3.1.1.126 ACAL-131 Invalid motion change

Cause: Motion changed

Remedy: Remove any motion options on the TP motion line

3.1.1.127 ACAL-132 Invalid Selection

Cause: Invalid Signature Setting

Remedy: TCP and UFrame cannot be both FALSE for UFrame and UTool calibration.

3.1.1.128 ACAL-133 Mismatch measure points

Cause: The number of measured points does not match the number of command points.

Remedy: Please re-do the calibration.

3.1.2 APSH Alarm Code

3.1.2.1 APSH-000 %s

Cause: General status messages.

Remedy: None

3.1.2.2 APSH-001 %s missing

Cause: A MACRO was called without a parameter that must be entered.

Remedy: Check the MACRO call in the TP program.

3.1.2.3 APSH-002 %s Illegal type

Cause: A MACRO was called with a parameter that is illegal. The parameter has the wrong data type.

Remedy: Check the MACRO call in the TP program.

3.1.2.4 APSH-003 %s Illegal zone number

Cause: An zone number less that 1 or greater than $IZONEIO.$NO_ZONES was used.

Remedy: Use an event number from 1 to $IZONEIO.$NO_ZONES.

3.1.2.5 APSH-004 Waiting for interf. zone %s

Cause: The robot has requested an interferance zone, but has not been given permission to enter by the cell controller.

Remedy: If the cell controller does not give control of an interferance zone to the robot when it should, check the cell controller's interferance zone programming.

3.1.2.6 APSH-005 Entering interf. zone %s

Cause: The robot has received permission to enter the interferance zone.

Remedy: Used to clear the waiting for interferance zone message only.

3.1.2.7 APSH-006 PERM memory is low

Cause: This warning indictates that the amount of free memory in the CMOS memory partition has gotten dangerously low. If the PERM memory runs out, you will experience strange MEMO errors and possibly robot lock-ups or register dumps.

Remedy: Warning only. Delete any unneeded data. Contact your FANUC representative with this error. You will probably have to adjust the memory configuration in your robot controller.

3.1.2.8 APSH-007 TEMP DRAM memory is low

Cause: This warning indicates that the amount of free memory in the TEMP memory partition has gotten dangerously low. If the TEMP memory runs out, you will experience strange MEMO errors and possibly robot lock-ups or register dumps.

Remedy: Warning only. Delete any unneeded data. Contact your FANUC representative with this error. You will probably have to adjust the memory configuration in your robot controller.

3.1.2.9 APSH-008 FAULT must be reset

Cause: A fault has ocurred, so the operation requested cannot be performed.

Remedy: Clear the source of the fault, and press FAULT RESET.

3.1.2.10 APSH-009 Program already running

Cause: The shell detected a start signal but a program is already running.

Remedy: Re-issue start request when current program is paused or aborted.

3.1.2.11 APSH-010 %s aborted

Cause: A UOP CYCLE START or DI[Initiate Style] was detected when a non-production (i.e. test cycle) program was paused. This paused program was aborted for safety reasons.

Remedy: None is required. The next production start signal will start the current style.

3.1.2.12 APSH-011 Cannot access $MNUFRAME.

Cause: The current $MNUFRAMENUM[] is incorrect.

Remedy: Go to FRAME menu to select a valid user frame.

3.1.2.13 APSH-012 REMOTE switch must be on LOCAL

Cause: The robot's REMOTE condition is TRUE, so the remote operating device (PLC) currently has motion control over the robot.

Remedy: Disable the REMOTE condition by turning the REMOTE keyswitch on the SOP to LOCAL.

3.1.2.14 APSH-013 Place robot into REMOTE state

Cause: The REMOTE condition is currently false, so the robot is not under the control of the remote operating device (PLC).

Remedy: Verify that the following conditions are true in order to put the robot into the REMOTE condition: 1. UOP inputs #1 (IMSTP), #3 (SFTYSPD), and #8 (ENBL) are all HIGH. 2. SOP

REMOTE/LOCAL keyswitch is set to REMOTE. 3. Teach pendant is disabled. 4. Robot Auto/Bypass mode input is HIGH (if so assigned). 5. Make sure a user program is not setting $RMT_MASTER = 1

3.1.2.15 APSH-014 RESET Failure

Cause: There is an active fault, which prevents the reset request from executing

Remedy: Clear the source of the fault (usually en external E-Stop) and press FAULT RESET.

3.1.2.16 APSH-015 Step mode must be disabled

Cause: Step mode is enabled, which prevents the run request from executing

Remedy: Disable step mode by pressing the STEP hardkey.

3.1.2.17 APSH-016 Robot is not under PLC control

Cause: The UOP is not the master device, which prevents the run request from executing

Remedy: Turn SOP REMOTE/LOCAL keyswitch to REMOTE. Make sure all UOP signals are correct for execution. Set $RMT_MASTER to 0.

3.1.2.18 APSH-017 Running with process disabled

Cause: This is a warning to notify the user that a production job is running with the sealant disabled.

Remedy: None needed.

3.1.2.19 APSH-018 WARNING - Machine lock is on

Cause: This is a warning to notify the user that a production job is running with machine lock on.

Remedy: None needed.

3.1.2.20 APSH-019 Job queue is full

Cause: The job queue cannot accept the next job because it is full.

Remedy: Manually edit the job queue to delete any unneeded jobs or increase queue size.

3.1.2.21 APSH-020 Job queue is empty

Cause: A request to run the next job in the queue came in, but the queue is empty.

Remedy: Check the external device to make sure that a job number was correctly sent to the controller, or manually edit the job queue to CREATE a job.

3.1.2.22 APSH-021 Raise UOP ENBL input

Cause: Robot motion and/or program execution cannot occur unless UOP input 8 is ON.

Remedy: Check UOP I/O setup. UOP input 8 (ENBL) must be ON.

3.1.2.23 APSH-022 Safety fence is open

Cause: The safety fence input is LOW.

Remedy: The safety fence input must be ON to resume normal robot operation. Raise the safety fence input.

3.1.2.24 APSH-023 No EXEC at Single Step Mode.

Cause: Cannot execute AccuCal2 program in Single Step Mode.

Remedy: Please Turn off Single Step before executing iRCal Frame program.

3.1.2.25 APSH-024 Program %s not loaded

Cause: The program name that the shell was requested to run is not loaded on the controller.

Remedy: Check PLC->Robot style communication. Verify that specified JOB name was requested by PLC. Load or create the specified JOB program.

3.1.2.26 APSH-025 WARNING - Running at < 100%%

Cause: This is a warning to notify the user that a production job is running at less than 100% speed. override.

Remedy: None needed. Dispensetool can increase the override speed to 100% if you require it. Go to the Cell Setup menu to access this option.

3.1.2.27 APSH-026 No CALIB END instruction.

Cause: AccuCal2 program does not have a FIND END instruction.

Remedy: Add CALIB END instruction at the end of the frame search TPE program.

3.1.2.28 APSH-027 Press FAULT RESET button

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.29 APSH-028 Increasing speed to 100%%

Cause: This is a warning to notify the user that Dispensetool in increasing the genoverride (speed override) to 100%.

Remedy: None needed. To disable this feature, you may change this option on the Cell Setup menu.

3.1.2.30 APSH-029 Robot must be at home

Cause: The robot must be at the HOME position in order to perform the requested operation. This error is usually posted when the PLC sends a cycle start and the robot is not at home.

Remedy: Move the robot to the home position.

3.1.2.31 APSH-030 Style code %s is invalid

Cause: The GIN[style_in] is set to an invalid number.

Remedy: Check the GIN[style_in] value as well as the Group input configuration.

3.1.2.32 APSH-031 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Check the GIN[style_in] value as well as the Group input configuration.

3.1.2.33 APSH-032 Robot Servos Disabled

Cause: Dispensetool has detected that the robot servos have been disabled manually.

Remedy: This is a status message to make sure the user is aware that the robot cannot move. The servos must be re-enabled to resume normal production operations.

3.1.2.34 APSH-033 PLC comm error - timeout

Cause: A communication sequence took too long to complete.

Remedy: Increase communication timeout value in PNS Cell Communication setup menu or disable communication timeout checking.

3.1.2.35 APSH-034 No UOP output defined

Cause: The User Operator Panel output group has not been defined.

Remedy: Set up the UOP Outputs in the UOP I/O menu and restart the robot controller.

3.1.2.36 APSH-035 Robot is in Bypass mode

Cause: The MODE input is low, forcing the robot into BYPASS mode. The robot will now ignore all PLC style initiation.

Remedy: Set the MODE switch to ON. The robot will then re-enter AUTOMATIC mode and again accept PLC signals.

3.1.2.37 APSH-036 User JOB has been paused

Cause: The current JOB has been paused. This often happens if the HOLD input is turned ON or the UOP ENBL signal is set to OFF.

Remedy: If the REMOTE condition is TRUE, the fault recovery menu will appear and give the user the appropriate recovery options. If the REMOTE condition is not TRUE, recovery is up to the user. If all else fails, select FCTN (Function hardkey) then ABORT ALL.

3.1.2.38 APSH-037 No UOP input defined

Cause: The User Operator Panel input group has not been defined.

Remedy: Set up the UOP Inputs in the UOP I/O menu.

3.1.2.39 APSH-038 No style input group defined

Cause: The group which carry the style code in to the controller has not been defined.

Remedy: Set up a STYLE SELECT group in the Cell I/O and GROUP I/O input menus and restart the robot.

3.1.2.40 APSH-039 No style ack strobe defined

Cause: The style acknowlege strobe, which is needed with the current communication configuration, has not been defined.

Remedy: Set up a Style Ack Strobe in the Cell Output I/O menu and restart the robot.

3.1.2.41 APSH-040 No backup input group defined

Cause: The backup input group, which is needed with the current communication configuration, has not been defined.

Remedy: Set up a Backup Style Select group in the Cell output I/O and GROUP I/O menus and restart the robot.

3.1.2.42 APSH-041 No style input strobe defined

Cause: The style strobe, which is needed with the current communication configuration (queue enabled), has not been defined.

Remedy: Set up a PNS Strobe in the Cell Input I/O menu and restart the robot.

3.1.2.43 APSH-042 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Set up a PNS Strobe in the Cell Input I/O menu and restart the robot.

3.1.2.44 APSH-043 No style ack group defined

Cause: The style acknowlege group, which is needed with the current communication configuration, has not been defined.

Remedy: Set up a Style Ack Group in the Cell output I/O and GROUP I/O menus and restart the robot.

3.1.2.45 APSH-044 A user program is HELD

Cause: The current job has been held by pressing the HOLD button or setting the UOP HOLD input LOW.

Remedy: Release the HOLD button and raise the UOP HOLD input.

3.1.2.46 APSH-045 No program setup for style %s

Cause: No program number has been set up for this RSR input.

Remedy: Enter a program number for this RSR input in the RSR Cell Setup menu.

3.1.2.47 APSH-046 Robot is in Automatic mode

Cause: This is a notice that the robot is leaving BYPASS mode and entering AUTOMATIC mode, where it can respond to PLC inputs

Remedy: None needed.

3.1.2.48 APSH-047 Shell will not run without UOPs

Cause: This is a warning, telling the user that the UOPs have not yet been set up, so the shell will wait for the UOPs to be defined before resuming.

Remedy: The shell requires the UOPs to run. Once the UOPs have been set up, the shell will continue its initialization sequence.

3.1.2.49 APSH-048 PLC comm error - invert check

Cause: The backup style group is not the 1's complement (inverse) of the style input group.

Remedy: Verify that the PLC is sending the correct invert style to the correct group. Disable invert checking in the PNS Cell Setup menu.

3.1.2.50 APSH-049 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Verify that the PLC is sending the correct invert style to the correct group. Disable invert checking in the PNS Cell Setup menu.

3.1.2.51 APSH-050 Cell IO setup is invalid

Cause: Signals which are required for this cell IO configuration have not been configured.

Remedy: Check the messages posted previous to the in the error log for the names of the incorrect signals. Fix the IO setup of these signals and cold start the controller.

3.1.2.52 APSH-051 Connect or deassign UOP inputs

Cause: The robot cannot move while the UOP inputs are in this state.

Remedy: You must either wire UOP inputs #1, #2, #3, and #8 high or deassign the UOP inputs and restart the controller.

3.1.2.53 APSH-052 Critical UOP inputs are LOW

Cause: UOP inputs #1 (IMSTP), #2 (HOLD), #3(SFTYFNC), #8 (ENBL) are all LOW. These must all be HIGH for normal production operation.

Remedy: See remedy for APSH-051, Connect or deassign UOP inputs.

3.1.2.54 APSH-053 No calibration software.

Cause: Try to run detect instruction without Calibration software.

Remedy: Do Control start and load one of the Calibration software from the option menu.

3.1.2.55 APSH-054 Release SOP E-STOP

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.56 APSH-055 Raise UOP IMSTP input

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.57 APSH-056 Release SOP E-STOP

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.58 APSH-057 Release TP E-STOP

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.59 APSH-058 Pause forced by shell

Cause: This error is posted to simulate a PAUSE error.

Remedy: This error is posted by Dispensetool during normal operation, but should not be visible to the user. If you see this error, report it to you FANUC representative.

3.1.2.60 APSH-059 Abort forced by shell

Cause: This error is posted to simulate a ABORT error.

Remedy: This error is posted by Dispensetool during normal operation, but should not be visible to the user. If you see this error, report it to you FANUC representative.

3.1.2.61 APSH-060 Cycle start ignored-not in AUTO

Cause: This is not a fault. This error is posted when the robot is sent a cycle start from the cell controller, but the robot is either in BYPASS mode (set from Soft Panel menu) or in MANUAL mode, but no manual cycle start has been initiated. Is is also possible that the robot is in the MANUAL mode and a MANUAL CYCLE was requested, but the style sent by the PLC does not match the one specified on the SOFT PANEL.

Remedy: In most cases, this fault can be ignored. This fault was put in to assist in debugging problems with the soft panel in Dispensetool. If you are trying to initiate a MANUAL CYCLE, make sure the MANUAL CYCLE STYLE inputted into the Soft Panel menu is the same as what the PLC is sending.

3.1.2.62 APSH-061 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: In most cases, this fault can be ignored. This fault was put in to assist in debugging problems with the soft panel in Dispensetool. If you are trying to initiate a MANUAL CYCLE, make sure the MANUAL CYCLE STYLE inputted into the Soft Panel menu is the same as what the PLC is sending.

3.1.2.63 APSH-062 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: In most cases, this fault can be ignored. This fault was put in to assist in debugging problems with the soft panel in Dispensetool. If you are trying to initiate a MANUAL CYCLE, make sure the MANUAL CYCLE STYLE inputted into the Soft Panel menu is the same as what the PLC is sending.

3.1.2.64 APSH-063 A HOLD input is active

Cause: The current job has been paused by pressing the HOLD button or setting the UOP HOLD input LOW.

Remedy: Release the HOLD button and raise the UOP HOLD input.

3.1.2.65 APSH-064 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Release the HOLD button and raise the UOP HOLD input.

3.1.2.66 APSH-065 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Release the HOLD button and raise the UOP HOLD input.

3.1.2.67 APSH-066 %s

Cause: Place holder error, used to keep documentaion for errors from Drastically changing.

Remedy: Release the HOLD button and raise the UOP HOLD input.

3.1.2.68 APSH-067 Circle fit error %s

Cause: Circle fit error exceeds threshold.

Remedy: Check for loss fixture or tool or change the fit error tolerance in the detection schedule.

3.1.2.69 APSH-068 Radius err %s

Cause: Circle radius error exceeds threshold.

Remedy: Check for loss fixture or tool or change the radius error tolerance in the detection schedule.

3.1.2.70 APSH-069 Auto Update is ON.

Cause: Auto Update is on. The frame has been updated automatically

Remedy: Update is not required.

3.1.2.71 APSH-070 Failed to continue %s

Cause: The error handler was unable to continue the task named when the user requested that all tasks be continued This is probably due to one of the E-Stops or HOLD buttons being active.

Remedy: Disable all E-Stops and release HOLD buttons. If it is not desired that the task named be continued, abort it.

3.1.2.72 APSH-071 Failed to pause robot task

Cause: A Karel PAUSE_TASK() command failed to pause a task which the error handler believes should be paused.

Remedy: The task which the error handler tried to pause was probably a system utility, and is not allowed to be paused. You can probably ignore this fault without any problems.

3.1.2.73 APSH-072 Failed to abort robot task

Cause: A Karel ABORT_TASK() command failed.

Remedy: Cold start the robot controller, then manually restore production status.

3.1.2.74 APSH-073 Servos Locked-out, enable servos

Cause: Robot servos are locked out.

Remedy: Enable robot servos.

3.1.2.75 APSH-074 Disable Teach Pendant

Cause: In order to resume normal production operation, Dispensetool requires that you perform this action.

Remedy: Perform the action stated in the error message when you are ready to resume normal operation.

3.1.2.76 APSH-075 Error in accessing TPE:%s

Cause: The following error occured when a the data associated with a TPE program was accessed.

Remedy: Verify that this TPE program exists. Go into the DETAIL pages under the SELECT menu and hit NEXT key until robot allows this mode to END.

3.1.2.77 APSH-076 Shell could not run:%s

Cause: The shell tried to execute a program, but was stopped by the operating system.

Remedy: Make sure the program exists and it is not already running or paused. Use the PROGRAM STATUS display to make sure you have not exceeded the maximum number of tasks. Abort all programs which do not need to be running.

3.1.2.78 APSH-077 No positions in %s

Cause: This TPE did not contain a position to represent HOME, SERVICE, or PURGE.

Remedy: If you need to use the AT PERCH, AT PURGE, or AT SERVICE outputs, teach the positons you need in the appropriate TPEs. If you do not need these outputs to be updated ignore this warning.

3.1.2.79 APSH-078 Shell could not run program

Cause: The shell tried to execute a program, but was stopped by the operating system.

Remedy: Make sure the program exists and it is not already running or paused. Use the PROGRAM STATUS display to make sure you have not exceeded the maximum number of tasks. Abort all programs which do not need to be running.

3.1.2.80 APSH-079 No DIN for Auto/Bypass

Cause: No Auto/Bypass input has been defined, but one was expected.

Remedy: Set a Auto/Bypass input in the Cell I/O Input menu and restart the robot.

3.1.2.81 APSH-080 Waiting for Cancel/Continue

Cause: The robot is currently waiting for Cancel or continue (Wet or Dry) or a HOME input from the PLC.

Remedy: This is a warning to inform the person at the teach pendant that the PLC has been given exclusive control over how the robot will recover from the current error.

3.1.2.82 APSH-081 Waiting for Cancel

Cause: The robot is currently waiting for a cancel input from the PLC. The current JOB has had a fault so severe that it cannt recover and must be aborted or recieve the HOME UOP input

Remedy: This is a warning to inform the person at the teach pendant that the PLC has been given exclusive control over how the robot will recover from the current error.

3.1.2.83 APSH-082 No $ERROR_PROG defined

Cause: No $ERROR_PROG has been defined for this JOB. This fault will only appear if the Karel variable [SLERROR]POST_NO_ERRP is set to TRUE (deault = FALSE).

Remedy: Use the TPE ERROR_PROG command, under Program Control, to set up a Error Program for this JOB. This will allow the robot to move out of the work area when an error occurs.

3.1.2.84 APSH-083 No $RESUME_PROG defined

Cause: No $RESUME_PROG has been defined for this JOB.

Remedy: Use the TPE RESUME_PROG command, under Program Control, to set up a Resume Program for this JOB. This will allow the JOB to resume the interrupted program.

3.1.2.85 APSH-084 WARNING - simulated I/O

Cause: The robot is running a style program with one or more I/O ports simulated. Unexpected motions and actions may occur.

Remedy: Verify that all simulated I/O points should be simulated. Un-simulate all I/O ports which should not be simulated.

3.1.2.86 APSH-085 UFrame is too small

Cause: Specified UFrame is zero or small and Calibrate UFrame is disabled.

Remedy: Set UFrame to be the precision calibration fixture location or enable UFrame calibration in the calibration schedule

3.1.2.87 APSH-086 UTool is too small

Cause: Specified UTool is zero or small and Calibrate UTool is disabled.

Remedy: Set UTool to be the precision calibration fixture location or enable UTool calibration in the calibration schedule

3.1.2.88 APSH-087 Joint[%s^1] rotation is small

Cause: Joint angle motion is too small

Remedy: Modify calibration points to provide more motion on the specified axis. Or disable calibration of one or more joints

3.1.2.89 APSH-088 Points are colinear

Cause: Three or more points with same search direction are colinear or nearly colinear

Remedy: Reteach one of the points so the points are not colinear or teach another non-colinear point.

3.1.2.90 APSH-089 Not enough search direction

Cause: There must be at least three different search directions that are close to perpendicular to each other. There must be at least three non-colinear points in one search direction and at least two points in another search direction

Remedy: Add more search points or reteach existing points to have sufficient search directions and sufficient number of points in the search directions.

3.1.2.91 APSH-090 %s

Cause: Place holder error, used to keep documentation for errors from drastically changing.

Remedy: Verify that all simulated I/O points should be simulated. Un-simulate all I/O ports which should not be simulated.

3.1.2.92 APSH-091 %s

Cause: Place holder error, used to keep documentation for errors from drastically changing.

Remedy: Verify that all simulated I/O points should be simulated. Un-simulate all I/O ports which should not be simulated.

3.1.2.93 APSH-092 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.94 APSH-093 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.95 APSH-094 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.96 APSH-095 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.97 APSH-096 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.98 APSH-097 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.99 APSH-098 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.100 APSH-099 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.101 APSH-100 %s

Cause: Site-specific alarm caused by changes made for customer.

Remedy: Please consult FANUC regarding specific changes made for your site.

3.1.2.102 APSH-101 TCP Alignment error

Cause: Maximum alignment distance exceeded

Remedy: Fix TCP Alignment and run iRcal TCP again

3.1.2.103 APSH-102 Process is not yet completed

Cause: Cannot execute current step without completing steps before.

Remedy: Please complete all steps leading to the current step.

3.1.2.104 APSH-103 Update already applied

Cause: Cannot re-apply the calibrated result again.

Remedy: None.

3.1.2.105 APSH-104 No Analog port data file

Cause: There is no associated Analog data file in FRS: for the specified analog port number

Remedy: Copy the analog data file to the FRS: directory and cold start the controller.

3.1.2.106 APSH-105 Option does not support AIN

Cause: iRCal Mastering and iRCal TCP do not support analog sensor.

Remedy: Select a different sensor type in the detection schedule.

3.1.2.107 APSH-106 No analog sensor support

Cause: Detect Circle and Detect Joint instruction do not support analog sensor.

Remedy: Select a different sensor type in the detection schedule.

3.1.2.108 APSH-107 Invalid AIN port number

Cause: The AIN port number is not valid.

Remedy: Select a different AIN port number that has its data file in FRS: directory.

3.1.2.109 APSH-108 Dynamic UFrame setup error

Cause: Dynamic Uframe seting require cd pair setting in its schedule.

Remedy: Set the cd pair number in the schedule or change the Frame calibration mode in setup menu

3.1.2.110 APSH-109 Standard UFrame setup error

Cause: The schedule used by UFrame has cd_pair set.

Remedy: Select a new schedule or change the cd_pair variable to 0 in the current schedule

3.1.2.111 APSH-110 READ IO parm %s missing

Cause: The READ IO MACRO was called without a parameter that must be entered. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.112 APSH-111 READ IO parm %s is wrong type

Cause: The READ IO MACRO was called with illegal parameters. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.113 APSH-112 signal %s does not exist

Cause: The READ IO MACRO was called but the signal could not be found. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.114 APSH-113 can't fetch signal type

Cause: The READ IO MACRO was called but the signal could not be found. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.115 APSH-114 can't fetch signal number

Cause: The READ IO MACRO was called but the signal could not be found. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.116 APSH-115 can't read signal %s

Cause: The READ IO MACRO was called but the signal could not be found. READ IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.117 APSH-116 Reg %s could not be set

Cause: Register operation failed

Remedy: Check if the register is defined, if it is between 1-64 and if it has the right value. Must ABORT ALL and retry

3.1.2.118 APSH-117 Register not defined %s

Cause: This is just a debug message.

Remedy: None.

3.1.2.119 APSH-118 WRITE IO parm %s missing

Cause: The WRITE IO MACRO was called without a parameter that must be entered. WRITE IO(signal name string, integer value to write)

Remedy: Check the MACRO call in the TP program.

3.1.2.120 APSH-119 WRITE IO parm %s is wrong type

Cause: The WRITE IO MACRO was called with illegal parameters. WRITE IO(signal name string, integer value to write)

Remedy: Check the MACRO call in the TP program.

3.1.2.121 APSH-120 signal %s does not exist

Cause: The WRITE IO MACRO was called but the signal could not be found. WRITE IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.122 APSH-121 can’t write signal %s

Cause: The WRITE IO MACRO was called but the signal could not be found. WRITE IO(signal name string, integer register number)

Remedy: Check the MACRO call in the TP program.

3.1.2.123 APSH-122 GET IO PORT parm %s missing

Cause: The GET IO MACRO was called without a parameter that must be entered. GET IO(signal name string, integer port number)

Remedy: Check the MACRO call in the TP program.

3.1.2.124 APSH-123 GET IO PORT parm %s is wrong type

Cause: The GET IO MACRO was called with illegal parameters. GET IO(signal name string, integer port number)

Remedy: Check the MACRO call in the TP program.

3.1.2.125 APSH-124 signal %s does not exist

Cause: The GET IO MACRO was called but the signal could not be found. GET IO(signal name string, integer port number)

Remedy: Check the MACRO call in the TP program.

3.1.2.126 APSH-125 Forcing Process Enabled

Cause: It was detected that the Process was DISABLED at the start of this production program. A choice (or setup selection) has indicated that the Process should be FORCED to the enabled state.

Remedy: - Don't choose to FORCE the process enable. - Change Prog Select-Production Check Process ready setup to NOT Force Condition. - Ensure that Process Enabled input is on at the start of the next production cycle.

3.1.2.127 APSH-126 %s

Cause: Robot is paused

Remedy: Status message

3.1.2.128 APSH-127 Repower to activate change.

Cause: The joint velocity limit has changed. This parameter change requires you to cycle controller power in order to take effect.

Remedy: Turn off the controller, then turn it on again.

3.1.2.129 APSH-128 Tryout mode enabled

Cause: Tryout mode state has CHANGED from disabled to enabled. This is only a status message, it is not a fault. Note: tryout mode is a test function - part thickness value is ignored, when tryout mode is enabled.

Remedy: Disable tryout mode, if desired.

3.1.2.130 APSH-129 Tryout mode disabled

Cause: Tryout mode state has CHANGED from enabled to disabled. This is only a status message, it is not a fault. Note: tryout mode is a test function - part thickness value is ignored, when tryout mode is enabled.

Remedy: Enable tryout mode, if desired.

3.1.2.131 APSH-130 Cannot access FR: %s *.DT files

Cause: Error occurred while accessing the FR: device. No .dt files found.

Remedy: .DT files must exist on the FR: device.

3.1.2.132 APSH-131 I/O data error: %s

Cause: I/O port defined wrong: Illegal type, Default data is used.

Remedy: .DT file on the FR: device must be corrected.

3.1.2.133 APSH-132 Selected Prog %s not loaded

Cause: The program name that the shell was requested to run is not loaded on the controller.

Remedy: Check PLC->Robot style communication. Verify that specified Program name was requested by PLC. Load or create the specified Program program.

3.1.2.134 APSH-133 Not in safe starting position

Cause: The robot has been jogged away from the position where the teach pendant was enabled.

Remedy: Move the robot back to the position where the teach pendant was enabled, abort the program, or continue (in linear motion) from position where the robot is currently positioned.

3.1.2.135 APSH-141 %s

Cause: The robot has been jogged away from the position where the teach pendant was enabled.

Remedy: Move the robot back to the position where the teach pendant was enabled, abort the program, or continue (in linear motion) from position where the robot is currently positioned.

3.1.2.136 APSH-142 WARNING - System is in dry run

Cause: This is a warning to notify you that a production job is running with the process disabled.

Remedy: None is required.

3.1.2.137 APSH-143 Robot motion is not enabled

Cause: Robot motion and/or program execution cannot occur unless UOP input 8 is ON.

Remedy: Check UOP I/O setup. UOP input 8 must be ON.

3.1.2.138 APSH-144 WARNING - Process Complete manually turned on at end of %s

Cause: A 'Force Process Complete' was performed from the Soft Panel

Remedy: This is just a warning to let the operator know that Process Complete was manually turned on.

3.1.2.139 APSH-150 Gun operation is NOSTROKE

Cause: A production job is running with the gun set to NOSTROKE.

Remedy: None.

3.1.2.140 APSH-151 Weld operation is NOWELD

Cause: A production job is running with weld set to NOWELD.

Remedy: None.

3.1.2.141 APSH-152 Robot mode must be AUTO

Cause: The robot must be in full automatic mode with the PLC before production operation can occur.

Remedy: Go to the SOFT PANEL menu and set Robot mode=AUTO.

3.1.2.142 APSH-153 Must press SHIFT key too

Cause: The shift key must be pressed when accessing this teach pendant hardkey.

Remedy: Press the shift key.

3.1.2.143 APSH-154 Only one gun defined

Cause: Because the system is currently configured for one equipment with a single gun, there is no need to set the equiopment that that GUN and BACKUP hardkeys will operate on; they will always operate on the one gun.

Remedy: None is required

3.1.2.144 APSH-155 HOME position not recorded

Cause: The HOME position has not been recorded yet. The HOME position is contained in Reference Position menu.

Remedy:

1. Go to the SETUP menu.
2. Select Reference Position from the [TYPE] menu.
3. Jog the robot to the HOME position.
4. Record your reference position, and then verify that it is a valid home position.

3.1.2.145 APSH-156 Specify Home in Ref Pos Menu

Cause: The HOME position has not been recorded yet. The HOME position is contained in Reference Position menu.

Remedy: Go to the SETUP menu, select Reference Position from the [TYPE] menu. Jog the robot to the HOME position. Record your reference position, then specify it is a valid HOME position.

3.1.2.146 APSH-157 Teach pendant must be enabled

Cause: The teach pendant must be enabled when accessing this teach pendant hardkey.

Remedy: Enable the teach pendant.

3.1.2.147 APSH-158 No group output for weld sched

Cause: The group output that contains the weld schedule has not been configured yet.

Remedy: Go to the Weld Intface Output menu, and edit the index of the Weld Schedule I/O point. Make sure the group output has been properly configured from the Group Output menu. You must cold start the controller when changing this index, or redefining the group output.

3.1.2.148 APSH-159 Servos are not ready

Cause: The servos are not ready, so operation requested cannot be performed.

Remedy: When resetting a fault, wait for the servos to click on before attempting to execute a program.

3.1.2.149 APSH-160 Robot not at POUNCE position

Cause: The robot is not at the POUNCE position, so the operation requested cannot be performed.

Remedy: Re-issue this request when the robot is AT POUNCE.

3.1.2.150 APSH-161 No production program is running

Cause: The robot is not currently running a production style, so the operation requested cannot be performed.

Remedy: Re-issue the request when the robot is running a production style.

3.1.2.151 APSH-162 No group output for multi-pressure

Cause: The group output that contains the setting for the multi-pressure valving has not been configured yet.

Remedy: Go to the Spot Equipment Intface Output menu, and edit the index of the Valve pressure I/O point. Make sure the group output has been properly configured from the Group Output menu. You must cold start the controller when changing this index, or redefining the group output.

3.1.2.152 APSH-163 No motion allowed–gun closed

Cause: No motion can occur because the gun is closed. This prevents the user from jogging or running a program while the gun is closed, and damaging parts and/or tooling.

Remedy: Open the gun.

3.1.2.153 APSH-164 Home I/O program %s not loaded

Cause: The HOME I/O program as specified from the Cell Setup menu does not exist and was not run.

Remedy: Go to the Cell Setup menu and either check the name of the HOME I/O macro name menu item. Make sure the file specified exists on the controller. Either create a program by that name or change this menu item to a program that already exists on the controller.

3.1.2.154 APSH-165 Invalid Studgun Selection

Cause: There I/O configuration for the proper studwelding gun has not been initialized.

Remedy: Proceed to the Spot Equipment I/O setup screen and configure the digital inputs Gun Present = On/Off, Gun in Nest = On/Off for the 2 stud guns. Proper configuration if gun 1 is on the robot is for Gun 1 (Gun Present = ON, Gun in Nest = OFF and for Gun 2 (Gun Present = OFF, Gun in Nest = ON. Proper configuration if gun 2 is on the robot is for Gun 1 (Gun Present = OFF, Gun in Nest = ON and for Gun 2 (Gun Present = ON, Gun in Nest = OFF.

3.1.2.155 APSH-166 Studgun Change Unsuccessful

Cause: The robot was aborted or interrupted during the studgun change sequence.

Remedy: Manually change the stud guns and move the robot to the home position. Press cycle start to run production.

3.1.2.156 APSH-167 Move robot home & cycle start

Cause: The stud gun change program was interrupted.

Remedy: To resume production the robot must be manually returned home and cycle start must be pressed to continue.

3.1.2.157 APSH-168 No GO for EQP pressure

Cause: The group output that contains the setting for the equalization pressure has not been configured yet.

Remedy: Go to the Spot Equipment Intface Output menu, and edit the index of the Equal pressure I/O point. Make sure the group output has been properly configured from the Group Output menu. You must cold start the controller when changing this index, or redefining the group output.

3.1.2.158 APSH-169 Uninitialized Stud Macros

Cause: A macro program to dropoff or pickup studgun 1 or 2 has not been initialized.

Remedy: Proceed to Spot Equipment Menu under MENUS-SETUP and initialize the studwelding macros which will only appear if STUD BACKUP is ENABLED at CONTROLLED START.

3.1.2.159 APSH-170 Check Nest/Changer Inputs

Cause: The inputs on the studwelder nest do not appear to be set up correctly.

Remedy: Verify on the Spot Equip I/O menu that the Head in Nest inputs are set up correctly.

3.1.2.160 APSH-171 HOME_IO has not completed running

Cause: HOME_IO has not completed successfully, so new program cannot be ran.

Remedy: Check HOME_IO and see if it is looping on some I/O.

3.1.2.161 APSH-174 SCR overtemp detected

Cause: An SCR overtemp signal has been received.

Remedy: Check the SCR for overheating.

3.1.2.162 APSH-175 Req. Press. Not mapped for WC:%s

Cause: The Request Pressure digital input is not mapped.

Remedy: Map request pressure input on Weld Interface Menu.

3.1.2.163 APSH-176 GIN For Weld Press. Not mapped for WC:%s

Cause: The GIN for Weld Pressure is not mapped.

Remedy: Map Weld Pressure pressure input on Weld Interface Menu.

3.1.2.164 APSH-177 Read Press. Not mapped for WC:%s

Cause: Read pressure input is not mapped on weld interface Menu.

Remedy: Map read pressure input on Weld Interface Menu.

3.1.2.165 APSH-178 Map I/O in Weld Interface Menu

Cause: There is not cause, this is a help code

Remedy: No rememdy required.

3.1.2.166 APSH-179 Upd. Press. timeout WC:%s

Cause: The weld controler did not set Read Pressure input in time.

Remedy: Check if weld controler is functioning correctly, or increase Weld Pres time-out at CTRL start menu.

3.1.2.167 APSH-180 Could not communicate to WC.

Cause: Could not read any I/O from the Weld controller. Device may be offline.

Remedy: Check if weld controler is functioning correctly, or powered on.

3.1.2.168 APSH-201 Automatic Collision Recovery

Cause: Automatic Collision recovery is beginning.

Remedy: None.

3.1.2.169 APSH-202 Recovery Program not found

Cause: Automatic Collision recovery was attempting to run the recovery program.

Remedy: Make sure the program is loaded, and retry the operation.

3.1.2.170 APSH-203 Error running %s

Cause: The task could not run or continue.

Remedy: Check the associated error message for the task error and follow the recovery procedure.

3.1.2.171 APSH-204 Running recovery prog %s

Cause: Automatic Collision recovery is about to run the recovery program.

Remedy: None.

3.1.2.172 APSH-205 Running original prog %s

Cause: Automatic Collision recovery is about to run the original program.

Remedy: None.

3.1.2.173 APSH-206 Invalid Group Specified

Cause: The group specified to get_home does not exist.

Remedy: Verify the specified group number exists, and retry the operation.