TESTING TARGET & SEAL-IN UNITS ON ELECTRO-MECHANICAL RELAYS
WITH DOBLE 6150’s AND PROTEST AUTOMATED ROUTINES.

FIRST WE MAKE TWO CREEPI TEST ROUTINES. FIRST ONE IS FOR PICKUP VALUE
AND SEAL-IN TEST. SECOND ONE FOR DROPOUT VALUE ONLY.

WE DO THE TWO SEPARATE ROUTINES BECAUSE YOU HAVE TO HAVE A LOW
CURRENT LIMIT AND A REASONABLE OFFSET CURRENT FOR THE DROPOUT ROUTINE.
IN THE PICKUP ROUTINE YOU USE A HIGH CURRENT LIMIT TO HOLD THE VOLT AMPS
LOW AT THE PICKUP POINT.

ONCE THE VOLT AMPS IS HELD LOW IN THE PICKUP ROUTINE YOU CAN SAFELY TEST
SEAL-IN. RELEASE THE CONTACT THAT WAS HELD CLOSED DURING THE PICKUP
TEST TO TEST THE SEAL-IN.

IF YOU DO NOT HAVE A HIGH CURRENT LIMIT IN THE PICKUP ROUTINE AND SEAL-IN
DOES NOT WORK, YOU CAN BURN UP OR ARC CONTACTS.

NEVER TEST SEAL-IN WITH THE DROPOUT ROUTINE BECAUSE THE AVAILABLE VOLT
AMPS IS AT IT’S HIGHEST.

ALWAYS FORCE THE CURRENT INTO ITS HIGHEST RANGE BY USING A HIGH VALUE
FOR THE CURRENT LIMIT.

I ALWAYS USE 16 AMPS DC ON A 150 VA SOURCE TO FORCE THE CURRENT RANGE
TO 20 AMPS DC. AT 20 AMPS DC & 150VA SOURCE, YOU HAVE 7.5 VOLTS
COMPLIANCE VOLTAGE. IF YOU PICKUP AT 2 AMPS DC THE TOTAL VA WOULD BE 7.5
VOLTS * 2 AMPS = 15VA.

IF YOU SET THE CURRENT LIMIT LOWER THAN 5 AMPS THEN THE CURRENT RANGE
IS 5 AMPS DC. AT 5 AMPS DC & 150VA SOURCE, YOU HAVE 30 VOLTS COMPLIANCE
VOLTAGE. IF YOU PICKUP AT 2 AMPS DC THE TOTAL VA WOULD BE 30 VOLTS * 2
AMPS = 60VA.

A QUOTE FROM A TARGET & SEAL-IN TEST ROUTINE NOTEBOOK:
“WE PUT THE CURRENT LIMIT HIGH SO YOU DON’T HAVE HIGH VA THAT CAN
RESULT IN ARCING ACROSS CONTACTS WHEN TESTING SEAL-IN DURING THE
PICKUP TEST.
NOT IN THE DROPOUT TEST.”