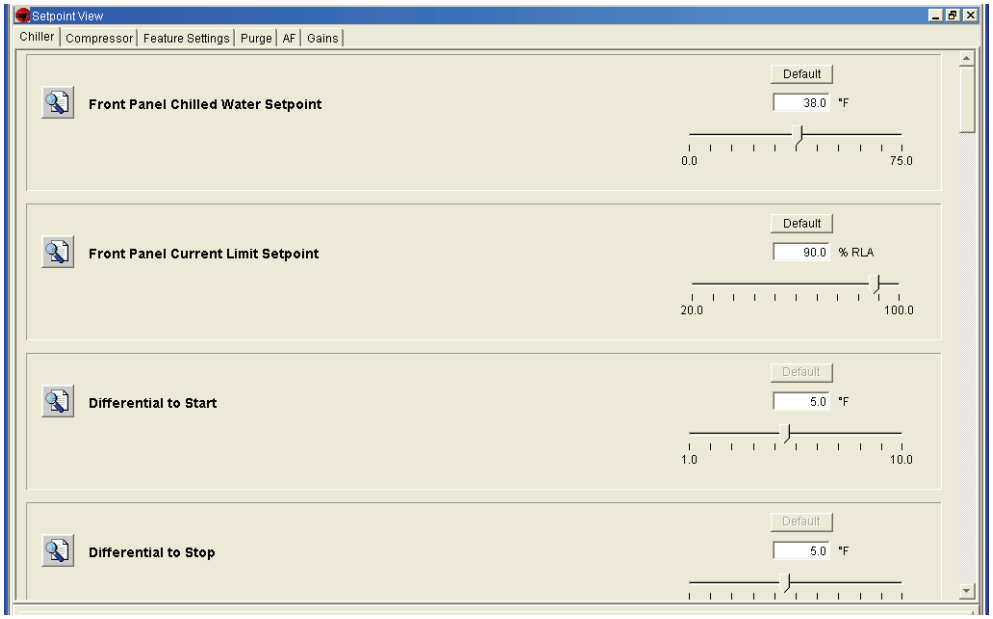
Click OK to close this window.

Note: *Should it be necessary to replace the DynaView (DV) in the future, the unit model number description and unit performance detail selection data must be entered manually by the DV installer VIA TechView.*

Setpoint View (CTV)

Using the View Pull down menu selection of Setpoint View provides the following view:

Note that this example illustrates "AFD" tab as it reflects an AFD starter configuration, and the "Gains" are illustrated with level four TechView access installed.



AFD Tab Appears when AFD starter type is configured.

Gains shown when Level 4 TechView is installed. AFDTab content grows with Level 4 TechView installed.

Setpoint View Content

Setpoint	(Min, Max) Default	Help Information	Additional information, Reference or Case Number
Chiller Tab			
1. Front Panel Chilled Water Setpoint	**44°F / 6.67 °C default** (0°F to 75°F) (-17.8°C to 23.9°C)	Set to sales order / Job requirements	Case 4829
2. Front Panel Current Limit Setpoint	**100% RLA default** (20% to 100% RLA)	Use 100% unless otherwise specified	Case 4831
3. Front Panel Heating or Cooling Mode	**Chiller water** (Chiller water or Hot water)	Optional item, shown when installed	Case 4830
4. Front Panel Hot Water Setpoint	**130°F / 54.44 °C default** (100°F to 140°F (37.8°C to 60.0°C)	Optional item, shown when installed	Case 4832
5. Front Panel Base Loading Command	**Auto default** (On or Auto)	Optional item, shown when installed	Case 4828
6. Front Panel Base Load Setpoint	**50 % default** (20 to 100)	Optional item, shown when installed	Case 4827
7. Front Panel Free Cooling Command	**Auto default** (On or Auto)	Optional item, shown when installed	Case 4835
8. Front Panel Ice Building Command	**Auto default** (On or Auto)	Optional item, shown when installed	Case 4833

9. Front Panel Ice Termination Setpoint	**27°F / -2.78 °C default** (20°F to 32°F) (-6.7°C to 0.0°C)	Optional item, shown when installed	Case 4834
10. Ice To Normal Cooling Timer	**5 minutes** (0 to 10 minutes)	Optional item, shown when installed	Case 4835 See OM Manual
11. Differential to Start Setpoint	**5°F / 2.78 °C default** (1°F to 10°F) (0.6°C to 5.6°C)	Set to sales order/ Job requirements	Case 4790
12. Differential to Stop Setpoint	**5°F / 2.78 °C default** (1°F to 10°F) (0.6°C to 5.6°C)	Set to sales order/ Job requirements	Case 4791
13. Setpoint Source	**BAS/Ext/FP default** (BAS/Ext/FP, Ext/Front Panel, Front Panel),	Sets hierarchy of commands; Building Automation system, External signals, front panel	See also Case 2567, 4818
14. Power Up Start Delay	**0 seconds** (Range 0 to 600)	Time delay to start upon power restoration. Allows multiple chillers to be stagged on after a power outage.	Case 4817
15. Evaporator Pump Off Delay	**1 minutes** (Range 0 to 30)	Time chilled water pump will remain on after post lube terminates. (Cooling mode use only)	Case 4816
16. Condenser Pump Off Delay	**1 minutes** (Range 0 to 30)	Time Condenser water pump will remain on after post lube terminates. (Heating mode use only)	Case 4794
17. Evaporator Design Delta Temp	**10°F / 5.6°C** (4°F to 40°F) (2.2°C to 22.2°C)	Set to the Evaporator design delta temp in F/C (typically 10°F). Control algorithm uses entering evaporator temp in the feed forward logic. (Cooling mode use only) - Confirm that actual GPM through machine is at design. Percent of total compressor load is based on the given evap delta T compared to the full load delta T. If design water flow is not attainable, then determine a new full load Design delta temperature at the given GPM provided.	Case 3552 & 4809
18. Condenser Design Delta Temp	**10°F / 5.56°C** (4°F to 40°F) (2.2°C to 22.2°C)	Set to the Condenser design Delta temp in F/C. Control algorithm use entering temp in feed forward logic. (Heating mode use only)	4792
19. Evaporator Leaving Water Temp Cutout	**36°F / 2.2°C** (-10°F to 36°F) (-23.3°C to 2.2°C)	Safety trip point for low temp water. (NOTE: With verification for freeze protection, this will be set to 12-14F for Ice Mode)	4848
20. Inlet Guide Vane Max Steps first stage	**50000 steps** (0 to 60000),	Set to equal number of steps for full vanes stroke (90 degrees rotation). (factory set, ***advise to document this value)***	4846
21. Inlet Guide Vane Max Steps second stage	**50000 steps** (0 to 60000)	ext capacity units only. Set to equal number of steps for full vanes stroke (90 degrees rotation). (factory set, ***advise to document this value)***	4847
22. Low Refrigerant Temp Cutout	**32°F/ 0.0°C default** (-35°F to 36°F) (-37.2°C to 2.2°C)	Safety trip point for low refrigerant temp. For Ice making this must be set at startup. Note: With Verification for Freeze protection, this will be set to "0°F " to make ice.	Case 3560 & 4849
23. Condenser Limit Setpoint	**93% of the HPC (PSIG)** (80 to 120 PSIG)	Reference point (% of HPC setting) for condenser limit control.	Case 4893
24. Evaporator Water Flow 1	**264 gpm / 1000 lpm** (0 to 10568 gpm) (0 to 40000 lpm)	Flow, WFC Option; GPM Flow at point 1. (**design GPM**, factory set)	See "Tracer CH530 Water Flow Sensing Setpoints" on LaCrosse CTV Tech service Intranet site for factory settings for setpoint items # 87 to 97. See Case 2170 & 4804
25. Evaporator Pressure Drop 1	**1.45 PSI / 10 kPa** (0 to 25.4 PSI) (0 to 175 kPa)	Diff Pressure, WFC Option; Pressure at flow point 1. (design PD in PSID, factory set)	Case 2170 & 4802

26. Evaporator Water Flow 2	**423 gpm / 1600 lpm** (0 to 10568 gpm) (0 to 40000 lpm)	Flow, WFC Option; GPM Flow at point 2. (second point on same flow curve, factory set)	Case 2170 & 4805
27. Evaporator Pressure Drop 2	**4.35 PSI / 30 kPa** (0 to 25.4 PSI) (0 to 175 kPa)	Diff Pressure, WFC Option; Pressure at flow point 2. (second flows PD in PSID, factory set)	Case 2170 & 4803
28. Evaporator Fluid Specific Gravity	**1** (range 0 to 2)	WFC Option Use **"1.00" for 100% water**	Case 2170 & 4806
29. Evaporator Fluid Specific Heat	**1** (range 0 to 2)	WFC Option Use **"1.00" for 100% water**	Case 2170 & 4807
30. Evaporator Low Water Flow Warning Setpoint	gpm/ton, 4.54 lpm/ton (0.0 to 15.14 lpm/ton)	Flow / Capacity; WFC Option; Use Default	Case 2170 & 4808
31. Condenser Water Flow 1	**264 gpm / 1000 lpm** (0 to 10568 gpm) (0 to 40000 lpm)	WFC Option; GPM Flow at point 1. (**design GPM**, factory set)	Case 2170 & 4797
32. Condenser Pressure Drop 1	**1.45 PSI / 10 kPa** (0 to 25.4 PSI) (0 to 175 kPa)	WFC Option; Pressure at flow point 1. (**design PD** in PSID, factory set)	Case 2170 & 4798
33. Condenser Water Flow 2	**423 gpm** / **600 lpm** (0 to 10568 gpm) (0 to 40000)	WFC Option; Pressure at flow point 1. (**design PD** in PSID, factory set)	Case 2170 & 4799
34. Condenser Pressure Drop 2	**4.35 PSI** / **30 kPa** (0 to 25.4 PSI) (0 to 175 kPa)	WFC Option; Pressure at flow point 2. second flows PD in PSID, factory set)	Case 2170 & 4803
35. Oil Temperature -Compressor Stopped	**143°F / 61.7°C default** (100°F to 140°F) (37.8°C to 60°C)	With Enhanced NOT Installed: Oil temperature control point w/comp off. (suppressed w/enhanced protection installed)	Case 3884 & 4853
36. Oil Temperature -Compressor Running	**100°F / 37.8°C default** (100°F to 160°F) (37.8°C to 71.1°C)	Oil heater will come on if temp drops below this temperature -compressor running mode	New feature with CTV MP 6.0 Case 3901 & 4854
37. Low Oil Temp Inhibit Setpoint	**95°F / 35°C default** (80°F to 140°F) (26.7°C to 60°C)	Setting with Enhanced oil protection feature set to Disabled. (suppressed w/enhanced protection installed)	Case 4852
38. Low Differential Oil Pressure Cutout	**12 PSI / 82.7 kPa** (9 to 35 PSI) (62.1 to 241.3 kPa)	Oil Pressure setting	Case 4851
39. Check Oil Filter Diagnostic	**Disable** (Enable, or Disable)		Case 4785
40. Check Oil Filter Setpoint	**103.43 kPa / 15 PSI** (62.1 to 413.7 kPa) (9 to 60 PSI)	Diff Pressure	
41. Restart Inhibit Free Starts	**3** (1-5)	# of free starts allowed before Restart Timer begins	Case 4874
42. Restart Inhibit Start to Start	**20 min** (10 to 30 min)	Restart Time	Case 4875
43. Restart Inhibit Diagnostic	Enable;default	Enabled Diagnostic message	
44. High Discharge Temp Cutout	**200°F / 93.3°C** (170°F to 220°F) (76.7°C to 104.4°C)	Optional item, shown when installed	Case 4844
45. Local Atmospheric Pressure	**14.7 PSIA / 101.36 kPa** (10 to 16 PSIA) (69.0 to 110.3 kPa)	Set to Jobsite conditions	Case 4850
46. Minimum Capacity Limit	**0%** (0, 100)	Creates a minimum boundary of the Compressor Load signal. Used to decrease chillers unloading level. Forces chiller to remain loaded to cause machine to reach differential to stop temp. Used frequently on chillers with AFD starters to avoid low end surge.	Case 2248 & 4856 for Compressor Signal information
47. Minimum capacity Timer	**Enabled default** Enable / Disable		Case 4857
48. Time Permitted at Minimum Capacity	**30 min** (1 to 480 min)	When enabled (item 49), sets time allowed at minimum capacity (item 48) until normal shutdown occurs	Case 4857

49. Maximum Capacity Limit	**100%** (0, 100)	Creates a maximum boundary of the Compressor Load Signal.	Case 2248 & 4855 for Compressor Signal information
50. Start Sequence Type [Level 4]	**Normal** (Normal, or No Load)	• Selection of [Normal] means the chiller will begin the start sequence when the evaporator leaving water temperature is equal to or greater than the chilled water setpoint plus the differential to start. • Selection of [No load] means the chiller will begin the start sequence when the evaporator leaving water temperature is greater than the chilled water setpoint minus the differential to stop.	See also Case 2245 USE **NORMAL** unless approved by LaCrosse Technical Service. Case 4873
51. Evaporator Pump Control Type [Level 4]	53. Evaporator Pump Control Type [Level 4]	• Selection of [Normal] means when given a 'stop-to-auto' command, the evaporator water pump will be energized and flow confirmed. • Selection of [Delayed] means that the evaporator water pump will be energized and flow confirmed after pre-lube is complete but before the compressor is started. • The Evaporator Pump Control Type Setpoint of [Delayed] will only be allowed for Start Sequence Type setpoint set to [No Load]. All other combinations may be set. USE **NORMAL** unless approved by LaCrosse Technical Service.	Case 2245 & 4810
52. High Evaporator Water Temperature Cutout	**105°F default** (80°F to 150°F)	Evap pump contacts open if the LCWT reaches this temp.	New with MP 6.0 Case 4859
53. Local Stop Delay **(Dyna View Stop Button Action)**	**0 (= disable) default** (0 to 20 seconds)	0 turns off this feature and STOP operates as previous MP versions. Placing this to other than 0 will result in an equal delay before action is taken on the stop button action. Allows a user to cancel an inadvertent stop.	New with MP 6.0

Feature Settings Tab

1. Chilled Water Reset	**Disable** (Constant, Outdoor, Return, Disable)	Front Panel Enable/Disable of option	See Operation Maintenance detail Case 4863
2. Return Reset Ratio	**50%,** range 10 to 120		See Operation Maintenance detail Case 4865
3. Return Start Reset	**10°F / 5.56°C default** (4°F to 30°F) (2.2°C to 16.7°C)		See Operation Maintenance detail Case 4866
4. Return Max Reset	**5°F / 2.8°C default** (0°F to 20°F) (0°C to 11.1°C)		See Operation Maintenance detail Case 4864
5. Outdoor Reset Ratio	**10% default** (-80% to 80% range)		See Operation Maintenance detail Case 4861
6. Outdoor Start Reset	**90°F / 32.2°C default** (50°F to 130°F) (10°C to 54.4°F)		"See Operation Maintenance detail Case 4862
7. Outdoor Max Reset	**5°F / 2.8°C default** (0°F to 20°F) (0°C to 11.1°C)		See Operation Maintenance detail Case 4860
8. External Chilled Water Setpoint	**Enable**	Front Panel Enable/Disable of option	Case 4824

9. External Current Limit Setpoint	**Enable**	Front Panel Enable/Disable of option	Case 4825
10. Ice Building Feature Enable	**Disable**	Front Panel Enable/Disable of option	Case 4826
11. Hot Gas Bypass Feature	**Disable**	Front Panel Enable/Disable of option	Case 4842
12. Hot Gas Bypass Maximum Timer Enable	**Enable**	Front Panel Enable/Disable of option	Case 4840
13. Hot Gas Bypass Maximum Timer Setpoint	**30 min** 1-480	Max time allowed in mode. Will cycle chiller off when time expires	Case 4839
14. Hot Gas Bypass Compressor Control Command	**10 %** 0-90	% Compressor Control signal upon decreasing loads when HGBP valve begins to open.	Case 4838
15. Hot Gas Bypass Valve Travel Time	**19 seconds,** 5-300		Case 4841
16. External Base Loading Setpoint Enable	**Disable**	Front Panel Enable/Disable of option	Case 4823
17. Capacity Control Softload Time	**900 sec** 0 to 7200	Time for at start or change of water temp setpoint to reach setpoint target. Note: If using “No LOAD” start sequence, item 52 “Start Sequence Type”, setting the softload time to 180 provides the fastest start time.	Case 2245 & 4780
18. Current Limit Control Softloading Time	**600 Seconds** Range 0 to 7200	Time for at start or change of current limit setpoint to reach setpoint target. Note: If using “No LOAD” start sequence, item 52 “Start Sequence Type”, setting the Current Limits off load time to 0 provides the fastest start time.	Case 2245 & 4812
19. Current Limit Softload Start Point	**40 % RLA** 20 to 100	Current control setpoint will go to this XX% RLA setpoint at startup then soft load to active current limit setpoint. Note: If using “No LOAD” start sequence, item 52 “Start Sequence Type”, setting the Current Limit softload Start point to 100 provides the fastest start time.	Case 2245 & 4811
20. Phase Unbalance Limit Protection	**Enable**	When Enabled, the chiller capacity limit feature is active and will de-rates the chiller capacity when the unbalance of one phase is greater than 20%.The limit feature can be disabled however current unbalance protection and ultimate trip, Starter config. Items, remain active as configured.	Case 2589 & 4858
21. Over/Under Voltage Protection	**Disable CTV MP 5.0 (CTVD 1.0) and prior** Enabled with Unit mounted Starters with MP CTV 6.0 (CTVD 2.0) and later (Run-in stand constraints required disabled with other starter types)	Enables / disables the under/over voltage protection. Potential Transformers inputs remain required at the Starter module non-AFD) and MPL remains active, only U/o Voltage protection is selectable by this setpoint. Must hold +/-10%, Must Trip +/-15%	Case 2589 & 4778
22. Starter Power Demand Time Period (note: MP 8.0 and later rev)	Default 15 minutes (Range 1-60 minutes)	Sets time period	
23. Control Algorithm Flow Compensation	Enable	(Default of Enabled when water flow option is not installed has no control effect). **COOLING MODE ONLY: only with Evap water Differential pressure sensing (GPM/Tons)** installed from CH530 tab (item 22) in configuration view. Enabled: Allows sensed evaporator water flow changes to adjust [compensation] the LWT control when enabled. *Therefore* when enabled (default) it is imperative that the water flow sensing option is set up properly. See Items 87 to 97. Disabled: Disables the compensation input to the LWT controls.	Case 2170 & 4801
24. Data Recorder Sample Period. Default 2 seconds, range 1 to 3600 seconds. Sets sample period.	NOTE items 24 to 29 are 6 items visible in level 4 TechVIew only, and have to do with the data Recorder feature (DynaViews Shipped from approx July of 2005 have this hard ware capability however require MP CTV 8.0, or CTVD 3.0 to enable the functional hardware).		
25. Data Recorder Change Delta.	Items 25-29 Defines amount of change required to trigger a store.		

26. Data Recorder Temperature Change			
27. Data Recorder Pressure Change			
28. Data Recorder % change			
29. Data Recorder Count Change			

Purge Tab

1. Purge Operating Mode	(Auto, On, Off, Adaptive), **Adaptive**	Recommended mode is adaptive. Adaptive operation is greatly improved over previous "adaptive purge modes."	Reference Purge Operation Maintenance manual for mode explanations. Case 4870
2. Daily Pumpout Limit	(1, 50), **10 minutes**		This is used to set the allowable amount of daily pumpout time. Case 4813
3. Disable Daily Pumpout Limit	**0 Hours** Range 0 to 72	For this set points specified time (0 to 72 hr) the user can disable alarms associated with exceeding the daily pumpout limit. Moving this from "0" during a regen cycle will terminate the regen cycle.	Case 4814
4. Purge Liquid Temperature Inhibit	**Enable**	Allows user to disable the inhibit feature that prevents purge pumpout if the sensed purge liquid temp. is less than the pumpout inhibit temp.	Case 4858
5. Purge Liquid Temperature Limit	**45°F / 7.2°C default** Range 0 to 10	Defines the setpoint for the purge liquid temp inhibit feature.	Case 4869
6. Purge Run Time	XXX hrs	Purge Run time	Case 4871
7. Refrigerant Type	(0=R123, 1=R11, 2=R113), **0=R123**	Refrigerant type of chiller. (Factory mounted purges are R123 chillers)	Case 4863

Gains Tab (level 4)

1. Chilled Water Control Proportional Gain (Kp)	(0.0, 180.0) **75 default w TV 4.03** **50 default w TV 5.0**	Proportional Gain =Kp (error of distance from setpoint) **Help Note:** Looks at how far from setpoint and how fast move the compressor load signal (vanes, and AFD). Higher the value the faster. *Note: experience has shown that 50 provides better stability for the majority of sites.*	Special settings for Ext. Capacity ice machines Case 325 & 4787
2. Chilled Water Control Reset Time	(0, 1000) **120 sec**	Reset time =[Kp / Ki] in seconds. Where Ki is the integral value which "weights" the proportional error by measuring how long the Kp has been off the target. Time it takes integral for to match the proportional **Help Note:** Higher number results in longer time (Slower) to converge on the setpoint. Lowering the reset time will increase the integral control. This will speed up guide vanes. It may cause instability at some conditions if this is the only parameter that was changed.	Case 4788
3. Chilled Water Control Derivative Gain (Kd)	(0.0, 18.0) **0.0**	Kd = rate of change from, or towards, the target. **Help Note**: Rate of Change. Higher number settles out an oscillating system.	Case 4785
4. Chilled Water Feed Forward Control Gain	(0, 200 %) **100 default w TV 4.03** **80 default w TV 5.0**	FF Gain = Forward information from an increasing or decreasing Evap delta temp as compared to the Evap Delta T setpoint setting. **Help Note:** High number means increased reaction to changes in entering evaporator water temperature. Note: experience has shown that 80 provides better stability for the majority of sites.	Special settings for Ext. Capacity ice machines. Case 3325 & 4789

5. Evap/Cond Lift Corrections	0, 100), **25 %**	Main purpose of this item is to adjust the algorithm for cool tower water. Adjustment (%) made to the chiller water control algorithm gain when operational conditions are not at nominal 44F/85F. (beneficial with leaving chilled water temps above 44 and/or when cooler tower water below 85) **Help Note:** Compensation to "control gain" with respect to the evaporator to condenser differential pressure; **gain is reduced as the impeller lift is reduced, gain is increased as the impeller lift is increased**	Case 4815

AFD Control Settings Tab

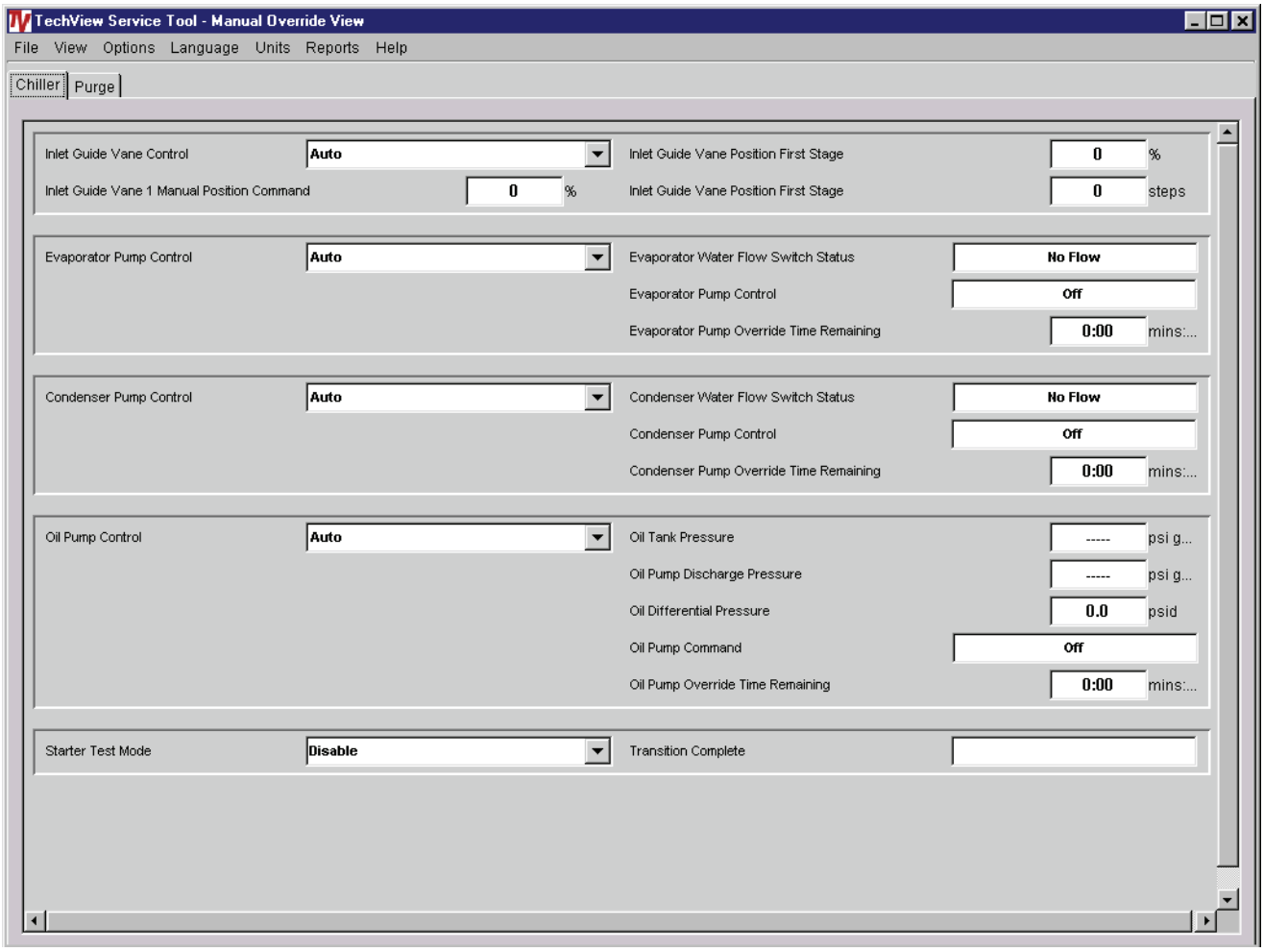
1. AFD Control	(Auto, Fixed), **Auto**	**Help Note:** Allows AFD to be disabled and forced drive to run at 60 Hz., and utilize std LWT control algorithm.	
2. AFD Re-Optimization Timer [level 4]	(1,255), **12** Hours default. (Background timer triggered re-optimization)	Re-optimization will occur if this timer expires during a continuous chiller run time. This forces re-optimization if the chiller continues to operate with steady loads for the length of the timer. A chiller "Stop" via stop or system satisfied "waiting for a need to cool", or re -optimization based on the sensitivity, or a surge event, will reset the timer to the "setpoint" amount. (Remaining time shown in Motor report.)	Case 2541 Decrease to force re-optimization more often.
3. AFD Re-Optimization Sensitivity	(0-100), **20 % default** (CTV MP 6.0 and later, previously was 10%) Percent of full vane travel (IGV triggered re-optimization at 30 minute fixed intervals)	At 30 minute intervals the control algorithm checks the vanes position compared to the position set at the last optimization and; • if within the sensitivity setpoint (20% default) then no re-optimization • If the inlet guide vane position has changed more than the sensitivity setpoint amount then re-optimization	Case 2541 Increase this set point to lesson the likelihood of re-optimization at the 30 min intervals.
4. AFD Surge Capacity Increase	RANGE 0-5 hertz Default 1 hz	Amount of hertz increased per 5 seconds intervals while in surge mode. (ie in 60 seconds will raise hertz 12, or until reaches max setting (60 hz). Discuss with tech service prior to using this setpoint.	
5. AFD Boundary Pressure Coefficient Y Intercept [level 4]	(0.01, 2.00), **0.40**	Y-intercept point of the pressure coefficient surge boundary. The present value at shutdown is stored for the next startup intercept point. Tech View allows user to temporarily change this item. The controls are constantly and automatically adjusting this value during operation therefore this value will be changing from this starting point and the value will be changing.	Case 2541
6. AFD Boundary Pressure Coefficient Y Intercept Max - Cprs [level 4]	(0.01, 2.00), **2.00**	Maximum operating value of the pressure coefficient Y-intercept point for the surge boundary. This is a maximum Y-intercept boundary point, which it will not be allowed to exceed. Allows the user the ability to limit the boundary.	Case 2541
7. Minimum Surge Boundary Coefficient [level 4]	(0.0 to 1.0) TV **default 0.3**	Minimum operating value of the pressure coefficient Y-intercept point for the surge boundary. This is a minimum Y-intercept boundary point, which it will not be allowed to reach. Allows the user the ability to limit the boundary.	Case 2541
8. AFD Maximum Frequency [level 4]	(38-60), **60 Hz**	Maximum Operating frequency setpoint	Set to the full load hertz
9. AFD Minimum Frequency [level 4]	(38-60), **38 Hz**	Minimum Operating frequency setpoint	Set to the min load hertz

Compressor Tab

1. Compressor Starts	0-1,000,000	Allows settings of starts. (Used to set starts after software download, or with Dynaview Replacement)
2. Compressor Running Hours	0-1,000,000	Allows settings of starts. (Used to set starts after software download, or with Dynaview Replacement)
3. Motor Winding Temp diagnostic severity	Normal shut, down (default), Warning	Allows service to set a WARNING for first occurrence, then becomes shutdown upon second occurrence.

Manual Override View

Figure 5.



Manual Override View is a combined presentation of setpoint (override) and status values. Each manual override item has an “Auto / On” (or Off) for binary control values or an “Auto/Manual” and an analog target value. Additionally, each item has a monitor value that the user will track the effect of an override.

The panel contents are described as follows:

Description: Text that labels the specific override attribute spec.

Override enable: Setting to set the mode of control from Auto to Manual (or Enable/Disable) depending on the specific attribute.

Target: The setpoint that will determine analog output values (when in override).

Present: The “present” value must reflect the current state or value of the attribute.

Monitor Value(s): An override value may have one or more monitor values, which are just status values for other related attributes in the system.

Manual Override View Content

Description	Radio 1	Radio 2	Units		Monitor Value(s):
Chiller TAB					
1. Inlet Guide Vane Control	Auto	Manual Target	IGV %		IGV Position First Stage (%): IGV Position First Stage (steps):
2. Evap Water Pump Control	Auto	On			Evap Water Flow Switch Status: Evap Pump Control: Evap Diff Water Press: Approx. Evap Water Flow: Evap Pump Override Time Remaining:
3. Cond Water Pump Control	Auto	On			Cond Water Flow Switch Status: Cond Pump Control: Cond Diff Water Press: Approx. Cond Water Flow: Cond Pump Override Time Remaining:
4. Oil Pump Control	Auto	On			Pump Status: Oil Tank Pressure: Oil Discharge Pressure: Oil Differential Pressure: Oil Pump Override Time Remaining:
5. IGV and AFD Control	Auto	Manual Targets	IGV % AFD Hz		IGV Position First Stage (%): IGV Position First Stage (steps): AFD Speed: AFD Frequency:
6. Starter Test Mode	Disable	Enum (many)			Transition Complete Input Status:
7. AFD Relay [oil /refrig pump relay & wiring test]	Auto	On		Future Phase 1A	Starter Status: [i.e. disabled -default (Disabled if unit is ON, Note: unit must be in local stop to execute) Relay status -oil pump: on/off Diff Oil Pressure; xxx psid
8. AFD Relay [shunt trip relay &wiring test]	Auto	On		Future Phase 1A	Starter Status: [i.e. disabled -default (Disabled if unit is ON, Note: unit must be in local stop to execute) relay status Circuit breaker shunt: on/off)
9. Clear Restart inhibit timer		Clear			Clears restart inhibit timer

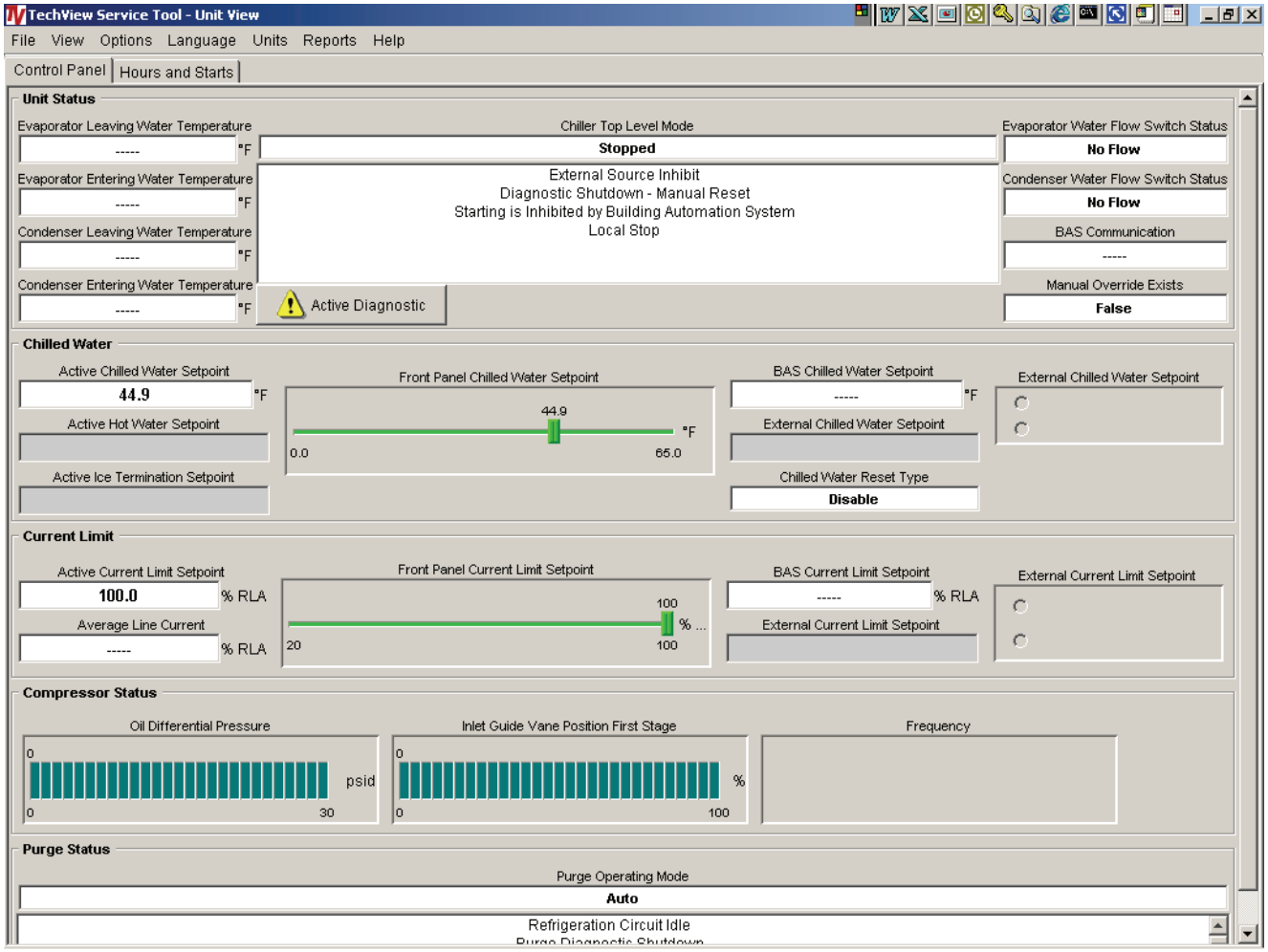
Purge TAB			Monitor Items	Help information
1. Regen. Cycle	Disable	Enable	Purge Liquid Temp Carbon Tank Temp:	Refer to Purge Operation/ maintenance manual. (Allows user to manual initial a regen cycle. Does not disable a partially completed regen cycle in process. See purge setpoint “Disable pumpout limit Setpoint)
2. Exhaust Circuit Pumpout Test	Disable	Enable	Pumpout Relay:	“
3. Exhaust Circuit Pressure out Test	Disable	Enable		“
4. Exhaust Circuit Vacuum Test	Disable	Enable		“

Note: *Purge must be in "stop" mode for these manual overrides.*

Tech View Unit View content and notes:

- Unit View is designed to maintain a common “look and feel” for the use of TechView across product lines.
- Operating mode list box list the “top level” mode, then allow user to drop down a list box of sub level modes.
- Manual Override list box list the presence of an override “exists”, then allow a user to drop down a list of the possible override modes in effect.
- Compressor Operating Mode to include ADF Status when AFD option installed. Also Average Line Voltage-If AFD installed

Figure 6.

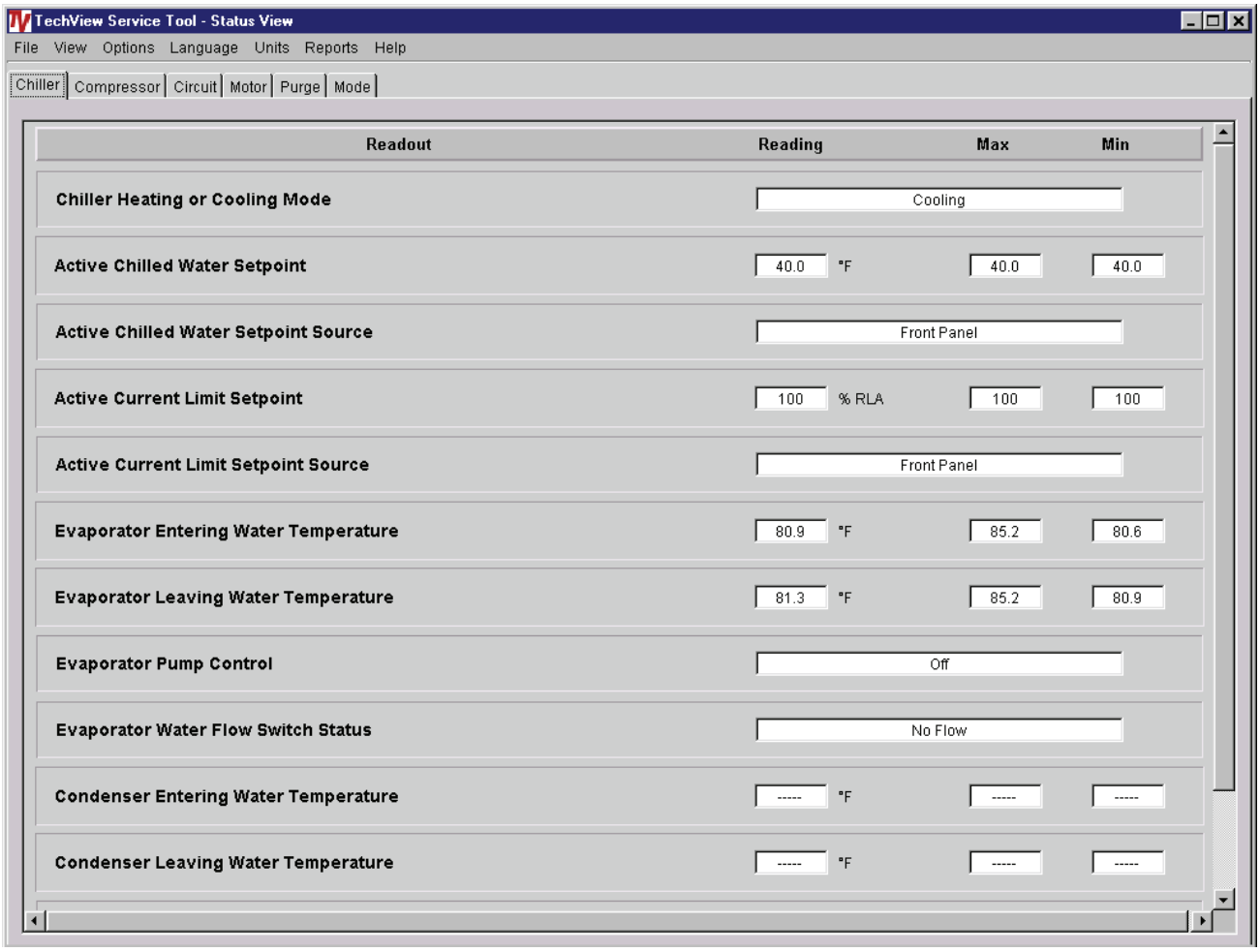


Ref #	Unit View Item Description	Ref #	Unit View Item Description
1.	Chiller Top Level Mode	21	Starter Average Current
2.	Chiller Sub Mode	22	Active Current Limit Setpoint
3.	Evaporator Entering Water Temp	23	Front Panel Current Limit Setpoint
4.	Evaporator Leaving Water Temp	24	BAS Current Limit Setpoint
5.	Condenser Entering Water Temp	25	External Current Limit Setpoint
6.	Condenser Leaving Water Temp	26	External Current Limit Setpoint Enable
7.	Evaporator Water Flow Switch	27	Compressor Status
8.	Condenser Water Flow Switch	28	Oil Differential Pressure. Shown as bar gauge, range of bar set to 30 psig/207 kPa
9.	Front Panel Ice Building Command	29	Inlet Guide Vane Position First Stage. Shown as bar gauge, range of bar set to 0-100%
10.	Chiller Heating or Cooling Mode	30	AFD Frequency. Shown as bar gauge, range of bar set to 0-60Hz.
11.	BAS Communication	31	Purge Status
12.	Manual Override Exists	32	Purge Top Level Mode
13.	Active Chilled Water Setpoint	33	Hours and Starts
14.	Active Hot Water Setpoint	34	Compressor Starts
15.	Active Ice Termination Setpoint	35	Compressor Hours
16.	Front Panel Chilled Water Setpoint	36	(Purge) Refrigeration-Life
17.	BAS Chilled Water Setpoint	37	(Purge Pumpout-Life
18.	External Chilled Water Setpoint		
19.	Chilled Water Reset Type		
20.	External Chilled Water Setpoint Enable		

Status View (CTV)

Using the View pull down menu to select Status View will provide the following View. Use the TAB 's to select Submenu screens.

Figure 7.



Status View Content			
1. Chiller Tab			
1.	Chiller Operating Mode	15	Approximate Chiller Capacity
2.	Chiller Heating or Cooling Mode	16	Condenser Entering Water Temp
3.	Active Chilled Water Setpoint / Source	17	Condenser Leaving Water Temp
4.	Active Hot Wtr Setpoint / Source	18	Condenser Pump Control
5.	Active Current Limit Setpoint / Source	19	Condenser Water Flow Switch Status
6.	Active Base Loading Setpoint / Source	20	Condenser Differential Water Pressure
7.	Active Ice Termination Setpoint / Source	21	Second Condenser Entering Water Temp
8.	Evaporator Entering Water Temp	22	Second Condenser Leaving Water Temp
9.	Evaporator Leaving Water Temp	23	Outdoor Air Temperature
10.	Evaporator Pump Control	24	Starter Average Current
11.	Evaporator Water Flow Switch Status	25	Refrigerant Monitor
12.	Evaporator Differential Water Pressure	26	Event Max (Level 4) Tasks level being managed by Main Processor
13.	Approximate Evaporator Water Flow	27	Event Timer (Level 4) Time for managing tasks.
14.	Approximate Condenser Water Flow		
2. Circuit Tab			
1.	Saturated Evaporator Refrigerant Temperature	6	Condenser Approach Temperature [Diff.] Temperature
2.	Evaporator Refrigerant Pressure	7	High Pressure Cutout (On/Off)
3.	Evaporator Approach Temperature [Diff.]	8	Head Relief Request Relay (On/Off)
4.	Saturated Condenser Refrigerant Temperature	9	Maximum Capacity Relay (On/Off)
5.	Condenser Refrigerant Pressure		
3. Compressor Tab			
1.	Compressor Running Status (On/Off)	10	Oil Heater Command (On/Off)
2.	Compressor Starts	11	Inboard Bearing Temp
3.	Compressor Run Time [Hrs:mins]	12	Outboard Bearing Temp
4.	Compressor Discharge Temp	13	Inlet Guide Vane Actuator Position First Stage [Percent]
5.	Oil Tank Pressure	14	Inlet Guide Vane Actuator Position First Stage [Steps]
6.	Oil Discharge Pressure	15	Inlet Guide Vane Actuator Position Second Stage [Percent]
7.	Oil Differential Pressure [Diff]	16	Inlet Guide Vane Actuator Position Second Stage [Steps]
8.	Oil Tank Temperature	17	HGBP Time [hrs:mins]
9.	Oil Pump Command (On/Off)		
4. Motor Tab			

1.	Restart Inhibit Time (MP) sec	14	Winding Temp 1
2.	Restart Inhibit Time (solid-state starter) sec	15	Winding Temp 2
3.	Restart Inhibit Time (Electro-mechanical starter) sec	16	Winding Temp 3
4.	Starter Current L1, L2, L3 Percent RLA	17	AFD Transistor Temperature
5.	Starter Current L1, L2, L3 amps	18	AFD Speed [rpm]
6.	Starter Phase Voltage AB BC CA volts	19	AFD Frequency [Hz]
7.	Starter Average Current [percent RLA]	20	AFD Frequency Command [Hz]
8.	Starter Average Current [amps]	21	AFD Boundary Pressure Coefficient [None]
9.	Starter Max Current [Percent RLA]	22	AFD Pressure Coefficient [None]
10.	Starter Average Phase Voltage [volts]	23	AFD Re-Optimization Time Remaining- [hrs:mins] Note; Will be 0 during startup period, then after first optimization will start decreasing time of the RE-optimization timer (default 12 hours level 4 AFD setpoint). This is continuous run time. A stop and restart resets timer.
11.	Starter Load Power Factor [None]	24	AFD DC Bus Voltage
12.	Starter Power Consumption [kW]	25	AFD Last Diagnostic Code (decimal)
13.	AFD Output Power [kW]		
5. Purge Tab			
1.	Purge Operating Mode (status, i.e. on, off, adaptive, auto))	11	Purge Refrigerant Compressor Suction Temp
2.	Purge Status (status, i.e. refrigeration ckt on, idle, pumping out, pumpout inhibited, regenerating, etc.)	12	Purge Liquid Temp (Chllr Cond Sat Rfgt Temp)
3.	Time Until Next Purge Run	13	Purge Carbon Tank Temperature
4	Daily Pumpout - 24 Hours	14	Pumpout Time Since Last Regeneration [mins:secs]
5.	Avg. Daily Pumpout - 7 Days	15	Time at Last Regeneration [Date Stamp]
6	Chiller On - 7 Days [Percent]	16	Pumpout Total at Last Regeneration [mins:secs]
7	Pumpout Chiller On - 7 Days [Percent]	17	Daily Pumpout Limit / Alarm
8	Pumpout Chiller Off - 7 Days [Percent]	18	Absorptive Capacity [Percent]
9	Pumpout - Life [mins:secs]	19	Carbon Regen Cycles
10	Refrigeration - Life [hrs:mins]		
6. Modes Tab			
1	Chiller Top Level Mode		
2	Chiller Sub Modes		
3	Chiller Mode at Time of Last Diagnostic		
4	Chiller Sub Modes at Time of Last Diagnostic		

Instructions for First Time Tracer CH530 Users

Note: *(These instructions are on line at Trane.Com)*

1 Create a folder called "CH530" on your C:\ drive. You will select and use this folder in subsequent steps so that downloaded files are easy to locate.

2 Download the Java Runtime installation utility file onto your PC in the CH530 folder (please note that this does not install Java Runtime, it only downloads the installation utility).

- Click on the latest version of Java Runtime shown in the TechView Download table.
- Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").

3 Download the TechView installation utility file onto your PC in the CH530 folder (please note that this does not install TechView, it only downloads the installation utility).

- Click on the latest version of TechView shown in the TechView Download table.
- Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").

4 Remember where you downloaded the files (the "CH530" folder). You will need to locate them to finish the installation process.

5 Proceed to "Main Processor Software Download" page and read the instructions to download the latest version of main processor installation files.

Note: *You will first select the chiller type to obtain the available file versions.*

6 **Select the product family.** A table with the download link will appear for that product family.

7 **Download the main processor software** onto your PC in the CH530 folder (please note that this does not install the main processor, it only downloads the installation utility).

- To do this, click on the latest version of the main processor.
- Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").

8 Remember where you downloaded the files (the "CH530" folder). You will need to locate them to finish the installation process.

9 To complete the installation process, locate the installation utilities you downloaded into the CH530 folder. If necessary, use your PC's file manager to locate the downloaded files.

10 Install the applications in the following order by double-clicking on the install program and following the installation prompts:

- Java Runtime Environment (JRE_VXXX.exe)

Note: *During the Java Runtime Environment installation, you may be prompted to "select the default Java Runtime for the system browsers..." Do not select any system browsers at this step. There should be no default browsers selected for proper operation.*

Note: *If prompted to "install Service Pack 2 before proceeding to install JAVA 1.4.1_02 select Continue. We have found that JAVA runs TECHVIEW fine w/o the service pack 2 installation. Please note this recommendation to install service Pack 2 and inform your office computer personnel.*

- TechView (6200-0347-VXXX.exe)
- The main processor (6200-XXXX-XX-XX.exe).
- The main processor program will self extract to the proper folder within the TechView program directory, provided the TechView program is properly installed on the C:\ drive.

11 Connect your PC to the CH530 main processor using a standard 9-pin male/9-pin female RS-232 cable.

12 Run the TechView software by selecting the TechView icon placed on your desktop during the installation process. The "Help...About" menu can be viewed to confirm proper installation of latest versions.

Instructions for Returning Tracer CH530 Users

Note: *(These instructions are on line at Trane.Com)*

1 Detect the version of TechView run on your PC. To do this,

- Open TechView.
- Select "Help," in the menu bar, then scroll to "About."
- Installed versions for TechView and Java Runtime Environment will be displayed.

You may also determine the last version of TechView loaded on your PC by the check mark indicators located on the table with the download links.

2 Update the Java Runtime Environment and TechView applications as needed.
   - Download Java Runtime onto your PC in the CH530 folder (please note that this does not install Java Runtime, it only downloads the installation utility).
     - * Click on the latest version of Java Runtime shown in the TechView Download table.
     - * Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").
   - Download TechView onto your PC in the CH530 folder (please note that this does not install TechView, it only downloads the installation utility).
     - Click on the latest version of TechView shown in the TechView Download table.
     - Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").

3 Remember where you downloaded the files (the "CH530" folder). You will need to locate them to finish the installation process.

4 Proceed to "Main Processor Software Download" page and read the instructions to download the latest version of main processor installation files.

Note: *You will first select the chiller type to obtain the available file versions.*

5 Select the product family on the main processor download page. A table with the download link will appear for that product family.

6 If necessary, download the main processor software onto your PC in the CH530 folder (please note that this does not install the main processor, it only downloads the installation utility).
   - To do this, click on the latest version of the main processor.
   - Select "Save this program to disk" while downloading the files (do not select "Run this program from its current location").

7 Remember where you downloaded the files. You will need to locate them to finish the installation process.

8 To complete the installation process, locate the installation utilities you downloaded into the CH530 folder. If necessary, use your PC's file manager to locate the downloaded files.

9 Install the applications you need to update in the following order by double-clicking on the on the install program and following the installation prompts:

Java Runtime Environment (JRE_VXXX.exe).
   - Note: During the Java Runtime Environment installation, you may be prompted to "select the default Java Runtime for the system browsers..." Do not select any system browsers at this step. There should be no default browsers selected for proper operation.
   - TechView (6200-0347-VXXX.exe).
   - The main processor (6200-XXXX-XX-XX.exe).
   - The main processor program will self extract to the proper folder within the TechView program directory, provided the TechView program is properly installed on the C:\ drive.

10 Connect your PC to the CH530 main processor using a standard 9-pin male/9-pin female RS-232 cable.

11 Run the TechView software by selecting the TechView icon placed on your desktop during the installation process. The "Help...About" menu can be viewed to confirm proper installation of latest versions.

TechView Level 4 Access

When TechView is installed it is installed at a Level 3 installation. This is adequate for almost all users, however there is another TechView level called Level 4. Level 4 provides access to some additional set points and features.

To turn on TechView access level four do the following:

- Close TechView first.
- To do this left click your START button. select SETTINGS
- Then Select CONTROL PANEL
- Then select ADD / REMOVE Programs (double click)
- Then Select TechView (Use scroll bar to find TRANE TechView in the list. (one Click)
- Press the CHANGE/REMOVE button
- Select MODIFY
- Select LEVEL 4
- Select NEXT
- Select Finish
- Close Add / remove window.

Run TechView. When connected to DynaView you now will find some new features.

The setpoint view will contain a GAINs tab.

Also if the unit has an AFDD there will be more items shown in the AF tab with Level 4.

The level 4 will remain turned on on this PC until next installation of TechView, or until you modify it back to level 3.

DO Not use the MP CONG tab now present on the configuration view.

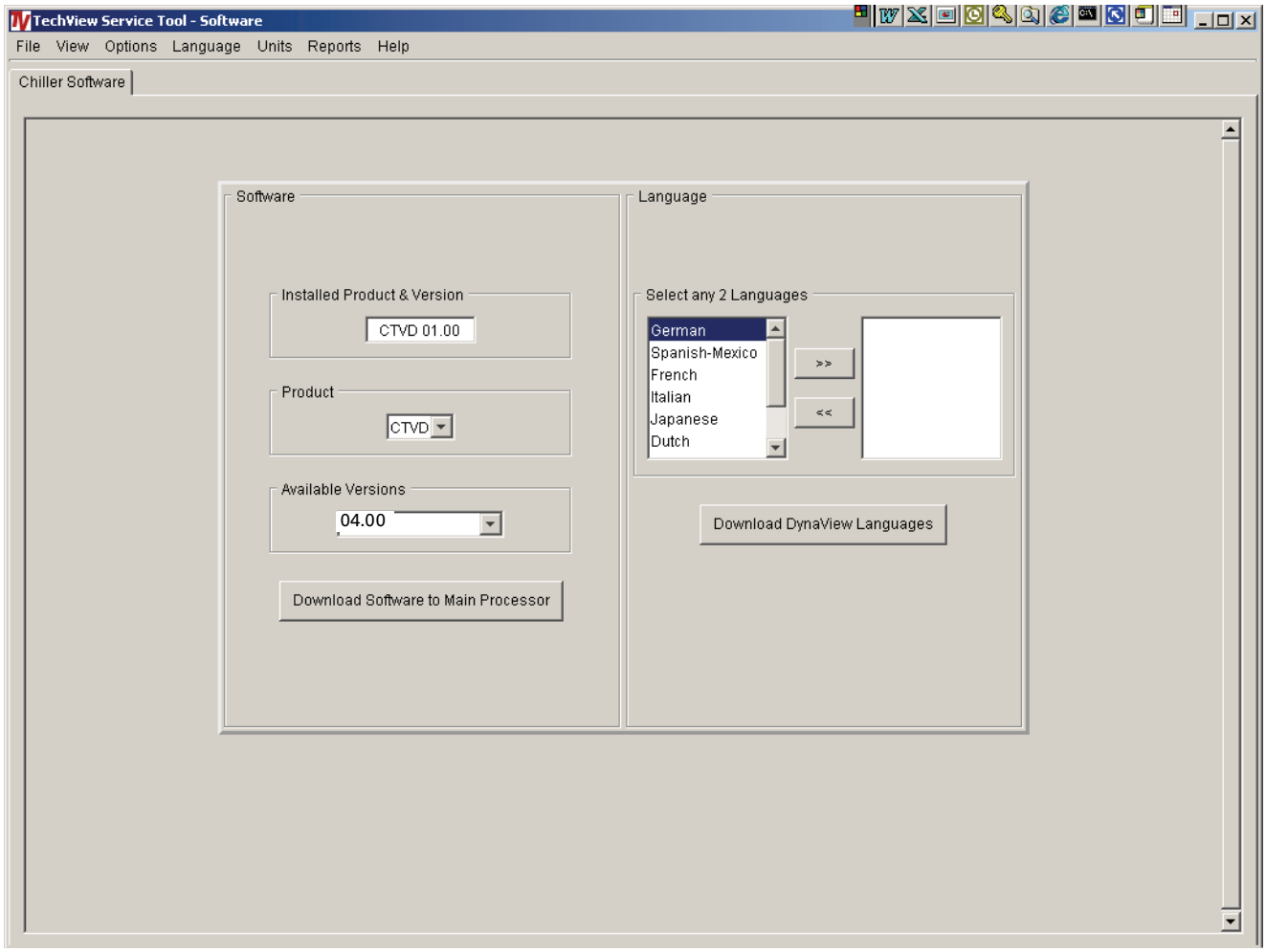
DUPLEX

Introduced with TechView 5.01, and required for Duplex version 1.0 MP software.

Software View Duplex

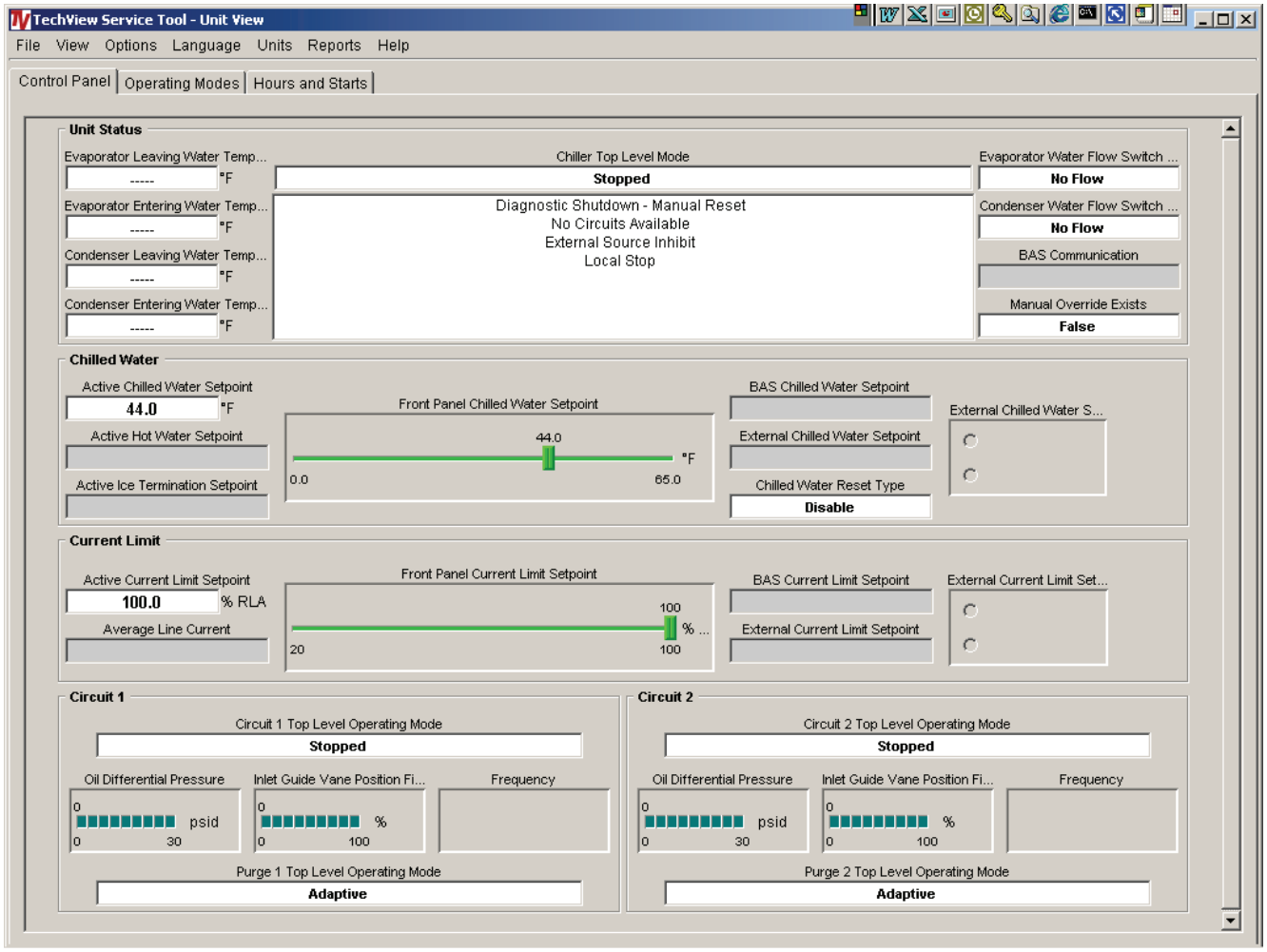
Duplex DV uses CTVD MP software. Version 4.0 is the current release.

Figure 8.



Unit View Duplex (CDHF-G)

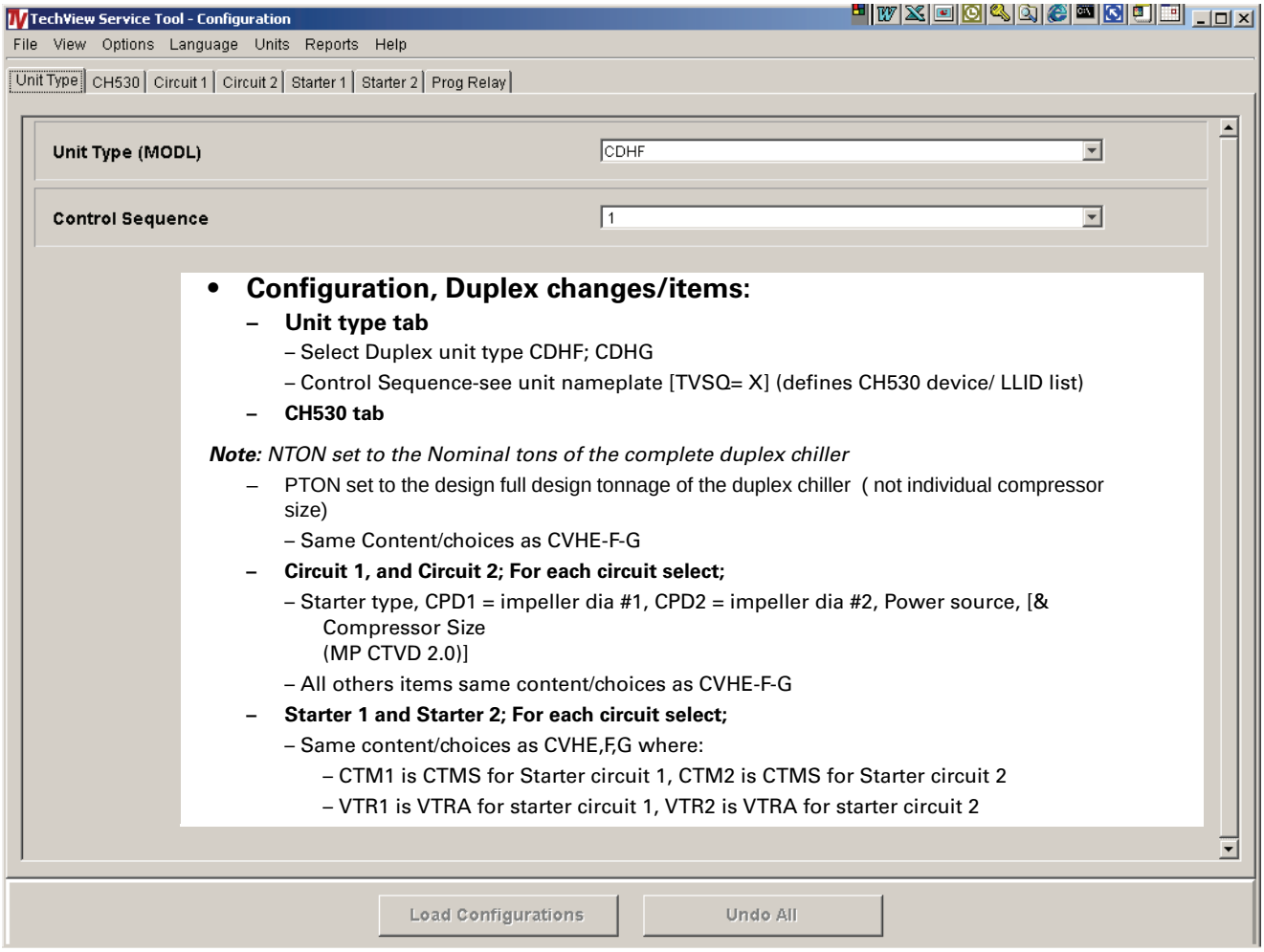
Figure 9.



Configuration View; Duplex

Unit and CH530 effect the whole chiller, Circuits and starters have individual tabs.

Figure 10.



Configuration View; Programmable relays (OPST)

New for Duplex; Eight outputs from two Quad relay LLIDS. Use defaults or Select any 8 of twelve choices.

Defaults are:

Chiller Running indicator

Chiller Latching Alarm

Chiller Limit mode

Chiller Non-Latching Alarm

Circuit 1 Purge Alarm

Circuit 2 Purge Alarm

Chiller Head Relief

Chiller Maximum Capacity

Other choices:

Circuit 1 Running

Circuit 2 Running

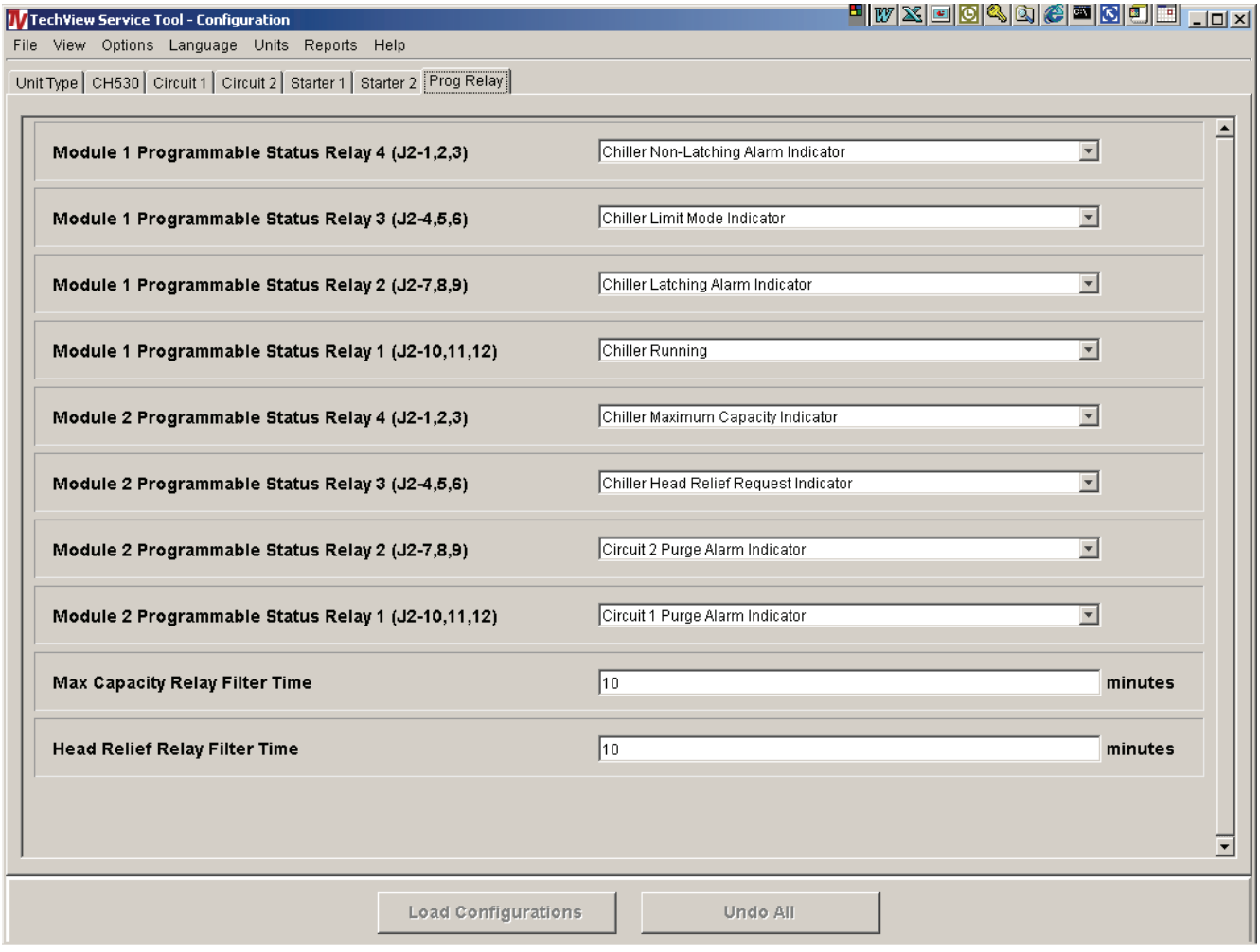
Chiller Alarm

Circuit 1 alarm

Circuit 2 Alarm

Purge Alarm

Figure 11.



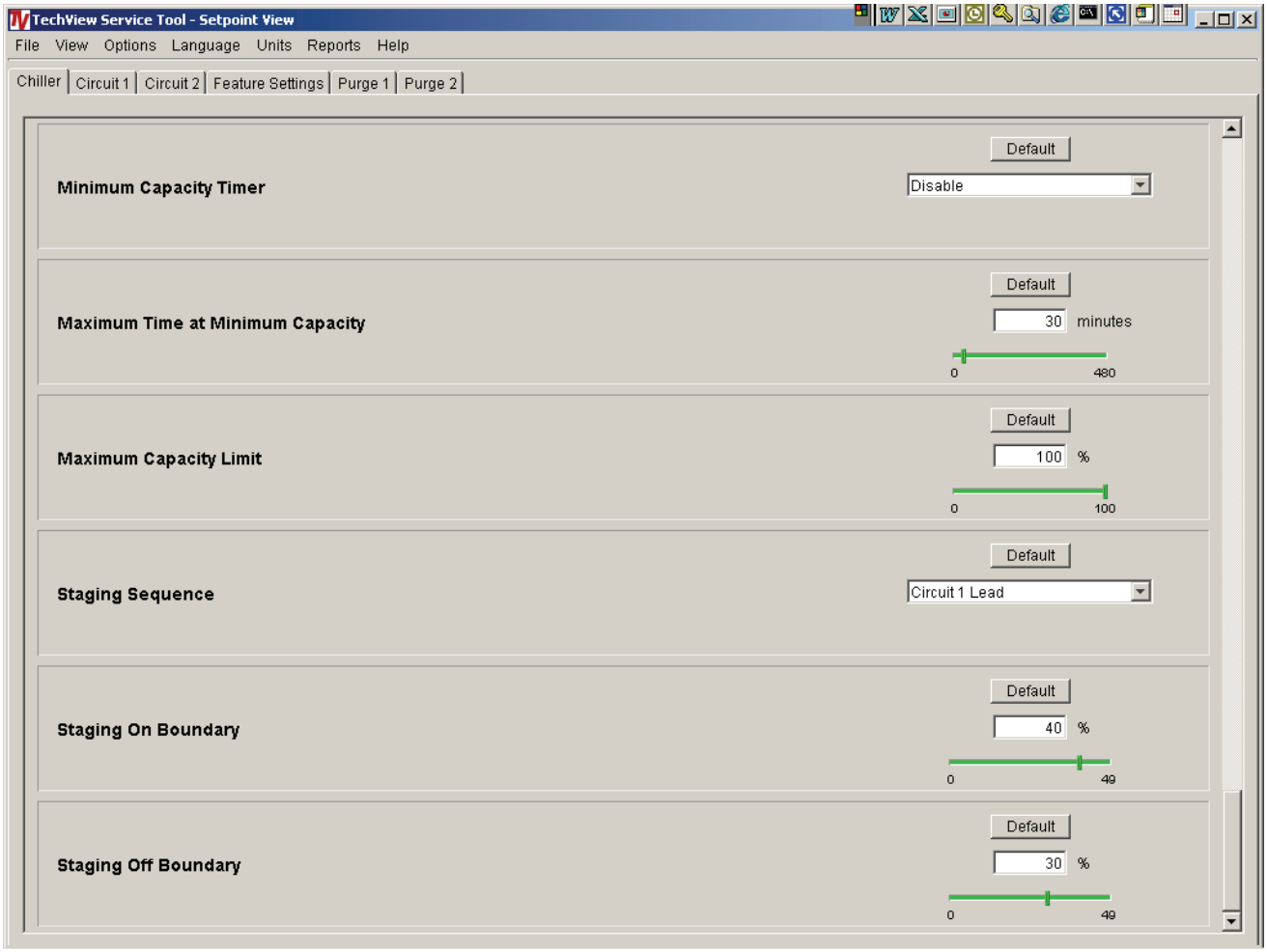
Setpoint View (Duplex)

Setpoint view; Duplex additions:

- Staging Sequence; 1-2, 2-1, Balanced, combined
- Staging On Boundary (40% default)
  - % of total chiller load 0-50%
- Staging Off Boundary (30% default)
  - % of total chiller load 0-50%

See PSOL case # 1581 Duplex Compressor Sequencing CDHF,CDHG with Tracer CH530 Controller

Figure 12.



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Date	November 2008
Supersedes	CTV-SVP01B-EN

Trane
www.trane.com

For more information, contact your local Trane office or e-mail us at comfort@trane.com